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April 17, 2017

VIA FEDERAL EXPRESS – STANDARD

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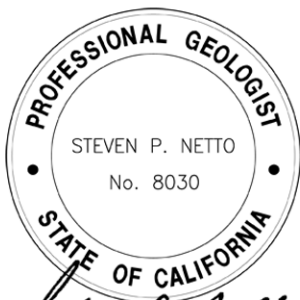
Re: Transmittal of Results of Groundwater Monitoring and Groundwater Extraction and Treatment
Pilot Testing, 2016/2017 Annual Report, Raytheon Company,
(Former Hughes Aircraft Company) Facility, 1901 West Malvern Avenue, Fullerton, California

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,

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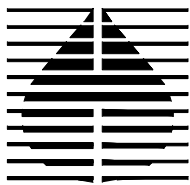
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RESULTS OF GROUNDWATER MONITORING AND
GROUNDWATER EXTRACTION AND TREATMENT PILOT TESTING
2016/2017 ANNUAL REPORT
RAYTHEON COMPANY (FORMER HUGHES AIRCRAFT
COMPANY) FACILITY
1901 WEST MALVERN AVENUE
FULLERTON, CALIFORNIA

PREPARED FOR:
RAYTHEON COMPANY



HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

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FULLERTON, CALIFORNIA

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ACRONYMS AND ABBREVIATIONS

1,1-DCA	1,1-Dichloroethane
1,2-DCA	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	U. S. 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.
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
Raytheon	Raytheon Company
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

ACRONYMS AND ABBREVIATIONS (continued)

VOC(s)	Volatile organic compound(s)
UV-Ox	Ultra-violet light and hydrogen peroxide oxidation

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1.0 INTRODUCTION

This report has been prepared by Hargis + Associates, Inc. (H+A) on behalf of the Raytheon Company (Raytheon) and presents the results of groundwater monitoring and groundwater treatment pilot testing conducted during the second quarter 2016 through the first quarter 2017 at the former Raytheon (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) (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 the continuing direction of the DTSC (H+A, 2003a, 2003b, 2003c, 2003d, 2004a, 2004b, 2005a, 2008b, 2009b, 2010a, 2010c, 2011a, 2011c, 2011e, 2013a, and 2013e). 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 2016, August 2016, November 2016, and February 2017 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 where may be 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 southern portion of 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 few feet, indicate that soil types encountered in the subsurface are typically very discontinuous, precluding detailed correlation between boreholes. However, larger scale correlations have been made at the Site and vicinity.

A groundwater conceptual model (CM) for the Site was developed as part of the RFI and refined during additional groundwater assessment activities through 2014. Results of 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, 2013c, 2013d, and 2014). 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 water table in the regional groundwater system beneath the Site occurs in unconsolidated sediments ranging from sand to 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). Together with lithologic and geophysical data collected during the groundwater assessments, these differential responses to water level fluctuations facilitated the identification and correlation of several hydrogeologic units across the Site, informally designated with increasing depth they include: Unit A, the finer-grained intervening Unit AB, Unit B (the “primary transport zone” or “Target Zone”), the finer-grained intervening Unit BC, Unit C, and Unit D.

The hydrogeology in the southern portion of the Site 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). The groundwater CM was refined to incorporate delineation of this structural feature following subsequent phases of groundwater assessment. The primary geologic structural feature at and in the vicinity of the Site is the monoclinical fold exhibited by a local southward dip of approximately 42 degrees in the hydrogeologic units underlying terrace deposits between exploratory boring EB-1 and monitor well MW-31 (Figures 9 through 11) (H+A, 2010d and 2015a). These dipping units become nearly horizontal south of Malvern Avenue, in the OCGB to the south of the Site.

The groundwater CM has been refined based on available subsurface assessment information to date. 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.

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, 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 2, 2016, August 1, 2016, November 7, 2016, and February 6, 2017, 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, 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 (H+A, 2013a); in accordance with the AGAWP Addendum 6, one monitor well, MW-41, was installed and sampled in 2014 (H+A, 2013e). In accordance with the GMWP/SAP Addendum No. 1, monitor wells MW-36 through MW-41 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 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 between December 2007 and mid-2012 while the regional groundwater system continued to decline to historical lows in late 2008. The water level elevation in piezometer P-07 declined by approximately 1.6 feet between February 2016 and February 2017. 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 lower than 30 feet msl at the Site.

2.2.2 Regional Groundwater System Water Levels

Water level elevations generally increased in measured monitor and extraction wells between February 2016 and February 2017 (Table 3; Figures 3 through 8) (H+A, 2015b). Measured increases from February 2016 to February 2017 ranged from approximately 0.9 foot at monitor well MW-20 to as much as 7.2 feet at monitor well MW-35C. The highest water level elevation observed in wells at the Site in February 2017 was at monitor well MW-35A, at an elevation of approximately 15 feet above msl. The lowest water level elevation observed in monitor wells at the Site in February 2017 was at monitor well MW-15, at an elevation of approximately 6.6 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 2017, and on data collected automatically using pressure transducer/data-loggers in select wells during the periods from November 1999 through March 2000 and January 2002 through current (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, 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 then recovered to near historical highs by May 2012 and have since been declining again. Within these longer-term trends, water level elevations in the regional groundwater system have generally fluctuated seasonally due to variations in groundwater production and recharge in the groundwater basin. (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 2017 water level measurements at these well clusters/nests (Table 3).

- At the Footbridge cluster, the water level elevation in monitor well MW-25 was higher than the water level elevations in the other wells in that cluster. An upward vertical hydraulic gradient was observed between monitor wells MW-24 and MW-25 and between extraction well MW-21 and monitor well MW-24. A slight upward gradient was observed between inactive extraction wells EW-01 and MW-21 (Figure 15) (H+A, 2016a).
- 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, and monitor wells MW-26A and MW-26B, and an upward gradient was observed between monitor wells MW-26B and MW-26C (Figure 16) (H+A, 2016a).
- 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. A downward vertical gradient was observed between monitor wells MW-32A and MW-32B, and an upward vertical gradient was observed between monitor wells MW-32B and MW-32C (Figure 17) (H+A, 2016a).

- 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, 2016a).
- 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. A downward vertical gradient was 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, 2016a).
- 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, 2016a).

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). In February 2017, vertical hydraulic gradients at all well clusters/nests were towards the Unit B, with the exception of the monitor well MW-23-MW-26A/B/C cluster, where it appears a temporary seasonal gradient reversal has occurred due to differential response of the regional aquifer recharge observed at this location.

2.3 CHEMICAL QUALITY OF GROUNDWATER

Two perched zone piezometers, 34 regional groundwater monitor wells, and 4 extraction wells were sampled in February 2017 (Table 1). All groundwater samples collected during the February 2017 monitoring event were analyzed for volatile organic compounds (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 select analysis of 1,4-dioxane at lower-concentration wells to provide lower detection and reporting limits (EPA Method 8270 SIM).

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 Eurofins Calscience, Inc., 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-recharge 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. Additionally, samples also were collected after one screen volume was purged from three of the large-volume monitor wells during this event; these additional samples were collected to compare results between the one-screen-volume purge method to the conventional three-screen-volume purge method which has been used historically at the Site for the large-volume monitor wells. Groundwater samples were collected after both one and three

casing volumes had been purged from monitor wells MW-32B, MW-33, and MW-36. Groundwater samples were collected from the extraction wellhead(s) during operation of the pilot GETS. Extraction wells EW-01 and MW-21 were turned on temporarily for purging and sampling in February 2017, as current operation of the pilot GETS involves extraction from extraction wells MW-29 and EW-02. 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 2017 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 extraction well EW-01 and monitor wells MW-30B, MW-32B, and MW-36, in February 2017 (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 2017 groundwater monitoring event. Results from quarterly groundwater monitoring rounds conducted in May 2016, August 2016, and November 2016 were previously submitted as quarterly data submittals (H+A, 2016b, 2016c, and 2017).

2.3.1 Perched Water Zone

Two perched zone piezometers, P-07 and P-09, were sampled during the February 2017 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 2017 include 1,1-dichloroethylene (1,1-DCE), 1,1-dichloroethane (1,1-DCA), 1,1,2-trichloroethane (1,1,2-TCA), 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 1,300 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 2017, at a concentration of 3.7 ug/l, within its historical range at this piezometer (Table 4).

2.3.2 Regional Groundwater System

Thirty-one monitor wells and four extraction wells were sampled in February 2017 (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-dichloroethane, 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 2017 (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 an estimated value of 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 2017.

Historical concentration ranges were evaluated for May 2016 through February 2017. VOC concentrations were generally within their respective historical ranges with the following exceptions.

- In May 2016 all groundwater sample results were within historical ranges for VOCs (H+A, 2016b).

- In August 2016, a relatively low historical high concentration of chloroform was detected in a groundwater sample collected from monitor well MW-20 at a concentration of 0.86 ug/l. Historical high concentrations of 1,1-DCE and cis-1,2-DCE were detected in monitor well MW-32B at concentrations of 180 ug/l and 5.9 ug/l, respectively (H+A, 2016c).
- In November 2016 all groundwater sample results were within historical ranges for VOCs (H+A, 2017).
- In February 2017, a historical high concentration of TCE was detected in the groundwater samples collected from monitor well MW-32B at a concentration of 20 ug/l. Historical high concentrations of 1,1-DCE were detected in groundwater samples collected from monitor wells MW-13, MW-36, and MW-41 at concentrations of 1.5 ug/l, 150 ug/l, and 130 ug/l, respectively. At monitor well MW-41, a historical high concentration of 1,1-DCA was detected at a concentration of 1.3 ug/l. At monitor well MW-18, a historical high concentration of cis-1,2-DCE was detected at a concentration of 1.2 ug/l.

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

In February 2017, 1,4-dioxane was detected in groundwater samples collected from regional groundwater system monitor wells P-07, MW-16, MW-32A, MW-34B, MW-36, and MW-41 and from extraction wells EW-01, EW-02, MW-21, and MW-29. At monitor well MW-32A, a historical high concentration of 1,4-dioxane was detected at a concentration of 1.6 ug/l in February 2017. There were no other historical high concentrations of 1,4-dioxane detected from May 2016 through February 2017.

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 2017 within the framework of the Site groundwater CM hydrostratigraphic zones (Tables 1 and 4; Figures 9 through 11 and 21).

- Three of eight monitor wells screened in Unit A (MW-18, MW-34A, and MW-38) were sampled for VOCs in February 2017. 1,1-DCE was not detected in groundwater samples collected from any of the three Unit A monitor wells sampled in February 2017. All three of the 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 2017. 1,1-DCE was detected in groundwater samples collected from monitor wells MW-13 and MW-15 in February 2017 (Table 4). 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 detected in a groundwater sample collected from MW-32A, but was not detected in a groundwater sample collected from MW-13.
- Fourteen monitor wells (MW-16, MW-26C, MW-27, MW-28, MW-30A, MW-31, MW-32B, MW-33, MW-34B, MW-35C, MW-36, MW-39, MW-40, and MW-41) and three extraction wells (MW-29, EW-01, and EW-02) screened in Unit B (Target Zone) were sampled for VOCs and 1,4-dioxane in February 2017. Water quality hydrographs depicting the concentrations of 1,1-DCE, TCE, and 1,4-dioxane in groundwater samples collected through February 2017 have been prepared (Appendix C). Comparison of the historical concentrations of these compounds in on-Site wells generally indicates stable or declining concentration trends at many wells and seasonal variability. Off-site monitor wells have a shorter monitoring history than on-Site monitor wells. In general, off-site monitor wells MW-34B and MW-41 have exhibited relatively large seasonal variations in VOC and 1,4-dioxane concentrations. Both of these wells are located near the northern saturated extent of the Unit B and concentration variability at these wells may be attributed, in part, to changes in hydraulic gradients related to seasonal groundwater

production in the vicinity. 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 was also detected in monitor wells along Malvern Avenue, but at generally lower concentrations than 1,1-DCE.

- 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 2017. 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 2017. 1,4-Dioxane was detected in the sample collected from extraction well MW-21. 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 2017. VOCs and 1,4-dioxane were not detected in groundwater samples collected from any Unit C monitor wells (Table 4).
- Three of four monitor wells screened in Unit D, MW-06, MW-20, and MW-37, were sampled for VOCs in February 2017. Two of the Unit D monitor wells, MW-20 and MW-37 were also sampled for 1,4-dioxane analysis. 1,1-DCE was not detected in the groundwater samples collected from monitor wells MW-06 and MW-37 in February 2017. 1,1-DCE was detected in the groundwater sample collected from monitor well MW-20 in February 2017. 1,4-Dioxane was not detected in the groundwater samples collected from monitor wells MW-20 and MW-37 in February 2017 (Table 4).

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 at 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, 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 2016, 1,1-DCE was detected at low levels in F-AIRP with a maximum detection of 1.4 ug/l in August and November 2016. 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 2017 monitoring event (Appendix A). 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 2016 groundwater monitoring events were previously reported in their respective groundwater monitoring data submittals (H+A, 2016b, 2016c, and 2017). The data quality assessment for February 2017 indicated that all QA/QC results for groundwater samples were within acceptable criteria.

VOCs were not detected in the trip or equipment rinsate blanks analyzed with groundwater samples collected during the February 2017 groundwater monitoring event. There was a detection of 1,4-dioxane in a laboratory method blank, but it did not impact any groundwater sample results (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. 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, 2015b). 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 GMP 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. The monitoring periods for monitor well MW-18 are proposed to be reduced from semiannual 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). Since their installation Unit AB monitor well MW-32A and Unit C monitor well MW-32C water quality results have been consistently non-detect, with the exception of anomalous detections at each well of PCE and/or 1,4-dioxane at concentrations at or below the drinking water MCL. In addition, Unit B is typically the low-head unit at and in the vicinity of the Site, providing hydraulic vertical constraint of Site-related VOCs and 1,4-dioxane to the Unit B in the vicinity of this well. The monitoring periods for monitor wells MW-32A and MW-32C are proposed to be reduced from semiannually 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). Since their installation, Unit A monitor well MW-34A and Unit BC monitor well MW-34C water quality results have been consistently non-detect, with the exception of sporadic low-level detections of TCFM and/or toluene at concentrations well below drinking water MCLs. In addition, as noted above for the monitor well MW-32 nest, Unit B is typically the low-head unit at and in the vicinity of the Site, providing hydraulic vertical constraint of Site-related VOCs and 1,4-dioxane to the Unit B in the vicinity of this well. The monitoring periods for monitor wells MW-34A and MW-34C are proposed to be reduced from semiannually to annually. The monitoring period for monitor well MW-34B will remain quarterly.
- Monitor well MW-35C is screened in 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 the 25 quarters of sampling since installation. The only VOC detected in monitor well MW-35C 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 20 quarters of sampling. Monitor well MW-35C's monitoring period is proposed to be reduced from quarterly to semiannually.
- Unit C monitor well MW-09 and Unit D monitor well MW-06 are screened below Unit B. Water quality results for these monitor wells have exhibited detections at or below the

California or federal MCLs during their long monitoring histories, which indicate stable concentrations and/or are relatively hydraulically isolated from the regional groundwater system. Monitor well MW-09 is proposed to be reduced from a semiannual to an annual monitoring period, and monitor well MW-06 is proposed to be reduced from an annual to a biennial monitoring period.

- Unit D monitor well MW-37 is screened about 345 feet below Unit B. Water quality results have been consistently non-detect since installation, with the exception of sporadic low-level detections of PCE and toluene at concentrations well below drinking water MCLs. The monitoring period for monitor well MW-37 is proposed to be reduced from quarterly to biennial.

3.0 GROUNDWATER EXTRACTION AND TREATMENT PILOT STUDY

This section summarizes the pilot GETS operation primarily within the three-month period of monitoring conducted during the first quarter of 2017. Summaries of the pilot GETS operations during the second, third, and fourth quarters of 2016 were previously submitted as quarterly data submittals (H+A, 2016b, 2016c, and 2017). The pilot GETS consists of four groundwater extraction wells, the treatment system, and the disposal system; however, the current phase of pilot testing is operating using only two extraction wells, EW-02 and MW-29. Current extraction rates are nominally 40 gallons per minute (gpm) from extraction well EW-02 and 10 gpm from extraction well MW-29. The treatment system processes extracted groundwater through an advanced oxidation unit that utilizes ultra-violet light and hydrogen peroxide chemical oxidation (UV-Ox), followed by a granular activated carbon polish prior to disposal to the sanitary sewer.

3.1 SYSTEM OPERATION

Initial startup of the pilot GETS took place in July 2008. From July 2008 through November 2009, the pilot GETS was operated with extraction wells EW-01 and MW-21 operating at approximately 10 gpm each (Figure 24). 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, which is the capacity of the on-site sewer. 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 high-concentration water collected from extraction well MW-21 (a relatively high-concentration extraction well) using a synthetic media for contaminant removal (H+A, 2012c). 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 in March 2012, and operation of the pilot GETS was restored to 50 gpm entirely from extraction well EW-02. A second phase of pilot GETS expansion took place between March 2014 and August 2014 in order to incorporate extraction well MW-29 into the extraction well network as well as replacing an advanced oxidation unit that used ozone and

hydrogen peroxide with a UV-Ox system. 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 2017, the pilot GETS was operational approximately 73 percent of the available runtime and approximately 3.8 million gallons of groundwater were treated and discharged to the sanitary sewer (Table 7). Downtime during the first quarter 2017 was associated with maintenance activities and alarm testing. The average monthly discharge flowrate to the sanitary sewer between December 1, 2016, and March 2, 2017 was approximately 40 gpm. Since startup of the pilot GETS, approximately 136 million gallons of groundwater have been treated at an average flowrate of 42 gpm through February 2017 (Table 7).

3.2 WATER QUALITY PERFORMANCE MONITORING

Current monthly and quarterly pilot GETS monitoring activities include collecting samples from extraction wells EW-02 and MW-29, and at treatment system sampling ports: Influent, Post Particulate Filter, Post UV-Ox, Carbon Breakthrough, and Carbon Effluent (Tables 6 and 8; Figure 25). Samples collected during these activities were sent to ATL for analysis. Analytical results of the extraction well and treatment system sampling have been summarized (Table 8; Appendix A).

The UV-Ox advanced oxidation treatment unit is designed to remove 1,4-dioxane and most VOCs in groundwater. The carbon adsorption units provide a polish following the UV-Ox treatment and remove possible low-level VOCs remaining in groundwater post UV-Ox (principally low-level ethanes). The UV-Ox advanced oxidation and carbon adsorption treatment units effectively removed VOCs and 1,4-dioxane from extracted groundwater in the first quarter 2017. The samples collected during the first quarter 2017 from the effluent of the UV-Ox treatment unit (Post UV-Ox or POX), Carbon Breakthrough and Carbon Effluent were analyzed for VOCs and 1,4-dioxane. VOCs were not detected in these samples with the exception of low-level (sub-ug/l) detections of the VOC 1,1-DCA, including detection of 1,1-DCA in a single POX sample collected on January 6, 2017, at a concentration of 0.59 ug/l, and sporadic detections of 1,1-DCA in the Carbon Breakthrough and Carbon Effluent samples

ranging from 0.51 ug/l to 0.66 ug/l. These detections of 1,1-DCA are near the laboratory reporting limit of 0.5 ug/l, and are below the drinking water MCL (5 ug/l) and the permitted sewer discharge limit (580 ug/l total toxic organics). 1,4-Dioxane was not detected at a laboratory reporting limit of 0.2 ug/l in any of the POX, Carbon Breakthrough or Carbon Effluent samples collected during the first quarter 2017.

The previous oxidation treatment unit that used an ozone-peroxide technology was shown to create bromate as a treatment byproduct which occasionally exceeded the drinking water MCL, or would not reduce 1,4-dioxane to below the treatment goal (Figure 26). The levels of bromate previously generated as a treatment byproduct were not an issue while discharging to the sewer, but would preclude injection of treated groundwater back into the aquifer as part of future groundwater corrective measures. The current UV-Ox advanced oxidation treatment unit has not generated bromate above the MCL, and bromate was not detected in the Post UV-Ox samples collected during the fourth quarter 2016, while maintaining the treatment goal for 1,4-dioxane.

The pilot GETS continues to remove VOCs and 1,4-dioxane from extracted groundwater. During the first quarter of 2017, the pilot GETS removed approximately 2.9 pounds of VOCs and 0.6 pounds of 1,4-dioxane from extracted groundwater. Since startup of the pilot GETS in July 2008, approximately 156 pounds of VOCs and 34 pounds of 1,4-dioxane have been removed from groundwater through February 2017 (Figure 27). Operation of the pilot GETS continues to be optimized to maximize the treatment of 1,4-dioxane and VOCs in extracted groundwater.

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 are calculated on a quarterly basis for the following time periods: March to May 2016; June to August 2016; September to November 2016; and December 2016 to February 2017. The following table summarizes the estimated width of the capture zone generated by operation of extraction well EW-2 during this time frame:

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 2016	42	0.0044	2,400 – 5,400	340 – 766
June to August 2016	45	0.0045	2,400 – 5,400	355 – 799
September to November 2016	44	0.0045	2,400 – 5,400	345 – 776
December 2016 to February 2017	40	0.0022	2,400 – 5,400	654 – 1,471

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

The above calculation provides a rough estimate of the width of the EW-2 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 and the variable hydraulic gradient and extraction rate, this is meant to provide a rough approximation of the 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 2016, August 2016, November 2016, and February 2017 varies with seasonal changes in hydraulic gradient and flow direction. In general, operation of Unit B extraction well EW-02 at an average flowrate of approximately 40 gpm develops a capture zone along a portion of the western Site boundary; however, it does not appear to capture groundwater in Unit B along the southwestern-most portion of the Site, in the vicinity of monitor well MW-31. The pilot GETS was expanded between March 2014 and August 2014 to replace the advanced oxidation system treatment equipment and convert monitor well MW-29 into an extraction well. Operation of extraction well

MW-29 enhances hydraulic capture in the Unit B along the western property boundary to the northwest of extraction well EW-2.

The current pilot GETS extraction rate of approximately 50 gpm from the extraction wellfield is not the maximum extraction rate the wells will sustain, but rather, is limited to the treatment capacity of the local sewer connection 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 several 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 2017 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 then exhibited recovery to a near historical high level by May 2012, and since have been declining.

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 of historical high water levels in Site monitor wells in 2006 (Figures 5, 9, and 14).

- o VOC concentrations at monitor well MW-16 have been variable, and in February 2017, 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 groundwater samples collected from extraction well EW-01 declined after the startup of the pilot GETS in June 2008, and have been variable since extraction well EW-01 was taken off-line from the pilot GETS and put on stand-by in November 2009.
- 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, are higher than surrounding wells. 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 pilot GETS operations at extraction well MW-21, concentrations of VOCs and 1,4-dioxane have been variable in this well; in

February 2017 1,1-DCE and 1,4-dioxane were detected at concentrations of 2,300 ug/l and 230 ug/l, respectively, within historical ranges.

- 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 2017. 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 COPC 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 COPCs in groundwater at 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 COPCs in this Unit B well (H+A, 2008a) (Figure 9). Concentrations of 1,1-DCE and 1,4-dioxane in groundwater samples collected from monitor well MW-26C exhibited a generally declining trend during monthly and quarterly monitoring events following the initial detections at this monitor well in 2007, and returned to non-detect levels by 2010. 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 After COPCs were initially detected in monitor well MW-26C in December 2007, additional work was conducted to further characterize the hydrogeology and water quality of the Unit B.
 - Monitor wells MW-27, MW-28, MW-29, MW-30A, and MW-30B were installed in 2008 to delineate the distribution of COPCs in

groundwater and confirm groundwater flow direction within the Unit B in the southwestern portion of the Site.

- Monitor wells MW-31 and the MW-32A/B/C nest, and extraction well EW-02 were installed in 2009 to delineate the distribution of 1,1-DCE, TCE, and 1,4-dioxane in Unit B on the southern portion of the Site and to the southwest of the Site, and to 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 monitor well MW-34A/B/C cluster and monitor well MW-35A/B/C 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 of the Site (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 of the Site and near the upgradient portion 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).
- In August 2014, monitor well MW-41 was installed to further delineate the distribution of 1,1-DCE and 1,4-dioxane in the Unit B to the west of the Site (H+A, 2014).

1,1-DCE and/or 1,4-dioxane have been detected in groundwater samples collected from Unit B monitor wells MW-28, MW-29, MW-30A, MW-31, MW-32B, MW-33, MW-34B, MW-36, and MW-41 and extraction well EW-02 since their construction (Table 4) (H+A, 2015b). 1,1-DCE and 1,4-dioxane have historically

not been detected in Unit B monitor wells MW-27, MW-35C, MW-39, and MW-40, defining the edge of groundwater impacts in these areas within the primary transport zone.

Results from groundwater assessment and groundwater treatment pilot testing outlined in respective workplans have been summarized in the following reports:

- Work proposed 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 Additional Groundwater Assessment Primary Transport Zone and Groundwater Extraction Treatment System Pilot Testing (H+A, 2011c and 2013c).
- 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 2013d).
- The work outlined in Addendum No. 6 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, 2013e and 2014).

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 detected in the groundwater sample collected from monitor well MW-15 in February 2017 at a concentration of 4.2 ug/l (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 2017, the VOCs 1,1-DCE, cis-1,2-DCE, and TCE were detected at concentrations within their respective historical ranges at monitor well MW-08. The concentrations of 1,1-DCE and TCE remain at or above California and/or federal MCLs; the concentrations of cis-1,2,-DCE in recent sampling events have declined to below the California and/or federal MCLs.
- The following provides a general discussion of water quality downgradient of monitor well MW-08.
 - o The VOCs detected at monitor well MW-30B, with a composition of TCE, 1,1-DCE, and cis-1,2-DCE, are similar to the composition and concentrations of VOCs detected at monitor well MW-08. In February 2017, 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 71 ug/l, 18 ug/l, 0.24J ug/l, and 3.8 ug/l, respectively. 1,4-Dioxane was not detected in the groundwater sample collected from monitor well MW-30B in February 2017. Both monitor wells MW-08 and MW-30B are screened in Unit BC near the western portion of the Site. 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. 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, groundwater extraction and treatment pilot testing, and additional groundwater assessment were conducted to support a CMS for the Site under continuing direction from 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, 2013e, and 2014). Results of the additional groundwater assessments completed through 2014 indicate that groundwater assessment is sufficiently complete for the purposes of completing the CMS. Ongoing groundwater treatment pilot testing indicates the current Advanced Oxidation Process being implemented is capable of meeting expected future treatment goals; and hydraulic containment of groundwater at the Site is feasible.

A technical memorandum summarizing the current conceptual site model and development of a numerical groundwater flow model for the Site was submitted to the DTSC in February 2015 (H+A, 2015a). A CMS Report was prepared to evaluate potential full-scale Groundwater Corrective Measures alternatives and to propose a preferred alternative for the Site; the CMS Report was submitted to the DTSC in June 2015 (H+A, 2015c). The DTSC reviewed the technical memorandum regarding the conceptual site model/numerical model and the CMS Report and provided comments on these documents (DTSC, 2015a, 2015b, and 2015c). Responses to DTSC comments on these documents were prepared and submitted to DTSC in November 2015 (H+A, 2015f). The DTSC approved the CMS Report in a letter to Raytheon dated December 9, 2015 (DTSC, 2015d). DTSC's approval of the CMS Report does not necessarily reflect an endorsement of the proposed remedy, but rather that the CMS Report provides the necessary information for DTSC to select a remedy. The DTSC will propose a final remedy in a Statement of Basis document that will be available for public review and comment prior to finalizing and implementing the remedy.

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TABLE 1
GROUNDWATER MONITORING PROGRAM

WELL IDENTIFIER	HYDROGEOLOGIC ZONE	SAMPLED FEB 2016	SAMPLING FREQUENCY			
			QUARTERLY	SEMIANNUAL	ANNUAL	BIENNIAL
			FEB, MAY, AUG, NOV	FEBRUARY, AUGUST	FEBRUARY	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	VOCs; 1,4-Dioxane ^(a)	
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	VOCs; 1,4-Dioxane ^(a)	
EW-01	B		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	VOCs; 1,4-Dioxane ^(a)		
MW-36	B	X	VOCs; 1,4-Dioxane			
MW-39	B	X	VOCs; 1,4-Dioxane			
MW-40	B	X	VOCs; 1,4-Dioxane			
MW-41	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	VOCs; 1,4-Dioxane ^(a)	
MW-24	C	X			VOCs; 1,4-Dioxane	
MW-32C	C	X		VOCs; 1,4-Dioxane	VOCs; 1,4-Dioxane ^(a)	
MW-06	D	X			VOCs	
MW-20	D	X		VOCs; 1,4-Dioxane		
MW-25	D		WATER LEVEL MEASUREMENT ONLY			
MW-37	D	X	VOCs; 1,4-Dioxane			

FOOTNOTES

(a)= Reduced sampling schedule proposed in the 2013/2014 Annual Report (H+A, 2014)

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

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	184.96	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	156.60	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	180.48	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	142.44	141.84	159.5	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	145.54	144.95	174.7	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	142.98	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	142.70	142.70	203.6	173.1-193.1(f)	0.020	10.0	4	159.7-193.1	#2/16	156.2-159.7	0-156.2
											193.1-203.7(j)	
MW-18	5/24/2000	142.39	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	142.72	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	184.36	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	143.34	141.18	238.3	212.1-232.1	0.010	8.0	4(k)	205.0-234.5	#2/16	202.0-205.0	0-202.0(h)
											234.5-238(j)	
MW-22	8/13/2003	139.39	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	137.75	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	143.05	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	142.97	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	137.64	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	137.64	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	137.64	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	137.60	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	141.38	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	148.83	139.81	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	130.20	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	130.20	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	120.31	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	93.35	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	93.35	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	93.35	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	83.80	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	154.00	153.25	290	220-280	0.020	12.25	4(dd)	211-290	#2/12	175-211	0-175
MW-34B	2/1/2011	153.90	153.11	540	486-536	0.020	12.25	4(dd)	475-540	#2/12	449-475	0-449
MW-34C	1/19/2011	154.10	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	94.30	93.57	1,101	420-470	0.020	18	4(dd)	401-482	#2/12	376-401	0-376
MW-35B	12/20/2010	94.30	93.56	1,101	745-805	0.020	18	4(dd)	725-816	#2/12	482-725	0-376
MW-35C	12/20/2010	94.30	93.55	1,101(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	1,030(mm)	934-954	0.020	12.25	4(dd)	914-1,003	#2/12	95-853(oo)	0-95(qq)
					974-994						853-914(pp)	
MW-37	10/17/2012	156.02	155.60	916	770-820	0.020	12.25	4(dd)	755-834	#2/12	229-724(rr)	0-229(ss)
											724-755(pp)	
MW-38	7/29/2013	155.70	154.90	203	150-200	0.020	10	4(z)	140-203	#2/12	120-140 (pp)	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)	0-156(qq)
											917-974(pp)	
MW-40	7/2/2013	124.09	123.40	1,040(ll)	930-970	0.030	12.25	6(dd)	916-975	#3	175-880(rr)	0-175(qq)
											880-916(pp)	
MW-41	8/22/2014	156.02	155.60	436.3(mm)	385-425	0.020	12.25	4(dd)	373.5-427	#2/16	165-357(rr)	0-165(qq)
											357-373.5(pp)	
EW-01	5/16/2005	143.30	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	136.04	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)

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

TABLE 2

WELL CONSTRUCTION SUMMARY

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	



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-06	06/26/01	174.23	161.99	12.24	
(Cont'd)	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	
	05/08/03	188.33	174.07	14.26	
	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	



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-06	12/06/10	184.70	178.75	5.95	
(Cont'd)	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	
	05/19/14	184.70	177.08	7.62	
	08/18/14	184.70	184.60	0.10	
	11/04/14	184.70	186.64	-1.94	
	02/02/15	184.70	183.05	1.65	
	05/11/15	184.70	177.58	7.12	
	08/10/15	184.70	179.37	5.33	
	11/02/15	184.70	181.29	3.41	
	02/01/16	184.70	178.14	6.56	
	05/02/16	184.70	175.93	8.77	
	08/01/16	184.70	177.64	7.06	
	11/07/16	184.70	181.63	3.07	
	02/06/17	184.70	176.10	8.60	
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	
	12/06/99	169.53	159.36	10.17	
	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	

DPE-H2O
3.4 inches water in vacuum



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	04/15/02	158.04	153.98	4.06	
(Cont'd)	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	
	06/22/09	155.91	157.63	-1.72	
	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	



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	12/06/10	155.91	152.22	3.69	
(Cont'd)	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	
	05/19/14	155.91	141.78	14.13	
	08/18/14	155.91	146.40	9.51	
	11/04/14	155.91	150.19	5.72	
	02/02/15	155.91	149.21	6.70	
	05/11/15	155.91	147.28	8.63	
	08/10/15	155.91	148.42	7.49	
	11/02/15	155.91	149.81	6.10	
	02/01/16	155.91	148.40	7.51	
	05/02/16	155.91	147.26	8.65	
	08/01/16	155.91	148.75	7.16	
	11/07/16	155.91	150.60	5.31	
	02/06/17	155.91	149.06	6.85	
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



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	12/14/98	166.42	149.18	17.24	SVE, DPE-H2O
(Cont'd)	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
	02/23/99	166.42	145.78	20.64	
	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	



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	09/19/05	180.10	164.58	15.52	
(Cont'd)	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	
	12/15/08	180.10	DRY	--	Dry @ 190.2 ft bls
	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	
	05/19/14	180.10	173.30	6.80	
	08/20/14	180.10	181.10	-1.00	
	11/04/14	180.10	180.10	0.00	
	02/02/15	180.10	182.06	-1.96	
	05/11/15	180.10	UTM	--	
	08/10/15	180.10	177.85	2.25	
	11/02/15	180.10	179.46	0.64	
	02/01/16	180.10	177.05	3.05	
	05/02/16	180.10	174.55	5.55	



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	08/01/16	180.10	176.08	4.02	
(Cont'd)	11/07/16	180.10	179.41	0.69	
	02/06/17	180.10	175.72	4.38	
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	
	10/31/02	142.19	154.38	-12.19	
	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	



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	06/14/04	142.19	132.76	9.43	
(Cont'd)	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	
	05/19/14	141.84	135.69	6.15	
	08/18/14	141.84	146.71	-4.87	
	11/04/14	141.84	150.59	-8.75	
	02/02/15	141.84	144.98	-3.14	
	05/11/15	141.84	UTM	--	
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-13	08/10/15	141.84	142.80	-0.96	



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
(Cont'd)	11/02/15	141.84	145.35	-3.51	
	02/01/16	141.84	140.40	1.44	
	05/02/16	141.84	139.00	2.84	
	08/01/16	141.84	144.12	-2.28	
	11/07/16	141.84	146.91	-5.07	
	02/06/17	141.84	141.47	0.37	
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	



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	12/12/06	144.99	117.21	27.78	
(Cont'd)	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	
	09/22/08	144.99	160.27	-15.28	
	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	
	05/19/14	144.95	141.94	3.01	
	08/18/14	144.95	147.95	-3.00	
	11/04/14	144.95	153.31	-8.36	
	02/02/15	144.95	153.08	-8.13	
	05/11/15	144.95	149.51	-4.56	
	08/10/15	144.95	150.48	-5.53	



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-15	11/02/15	144.95	152.03	-7.08	
(Cont'd)	02/01/16	144.95	150.10	-5.15	
	05/02/16	144.95	148.58	-3.63	
	08/01/16	144.95	150.34	-5.39	
	11/07/16	144.95	152.92	-7.97	
	02/06/17	144.95	151.51	-6.56	
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	
	01/16/01	146.18	148.73	-2.55	
	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	



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	12/15/03	142.73	141.50	1.23	
(Cont'd)	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	
	07/15/08	142.73	153.81	-11.08	
	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	



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	11/04/09	142.73	157.58	-14.85	
(Cont'd)	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	
	05/19/14	142.40	146.88	-4.48	
	08/18/14	142.40	155.65	-13.25	
	11/04/14	142.40	155.20	-12.80	
	02/02/15	142.40	147.12	-4.72	
	05/11/15	142.40	144.17	-1.77	
	08/10/15	142.40	151.80	-9.40	
	11/02/15	142.40	151.15	-8.75	
	02/01/16	142.40	143.32	-0.92	
	05/02/16	142.40	145.40	-3.00	
	08/01/16	142.40	151.25	-8.85	
	11/07/16	142.40	153.21	-10.81	
	02/06/17	142.40	139.01	3.39	
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	



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	09/10/01	142.49	159.11	-16.62	
(Cont'd)	10/22/01	142.49	162.45	-19.96	
	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	
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-17	02/06/12	142.66	117.62	25.04	



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
(Cont'd)	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	
	05/19/14	142.70	142.29	0.41	
	08/18/14	142.70	155.51	-12.81	
	11/04/14	142.70	156.45	-13.75	
	02/02/15	142.70	140.40	2.30	
	05/11/15	142.70	139.91	2.79	
	08/10/15	142.70	146.89	-4.19	
	11/02/15	142.70	145.56	-2.86	
	02/01/16	142.70	137.45	5.25	
	05/02/16	142.70	141.41	1.29	
	08/01/16	142.70	147.70	-5.00	
	11/07/16	142.70	148.30	-5.60	
	02/06/17	142.70	133.58	9.12	
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	



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	05/08/03	142.11	143.19	-1.08	
(Cont'd)	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	
	03/17/08	142.11	149.46	-7.35	
	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	
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-18	05/07/12	142.11	111.11	31.00	



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
(Cont'd)	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	
	05/19/14	142.32	142.72	-0.40	
	08/18/14	142.32	155.01	-12.69	
	11/04/14	142.32	156.98	-14.66	
	02/02/15	142.32	140.77	1.55	
	05/11/15	142.32	140.34	1.98	
	08/10/15	142.32	147.44	-5.12	
	11/02/15	142.32	146.02	-3.70	
	02/01/16	142.32	137.80	4.52	
	05/02/16	142.32	142.11	0.21	
	08/01/16	142.32	148.48	-6.16	
	11/07/16	142.32	149.12	-6.80	
	02/06/17	142.32	134.27	8.05	
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	



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-19	12/06/04	142.72	138.87	3.85	
(Cont'd)	03/14/05	142.72	125.50	17.22	
	06/20/05	142.72	131.63	11.09	
	09/19/05	142.72	137.49	5.23	
	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	
	05/19/14	142.06	142.39	-0.33	
	08/18/14	142.06	154.73	-12.67	
	11/04/14	142.06	156.81	-14.75	
	02/02/15	142.06	140.66	1.40	
	05/11/15	142.06	140.04	2.02	
	08/10/15	142.06	147.05	-4.99	
	11/02/15	142.06	145.85	-3.79	
	02/01/16	142.06	137.60	4.46	
	05/02/16	142.06	141.70	0.36	
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-19	08/01/16	142.06	147.99	-5.93	



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
(Cont'd)	11/07/16	142.06	148.77	-6.71	
	02/06/17	142.06	133.94	8.12	
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	
	12/12/06	184.19	148.77	35.42	
	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	
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-20	02/04/13	184.19	153.17	31.02	
(Cont'd)	05/13/13	184.19	152.17	32.02	
	08/12/13	184.19	160.23	23.96	



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
	11/11/13	184.19	169.35	14.84	
	02/03/14	184.19	168.83	15.36	
	05/19/14	184.19	170.06	14.13	
	08/18/14	184.19	177.61	6.58	
	11/04/14	184.19	182.39	1.80	
	02/02/15	184.19	178.53	5.66	
	05/11/15	184.19	172.40	11.79	
	08/10/15	184.19	173.36	10.83	
	11/02/15	184.19	175.51	8.68	
	02/01/16	184.19	173.00	11.19	
	05/02/16	184.19	170.57	13.62	
	08/01/16	184.19	171.60	12.59	
	11/07/16	184.19	175.75	8.44	
	02/06/17	184.19	172.10	12.09	
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	
	06/19/06	142.68	107.60	35.08	
	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	



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	06/18/07	142.68	120.04	22.64	
(Cont'd)	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	Pilot GETS
	05/27/08	141.23	148.71	-7.48	
	06/23/08	141.23	150.40	-9.17	
	07/09/08	141.18	160.02	-18.84	Pilot GETS
	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	
	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	Pilot GETS
	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	
	03/16/09	141.18	166.33	-25.15	Pilot GETS
	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	
	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	



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	08/01/11	141.18	123.72	17.46	
(Cont'd)	08/05/11	141.18	123.64	17.54	
	10/14/11	141.18	120.69	20.49	Pilot GETS
	10/31/11	141.18	120.89	20.29	Pilot GETS
	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	
	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	
	05/19/14	141.18	135.55	5.63	
	08/18/14	141.18	145.70	-4.52	
	11/04/14	141.18	150.91	-9.73	
	02/02/15	141.18	142.81	-1.63	
	05/11/15	141.18	137.72	3.46	
	08/10/15	141.18	141.41	-0.23	
	11/02/15	141.18	142.78	-1.60	
	02/01/16	141.18	138.22	2.96	
	05/02/16	141.18	137.45	3.73	
	08/01/16	141.18	141.20	-0.02	
	11/07/16	141.18	145.60	-4.42	
	02/06/17	141.18	137.28	3.90	
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	



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	09/20/04	138.65	141.03	-2.38	
(Cont'd)	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	
	06/23/08	138.65	150.29	-11.64	
	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	



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	02/03/14	138.65	128.85	9.80	
(Cont'd)	05/19/14	138.65	138.75	-0.10	
	08/18/14	138.65	150.82	-12.17	
	11/04/14	138.65	152.76	-14.11	
	02/02/15	138.65	136.45	2.20	
	05/11/15	138.65	136.33	2.32	
	08/10/15	138.65	143.45	-4.80	
	11/02/15	138.65	141.78	-3.13	
	02/01/16	138.65	133.67	4.98	
	05/02/16	138.65	137.70	0.95	
	08/01/16	138.65	144.28	-5.63	
	11/07/16	138.65	144.84	-6.19	
	02/06/17	138.65	129.85	8.80	
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	
	09/24/07	137.33	144.94	-7.61	
	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	



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-23	04/21/08	137.33	145.50	-8.17	
(Cont'd)	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	
	05/19/14	137.33	138.79	-1.46	
	08/18/14	137.33	150.88	-13.55	
	11/04/14	137.33	152.51	-15.18	
	02/02/15	137.33	135.90	1.43	
	05/11/15	137.33	136.04	1.29	
	08/10/15	137.33	143.28	-5.95	
	11/02/15	137.33	141.25	-3.92	
	02/01/16	137.33	133.10	4.23	
	05/02/16	137.33	138.15	-0.82	
	08/01/16	137.33	144.41	-7.08	



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-23	11/07/16	137.33	144.88	-7.55	
(Cont'd)	02/06/17	137.33	129.45	7.88	
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	
	09/25/06	142.83	115.04	27.79	
	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	



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	12/06/10	142.83	142.45	0.38	
(Cont'd)	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	
	05/19/14	142.83	136.72	6.11	
	08/18/14	142.83	144.45	-1.62	
	11/04/14	142.83	149.10	-6.27	
	02/02/15	142.83	144.46	-1.63	
	05/11/15	142.83	139.86	2.97	
	08/10/15	142.83	140.92	1.91	
	11/02/15	142.83	142.56	0.27	
	02/01/16	142.83	139.57	3.26	
	05/02/16	142.83	137.30	5.53	
	08/01/16	142.83	139.10	3.73	
	11/07/16	142.83	142.40	0.43	
	02/06/17	142.83	137.95	4.88	
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	
	06/20/05	142.64	125.06	17.58	
	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	



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	03/12/07	142.64	111.03	31.61	
(Cont'd)	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	
	05/19/14	142.64	139.46	3.18	
	08/18/14	142.64	149.70	-7.06	
	11/04/14	142.64	154.67	-12.03	
	02/02/15	142.64	143.28	-0.64	
	05/11/15	142.64	138.82	3.82	
	08/10/15	142.64	142.09	0.55	
	11/02/15	142.64	144.77	-2.13	
	02/01/16	142.64	139.49	3.15	
	05/02/16	142.64	137.12	5.52	
	08/01/16	142.64	140.58	2.06	



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	11/07/16	142.64	145.72	-3.08	
(Cont'd)	02/06/17	142.64	136.69	5.95	
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	
	09/19/05	137.30	127.22	10.08	
	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	



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	08/01/11	137.04	125.09	11.95	
(Cont'd)	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	
	05/19/14	137.04	131.02	6.02	
	08/18/14	137.04	139.88	-2.84	
	11/04/14	137.04	145.58	-8.54	
	02/02/15	137.04	141.81	-4.77	
	05/11/15	137.04	136.24	0.80	
	08/10/15	137.04	138.91	-1.87	
	11/02/15	137.04	141.10	-4.06	
	02/01/16	137.04	137.83	-0.79	
	05/02/16	137.04	136.06	0.98	
	08/01/16	137.04	139.86	-2.82	
	11/07/16	137.04	142.78	-5.74	
	02/06/17	137.04	136.55	0.49	
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	
	07/13/05	137.20	129.00	8.20	
	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	



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-26B	03/17/08	137.20	142.10	-4.90	
(Cont'd)	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	
	05/19/14	137.05	133.93	3.12	
	08/18/14	137.05	139.80	-2.75	
	11/04/14	137.05	145.01	-7.96	
	02/02/15	137.05	144.52	-7.47	
	05/11/15	137.05	141.11	-4.06	
	08/10/15	137.05	142.91	-5.86	
	11/02/15	137.05	143.49	-6.44	
	02/01/16	137.05	140.75	-3.70	
	05/02/16	137.05	140.25	-3.20	
	08/01/16	137.05	142.03	-4.98	



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-26B	11/07/16	137.05	144.57	-7.52	
(Cont'd)	02/06/17	137.05	142.89	-5.84	
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	



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	10/30/09	137.06	154.12	-17.06	
(Cont'd)	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	
	12/06/10	137.22	145.78	-8.56	
	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	
	05/19/14	137.22	144.05	-6.83	
	08/18/14	137.22	157.33	-20.11	
	11/06/14	137.22	160.01	-22.79	
	02/02/15	137.22	142.08	-4.86	
	05/11/15	137.22	140.94	-3.72	
	08/10/15	137.22	148.41	-11.19	
	11/02/15	137.22	147.19	-9.97	
	02/01/16	137.22	139.00	-1.78	
	05/02/16	137.22	142.49	-5.27	
	08/01/16	137.22	148.45	-11.23	
	11/07/16	137.22	150.54	-13.32	
	02/06/17	137.22	133.66	3.56	



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	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	
	03/24/11	137.16	129.57	7.59	
	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	



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	05/19/14	137.16	143.71	-6.55	
(Cont'd)	08/18/14	137.16	157.02	-19.86	
	11/04/14	137.16	159.09	-21.93	
	02/02/15	137.16	141.44	-4.28	
	05/11/15	137.16	140.17	-3.01	
	08/10/15	137.16	148.66	-11.50	
	11/02/15	137.16	146.73	-9.57	
	02/01/16	137.16	138.50	-1.34	
	05/02/16	137.16	141.80	-4.64	
	08/01/16	137.16	147.71	-10.55	
	11/07/16	137.16	149.93	-12.77	
	02/06/17	137.16	133.13	4.03	
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	



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	06/20/11	140.77	129.10	11.67	
(Cont'd)	08/01/11	140.77	131.02	9.75	
	08/05/11	140.77	131.37	9.40	
	10/31/11	140.77	129.07	11.70	
	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	
	05/19/14	140.77	147.00	-6.23	
	08/18/14	140.77	160.73	-19.96	
	11/04/14	140.77	163.51	-22.74	
	02/02/15	140.77	146.56	-5.79	
	05/11/15	140.77	144.46	-3.69	
	08/10/15	140.77	152.96	-12.19	
	11/02/15	140.77	151.25	-10.48	
	02/01/16	140.77	143.00	-2.23	
	05/02/16	140.77	146.00	-5.23	
	08/01/16	140.77	152.25	-11.48	
	11/07/16	140.77	154.36	-13.59	
	02/06/17	140.77	138.07	2.70	
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	



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-29	03/01/10	142.34	149.84	-7.50	
(Cont'd)	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	
	05/19/14	139.81	146.85	-7.04	
	08/18/14	139.81	160.95	-21.14	
	11/03/14	139.81	193.62	-53.81	
	11/04/14	139.81	195.90	-56.09	
	12/18/14	139.81	185.78	-45.97	
	01/19/15	139.81	189.18	-49.37	
	02/02/15	139.81	184.72	-44.91	
	03/06/15	139.81	175.40	-35.59	
	04/02/15	139.81	161.82	-22.01	
	05/11/15	139.81	178.13	-38.32	
	06/05/15	139.81	181.84	-42.03	
	07/14/15	139.81	194.02	-54.21	
	08/10/15	139.81	198.29	-58.48	
	09/03/15	139.81	180.70	-40.89	
	10/06/15	139.81	172.43	-32.62	
	11/02/15	139.81	176.00	-36.19	
	12/03/15	139.81	149.42	-9.61	Pilot GETS
	01/07/16	139.81	179.58	-39.77	Pilot GETS
	02/01/16	139.81	178.67	-38.86	Pilot GETS
	03/03/16	139.81	179.50	-39.69	Pilot GETS
	04/05/16	139.81	177.86	-38.05	Pilot GETS
	05/02/16	139.81	182.82	-43.01	Pilot GETS
	06/01/16	139.81	187.60	-47.79	Pilot GETS
	06/16/16	139.81	190.92	-51.11	Pilot GETS
	07/07/16	139.81	192.24	-52.43	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>					
MW-29	07/21/16	139.81	191.95	-52.14	Pilot GETS
(Cont'd)	08/01/16	139.81	193.48	-53.67	Pilot GETS
	08/18/16	139.81	194.13	-54.32	Pilot GETS
	09/08/16	139.81	195.61	-55.80	Pilot GETS
	09/15/16	139.81	196.42	-56.61	Pilot GETS
	10/06/16	139.81	198.76	-58.95	Pilot GETS
	10/20/16	139.81	202.31	-62.50	Pilot GETS
	11/01/16	139.81	201.90	-62.09	Pilot GETS
	11/07/16	139.81	201.70	-61.89	Pilot GETS
	12/01/16	139.81	192.87	-53.06	Pilot GETS
	12/15/16	139.81	192.50	-52.69	Pilot GETS
	01/06/17	139.81	193.28	-53.47	Pilot GETS
	01/26/17	139.81	186.95	-47.14	Pilot GETS
	02/06/17	139.81	180.00	-40.19	Pilot GETS
	02/16/17	139.81	184.04	-44.23	Pilot GETS
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	



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	08/05/11	129.44	121.58	7.86	
(Cont'd)	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	
	05/19/14	129.44	138.05	-8.61	
	08/18/14	129.44	151.26	-21.82	
	11/04/14	129.44	152.83	-23.39	
	02/02/15	129.44	134.73	-5.29	
	05/11/15	129.44	134.33	-4.89	
	08/10/15	129.44	142.97	-13.53	
	11/02/15	129.44	140.42	-10.98	
	02/01/16	129.44	131.93	-2.49	
	05/02/16	129.44	136.35	-6.91	
	08/01/16	129.44	142.20	-12.76	
	11/07/16	129.44	144.10	-14.66	
	02/06/17	129.44	126.51	2.93	
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	
	10/13/09	129.39	147.92	-18.53	
	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	



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	03/15/11	129.39	122	7.39	
(Cont'd)	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	
	05/19/14	129.39	136.08	-6.69	
	08/18/14	129.39	147.46	-18.07	
	11/04/14	129.39	147.92	-18.53	
	02/02/15	129.39	131.23	-1.84	
	05/11/15	129.39	132.21	-2.82	
	08/10/15	129.39	138.88	-9.49	
	11/02/15	129.39	136.52	-7.13	
	02/01/16	129.39	129.12	0.27	
	05/02/16	129.39	133.68	-4.29	
	08/01/16	129.39	138.20	-8.81	
	11/07/16	129.39	140.60	-11.21	
	02/06/17	129.39	124.45	4.94	
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	



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	06/20/11	119.60	106.02	13.58	
(Cont'd)	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	
	05/13/13	119.60	111.61	7.99	
	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	
	05/19/14	119.60	130.33	-10.73	
	08/18/14	119.60	142.35	-22.75	
	11/04/14	119.60	140.95	-21.35	
	02/02/15	119.60	121.32	-1.72	
	05/11/15	119.60	123.97	-4.37	
	08/10/15	119.60	131.82	-12.22	
	11/02/15	119.60	128.32	-8.72	
	02/01/16	119.60	120.24	-0.64	
	05/02/16	119.60	126.00	-6.40	
	08/01/16	119.60	130.85	-11.25	
	11/07/16	119.60	133.00	-13.40	
	02/06/17	119.60	113.84	5.76	
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	



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-32A	11/05/12	92.88	93.88	-1.00	
(Cont'd)	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	
	05/19/14	92.88	108.72	-15.84	
	08/18/14	92.88	120.55	-27.67	
	11/04/14	92.88	116.71	-23.83	
	02/02/15	92.88	94.87	-1.99	
	05/11/15	92.88	99.66	-6.78	
	08/10/15	92.88	108.42	-15.54	
	11/02/15	92.88	102.41	-9.53	
	02/01/16	92.88	93.82	-0.94	
	05/02/16	92.88	103.12	-10.24	
	08/01/16	92.88	107.97	-15.09	
	11/07/16	92.88	109.74	-16.86	
	02/06/17	92.88	87.50	5.38	
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	
	11/05/12	92.89	92.20	0.69	
	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	



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-32B	12/10/13	92.89	93.05	-0.16	
(Cont'd)	02/03/14	92.89	92.55	0.34	
	05/19/14	92.89	106.96	-14.07	
	08/18/14	92.89	118.71	-25.82	
	11/04/14	92.89	116.03	-23.14	
	02/02/15	92.89	95.96	-3.07	
	05/11/15	92.89	99.45	-6.56	
	08/10/15	92.89	107.58	-14.69	
	11/02/15	92.89	102.39	-9.50	
	02/01/16	92.89	94.02	-1.13	
	05/02/16	92.89	102.73	-9.84	
	08/01/16	92.89	107.20	-14.31	
	11/07/16	92.89	109.15	-16.26	
	02/06/17	92.89	87.94	4.95	
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	
	05/19/14	92.88	91.52	1.36	
	08/18/14	92.88	101.60	-8.72	
	11/04/14	92.88	105.10	-12.22	
	02/02/15	92.88	94.74	-1.86	
	05/11/15	92.88	91.27	1.61	



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-32C	08/10/15	92.88	94.27	-1.39	
(Cont'd)	11/02/15	92.88	96.03	-3.15	
	02/01/16	92.88	90.85	2.03	
	05/02/16	92.88	89.72	3.16	
	08/01/16	92.88	92.50	0.38	
	11/07/16	92.88	92.35	0.53	
	02/06/17	92.88	87.78	5.10	
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	
	12/10/12	83.19	76.87	6.32	
	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	
	05/19/14	83.19	103.68	-20.49	
	08/18/14	83.19	115.30	-32.11	
	11/04/14	83.19	107.90	-24.71	
	02/02/15	83.19	85.81	-2.62	
	05/11/15	83.19	91.73	-8.54	
	08/10/15	83.19	103.16	-19.97	
	11/03/15	83.19	93.22	-10.03	
	02/01/16	83.19	84.78	-1.59	
	05/02/16	83.19	98.13	-14.94	
	08/01/16	83.19	102.90	-19.71	
	11/07/16	83.19	103.55	-20.36	
	02/06/17	83.19	78.63	4.56	



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-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	
	05/19/14	153.25	159.82	-6.57	
	08/18/14	153.25	171.15	-17.90	
	11/04/14	153.25	172.43	-19.18	
	02/02/15	153.25	155.22	-1.97	
	05/11/15	153.25	155.51	-2.26	
	08/10/15	153.25	163.23	-9.98	
	11/02/15	153.25	160.22	-6.97	
	02/01/16	153.25	151.81	1.44	
	05/02/16	153.25	158.71	-5.46	
	08/01/16	153.25	165.49	-12.24	
	11/07/16	153.25	165.51	-12.26	
	02/06/17	153.25	149.02	4.23	
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	



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	02/06/12	153.11	136.92	16.19	
(Cont'd)	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	
	12/10/13	153.11	156.82	-3.71	
	02/03/14	153.11	153.48	-0.37	
	05/19/14	153.11	163.44	-10.33	
	08/18/14	153.11	177.51	-24.40	
	11/04/14	153.11	178.79	-25.68	
	02/02/15	153.11	160.99	-7.88	
	05/11/15	153.11	159.14	-6.03	
	08/10/15	153.11	168.28	-15.17	
	11/02/15	153.11	165.13	-12.02	
	02/01/16	153.11	156.28	-3.17	
	05/02/16	153.11	162.00	-8.89	
	08/01/16	153.11	168.68	-15.57	
	11/07/16	153.11	169.85	-16.74	
	02/06/17	153.11	152.36	0.75	
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	



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-34C	08/12/13	153.29	162.95	-9.66	
(Cont'd)	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	
	05/19/14	153.29	164.45	-11.16	
	08/18/14	153.29	175.77	-22.48	
	11/04/14	153.29	174.43	-21.14	
	02/02/15	153.29	156.90	-3.61	
	05/11/15	153.29	158.77	-5.48	
	08/10/15	153.29	166.34	-13.05	
	11/02/15	153.29	162.32	-9.03	
	02/01/16	153.29	154.85	-1.56	
	05/02/16	153.29	161.50	-8.21	
	08/01/16	153.29	166.20	-12.91	
	11/07/16	153.29	168.18	-14.89	
	02/06/17	153.29	150.12	3.17	
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	
	05/19/14	93.57	90.45	3.12	
	08/18/14	93.57	98.60	-5.03	
	11/04/14	93.57	97.37	-3.80	
	02/02/15	93.57	83.43	10.14	
	05/11/15	93.57	87.57	6.00	
	08/10/15	93.57	93.08	0.49	
	11/02/15	93.57	88.69	4.88	
	02/01/16	93.57	81.57	12.00	
	05/02/16	93.57	91.36	2.21	
	08/01/16	93.57	95.55	-1.98	



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-35A	11/07/16	93.57	95.80	-2.23	
(Cont'd)	02/06/17	93.57	78.82	14.75	
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	
	08/04/11	93.56	84.05	9.51	
	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	
	05/19/14	93.56	100.60	-7.04	
	08/18/14	93.56	111.30	-17.74	
	11/04/14	93.56	110.32	-16.76	
	02/02/15	93.56	92.11	1.45	
	05/11/15	93.56	95.79	-2.23	
	08/10/15	93.56	103.07	-9.51	
	11/02/15	93.56	99.27	-5.71	
	02/01/16	93.56	90.85	2.71	
	05/02/16	93.56	98.47	-4.91	
	08/01/16	93.56	104.05	-10.49	
	11/07/16	93.56	105.55	-11.99	
	02/06/17	93.56	85.75	7.81	
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	



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-35C	08/06/12	93.55	88.31	5.24	
Cont'd	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	
	05/19/14	93.55	108.54	-14.99	
	08/18/14	93.55	120.07	-26.52	
	11/04/14	93.55	116.33	-22.78	
	02/02/15	93.55	94.44	-0.89	
	05/11/15	93.55	99.58	-6.03	
	08/10/15	93.55	108.23	-14.68	
	11/02/15	93.55	102.92	-9.37	
	02/01/16	93.55	94.58	-1.03	
	05/02/16	93.55	102.43	-8.88	
	08/01/16	93.55	107.20	-13.65	
	11/07/16	93.55	109.20	-15.65	
	02/06/17	93.55	87.36	6.19	
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	
	05/19/14	86.65	107.76	-21.11	
	08/18/14	86.65	120.00	-33.35	
	11/04/14	86.65	112.18	-25.53	
	02/02/15	86.65	90.73	-4.08	
	05/11/15	86.65	96.88	-10.23	
	08/10/15	86.65	107.61	-20.96	
	11/02/15	86.65	97.50	-10.85	
	02/01/16	86.65	88.71	-2.06	
	05/02/16	86.65	103.14	-16.49	
	08/01/16	86.65	108.38	-21.73	
	11/07/16	86.65	108.73	-22.08	
	02/06/17	86.65	83.55	3.10	



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-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	
	08/12/13	155.60	149.41	6.19	
	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	
	05/19/14	155.60	157.06	-1.46	
	08/18/14	155.60	167.65	-12.05	
	11/04/14	155.60	171.21	-15.61	
	02/02/15	155.60	159.43	-3.83	
	05/11/15	155.60	154.65	0.95	
	08/10/15	155.60	158.40	-2.80	
	11/02/15	155.60	160.51	-4.91	
	02/01/16	155.60	155.85	-0.25	
	05/02/16	155.60	153.90	1.70	
	08/01/16	155.60	157.24	-1.64	
	11/07/16	155.60	162.06	-6.46	
	02/06/17	155.60	152.72	2.88	
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	
	05/19/14	154.90	159.11	-4.21	
	08/18/14	154.90	173.52	-18.62	
	11/04/14	154.90	176.59	-21.69	
	02/02/15	154.90	162.11	-7.21	
	05/11/15	154.90	157.15	-2.25	
	08/10/15	154.90	166.11	-11.21	
	11/02/15	154.90	165.35	-10.45	
	02/01/16	154.90	156.80	-1.90	
	05/02/16	154.90	161.35	-6.45	
	08/01/16	154.90	169.55	-14.65	
	11/07/16	154.90	169.69	-14.79	
	02/06/17	154.90	156.94	-2.04	
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	
	05/19/14	84.25	106.47	-22.22	
	08/18/14	84.25	118.09	-33.84	



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-39	11/04/14	84.25	109.61	-25.36	
Cont'd	02/02/15	84.25	87.62	-3.37	
	05/11/15	84.25	95.10	-10.85	
	08/10/15	84.25	104.94	-20.69	
	11/02/15	84.25	95.00	-10.75	
	02/01/16	84.25	86.35	-2.10	
	05/02/16	84.25	101.39	-17.14	
	08/01/16	84.25	106.20	-21.95	
	11/07/16	84.25	106.85	-22.60	
	02/06/17	84.25	80.95	3.30	
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	
	05/19/14	123.40	131.26	-7.86	
	08/18/14	123.40	143.09	-19.69	
	11/04/14	123.40	142.65	-19.25	
	02/02/15	123.40	123.10	0.30	
	05/11/15	123.40	125.05	-1.65	
	08/10/15	123.40	132.73	-9.33	
	11/02/15	123.40	130.39	-6.99	
	02/01/16	123.40	122.22	1.18	
	05/02/16	123.40	126.37	-2.97	
	08/01/16	123.40	131.15	-7.75	
	11/07/16	123.40	133.75	-10.35	
	02/06/17	123.40	115.56	7.84	
MW-41	08/19/14	156.02	186.17	-30.15	
	09/10/14	155.60	185.65	-30.05	
	09/24/14	155.60	186.05	-30.45	
	11/04/14	155.60	182.14	-26.54	
	02/02/15	155.60	163.12	-7.52	
	05/11/15	155.60	162.20	-6.60	
	08/10/15	155.60	171.28	-15.68	
	11/02/15	155.60	167.24	-11.64	
	02/01/16	155.60	158.29	-2.69	
	05/02/16	155.60	166.35	-10.75	
	08/01/16	155.60	172.88	-17.28	
	11/07/16	155.60	173.65	-18.05	
	02/06/17	155.60	154.75	0.85	
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	



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-01	02/24/06	142.65	108.91	33.74	
(Cont'd)	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	Pilot GETS
	07/09/08	141.07	165.87	-24.80	
	07/11/08	141.07	165.59	-24.52	
	07/14/08	141.07	165.71	-24.64	Pilot GETS
	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	
	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	Pilot GETS
	02/25/09	141.07	162.17	-21.10	Pilot GETS
	03/16/09	141.07	157.84	-16.77	Pilot GETS
	03/18/09	141.07	158.69	-17.62	
	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	
	10/30/09	141.07	157.75	-16.68	
	11/04/09	141.07	157.23	-16.16	



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-01	12/07/09	141.07	154.56	-13.49	
(Cont'd)	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	
	05/19/14	141.07	145.42	-4.35	
	08/18/14	141.07	159.40	-18.33	
	11/04/14	141.07	161.72	-20.65	
	02/02/15	141.07	145.40	-4.33	
	05/11/15	141.07	142.61	-1.54	
	08/10/15	141.07	150.91	-9.84	
	11/02/15	141.07	150.00	-8.93	
	02/01/16	141.07	141.57	-0.50	
	05/02/16	141.07	143.98	-2.91	
	08/01/16	141.07	150.17	-9.10	
	11/07/16	141.07	152.30	-11.23	
	02/06/17	141.07	137.24	3.83	
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	



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	11/04/09	136.2	153.21	-17.0	
(Cond't)	12/07/09	132.97	UTM	--	
	02/10/10	132.97	142.49	-9.52	
	03/01/10	132.97	139.89	-6.92	Pre-Startup
	03/22/10	132.97	136.73	-3.76	Pilot GETS
	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	
	03/26/10	132.97	144.99	-12.02	
	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	Pilot GETS
	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	
	12/06/10	132.97	148.10	-15.13	
	12/07/10	132.97	149.05	-16.08	Pilot GETS
	12/07/10	132.97	148.62	-15.65	Pilot GETS
	01/13/11	132.97	138.52	-5.55	
	01/13/11	132.97	138.74	-5.77	Pilot GETS
	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	
	09/30/11	132.97	128.61	4.36	Pilot GETS
	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



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	01/10/12	132.97	120.72	12.25	Pilot GETS
(Cond't)	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	
	06/07/12	132.97	118.65	14.32	Pilot GETS
	06/08/12	132.97	118.79	14.18	Pilot GETS
	06/26/12	132.97	118.32	14.65	Pilot GETS
	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
	03/04/14	132.97	137.47	-4.50	Pilot GETS
	05/21/14	132.97	140.60	-7.63	Pilot GETS
	08/18/14	132.97	153.84	-20.87	Pilot GETS
	11/03/14	132.97	161.56	-28.59	Pilot GETS
	11/04/14	132.97	162.10	-29.13	Pilot GETS
	12/18/14	132.97	150.55	-17.58	Pilot GETS
	01/19/15	132.97	150.01	-17.04	Pilot GETS
	02/02/15	132.97	153.84	-20.87	Pilot GETS
	03/06/15	132.97	139.38	-6.41	
	04/02/15	132.97	139.32	-6.35	
	05/11/15	132.97	143.04	-10.07	Pilot GETS
	06/05/15	132.97	145.68	-12.71	Pilot GETS
	07/14/15	132.97	149.72	-16.75	Pilot GETS
	08/10/15	132.97	151.82	-18.85	Pilot GETS
	09/03/15	132.97	153.33	-20.36	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	10/06/15	132.97	154.65	-21.68	Pilot GETS
(Cond't)	11/02/15	132.97	150.00	-17.03	Pilot GETS
	12/03/15	132.97	147.21	-14.24	
	01/07/16	132.97	143.33	-10.36	
	02/01/16	132.97	142.55	-9.58	
	03/03/16	132.97	141.15	-8.18	Pilot GETS
	04/05/16	132.97	141.38	-8.41	Pilot GETS
	05/02/16	132.97	144.39	-11.42	Pilot GETS
	06/01/16	132.97	146.32	-13.35	Pilot GETS
	06/16/16	132.97	148.05	-15.08	Pilot GETS
	07/07/16	132.97	149.30	-16.33	Pilot GETS
	07/21/16	132.97	150.62	-17.65	Pilot GETS
	08/01/16	132.97	150.95	-17.98	Pilot GETS
	08/18/16	132.97	152.13	-19.16	Pilot GETS
	09/08/16	132.97	153.50	-20.53	Pilot GETS
	09/15/16	132.97	153.74	-20.77	Pilot GETS
	10/06/16	132.97	155.17	-22.20	Pilot GETS
	10/20/16	132.97	158.16	-25.19	Pilot GETS
	11/01/16	132.97	152.05	-19.08	Pilot GETS
	11/07/16	132.97	152.20	-19.23	Pilot GETS
	12/01/16	132.97	151.40	-18.43	Pilot GETS
	12/15/16	132.97	148.93	-19.23	Pilot GETS
	01/06/17	132.97	147.45	-14.48	Pilot GETS
	01/26/17	132.97	137.28	-4.31	Pilot GETS
	02/03/17	132.97	136.00	-3.03	Pilot GETS
	02/06/17	132.97	137.38	-4.41	Pilot GETS
	02/16/17	132.97	134.57	-1.60	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	SVE, DPE-H2O
	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, DPE-H2O
	11/20/98	165.34	135.44	29.90	SVE, 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, 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-H2O
	12/14/98	165.34	135.26	30.08	SVE, 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	12/14/98	165.34	135.27	30.07	SVE, DPE, DPE-H2O
(Cont'd)	12/16/98	165.34	135.48	29.86	SVE, DPE, DPE-H2O
	01/06/99	165.34	135.36	29.98	
	01/20/99	165.34	135.20	30.14	DPE, DPE-H2O
	01/25/99	165.34	135.50	29.84	SVE, 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	
	02/23/99	165.34	135.17	30.17	DPE
	03/01/99	165.34	135.55	29.79	
	03/09/99	165.34	135.19	30.15	
	03/10/99	165.34	135.57	29.77	SVE, DPE, DPE-H2O
	03/12/99	165.34	135.51	29.83	SVE, DPE, DPE-H2O
	03/15/99	165.34	135.59	29.75	SVE, DPE, DPE-H2O
	03/17/99	165.34	135.54	29.80	SVE, 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	DPE, DPE-H2O
	07/15/99	165.34	135.57	29.77	DPE-H2O
	08/30/99	165.34	135.58	29.76	5.6 inches water in vacuum
	09/27/99	165.34	135.58	29.76	5 inches water in vacuum
	11/02/99	165.34	135.56	29.78	
	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	



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	03/19/02	142.31	111.92	30.39	
(Cont'd)	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	Dry to 117.4 feet bls. Water level elevation <24.9 feet msl.
	09/20/04	142.31	DRY	--	
	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	Dry @ 116.8 ft.
	03/15/05	142.31	DRY	--	
	06/20/05	142.31	114.50	27.81	Dry @ 115.0 ft bls.
	09/19/05	142.31	DRY	--	
	12/17/05	142.31	112.26	30.05	
	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	--	Dry @ 115.16 ft bls.
	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	



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	05/07/12	142.31	110.72	31.59	
(Cont'd)	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	
	05/19/14	142.31	112.55	29.76	
	08/18/14	142.31	112.83	29.48	
	11/04/14	142.31	113.00	29.31	
	02/02/15	142.31	112.81	29.50	
	05/11/15	142.31	112.99	29.32	
	08/10/15	142.31	113.59	28.72	
	11/02/15	142.31	113.60	28.71	
	02/01/16	142.31	113.38	28.93	
	05/02/16	142.31	113.73	28.58	
	08/01/16	142.31	114.27	28.04	
	11/07/16	142.31	114.91	27.40	
	02/06/17	142.31	114.96	27.35	
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	
	09/24/07	183.86	120.91	62.95	
	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	



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	06/22/09	183.86	120.66	63.20	
(Cont'd)	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	
	05/19/14	183.86	120.69	63.17	
	08/18/14	183.86	120.73	63.13	
	11/04/14	183.86	120.83	63.03	
	02/02/15	183.86	120.70	63.16	
	05/11/15	183.86	120.60	63.26	
	08/10/15	183.86	120.83	63.03	
	11/02/15	183.86	120.72	63.14	
	02/01/16	183.86	120.84	63.02	
	05/02/16	183.86	120.85	63.01	
	08/01/16	183.86	120.90	62.96	
	11/07/16	183.86	120.99	62.87	
	02/06/17	183.86	120.95	62.91	

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)																	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)	Toluene (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	
MW-06	02/04/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.78	NA	
MW-06	02/02/16	ORG	< 0.50	< 0.50	0.85	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA	
MW-06	02/08/17	ORG	< 0.50	< 0.50	0.94	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA	
MW-06 Historical Range***			< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 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 - 0.78	< 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	< 0.50	8.5	< 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	< 0.50	8.0	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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)	Toluene (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	0.50	< 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
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	08/09/12	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	11/07/12	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	02/08/13	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	08/15/13	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	11/12/13	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	02/06/14	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	05/20/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.4	0.83	< 0.50	< 0.50	< 0.50	16	< 0.50	< 0.50	1.7
MW-08	08/20/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.7	0.62	< 0.50	< 0.50	< 0.50	15	< 0.50	< 0.50	0.31
MW-08	11/11/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.7	0.68	< 0.50	< 0.50	< 0.50	13	< 0.50	< 0.50	< 0.20

TABLE 4

.....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 (50/5)	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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)	
Regional Groundwater System Monitor and Extraction Wells (cont'd)																	
MW-08	02/05/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.8	0.98	< 0.50	< 0.50	< 0.50	21	< 0.50	< 0.50	1.1	
MW-08	05/13/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.1	1.1	< 0.50	< 0.50	< 0.50	25	< 0.50	2.3	0.29	
MW-08 ⁽¹⁾	08/12/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.8	1.9	< 0.50	< 0.50	< 0.50	32	< 0.50	< 0.50	0.71	
MW-08	11/03/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.6	0.94	< 0.50	< 0.50	< 0.50	14	< 0.50	< 0.50	0.35	
MW-08	02/03/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.8	2.0	< 0.50	< 0.50	< 0.50	22	< 0.50	< 0.50	0.40	
MW-08	05/03/16	ORG	< 0.50	< 0.50	0.65	< 0.50	< 0.50	25	9.6	< 0.50	< 0.50	< 0.50	140	< 0.50	< 0.50	0.70	
MW-08	08/01/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.0	2.8	< 0.50	< 0.50	< 0.50	38	< 0.50	< 0.50	< 0.20	
MW-08	11/08/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.6	1.2	< 0.50	< 0.50	< 0.50	19	< 0.50	< 0.50	< 0.20	
MW-08	02/07/17	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	13	1.1	< 0.50	< 0.50	< 0.50	22	< 0.50	< 0.50	< 0.20	
MW-08 Historical Range***			< 0.50 - 0.95	< 0.50 - 0.5	< 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 - 2.3	< 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	61.1 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	
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	08/14/13	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	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	0.30	
MW-09	08/20/14	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	0.60	
MW-09	02/05/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.62	
MW-09	08/11/15	ORG	< 0.50	< 0.50	< 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

..... Concentration (micrograms per liter).....

[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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)	
Regional Groundwater System Monitor and Extraction Wells (cont'd)																	
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	< 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	
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	08/20/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.9	7.0	< 0.50	NA	
MW-15	02/05/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.5	< 0.50	< 0.50	< 0.50	< 0.50	1.9	6.0	< 0.50	NA	
MW-15	08/12/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.86	< 0.50	< 0.50	< 0.50	< 0.50	2.6	8.4	< 0.50	NA	
MW-15	02/04/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.2	< 0.50	< 0.50	< 0.50	< 0.50	0.70	4.0	< 0.50	NA	
MW-15	08/01/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.8	< 0.50	< 0.50	< 0.50	< 0.50	1.4	6.6	< 0.50	NA	
MW-15	02/09/17	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.2	< 0.50	< 0.50	< 0.50	< 0.50	0.55	2.0	< 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	2.0 J	870	< 5.0	2.0 J	20	3.0 J	2.0 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	<										

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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
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	< 2.5	< 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	08/20/14	ORG	< 1.0	< 1.0	< 1.0	4.0	< 0.50	820	< 1.0	< 1.0	< 1.0	< 1.0	6.4	< 1.0	< 1.0	38
MW-16	02/05/15	ORG	< 5.0	< 5.0	< 5.0	9.8	< 5.0	1,200	< 5.0	< 5.0	< 5.0	< 5.0	7.1	< 5.0	< 5.0	440
MW-16	08/12/15	ORG	< 2.5	< 2.5	< 2.5	5.4	< 2.5	1,100	< 2.5	< 2.5	< 2.5	< 2.5	6.2	< 2.5	< 2.5	46
MW-1600	08/12/15	FD	< 2.5	< 2.5	< 2.5	5.8	< 2.5	1,100	< 2.5	< 2.5	< 2.5	< 2.5	6.0	< 2.5	< 2.5	45
MW-16	08/12/15	SPT	< 2.5	< 2.5	< 5.0	5.5	< 2.5	930	< 5.0	< 5.0	< 5.0	< 5.0	10	< 2.5	< 5.0	47
MW-16	02/04/16	ORG	< 2.5	< 2.5	< 2.5	7.5	< 2.5	1,500	< 2.5	< 2.5	< 2.5	< 2.5	5.2	< 2.5	< 2.5	52
MW-16	08/02/16	ORG	< 2.5	< 2.5	< 2.5	6.2	< 2.5	1,000	< 2.5	< 2.5	< 2.5	< 2.5	6.2	< 2.5	< 2.5	27
MW-1600	08/02/16	FD	< 2.5	< 2.5	< 2.5	5.3	< 2.5	1,000	< 2.5	< 2.5	< 2.5	< 2.5	6.4	< 2.5	< 2.5	29

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-16	02/07/17	ORG	<2.5	<2.5	<2.5	6.8	<2.5	890	<2.5	<2.5	<2.5	<2.5	3.8	<2.5	<2.5	240
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	< 0.50 - 0.57	< 0.50 - 2.9	< 0.50 - 28 E	< 0.50 - 10	< 0.50 - 7.1	< 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
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
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

TABLE 4

..... 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 (50/5)	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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)	
Regional Groundwater System Monitor and Extraction Wells (cont'd)																	
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	08/20/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.0	< 0.50	< 0.20	
MW-18	02/03/15	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	< 0.20	
MW-18 ⁽²⁾	08/13/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.2	0.82	< 0.20	
MW-18	02/03/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.2	< 0.50	< 0.20	
MW-18	08/02/16	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	< 0.20	
MW-18	02/08/17	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 0.50	< 0.50	< 0.50	< 0.50	3.8	< 0.50	< 0.20	
Historical High/Low									High					1.8			
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 - 0.82	< 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	02/04/16	ORG	< 0.50	< 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	
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	

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 (-7/5)	1,2-DCA (-7/-7)	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 (-7/150)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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	08/21/14	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-20	02/03/15	ORG	< 0.50	< 0.50	0.73	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-20	08/12/15	ORG	< 0.50	< 0.50	0.65	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-20	02/02/16	ORG	< 0.50	< 0.50	0.83	< 0.50	< 0.50	0.98	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-20	08/02/16	ORG	< 0.50	< 0.50	0.85	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-20	02/07/17	ORG	< 0.50	< 0.50	0.67	< 0.50	< 0.50	0.66	< 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 - 0.83	< 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	07/14/03	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	< 2.5	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	< 2.5	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
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

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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	2.0	< 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
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	08/06/12	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	11/05/12	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	02/04/13	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	05/13/13	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	08/12/13	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	11/11/13	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	02/03/13	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	08/18/14	ORG	< 2.5	< 2.5	< 2.5	18	3.4	1,200	< 2.5	3.6	< 2.5	7.0	18	< 2.5	< 2.5	360
MW-21	11/04/14	ORG	< 0.50	< 0.50	< 0.50	4.6	0.72	350	1.1	0.85	< 0.50	1.5	19	< 0.50	< 0.50	54
MW-21	02/02/15	ORG	< 2.0	< 2.0	< 2.0	17	2.8	1,100	< 2.0	3.3	< 2.0	7.6	18	< 2.0	< 2.0	290
MW-21	05/11/15	ORG	< 2.5	< 2.5	< 2.5	24	4.1	1,800	< 2.5	5.0	< 2.5	10	18	< 2.5	< 2.5	350
MW-21	08/10/15	ORG	< 2.5	< 2.5	< 2.5	17	3.6	1,300	< 2.5	3.8	< 2.5	8.4	21	< 2.5	< 2.5	250
MW-21	11/02/15	ORG	< 2.0	< 2.0	< 2.0	17	2.6	920	< 2.0	2.3	< 2.0	7.3	16	< 2.0	< 2.0	380
MW-2100	11/02/15	FD	< 2.0	< 2.0	< 2.0	17	2.3	880	< 2.0	2.6	< 2.0	7.1	18	< 2.0	< 2.0	390
MW-21	11/02/15	SPT	< 0.50	< 0.50	1.2	16	2.7	1,100	1.3	2.0	< 1.0	7.8	17	< 1.0	< 1.0	380
MW-21	02/01/16	ORG	< 5.0	< 5.0	< 5.0	25	< 5.0	1,700	< 5.0	< 5.0	< 5.0	7.9	17	< 5.0	< 5.0	270
MW-21	05/02/16	ORG	< 2.0	< 2.0	< 2.0	22	3.6	1,400	< 2.0	4.1	< 2.0	11	20	< 2.0	< 2.0	220
MW-21	08/01/16	ORG	< 2.5	< 2.5	< 2.5	27	4.2	1,500	< 2.5	4.5	< 2.5	11	20	< 2.5	< 2.5	250
MW-21	11/07/16	ORG	< 2.5	< 2.5	< 2.5	24	3.2	1,400	< 2.5	2.6	< 2.5	9.0	18	< 2.5	< 2.5	220
MW-21	02/06/17	ORG	< 2.5	< 2.5	< 2.5	32	4.9	2,300	< 2.5	6.0	< 2.5	13	16	< 2.5	< 2.5	230
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

TABLE 4

..... 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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)	
Regional Groundwater System Monitor and Extraction Wells (cont'd)																	
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	
MW-22	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-22	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	NA	
MW-22	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-22	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-22	02/04/16	ORG	< 0.50	< 0.50	< 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-22 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	< 0.2 - < 2.0	
MW-23-199	08/12/03	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-23	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-23	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-23	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-23	03/29/04	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-23	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	< 0.50	< 0.50	< 2.0	
MW-23	09/20/04	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	NA	
MW-23	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-23	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-23	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-23	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-23	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-23	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-23	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	NA	
MW-23	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-23	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-23	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-23	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-23	09/24/07	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-23	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	NA	
MW-23	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	

TABLE 4

..... 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 (50/5)	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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)	
Regional Groundwater System Monitor and Extraction Wells (cont'd)																	
MW-23	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-23	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-23	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-23	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-23	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-23	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-23	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	NA	
MW-23	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-23	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-23	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-23	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-23	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	NA	
MW-23	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-23	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	NA	
MW-23	02/03/16	ORG	< 0.50	< 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-23 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 - < 2.0	
MW-24	09/23/04	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-2400	09/23/04	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	< 2.0	
MW-24	09/23/04	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	< 1.0	
MW-24	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-24	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	< 2.0	
MW-2400	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	< 2.0	
MW-24	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	< 2.0	
MW-24	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-24	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-24	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-24	03/20/06	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-24	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-24	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	< 2.0	
MW-24	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-24	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	2.7	
MW-24	06/20/07	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-2400	06/20/07	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	< 2.0	
MW-24	06/20/07	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	< 1	
MW-24	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-24	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-24	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	< 2.0	
MW-24	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	< 0.50	< 0.50	< 2.0	
MW-24	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	< 2.0	
MW-24	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	< 2.0	
MW-24	03/16/09	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-24	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-24	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	< 2.0	
MW-24	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-24	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-24	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-24	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-24	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-24	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	< 0.20	
MW-24	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-24	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-24	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-24	02/05/15	ORG	< 0.50	< 0.50	< 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-24	02/04/16	ORG	< 0.50	< 0.50	< 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-24	02/09/17	ORG	< 0.50	< 0.50	< 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-24 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 - 2.7	

TABLE 4

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 (50/5)	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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)	
Regional Groundwater System Monitor and Extraction Wells (cont'd)																	
MW-26A	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-26A	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-26A	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-26A	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-26A	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-26A	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-26A	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-26A	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-26A	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-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	
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	

TABLE 4

.....Concentration (micrograms per liter).....

[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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)	
Regional Groundwater System Monitor and Extraction Wells (cont'd)																	
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	05/20/14	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-28	08/21/14	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	2.8	
MW-28	11/05/14	ORG	< 0.50	< 0.50	< 0.50	0.50	< 0.50	43	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12	
MW-28	02/05/15	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	5.3	
MW-2800	02/05/15	FD	< 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	5.4	
MW-28	02/05/15	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	14	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	6.1	
MW-28	05/12/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.99	
MW-28	08/11/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3	
MW-28	11/03/15	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	< 0.20	
MW-28	02/03/16	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	0.31	
MW-28	05/03/16	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	< 0.20	
MW-28	08/03/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.88	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20	
MW-28	11/09/16	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	02/09/17	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.76	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20	
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	
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	< 0.50	< 0.50	< 0.50	9.2	< 0.50	900 E	< 0.50	< 0.50	< 0.50	< 0.50	7.5	< 0.50	< 0.50	130 E	
MW-2900	02/09/12	FD	< 0.50	< 0.50	< 0.50	9.0	< 0.50	910 E	< 0.50	< 0.50	< 0.50	< 0.50	7.1	< 0.50	< 0.50	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	2.0	4.0	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					

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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-2900	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	< 0.50	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	08/18/14	ORG	< 0.50	< 0.50	< 0.50	1.9	< 0.50	180	< 0.50	0.58	< 0.50	0.79	4.4	1.0	< 0.50	73
MW-2900	08/18/14	FD	< 0.50	< 0.50	< 0.50	2.0	< 0.50	170	< 0.50	0.73	< 0.50	0.80	4.3	0.99	< 0.50	74
MW-29	08/18/14	SPT	< 0.50	< 0.50	< 1.0	< 0.50	2.0	160	< 1.0	< 1.0	< 1.0	< 1.0	4.1	< 1.0	< 1.0	69 ET
MW-29	11/03/14	ORG	0.57	< 0.50	< 0.50	2.6	0.55	240	< 0.50	0.78	< 0.50	0.89	4.6	1.1	< 0.50	97
MW-29	02/13/15	ORG	< 0.50	< 0.50	0.60	4.4	0.94	460	< 0.50	1.3	< 0.50	1.5	4.8	1.9	< 0.50	180
MW-29	03/06/15	ORG	< 0.50	< 0.50	< 0.50	3.1	0.61	300	< 0.50	1.1	< 0.50	1.1	3.7	1.4	< 0.50	120
MW-29	04/02/15	ORG	< 0.50	< 0.50	< 0.50	3.3	0.64	290	< 0.50	1.1	< 0.50	1.1	4.1	1.6	< 0.50	140
MW-29	05/01/15	ORG	< 0.50	< 0.50	< 0.50	3.0	0.70	360	< 0.50	0.98	< 0.50	0.95	3.6	1.5	< 0.50	130
MW-29	06/05/15	ORG	< 0.50	< 0.50	< 0.50	3.0	0.67	370	< 0.50	1.0	< 0.50	0.98	3.5	1.7	< 0.50	130
MW-29	07/14/15	ORG	< 0.50	< 0.50	< 0.50	3.2	0.59	360	< 0.50	0.76	< 0.50	0.99	3.8	1.3	< 0.50	110
MW-29	08/06/15	ORG	< 0.50	< 0.50	< 0.50	3.0	0.75	330	< 0.50	1.0	< 0.50	1.0	3.7	1.2	< 0.50	130
MW-29	09/03/15	ORG	< 0.50	< 0.50	< 0.50	3.1	0.76	390	< 0.50	0.97	< 0.50	0.94	3.8	1.4	< 0.50	150
MW-29	10/06/15	ORG	< 0.50	< 0.50	< 0.50	3.7	0.62	360	< 0.50	0.87	< 0.50	1.2	3.6	1.9	< 0.50	130
MW-29	11/05/15	ORG	< 0.50	< 0.50	< 0.50	3.0	0.67	350	< 0.50	0.89	< 0.50	1.1	3.2	1.4	< 0.50	120
MW-29	12/03/15	ORG	< 0.50	< 0.50	0.52	3.7	0.82	450	< 0.50	1.2	< 0.50	1.3	4.1	2.0	< 0.50	170
MW-29	12/11/15	ORG	< 0.50	< 0.50	0.53	5.3	0.79	480	< 0.50	1.0	< 0.50	1.2	3.6	1.8	< 0.50	100
MW-29	01/07/16	ORG	< 0.50	< 0.50	< 0.50	4.3	0.79	440	< 0.50	0.96	< 0.50	1.1	2.6	2.1	< 0.50	110
MW-29	01/21/16	ORG	< 0.50	< 0.50	< 0.50	4.0	0.85	410	< 0.50	0.95	< 0.50	1.1	2.6	1.8	< 0.50	110
MW-29	02/01/16	ORG	< 0.50	< 0.50	0.56	4.6	0.88	500	< 0.50	0.92	< 0.50	0.97	2.5	2.2	< 0.50	110
MW-29	03/03/16	ORG	< 0.50	< 0.50	< 0.50	3.0	0.65	330	< 0.50	0.87	< 0.50	0.97	2.9	1.1	< 0.50	120
MW-29	04/05/16	ORG	< 0.50	< 0.50	< 0.50	3.9	< 0.50	330	< 0.50	0.90	< 0.50	1.1	2.5	1.2	< 0.50	91
MW-29	05/05/16	ORG	< 0.50	< 0.50	< 0.50	3.6	< 0.50	380	< 0.50	0.96	< 0.50	1.2	2.6	1.0	< 0.50	94
MW-29	06/01/16	ORG	< 0.50	< 0.50	< 0.50	3.5	0.62	250	< 0.50	0.96	< 0.50	0.98	3.5	1.7	< 0.50	130
MW-29	06/16/16	ORG	< 0.50	< 0.50	< 0.50	3.2	< 0.50	240	< 0.50	1.1	< 0.50	1.2	2.5	< 0.50	< 0.50	82
MW-29	07/07/16	ORG	< 0.50	< 0.50	< 0.50	3.3	< 0.50	310	< 0.50	< 0.50	< 0.50	1.1	3.1	1.5	< 0.50	95
MW-29	07/21/16	ORG	< 0.50	< 0.50	0.54	4.1	< 0.50	410	< 0.50	< 0.50	< 0.50	1.1	2.8	1.5	< 0.50	81
MW-29	08/04/16	ORG	< 0.50	< 0.50	< 0.50	3.3	0.57	250	< 0.50	0.88	< 0.50	1.0	3.1	1.2	< 0.50	77
MW-29	08/18/16	ORG	< 0.50	< 0.50	< 0.50	2.6	0.51	250	< 0.50	0.63	< 0.50	0.90	2.5	0.66	< 0.50	86
MW-29	09/08/16	ORG	< 0.50	< 0.50	< 0.50	2.9	< 0.50	340	< 0.50	0.67	< 0.50	0.83	2.7	0.98	< 0.50	77
MW-29	09/15/16	ORG	< 0.50	< 0.50	< 0.50	2.4	0.52	250	< 0.50	0.71	< 0.50	< 0.50	2.5	0.71	< 0.50	78
MW-29	10/06/16	ORG	< 0.50	< 0.50	< 0.50	2.7	0.51	280	< 0.50	0.82	< 0.50	0.87	2.7	1.3	< 0.50	72
MW-29	10/20/16	ORG	< 0.50	< 0.50	< 0.50	2.2	< 0.50	240	< 0.50	0.81	< 0.50	< 0.50	2.2	1.1	< 0.50	71
MW-29	11/01/16	ORG	< 0.50	< 0.50	< 0.50	2.6	0.62	360	< 0.50	0.84	< 0.50	0.63	2.7	1.6	< 0.50	6.6 U
MW-29	11/17/16	ORG	< 0.50	< 0.50	< 0.50	3.1	0.53	260	< 0.50	0.65	< 0.50	0.92	2.7	1.1	< 0.50	79
MW-29	12/01/16	ORG	< 0.50	< 0.50	< 0.50	2.2	< 0.50	220	< 0.50	0.53	< 0.50	0.77	2.0	0.72	< 0.50	85
MW-29	12/16/16	ORG	< 0.50	< 0.50	< 0.50	3.1	< 0.50	240	< 0.50	0.59	< 0.50	0.93	2.1	0.98	< 0.50	6.3 U
MW-29	01/06/17	ORG	< 0.50	< 0.50	< 0.50	3.5	0.70	260	< 0.50	0.60	< 0.50	1.1	1.7	0.80	< 0.50	110
MW-29	01/26/17	ORG	< 0.50	< 0.50	< 0.50	3.1	0.68	330	< 0.50	0.84	< 0.50	1.2	1.8	0.78	< 0.50	130
MW-29	02/09/17	ORG	< 0.50	< 0.50	< 0.50	2.9	0.65	320	< 0.50	0.70	< 0.50	0.90	1.8	1.1	< 0.50	110
MW-29	02/16/17	ORG	< 0.50	< 0.50	< 0.50	2.9	< 0.50	220	< 0.50	0.70	< 0.50	0.98	1.7	0.81	< 0.50	81
MW-29 Historical Range***			< 0.50 - 0.57	< 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 - 2.2	< 0.50 - < 5.0	26 BE - 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

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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
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	05/20/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 0.50	< 0.50	< 0.50	< 0.50	0.86	< 0.50	< 0.50	< 0.20
MW-30A	08/21/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.1	< 0.50	< 0.50	< 0.50	< 0.50	1.9	< 0.50	< 0.50	2.1
MW-30A	11/05/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.8	< 0.50	< 0.50	< 0.50	< 0.50	0.60	< 0.50	< 0.50	1.9
MW-30A	02/06/15	ORG	< 0.50	< 0.50	< 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	05/12/15	ORG	< 0.50	< 0.50	< 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	08/12/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.63	< 0.50	< 0.50	< 0.20
MW-30A	11/03/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.65	< 0.50	< 0.50	< 0.20
MW-30A	02/04/16	ORG	< 0.50	< 0.50	< 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	05/03/16	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	0.23
MW-30A	08/03/16	ORG	< 0.50	< 0.50	< 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	11/08/16	ORG	< 0.50	< 0.50	< 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	02/09/17	ORG	< 0.50	< 0.50	< 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 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 - 1.9	< 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																

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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
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	< 1.0	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	< 1.0	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	< 1.0	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	05/20/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22	6.0	< 0.50	< 0.50	< 0.50	98	< 0.50	0.68	< 0.20
MW-30B	08/21/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	17	4.4	< 0.50	< 0.50	< 0.50	99	< 0.50	0.84	< 0.20
MW-3000B	08/21/14	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	16	4.1	< 0.50	< 0.50	< 0.50	100	< 0.50	0.78	< 0.20
MW-30B	08/21/14	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	15	4.7	< 1.0	< 1.0	< 1.0	94	< 1.0	< 1.0	2.1
MW-30B	11/05/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18	4.1	< 0.50	< 0.50	< 0.50	81	< 0.50	0.86	0.54
MW-30B	02/06/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.2	0.86	< 0.50	< 0.50	< 0.50	20	< 0.50	0.66	< 0.20
MW-30B	05/12/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	20	4.4	< 0.50	< 0.50	< 0.50	88	< 0.50	0.73	0.50
MW-30B	08/12/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22	4.7	< 0.50	< 0.50	< 0.50	110	< 0.50	0.52	0.54
MW-30B	11/03/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	16	4.7	< 0.50	< 0.50	< 0.50	77	< 0.50	< 0.50	0.44
MW-3000B	11/03/15	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	16	4.6	< 0.50	< 0.50	< 0.50	76	< 0.50	< 0.50	0.35
MW-30B	11/03/15	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	18	3.8	< 1.0	< 1.0	< 1.0	68	< 1.0	< 1.0	< 1.0
MW-30B	02/04/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.9	2.2	< 0.50	< 0.50	< 0.50	24	< 0.50	0.54	0.23
MW-30B	05/03/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	20	5.5	< 0.50	< 0.50	< 0.50	96	< 0.50	0.75	0.43
MW-30B	08/03/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	15	4.3	< 0.50	< 0.50	< 0.50	80	< 0.50	< 0.50	0.34
MW-30B	11/08/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18	4.2	< 0.50	< 0.50	< 0.50	68	< 0.50	< 0.50	< 0.20
MW-30B	02/09/17	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18	3.8	< 0.50	< 0.50	< 0.50	71	< 0.50	< 0.50	< 0.20
MW-3000B	02/09/17	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18	4.0	< 0.50	< 0.50	< 0.50	72	< 0.50	< 0.50	< 0.20
MW-30B	02/09/17	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	14	3.5	< 1.0	< 1.0	< 1.0	66	< 1.0	0.24 J	< 1.0
MW-30B Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 22	< 0.50 - 6.0	< 0.50	< 0.50	< 0.50	< 0.50 - 110	< 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
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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
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
MW-31	05/21/14	ORG	< 0.50	< 0.50	< 0.50	3.7	< 0.50	370	1.0	2.5	< 0.50	1.2	10	< 0.50	< 0.50	13
MW-3100	05/21/14	FD	< 0.50	< 0.50	< 0.50	3.8	< 0.50	390	0.88	1.2	< 0.50	1.2	10	< 0.50	< 0.50	13
MW-31	05/21/14	SPT	< 0.50	< 0.50	< 1.0	2.9	< 0.50	410	< 1.0	< 1.0	< 1.0	< 1.0	11	< 1.0	< 1.0	10
MW-31	08/21/14	ORG	< 0.50	< 0.50	< 0.50	3.0	< 0.50	350	0.58	0.64	< 0.50	0.75	11	< 0.50	0.81	16
MW-31	11/06/14	ORG	< 0.50	< 0.50	< 0.50	2.1	< 0.50	210	< 0.50	< 0.50	< 0.50	< 0.50	9.1	< 0.50	< 0.50	6.8
MW-31	02/05/15	ORG	< 0.50	< 0.50	< 0.50	1.6	< 0.50	160	< 0.50	< 0.50	< 0.50	< 0.50	6.7	< 0.50	< 0.50	11
MW-31	05/13/15	ORG	< 0.50	< 0.50	< 0.50	2.6	< 0.50	320	0.60	0.53	< 0.50	< 0.50	11	< 0.50	< 0.50	12
MW-31	08/11/15	ORG	< 0.50	< 0.50	< 0.50	2.1	< 0.50	290	0.55	< 0.50	< 0.50	< 0.50	9.5	< 0.50	< 0.50	8.6
MW-3100	08/11/15	FD	< 0.50	< 0.50	< 0.50	2.3	< 0.50	300	< 0.50	< 0.50	< 0.50	< 0.50	9.2	< 0.50	< 0.50	9.2
MW-31	08/11/15	SPT	< 1.0	< 1.0	< 2.0	2.1	< 1.0	230	< 2.0	< 2.0	< 2.0	< 2.0	11	< 2.0	< 2.0	8.8
MW-31	11/04/15	ORG	< 0.50	< 0.50	< 0.50	0.55	< 0.50	68	< 0.50	< 0.50	< 0.50	< 0.50	5.8	< 0.50	< 0.50	< 0.20
MW-31	02/04/16	ORG	< 0.50	< 0.50	< 0.50	1.3	< 0.50	190	0.83	< 0.50	< 0.50	< 0.50	7.8	< 0.50	< 0.50	2.7
MW-3100	02/04/16	FD	< 0.50	< 0.50	< 0.50	1.3	< 0.50	170	0.80	< 0.50	< 0.50	< 0.50	7.7	< 0.50	< 0.50	2.9
MW-31	02/04/16	SPT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	150	< 1.0	< 1.0	< 1.0	< 1.0	8.5	< 1.0	< 1.0	4.4
MW-31	05/04/16	ORG	< 0.50	< 0.50	< 0.50	1.3	< 0.50	140	< 0.50	< 0.50	< 0.50	< 0.50	6.2	< 0.50	0.87	3.9
MW-31	08/03/16	ORG	< 0.50	< 0.50	< 0.50	1.8	< 0.50	170	< 0.50	< 0.50	< 0.50	< 0.50	7.2	< 0.50	0.75	4.7
MW-3100	08/03/16	FD	< 0.50	< 0.50	< 0.50	1.8	< 0.50	160	< 0.50	< 0.50	< 0.50	< 0.50	7.2	< 0.50	0.57	3.7
MW-31	08/03/16	SPT	< 1.0	< 0.50	< 1.0	1.5	< 0.50	110	< 1.0	< 1.0	< 1.0	< 1.0	5.7	< 1.0	< 1.0	7.6
MW-31	11/09/16	ORG	< 0.50	< 0.50	< 0.50	1.3	< 0.50	120	< 0.50	< 0.50	< 0.50	< 0.50	4.8	< 0.50	0.69	3.8
MW-31	02/07/17	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	52	< 0.50	< 0.50	< 0.50	< 0.50	4.8	< 0.50	< 0.50	< 2.0
MW-31 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50 - 3.7	< 0.50	25 - 430	< 0.50 - 1.2	< 0.50 - 2.5	< 0.50	< 0.50 - 1.2	2.2 - 21	< 0.50	< 0.50 - 1.0	< 0.20 - 16
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-3200A	01/04/10	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-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	08/19/14	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	02/03/15	ORG	< 0.50	< 0.50	< 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	08/11/15	ORG	< 0.50	< 0.50	< 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	02/03/16	ORG	< 0.50	< 0.50	< 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	08/02/16	ORG	< 0.50	< 0.50	< 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	02/07/17	ORG	< 0.50	< 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
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

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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-3200B	01/04/10	FD	< 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-3200B	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	3.0	< 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
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	05/21/14	ORG	< 0.50	< 0.50	< 0.50	1.2	< 0.50	150	5.6	< 0.50	< 0.50	< 0.50	59	< 0.50	< 0.50	0.47
MW-32B	08/19/14	ORG	< 0.50	< 0.50	< 0.50	0.88	< 0.50	97	4.5	< 0.50	< 0.50	< 0.50	64	< 0.50	< 0.50	0.62 E
MW-3200B	08/19/14	FD	< 0.50	< 0.50	< 0.50	0.83	< 0.50	96	4.2	< 0.50	< 0.50	< 0.50	64	< 0.50	< 0.50	6.5 E
MW-32B	08/19/14	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	86	4.3	< 1.0	< 1.0	< 1.0	61	< 1.0	< 1.0	3.7 ET, E
MW-32B	11/05/14	ORG	< 0.50	< 0.50	< 0.50	0.87	< 0.50	110	4.4	< 0.50	< 0.50	< 0.50	54	< 0.50	< 0.50	4.5
MW-32B	02/03/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	43	2.1	< 0.50	< 0.50	< 0.50	26	< 0.50	< 0.50	1.8
MW-3200B	02/03/15	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	40	1.9	< 0.50	< 0.50	< 0.50	25	< 0.50	< 0.50	1.8
MW-32B	02/03/15	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	32	1.6	< 1.0	< 1.0	< 1.0	21	< 1.0	< 1.0	3.5
MW-32B	05/13/15	ORG	< 0.50	< 0.50	< 0.50	0.84	< 0.50	110	4.2	< 0.50	< 0.50	< 0.50	54	< 0.50	< 0.50	4.3
MW-3200B	05/13/15	FD	< 0.50	< 0.50	< 0.50	0.83	< 0.50	110	4.1	< 0.50	< 0.50	< 0.50	53	< 0.50	< 0.50	4.3
MW-32B	05/13/15	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	72	3.7	< 1.0	< 1.0	< 1.0	44	< 1.0	< 1.0	5.9
MW-32B	08/12/15	ORG	< 0.50	< 0.50	< 0.50	1.0	< 0.50	130	4.3	< 0.50	< 0.50	< 0.50	59	< 0.50	< 0.50	4.6
MW-32B	11/04/15	ORG	< 0.50	< 0.50	< 0.50	0.87	< 0.50	76	3.8	< 0.50	< 0.50	< 0.50	37	< 0.50	< 0.50	3.0
MW-32B	02/03/16	ORG	< 0.50	< 0.50	< 0.50	0.72	< 0.50	94	3.5	< 0.50	< 0.50	< 0.50	25	< 0.50	< 0.50	1.5
MW-3200B	02/03/16	FD	< 0.50	< 0.50	< 0.50	0.76	< 0.50	98	3.6	< 0.50	< 0.50	< 0.50	24	< 0.50	< 0.50	1.6
MW-32B	02/03/16	SPT	< 1.0	< 1.0	< 1.0	< 1.0	< 0.50	78	2.5	< 1.0	< 1.0	< 1.0	27	< 1.0	< 1.0	2.6
MW-32B_1SV	05/04/16	ORG	< 0.50	< 0.50	< 0.50	1.0	< 0.50	120	4.5	< 0.50	< 0.50	< 0.50	42	< 0.50	< 0.50	2.9
MW-32B	05/04/16	ORG	< 0.50	< 0.50	< 0.50	1.3	< 0.50	160	5.4	< 0.50	< 0.50	< 0.50	54	< 0.50	< 0.50	2.7
MW-32B_1SV	08/02/16	ORG	< 0.50	< 0.50	< 0.50	1.4	< 0.50	150	5.6	< 0.50	< 0.50	< 0.50	55	< 0.50	< 0.50	2.9
MW-32B	08/02/16	ORG	< 0.50	< 0.50	< 0.50	1.4	< 0.50	180	5.9	< 0.50	< 0.50	< 0.50	44	< 0.50	< 0.50	2.6
MW-32B_1SV	11/08/16	ORG	< 0.50	< 0.50	< 0.50	0.77	< 0.50	78	2.8	< 0.50	< 0.50	< 0.50	24	< 0.50	< 0.50	2.9
MW-32B	11/08/16	ORG	< 0.50	< 0.50	< 0.50	1.20	< 0.50	120	4.3	< 0.50	< 0.50	< 0.50	43	< 0.50	< 0.50	3.6
MW-32B_1SV	02/07/17	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.4	< 0.50	< 0.50	< 0.50	< 0.50	2.4	< 0.50	< 0.50	< 2.0
MW-32B	02/07/17	ORG	< 0.50	< 0.50	< 0.50	0.57	< 0.50	77	2.0	< 0.50	< 0.50	< 0.50	20	< 0.50	< 0.50	< 2.0
MW-3200B	02/07/17	FD	< 0.50	< 0.50	< 0.50	0.55	< 0.50	86	2.3	< 0.50	< 0.50	< 0.50	22	< 0.50	< 0.50	2.0
MW-32B	02/07/17	SPT	< 0.50	< 0.50	< 1.0	0.49 J	< 0.50	68	2.0	< 1.0	< 1.0	< 1.0	21	< 1.0	< 1.0	2.1
Historical High/Low			Low													
MW-32B Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50 - 1.4	< 0.50	16 - 180	1.9 - 5.9	< 0.50	< 0.50	< 0.50	24 - 75	< 0.50	< 0.50	0.39 - 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)																	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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)	
Regional Groundwater System Monitor and Extraction Wells (cont'd)																	
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-3200C	01/05/10	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-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	08/19/14	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	02/03/15	ORG	< 0.50	< 0.50	< 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	08/11/15	ORG	< 0.50	< 0.50	< 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	02/03/16	ORG	< 0.50	< 0.50	< 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	08/02/16	ORG	< 0.50	< 0.50	< 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	02/07/17	ORG	< 0.50	< 0.50	< 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	
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	05/20/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20	
MW-33	08/21/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.4	< 0.50	< 0.50	< 0.50	< 0.50	1.1	< 0.50	< 0.50	< 0.20	
MW-33	11/05/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.1	< 0.50	< 0.50	< 0.20	
MW-33	02/03/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	10	< 0.50	< 0.50	< 0.50	< 0.50	2.0	< 0.50	< 0.		

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-33	11/03/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.6	< 0.50	< 0.50	< 0.50	< 0.50	1.1	< 0.50	< 0.50	< 0.20
MW-33	02/03/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.7	< 0.50	< 0.50	< 0.50	< 0.50	0.62	< 0.50	< 0.50	< 0.20
MW-3300	02/03/16	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.2	< 0.50	< 0.50	< 0.50	< 0.50	0.72	< 0.50	< 0.50	< 0.20
MW-33	02/03/16	SPT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	7.1	< 1.0	< 1.0	< 1.0	< 1.0	1.1	< 1.0	< 1.0	< 1.0
MW-33_1SV	05/03/16	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
MW-33	05/03/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-33_1SV	08/02/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-33	08/02/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.8	< 0.50	< 0.50	< 0.50	< 0.50	0.78	< 0.50	< 0.50	< 0.20
MW-33_1SV	11/08/16	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	< 0.20
MW-33	11/08/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.9	< 0.50	< 0.50	< 0.50	< 0.50	0.69	< 0.50	< 0.50	< 0.20
MW-33_1SV	02/07/17	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	14	< 0.50	< 0.50	< 0.50	< 0.50	2.2	< 0.50	< 0.50	< 0.20
MW-33	02/07/17	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.5	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 0.50	< 0.50	< 0.20
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 - 2.0	< 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	08/19/14	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	02/05/15	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	< 0.20
MW-34A	08/11/15	ORG	< 0.50	< 0.50	< 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	02/04/16	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	< 0.20
MW-34A	08/03/16	ORG	< 0.50	< 0.50	< 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	02/09/17	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	< 0.20
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 - 2.3	< 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
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

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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-3400B	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-3400B	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	05/21/14	ORG	< 0.50	< 0.50	< 0.50	3.6	0.90	290	< 0.50	0.54	< 0.50	1.7	0.66	< 0.50	< 0.50	110
MW-34B	08/19/14	ORG	< 0.50	< 0.50	< 0.50	2.4	0.66	200	< 0.50	< 0.50	< 0.50	1.3	0.72	< 0.50	< 0.50	99
MW-34B	11/05/14	ORG	< 0.50	< 0.50	< 0.50	2.2	< 0.50	210	< 0.50	< 0.50	< 0.50	0.97	0.66	< 0.50	< 0.50	57
MW-3400B	11/05/14	FD	< 0.50	< 0.50	< 0.50	2.1	0.55	200	< 0.50	< 0.50	< 0.50	0.82	0.56	< 0.50	< 0.50	54
MW-34B	11/05/14	SPT	< 0.50	< 0.50	< 1.0	2.0	< 0.50	180	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	54
MW-34B	02/05/15	ORG	< 0.50	< 0.50	< 0.50	1.1	< 0.50	79	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	32
MW-34B	05/13/15	ORG	< 0.50	< 0.50	< 0.50	1.2	< 0.50	110	< 0.50	< 0.50	< 0.50	< 0.50	2.1	< 0.50	< 0.50	43
MW-34B	08/11/15	ORG	< 0.50	< 0.50	< 0.50	1.3	< 0.50	36	< 0.50	< 0.50	< 0.50	0.72	< 0.50	< 0.50	< 0.50	48
MW-34B	11/03/15	ORG	< 0.50	< 0.50	< 0.50	1.5	< 0.50	100	< 0.50	< 0.50	< 0.50	0.53	< 0.50	< 0.50	< 0.50	28
MW-34B	02/04/16	ORG	< 0.50	< 0.50	< 0.50	1.8	< 0.50	160	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	30
MW-34B	05/03/16	ORG	< 0.50	< 0.50	< 0.50	0.94	< 0.50	57	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	30
MW-3400B	05/03/16	FD	< 0.50	< 0.50	< 0.50	1.1	< 0.50	73	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	24
MW-34B	05/03/16	SPT	< 1.0	< 1.0	< 1.0	< 1.0	< 0.50	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	27
MW-34B	08/03/16	ORG	< 0.50	< 0.50	< 0.50	0.96	< 0.50	73	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12
MW-34B	11/08/16	ORG	< 0.50	< 0.50	< 0.50	0.98	< 0.50	90	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	16
MW-34B	02/09/17	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	30	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.2
MW-34B Historical Range***			< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 0.50	< 0.50 - 9.8	< 0.50 - 1.4	20 E - 1,100	< 0.50 - < 5.0	< 0.50 - 1.1	< 0.50 - 1.0	< 0.50 - 2.6	< 0.50 - 2.1	< 0.50 - < 5.0	< 0.50 - 2.6	4.1 - 196
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
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

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)	
Regional Groundwater System Monitor and Extraction Wells (cont'd)																	
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	08/19/14	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	02/05/15	ORG	< 0.50	< 0.50	< 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	08/11/15	ORG	< 0.50	< 0.50	< 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	02/04/16	ORG	< 0.50	< 0.50	< 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	08/03/16	ORG	< 0.50	< 0.50	< 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	02/09/17	ORG	< 0.50	< 0.50	< 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	02/02/16	ORG	< 0.50	< 0.50	< 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	
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	02/02/16	ORG	< 0.50	< 0.50	< 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	

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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	05/20/14	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	08/20/14	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	11/06/14	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-35C	02/04/15	ORG	< 0.50	< 0.50	< 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	05/12/15	ORG	< 0.50	< 0.50	< 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	08/12/15	ORG	< 0.50	< 0.50	< 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	11/03/15	ORG	< 0.50	< 0.50	< 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	02/02/16	ORG	< 0.50	< 0.50	< 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	05/03/16	ORG	< 0.50	< 0.50	< 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	08/02/16	ORG	< 0.50	< 0.50	< 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	11/08/16	ORG	< 0.50	< 0.50	< 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	02/08/17	ORG	< 0.50	< 0.50	< 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	< 1.0	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
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	< 1.0	< 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	< 1.0	< 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

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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
MW-36	05/20/14	ORG	< 0.50	< 0.50	< 0.50	1.7	< 0.50	120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	14
MW-3600	05/20/14	FD	< 0.50	< 0.50	< 0.50	1.8	< 0.50	130	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	14
MW-36	05/20/14	SPT	< 0.50	< 0.50	< 1.0	1.2	< 0.50	130	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	11
MW-36	08/20/14	ORG	< 0.50	< 0.50	< 0.50	0.93	< 0.50	86	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.6
MW-36	11/05/14	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	8.2
MW-36	02/05/15	ORG	< 0.50	< 0.50	< 0.50	1.6	< 0.50	130	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	11
MW-3600	02/05/15	FD	< 0.50	< 0.50	< 0.50	1.6	< 0.50	120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	11
MW-36	02/05/15	SPT	< 0.50	< 0.50	< 1.0	1.4	< 0.50	130	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	12
MW-36	05/12/15	ORG	< 0.50	< 0.50	< 0.50	1.3	< 0.50	140	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	15
MW-36	08/12/15	ORG	< 0.50	< 0.50	< 0.50	1.1	< 0.50	120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.7
MW-3600	08/12/15	FD	< 0.50	< 0.50	< 0.50	1.0	< 0.50	120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.7
MW-36	08/12/15	SPT	< 0.50	< 0.50	< 1.0	1.0	< 0.50	120	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	13
MW-36	11/03/15	ORG	< 0.50	< 0.50	< 0.50	1.4	< 0.50	92	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.6
MW-36	02/02/16	ORG	< 0.50	< 0.50	< 0.50	1.9	< 0.50	220	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-36_1SV	05/03/16	ORG	< 0.50	< 0.50	< 0.50	0.64	< 0.50	57	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.9
MW-36	05/03/16	ORG	< 0.50	< 0.50	< 0.50	1.0	< 0.50	110	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.0
MW-3600	05/03/16	FD	< 0.50	< 0.50	< 0.50	1.0	< 0.50	120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.2
MW-36	05/03/16	SPT	< 1.0	< 1.0	< 1.0	< 1.0	< 0.50	130	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	7.3
MW-36_1SV	08/03/16	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	< 0.20
MW-36	08/03/16	ORG	< 0.50	< 0.50	< 0.50	0.76	< 0.50	66	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.6
MW-3600	08/03/16	FD	< 0.50	< 0.50	< 0.50	0.83	< 0.50	65	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.4
MW-36	08/03/16	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	93	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	5.8
MW-36_1SV	11/08/16	ORG	< 0.50	< 0.50	< 0.50	0.79	< 0.50	77	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.3
MW-36	11/08/16	ORG	< 0.50	< 0.50	< 0.50	0.95	< 0.50	91	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.0
MW-3600	11/08/16	FD	< 0.50	< 0.50	< 0.50	1.0	< 0.50	98	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.2
MW-36	11/08/16	SPT	< 0.50	< 0.50	< 1.0	0.77	< 0.50	91	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.4
MW-36_1SV	02/08/17	ORG	< 0.50	< 0.50	< 0.50	1.4	< 0.50	150	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.2
MW-36	02/08/17	ORG	< 0.50	< 0.50	< 0.50	1.4	< 0.50	150	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.8
MW-3600	02/08/17	FD	< 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	8.3
MW-36	02/08/17	SPT	< 0.50	< 0.50	< 1.0	0.97 J	< 0.50	110	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	10
Historical High/Low			High													
MW-36 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50 - 1.7	< 0.50	2.9 - 140	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 5.9	< 0.20 - 15
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	05/21/14	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	11/06/14	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	02/04/15	ORG	< 0.50	< 0.50	< 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

..... Concentration (micrograms per liter).....

[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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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	05/21/14	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	08/21/14	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	11/06/14	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	02/03/15	ORG	< 0.50	< 0.50	< 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	05/13/15	ORG	< 0.50	< 0.50	< 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	08/13/15	ORG	< 0.50	< 0.50	< 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	11/03/15	ORG	< 0.50	< 0.50	< 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	02/04/16	ORG	< 0.50	< 0.50	< 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	05/04/16	ORG	< 0.50	< 0.50	< 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	08/04/16	ORG	< 0.50	< 0.50	< 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	08/04/16	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	08/04/16	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	11/08/16	ORG	< 0.50	< 0.50	< 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	02/09/17	ORG	< 0.50	< 0.50	< 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 - 0.60	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-41-420	08/19/14	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	0.49
MW-4100-420	08/19/14	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	0.51
MW-41-420	08/19/14	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3
MW-41	09/10/14	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	0.49
MW-4100	09/10/14	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.42
MW-41	09/10/14	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	1.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-41	09/24/14	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-4100	09/24/14	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-41	09/24/14	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-41	11/05/14	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-41	02/05/15	ORG	< 0.50	< 0.50	0.64	1.1	< 0.50	110	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	10
MW-41	05/12/15	ORG	< 0.50	< 0.50	0.56	< 0.50	< 0.50	5.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.0
MW-4100	05/12/15	FD	< 0.50	< 0.50	0.55	< 0.50	< 0.50	2.7	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.0
MW-41	05/12/15	SPT	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	2.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	4.7
MW-41	08/13/15	ORG	< 0.50	< 0.50	0.71	< 0.50	< 0.50	0.61	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-41	11/03/15	ORG	< 0.50	< 0.50	0.66	< 0.50	< 0.50	1.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-41	02/04/16	ORG	< 0.50	< 0.50	0.86	0.71	< 0.50	64	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.7
MW-4100	02/04/16	FD	< 0.50	< 0.50	0.83	0.65	< 0.50	60	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.2
MW-41	02/04/16	SPT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	40	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	7.4
MW-41	05/03/16	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-41	08/03/16	ORG	< 0.50	< 0.50	0.60	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-41	11/09/16	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-41	02/08/17	ORG	< 0.50	< 0.50	0.60	1.3	< 0.50	130	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	10
Historical High/Low						High		High								
MW-41 Historical Range***			< 0.50	< 0.50	< 0.50 - 0.72	< 0.50 - 1.1	< 0.50	< 0.50 - 110	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 110	< 0.50	< 0.50	< 0.20 - 10
EW-01	06/22/05	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	06/22/05	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	06/22/05	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

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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	1.0	< 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	0.50 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	< 5.0	< 5.0	< 5.0	8.0	< 5.0	620 E	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	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
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	< 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	< 0.50	< 0.50	0.52	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

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
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	05/20/14	ORG	< 0.50	< 0.50	0.65	7.5	2.1	500	< 0.50	1.6	< 0.50	3.7	1.2	0.61	< 0.50	380
EW-01	08/18/14	ORG	< 2.5	< 2.5	< 2.5	14	4.0	950	< 2.5	3.8	< 2.5	8.4	3.1	< 2.5	< 2.5	970
EW-01	11/04/14	ORG	< 2.0	< 2.0	< 2.0	16	4.0	960	< 2.0	4.3	< 2.0	9.0	3.3	< 2.0	< 2.0	990 E
EW-0100	11/04/14	FD	< 2.0	< 2.0	< 2.0	16	4.2	1,000	< 2.0	3.6	< 2.0	9.0	3.0	< 2.0	< 2.0	920 E
EW-01	11/04/14	SPT	< 0.50	0.57	1.2	16	3.6	720	< 1.0	2.3	< 1.0	8.8	2.7	< 1.0	< 1.0	1,800 E
EW-01	02/02/15	ORG	< 1.0	< 1.0	< 1.0	11	2.4	610	< 1.0	2.8	< 1.0	5.7	2.3	< 1.0	< 1.0	340
EW-0100	02/02/15	FD	< 1.0	< 1.0	< 1.0	11	2.4	670	< 1.0	2.8	< 1.0	5.4	2.3	< 1.0	< 1.0	350
EW-01	02/02/15	SPT	< 2.5	< 2.5	< 5.0	8.6	< 2.5	470	< 5.0	< 5.0	< 5.0	5.8	< 5.0	< 5.0	< 5.0	360
EW-01	05/11/15	ORG	< 0.50	< 0.50	< 0.50	2.8	0.73	240	< 0.50	0.83	< 2.0	1.6	0.67	< 2.0	< 2.0	180
EW-01	08/10/15	ORG	< 0.50	< 0.50	< 0.50	7.0	1.7	560	< 0.50	1.7	< 2.0	3.6	1.5	< 2.0	< 2.0	300
EW-01	11/02/15	ORG	< 1.0	< 1.0	< 1.0	7.4	1.6	400	< 1.0	1.1	< 1.0	4.2	2.1	< 1.0	< 1.0	240
EW-01	05/02/16	ORG	< 0.50	< 0.50	< 0.50	3.3	0.61	250	< 0.50	0.78	< 0.50	1.5	< 0.50	< 0.50	< 0.50	73
EW-01	08/01/16	ORG	< 0.50	< 0.50	< 0.50	5.6	< 0.50	430	< 0.50	< 0.50	< 0.50	1.7	0.76	0.60	< 0.50	90
EW-01	11/07/16	ORG	< 0.50	< 0.50	< 0.50	4.5	0.70	300	< 0.50	0.69	< 0.50	1.7	0.77	< 0.50	< 0.50	110
EW-01	11/07/16	FD	< 0.50	< 0.50	< 0.50	4.5	0.72	270	< 0.50	0.64	< 0.50	1.8	0.70	< 0.50	< 0.50	100
EW-01	11/07/16	SPT	< 0.50	< 0.50	< 1.0	3.9	0.60	290	< 1.0	0.79	< 1.0	1.6	0.84	< 1.0	< 1.0	160
EW-01	02/06/17	ORG	< 0.50	< 0.50	< 0.50	1.1	< 0.50	75	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	36
EW-0100	02/06/17	FD	< 0.50	< 0.50	< 0.50	1.0	< 0.50	67	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	29
EW-01	02/06/17	SPT	< 0.50	< 0.50	< 1.0	0.84 J	< 0.50	64	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	46
EW-01 Historical Range***			< 0.50 - 2.0	< 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 - 4.3	< 0.50 - < 2.5	< 0.50 - 10	< 0.50 - 3.3	< 0.50 - 0.61	< 0.50 - 4.6	5.1 - 990 E
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
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	06/08/12	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	07/11/12	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

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
EW-02	08/03/12	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	09/06/12	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	04/15/13	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	05/07/13	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	06/13/13	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	07/02/13	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	08/10/13	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	09/03/13	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	10/05/13	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
EW-02	11/01/13	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	01/17/14	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	02/11/14	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	03/04/14	ORG	< 0.50	< 0.50	< 0.50	0.59	< 0.50	57	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	41
EW-02	08/18/14	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	5.1
EW-02	11/03/14	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	6.3
EW-02	02/15/15	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	7.8
EW-02	03/06/15	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	9.2
EW-02	04/02/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	30	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12
EW-02	05/01/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	42	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	16
EW-02	06/05/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	48	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18
EW-02	07/14/15	ORG	< 0.50	< 0.50	< 0.50	0.58	< 0.50	59	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19
EW-02	08/06/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	48	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	20
EW-02	09/03/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	53	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	17
EW-02	10/06/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	40	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	17
EW-02	11/05/15	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	10
EW-02	12/03/15	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	18
EW-02	12/11/15	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	53	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12
EW-02	01/07/16	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	13
EW-02	01/21/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	43	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	14
EW-02	02/01/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	48	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12
EW-02	03/03/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	34	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	11
EW-02	04/05/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	35	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.2
EW-02	05/05/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	36	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	15
EW-02	06/01/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	31	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12
EW-02	06/16/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	36	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.6
EW-02	07/07/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	30	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.3
EW-02	07/21/16	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	8.4
EW-02	08/04/16	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	6.5
EW-02	08/18/16	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	9.6
EW-02	09/08/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	31	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.1
EW-02	09/15/16	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	7.2
EW-02	10/06/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	31	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.6
EW-02	10/20/16	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	7.8
EW-02	11/01/16	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	73 U
EW-02	11/17/16	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	7.0
EW-02	12/01/16	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	6.2
EW-02	12/16/16	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	20	< 0.50	< 0.50	< 0.50	< 0.50	<			

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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
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	< 3.0	< 3.0	< 3.0	30	< 3.0	3,200	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	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	02/14/14	ORG	< 2.0	1.1	1.6	17	4.9	1,100	< 2.0	5.7	< 2.0	5.4	4.9	3.1	< 2.0	1,400
P-07	02/05/15	ORG	< 2.0	< 2.0	< 2.0	17	4.0	1,700	< 2.0	5.3	< 2.0	6.0	6.0	5.2	< 2.0	1,600
P-07	02/03/16	ORG	< 2.5	< 2.5	2.6	19	4.2	1,600	< 2.5	3.6	< 2.5	4.8	3.6	4.4	< 2.5	1,500
P-07	02/07/17	ORG	< 2.5	< 2.5	< 2.5	20	< 2.5	2,100	< 2.5	4.6	< 2.5	5.0	6.2	6.0	< 2.5	1,300
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	< 5.0	360 - 3,100
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	< 0.50	< 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	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 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

TABLE 4

..... 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 (8/0/80)	1,1-DCA (—/5)	1,2-DCA (—/—)	1,1-DCE (7/6)	cis-1,2-DCE (7/0/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (—/150)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)	
Perched Zone Piezometers (continued)																	
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	
P-09	02/04/15	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	0.29	
P-09	02/02/16	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	< 0.20	
P-09	02/08/17	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.7	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20	
P-09 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50 - 0.87	< 0.50	0.56 - 130	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 0.58	< 0.50	< 0.50	< 0.20 - 7.1	
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	
QUALITY ASSURANCE/QUALITY CONTROL SAMPLES																	
TB-051115	05/11/15	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-051215	05/12/15	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-051315	05/13/15	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-06052015	06/05/15	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-071415	07/14/15	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-080615	08/06/15	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-081015	08/10/15	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-081115	08/11/15	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-081215	08/12/15	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-081315	08/13/15	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-081315	08/13/15	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	< 0.20	
TB-082015	08/20/15	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-090315A	09/03/15	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-100615	10/06/15	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-110215	11/02/15	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-110215B	11/02/15	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-110315	11/03/15	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-110415	11/04/15	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-110515 ⁽¹⁾	11/05/15	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-110415	11/04/15	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	< 0.20	
TB-120315	12/03/15	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-121115 ⁽¹⁾	12/11/15	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-010716	01/07/16	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-012116	01/21/16	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-02116	02/01/16	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-020316	02/03/16	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-020316B	02/03/16	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-020416	02/04/16	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)	Toluene (1,000/150)	1,4-DIOXANE (3*/1**)
QUALITY ASSURANCE/QUALITY CONTROL SAMPLES (continued)																
RB-020416	02/04/16	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	< 0.20
RB-020416A	02/04/16	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	< 0.20
TB-030316	03/03/16	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-040516	04/05/16	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-050216	05/02/16	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-050316	05/03/16	TB-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
TB-050516	05/05/16	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-060116	06/01/16	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-070716	06/16/16	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-070716	07/07/16	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-072116 ⁽¹⁾	07/21/16	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-080116	08/01/16	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-080216	08/02/16	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	< 0.20
TB-080216B	08/02/16	TB	< 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-080316A ⁽¹⁾	08/03/16	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-080416	08/04/16	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-090816	09/08/16	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-091516	09/15/16	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-100616	10/16/16	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-102016	10/20/16	TB	< 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-110116	11/01/16	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-110716A	11/07/16	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-110716B	11/07/16	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-110816	11/08/16	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-111716	11/17/16	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-120116	12/01/16	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-121616	12/16/16	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-010617	01/06/17	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-012617	01/26/17	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-020317	02/03/17	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-020617A	02/06/17	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-020617B	02/06/17	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-020717	02/07/17	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-020817	02/08/17	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-020817	02/08/17	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-020917	02/09/17	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

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

(1) Methylene chloride was detected in trip blanks TB-110515, TB-121115, TB-072116, and TB080316A at 1.2 ug/L, 1.5 ug/L, 3.6 ug/L, and 2.1 ug/L, respectively.

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	12/11/06	SPT	Methylene chloride	4
EW-01	12/13/07	ORG	Vinyl chloride	0.58
EW-01	12/13/07	FD	Vinyl chloride	0.6
EW-02	12/07/11	ORG	Naphthalene	6.4
EW-02	12/10/12	ORG	Chloromethane	1.2
EW-02	05/19/16	ORG	Chloromethane	0.51
MW-08	12/20/05	SPT	Methylene chloride	3
MW-08	06/22/06	ORG	Methylene chloride	0.62
MW-08	06/22/06	FD	Methylene chloride	0.69
MW-08	05/13/15	ORG	Ethylbenzene	0.65
MW-08	05/13/15	ORG	m,p-Xylene	2.2
MW-08	05/13/15	ORG	o-Xylene	0.60
MW-08	08/12/15	ORG	m,p-Xylene	1.1
MW-08	08/12/15	ORG	o-Xylene	0.54
MW-16	04/16/02	SPT	2-butanone	7
MW-16	04/16/02	SPT	Acetone	20
MW-16	06/18/04	ORG	Chlorobenzene	1.0
MW-16	12/10/04	ORG	Methylene chloride	1.3
MW-18	11/19/02	ORG	m,p-Xylene	0.54
MW-18	08/13/15	ORG	m,p-Xylene	1.2
MW-18	08/13/15	ORG	o-Xylene	0.52
MW-21	09/23/03	FD	1,3-Dichloropropane	0.8
MW-21	12/17/03	ORG	trans-1,2-Dichloroethylene	0.62
MW-21	03/17/05	ORG	trans-1,2-Dichloroethylene	0.57
MW-21	12/11/06	SPT	Acetone	40
MW-21	12/11/06	SPT	Methylene chloride	50 E
MW-21	06/24/11	SPT	1,2,2-trichlorotrifluoroethane	2
MW-21	02/03/14	SPT	Methylene chloride	8.4
MW-26C	12/20/07	ORG	1,1-dichloropropene	0.93
MW-26C	08/15/13	ORG	Chlorethane	0.87
MW-28	05/27/08	ORG	Vinyl chloride	0.58
MW-28	03/30/11	ORG	Chloromethane	0.91
MW-29	05/11/12	SPT	Tert-Butyl Alcohol	10
MW-29	05/19/16	ORG	Chloromethane	0.61
MW-30B	08/05/11	SPT	1,2,2-trichlorotrifluoroethane	2
MW-32B_1SV	05/04/16	ORG	Chloromethane	0.60
MW-33	05/03/16	ORG	Chloromethane	0.50
MW-34A	02/25/11	SPT	Acetone	6 U
MW-34B	02/25/11	SPT	Acetone	6 U
MW-34B	03/10/11	SPT	Acetone	6 U
MW-34C	02/25/11	SPT	Acetone	7 U
MW-34C	11/02/11	ORG	Chloromethane	0.5
MW-35A	01/19/11	ORG	Bromodichloromethane	4.3
MW-35A	01/19/11	ORG	Bromoform	1.5
MW-35A	01/19/11	ORG	Bromomethane	0.75
MW-35A	01/19/11	ORG	Chloromethane	0.78
MW-35A	01/19/11	ORG	Dibromochloromethane	2.5

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	01/19/11	FD	Bromodichloromethane	4.0
MW-35A	01/19/11	FD	Bromoform	1.4
MW-35A	01/19/11	FD	Chloromethane	0.73
MW-35A	01/19/11	FD	Dibromochloromethane	2.4
MW-35A	01/19/11	SPT	Bromodichloromethane	3
MW-35A	01/19/11	SPT	Bromoform	2
MW-35A	01/19/11	SPT	Dibromochloromethane	2
MW-35A	02/03/11	ORG	Bromodichloromethane	3.6
MW-35A	02/03/11	ORG	Bromoform	0.65
MW-35A	02/03/11	ORG	Dibromochloromethane	1.7
MW-35A	02/03/11	FD	Bromodichloromethane	4.1
MW-35A	02/03/11	FD	Bromoform	0.69
MW-35A	02/03/11	FD	Dibromochloromethane	2.0
MW-35A	02/03/11	SPT	Bromodichloromethane	2
MW-35A	02/03/11	SPT	Dibromochloromethane	1
MW-35A	03/28/11	ORG	Bromodichloromethane	0.90
MW-35A	06/22/11	ORG	Bromodichloromethane	0.59
MW-35A	11/01/11	ORG	Chloromethane	0.59
MW-35C	01/19/11	ORG	Bromodichloromethane	11 E
MW-35C	01/19/11	ORG	Bromoform	1.1
MW-35C	01/19/11	ORG	Bromomethane	0.52
MW-35C	01/19/11	ORG	Dibromochloromethane	3.6
MW-35C	01/19/11	FD	Bromodichloromethane	10 E
MW-35C	01/19/11	FD	Bromoform	1.1
MW-35C	01/19/11	FD	Bromomethane	0.90
MW-35C	01/19/11	FD	Chloromethane	0.64
MW-35C	01/19/11	FD	Dibromochloromethane	3.5
MW-35C	01/19/11	SPT	Bromodichloromethane	8 E
MW-35C	01/19/11	SPT	Bromoform	1
MW-35C	01/19/11	SPT	Dibromochloromethane	3
MW-36	05/03/16	ORG	Chloromethane	0.96
MW-36	11/08/16	SPT	Acetone	30
<u>Perched Zone Piezometers</u>				
P-07	06/22/06	ORG	Methylene chloride	7.4
P-07	03/13/07	ORG	Vinyl chloride	1.2
P-07	06/27/08	ORG	Vinyl chloride	1.8
P-07	09/25/08	ORG	Vinyl chloride	7.8
P-09	12/20/05	SPT	Methylene chloride	3 U
<u>Perched Zone Grab Samples (From Regional Groundwater System Monitor Well Boring)</u>				
MW-6-W-104	01/16/97	ORG	1,1,1,2-tetrachloroethane	1.6
MW-6-W-104	01/16/97	ORG	1,2-Dichloropropane	2.1
<u>Quality Assurance/Quality Control Samples</u>				
RB-08142013	08/14/13	ORG	Methylene chloride	3.7
RB-08142013B	08/14/13	ORG	Methylene chloride	3.4
TB-021315	02/13/15	TB	Methylene chloride	1.0
TB-110515	11/05/15	TB	Methylene chloride	1.2
TB-121115	12/11/15	TB	Methylene chloride	1.5
TB-072116	07/21/16	TB	Methylene chloride	3.6
TB-080316A	08/03/16	TB	Methylene chloride	2.1
TB-121616	12/16/16	TB	Methylene chloride	1.4

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

COMPOUND(S) / CONSTITUENT				SAMPLE FREQUENCY AND LOCATION																			
				Daily Samples ¹ : Days 1-5					Weekly Samples ¹ : Weeks 1-4					Monthly Samples: Week 5+					Quarterly Samples: Week 1+				
				System Influent (INF)	Post-Filter (PF)	Post-Oxidation (POX)	Carbon Breakthrough (CBT) ³	Post-Carbon (CEFF)	System Influent (INF)	Post-Filter (PF)	Post-Oxidation (POX)	Carbon Breakthrough (CBT) ³	Post-Carbon (CEFF)	Extraction Wells (Well ID) ²	System Influent (INF)	Post-Filter (PF)	Post-Oxidation (POX)	Carbon Breakthrough (CBT) ³	Post-Carbon (CEFF)	Extraction Wells (Well ID) ²	System Influent (INF)	Post-Oxidation (POX)	Post-Carbon (CEFF)
COMPOUNDS/CONSTITUENTS NORMALLY REQUIRED AS PART OF NPDES OR WDR PERMITS, PURSUANT TO CRWQCB REGION 8 ORDER NO. R8-2003-0085																							
Volatile Organic Compounds	EPA 8260B	3 - 40 mL VOA, HCl	QAPP ⁴	X	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	X								
1,4-Dioxane	EPA 8270 SIM	1 L Amber	0.0002		X					X							X						
Total Suspended Solids	SM2540D	250 mL poly	10													X							
Total Dissolved Solids	SM2540C	250 mL poly	10																	X	X	X	X
SELECTED METALS																							
Dissolved Metals (Iron, Manganese, Calcium, Sodium, Magnesium)	EPA 6010B	500 mL poly	QAPP ⁴	(a)																X	X		
Selenium	EPA 6010B	500 mL poly, HNO ₃	QAPP ⁴																	X	X		
SELECTED INORGANIC CONSTITUENTS																							
Hydroxide Alkalinity	SM2320B	250 mL poly	2.0	(a)												X	X				X	X	
Bicarbonate Alkalinity	SM2320B	250 mL poly	2.0	(a)													X	X				X	X
Carbonate Alkalinity	SM2320B	250 mL poly	2.0	(a)													X	X				X	X
Total Alkalinity	SM2320B	250 mL poly	2.0	(a)													X	X				X	X
BROMATE EVALUATION																							
Bromate	EPA 317.0	125 mL poly	0.0005			X					X							X					
Bromide	EPA 300.0	125 mL poly	0.05	(a)					(a)						X	X							
OTHER CONSTITUENTS/COMPOUNDS																							
Total Organic Carbon	SM5310B	3 - 40 mL VOA, HCl	3.0	(a)												X	X				X	X	X
Anions (Chloride, Sulfate, Nitrate, Nitrite, and Phosphate)	EPA 300.0	500 mL poly	Varies	(a)																	X	X	X
Chemical Oxygen Demand	EPA 410.4	125 mL poly, H ₂ SO ₄	5.0	(a)																	X	X	X
UV Absorption (UVA) @254nm	EPA 415.3	250 mL Amber	N/A	(a)											X						X	X	X
Field Parameters																							
Dissolve Oxygen (DO)	N/A	N/A	N/A	X	X	X	X	X	X	X	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	X	X	X	X			
Redox Potential	N/A	N/A	N/A	X	X	X	X	X	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	X	X	X			
pH	N/A	N/A	N/A	X	X	X	X	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	X	X	X	X	X	X	X	X	X	X	X			
Flow-Meter	N/A	N/A	N/A	X					X					X	X								
Residual Hydrogen Peroxide	N/A	N/A	N/A			(a)	(a)	(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

nm = Nanometers

EPA = U.S. Environmental Protection Agency

SIM = Selected ion monitoring

SM = Standard Method

L = Liter

poly = High density polyethylene bottle

Amber = Amber glass 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%
2014^(g)	7,690,471	14.6	46.8	2,740	8,760	31%
2015^(h)	18,019,312	34.3	47.9	6,275	8,760	72%
2016⁽ⁱ⁾	21,977,404	41.8	44.2	8,284	8,736	95%
Dec-16	1,585,505	30.6	40.3	656	864	76%
Jan-17	1,025,291	25.4	40.6	420	672	63%
Feb-17	1,154,081	29.4	37.5	514	655	78%
1Q2017	3,764,877	28.6	39.5	1,590	2,191	73%
SINCE INCEPTION	136,177,785	29.9	41.5	54,702	75,934	72%

Notes:

(a) Based on Effluent totalizer readings from the Carbon Effluent, 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.

(g) 2014 Calendar year is from 12/1/2013 through 11/30/2014.

(h) 2015 Calendar year is from 12/1/2014 through 11/30/2015.

(i) 2016 Calendar year is from 12/1/2015 through 11/30/2016.

gpm = gallons per minute

Refer to previous quarterly reports for detail of 2008 through 2014 operational summary.

Treatment of groundwater from extraction well EW-02 initiated in 2010.

Treatment of groundwater from monitor well MW-29 initiated in 2014.

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
1,1,2-Trichloroethane (5 ug/L MCL)	06/22/05	ug/L	--	--	6.5	--	--	--	--	--	--
	09/22/05	ug/L	--	--	1.0	--	--	--	--	--	--
	12/19/05	ug/L	--	--	<0.50	--	--	--	--	--	--
	03/22/06	ug/L	--	--	1.0	--	--	--	--	--	--
	06/21/06	ug/L	--	--	<0.50	--	--	--	--	--	--
	12/11/06	ug/L	--	--	0.8	--	--	--	--	--	--
	03/14/07	ug/L	--	--	<0.50	--	--	--	--	--	--
	06/22/07	ug/L	--	--	<0.50	--	--	--	--	--	--
	03/27/07	ug/L	--	--	2.1	--	--	--	--	--	--
	12/13/07	ug/L	--	--	10	--	--	--	--	--	--
	06/25/08	ug/L	--	--	<5	--	--	--	--	--	--
	07/08/08	ug/L	16	--	5.5	--	10	--	8.1	<0.50	<0.50
	07/09/08	ug/L	17	--	5.0	--	10	--	7.8	<0.50	<0.50
	07/10/08	ug/L	13	--	3.2	--	7.8	--	5.1	<0.50	<0.50
	07/15/08	ug/L	13	--	4.6	--	7.4	3.9	5.4	<0.50	<0.50
	07/16/08	ug/L	14	--	3.9	--	8.8	--	5.7	<0.50	<0.50
	07/23/08	ug/L	13	--	2.6	--	<5	--	4.5	<0.50	<0.50
	07/30/08	ug/L	10	--	2.6	--	<5	--	4.4	<0.50	<0.50
	08/06/08	ug/L	7.7	--	2.0	--	<5	--	4.6	<0.50	<0.50
	08/25/08	ug/L	6.3	--	1.5	--	3.2	--	2.8	<0.50	<0.50
	09/24/08	ug/L	4.8	--	1.2	--	<2.5	--	1.8	<0.50	<0.50
	10/22/08	ug/L	3.0	--	1.2	--	2.3	--	1.5	<0.50	<0.50
	11/26/08	ug/L	2.5	--	1.5	--	2.3	--	1.7	<0.50	<0.50
	02/25/09	ug/L	<2.5	--	3	--	2.3	--	1.9	<0.50	<0.50
	03/18/09	ug/L	2.5	--	1.2	--	1.3	--	1.3	<0.50	<0.50
	04/29/09	ug/L	<2.5	--	0.86	--	1.5	--	1.0	<0.50	<0.50
	05/27/09	ug/L	<2.5	--	1.5	--	1.6	--	1.4	<0.50	<0.50
	06/29/09	ug/L	2.1	--	1.2	--	1.6	--	1.2	<0.50	<0.50
	07/22/09	ug/L	1.9	--	1.3	--	1.6	--	1.2	<0.50	<0.50
	08/14/09	ug/L	<2.5	--	0.98	--	1.6	--	0.97	<0.50	<0.50
	09/11/09	ug/L	<2.5	--	1.3	--	1.7	--	1	<0.50	<0.50
	10/08/09	ug/L	<2.5	--	0.92	--	1.5	--	1.2	<0.50	<0.50
	12/09/09	ug/L	<0.5	--	5.1	--	2.5	--	1.7	<0.50	<0.50
	03/05/10	ug/L	<1.0	--	3.2	--	--	--	--	--	--
	03/22/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	03/23/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	03/24/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	03/25/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	03/26/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	04/01/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	04/09/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	04/13/10	ug/L	--	--	--	0.59	--	--	<0.50	<0.50	<0.50
	04/23/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	05/25/10	ug/L	--	--	--	<0.43	--	--	<0.43	<0.43	<0.43
	06/10/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	06/11/10	ug/L	<2.0	--	4.7	--	--	--	--	--	--
	07/08/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	08/02/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	09/02/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	09/08/10	ug/L	<2.0	--	<1.0	--	--	--	--	--	--
	10/07/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	11/11/10	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	12/06/10	ug/L	7.6	--	--	--	--	--	--	--	--
	12/07/10	ug/L	--	--	2.7	<0.50	--	--	<0.50	<0.50	<0.50

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	01/13/11	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	02/03/11	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	03/02/11	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	03/24/11	ug/L	13	--	1.3	--	--	--	--	--	--
	04/01/11	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	05/04/11	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	06/07/11	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	06/23/11	ug/L	12	--	0.83	--	--	--	--	--	--
	07/02/11	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	08/01/11	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	08/02/11	ug/L	11	--	1.4	--	--	--	--	--	--
	09/09/11	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	10/17/11	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	11/01/11	ug/L	11	--	0.64	<0.50	--	--	<0.50	<0.50	<0.50
	12/07/11	ug/L	<10	--	--	<0.50	<5	--	3	<0.50	<0.50
	01/06/12	ug/L	<10	--	--	<0.50	<0.50	--	0.98	<0.50	<0.50
	02/06/12	ug/L	--	--	<0.50	--	--	--	--	--	--
	02/08/12	ug/L	<4	--	--	<0.50	<1	--	0.66	<0.50	<0.50
	03/09/12	ug/L	<4	--	--	<0.50	<1	--	0.58	<0.50	<0.50
	04/16/12	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	05/01/12	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	05/07/12	ug/L	<4	--	<0.50	--	--	--	--	--	--
	06/08/12	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	07/11/12	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	08/03/12	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	08/06/12	ug/L	<5	--	0.56	--	--	--	--	--	--
	09/06/12	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	10/15/12	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	11/05/12	ug/L	6.8	--	0.75	<0.50	--	--	<0.50	<0.50	<0.50
	12/10/12	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	01/04/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	02/04/13	ug/L	12	--	0.67	--	--	--	--	--	--
	02/09/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	03/09/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	04/15/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	05/07/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	05/13/13	ug/L	8.8	--	<0.5	--	--	--	--	--	--
	06/13/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	07/02/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	08/10/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	08/12/13	ug/L	6.1	--	0.85	--	--	--	--	--	--
	09/03/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	10/05/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	11/01/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	11/11/13	ug/L	8.8	--	1.3	--	--	--	--	--	--
	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
	03/04/14	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	05/20/14	ug/L	--	--	3.7	--	--	--	--	--	--
	07/30/14	ug/L	--	--	--	--	--	<0.50	<0.50	--	<0.50
	08/01/14	ug/L	--	--	--	--	<0.50	--	<0.50	<0.50	<0.50
	08/04/14	ug/L	--	--	--	--	<0.50	--	<0.50	<0.50	<0.50

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	08/05/14	ug/L	--	--	--	--	<0.50	--	<0.50	<0.50	<0.50
	08/06/14	ug/L	--	--	--	--	<0.50	--	<0.50	<0.50	<0.50
	08/07/14	ug/L	--	--	--	--	<0.50	--	<0.50	<0.50	<0.50
	08/08/14	ug/L	--	--	--	--	<0.50	--	<0.50	<0.50	<0.50
	08/15/14	ug/L	--	--	--	--	<0.50	--	<0.50	<0.50	<0.50
	08/18/14	ug/L	7	--	8.4	--	--	--	--	--	--
	08/22/14	ug/L	--	--	--	--	<0.50	--	<0.50	<0.50	<0.50
	08/29/14	ug/L	--	--	--	--	<0.50	--	<0.50	<0.50	<0.50
	09/15/14	ug/L	--	--	--	--	--	--	--	--	<0.50
	11/03/14	ug/L	--	0.89	--	<0.5	<0.50	--	<0.50	<0.50	<0.50
	11/04/14	ug/L	1.5	--	9	--	--	--	--	--	--
	12/11/14	ug/L	--	--	--	--	--	--	--	--	<0.50
	12/18/14	ug/L	--	1.4	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	01/19/15	ug/L	--	0.78	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	02/02/15	ug/L	7.6	--	5.7	--	--	--	--	--	--
	02/13/15	ug/L	--	1.5	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	03/06/15	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	04/02/15	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	05/01/15	ug/L	--	0.95	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	05/12/15	ug/L	10	--	1.6	--	--	--	--	--	--
	06/05/15	ug/L	--	0.98	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/14/15	ug/L	--	0.99	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/06/15	ug/L	--	1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/11/15	ug/L	8.4	--	3.6	--	--	--	--	--	--
	09/03/15	ug/L	--	0.94	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	10/06/15	ug/L	--	1.2	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	11/02/15	ug/L	7.3	--	4.2	--	--	--	--	--	--
	11/05/15	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	12/03/15	ug/L	--	1.3	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	12/11/15	ug/L	--	1.2	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	01/07/16	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	01/21/16	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	02/01/16	ug/L	7.9	0.97	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	02/18/16	ug/L	--	<1.0	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	03/03/16	ug/L	--	0.97	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	03/17/16	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	04/05/16	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	04/21/16	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	05/02/16	ug/L	11	--	1.5	--	--	--	--	--	--
	05/05/16	ug/L	--	1.2	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	05/19/16	ug/L	--	1.3	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	06/01/16	ug/L	--	1.0	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	06/16/16	ug/L	--	1.2	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/07/16	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/21/16	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/01/16	ug/L	11	--	1.7	--	--	--	--	--	--
	08/04/16	ug/L	--	1.0	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/18/16	ug/L	--	0.9	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	09/08/16	ug/L	--	0.83	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	09/15/16	ug/L	--	<0.5	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	10/06/16	ug/L	--	0.87	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	10/20/16	ug/L	--	<0.5	--	<0.50	<0.50	--	<0.50	<0.50	<0.50

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	11/01/16	ug/L	--	0.63	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	11/08/16	ug/L	9.0	--	1.7	--	--	--	--	--	--
	11/17/16	ug/L	--	0.92	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	12/01/16	ug/L	--	0.77	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	12/15/16	ug/L	--	0.93	--	<0.50	--	--	--	--	--
	12/16/16	ug/L	--	--	--	--	<0.5	--	<0.50	<0.50	<0.50
	01/06/17	ug/L	--	1.1	--	<0.5	<0.5	--	<0.50	<0.50	<0.50
	01/26/17	ug/L	--	1.2	--	<0.5	<0.5	--	<0.50	<0.50	<0.50
	02/03/17	ug/L	--	--	--	<0.5	<0.5	--	<0.50	<0.50	<0.50
	02/09/17	ug/L	--	0.90	--	--	--	--	--	--	--
	02/16/17	ug/L	--	0.98	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
1,1-Dichloroethane (5 ug/L MCL)	06/22/05	ug/L	--	--	10	--	--	--	--	--	--
	09/22/05	ug/L	--	--	3.0	--	--	--	--	--	--
	12/19/05	ug/L	--	--	<0.50	--	--	--	--	--	--
	03/22/06	ug/L	--	--	1.9	--	--	--	--	--	--
	06/21/06	ug/L	--	--	<0.50	--	--	--	--	--	--
	12/11/06	ug/L	--	--	1.6	--	--	--	--	--	--
	03/14/07	ug/L	--	--	1.2	--	--	--	--	--	--
	06/22/07	ug/L	--	--	<0.50	--	--	--	--	--	--
	09/27/07	ug/L	--	--	3.8	--	--	--	--	--	--
	12/13/07	ug/L	--	--	16	--	--	--	--	--	--
	06/25/08	ug/L	--	--	9.5	--	--	--	--	--	--
	07/08/08	ug/L	47	--	8.5	--	23	--	17	<0.50	<0.50
	07/09/08	ug/L	54	--	9.2	--	29	--	18	<0.50	<0.50
	07/10/08	ug/L	38	--	6.1	--	21	--	11	<0.50	<0.50
	07/15/08	ug/L	42	--	7.0	--	22	7.0	11	<0.50	<0.50
	07/16/08	ug/L	47	--	7.2	--	28	--	14	<0.50	<0.50
	07/23/08	ug/L	40	--	5.2	--	23	--	9.0	<0.50	<0.50
	07/30/08	ug/L	41	--	5.5	--	18	--	9.9	<0.50	<0.50
	08/06/08	ug/L	32	--	4.2	--	17	--	14	<0.50	<0.50
	08/25/08	ug/L	21	--	3.0	--	11	--	6.4	<0.50	<0.50
	09/24/08	ug/L	15	--	2.4	--	8.0	--	3.5	<0.50	<0.50
	10/22/08	ug/L	13	--	2.7	--	8.1	--	4.5	<0.50	<0.50
	11/26/08	ug/L	11	--	2.9	--	8.3	--	4.5	0.75	<0.50
	02/25/09	ug/L	6.6	--	4.8	--	5.7	--	3.7	1.1	<0.50
	03/18/09	ug/L	7.7	--	1.8	--	4.4	--	2.8	2.2	<0.50
	04/29/09	ug/L	7.8	--	1.6	--	4.3	--	2.3	2.6	<0.50
	05/27/09	ug/L	8.4	--	3.4	--	5.5	--	4.0	4.0	0.60
	06/29/09	ug/L	7.4	--	2.2	--	4.5	--	3.1	4.3	1.1
	07/22/09	ug/L	8.4	--	3.2	--	5.8	--	3.5	5.4	2.1
	08/14/09	ug/L	8.8	--	2.2	--	5.1	--	3.2	5.0	2.7
	09/11/09	ug/L	8.3	--	3.1	--	5.8	--	2.9	4.8	3.4
	10/08/09	ug/L	9.2	--	2.0	--	5.1	--	3.8	5.4	4.1
	12/09/09	ug/L	1.7	--	9.2	--	4.9	--	3.2	4.6	3.8
	03/05/10	ug/L	2.9	--	6.7	--	--	--	--	--	--
	03/22/10	ug/L	--	--	--	0.92	--	--	0.62	<0.50	<0.50
	03/23/10	ug/L	--	--	--	0.94	--	--	0.67	<0.50	<0.50
	03/24/10	ug/L	--	--	--	0.85	--	--	0.62	<0.50	<0.50
	03/25/10	ug/L	--	--	--	0.79	--	--	0.52	<0.50	<0.50
	03/26/10	ug/L	--	--	--	0.83	--	--	0.66	<0.50	<0.50
	04/01/10	ug/L	--	--	--	0.88	--	--	<0.50	<0.50	<0.50
	04/09/10	ug/L	--	--	--	0.90	--	--	0.77	<0.50	<0.50

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	04/13/10	ug/L	--	--	--	1.4	--	--	0.85	<0.50	<0.50
	04/23/10	ug/L	--	--	--	1.0	--	--	0.80	<0.50	<0.50
	05/25/10	ug/L	--	--	--	1.1	--	--	0.87	<0.50	<0.50
	06/10/10	ug/L	--	--	--	1.4	--	--	0.99	<0.50	<0.50
	06/11/10	ug/L	8.6	--	9.7	--	--	--	--	--	--
	07/08/10	ug/L	--	--	--	1.5	--	--	1.2	0.59	<0.50
	08/02/10	ug/L	--	--	--	1.3	--	--	1.0	0.82	<0.50
	09/02/10	ug/L	--	--	--	1.4	--	--	1.0	0.98	0.56
	09/08/10	ug/L	12	--	10	--	--	--	--	--	--
	10/07/10	ug/L	--	--	--	1.4	--	--	1.1	1.1	0.7
	11/11/10	ug/L	--	--	--	1.1	--	--	0.97	1.0	0.86
	12/06/10	ug/L	25	--	--	--	--	--	--	--	--
	12/07/10	ug/L	--	--	7.5	1.0	--	--	0.81	1.0	0.89
	01/13/11	ug/L	--	--	--	1.0	--	--	0.73	0.99	1.0
	02/03/11	ug/L	--	--	--	0.88	--	--	0.77	0.83	0.94
	03/02/11	ug/L	--	--	--	0.71	--	--	<0.50	0.70	0.83
	03/24/11	ug/L	38	--	2.6	--	--	--	--	--	--
	04/01/11	ug/L	--	--	--	0.76	--	--	0.53	0.69	0.82
	05/04/11	ug/L	--	--	--	0.79	--	--	0.60	0.75	0.82
	06/07/11	ug/L	--	--	--	0.65	--	--	<0.50	0.59	0.70
	06/23/11	ug/L	33	--	2.1	--	--	--	--	--	--
	07/02/11	ug/L	--	--	--	0.73	--	--	0.58	0.71	0.80
	08/01/11	ug/L	--	--	--	0.91	--	--	0.66	0.72	0.81
	08/02/11	ug/L	34	--	3.1	--	--	--	--	--	--
	09/09/11	ug/L	--	--	--	0.82	--	--	0.61	0.64	0.72
	10/17/11	ug/L	--	--	--	0.62	--	--	<0.50	0.52	0.56
	11/01/11	ug/L	29	--	1.6	0.69	--	--	0.52	0.55	0.56
	12/07/11	ug/L	43	--	--	0.62	12	--	8.4	2.6	0.71
	01/06/12	ug/L	15	--	--	0.53	4	--	3.9	3.8	3.2
	02/06/12	ug/L	--	--	0.85	--	--	--	--	--	--
	02/08/12	ug/L	8.5	--	--	0.53	2.8	--	2.0	2.4	2.5
	03/09/12	ug/L	8.6	--	--	<0.50	2.5	--	2.0	2.2	2.3
	04/16/12	ug/L	--	--	--	<0.50	--	--	<0.50	0.73	1.2
	05/01/12	ug/L	--	--	--	<0.50	--	--	<0.50	0.56	0.89
	05/07/12	ug/L	6.5	--	<0.50	--	--	--	--	--	--
	06/08/12	ug/L	--	--	--	0.62	--	--	<0.50	0.64	0.83
	07/11/12	ug/L	--	--	--	0.53	--	--	<0.50	0.53	0.63
	08/03/12	ug/L	--	--	--	0.55	--	--	<0.50	0.63	0.75
	08/06/12	ug/L	10	--	1.2	--	--	--	--	--	--
	09/06/12	ug/L	--	--	--	0.58	--	--	<0.50	0.51	0.61
	10/15/12	ug/L	--	--	--	0.74	--	--	0.52	0.50	0.58
	11/05/12	ug/L	24	--	1.8	0.52	--	--	<0.50	<0.50	<0.50
	12/10/12	ug/L	--	--	--	0.68	--	--	<0.50	0.50	0.56
	01/04/13	ug/L	--	--	--	0.6	--	--	<0.50	<0.50	<0.50
	02/04/13	ug/L	33	--	1.9	--	--	--	--	--	--
	02/09/13	ug/L	--	--	--	0.52	--	--	<0.50	<0.50	0.53
	03/09/13	ug/L	--	--	--	--	--	--	--	--	<5.0
	03/09/13	ug/L	--	--	--	0.60	--	--	<0.50	<0.50	<0.50
	04/15/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	05/07/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	05/13/13	ug/L	23	--	0.78	--	--	--	--	--	--
	06/13/13	ug/L	--	--	--	0.64	--	--	<0.50	<0.50	<0.50

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	07/02/13	ug/L	--	--	--	0.72	--	--	0.53	0.5	<0.50
	08/10/13	ug/L	--	--	--	0.76	--	--	0.54	0.52	0.53
	08/12/13	ug/L	21	--	2.9	--	--	--	--	--	--
	09/03/13	ug/L	--	--	--	<0.50	--	--	<0.50	<0.50	0.57
	10/05/13	ug/L	--	--	--	1.0	--	--	0.72	0.76	0.69
	11/01/13	ug/L	--	--	--	0.64	--	--	<0.50	<0.50	<0.50
	11/11/13	ug/L	21	--	2.8	--	--	--	--	--	--
	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
	03/04/14	ug/L	--	--	--	0.59	--	--	<0.50	<0.50	<0.50
	05/20/14	ug/L	--	--	7.5	--	--	--	--	--	--
	07/30/14	ug/L	--	--	--	--	--	<0.50	<0.50	--	0.52
	08/01/14	ug/L	--	--	--	--	<0.50	--	<0.50	0.51	0.62
	08/04/14	ug/L	--	--	--	--	<0.50	--	<0.50	0.59	0.7
	08/05/14	ug/L	--	--	--	--	<0.50	--	<0.50	<0.50	0.7
	08/06/14	ug/L	--	--	--	--	<0.50	--	<0.50	0.59	0.68
	08/07/14	ug/L	--	--	--	--	<0.50	--	<0.50	<0.50	0.51
	08/08/14	ug/L	--	--	--	--	<0.50	--	<0.50	0.52	0.62
	08/15/14	ug/L	--	--	--	--	<0.50	--	<0.50	0.57	0.63
	08/18/14	ug/L	18	1.9	14	<0.50	--	--	--	--	--
	08/22/14	ug/L	--	--	--	--	<0.50	--	<0.50	0.68	0.71
	08/29/14	ug/L	--	--	--	--	<0.50	--	<0.50	0.68	0.82
	11/03/14	ug/L	--	2.6	--	<0.50	0.65	--	0.61	<0.50	<0.50
	11/04/14	ug/L	4.6	--	16	--	--	--	--	--	--
	12/18/14	ug/L	--	5.0	--	<0.50	1.2	--	<0.50	<0.50	<0.50
	01/19/15	ug/L	--	2.5	--	<0.50	0.70	--	0.50	<0.50	<0.50
	02/02/15	ug/L	17	--	11	--	--	--	--	--	--
	02/13/15	ug/L	--	4.4	--	<0.50	1.2	--	0.66	<0.50	<0.50
	03/06/15	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	04/02/15	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	05/01/15	ug/L	--	0.95	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	05/12/15	ug/L	10	--	1.6	--	--	--	--	--	--
	06/05/15	ug/L	--	0.98	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/14/15	ug/L	--	0.99	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/06/15	ug/L	--	1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/11/15	ug/L	8.4	--	3.6	--	--	--	--	--	--
	09/03/15	ug/L	--	0.94	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	10/06/15	ug/L	--	1.2	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	11/02/15	ug/L	7.3	--	4.2	--	--	--	--	--	--
	11/05/15	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	12/03/15	ug/L	--	3.7	--	<0.50	<0.50	--	<0.50	0.56	0.69
	12/11/15	ug/L	--	5.3	--	<0.50	1.3	--	0.75	0.62	0.86
	01/07/16	ug/L	--	4.3	--	0.50	1.1	--	0.72	0.62	0.75
	01/21/16	ug/L	--	4	--	<0.50	1.1	--	0.65	0.7	0.84
	02/01/16	ug/L	25	4.6	--	<0.50	1.3	--	0.85	0.81	0.78
	02/18/16	ug/L	--	4.3	--	<0.50	1.3	--	0.82	0.79	0.91
	03/03/16	ug/L	--	3.0	--	<0.50	0.9	--	0.51	0.53	0.54
	03/17/16	ug/L	--	3.9	--	<0.50	1.0	--	0.64	0.65	0.71
	04/05/16	ug/L	--	3.9	--	<0.50	1.2	--	0.65	0.62	0.62
	04/21/16	ug/L	--	3.3	--	<0.50	1.1	--	0.63	0.67	0.68

TABLE 8
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PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	05/02/16	ug/L	22	--	3.3	--	--	--	--	--	--
	05/05/16	ug/L	--	3.6	--	<0.50	1.0	--	0.68	<0.50	<0.50
	05/19/16	ug/L	--	3.8	--	<0.50	1.0	--	0.8	<0.50	<0.50
	06/01/16	ug/L	--	3.5	--	<0.50	0.95	--	0.69	<0.50	<0.50
	06/16/16	ug/L	--	3.2	--	<0.50	0.94	--	0.71	<0.50	<0.50
	07/07/16	ug/L	--	3.3	--	<0.50	0.96	--	0.61	<0.50	<0.50
	07/21/16	ug/L	--	4.1	--	<0.50	1.1	--	0.71	<0.50	<0.50
	08/01/16	ug/L	27	--	5.6	--	--	--	--	--	--
	08/04/16	ug/L	--	3.3	--	<0.50	1.0	--	0.57	0.51	<0.50
	08/18/16	ug/L	--	2.6	--	<0.50	0.69	--	<0.50	<0.50	<0.50
	09/08/16	ug/L	--	2.9	--	<0.50	0.74	--	<0.50	0.58	0.53
	09/15/16	ug/L	--	2.4	--	<0.50	0.76	--	<0.50	0.58	0.52
	10/06/16	ug/L	--	2.7	--	<0.50	0.87	--	0.58	0.62	0.73
	10/20/16	ug/L	--	2.2	--	<0.50	0.73	--	<0.50	0.54	0.59
	11/01/16	ug/L	--	2.6	--	<0.50	0.85	--	0.57	0.62	0.61
	11/08/16	ug/L	24	--	4.5	--	--	--	--	--	--
	11/17/16	ug/L	--	3.1	--	<0.50	0.83	--	0.56	0.61	0.67
	12/01/16	ug/L	--	2.2	--	<0.50	0.65	--	<0.50	0.61	0.52
	12/15/16	ug/L	--	3.1	--	<0.50	--	--	--	--	--
	12/16/16	ug/L	--	--	--	--	1.1	--	<0.50	0.56	0.65
	01/06/17	ug/L	--	3.5	--	<0.50	1.1	--	0.59	0.65	0.66
	01/26/17	ug/L	--	3.1	--	<0.50	1.1	--	<0.50	<0.50	<0.50
	02/03/17	ug/L	--	--	--	<0.50	<0.50	--	<0.50	0.51	0.58
	02/09/17	ug/L	--	2.9	--	--	--	--	--	--	--
	02/16/17	ug/L	--	2.9	--	<0.50	0.79	--	<0.50	<0.50	0.54
1,1-Dichloroethene (6 ug/L MCL)	06/22/05	ug/L	--	--	750	--	--	--	--	--	--
	09/22/05	ug/L	--	--	210 E	--	--	--	--	--	--
	12/19/05	ug/L	--	--	<0.50	--	--	--	--	--	--
	03/22/06	ug/L	--	--	1.0	--	--	--	--	--	--
	06/21/06	ug/L	--	--	4.2	--	--	--	--	--	--
	12/11/06	ug/L	--	--	4.3 E	--	--	--	--	--	--
	03/14/07	ug/L	--	--	90	--	--	--	--	--	--
	06/22/07	ug/L	--	--	24	--	--	--	--	--	--
	09/27/07	ug/L	--	--	<0.50	--	--	--	--	--	--
	12/13/07	ug/L	--	--	820	--	--	--	--	--	--
	06/25/08	ug/L	--	--	1,600 E	--	--	--	--	--	--
	07/08/08	ug/L	3500	--	720	--	2100	--	46.00	<0.5	<0.50
	07/09/08	ug/L	4200	--	820	--	3000	--	5.0	0.50	<0.50
	07/10/08	ug/L	3800	--	580	--	2000	--	0.83	<0.5	<0.50
	07/15/08	ug/L	3500	--	630	--	2100	400	<0.5	<0.5	<0.50
	07/16/08	ug/L	4800	--	1000	--	2800	--	0.87	<0.5	<0.50
	07/23/08	ug/L	3500	--	520	--	2100	--	0.73	<0.5	<0.50
	07/30/08	ug/L	3400	--	360	--	1400	--	1.6	<0.5	<0.50
	08/06/08	ug/L	1500	--	340	--	1500	--	12.00	<0.5	<0.50
	08/25/08	ug/L	1800	--	230	--	1100	--	25.00	<0.5	<0.50
	09/24/08	ug/L	1200	--	180	--	610	--	0.65	<0.5	<0.50
	10/22/08	ug/L	1200	--	200	--	730	--	11.00	<0.5	<0.50
	11/26/08	ug/L	1100	--	190	--	730	--	2.50	<0.5	<0.50
	02/25/09	ug/L	720	--	360	--	570	--	2.50	<0.5	<0.50
	03/18/09	ug/L	900	--	160	--	460	--	<0.5	<0.5	<0.50
	04/29/09	ug/L	860	--	150	--	470	--	<0.5	<0.5	<0.50
	05/27/09	ug/L	940	--	320	--	590	--	<0.5	<0.5	<0.50

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	06/29/09	ug/L	860	--	200	--	510	--	<0.5	<0.5	<0.50
	07/22/09	ug/L	870	--	260	--	580	--	<0.5	<0.5	<0.50
	08/14/09	ug/L	900	--	190	--	540	--	<0.5	<0.5	<0.50
	09/11/09	ug/L	1100	--	280	--	610	--	<0.5	<0.5	<0.50
	10/08/09	ug/L	830	--	150	--	600	--	<0.5	<0.5	<0.50
	12/09/09	ug/L	200	--	720	--	400	--	1.8	<0.5	<0.50
	03/05/10	ug/L	370	--	500	--	--	--	--	--	--
	03/22/10	ug/L	--	--	--	82	--	--	<0.5	<0.5	<0.5
	03/23/10	ug/L	--	--	--	82	--	--	<0.5	<0.5	<0.5
	03/24/10	ug/L	--	--	--	74	--	--	<0.5	<0.5	<0.5
	03/25/10	ug/L	--	--	--	70	--	--	<0.5	<0.5	<0.5
	03/26/10	ug/L	--	--	--	76	--	--	<0.5	<0.5	<0.5
	04/01/10	ug/L	--	--	--	81	--	--	<0.5	<0.5	<0.5
	04/09/10	ug/L	--	--	--	85	--	--	<0.5	<0.5	<0.5
	04/13/10	ug/L	--	--	--	120	--	--	<0.5	<0.5	<0.5
	04/23/10	ug/L	--	--	--	91	--	--	<0.5	<0.5	<0.5
	05/25/10	ug/L	--	--	--	100	--	--	<0.19	<0.19	<0.19
	06/10/10	ug/L	--	--	--	120	--	--	<0.5	<0.5	<0.5
	06/11/10	ug/L	800	--	720	--	--	--	--	--	--
	07/08/10	ug/L	--	--	--	160	--	--	<0.5	<0.5	<0.5
	08/02/10	ug/L	--	--	--	150	--	--	<0.5	<0.5	<0.5
	09/02/10	ug/L	--	--	--	160	--	--	<0.5	<0.5	<0.5
	09/08/10	ug/L	1000	--	720	--	--	--	--	--	--
	10/07/10	ug/L	--	--	--	140	--	--	<0.5	<0.5	<0.5
	11/11/10	ug/L	--	--	--	140	--	--	<0.5	<0.5	<0.5
	12/06/10	ug/L	2300	--	--	--	--	--	--	--	--
	12/07/10	ug/L	--	--	600	130	--	--	<0.5	<0.5	<0.5
	01/13/11	ug/L	--	--	--	99	--	--	<0.5	<0.5	<0.5
	02/03/11	ug/L	--	--	--	83	--	--	<0.5	<0.5	<0.5
	03/02/11	ug/L	--	--	--	77	--	--	0.50	<0.5	<0.5
	03/24/11	ug/L	2800	--	200	--	--	--	--	--	--
	04/01/11	ug/L	--	--	--	82	--	--	<0.5	<0.5	<0.5
	05/04/11	ug/L	--	--	--	83	--	--	<0.5	<0.5	<0.5
	06/07/11	ug/L	--	--	--	67	--	--	0.54	<0.5	<0.5
	06/23/11	ug/L	2700	--	180	--	--	--	--	--	--
	07/02/11	ug/L	--	--	--	87	--	--	<0.5	<0.5	<0.5
	08/01/11	ug/L	--	--	--	75	--	--	<0.5	<0.5	<0.5
	08/02/11	ug/L	2400	--	370	--	--	--	--	--	--
	09/09/11	ug/L	--	--	--	90	--	--	<0.5	<0.5	<0.5
	10/17/11	ug/L	--	--	--	67	--	--	<0.5	<0.5	<0.5
	11/01/11	ug/L	1600	--	82	55	--	--	<0.5	<0.5	<0.5
	12/07/11	ug/L	3200	--	--	62	850	--	1.60	<0.5	<0.5
	01/06/12	ug/L	1400	--	--	85	450	--	<0.5	<0.5	<0.5
	02/06/12	ug/L	--	--	59	--	--	--	--	--	--
	02/08/12	ug/L	520	--	--	54	300	--	<0.5	<0.5	<0.5
	03/09/12	ug/L	860	--	--	59	210	--	<0.5	<0.5	<0.5
	04/16/12	ug/L	--	--	--	45	--	--	<0.5	<0.5	<0.5
	05/01/12	ug/L	--	--	--	37	--	--	<0.5	<0.5	<0.5
	05/07/12	ug/L	490	--	18	--	--	--	--	--	--
	06/08/12	ug/L	--	--	--	67	--	--	<0.5	<0.5	<0.5
	07/11/12	ug/L	--	--	--	64	--	--	<0.5	<0.5	0.75
	08/03/12	ug/L	--	--	--	67	--	--	<0.5	<0.5	<0.5

TABLE 8
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PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	08/06/12	ug/L	1300	--	94	--	--	--	--	--	--
	09/06/12	ug/L	--	--	--	62	--	--	<0.5	<0.5	<0.5
	10/15/12	ug/L	--	--	--	75	--	--	<0.5	<0.5	<0.5
	11/05/12	ug/L	2000	--	190	63	--	--	<0.5	<0.5	<0.5
	12/10/12	ug/L	--	--	--	72	--	--	<0.5	<0.5	<0.5
	01/04/13	ug/L	--	--	--	63	--	--	<0.5	<0.5	<0.5
	02/04/13	ug/L	1900	--	130	--	--	--	--	--	--
	02/09/13	ug/L	--	--	--	39	--	--	<0.5	<0.5	<0.5
	03/09/13	ug/L	--	--	--	50	--	--	<0.5	<0.5	<0.5
	04/15/13	ug/L	--	--	--	32	--	--	<0.5	<0.5	<0.5
	05/07/13	ug/L	--	--	--	46	--	--	<0.5	<0.5	<0.5
	05/13/13	ug/L	1600	--	57	--	--	--	--	--	--
	05/29/13	ug/L	--	--	--	--	--	--	--	--	<0.5
	06/13/13	ug/L	--	--	--	54	--	--	<0.5	<0.5	<0.5
	07/02/13	ug/L	--	--	--	64	--	--	<0.5	<0.5	<0.5
	08/10/13	ug/L	--	--	--	80	--	--	<0.5	<0.5	<0.5
	08/12/13	ug/L	1500	--	220	--	--	--	--	--	--
	09/03/13	ug/L	--	--	--	26	--	--	<0.5	<0.5	<0.5
	10/05/13	ug/L	--	--	--	75	--	--	0.92	<0.5	<0.5
	11/01/13	ug/L	--	--	--	54	--	--	<0.5	<0.5	<0.5
	11/11/13	ug/L	1000	--	160	--	--	--	--	--	--
	12/11/13	ug/L	--	--	--	49	--	--	<0.5	<0.5	<0.5
	01/17/14	ug/L	--	--	--	34	--	--	1.30	<0.5	<0.5
	02/03/14	ug/L	1300	--	190	--	--	--	--	--	--
	02/11/14	ug/L	--	--	--	49	--	--	<0.5	<0.5	<0.5
	03/04/14	ug/L	--	--	--	57	--	--	<0.5	<0.5	<0.5
	05/20/14	ug/L	--	--	500	--	--	--	--	--	--
	07/30/14	ug/L	--	--	--	--	--	27	<0.5	--	<0.5
	08/01/14	ug/L	--	--	--	--	21	--	<0.5	<0.5	<0.5
	08/04/14	ug/L	--	--	--	--	30	--	<0.5	<0.5	<0.5
	08/05/14	ug/L	--	--	--	--	28	--	<0.5	<0.5	<0.5
	08/06/14	ug/L	--	--	--	--	28	--	<0.5	<0.5	<0.5
	08/07/14	ug/L	--	--	--	--	30	--	0.54	<0.5	<0.5
	08/08/14	ug/L	--	--	--	--	23	--	<0.5	<0.5	<0.5
	08/15/14	ug/L	--	--	--	--	36	--	2.20	0.57	<0.5
	08/18/14	ug/L	1200	--	950	--	--	--	--	--	--
	08/22/14	ug/L	--	--	--	--	23	--	<0.5	<0.5	<0.5
	08/29/14	ug/L	--	--	--	--	34	--	2.80	0.61	<0.5
	09/15/14	ug/L	--	--	--	--	--	--	--	--	<0.5
	11/03/14	ug/L	--	240	--	22	66	--	0.87	<0.5	<0.5
	11/04/14	ug/L	350	--	960	--	--	--	--	--	--
	12/11/14	ug/L	--	--	--	--	--	--	--	--	<0.5
	12/18/14	ug/L	--	580	--	24	120	--	<0.50	<0.50	<0.50
	01/19/15	ug/L	--	200	--	25	55	--	<0.50	<0.50	<0.50
	02/02/15	ug/L	1100	--	610	--	--	--	--	--	--
	02/13/15	ug/L	--	460	--	20	110	--	<0.50	<0.50	<0.50
	03/06/15	ug/L	--	300	--	22	88	--	<0.50	<0.50	<0.50
	04/02/15	ug/L	--	290	--	30	62	--	<0.50	<0.50	<0.50
	05/01/15	ug/L	--	360	--	42	97	--	<0.50	<0.50	<0.50
	05/12/15	ug/L	1800	--	240	--	--	--	--	--	--
	06/05/15	ug/L	--	370	--	48	110	--	<0.50	<0.50	<0.50
	07/14/15	ug/L	--	360	--	59	110	--	<0.50	<0.50	<0.50

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HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	08/06/15	ug/L	--	330	--	48	120	--	<0.50	<0.50	<0.50
	08/11/15	ug/L	1300	--	560	--	--	--	--	--	--
	09/03/15	ug/L	--	390	--	53	110	--	<0.50	<0.50	<0.50
	10/06/15	ug/L	--	360	--	40	100	--	<0.50	<0.50	<0.50
	11/02/15	ug/L	920	--	400	--	--	--	--	--	--
	11/05/15	ug/L	--	350	--	38	66	--	<0.50	<0.50	<0.50
	12/03/15	ug/L	--	450	--	45	48	--	<0.50	<0.50	<0.50
	12/11/15	ug/L	--	480	--	53	110	--	<0.50	<0.50	<0.50
	01/07/16	ug/L	--	440	--	49	120	--	<0.50	<0.50	<0.50
	01/21/16	ug/L	--	410	--	43	110	--	<0.50	<0.50	<0.50
	02/01/16	ug/L	1700	500	--	48	130	--	<0.50	<0.50	<0.50
	02/18/16	ug/L	--	290	--	35	86	--	<0.50	<0.50	<0.50
	03/03/16	ug/L	--	330	--	34	81	--	<0.5	<0.5	<0.5
	03/17/16	ug/L	--	420	--	35	120	--	<0.5	<0.5	<0.5
	04/05/16	ug/L	--	330	--	35	98	--	<0.5	<0.5	<0.5
	04/21/16	ug/L	--	340	--	31	95	--	<0.5	<0.5	<0.5
	05/02/16	ug/L	1400	--	250	--	--	--	--	--	--
	05/05/16	ug/L	--	380	--	36	97	--	<0.5	<0.5	<0.5
	05/19/16	ug/L	--	430	--	41	110	--	<0.5	<0.5	<0.5
	06/01/16	ug/L	--	250	--	31	71	--	<0.5	<0.5	<0.5
	06/16/16	ug/L	--	240	--	36	75	--	<0.5	<0.5	<0.5
	07/07/16	ug/L	--	310	--	30	88	--	<0.5	<0.5	<0.5
	07/21/16	ug/L	--	410	--	38	84	--	<0.5	<0.5	<0.5
	08/01/16	ug/L	1500	--	430	--	--	--	--	--	--
	08/04/16	ug/L	--	250	--	25	79	--	<0.5	<0.5	<0.5
	08/18/16	ug/L	--	250	--	26	63	--	<0.5	<0.5	<0.5
	09/08/16	ug/L	--	340	--	31	83	--	<0.5	<0.5	<0.5
	09/15/16	ug/L	--	250	--	27	70	--	<0.5	<0.5	<0.5
	10/06/16	ug/L	--	280	--	31	79	--	<0.5	<0.5	<0.5
	10/20/16	ug/L	--	240	--	23	73	--	<0.5	<0.5	<0.5
	11/01/16	ug/L	--	360	--	37	82	--	<0.5	<0.5	<0.5
	11/08/16	ug/L	1400	--	300	--	--	--	--	--	--
	11/17/16	ug/L	--	260	--	25	74	--	<0.5	<0.5	<0.5
	12/01/16	ug/L	--	220	--	20	67	--	<0.5	<0.5	<0.5
	12/15/16	ug/L	--	340	--	20	--	--	--	--	--
	12/16/16	ug/L	--	--	--	--	85	--	<0.5	<0.5	<0.5
	01/06/17	ug/L	--	260	--	17	85	--	<0.5	<0.5	<0.5
	01/26/17	ug/L	--	330	--	9.4	95	--	<0.5	<0.5	<0.5
	02/03/17	ug/L	--	--	--	16	15	--	<0.5	<0.5	<0.5
	02/09/17	ug/L	--	320	--	--	--	--	--	--	--
	02/16/17	ug/L	--	220	--	16	82	--	<0.5	<0.5	<0.5
1,2-Dichloroethane (0.5 ug/L MCL)	06/22/05	ug/L	--	--	2.6	--	--	--	--	--	--
	09/22/05	ug/L	--	--	<0.5	--	--	--	--	--	--
	12/19/05	ug/L	--	--	<0.5	--	--	--	--	--	--
	03/22/06	ug/L	--	--	<0.5	--	--	--	--	--	--
	06/21/06	ug/L	--	--	<0.5	--	--	--	--	--	--
	12/11/06	ug/L	--	--	<0.5	--	--	--	--	--	--
	03/14/07	ug/L	--	--	<0.50	--	--	--	--	--	--
	06/22/07	ug/L	--	--	<0.50	--	--	--	--	--	--
	09/27/07	ug/L	--	--	0.9	--	--	--	--	--	--
	12/13/07	ug/L	--	--	4.0	--	--	--	--	--	--
	06/25/08	ug/L	--	--	2.2	--	--	--	--	--	--

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HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	07/08/08	ug/L	<10	--	<2.5	--	3.8	--	2.7	<0.5	<0.50
	07/09/08	ug/L	<10	--	1.9	--	<5	--	2.4	<0.5	<0.50
	07/10/08	ug/L	5.2	--	1.5	--	3.1	--	1.4	<0.5	<0.50
	07/15/08	ug/L	<5.0	--	1.8	--	<5	--	1.5	<0.5	<0.50
	07/16/08	ug/L	5.5	--	1.7	--	<5	--	1.5	<0.5	<0.50
	07/23/08	ug/L	<10	--	1.2	--	<5	--	1.2	<0.5	<0.50
	07/30/08	ug/L	<10	--	1.1	--	<5	--	1.3	<0.5	<0.50
	08/06/08	ug/L	<5.0	--	<1.0	--	<5	--	2.1	<0.5	<0.50
	08/25/08	ug/L	<5.0	--	0.62	--	<2.5	--	0.79	<0.5	<0.50
	09/24/08	ug/L	<2.5	--	0.57	--	<2.5	--	0.51	<0.5	<0.50
	10/22/08	ug/L	<2.5	--	0.50	--	<1	--	<0.5	<0.5	<0.50
	11/26/08	ug/L	<2.5	--	0.65	--	1.0	--	0.62	<0.5	<0.50
	02/25/09	ug/L	<2.5	--	0.93	--	<1	--	0.50	<0.5	<0.50
	03/18/09	ug/L	<2.5	--	<0.5	--	<1	--	<0.5	<0.5	<0.50
	04/29/09	ug/L	<2.5	--	<0.5	--	<1	--	<0.5	<0.5	<0.50
	05/27/09	ug/L	<2.5	--	0.76	--	<1	--	0.50	<0.5	<0.50
	06/29/09	ug/L	0.81	--	0.53	--	0.68	--	0.50	0.53	<0.50
	07/22/09	ug/L	<1	--	0.64	--	<1	--	<0.5	0.57	<0.50
	08/14/09	ug/L	<2.5	--	<0.5	--	<1	--	<0.5	0.59	<0.50
	09/11/09	ug/L	<2.5	--	0.7	--	<1	--	<0.5	0.62	<0.50
	10/08/09	ug/L	<2.5	--	<0.5	--	<1	--	<0.5	0.66	<0.50
	12/09/09	ug/L	<0.5	--	2.1	--	1.10	--	0.61	0.57	<0.50
	03/05/10	ug/L	<1.0	--	1.6	--	--	--	--	--	--
	03/22/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/23/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/24/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/25/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/26/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/01/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/09/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/13/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/23/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/25/10	ug/L	--	--	--	<0.16	--	--	<0.16	<0.16	<0.16
	06/10/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/11/10	ug/L	<2.0	--	1.9	--	--	--	--	--	--
	07/08/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/02/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	09/02/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	09/08/10	ug/L	<2.0	--	2.4	--	--	--	--	--	--
	10/07/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/11/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	12/06/10	ug/L	<5.0	--	--	--	--	--	--	--	--
	12/07/10	ug/L	--	--	1.4	<0.5	--	--	<0.5	<0.5	<0.5
	01/13/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	02/03/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/02/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/24/11	ug/L	5.7	--	0.59	--	--	--	--	--	--
	04/01/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/04/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/07/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/23/11	ug/L	5.0	--	<0.5	--	--	--	--	--	--
	07/02/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	08/01/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/02/11	ug/L	<5	--	0.61	--	--	--	--	--	--
	09/09/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	10/17/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/01/11	ug/L	4.9	--	<0.5	<0.5	--	--	<0.5	<0.5	<0.5
	12/07/11	ug/L	<10	--	--	<0.5	<5	--	1.30	<0.5	<0.5
	01/06/12	ug/L	<10	--	--	<0.5	0.58	--	<0.5	<0.5	<0.5
	02/06/12	ug/L	--	--	<0.5	--	--	--	--	--	--
	02/08/12	ug/L	<4	--	--	<0.5	<1	--	<0.5	<0.5	<0.5
	03/09/12	ug/L	<4	--	--	<0.5	<1	--	<0.5	<0.5	<0.5
	04/16/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/01/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/07/12	ug/L	<4	--	<0.5	--	--	--	--	--	--
	06/08/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	07/11/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/03/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/06/12	ug/L	<5	--	<0.5	--	--	--	--	--	--
	09/06/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	10/15/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/05/12	ug/L	<5	--	<0.5	<0.5	--	--	<0.5	<0.5	<0.5
	12/10/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	01/04/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	02/04/13	ug/L	5.8	--	<0.5	--	--	--	--	--	--
	02/09/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/09/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/15/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/07/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/13/13	ug/L	3.4	--	<0.5	--	--	--	--	--	--
	05/29/13	ug/L	--	--	--	--	--	--	--	--	<0.5
	06/13/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/17/13	ug/L	--	--	--	--	--	--	--	--	--
	07/02/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	07/03/13	ug/L	--	--	--	--	--	--	--	--	--
	08/10/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/12/13	ug/L	3.5	--	0.56	--	--	--	--	--	--
	09/03/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	10/05/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/01/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/11/13	ug/L	4.2	--	<0.5	--	--	--	--	--	--
	12/11/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	01/17/14	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	02/03/14	ug/L	7.2	--	1.1	--	--	--	--	--	--
	02/11/14	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/04/14	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/20/14	ug/L	--	--	2.1	--	--	--	--	--	--
	07/30/14	ug/L	--	--	--	--	--	<0.5	<0.5	--	<0.5
	08/01/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/04/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/05/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/06/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/07/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/08/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	08/15/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/18/14	ug/L	3.4	--	4.0	--	--	--	--	--	--
	08/22/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/29/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	09/15/14	ug/L	--	--	--	--	--	--	--	--	<0.5
	11/03/14	ug/L	--	0.55	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	11/04/14	ug/L	0.72	--	4.0	--	--	--	--	--	--
	12/11/14	ug/L	--	--	--	--	--	--	--	--	<0.5
	12/18/14	ug/L	--	0.86	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	01/19/15	ug/L	--	0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	02/02/15	ug/L	2.8	--	2.4	--	--	--	--	--	--
	02/13/15	ug/L	--	0.94	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	03/06/15	ug/L	--	300	--	22	88	--	<0.50	<0.50	<0.50
	04/02/15	ug/L	--	290	--	30	62	--	<0.50	<0.50	<0.50
	05/01/15	ug/L	--	360	--	42	97	--	<0.50	<0.50	<0.50
	05/12/15	ug/L	1800	--	240	--	--	--	--	--	--
	06/05/15	ug/L	--	370	--	48	110	--	<0.50	<0.50	<0.50
	07/14/15	ug/L	--	360	--	59	110	--	<0.50	<0.50	<0.50
	08/06/15	ug/L	--	330	--	48	120	--	<0.50	<0.50	<0.50
	08/11/15	ug/L	1300	--	560	--	--	--	--	--	--
	09/03/15	ug/L	--	390	--	53	110	--	<0.50	<0.50	<0.50
	10/06/15	ug/L	--	360	--	40	100	--	<0.50	<0.50	<0.50
	11/02/15	ug/L	920	--	400	--	--	--	--	--	--
	11/05/15	ug/L	--	350	--	38	66	--	<0.50	<0.50	<0.50
	12/03/15	ug/L	--	0.82	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	12/11/15	ug/L	--	0.79	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	01/07/16	ug/L	--	0.79	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	01/21/16	ug/L	--	0.85	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	02/01/16	ug/L	<5.0	0.88	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	02/18/16	ug/L	--	<1.0	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	03/03/16	ug/L	--	0.65	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	03/17/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	04/05/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	04/21/16	ug/L	--	0.64	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	05/02/16	ug/L	3.6	--	0.61	--	--	--	--	--	--
	05/05/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	05/19/16	ug/L	--	0.74	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	06/01/16	ug/L	--	0.62	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	06/16/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	07/07/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	07/21/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	08/01/16	ug/L	4.2	--	<0.50	--	--	--	--	--	--
	08/04/16	ug/L	--	0.57	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	08/18/16	ug/L	--	0.51	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	09/08/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	09/15/16	ug/L	--	0.52	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	10/06/16	ug/L	--	0.51	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	10/20/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	11/01/16	ug/L	--	0.62	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	11/08/16	ug/L	3.2	--	0.7	--	--	--	--	--	--
	11/17/16	ug/L	--	0.53	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	12/01/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	12/15/16	ug/L	--	<0.5	--	<0.5	--	--	--	--	--
	12/16/16	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	01/06/17	ug/L	--	0.70	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	01/26/17	ug/L	--	0.68	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	02/03/17	ug/L	--	--	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	02/09/17	ug/L	--	0.65	--	--	--	--	--	--	--
	02/16/17	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene (6 ug/L MCL)	06/22/05	ug/L	--	--	<0.5	--	--	--	--	--	--
	09/22/05	ug/L	--	--	<0.5	--	--	--	--	--	--
	12/19/05	ug/L	--	--	<0.5	--	--	--	--	--	--
	03/22/06	ug/L	--	--	<0.5	--	--	--	--	--	--
	06/21/06	ug/L	--	--	<0.5	--	--	--	--	--	--
	12/11/06	ug/L	--	--	<0.5	--	--	--	--	--	--
	03/14/07	ug/L	--	--	<0.5	--	--	--	--	--	--
	06/22/07	ug/L	--	--	<0.5	--	--	--	--	--	--
	09/27/07	ug/L	--	--	<0.5	--	--	--	--	--	--
	12/13/07	ug/L	--	--	0.52	--	--	--	--	--	--
	06/25/08	ug/L	--	--	<0.5	--	--	--	--	--	--
	07/08/08	ug/L	<10	--	<2.5	--	0.95	--	<0.5	<0.5	<0.50
	07/09/08	ug/L	<10	--	<0.50	--	<5	--	<0.5	<0.5	<0.50
	07/10/08	ug/L	<5.0	--	<0.50	--	0.90	--	<0.5	<0.5	<0.50
	07/15/08	ug/L	<5.0	--	<1.0	--	<5	0.57	<0.5	<0.5	<0.50
	07/16/08	ug/L	<5.0	--	<1.0	--	<5	--	<0.5	<0.5	<0.50
	07/23/08	ug/L	<10	--	<1.0	--	<5	--	<0.5	<0.5	<0.50
	07/30/08	ug/L	<10	--	<1.0	--	<5	--	<0.5	<0.5	<0.50
	08/06/08	ug/L	<5.0	--	<1.0	--	<5	--	<0.5	<0.5	<0.50
	08/25/08	ug/L	<5.0	--	<0.50	--	<2.5	--	<0.5	<0.5	<0.50
	09/24/08	ug/L	<2.5	--	<0.50	--	<2.5	--	<0.5	<0.5	<0.50
	10/22/08	ug/L	<2.5	--	<0.50	--	<1	--	<0.5	<0.5	<0.50
	11/26/08	ug/L	<2.5	--	<0.50	--	<1	--	<0.5	<0.5	<0.50
	02/25/09	ug/L	<2.5	--	<0.5	--	<1	--	<0.5	<0.5	<0.50
	03/18/09	ug/L	<2.5	--	<0.5	--	<1	--	<0.5	<0.5	<0.50
	04/29/09	ug/L	<2.5	--	<0.5	--	<1	--	<0.5	<0.5	<0.50
	05/27/09	ug/L	<2.5	--	<0.5	--	<1	--	<0.5	<0.5	<0.50
	06/29/09	ug/L	0.63	--	<0.5	--	<0.5	--	<0.5	<0.5	<0.50
	07/22/09	ug/L	1.0	--	<0.5	--	<1	--	<0.5	<0.5	<0.50
	08/14/09	ug/L	<2.5	--	<0.5	--	<1	--	<0.5	<0.5	<0.50
	09/11/09	ug/L	<2.5	--	<0.5	--	<1	--	<0.5	<0.5	<0.50
	10/08/09	ug/L	<2.5	--	<0.5	--	<1	--	<0.5	<0.5	<0.50
	12/09/09	ug/L	<0.5	--	<0.5	--	<1	--	<0.5	<0.5	<0.50
	03/05/10	ug/L	<1	--	<1	--	--	--	--	--	--
	03/22/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/23/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/24/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/25/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/26/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/01/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/09/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/13/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/23/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/25/10	ug/L	--	--	--	<0.15	--	--	<0.15	<0.15	<0.15
	06/10/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	06/11/10	ug/L	<2.0	--	<1	--	--	--	--	--	--
	07/08/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/02/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	09/02/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	09/08/10	ug/L	<2.0	--	<1	--	--	--	--	--	--
	10/07/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/11/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	12/06/10	ug/L	<5.0	--	--	--	--	--	--	--	--
	12/07/10	ug/L	--	--	<1	<0.5	--	--	<0.5	<0.5	<0.5
	01/13/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	02/03/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/02/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/24/11	ug/L	<0.5	--	<0.5	--	--	--	--	--	--
	04/01/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/04/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/07/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/23/11	ug/L	<0.5	--	<0.5	--	--	--	--	--	--
	07/02/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/01/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/02/11	ug/L	<0.5	--	<0.5	--	--	--	--	--	--
	09/09/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	10/17/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/01/11	ug/L	<2.5	--	<0.5	<0.5	--	--	<0.5	<0.5	<0.5
	12/07/11	ug/L	<10	--	--	<0.5	<5	--	<0.5	<0.5	<0.5
	01/06/12	ug/L	<10	--	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	02/06/12	ug/L	--	--	<0.5	--	--	--	--	--	--
	02/08/12	ug/L	<4	--	--	<0.5	<1	--	<0.5	<0.5	<0.5
	03/09/12	ug/L	<4	--	--	<0.5	<1	--	<0.5	<0.5	<0.5
	04/16/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/01/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/07/12	ug/L	<4	--	<0.5	--	--	--	--	--	--
	06/08/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	07/11/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/03/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/06/12	ug/L	<5	--	<1	--	--	--	--	--	--
	09/06/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	10/15/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/05/12	ug/L	<5	--	<0.5	<0.5	--	--	<0.5	<0.5	<0.5
	12/10/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	01/04/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	02/04/13	ug/L	<2.5	--	<0.5	--	--	--	--	--	--
	02/09/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/09/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/15/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/07/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/13/13	ug/L	<2.5	--	<0.5	--	--	--	--	--	--
	06/13/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	07/02/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/10/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/12/13	ug/L	<2.5	--	<0.5	--	--	--	--	--	--
	09/03/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	10/05/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	11/01/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/11/13	ug/L	<2.5	--	<0.5	--	--	--	--	--	--
	12/11/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	01/17/14	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	02/03/14	ug/L	<2.5	--	<0.5	--	--	--	--	--	--
	02/11/14	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/04/14	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/20/14	ug/L	--	--	<0.5	--	--	--	--	--	--
	08/01/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/04/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/05/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/06/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/07/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/08/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/15/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/18/14	ug/L	<2.5	--	<2.5	--	--	--	--	--	--
	08/22/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/29/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	09/15/14	ug/L	--	--	--	--	--	--	--	--	<0.5
	11/03/14	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	11/04/14	ug/L	1.1	--	<1	--	--	--	--	--	--
	12/18/14	ug/L	--	0.60	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	01/19/15	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	02/02/15	ug/L	<2.0	--	<1.0	--	--	--	--	--	--
	02/13/15	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	03/06/15	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	04/02/15	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	05/01/15	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	05/12/15	ug/L	<2.5	--	<0.50	--	--	--	--	--	--
	06/05/15	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/14/15	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/06/15	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/11/15	ug/L	<2.5	--	<1.0	--	--	--	--	--	--
	09/03/15	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	10/06/15	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	11/02/15	ug/L	<2.0	--	<1.0	--	--	--	--	--	--
	11/05/15	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	12/03/15	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	12/11/15	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	01/07/16	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	01/21/16	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	02/01/16	ug/L	<5.0	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	02/18/16	ug/L	--	<1.0	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	03/03/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	03/17/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	04/05/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	04/21/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	05/02/16	ug/L	<2.0	--	<0.5	--	--	--	--	--	--
	05/05/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	05/19/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	06/01/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	06/16/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	07/07/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	07/21/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	08/01/16	ug/L	<2.5	--	<0.50	--	--	--	--	--	--
	08/04/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	08/18/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	09/08/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	09/15/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	10/06/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	10/20/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	11/01/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	11/08/16	ug/L	<2.5	--	<0.5	--	--	--	--	--	--
	11/17/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	12/01/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	12/15/16	ug/L	--	<0.5	--	<0.5	--	--	--	--	--
	12/16/16	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	01/06/17	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	01/26/17	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	02/03/17	ug/L	--	--	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	02/09/17	ug/L	--	<0.5	--	--	--	--	--	--	--
	02/16/17	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
Tetrachloroethene (5 ug/L MCL)	06/22/05	ug/L	--	--	2.5	--	--	--	--	--	--
	09/22/05	ug/L	--	--	0.59	--	--	--	--	--	--
	12/19/05	ug/L	--	--	<0.5	--	--	--	--	--	--
	03/22/06	ug/L	--	--	<0.5	--	--	--	--	--	--
	06/21/06	ug/L	--	--	<0.5	--	--	--	--	--	--
	12/11/06	ug/L	--	--	<0.5	--	--	--	--	--	--
	03/14/07	ug/L	--	--	<0.5	--	--	--	--	--	--
	06/22/07	ug/L	--	--	<0.5	--	--	--	--	--	--
	09/27/07	ug/L	--	--	0.73	--	--	--	--	--	--
	12/13/07	ug/L	--	--	3.3	--	--	--	--	--	--
	06/25/08	ug/L	--	--	2.6	--	--	--	--	--	--
	07/08/08	ug/L	11	--	2.6	--	7.1	--	0.84	<0.5	<0.50
	07/09/08	ug/L	10	--	2.2	--	6.6	--	0.51	<0.5	<0.50
	07/10/08	ug/L	12	--	2.1	--	6.3	--	<0.5	<0.5	<0.50
	07/15/08	ug/L	12	--	2.3	--	<5	1.8	<0.5	<0.5	<0.50
	07/16/08	ug/L	10	--	1.8	--	<5	--	<0.5	<0.5	<0.50
	07/23/08	ug/L	<10	--	2.3	--	5.8	--	<0.5	<0.5	<0.50
	07/30/08	ug/L	<10	--	1.2	--	<5	--	<0.5	<0.5	<0.50
	08/06/08	ug/L	7	--	<1.0	--	<5	--	0.66	<0.5	<0.50
	08/25/08	ug/L	5.1	--	0.84	--	3.0	--	<0.5	<0.5	<0.50
	09/24/08	ug/L	3.4	--	0.94	--	<2.5	--	<0.5	<0.5	<0.50
	10/22/08	ug/L	3.2	--	0.66	--	2.0	--	<0.5	<0.5	<0.50
	11/26/08	ug/L	2.6	--	0.63	--	1.9	--	<0.5	<0.5	<0.50
	02/25/09	ug/L	<2.5	--	1.1	--	1.6	--	<0.5	<0.5	<0.50
	03/18/09	ug/L	<2.5	--	<0.5	--	1.3	--	<0.5	<0.5	<0.50
	04/29/09	ug/L	<2.5	--	0.6	--	1.3	--	<0.5	<0.5	<0.50
	05/27/09	ug/L	<2.5	--	0.79	--	1.3	--	<0.5	<0.5	<0.50
	06/29/09	ug/L	2.1	--	0.76	--	1.2	--	<0.5	<0.5	<0.50
	07/22/09	ug/L	1.6	--	0.66	--	1.1	--	<0.5	<0.5	<0.50
	08/14/09	ug/L	<2.5	--	<0.5	--	1.1	--	<0.5	<0.5	<0.50
	09/11/09	ug/L	<2.5	--	0.66	--	1.2	--	<0.5	<0.5	<0.50
	10/08/09	ug/L	<2.5	--	<0.5	--	1.1	--	<0.5	<0.5	<0.50

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SELECT COMPOUNDS MONITORED IN
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HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	12/09/09	ug/L	<0.5	--	2.0	--	1.1	--	<0.5	<0.5	<0.50
	03/05/10	ug/L	<1.0	--	1.9	--	--	--	--	--	--
	03/22/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/23/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/24/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/25/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/26/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/01/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/09/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/13/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/23/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/25/10	ug/L	--	--	--	<0.19	--	--	<0.19	<0.19	<0.19
	06/10/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/11/10	ug/L	<2.0	--	1.9	--	--	--	--	--	--
	07/08/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/02/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	09/02/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	09/08/10	ug/L	<2.0	--	2.0	--	--	--	--	--	--
	10/07/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/11/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	12/06/10	ug/L	<5.0	--	--	--	--	--	--	--	--
	12/07/10	ug/L	--	--	1.4	<0.5	--	--	<0.5	<0.5	<0.5
	01/13/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	02/03/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/02/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/24/11	ug/L	8.7	--	0.82	--	--	--	--	--	--
	04/01/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/04/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/07/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/23/11	ug/L	5.8	--	0.5	--	--	--	--	--	--
	07/02/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/01/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/02/11	ug/L	5.6	--	0.67	--	--	--	--	--	--
	09/09/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	10/17/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/01/11	ug/L	5.6	--	<0.5	<0.5	--	--	<0.5	<0.5	<0.5
	12/07/11	ug/L	<10	--	--	<0.5	<5	--	<0.5	<0.5	<0.5
	01/06/12	ug/L	<10	--	--	<0.5	1.2	--	<0.5	<0.5	<0.5
	02/06/12	ug/L	--	--	<0.5	--	--	--	--	--	--
	02/08/12	ug/L	<4	--	--	<0.5	<1	--	<0.5	<0.5	<0.5
	03/09/12	ug/L	<4	--	--	<0.5	<1	--	<0.5	<0.5	<0.5
	04/16/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/01/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/07/12	ug/L	<4	--	0.78	--	--	--	--	--	--
	06/08/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	07/11/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/03/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/06/12	ug/L	<5	--	<0.5	--	--	--	--	--	--
	09/06/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	10/15/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/05/12	ug/L	6.1	--	<0.5	<0.5	--	--	<0.5	<0.5	<0.5
	12/10/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	01/04/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	02/04/13	ug/L	5.1	--	<0.5	--	--	--	--	--	--
	02/09/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/09/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/15/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/07/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/13/13	ug/L	4.5	--	<0.5	--	--	--	--	--	--
	05/29/13	ug/L	--	--	--	--	--	--	--	--	<0.5
	06/13/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/17/13	ug/L	--	--	--	--	--	--	--	--	--
	07/02/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	07/03/13	ug/L	--	--	--	--	--	--	--	--	--
	08/10/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/12/13	ug/L	3.4	--	0.76	--	--	--	--	--	--
	09/03/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	10/05/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/01/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/11/13	ug/L	3.3	--	0.55	--	--	--	--	--	--
	12/11/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	01/17/14	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	02/03/14	ug/L	5.2	--	1.1	--	--	--	--	--	--
	02/11/14	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/04/14	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/20/14	ug/L	--	--	1.6	--	--	--	--	--	--
	07/30/14	ug/L	--	--	--	--	--	<0.5	<0.5	--	<0.5
	08/01/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/04/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/05/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/06/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/07/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/08/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/15/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/18/14	ug/L	3.6	--	3.8	--	--	--	--	--	--
	08/22/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/29/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	09/15/14	ug/L	--	--	--	--	--	--	--	--	<0.5
	11/03/14	ug/L	--	0.78	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	11/04/14	ug/L	0.85	--	4.3	--	--	--	--	--	--
	12/11/14	ug/L	--	--	--	--	--	--	--	--	<0.5
	12/18/14	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	01/19/15	ug/L	--	0.97	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	02/02/15	ug/L	3.3	--	2.8	--	--	--	--	--	--
	02/13/15	ug/L	--	1.3	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	03/06/15	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	04/02/15	ug/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	05/01/15	ug/L	--	0.98	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	05/12/15	ug/L	5.0	--	0.83	--	--	--	--	--	--
	06/05/15	ug/L	--	1.0	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/14/15	ug/L	--	0.76	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/06/15	ug/L	--	1.0	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/11/15	ug/L	3.8	--	1.7	--	--	--	--	--	--
	09/03/15	ug/L	--	0.97	--	<0.50	<0.50	--	<0.50	<0.50	<0.50

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	10/06/15	ug/L	--	0.87	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	11/02/15	ug/L	2.3	--	1.1	--	--	--	--	--	--
	11/05/15	ug/L	--	0.89	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	12/03/15	ug/L	--	1.2	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	12/11/15	ug/L	--	1.0	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	01/07/16	ug/L	--	0.96	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	01/21/16	ug/L	--	0.95	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	02/01/16	ug/L	<5.0	0.92	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	02/18/16	ug/L	--	<1.0	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	03/03/16	ug/L	--	0.87	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	03/17/16	ug/L	--	1.00	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	04/05/16	ug/L	--	0.90	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	04/21/16	ug/L	--	0.94	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	05/02/16	ug/L	4.1	--	0.78	--	--	--	--	--	--
	05/05/16	ug/L	--	0.96	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	05/19/16	ug/L	--	0.97	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	06/01/16	ug/L	--	0.96	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	06/16/16	ug/L	--	1.1	--	<0.5	0.87	--	<0.5	<0.5	<0.5
	07/07/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	07/21/16	ug/L	--	<0.5	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	08/01/16	ug/L	4.5	--	<0.50	--	--	--	--	--	--
	08/04/16	ug/L	--	0.88	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	08/18/16	ug/L	--	0.63	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	09/08/16	ug/L	--	0.67	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	09/15/16	ug/L	--	0.71	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	10/06/16	ug/L	--	0.82	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	10/20/16	ug/L	--	0.81	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	11/01/16	ug/L	--	0.84	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	11/08/16	ug/L	2.6	--	0.69	--	--	--	--	--	--
	11/17/16	ug/L	--	0.65	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	12/01/16	ug/L	--	0.53	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	12/15/16	ug/L	--	0.59	--	<0.5	--	--	--	--	--
	12/16/16	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	01/06/17	ug/L	--	0.60	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	01/26/17	ug/L	--	0.84	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	02/03/17	ug/L	--	--	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	02/09/17	ug/L	--	0.70	--	--	--	--	--	--	--
	02/16/17	ug/L	--	0.70	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
Trichloroethene (5 ug/L MCL)	06/22/05	ug/L	--	--	1.9	--	--	--	--	--	--
	09/22/05	ug/L	--	--	<0.5	--	--	--	--	--	--
	12/19/05	ug/L	--	--	<0.50	--	--	--	--	--	--
	03/22/06	ug/L	--	--	<0.50	--	--	--	--	--	--
	06/21/06	ug/L	--	--	<0.50	--	--	--	--	--	--
	12/11/06	ug/L	--	--	<0.50	--	--	--	--	--	--
	03/14/07	ug/L	--	--	<0.50	--	--	--	--	--	--
	06/22/07	ug/L	--	--	<0.50	--	--	--	--	--	--
	09/27/07	ug/L	--	--	0.56	--	--	--	--	--	--
	12/13/07	ug/L	--	--	2.8	--	--	--	--	--	--
	06/25/08	ug/L	--	--	2	--	--	--	--	--	--
	07/08/08	ug/L	26	--	<2.5	--	13	--	0.57	<0.5	<0.50
	07/09/08	ug/L	25	--	1.9	--	15	--	<0.5	<0.5	<0.50
	07/10/08	ug/L	23	--	1.3	--	12	--	<0.5	<0.5	<0.50

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	07/15/08	ug/L	30	--	1.4	--	14	--	<0.5	<0.5	<0.50
	07/16/08	ug/L	26	--	1.9	--	15	--	<0.5	<0.5	<0.50
	07/23/08	ug/L	24	--	1.2	--	12	--	<0.5	<0.5	<0.50
	07/30/08	ug/L	20	--	1.0	--	9.0	--	<0.5	<0.5	<0.50
	08/06/08	ug/L	19	--	<1.0	--	10	--	<0.5	<0.5	<0.50
	08/25/08	ug/L	16	--	0.65	--	8.7	--	<0.5	<0.5	<0.50
	09/24/08	ug/L	16	--	1.3	--	3.8	--	<0.5	<0.5	<0.50
	10/22/08	ug/L	14	--	0.54	--	7.3	--	<0.5	<0.5	<0.50
	11/26/08	ug/L	12	--	0.51	--	8.4	--	<0.5	<0.5	<0.50
	02/25/09	ug/L	12	--	1.0	--	6.7	--	<0.5	<0.5	<0.50
	03/18/09	ug/L	11	--	<0.5	--	5.6	--	<0.5	<0.5	<0.50
	04/29/09	ug/L	14	--	<0.5	--	6.7	--	<0.5	<0.5	<0.50
	05/27/09	ug/L	14	--	0.9	--	7.2	--	<0.5	<0.5	<0.50
	06/29/09	ug/L	17	--	0.58	--	8.1	--	<0.5	<0.5	<0.50
	07/22/09	ug/L	16	--	0.62	--	7.7	--	<0.5	<0.5	<0.50
	08/14/09	ug/L	18	--	<0.5	--	8.7	--	<0.5	<0.5	<0.50
	09/11/09	ug/L	14	--	0.6	--	7.5	--	<0.5	<0.5	<0.50
	10/08/09	ug/L	19	--	<0.5	--	9.4	--	<0.5	<0.5	<0.50
	12/09/09	ug/L	12	--	1.7	--	7.4	--	<0.5	<0.5	<0.50
	03/05/10	ug/L	14	--	1.6	--	--	--	--	--	--
	03/22/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/23/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/24/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/25/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/26/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/01/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/09/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/13/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/23/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/25/10	ug/L	--	--	--	<0.15	--	--	<0.15	<0.15	<0.15
	06/10/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/11/10	ug/L	22	--	1.6	--	--	--	--	--	--
	07/08/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/02/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	09/02/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	09/08/10	ug/L	21	--	2.0	--	--	--	--	--	--
	10/07/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/11/10	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	12/06/10	ug/L	23	--	--	--	--	--	--	--	--
	12/07/10	ug/L	--	--	1.2	<0.5	--	--	<0.5	<0.5	<0.5
	01/13/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	02/03/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/02/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/24/11	ug/L	23	--	0.54	--	--	--	--	--	--
	04/01/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/04/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/07/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/23/11	ug/L	24	--	0.52	--	--	--	--	--	--
	07/02/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/01/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/02/11	ug/L	--	--	0.55	--	--	--	--	--	--
	09/09/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	10/17/11	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/01/11	ug/L	22	--	<0.5	<0.5	--	--	<0.5	<0.5	<0.5
	12/07/11	ug/L	20	--	--	<0.5	<5	--	<0.5	<0.5	<0.5
	01/06/12	ug/L	13	--	--	<0.5	4.3	--	<0.5	<0.5	<0.5
	02/06/12	ug/L	--	--	<0.5	--	--	--	--	--	--
	02/08/12	ug/L	11	--	--	<0.5	3.4	--	<0.5	<0.5	<0.5
	03/09/12	ug/L	14	--	--	<0.5	3.8	--	<0.5	<0.5	<0.5
	04/16/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/01/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/07/12	ug/L	11	--	<0.5	--	--	--	--	--	--
	06/08/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	07/11/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/03/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/06/12	ug/L	12	--	<0.5	--	--	--	--	--	--
	09/06/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	10/15/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/05/12	ug/L	16	--	<0.5	<0.5	--	--	<0.5	<0.5	<0.5
	12/10/12	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	01/04/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	02/04/13	ug/L	19	--	<0.5	--	--	--	--	--	--
	02/09/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/09/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	04/15/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/07/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/13/13	ug/L	15	--	<0.5	--	--	--	--	--	--
	05/29/13	ug/L	--	--	--	--	--	--	--	--	<0.5
	06/13/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	06/17/13	ug/L	--	--	--	--	--	--	--	--	--
	07/02/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/10/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	08/12/13	ug/L	19	--	<0.5	--	--	--	--	--	--
	09/03/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	10/05/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/01/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	11/11/13	ug/L	13	--	0.54	--	--	--	--	--	--
	12/11/13	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	01/17/14	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	02/03/14	ug/L	17	--	0.81	--	--	--	--	--	--
	02/11/14	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	03/04/14	ug/L	--	--	--	<0.5	--	--	<0.5	<0.5	<0.5
	05/20/14	ug/L	--	--	1.2	--	--	--	--	--	--
	07/30/14	ug/L	--	--	--	--	--	<0.5	<0.5	--	<0.5
	08/01/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/04/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/05/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/06/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/07/14	ug/L	--	--	--	--	0.60	--	<0.5	<0.5	<0.5
	08/08/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/15/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/18/14	ug/L	18	--	3.1	--	--	--	--	--	--
	08/22/14	ug/L	--	--	--	--	<0.5	--	<0.5	<0.5	<0.5
	08/29/14	ug/L	--	--	--	--	0.65	--	<0.5	<0.5	<0.5

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	09/15/14	ug/L	--	--	--	--	--	--	--	--	<0.5
	11/03/14	ug/L	--	4.6	--	<0.5	0.97	--	<0.5	<0.5	<0.5
	11/04/14	ug/L	19	--	3.3	--	--	--	--	--	--
	12/11/14	ug/L	--	--	--	--	--	--	--	--	<0.5
	12/18/14	ug/L	--	6.3	--	<0.50	1.4	--	<0.50	<0.50	<0.50
	01/19/15	ug/L	--	3.4	--	<0.50	0.79	--	<0.50	<0.50	<0.50
	02/02/15	ug/L	18	--	2.3	--	--	--	--	--	--
	02/13/15	ug/L	--	4.8	--	<0.50	1.4	--	<0.50	<0.50	<0.50
	03/06/15	ug/L	--	3.7	--	<0.50	1.0	--	<0.50	<0.50	<0.50
	04/02/15	ug/L	--	4.1	--	<0.50	0.7	--	<0.50	<0.50	<0.50
	05/01/15	ug/L	--	3.6	--	<0.50	0.92	--	<0.50	<0.50	<0.50
	05/12/15	ug/L	18	--	0.67	--	--	--	--	--	--
	06/05/15	ug/L	--	3.5	--	<0.50	0.82	--	<0.50	<0.50	<0.50
	07/14/15	ug/L	--	3.8	--	<0.50	0.94	--	<0.50	<0.50	<0.50
	08/06/15	ug/L	--	3.7	--	<0.50	1.0	--	<0.50	<0.50	<0.50
	08/11/15	ug/L	21	--	1.5	--	--	--	--	--	--
	09/03/15	ug/L	--	3.8	--	<0.50	0.92	--	<0.50	<0.50	<0.50
	10/06/15	ug/L	--	3.6	--	<0.50	0.93	--	<0.50	<0.50	<0.50
	11/02/15	ug/L	16	--	2.1	--	--	--	--	--	--
	11/05/15	ug/L	--	3.2	--	<0.50	0.54	--	<0.50	<0.50	<0.50
	12/03/15	ug/L	--	4.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	12/11/15	ug/L	--	3.6	--	<0.50	0.81	--	<0.50	<0.50	<0.50
	01/07/16	ug/L	--	2.6	--	<0.50	0.58	--	<0.50	<0.50	<0.50
	01/21/16	ug/L	--	2.6	--	<0.50	0.53	--	<0.50	<0.50	<0.50
	02/01/16	ug/L	17	2.5	--	<0.50	0.53	--	<0.50	<0.50	<0.50
	02/18/16	ug/L	--	2.8	--	<0.50	0.71	--	<0.50	<0.50	<0.50
	03/03/16	ug/L	--	2.9	--	<0.5	0.70	--	<0.5	<0.5	<0.5
	03/17/16	ug/L	--	2.7	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	04/05/16	ug/L	--	2.5	--	<0.5	0.64	--	<0.5	<0.5	<0.5
	04/21/16	ug/L	--	2.7	--	<0.5	0.81	--	<0.5	<0.5	<0.5
	05/02/16	ug/L	20	--	<0.5	--	--	--	--	--	--
	05/05/16	ug/L	--	2.6	--	<0.5	0.67	--	<0.5	<0.5	<0.5
	05/19/16	ug/L	--	2.8	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	06/01/16	ug/L	--	2.8	--	<0.5	0.67	--	<0.5	<0.5	<0.5
	06/16/16	ug/L	--	2.5	--	<0.5	0.69	--	<0.5	<0.5	<0.5
	07/07/16	ug/L	--	3.1	--	<0.5	0.80	--	<0.5	<0.5	<0.5
	07/21/16	ug/L	--	2.8	--	<0.5	0.69	--	<0.5	<0.5	<0.5
	08/01/16	ug/L	20	--	0.76	--	--	--	--	--	--
	08/04/16	ug/L	--	3.1	--	<0.5	0.78	--	<0.5	<0.5	<0.5
	08/18/16	ug/L	--	2.5	--	<0.5	0.58	--	<0.5	<0.5	<0.5
	09/08/16	ug/L	--	2.7	--	<0.5	0.65	--	<0.5	<0.5	<0.5
	09/15/16	ug/L	--	2.5	--	<0.5	0.66	--	<0.5	<0.5	<0.5
	10/06/16	ug/L	--	2.7	--	<0.5	0.71	--	<0.5	<0.5	<0.5
	10/20/16	ug/L	--	2.2	--	<0.5	0.57	--	<0.5	<0.5	<0.5
	11/01/16	ug/L	--	2.7	--	<0.5	0.69	--	<0.5	<0.5	<0.5
	11/08/16	ug/L	18	--	0.77	--	--	--	--	--	--
	11/17/16	ug/L	--	2.7	--	<0.5	0.74	--	<0.5	<0.5	<0.5
	12/01/16	ug/L	--	2.00	--	<0.5	0.55	--	<0.5	<0.5	<0.5
	12/15/16	ug/L	--	2.1	--	<0.5	--	--	--	--	--
	12/16/16	ug/L	--	--	--	--	0.57	--	<0.5	<0.5	<0.5
	01/06/17	ug/L	--	1.7	--	<0.5	0.53	--	<0.5	<0.5	<0.5
	01/26/17	ug/L	--	1.8	--	<0.5	0.55	--	<0.5	<0.5	<0.5

TABLE 8
SELECT COMPOUNDS MONITORED IN
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HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	02/03/17	ug/L	--	--	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
	02/09/17	ug/L	--	2.7	--	--	--	--	--	--	--
	02/16/17	ug/L	--	1.7	--	<0.5	<0.5	--	<0.5	<0.5	<0.5
1,4-Dioxane (1 ug/L California Notification Level)	06/22/05	ug/L	--	--	140 E	--	--	--	--	--	--
	09/22/05	ug/L	--	--	25 E	--	--	--	--	--	--
	12/19/05	ug/L	--	--	5.1	--	--	--	--	--	--
	03/22/06	ug/L	--	--	83	--	--	--	--	--	--
	06/21/06	ug/L	--	--	25	--	--	--	--	--	--
	12/11/06	ug/L	--	--	42	--	--	--	--	--	--
	03/14/07	ug/L	--	--	33	--	--	--	--	--	--
	06/22/07	ug/L	--	--	15	--	--	--	--	--	--
	09/27/07	ug/L	--	--	110	--	--	--	--	--	--
	12/13/07	ug/L	--	--	660	--	--	--	--	--	--
	06/25/08	ug/L	--	--	710	--	--	--	--	--	--
	07/08/08	ug/L	410	--	490	--	460	--	35	--	--
	07/09/08	ug/L	360	--	410	--	360	--	13	--	--
	07/10/08	ug/L	330	--	340	--	310	--	6.4	--	--
	07/15/08	ug/L	290	--	350	--	320	220	3.4	--	--
	07/16/08	ug/L	310	--	320	--	350	--	3.7	--	--
	07/23/08	ug/L	220	--	190	--	220	--	5.2	--	--
	07/30/08	ug/L	230	--	200	--	220	--	6.3	--	--
	08/06/08	ug/L	230	--	190	--	200	--	18	--	6.8
	08/25/08	ug/L	150	--	130	--	140	--	10	--	<0.50
	09/24/08	ug/L	100	--	74	--	91	--	<2	--	--
	10/22/08	ug/L	95	--	120	--	120	--	6.4	--	--
	11/26/08	ug/L	74	--	110	--	91	--	4.5	--	--
	02/25/09	ug/L	83	--	160	--	120	--	6.4	--	--
	03/18/09	ug/L	54	--	70	--	69	--	2.0	--	--
	04/29/09	ug/L	65	--	80	--	74	--	2.9	--	--
	05/27/09	ug/L	71	--	150	--	110	--	2.5	--	--
	06/29/09	ug/L	68	--	120	--	87	--	2.4	--	--
	07/22/09	ug/L	65	--	120	--	100	--	<2	--	--
	08/14/09	ug/L	72	--	81	--	80	--	2.0	--	--
	09/11/09	ug/L	63	--	120	--	90	--	2.6	--	--
	10/08/09	ug/L	76	--	87	--	82	--	<2	--	--
	12/09/09	ug/L	11	--	490	--	180	--	4.3	--	--
	03/05/10	ug/L	21	--	370	--	--	--	--	--	--
	03/22/10	ug/L	--	--	--	22	--	--	<2	--	--
	03/23/10	ug/L	--	--	--	24	--	--	<2	--	--
	03/24/10	ug/L	--	--	--	25	--	--	<2	--	--
	03/25/10	ug/L	--	--	--	22	--	--	<2	--	--
	03/26/10	ug/L	--	--	--	19	--	--	6.1	--	--
	04/01/10	ug/L	--	--	--	29	--	--	<2	--	--
	04/09/10	ug/L	--	--	--	31	--	--	<2	--	--
	04/13/10	ug/L	--	--	--	43	--	--	<2	--	--
	04/23/10	ug/L	--	--	--	35	--	--	<2	--	--
	05/25/10	ug/L	--	--	--	38	--	--	<1.9	--	--
	06/10/10	ug/L	--	--	--	40	--	--	<2	--	--
	06/11/10	ug/L	40	--	400	--	--	--	--	--	--
	07/08/10	ug/L	--	--	--	48	--	--	<2	--	--
	08/02/10	ug/L	--	--	--	42	--	--	<2	--	--
	09/02/10	ug/L	--	--	--	42	--	--	<2	--	--

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HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	09/08/10	ug/L	74	--	370	--	--	--	--	--	--
	10/07/10	ug/L	--	--	--	39	--	--	<2	--	--
	11/11/10	ug/L	--	--	--	33	--	--	<2	--	--
	12/06/10	ug/L	250	--	--	--	--	--	--	--	--
	12/07/10	ug/L	--	--	220	29	--	--	<2	--	--
	01/13/11	ug/L	--	--	--	29	--	--	6.4	--	--
	02/03/11	ug/L	--	--	--	22	--	--	<2	--	--
	03/02/11	ug/L	--	--	--	16	--	--	0.43	--	--
	03/24/11	ug/L	--	--	64	--	--	--	--	--	--
	04/01/11	ug/L	--	--	--	16	--	--	0.36	--	--
	05/04/11	ug/L	--	--	--	19	--	--	0.35	--	--
	06/07/11	ug/L	--	--	--	20	--	--	0.91	--	0.73
	06/23/11	ug/L	400	30	59	--	--	--	--	--	--
	07/02/11	ug/L	--	--	--	18	--	--	0.46	--	--
	08/01/11	ug/L	--	--	--	21	--	--	0.56	--	--
	08/02/11	ug/L	--	--	80	--	--	--	--	--	--
	09/09/11	ug/L	--	--	--	20	--	--	0.49	--	0.50
	10/17/11	ug/L	--	--	--	19	--	--	0.36	--	--
	11/01/11	ug/L	390	--	54	22	--	--	0.33	--	--
	12/07/11	ug/L	450	--	--	20	120	--	5.2	--	3.4
	01/06/12	ug/L	120	--	--	15	42	--	1.1	--	--
	02/06/12	ug/L	--	--	11	--	--	--	--	--	--
	02/08/12	ug/L	33	--	--	6.4	10	--	0.64	--	--
	03/09/12	ug/L	61	--	--	12	25	--	0.85	--	0.84
	04/16/12	ug/L	--	--	--	14	--	--	0.27	--	--
	05/01/12	ug/L	--	--	--	13	--	--	<0.2	--	--
	05/07/12	ug/L	23	--	7.0	--	--	--	--	--	--
	06/08/12	ug/L	--	--	--	19	--	--	2.2	--	1.9
	07/11/12	ug/L	--	--	--	19	--	--	1.4	--	--
	08/03/12	ug/L	--	--	--	16	--	--	<0.2	--	--
	08/06/12	ug/L	60	--	42	--	--	--	--	--	--
	09/06/12	ug/L	--	--	--	11	--	--	<0.2	--	<0.2
	10/15/12	ug/L	--	--	--	18	--	--	<0.2	--	--
	11/05/12	ug/L	240	--	83	12	--	--	<0.2	--	--
	12/10/12	ug/L	--	--	--	17	--	--	<0.2	--	0.13
	01/04/13	ug/L	--	--	--	10	--	--	<0.2	--	--
	02/04/13	ug/L	480	--	58	--	--	--	--	--	--
	02/09/13	ug/L	--	--	--	25	--	--	<0.2	--	--
	03/09/13	ug/L	--	--	--	18	--	--	<0.2	--	<0.2
	04/15/13	ug/L	--	--	--	13	--	--	0.33	--	--
	05/07/13	ug/L	--	--	--	22	--	--	0.66	--	--
	05/13/13	ug/L	450	--	41	--	--	--	--	--	--
	06/13/13	ug/L	--	--	--	25	--	--	0.89	--	1.1
	06/17/13	ug/L	--	--	--	--	--	--	--	--	--
	07/02/13	ug/L	--	--	--	27	--	--	0.98	--	--
	08/10/13	ug/L	--	--	--	24	--	--	0.86	--	--
	08/12/13	ug/L	370	--	81	--	--	--	--	--	--
	09/03/13	ug/L	--	--	--	9.7	--	--	0.72	--	1.3
	10/05/13	ug/L	--	--	--	31	--	--	1.4	--	--
	11/01/13	ug/L	--	--	--	28	--	--	0.70	--	--
	11/11/13	ug/L	430	--	130	--	--	--	--	--	--
	12/11/13	ug/L	--	--	--	22	--	--	0.47	--	0.61

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	01/17/14	ug/L	--	--	--	21	--	--	4.6	--	--
	02/03/14	ug/L	390	--	140	--	--	--	--	--	--
	02/11/14	ug/L	--	--	--	26	--	--	0.99	--	--
	03/04/14	ug/L	--	--	--	41	--	--	0.68	--	1
	05/20/14	ug/L	--	--	380	--	--	--	--	--	--
	07/30/14	ug/L	--	--	--	--	--	8.3	0.66	--	0.81
	08/01/14	ug/L	--	--	--	--	9.7	--	1.0	--	--
	08/04/14	ug/L	--	--	--	--	12	--	2.2	--	--
	08/05/14	ug/L	--	--	--	--	11	--	0.80	--	--
	08/06/14	ug/L	--	--	--	--	11	--	2.1	--	--
	08/07/14	ug/L	--	--	--	--	11	--	1.8	--	--
	08/08/14	ug/L	--	--	--	--	8.8	--	2.0	--	--
	08/15/14	ug/L	--	--	--	--	13	--	9.8	--	--
	08/18/14	ug/L	360	--	970	--	--	--	--	--	--
	08/22/14	ug/L	--	--	--	--	8.5	--	1.2	--	--
	08/29/14	ug/L	--	--	--	--	15	--	11	--	--
	09/15/14	ug/L	--	--	--	--	--	--	--	--	<0.2
	11/03/14	ug/L	--	97	--	6.3	27	--	11.0	--	--
	11/04/14	ug/L	54	--	1800	--	--	--	--	--	--
	11/19/14	ug/L	--	--	--	--	--	32	<0.2	--	--
	12/11/14	ug/L	--	--	--	--	--	--	--	--	2.1
	12/18/14	ug/L	--	140	--	5.7	33	--	<0.20	--	2.3
	01/19/15	ug/L	--	90	--	12	32	--	0.28	--	0.34
	02/02/15	ug/L	290	--	340	--	--	--	--	--	--
	02/13/15	ug/L	--	180	--	7.8	48	--	1.6	--	0.55
	03/06/15	ug/L	--	120	--	9.2	40	--	<0.20	--	0.39
	04/02/15	ug/L	--	140	--	12	30	--	<0.20	--	0.38
	05/01/15	ug/L	--	130	--	16	40	--	0.62	--	0.54
	05/12/15	ug/L	350	--	180	--	--	--	--	--	--
	06/05/15	ug/L	--	130	--	18	38	--	0.28	--	0.67
	07/14/15	ug/L	--	110	--	19	40	--	0.65	--	0.77
	08/06/15	ug/L	--	130	--	20	43	--	0.57	--	0.9
	08/11/15	ug/L	250	--	300	--	--	--	--	--	--
	09/03/15	ug/L	--	150	--	17	40	--	0.26	--	0.31
	10/06/15	ug/L	--	130	--	17	46	--	0.43	--	0.39
	11/02/15	ug/L	380	--	240	--	--	--	--	--	--
	11/05/15	ug/L	--	120	--	10	20	--	<0.20	--	<0.20
	12/03/15	ug/L	--	170	--	18	27	--	0.25	--	<0.20
	12/11/15	ug/L	--	100	--	12	31	--	<0.20	<0.20	<0.20
	01/07/16	ug/L	--	110	--	13	33	--	<0.20	--	<0.20
	01/21/16	ug/L	--	110	--	14	38	--	<0.20	<0.20	<0.20
	02/01/16	ug/L	270	110	--	12	31	--	<0.20	--	<0.20
	02/18/16	ug/L	--	100	--	7.7	20	--	<0.20	<0.20	<0.20
	03/03/16	ug/L	--	120	--	11	27	--	<0.2	--	<0.2
	03/17/16	ug/L	--	140	--	11	33	--	<0.2	<0.2	<0.2
	04/05/16	ug/L	--	91	--	7.2	27	--	<0.2	--	<0.2
	04/21/16	ug/L	--	94	--	7.5	24	--	<0.2	<0.2	1.8
	05/02/16	ug/L	220	--	73	--	--	--	--	--	0.42
	05/05/16	ug/L	--	94	--	15	37	--	<0.2	<0.2	<0.2
	05/19/16	ug/L	--	68	--	9.9	33	--	<0.2	<0.2	<0.2
	06/01/16	ug/L	--	110	--	12	33	--	0.2	<0.2	<0.2
	06/16/16	ug/L	--	82	--	7.6	24	--	<0.2	<0.2	<0.2

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	07/07/16	ug/L	--	95	--	7.3	25	--	<0.2	<0.2	<0.2
	07/21/16	ug/L	--	81	--	8.4	21	--	<0.2	<0.2	<0.2
	08/01/16	ug/L	250	--	90	--	--	--	--	--	--
	08/04/16	ug/L	--	77	--	6.5	21	--	<0.2	<0.2	<0.2
	08/18/16	ug/L	--	86	--	9.6	26	--	<0.2	<0.2	<0.2
	09/08/16	ug/L	--	77	--	8.1	20	--	<0.2	<0.2	<0.2
	09/15/16	ug/L	--	78	--	7.2	19	--	<0.2	<0.2	<0.2
	10/06/16	ug/L	--	72	--	9.6	22	--	<0.2	<0.2	<0.2
	10/20/16	ug/L	--	71	--	7.8	22	--	<0.2	2.7	2.8
	11/01/16	ug/L	--	73	--	6.6	20	--	<0.2	<0.2	<0.2
	11/08/16	ug/L	220	--	110	--	--	--	--	--	--
	11/17/16	ug/L	--	79	--	7.0	23	--	<0.2	<0.2	<0.2
	12/01/16	ug/L	--	85	--	6.1	24	--	<0.2	<0.2	<0.2
	12/15/16	ug/L	--	85	--	6.3	--	--	--	--	--
	12/16/16	ug/L	--	--	--	--	28	--	<0.2	<0.2	<0.2
	01/06/17	ug/L	--	110	--	4.5	27	--	<0.2	<0.2	<0.2
	01/26/17	ug/L	--	130	--	3.5	36	--	<0.2	<0.2	<0.2
	02/03/17	ug/L	--	--	--	4.5	3.3	--	<0.2	<0.2	<0.2
	02/09/17	ug/L	--	110	--	--	--	--	--	--	--
	02/16/17	ug/L	--	81	--	6.1	21	--	<0.2	<0.2	<0.2
Bromide	07/08/08	ug/L	1100	--	600	--	830	680	800	--	590
	07/09/08	ug/L	830	--	460	--	610	--	610	--	610
	07/10/08	ug/L	820	--	470	--	640	--	600	--	620
	07/15/08	ug/L	890	--	450	--	680	690	610	--	760
	07/16/08	ug/L	640	--	490	--	830	--	600	--	600
	07/23/08	ug/L	910	--	670	--	1100	--	830	--	960
	07/30/08	ug/L	3100	--	1300	--	2400	--	2600	--	2700
	08/06/08	ug/L	910	--	560	--	590	--	590	--	780
	08/25/08	ug/L	870	--	390	--	620	--	590	--	580
	09/24/08	ug/L	710	--	320	--	510	--	490	--	550
	10/22/08	ug/L	970	--	610	--	750	--	700	--	700
	11/26/08	ug/L	1100	--	740	--	1000	--	1000	--	880
	02/25/09	ug/L	2000	--	410	--	580	--	580	--	570
	03/18/09	ug/L	900	--	440	--	670	--	660	--	610
	04/29/09	ug/L	960	--	380	--	650	--	650	--	720
	05/27/09	ug/L	1000	--	380	--	660	--	670	--	680
	06/29/09	ug/L	1200	--	300	--	560	--	630	--	650
	07/22/09	ug/L	1100	--	430	--	870	--	820	--	830
	08/14/09	ug/L	1600	--	480	--	1100	--	1100	--	1100
	09/11/09	ug/L	970	--	490	--	620	--	590	--	1000
	10/08/09	ug/L	1100	--	420	--	910	--	770	--	820
	12/09/09	ug/L	1400	--	540	--	920	--	880	--	980
	03/22/10	mg/L	--	--	--	0.36	--	--	0.35	--	0.36
	03/23/10	mg/L	--	--	--	0.36	--	--	0.35	--	0.33
	03/24/10	mg/L	--	--	--	0.34	--	--	0.33	--	0.32
	03/25/10	mg/L	--	--	--	0.32	--	--	0.32	--	0.32
	03/26/10	mg/L	--	--	--	0.33	--	--	0.31	--	0.31
	04/01/10	mg/L	--	--	--	0.36	--	--	0.31	--	0.34
	04/09/10	mg/L	--	--	--	0.31	--	--	0.30	--	0.29
	04/13/10	mg/L	--	--	--	0.37	--	--	0.33	--	0.32
	04/23/10	mg/L	--	--	--	0.30	--	--	0.38	--	0.3
	05/25/10	mg/L	--	--	--	0.45	--	--	0.33	--	0.34

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	06/10/10	mg/L	--	--	--	0.34	--	--	0.33	--	0.33
	07/08/10	mg/L	--	--	--	0.30	--	--	0.33	--	0.33
	08/02/10	mg/L	--	--	--	0.27	--	--	0.28	--	0.28
	09/02/10	mg/L	--	--	--	0.25	--	--	0.27	--	0.23
	10/07/10	mg/L	--	--	--	0.25	--	--	0.26	--	0.25
	11/11/10	mg/L	--	--	--	0.20	--	--	0.19	--	0.18
	12/07/10	mg/L	--	--	--	0.28	--	--	0.27	--	0.28
	01/13/11	mg/L	--	--	--	0.25	--	--	0.24	--	0.26
	02/03/11	mg/L	--	--	--	0.22	--	--	0.22	--	0.22
	03/02/11	mg/L	--	--	--	0.23	--	--	0.23	--	0.22
	04/01/11	mg/L	--	--	--	0.16	--	--	0.15	--	0.16
	05/04/11	mg/L	--	--	--	3.0	--	--	3.00	--	3.2
	06/07/11	mg/L	--	--	--	3.2	--	--	3.30	--	3.2
	07/02/11	mg/L	--	--	--	0.64	--	--	0.65	--	0.64
	08/01/11	mg/L	--	--	--	2.3	--	--	2.30	--	2.3
	09/09/11	mg/L	--	--	--	0.48	--	--	0.50	--	0.52
	10/17/11	mg/L	--	--	--	0.48	--	--	0.47	--	0.47
	11/01/11	mg/L	--	--	--	0.43	--	--	0.42	--	0.43
	12/07/11	mg/L	0.51	--	--	0.15	0.23	--	0.24	--	0.23
	01/06/12	mg/L	3.5	--	--	0.80	1.4	--	1.50	--	1.4
	02/08/12	mg/L	1.1	--	--	0.23	0.46	--	0.43	--	0.44
	03/09/12	mg/L	1.2	--	--	0.21	0.44	--	0.44	--	0.44
	04/16/12	mg/L	--	--	--	0.19	--	--	0.19	--	0.21
	05/01/12	mg/L	--	--	--	0.28	--	--	0.28	--	0.31
	06/08/12	mg/L	--	--	--	0.19	--	--	0.19	--	0.18
	07/11/12	mg/L	--	--	--	0.19	--	--	0.19	--	0.19
	08/03/12	mg/L	--	--	--	0.52	--	--	0.50	--	0.19
	09/06/12	mg/L	--	--	--	0.19	--	--	0.19	--	0.21
	10/15/12	mg/L	--	--	--	0.20	--	--	0.20	--	0.19
	11/05/12	mg/L	--	--	--	0.20	--	--	0.20	--	0.19
	12/10/12	mg/L	--	--	--	0.18	--	--	0.17	--	0.17
	01/04/13	mg/L	--	--	--	0.07	--	--	0.21	--	0.22
	02/09/13	mg/L	--	--	--	0.19	--	--	0.21	--	0.19
	03/09/13	mg/L	--	--	--	0.21	--	--	0.23	--	0.21
	04/15/13	mg/L	--	--	--	0.22	--	--	0.20	--	0.21
	05/07/13	mg/L	--	--	--	0.19	--	--	0.20	--	0.18
	06/13/13	mg/L	--	--	--	0.21	--	--	0.21	--	0.21
	07/02/13	mg/L	--	--	--	0.17	--	--	0.18	--	0.19
	08/10/13	mg/L	--	--	--	0.17	--	--	0.15	--	0.14
	09/03/13	mg/L	--	--	--	0.46	--	--	0.46	--	0.46
	10/05/13	mg/L	--	--	--	0.21	--	--	0.20	--	0.23
	11/01/13	mg/L	--	--	--	0.22	--	--	0.23	--	0.23
	12/11/13	mg/L	--	--	--	0.22	--	--	0.21	--	0.2
	01/17/14	mg/L	--	--	--	0.21	--	--	0.21	--	0.21
	02/11/14	mg/L	--	--	--	0.24	--	--	0.22	--	0.2
	03/04/14	mg/L	--	--	--	0.21	--	--	0.18	--	0.19
	08/01/14	mg/L	--	--	--	--	<0.05	--	--	--	--
	08/08/14	mg/L	--	--	--	--	0.41	--	--	--	--
	11/03/14	mg/L	--	0.47	--	0.22	0.27	--	--	--	--
	12/18/14	mg/L	--	<0.01	--	<0.01	<0.01	--	--	--	--
	01/19/15	mg/L	--	0.54	--	0.27	0.33	--	--	--	--
	02/13/15	mg/L	--	0.48	--	0.19	0.25	--	--	--	--

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	03/06/15	mg/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	04/02/15	mg/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	05/01/15	mg/L	--	0.95	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	05/12/15	mg/L	10	--	1.6	--	--	--	--	--	--
	06/05/15	mg/L	--	0.98	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/14/15	mg/L	--	0.99	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/06/15	mg/L	--	1.0	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/11/15	mg/L	8.4	--	3.6	--	--	--	--	--	--
	09/03/15	mg/L	--	0.94	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	10/06/15	mg/L	--	1.2	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	11/02/15	mg/L	7.3	--	4.2	--	--	--	--	--	--
	11/05/15	mg/L	--	1.1	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	12/03/15	mg/L	--	0.66	--	0.31	0.32	--	--	--	--
	01/07/16	mg/L	--	0.56	--	0.24	0.31	--	--	--	--
	02/01/16	mg/L	--	0.41	--	0.20	0.24	--	--	--	--
	03/03/16	mg/L	--	0.46	--	0.23	0.22	--	--	--	--
	04/05/16	mg/L	--	0.48	--	0.23	0.28	--	--	--	--
	05/05/16	mg/L	--	0.43	--	0.22	0.27	--	--	--	--
	06/01/16	mg/L	--	0.88	--	0.43	0.48	--	--	--	--
	07/07/16	mg/L	--	0.66	--	0.32	0.29	--	--	--	--
	08/04/16	mg/L	--	0.52	--	0.24	0.3	--	--	--	--
	09/08/16	mg/L	--	0.35	--	0.34	0.38	--	--	--	--
	10/06/16	mg/L	--	0.26	--	0.15	0.17	--	--	--	--
	11/01/16	mg/L	--	0.26	--	0.12	0.15	--	--	--	--
	12/01/16	mg/L	--	0.18	--	0.10	0.11	--	--	--	--
	01/06/17	mg/L	--	43	--	22	25	--	--	--	--
	02/03/17	mg/L	--	--	--	0.42	0.42	--	--	--	--
Bromate (10 ug/L MCL)	06/22/05	ug/L	--	--	500	--	--	--	--	--	--
	07/08/08	ug/L	<4	--	<4	--	<4	<0.50	<4	--	<4
	07/09/08	ug/L	<4	--	<4	--	<4	--	19	--	<4
	07/10/08	ug/L	<4	--	<4	--	6.0	--	44	--	18
	07/15/08	ug/L	<4	--	<4	--	<4	<4	77	--	<4
	07/16/08	ug/L	<4	--	<4	--	<4	--	61	--	47
	07/23/08	ug/L	<4	--	<4	--	<4	--	<4	--	63
	07/30/08	ug/L	<4	--	<4	--	<4	--	<4	--	23
	08/06/08	ug/L	<4	--	<4	--	<4	--	5.0	--	<4
	08/25/08	ug/L	<5.0	--	<5.0	--	<5.0	--	7.8	--	17
	09/24/08	ug/L	<0.50	--	<0.50	--	<0.50	--	59	--	39
	10/22/08	ug/L	<0.50	--	<0.50	--	<5.0	--	<25	--	<5
	10/23/08	ug/L	<4	--	0.61	--	<4	--	--	--	--
	11/26/08	ug/L	<4	--	<4	--	<4	--	<4	--	<4
	02/25/09	ug/L	<4	--	<4	--	<4	--	5.0	--	<4
	03/18/09	ug/L	<4	--	<4	--	<4	--	22	--	7.0
	04/29/09	ug/L	<4	--	<4	--	6.0	--	31	--	34
	05/27/09	ug/L	<4	--	<4	--	<4	--	24	--	26
	06/29/09	ug/L	<4	--	<4	--	<4	--	18	--	15
	07/22/09	ug/L	<4	--	<4	--	<4	--	15	--	26
	08/14/09	ug/L	<4	--	<4	--	<4	--	<4	--	39
	09/11/09	ug/L	<4	--	<4	--	<4	--	9.0	--	22
	10/08/09	ug/L	<4	--	<4	--	<4	--	17	--	24
	12/09/09	ug/L	<4	--	<4	--	<4	--	18	--	23
	03/22/10	ug/L	--	--	--	<0.9	--	--	13.1	--	4.2

TABLE 8
SELECT COMPOUNDS MONITORED IN
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HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	03/23/10	ug/L	--	--	--	<0.5	--	--	16.4	--	30.1
	03/24/10	ug/L	--	--	--	<0.5	--	--	10.5	--	12.4
	03/25/10	ug/L	--	--	--	<0.5	--	--	11.6	--	10.3
	03/26/10	ug/L	--	--	--	<0.5	--	--	8.7	--	5.3
	04/01/10	ug/L	--	--	--	<0.5	--	--	12.7	--	<0.5
	04/09/10	ug/L	--	--	--	<0.5	--	--	9.6	--	10.5
	04/13/10	ug/L	--	--	--	<0.5	--	--	7.3	--	8.4
	04/23/10	ug/L	--	--	--	<0.5	--	--	7.4	--	7.0
	05/25/10	ug/L	--	--	--	<0.5	--	--	6.8	--	7.0
	06/10/10	ug/L	--	--	--	<0.5	--	--	7.7	--	6.6
	07/08/10	ug/L	--	--	--	0.6	--	--	7.3	--	6.7
	08/02/10	ug/L	--	--	--	<0.5	--	--	6.8	--	6.8
	09/02/10	ug/L	--	--	--	<0.5	--	--	7.0	--	7.3
	10/07/10	ug/L	--	--	--	<0.5	--	--	10.9	--	7.1
	11/11/10	ug/L	--	--	--	<0.5	--	--	7.0	--	11
	12/07/10	ug/L	--	--	--	<0.5	--	--	4.8	--	3.5
	01/13/11	ug/L	--	--	--	<0.5	--	--	9.3	--	7.9
	02/03/11	ug/L	--	--	--	<0.5	--	--	7.2	--	7.0
	03/02/11	ug/L	--	--	--	<0.5	--	--	10	--	8.4
	04/01/11	ug/L	--	--	--	<0.5	--	--	7.9	--	7.3
	05/04/11	ug/L	--	--	--	<0.5	--	--	8.6	--	8.0
	06/07/11	ug/L	--	--	--	<0.5	--	--	8.0	--	3.2
	07/02/11	ug/L	--	--	--	<0.5	--	--	6.5	--	4.1
	08/01/11	ug/L	--	--	--	<0.5	--	--	6.4	--	5.5
	09/09/11	ug/L	--	--	--	<0.5	--	--	8.1	--	11.9
	10/17/11	ug/L	--	--	--	<0.5	--	--	9.9	--	9.1
	11/01/11	ug/L	--	--	--	<0.5	--	--	12	--	7.9
	12/07/11	ug/L	<0.5	--	--	<0.5	<0.5	--	12	--	9.3
	01/06/12	ug/L	0.7	--	--	<0.5	1.0	--	14	--	7.3
	02/08/12	ug/L	<0.5	--	--	<0.5	<0.5	--	14	--	7.3
	03/09/12	ug/L	<0.5	--	--	<0.5	<0.5	--	12	--	12
	04/16/12	ug/L	--	--	--	<0.5	--	--	6.0	--	7.1
	05/01/12	ug/L	--	--	--	<0.5	--	--	8.0	--	6.3
	06/08/12	ug/L	--	--	--	<0.5	--	--	7.0	--	3.1
	07/11/12	ug/L	--	--	--	<0.5	--	--	5.0	--	4.2
	08/03/12	ug/L	--	--	--	<0.5	--	--	5.7	--	5.4
	09/06/12	ug/L	--	--	--	<0.5	--	--	6.7	--	7.1
	10/15/12	ug/L	--	--	--	<0.5	--	--	7.7	--	8.4
	11/05/12	ug/L	--	--	--	<0.5	--	--	5.4	--	6.7
	12/10/12	ug/L	--	--	--	<0.5	--	--	8.0	--	5.5
	01/04/13	ug/L	--	--	--	0.3	--	--	9.0	--	7.5
	02/09/13	ug/L	--	--	--	0.4	--	--	9.0	--	6.6
	03/09/13	ug/L	--	--	--	0.4	--	--	8.0	--	6.6
	04/15/13	ug/L	--	--	--	<0.3	--	--	7.0	--	5.0
	05/07/13	ug/L	--	--	--	0.3	--	--	9.0	--	6.1
	06/17/13	ug/L	--	--	--	<0.3	--	--	5.0	--	4.9
	07/03/13	ug/L	--	--	--	<0.3	--	--	5.0	--	4.2
	08/10/13	ug/L	--	--	--	0.3	--	--	6.0	--	5.1
	09/03/13	ug/L	--	--	--	0.3	--	--	5.0	--	4.8
	10/05/13	ug/L	--	--	--	0.3	--	--	8.0	--	6.2
	11/01/13	ug/L	--	--	--	0.4	--	--	6.0	--	4.9
	12/11/13	ug/L	--	--	--	0.4	--	--	8.0	--	6.5

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	01/17/14	ug/L	--	--	--	0.3	--	--	5.0	--	5.0
	02/11/14	ug/L	--	--	--	0.3	--	--	6.0	--	5.7
	03/04/14	ug/L	--	--	--	0.6	--	--	5.0	--	5.1
	08/01/14	ug/L	--	--	--	--	--	--	1.1	--	--
	08/04/14	ug/L	--	--	--	--	--	--	1.0	--	--
	08/05/14	ug/L	--	--	--	--	--	--	0.3	--	--
	08/06/14	ug/L	--	--	--	--	--	--	1.0	--	--
	08/07/14	ug/L	--	--	--	--	--	--	0.3	--	--
	08/08/14	ug/L	--	--	--	--	--	--	0.4	--	--
	08/15/14	ug/L	--	--	--	--	--	--	2.0	--	--
	08/22/14	ug/L	--	--	--	--	--	--	0.6	--	--
	08/29/14	ug/L	--	--	--	--	--	--	0.6	--	--
	11/03/14	ug/L	--	--	--	--	--	--	0.4	--	--
	12/18/14	ug/L	--	--	--	--	--	--	<0.3	--	--
	01/19/15	ug/L	--	--	--	--	--	--	<0.3	--	--
	02/13/15	ug/L	--	--	--	--	--	--	<0.3	--	--
	03/06/15	ug/L	--	--	--	--	--	--	<0.3	--	--
	04/02/15	ug/L	--	--	--	--	--	--	<0.3	--	--
	05/01/15	ug/L	--	--	--	--	--	--	0.7	--	--
	06/05/15	ug/L	--	--	--	--	--	--	0.5	--	--
	07/14/15	ug/L	--	--	--	--	--	--	<0.3	--	--
	08/06/15	ug/L	--	--	--	--	--	--	<0.3	--	--
	09/03/15	ug/L	--	--	--	--	--	--	<0.50	--	--
	10/06/15	ug/L	--	--	--	--	--	--	0.6	--	--
	11/05/15	ug/L	--	--	--	--	--	--	<0.50	--	--
	12/03/15	ug/L	--	--	--	--	--	--	<0.3	--	--
	01/07/16	ug/L	--	--	--	--	--	--	<0.3	--	--
	02/01/16	ug/L	--	--	--	--	--	--	<0.5	--	--
	03/03/16	ug/L	--	--	--	--	--	--	<1.0	--	--
	04/05/16	ug/L	--	--	--	--	--	--	<0.5	--	--
	05/05/16	ug/L	--	--	--	--	--	--	<0.5	--	--
	06/01/16	ug/L	--	--	--	--	--	--	<0.5	--	--
	07/07/16	ug/L	--	--	--	--	--	--	<0.5	--	--
	08/04/16	ug/L	--	--	--	--	--	--	<0.5	--	--
	09/08/16	ug/L	--	--	--	--	--	--	<1.0	--	--
	10/06/16	ug/L	--	--	--	--	<1.0	--	<1.0	--	--
	11/01/16	ug/L	--	--	--	--	<0.2	--	<0.2	--	--
	12/01/16	ug/L	--	--	--	--	<0.3	--	<0.3	--	--
	01/06/17	ug/L	--	--	--	--	<0.3	--	<0.3	--	--
	02/03/17	ug/L	--	--	--	--	<0.3	--	<0.3	--	--
Total Non-Filterable Residue	07/08/08	mg/L	<10	--	<10	--	<10	<10	--	--	--
	07/09/08	mg/L	<10	--	<10	--	<10	<10	--	--	--
	07/10/08	mg/L	<10	--	<10	--	<10	<10	--	--	--
	07/15/08	mg/L	<10	--	<10	--	<10	<10	--	--	--
	07/16/08	mg/L	<10	--	<10	--	<10	<10	--	--	--
	07/23/08	mg/L	<10	--	<10	--	<10	<10	--	--	--
	07/30/08	mg/L	<10	--	<10	--	<10	<10	--	--	--
	08/06/08	mg/L	<10	--	<10	--	<10	<10	--	--	--
	08/25/08	mg/L	<10	--	<10	--	<10	<10	--	--	--
	09/24/08	mg/L	<10	--	<10	--	<10	<10	--	--	--
	10/22/08	mg/L	<10	--	<10	--	<10	<10	--	--	--
	11/26/08	mg/L	<10	--	<10	--	<10	<10	--	--	--

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	02/25/09	mg/L	<10	--	<10	--	<10	<10	--	--	--
	03/18/09	mg/L	<10	--	<10	--	<10	<10	--	--	--
	04/29/09	mg/L	<10	--	<10	--	<10	<10	--	--	--
	05/27/09	mg/L	<10	--	<10	--	<10	<10	--	--	--
	06/29/09	mg/L	<10	--	<10	--	<10	<10	--	--	--
	07/22/09	mg/L	<10	--	<10	--	<10	<10	--	--	--
	08/14/09	mg/L	<10	--	<10	--	<10	<10	--	--	--
	09/11/09	mg/L	<10	--	<10	--	<10	<10	--	--	--
	10/08/09	mg/L	<10	--	<10	--	<10	<10	--	--	--
	12/09/09	mg/L	<10	--	<10	--	<10	<10	--	--	--
	03/22/10	mg/L	--	--	--	<10	--	<10	--	--	--
	05/25/10	mg/L	--	--	--	<10	--	<10	--	--	--
	06/10/10	mg/L	--	--	--	<10	--	<10	--	--	--
	07/08/10	mg/L	--	--	--	<10	--	<10	--	--	--
	08/02/10	mg/L	--	--	--	<10	--	<10	--	--	--
	09/02/10	mg/L	--	--	--	<10	--	<10	--	--	--
	10/07/10	mg/L	--	--	--	<10	--	<10	--	--	--
	11/11/10	mg/L	--	--	--	<10	--	<10	--	--	--
	12/07/10	mg/L	--	--	--	<10	--	<10	--	--	--
	01/13/11	mg/L	--	--	--	<10	--	<10	--	--	--
	02/03/11	mg/L	--	--	--	<10	--	<10	--	--	--
	03/02/11	mg/L	--	--	--	<10	--	<10	--	--	--
	04/01/11	mg/L	--	--	--	<10	--	<10	--	--	--
	05/04/11	mg/L	--	--	--	<10	--	<10	--	--	--
	06/07/11	mg/L	--	--	--	<10	--	<10	--	--	--
	07/02/11	mg/L	--	--	--	<10	--	<10	--	--	--
	08/01/11	mg/L	--	--	--	<10	--	<10	--	--	--
	09/09/11	mg/L	--	--	--	<10	--	<10	--	--	--
	10/17/11	mg/L	--	--	--	<10	--	<10	--	--	--
	11/01/11	mg/L	--	--	--	<10	--	<10	--	--	--
	12/18/14	mg/L	--	--	--	--	--	<3.7	--	--	--
	01/19/15	mg/L	--	--	--	--	--	<4.3	--	--	--
	02/13/15	mg/L	--	--	--	--	--	<4.0	--	--	--
	03/06/15	mg/L	--	--	--	--	--	<4.0	--	--	--
	04/02/15	mg/L	--	--	--	--	--	<3.7	--	--	--
	05/01/15	mg/L	--	--	--	--	--	<3.7	--	--	--
	06/05/15	mg/L	--	--	--	--	--	<3.7	--	--	--
	07/14/15	mg/L	--	--	--	--	--	<3.8	--	--	--
	08/06/15	mg/L	--	--	--	--	--	<4.0	--	--	--
	09/03/15	mg/L	--	--	--	--	--	<6.70	--	--	--
	10/06/15	mg/L	--	--	--	--	--	<1.10	--	--	--
	11/05/15	mg/L	--	--	--	--	--	<1.40	--	--	--
	12/03/15	mg/L	--	--	--	--	--	<1.0	--	--	--
	01/07/16	mg/L	--	--	--	--	--	<2.0	--	--	--
	02/01/16	mg/L	--	--	--	--	--	<1.0	--	--	--
	03/03/16	mg/L	--	--	--	--	--	<1.0	--	--	--
	04/05/16	mg/L	--	--	--	--	--	<1.0	--	--	--
	05/05/16	mg/L	--	--	--	--	--	<1.0	--	--	--
	06/01/16	mg/L	--	--	--	--	--	<1.0	<0.5	--	--
	07/07/16	mg/L	--	--	--	--	--	<1.0	--	--	--
	08/04/16	mg/L	--	--	--	--	--	<1.0	--	--	--
	09/08/16	mg/L	--	--	--	--	--	<1.0	--	--	--

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	10/06/16	mg/L	--	--	--	--	--	<1.0	--	--	--
	11/01/16	mg/L	--	--	--	--	--	<1.1	--	--	--
	12/01/16	mg/L	--	--	--	--	--	<1.1	--	--	--
Total Filterable Residue (500 mg/L MCL)	07/08/08	mg/L	1000	--	770	--	870	--	880	--	--
	07/09/08	mg/L	1100	--	830	--	930	--	960	--	--
	07/10/08	mg/L	1100	--	830	--	970	--	950	--	--
	07/15/08	mg/L	1200	--	840	--	1000	--	1000	--	--
	07/16/08	mg/L	1200	--	890	--	1100	--	1000	--	--
	07/23/08	mg/L	1100	--	850	--	980	--	940	--	--
	07/30/08	mg/L	1100	--	800	--	910	--	890	--	--
	08/06/08	mg/L	940	--	710	--	810	--	810	--	--
	08/25/08	mg/L	1000	--	740	--	860	--	870	--	--
	09/24/08	mg/L	960	--	770	--	810	--	840	--	830
	10/22/08	mg/L	910	--	790	--	860	--	860	--	850
	11/26/08	mg/L	870	--	770	--	840	--	850	--	860
	02/25/09	mg/L	840	--	770	--	810	--	840	--	860
	03/18/09	mg/L	890	--	780	--	830	--	840	--	860
	04/29/09	mg/L	1000	--	800	--	930	--	910	--	940
	05/27/09	mg/L	1200	--	790	--	910	--	910	--	880
	06/29/09	mg/L	1100	--	740	--	920	--	830	--	880
	07/22/09	mg/L	1100	--	800	--	940	--	620	--	930
	08/14/09	mg/L	1200	--	770	--	950	--	920	--	940
	09/11/09	mg/L	1200	--	810	--	1000	--	940	--	1300
	10/08/09	mg/L	1100	--	790	--	950	--	940	--	960
	12/09/09	mg/L	1200	--	820	--	1100	--	1100	--	1100
	03/22/10	mg/L	--	--	--	760	--	--	--	--	--
	03/24/10	mg/L	--	--	--	--	--	--	--	--	680
	05/25/10	mg/L	--	--	--	660	--	--	660	--	650
	06/10/10	mg/L	--	--	--	670	--	--	670	--	660
	07/08/10	mg/L	--	--	--	660	--	--	650	--	660
	08/02/10	mg/L	--	--	--	660	--	--	650	--	660
	09/02/10	mg/L	--	--	--	650	--	--	650	--	640
	10/07/10	mg/L	--	--	--	700	--	--	680	--	700
	11/11/10	mg/L	--	--	--	660	--	--	650	--	660
	12/07/10	mg/L	--	--	--	660	--	--	650	--	660
	01/13/11	mg/L	--	--	--	670	--	--	680	--	670
	02/03/11	mg/L	--	--	--	670	--	--	710	--	700
	03/02/11	mg/L	--	--	--	660	--	--	670	--	680
	04/01/11	mg/L	--	--	--	650	--	--	650	--	640
	05/04/11	mg/L	--	--	--	680	--	--	690	--	680
	06/07/11	mg/L	--	--	--	660	--	--	650	--	650
	07/02/11	mg/L	--	--	--	650	--	--	630	--	640
	08/01/11	mg/L	--	--	--	640	--	--	650	--	650
	09/09/11	mg/L	--	--	--	670	--	--	670	--	660
	10/17/11	mg/L	--	--	--	630	--	--	640	--	640
	11/01/11	mg/L	--	--	--	640	--	--	630	--	640
	12/18/14	mg/L	--	860	--	660	690	--	640	--	640
	03/06/15	mg/L	--	820	--	600	640	--	670	--	640
	06/05/15	mg/L	--	790	--	680	700	--	680	--	700
	09/03/15	mg/L	--	750	--	650	680	--	670	--	680
	12/03/15	mg/L	--	860	--	620	640	--	630	--	630
	03/03/16	mg/L	--	800	--	600	640	--	650	--	650

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
HISTORICAL DATA

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
	06/01/16	mg/L	--	830	--	640	690	--	680	--	700
	09/08/16	mg/L	--	910	--	690	710	--	700	--	680
	12/01/16	mg/L	--	980	--	630	670	--	670	--	660

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

MW - Monitor Well(s)

EW- Extraction Well(s)

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

PF = Post Particulate Filter

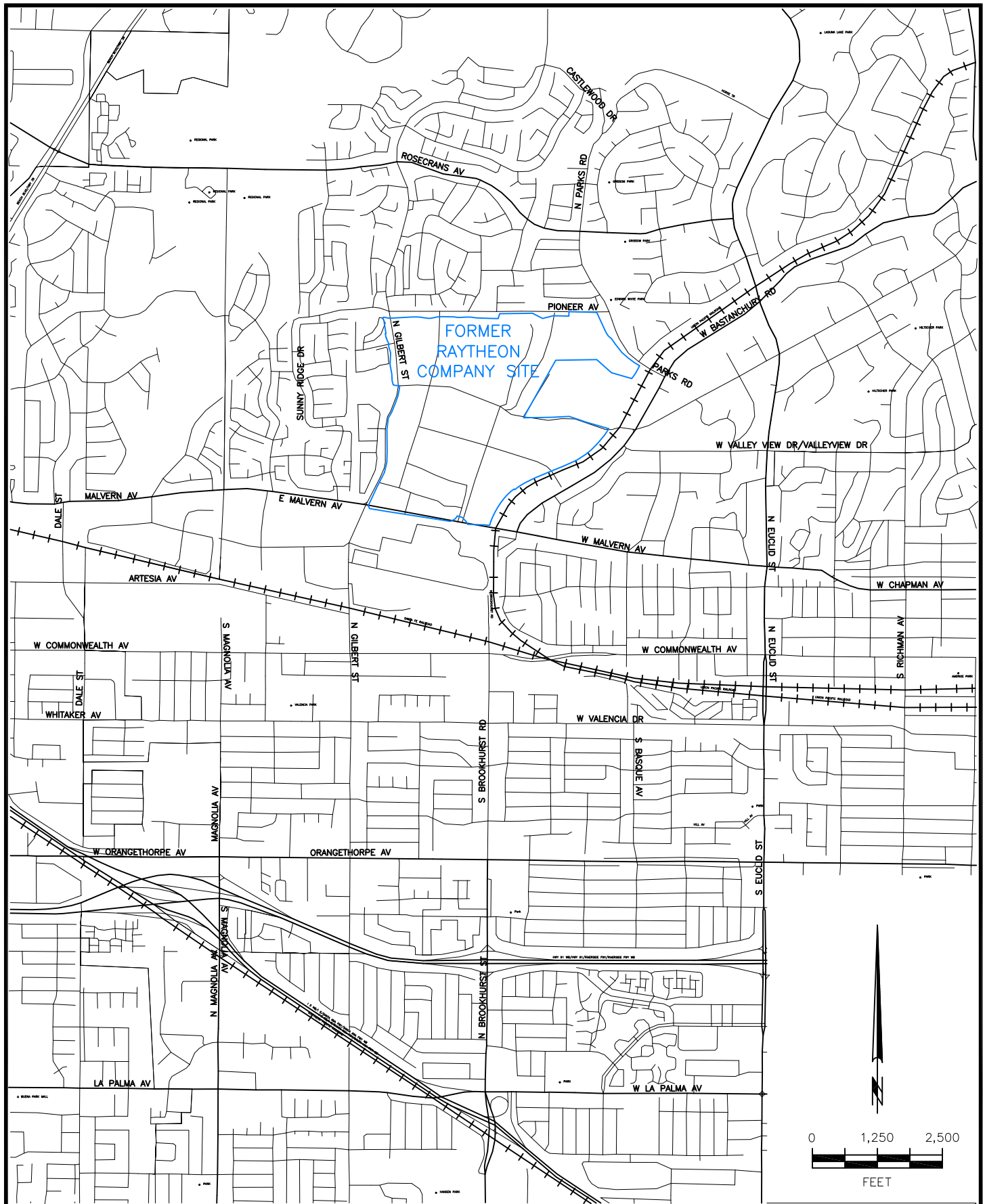
POX = Post Hypox Oxidation

CBT = Carbon Breakthrough

CEFF = Carbon Effluent

E = Data qualified as Estimated in accordance with quality control criteria

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

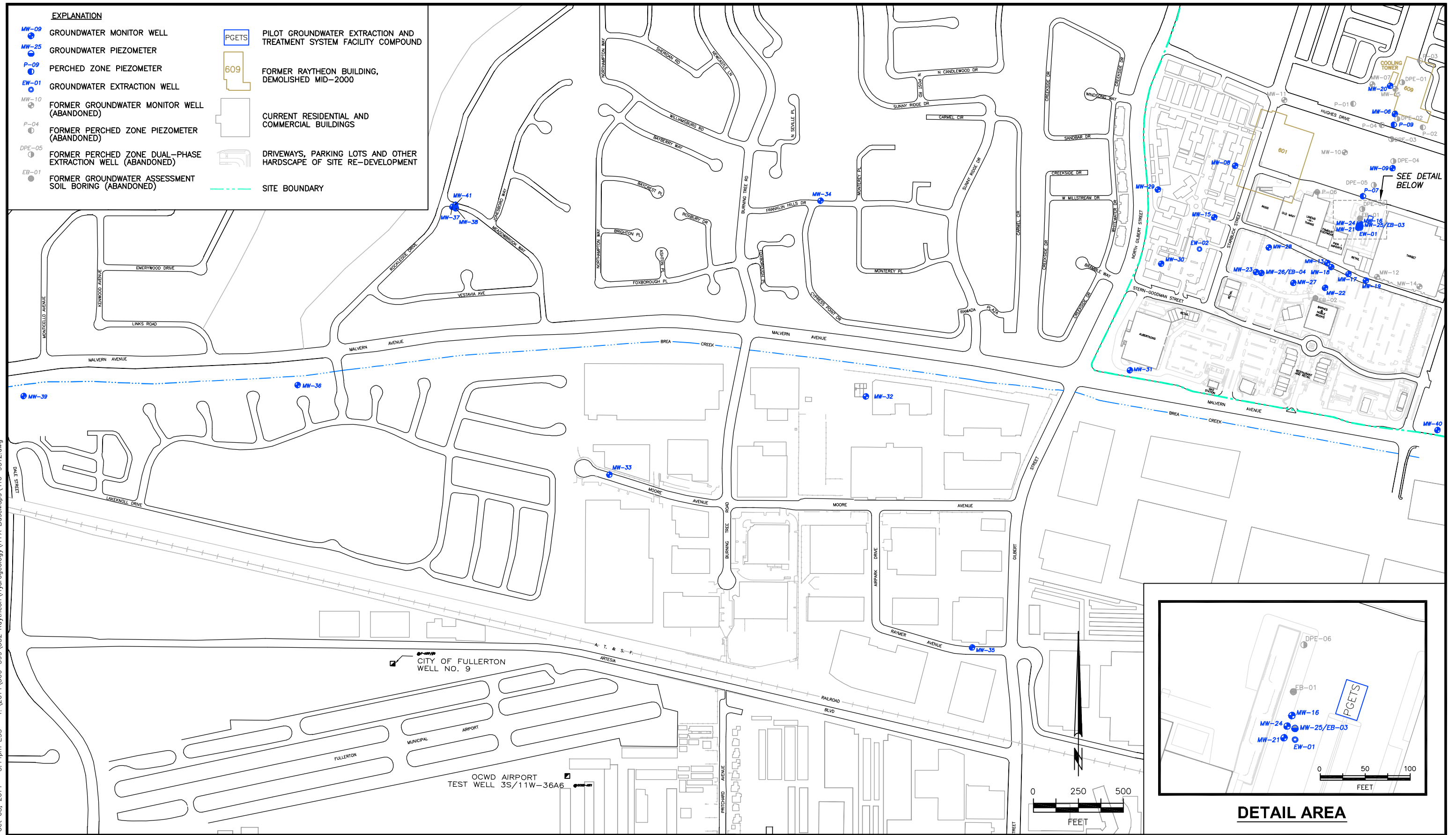


FIGURE 2.
WELL AND PIEZOMETER LOCATIONS

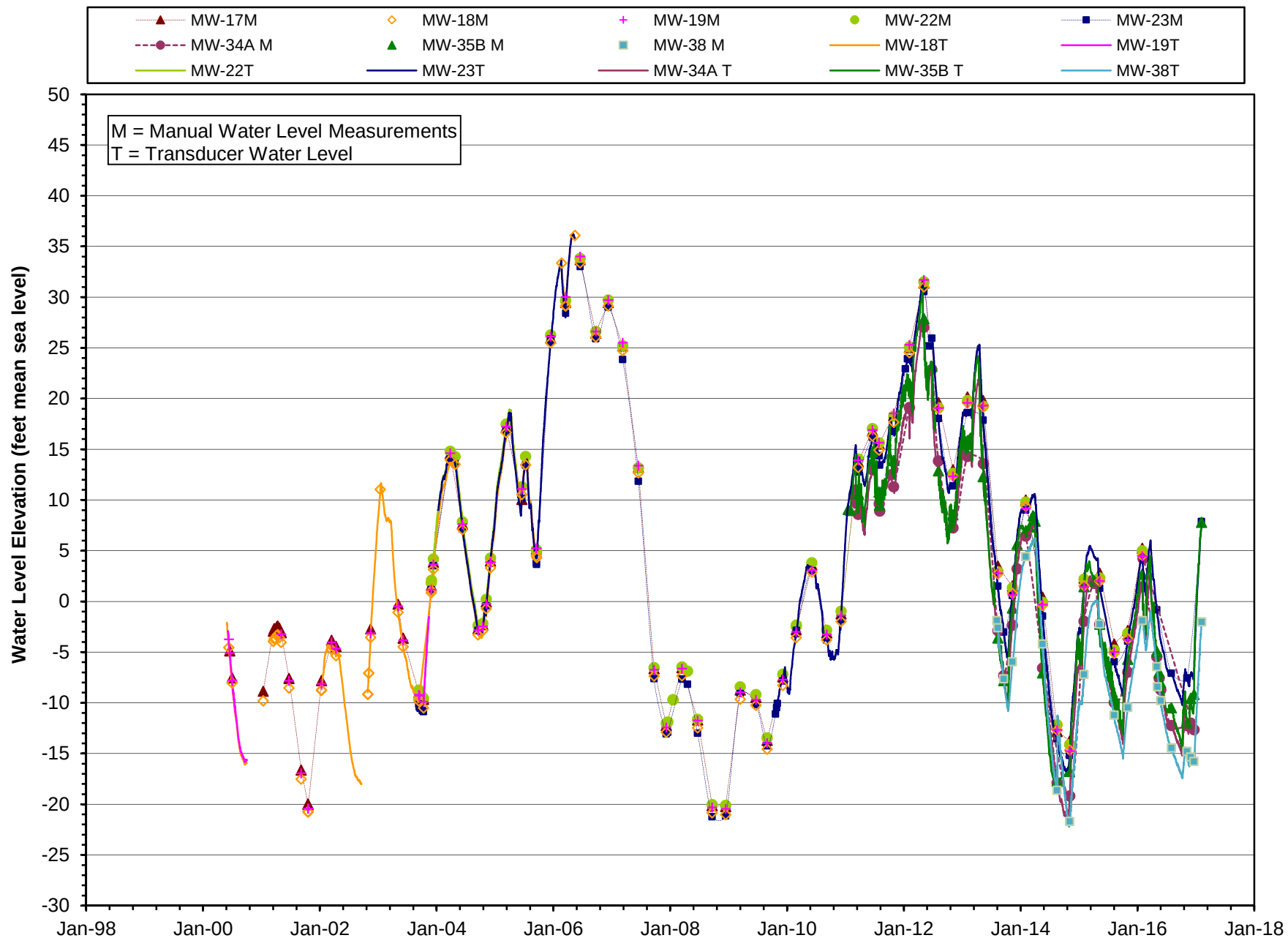


**FIGURE 3. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
UNIT A MONITOR WELLS**

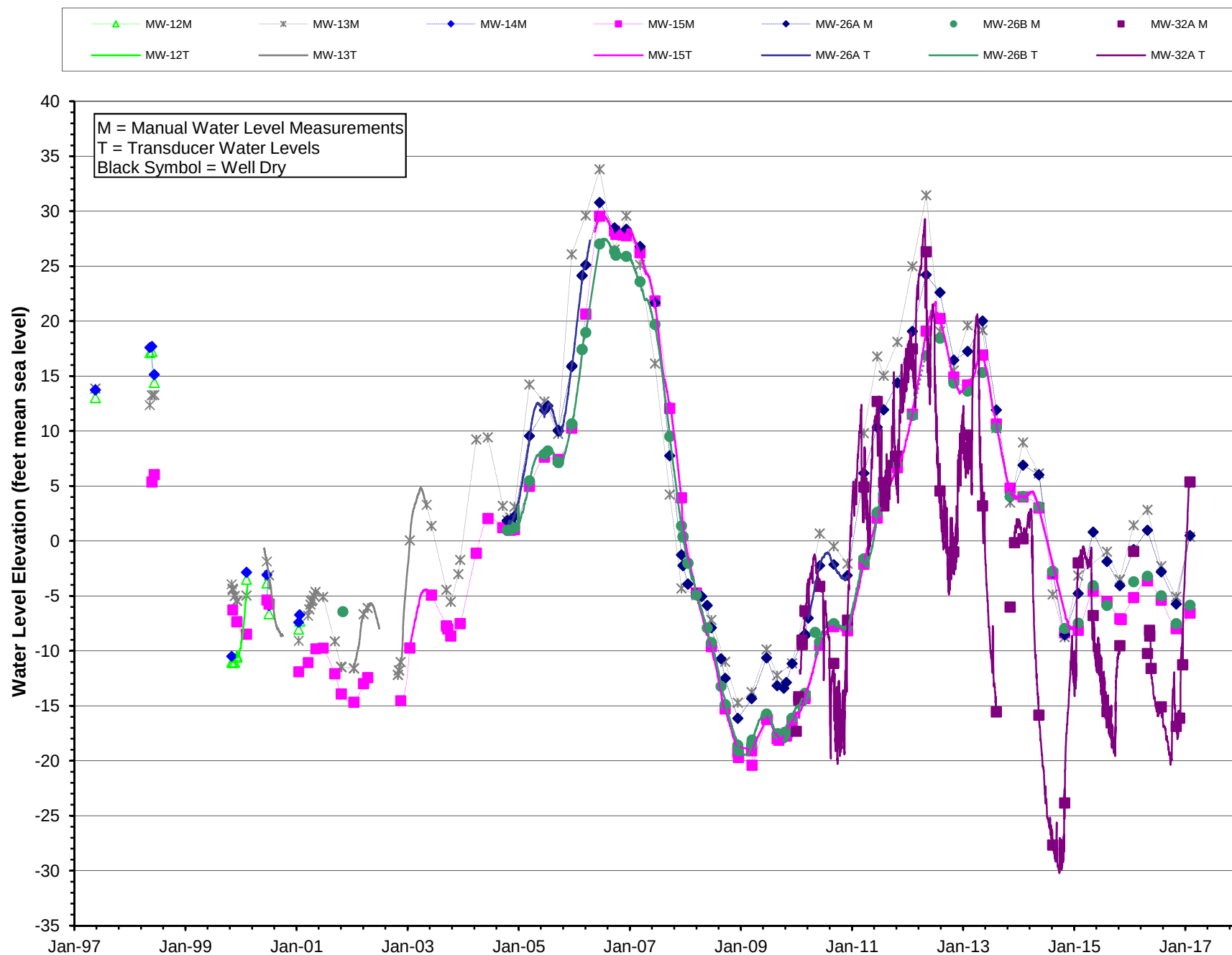


FIGURE 4. REGIONAL GROUNDWATER SYSTEM WATER LEVELS, UNIT AB MONITOR WELLS

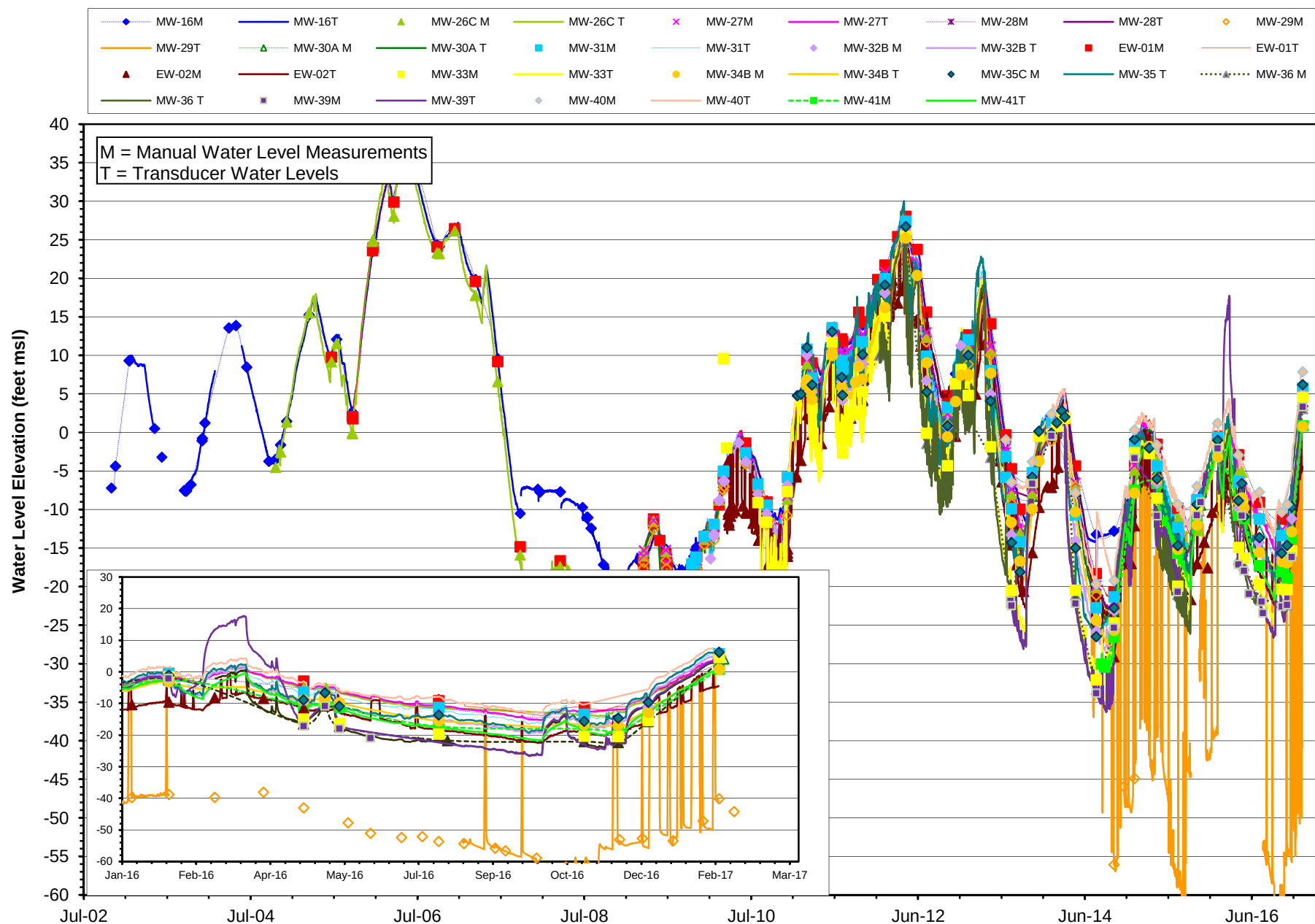


**FIGURE 5. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
UNIT B MONITOR AND EXTRACTION WELLS**

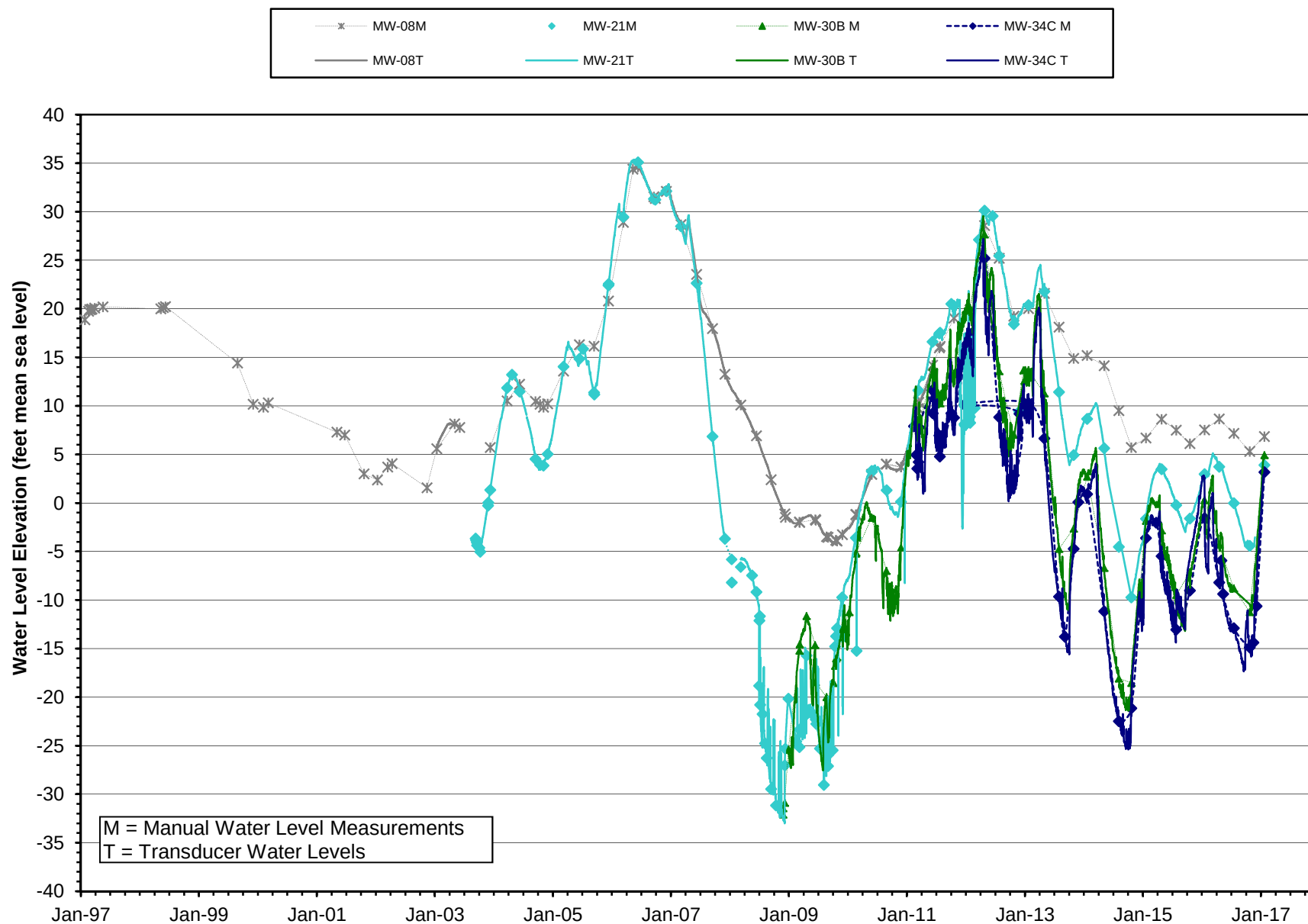


**FIGURE 6. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
UNIT BC MONITOR AND EXTRACTION WELLS**

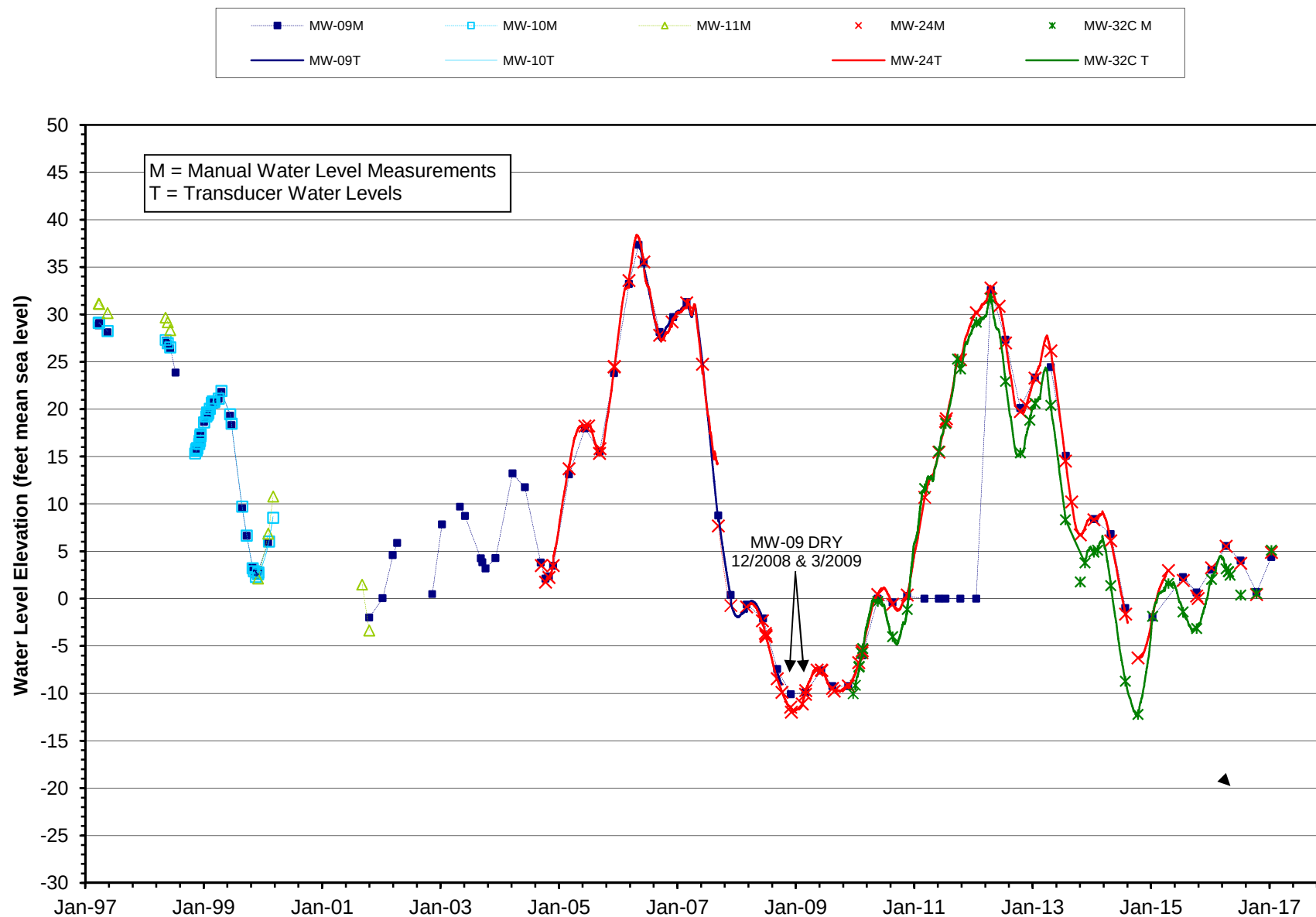


FIGURE 7. REGIONAL GROUNDWATER SYSTEM WATER LEVELS, UNIT C MONITOR WELLS

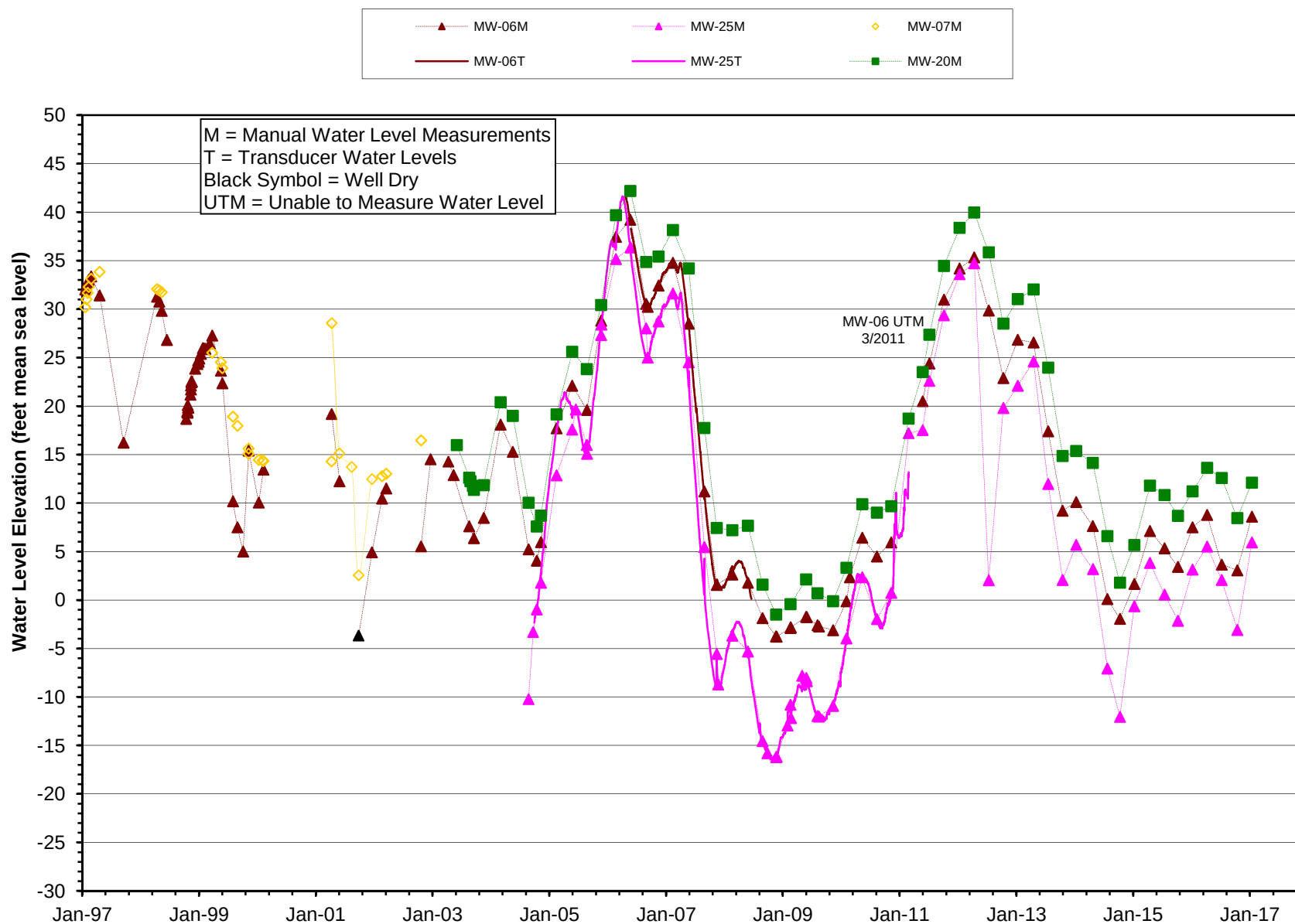


FIGURE 8. REGIONAL GROUNDWATER SYSTEM WATER LEVELS, UNIT D MONITOR WELLS

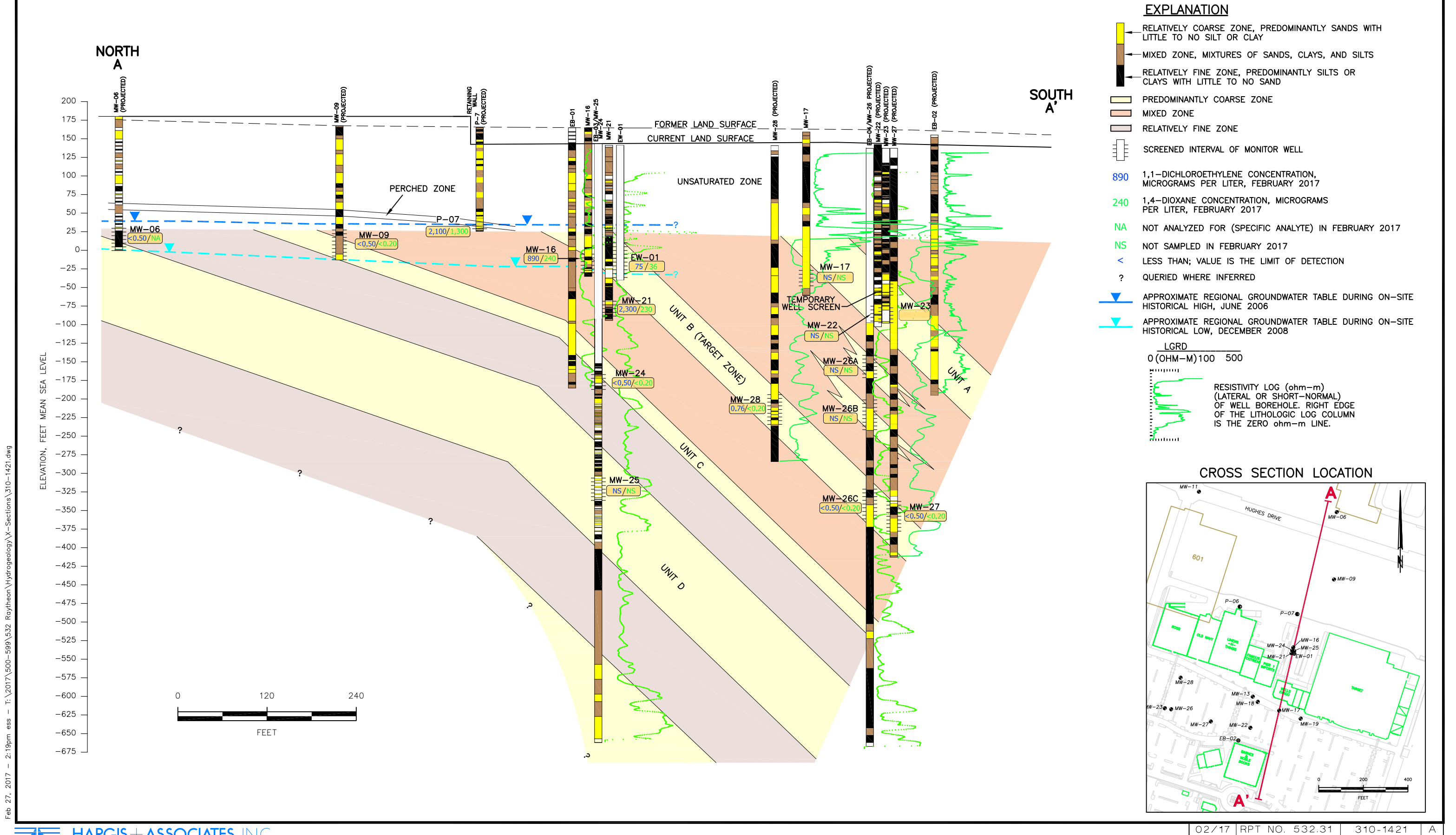


FIGURE 9.
SITE CONCEPTUAL GROUNDWATER MODEL HYDROGEOLOGIC CROSS-SECTION A-A'

Feb 27, 2017 - 2:19pm ess - T: \2017\500-599\532 Raytheon\Hydrogeology\Sections\310-1421.dwg

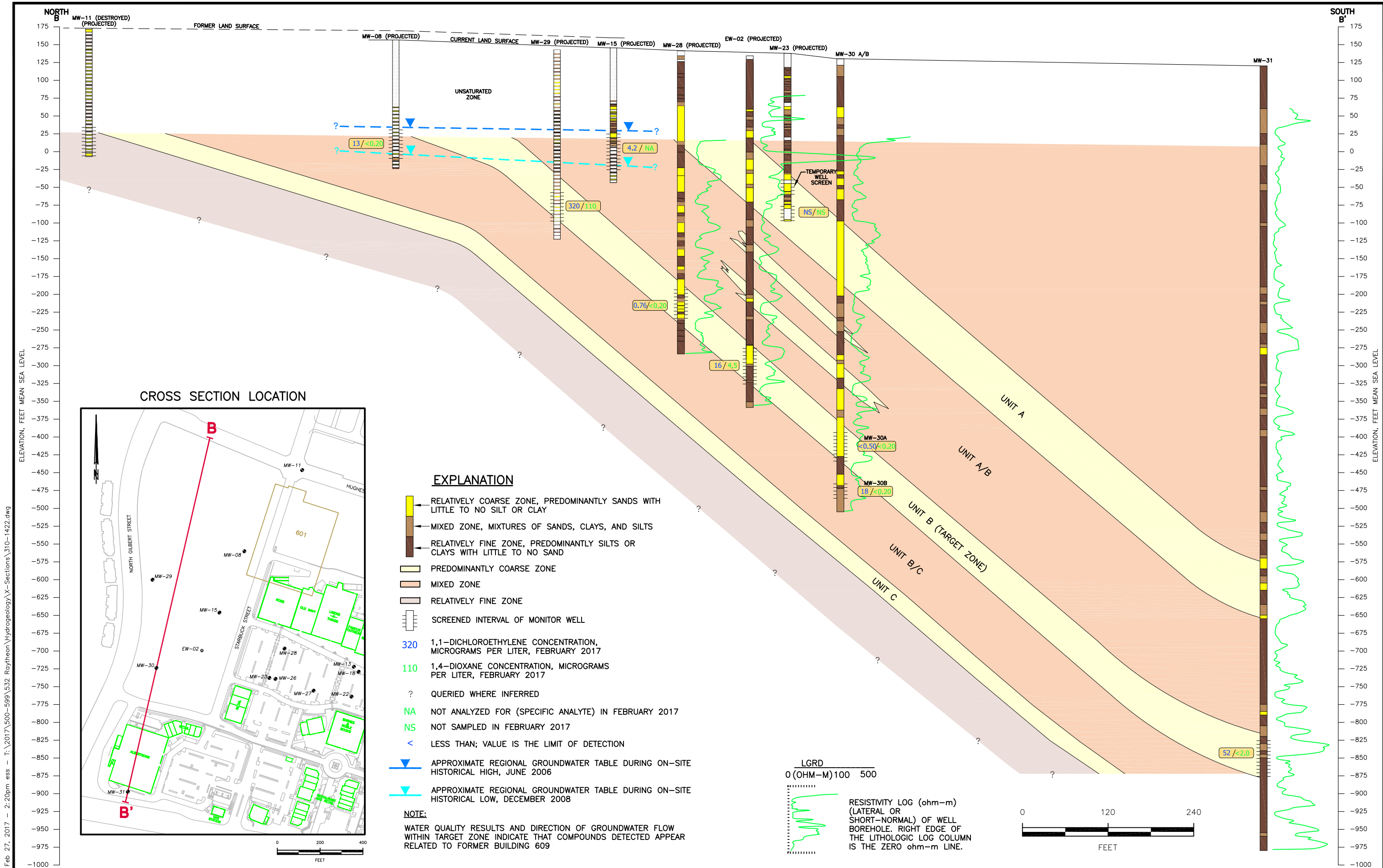
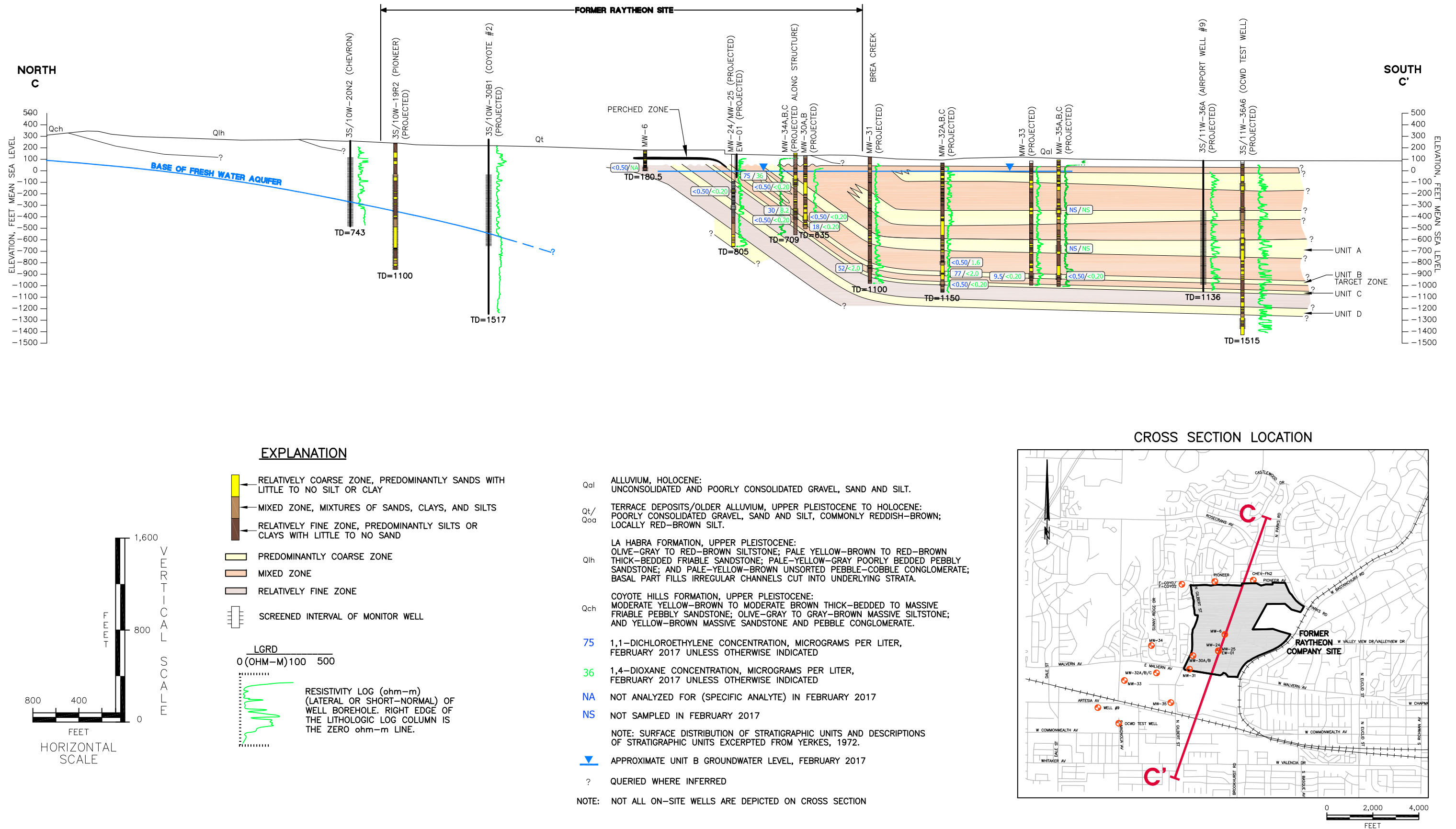


FIGURE 10.
SITE CONCEPTUAL GROUNDWATER MODEL HYDROGEOLOGIC CROSS-SECTION B-B'

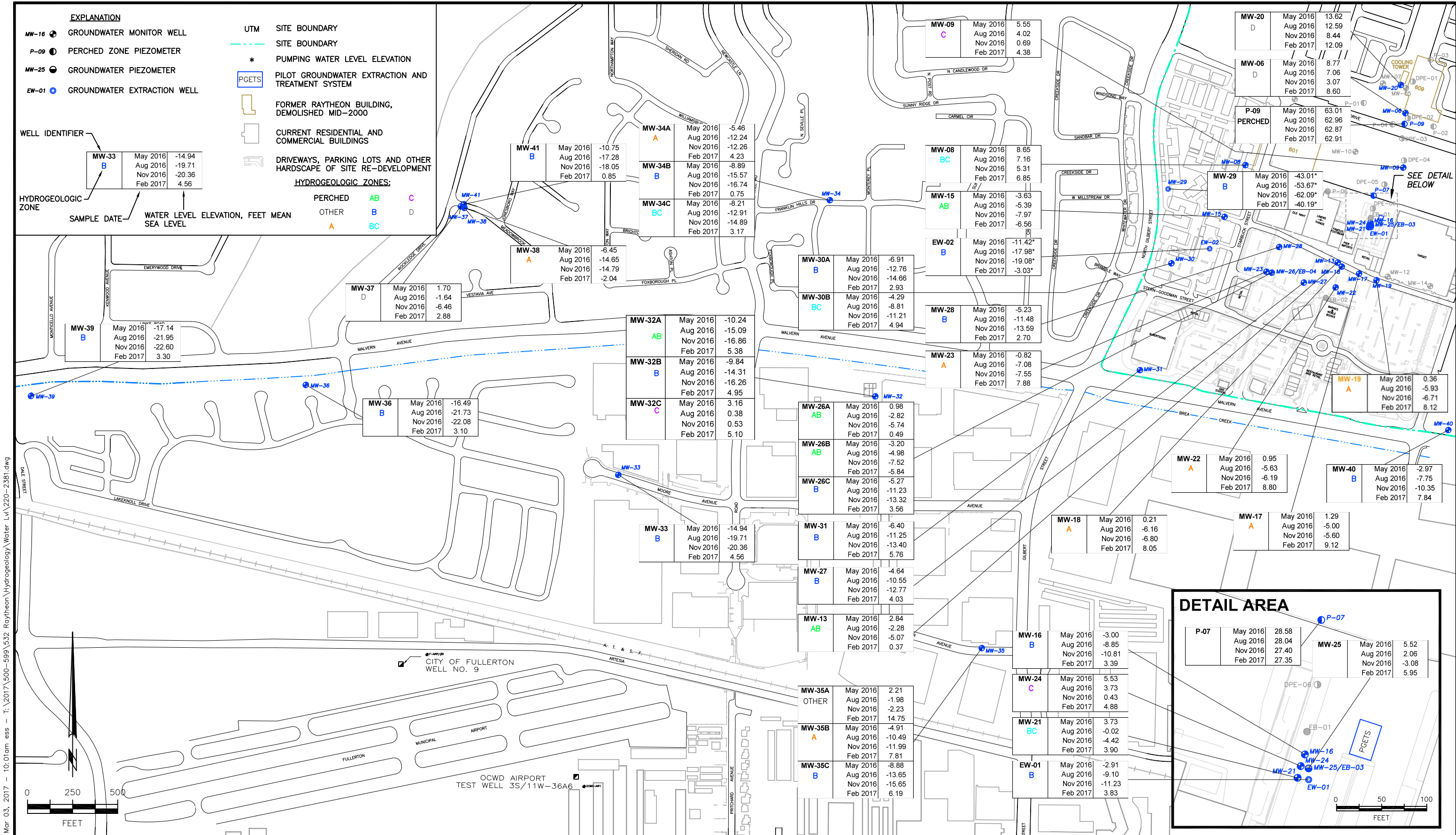
Feb 27, 2017 - 2:21pm ess - T: \\2017\\500-599\\532 Raytheon\\Hydrogeology\\X-Sect\\310-1423.dwg



HARGIS+ASSOCIATES, INC.
Hydrogeology/Engineering

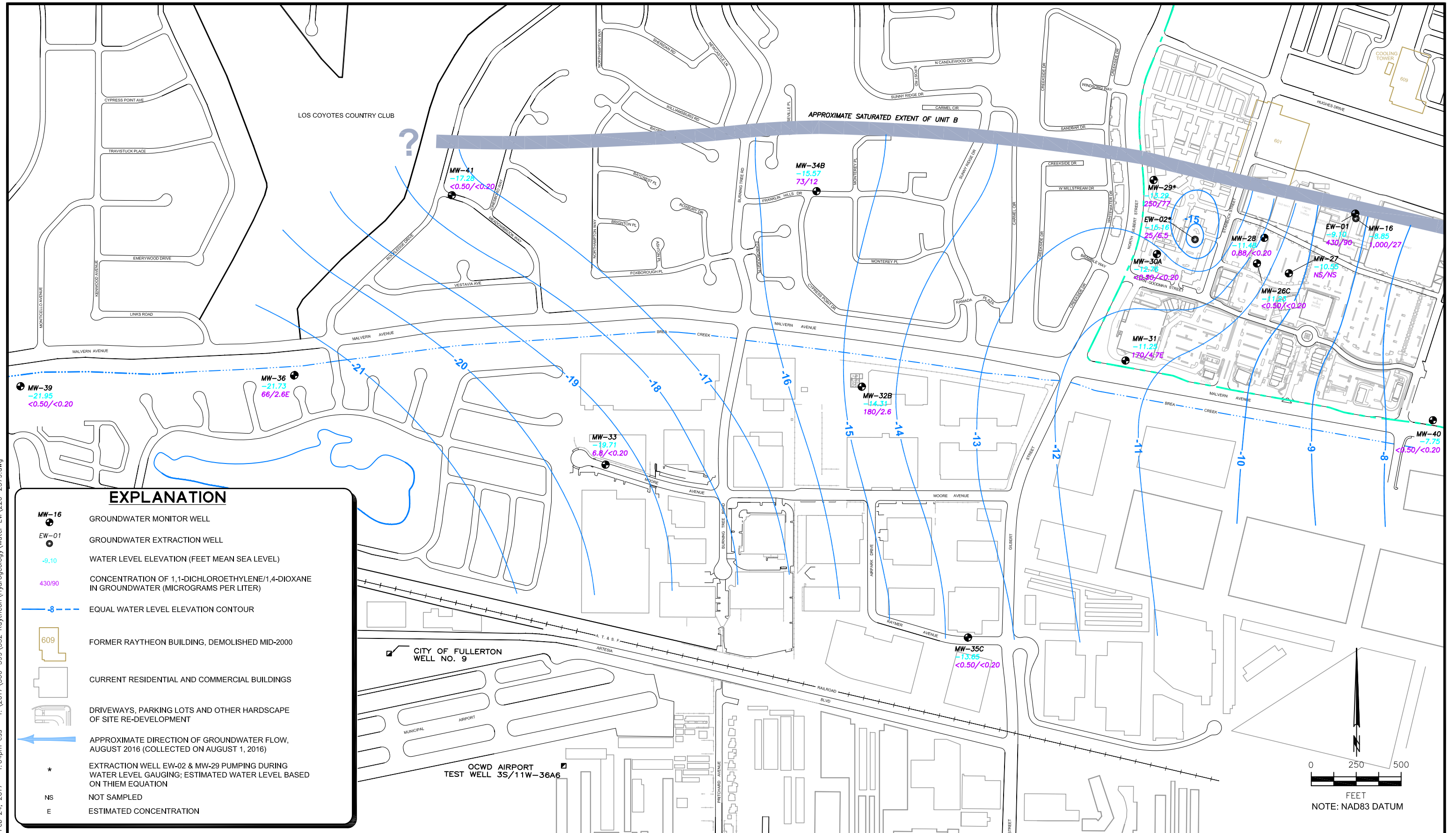
FIGURE 11.

REGIONAL CONCEPTUAL GROUNDWATER MODEL HYDROGEOLOGIC CROSS-SECTION C-C'



Mar 03, 2017 - 10:01am ess - T:\2017\500-599\532 Raytheon\Hydrogeology\Water Lvl\220-2381.dwg

Feb 24, 2017 - 1:04pm ess - T:\2017\500-599\532 Raytheon\Hydrogeology\Water Lv\220-2379.dwg



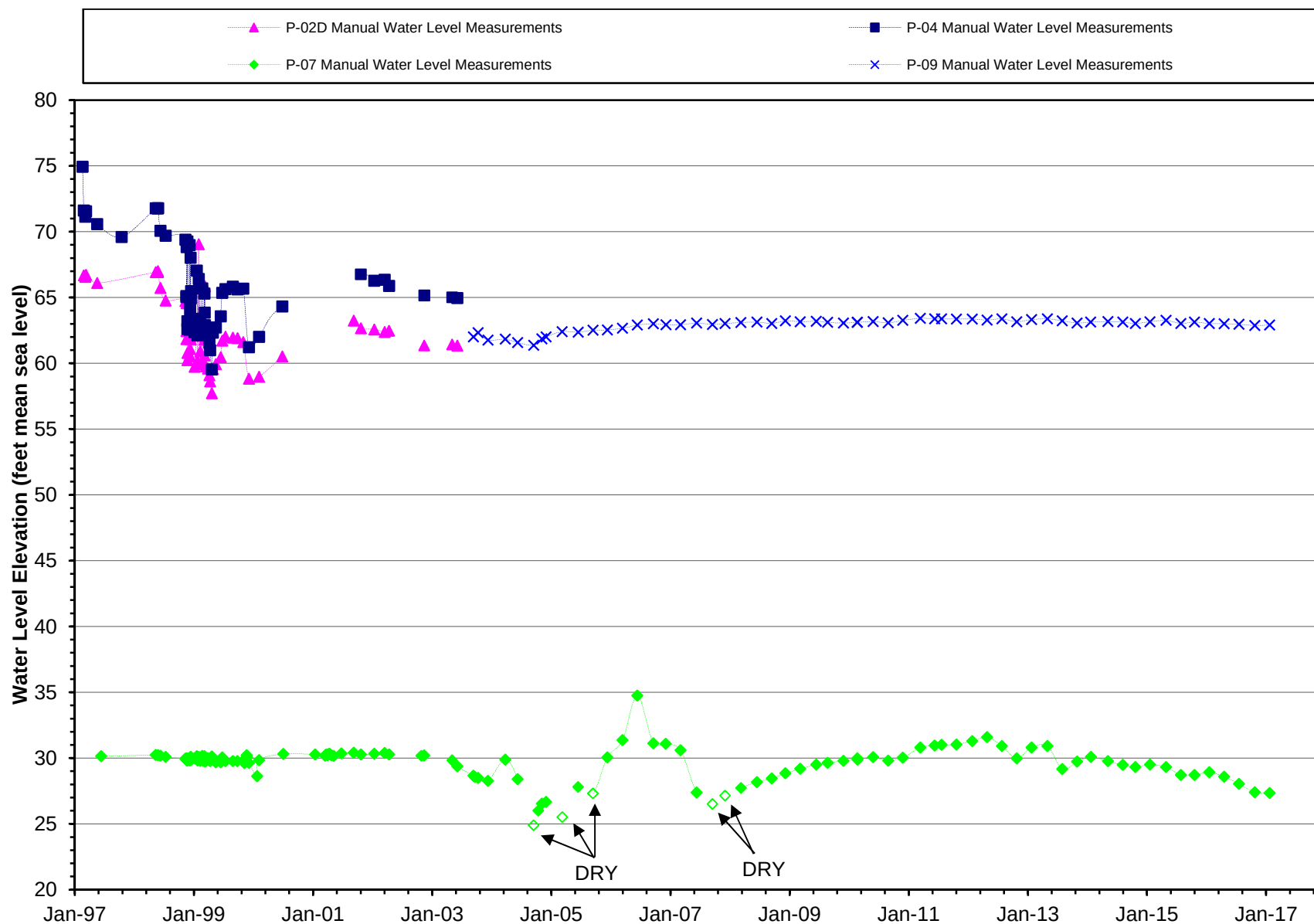


FIGURE 14. PERCHED ZONE WATER LEVELS, CENTRAL PORTION OF SITE

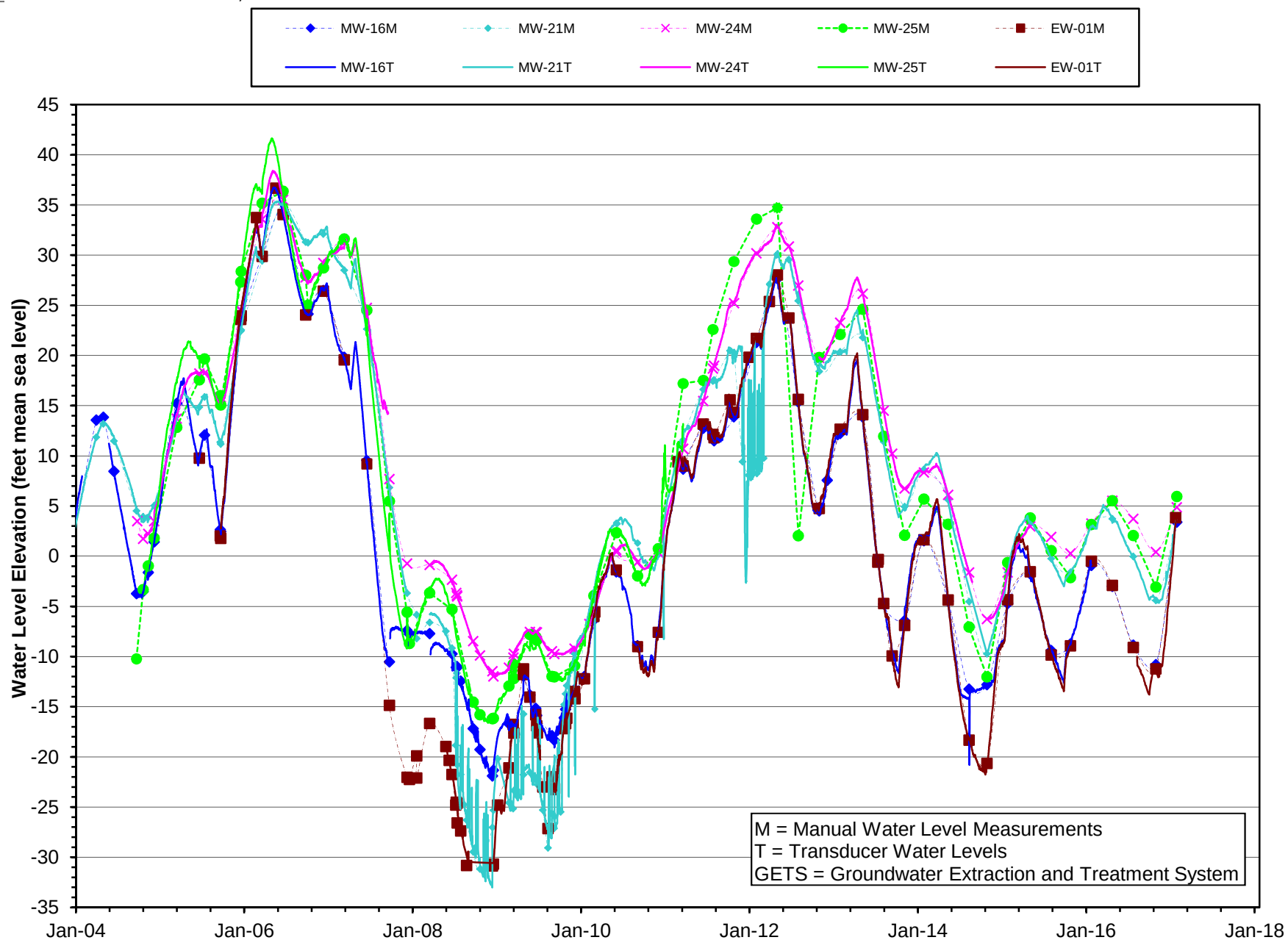


**FIGURE 15. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
MONITOR AND EXTRACTION WELL CLUSTER EW-01/MW-16/21/24/25**

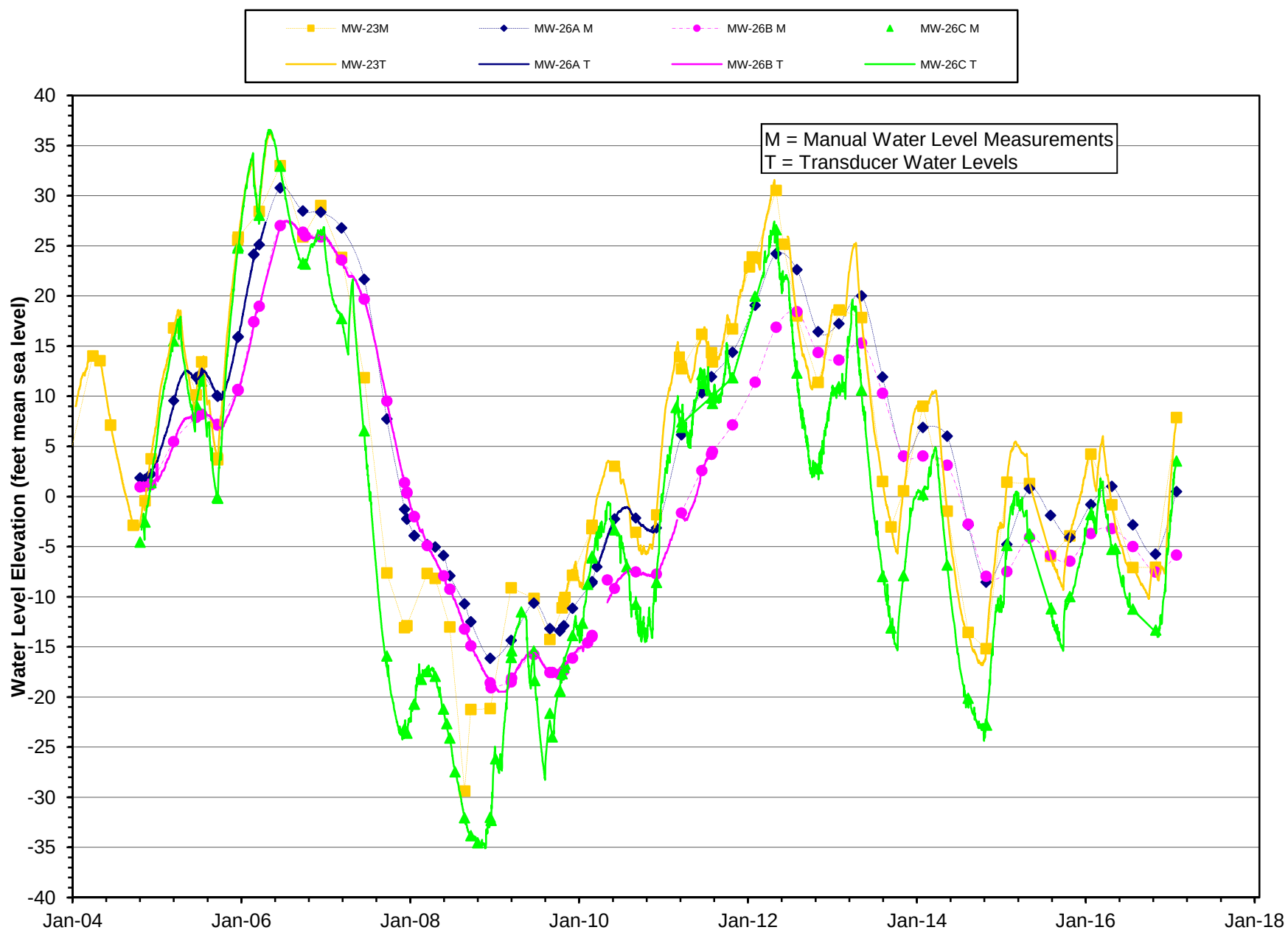


**FIGURE 16. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
MONITOR WELL CLUSTER MW-23/26A/26B/26C**

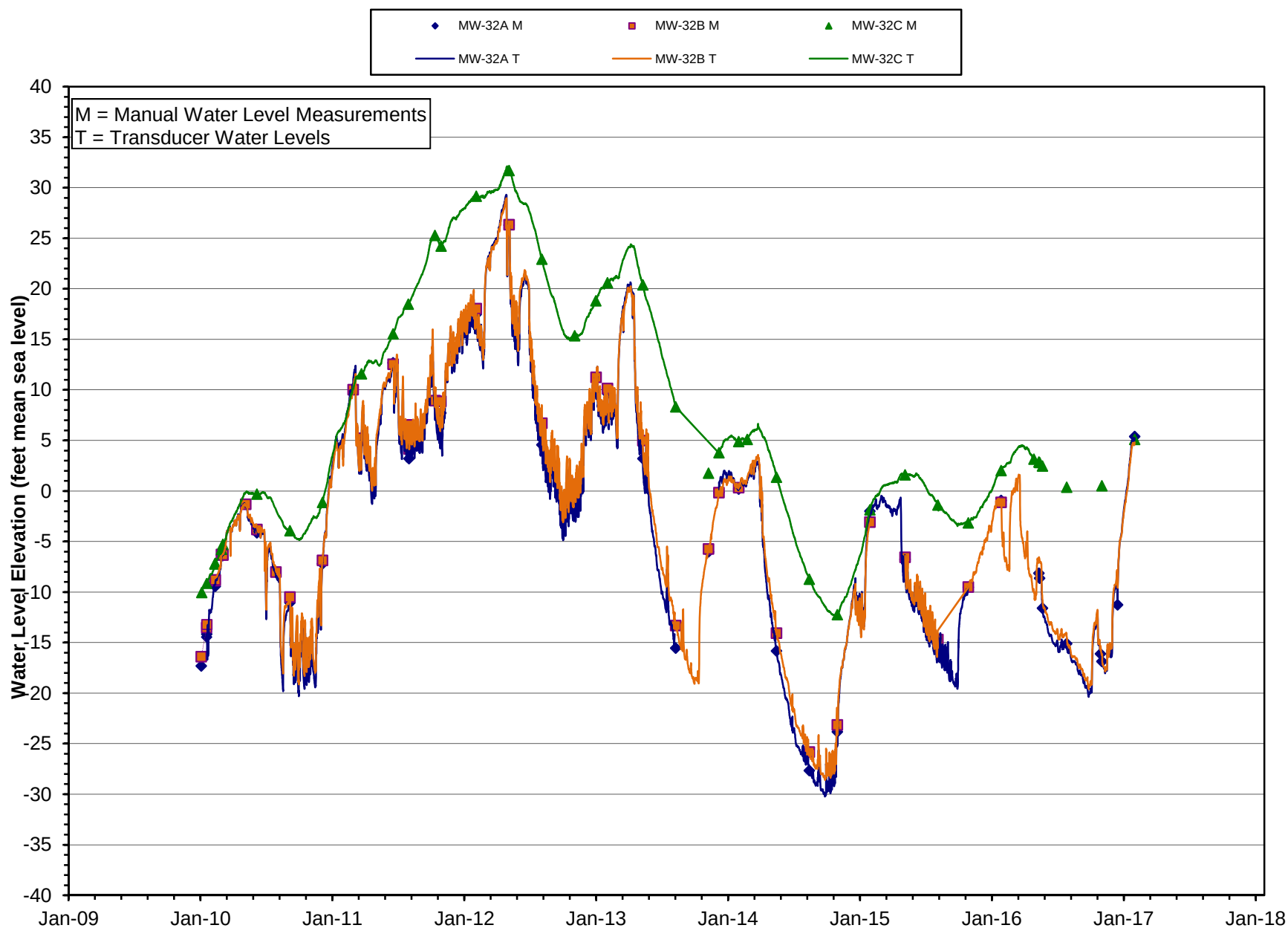


**FIGURE 17. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
NESTED MONITOR WELLS MW-32A/32B/32C**

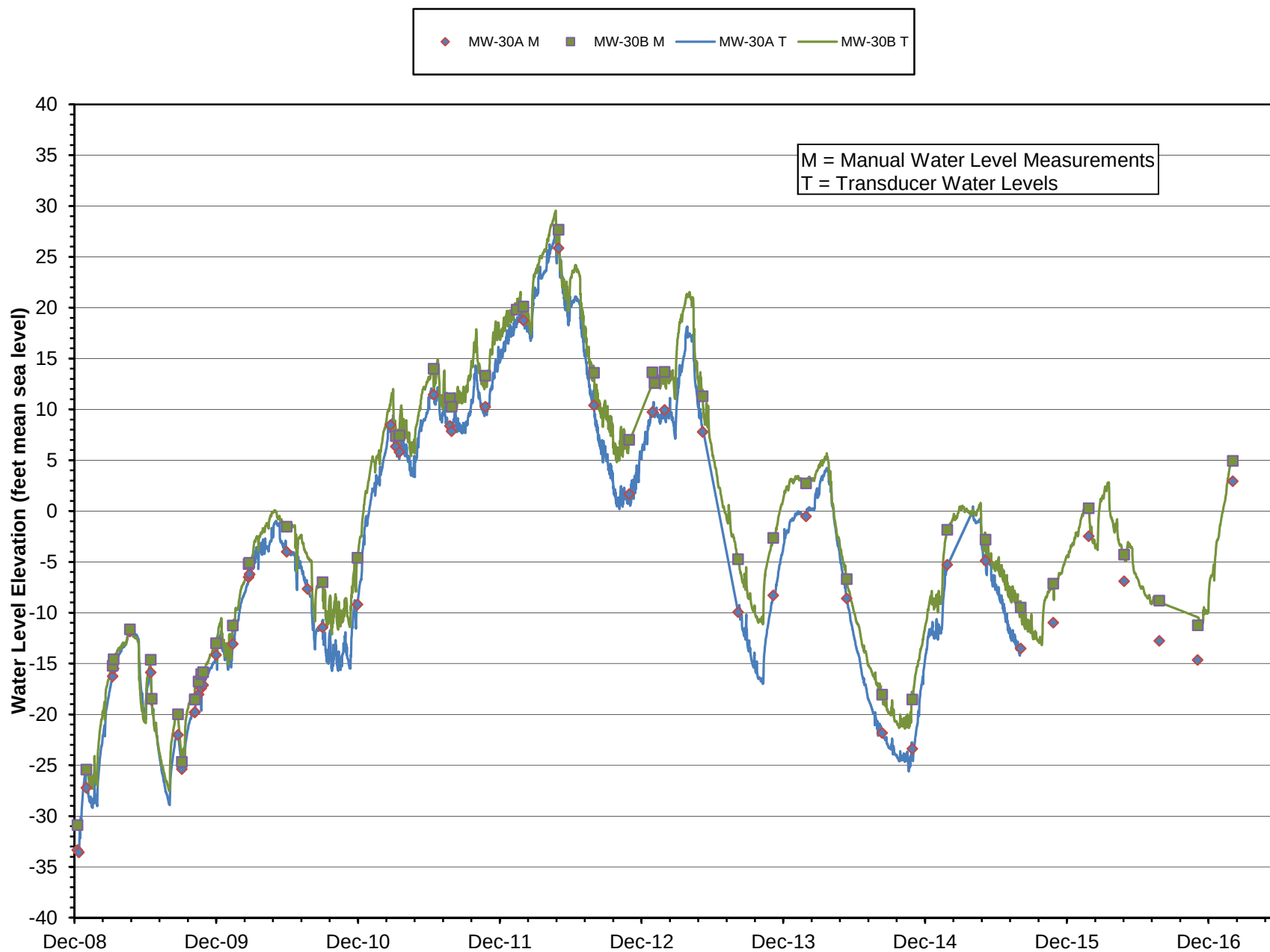


**FIGURE 18. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
NESTED MONITOR WELLS MW-30A/30B**

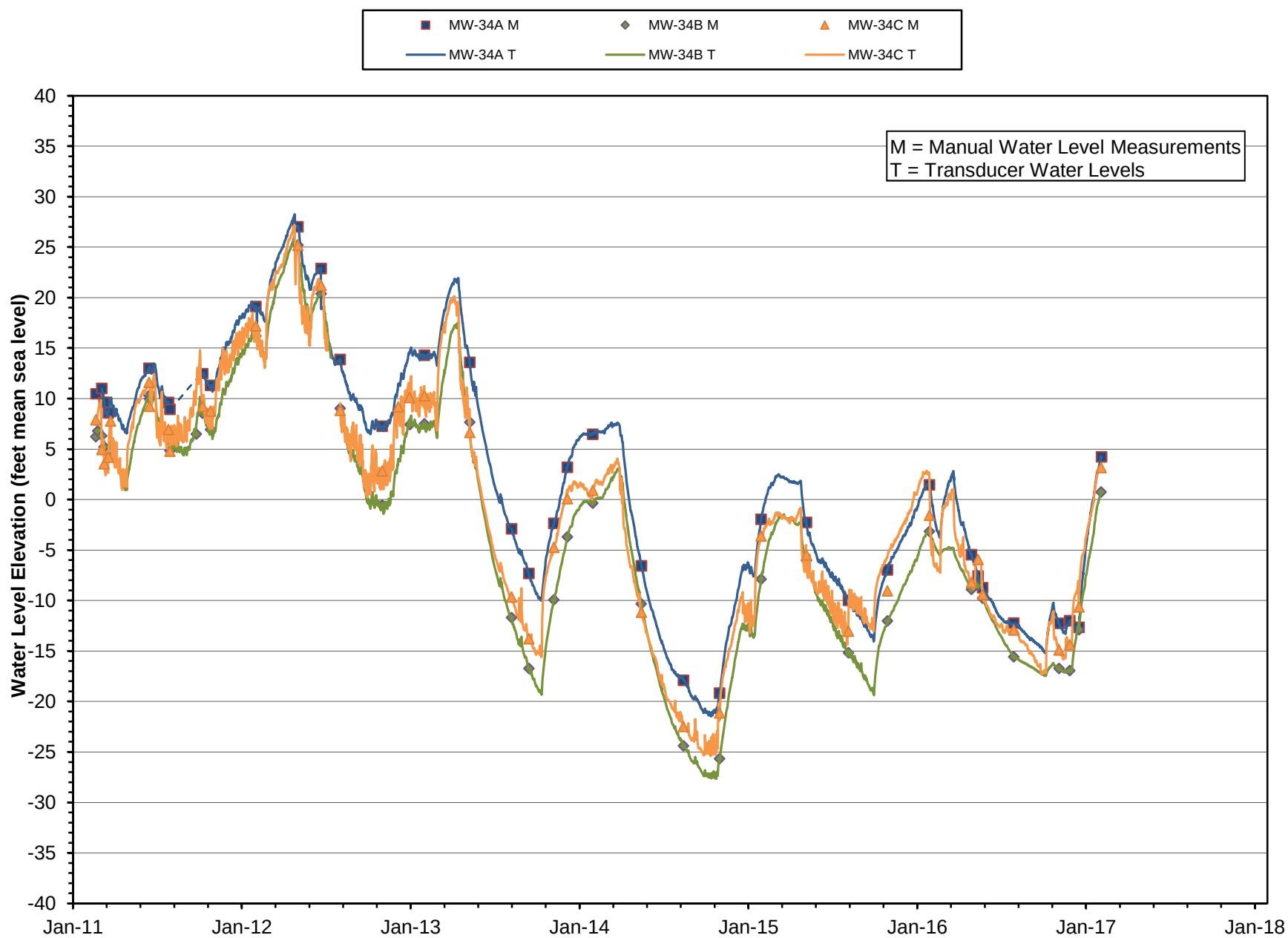


**FIGURE 19. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
MONITOR WELL CLUSTER MW-34A/34B/34C**

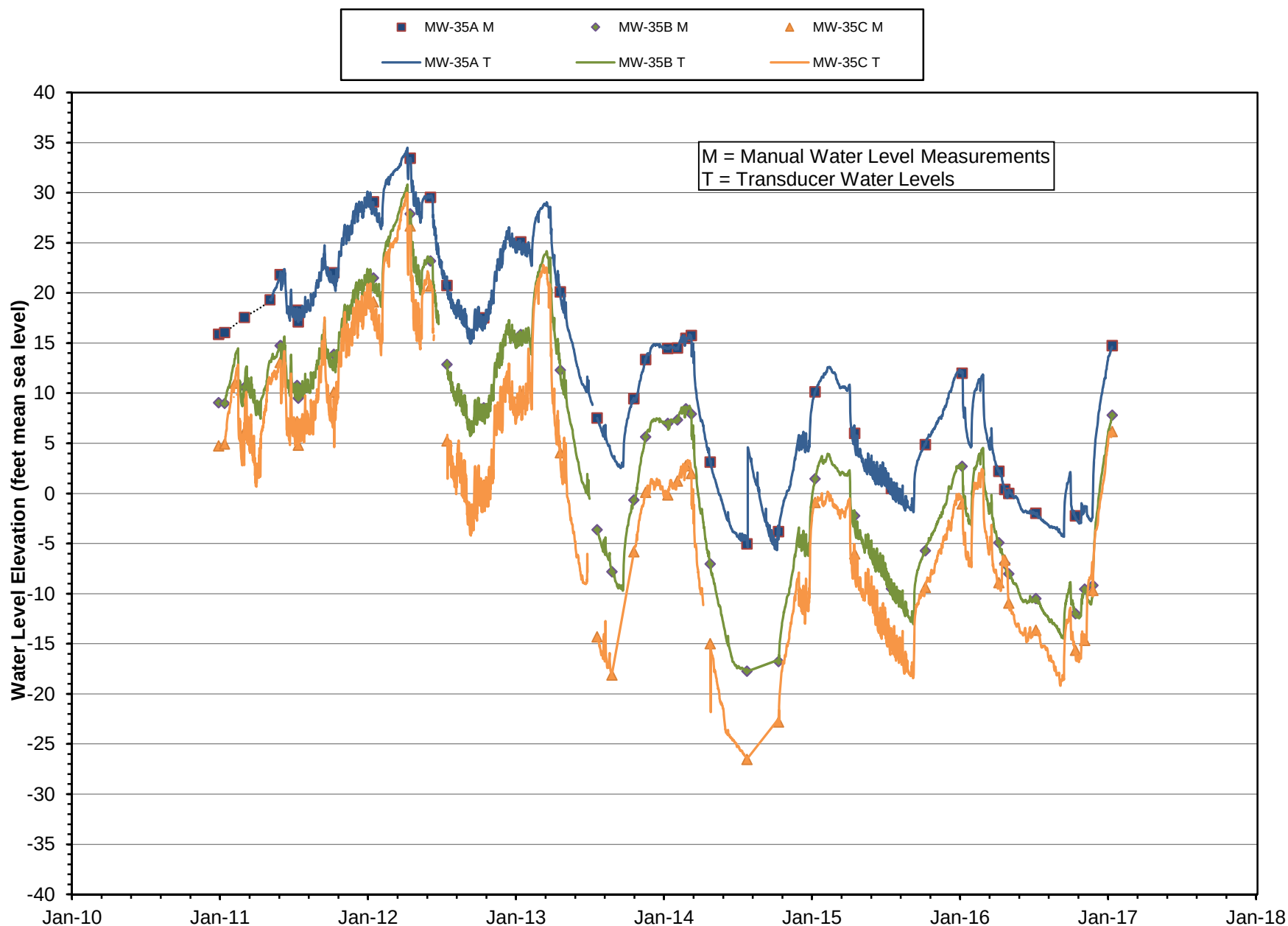
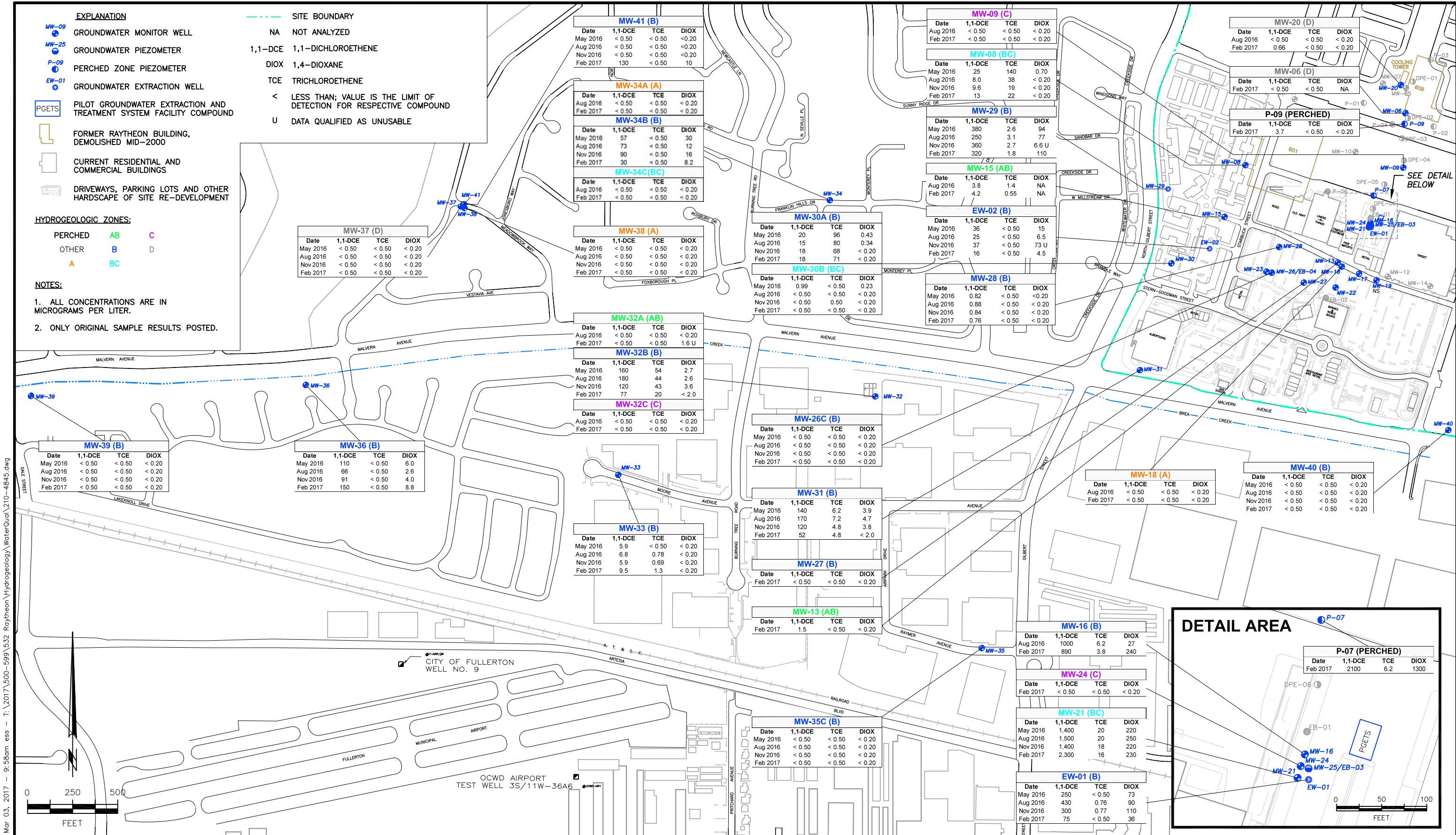


**FIGURE 20. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
NESTED MONITOR WELLS MW-35A/35B/35C**



Mar 03, 2017 - 9:58am ess - T: 2017\500-599\532 Raytheon Hydrogeology\WaterQual\210-4845.dwg

FIGURE 21.
1,1-DICHLOROETHYLENE, TRICHLOROETHYLENE, AND 1,4-DIOXANE
IN THE REGIONAL GROUNDWATER SYSTEM MAY 2016 THROUGH FEBRUARY 2017

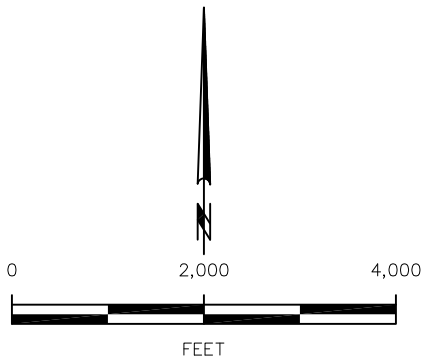
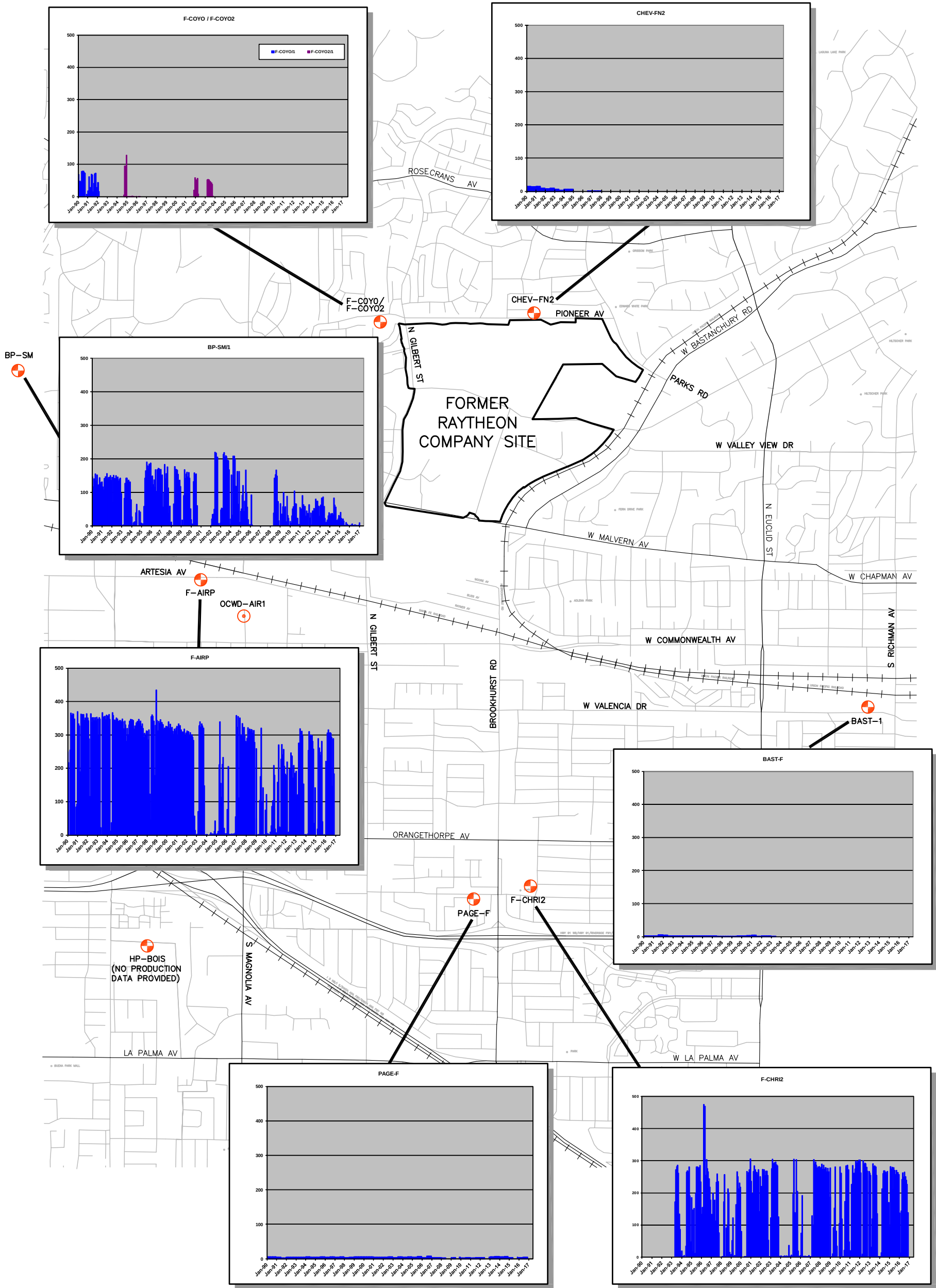
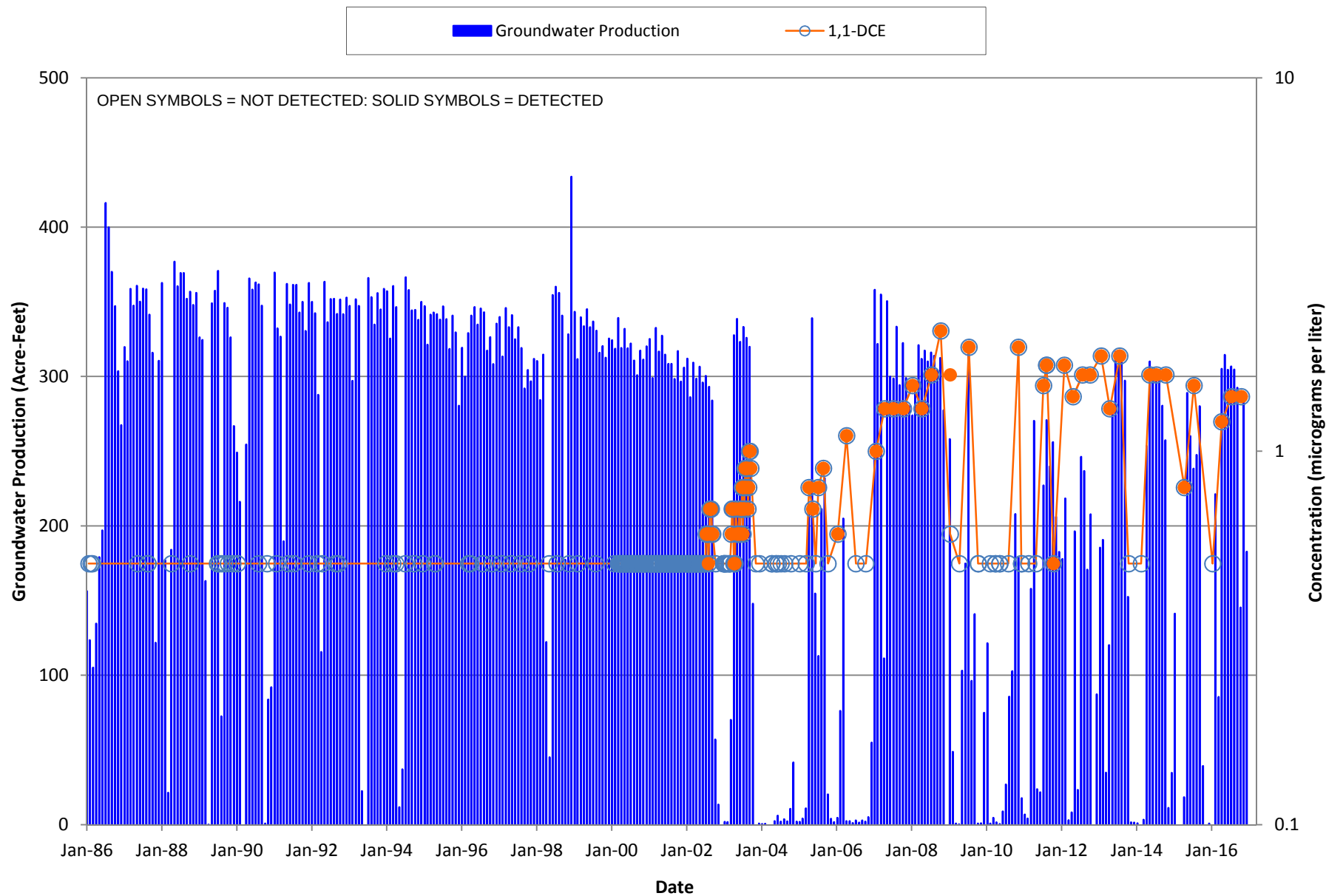


FIGURE 22.
REGIONAL PRODUCTION WELLS



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



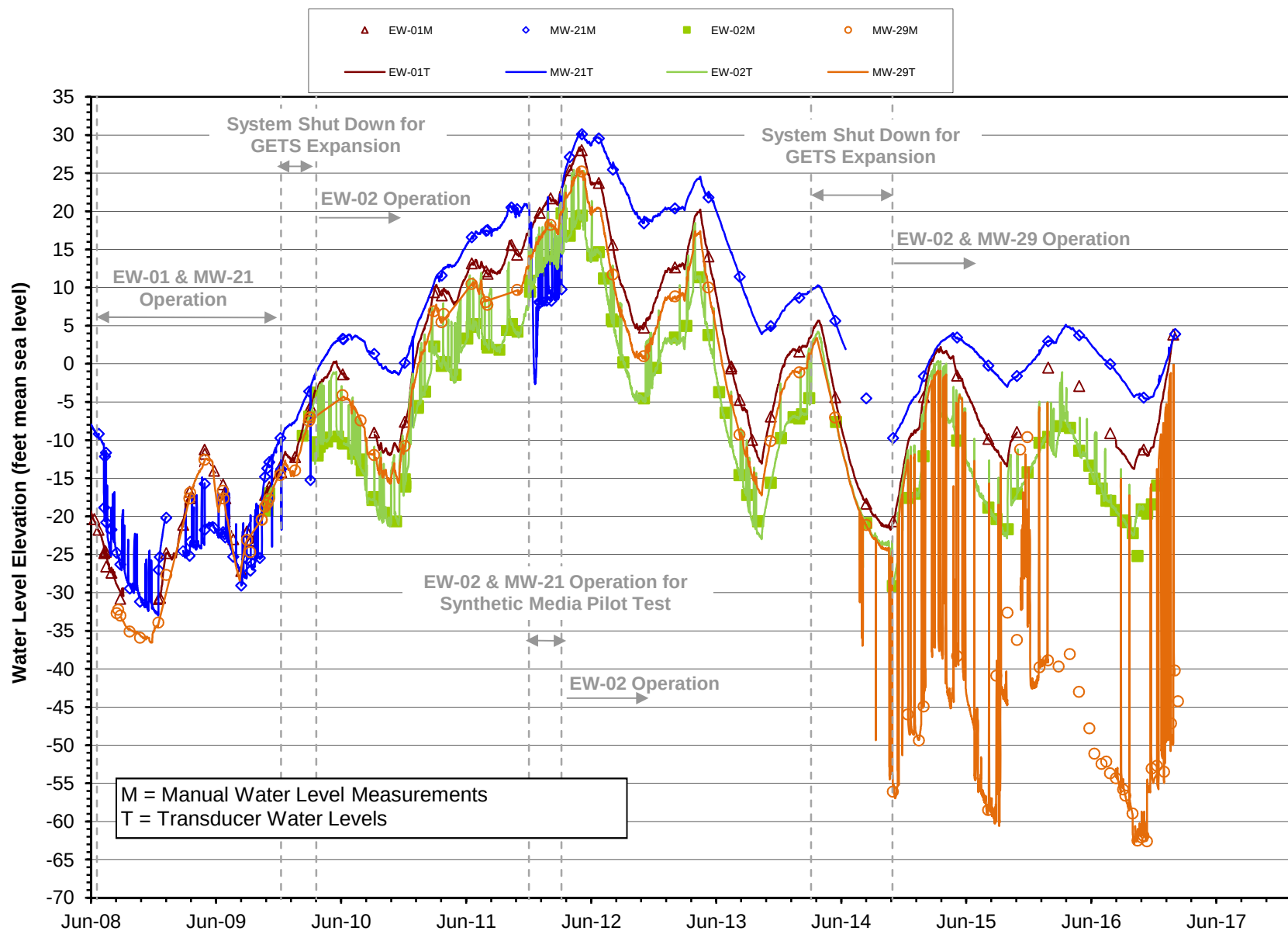


FIGURE 24.
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM OPERATION
AND EXTRACTION WELL WATER LEVELS

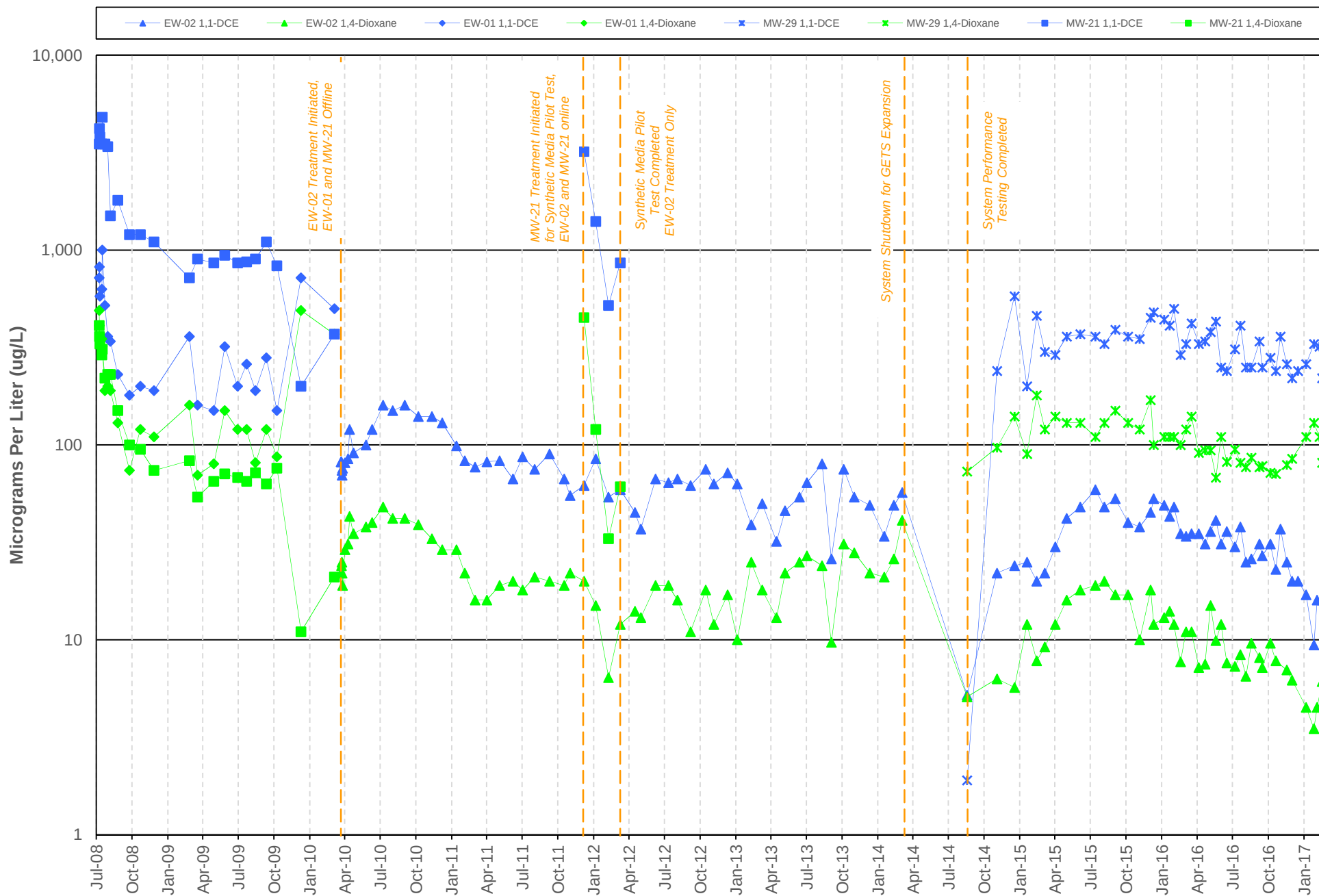


FIGURE 25.
1,1-DICHLOROETHYLENE AND 1,4-DIOXANE CONCENTRATIONS IN EXTRACTION WELLS

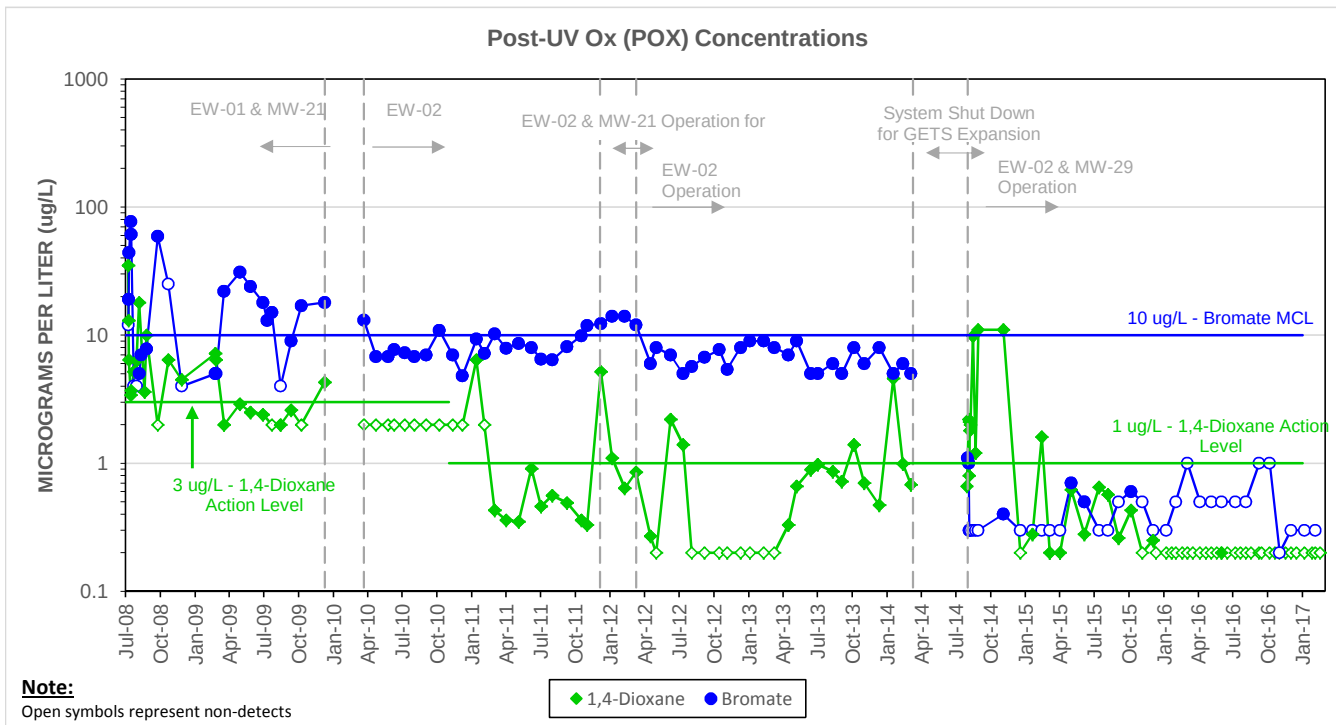
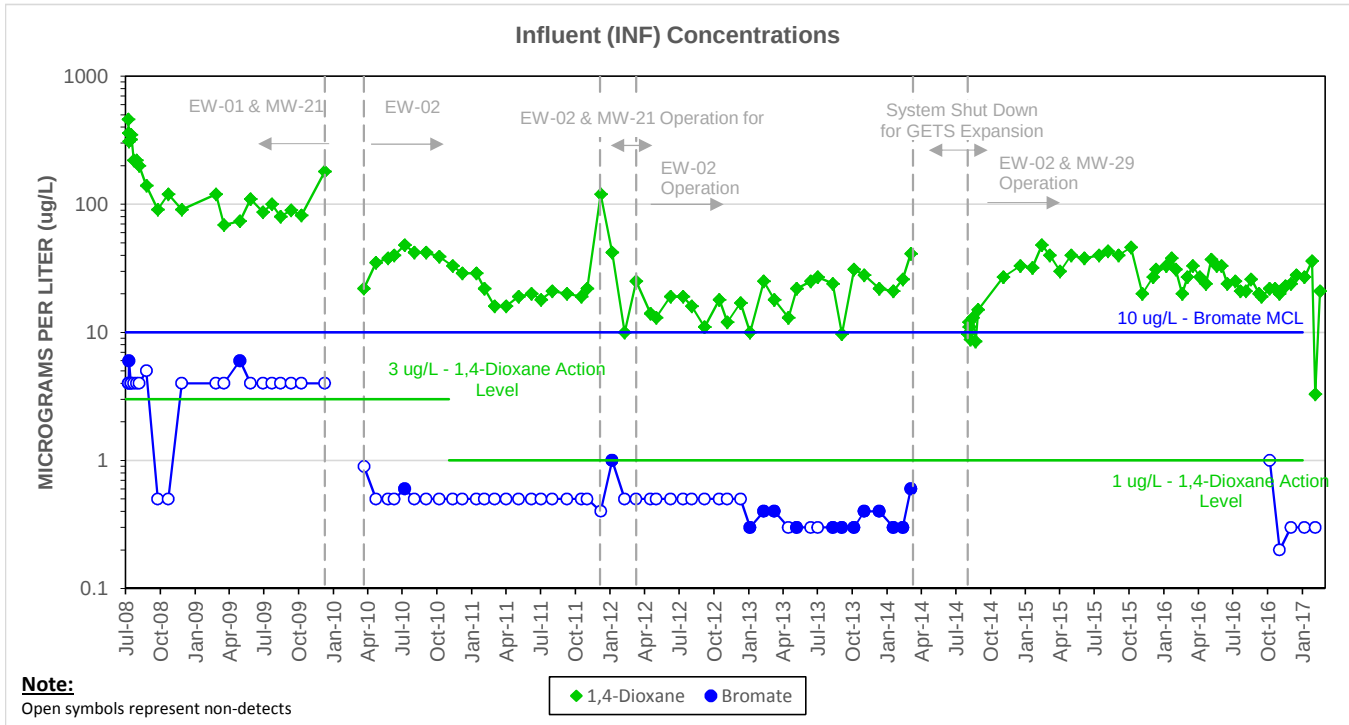


FIGURE 26.
1,4-DIOXANE AND BROMATE IN INFLUENT AND POST-OXIDATION SAMPLES

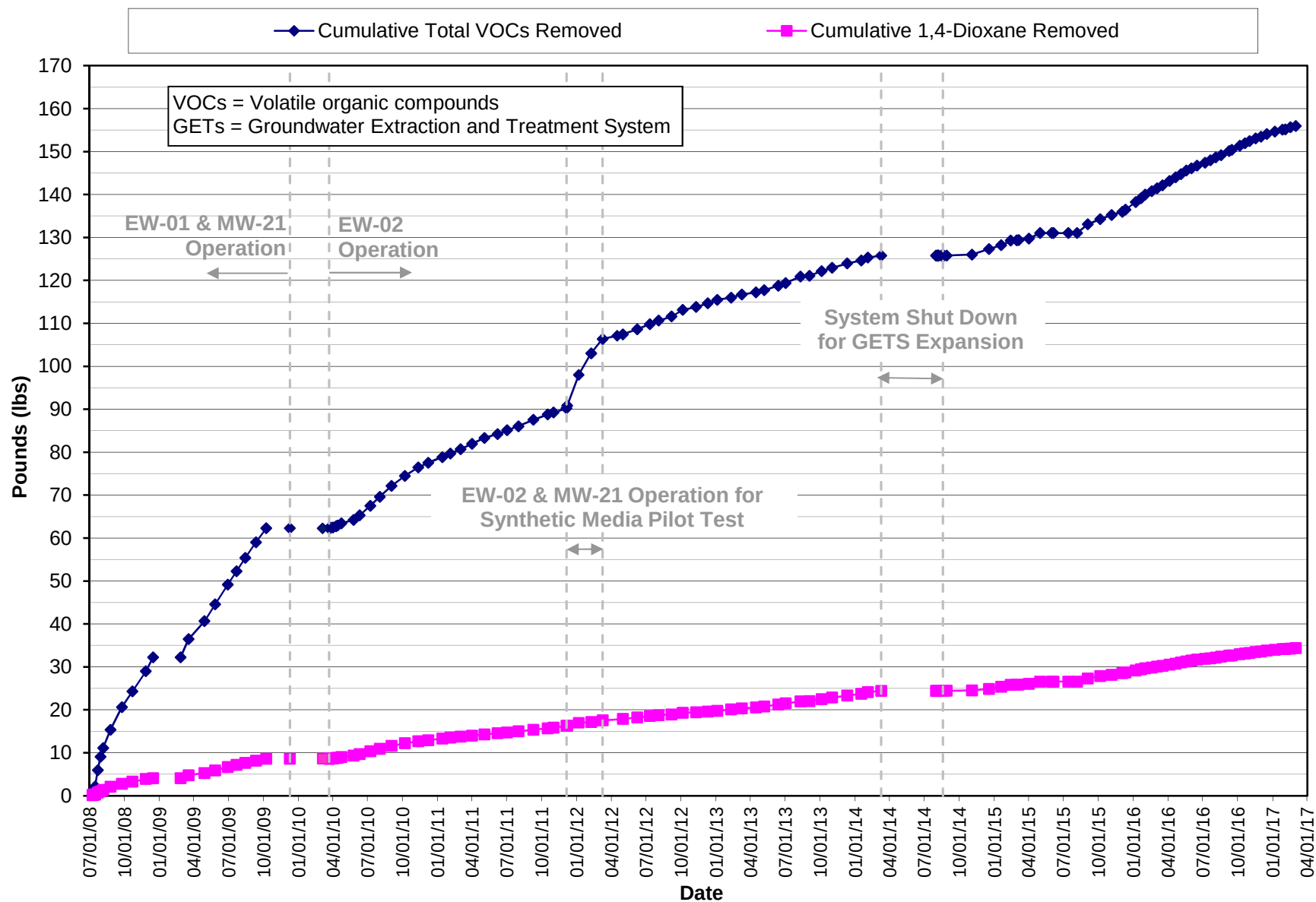


FIGURE 27.
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM MASS REMOVAL

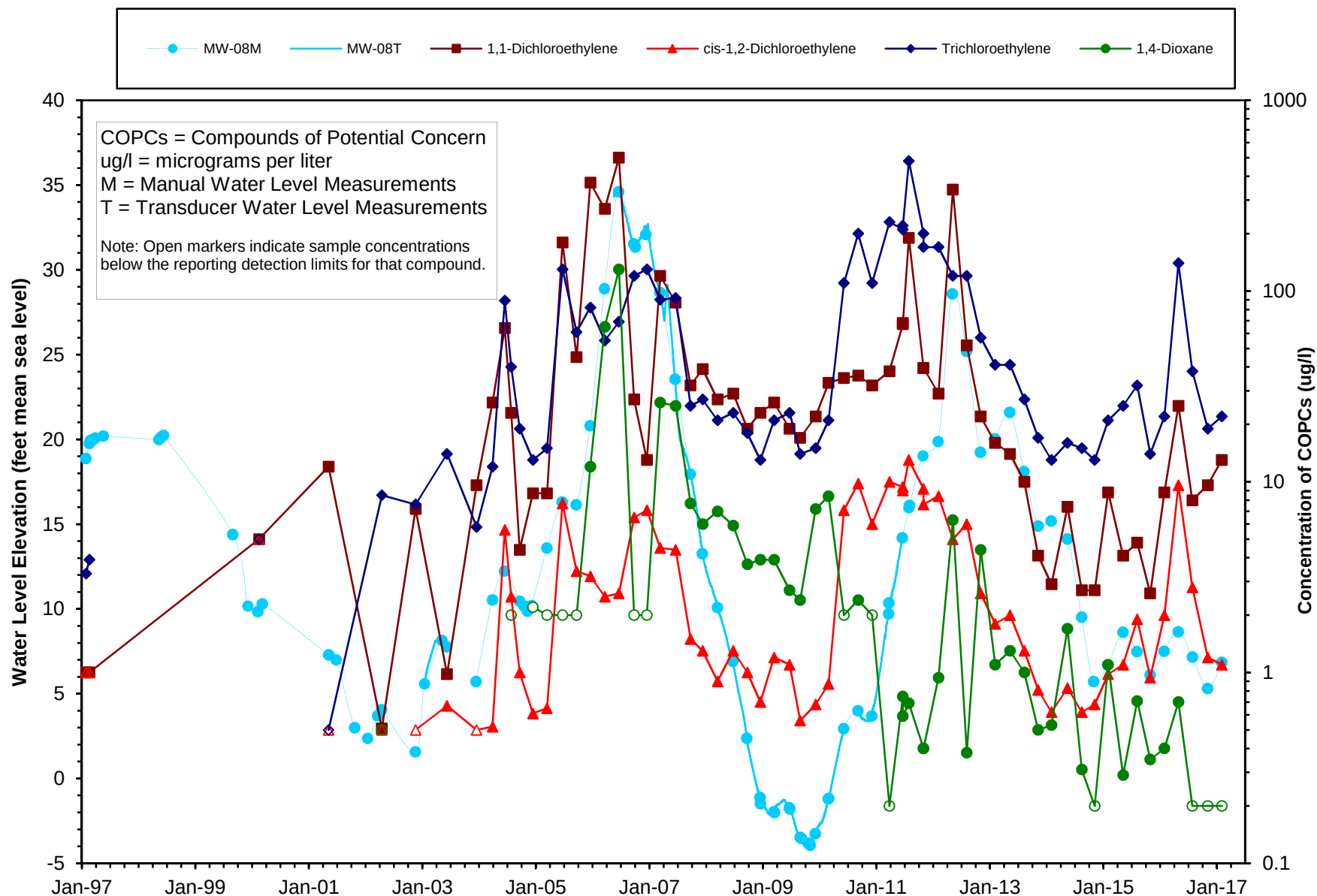


FIGURE 28. WATER LEVEL AND WATER QUALITY, MONITOR WELL MW-08

APPENDIX A

LABORATORY ANALYTICAL REPORTS

GROUNDWATER ANALYTICAL RESULTS



February 16, 2017

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
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1700590
Client Reference : Raytheon Main, 532.30

Enclosed are the results for sample(s) received on February 07, 2017 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 placed 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 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, 532.30

Report To : Steve Netto

Reported : 02/16/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-020617A	1700590-01	Lab prepared water	2/06/17 13:00	2/07/17 16:53
EW-01	1700590-02	Groundwater	2/06/17 13:20	2/07/17 16:53
EW-0100	1700590-03	Groundwater	2/06/17 13:30	2/07/17 16:53
MW-21	1700590-04	Groundwater	2/06/17 13:55	2/07/17 16:53
MW-32A	1700590-05	Groundwater	2/07/17 10:05	2/07/17 16:53
MW-32C	1700590-06	Groundwater	2/07/17 12:00	2/07/17 16:53
MW-32B_15V	1700590-07	Groundwater	2/07/17 12:31	2/07/17 16:53
MW-32B	1700590-08	Groundwater	2/07/17 13:15	2/07/17 16:53
MW-3200B	1700590-09	Groundwater	2/07/17 13:25	2/07/17 16:53
MW-33_15V	1700590-10	Groundwater	2/07/17 14:16	2/07/17 16:53
MW-33	1700590-11	Groundwater	2/07/17 14:41	2/07/17 16:53
MW-31	1700590-12	Groundwater	2/07/17 15:30	2/07/17 16:53
P-07	1700590-13	Groundwater	2/07/17 16:30	2/07/17 16:53
MW-08	1700590-14	Groundwater	2/07/17 10:25	2/07/17 16:53
RB-020717	1700590-15	Lab prepared water	2/07/17 10:35	2/07/17 16:53
MW-20	1700590-16	Groundwater	2/07/17 11:55	2/07/17 16:53
MW-09	1700590-17	Groundwater	2/07/17 14:50	2/07/17 16:53
MW-16	1700590-18	Groundwater	2/07/17 16:16	2/07/17 16:53



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID TB-020617A

Lab ID: 1700590-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,1,1-Trichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,1,2-Trichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,1-Dichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,1-Dichloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,1-Dichloropropene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,2,3-Trichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,2-Dibromoethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,2-Dichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,2-Dichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,2-Dichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,3-Dichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,3-Dichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
1,4-Dichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
2,2-Dichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
2-Chlorotoluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
4-Chlorotoluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
4-Isopropyltoluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Benzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Bromobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Bromodichloromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Bromoform	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Bromomethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Carbon tetrachloride	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Chlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Chloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Chloroform	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Chloromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Dibromochloromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID TB-020617A

Lab ID: 1700590-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Dichlorodifluoromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Ethylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Hexachlorobutadiene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Isopropylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
m,p-Xylene	ND	1.0	1	B7B0233	02/08/2017	02/08/17 13:46	
Methylene chloride	ND	1.0	1	B7B0233	02/08/2017	02/08/17 13:46	
n-Butylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
n-Propylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Naphthalene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
o-Xylene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
sec-Butylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Styrene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
tert-Butylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Tetrachloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Toluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Trichloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Trichlorofluoromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Vinyl chloride	ND	0.50	1	B7B0233	02/08/2017	02/08/17 13:46	
Surrogate: 1,2-Dichloroethane-d4	131 %	51 - 157		B7B0233	02/08/2017	02/08/17 13:46	
Surrogate: 4-Bromofluorobenzene	110 %	61 - 123		B7B0233	02/08/2017	02/08/17 13:46	
Surrogate: Dibromofluoromethane	123 %	57 - 147		B7B0233	02/08/2017	02/08/17 13:46	
Surrogate: Toluene-d8	108 %	61 - 119		B7B0233	02/08/2017	02/08/17 13:46	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID EW-01

Lab ID: 1700590-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,1,1-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,1,2-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,1-Dichloroethane	1.1	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,1-Dichloroethene	75	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,1-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,2,3-Trichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,2-Dibromoethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,2-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,2-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,3-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,3-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
1,4-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
2,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
2-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
4-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
4-Isopropyltoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Benzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Bromobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Bromodichloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Bromoform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Bromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Carbon tetrachloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Chlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Chloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Chloroform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Chloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Dibromochloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID EW-01

Lab ID: 1700590-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Dichlorodifluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Ethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Hexachlorobutadiene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Isopropylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
m,p-Xylene	ND	1.0	1	B7B0267	02/09/2017	02/09/17 16:56	
Methylene chloride	ND	1.0	1	B7B0267	02/09/2017	02/09/17 16:56	
n-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
n-Propylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Naphthalene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
o-Xylene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
sec-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Styrene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
tert-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Tetrachloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Toluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Trichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Trichlorofluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Vinyl chloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:56	
Surrogate: 1,2-Dichloroethane-d4	143 %	51 - 157		B7B0267	02/09/2017	02/09/17 16:56	
Surrogate: 4-Bromofluorobenzene	110 %	61 - 123		B7B0267	02/09/2017	02/09/17 16:56	
Surrogate: Dibromofluoromethane	128 %	57 - 147		B7B0267	02/09/2017	02/09/17 16:56	
Surrogate: Toluene-d8	108 %	61 - 119		B7B0267	02/09/2017	02/09/17 16:56	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID EW-01

Lab ID: 1700590-02

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	36	2.0	1	B7B0287	02/09/2017	02/09/17 17:53	B
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>58.4 %</i>	<i>17 - 101</i>		B7B0287	02/09/2017	02/09/17 17:53	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>69.9 %</i>	<i>29 - 109</i>		B7B0287	02/09/2017	02/09/17 17:53	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>102 %</i>	<i>49 - 122</i>		B7B0287	02/09/2017	02/09/17 17:53	
<i>Surrogate: Nitrobenzene-d5</i>	<i>81.6 %</i>	<i>19 - 111</i>		B7B0287	02/09/2017	02/09/17 17:53	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID EW-0100

Lab ID: 1700590-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,1,1-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,1,2-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,1-Dichloroethane	1.0	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,1-Dichloroethene	67	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,1-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,2,3-Trichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,2-Dibromoethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,2-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,2-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,3-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,3-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
1,4-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
2,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
2-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
4-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
4-Isopropyltoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Benzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Bromobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Bromodichloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Bromoform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Bromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Carbon tetrachloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Chlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Chloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Chloroform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Chloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Dibromochloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID EW-0100

Lab ID: 1700590-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Dichlorodifluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Ethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Hexachlorobutadiene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Isopropylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
m,p-Xylene	ND	1.0	1	B7B0267	02/09/2017	02/09/17 17:42	
Methylene chloride	ND	1.0	1	B7B0267	02/09/2017	02/09/17 17:42	
n-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
n-Propylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Naphthalene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
o-Xylene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
sec-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Styrene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
tert-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Tetrachloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Toluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Trichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Trichlorofluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Vinyl chloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 17:42	
Surrogate: 1,2-Dichloroethane-d4	141 %	51 - 157		B7B0267	02/09/2017	02/09/17 17:42	
Surrogate: 4-Bromofluorobenzene	112 %	61 - 123		B7B0267	02/09/2017	02/09/17 17:42	
Surrogate: Dibromofluoromethane	127 %	57 - 147		B7B0267	02/09/2017	02/09/17 17:42	
Surrogate: Toluene-d8	111 %	61 - 119		B7B0267	02/09/2017	02/09/17 17:42	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID EW-0100

Lab ID: 1700590-03

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	29	2.0	1	B7B0287	02/09/2017	02/09/17 18:20	B
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>62.7 %</i>	<i>17 - 101</i>		B7B0287	02/09/2017	<i>02/09/17 18:20</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>70.2 %</i>	<i>29 - 109</i>		B7B0287	02/09/2017	<i>02/09/17 18:20</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>101 %</i>	<i>49 - 122</i>		B7B0287	02/09/2017	<i>02/09/17 18:20</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>83.2 %</i>	<i>19 - 111</i>		B7B0287	02/09/2017	<i>02/09/17 18:20</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-21

Lab ID: 1700590-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,1,1-Trichloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,1,2,2-Tetrachloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,1,2-Trichloroethane	13	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,1-Dichloroethane	32	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,1-Dichloroethene	2300	50	100	B7B0305	02/10/2017	02/10/17 20:47	
1,1-Dichloropropene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,2,3-Trichloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,2,3-Trichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,2,4-Trichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,2,4-Trimethylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,2-Dibromo-3-chloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,2-Dibromoethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,2-Dichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,2-Dichloroethane	4.9	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,2-Dichloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,3,5-Trimethylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,3-Dichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,3-Dichloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
1,4-Dichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
2,2-Dichloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
2-Chlorotoluene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
4-Chlorotoluene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
4-Isopropyltoluene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Benzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Bromobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Bromodichloromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Bromoform	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Bromomethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Carbon tetrachloride	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Chlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Chloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Chloroform	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Chloromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
cis-1,2-Dichloroethene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
cis-1,3-Dichloropropene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Dibromochloromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-21

Lab ID: 1700590-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Dichlorodifluoromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Ethylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Hexachlorobutadiene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Isopropylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
m,p-Xylene	ND	5.0	5	B7B0305	02/10/2017	02/10/17 20:24	
Methylene chloride	ND	5.0	5	B7B0305	02/10/2017	02/10/17 20:24	
n-Butylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
n-Propylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Naphthalene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
o-Xylene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
sec-Butylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Styrene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
tert-Butylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Tetrachloroethene	6.0	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Toluene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
trans-1,2-Dichloroethene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Trichloroethene	16	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Trichlorofluoromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
Vinyl chloride	ND	2.5	5	B7B0305	02/10/2017	02/10/17 20:24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>150 %</i>	<i>51 - 157</i>		B7B0305	02/10/2017	02/10/17 20:47	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>146 %</i>	<i>51 - 157</i>		B7B0305	02/10/2017	02/10/17 20:24	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>108 %</i>	<i>61 - 123</i>		B7B0305	02/10/2017	02/10/17 20:47	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>108 %</i>	<i>61 - 123</i>		B7B0305	02/10/2017	02/10/17 20:24	
<i>Surrogate: Dibromofluoromethane</i>	<i>131 %</i>	<i>57 - 147</i>		B7B0305	02/10/2017	02/10/17 20:24	
<i>Surrogate: Dibromofluoromethane</i>	<i>131 %</i>	<i>57 - 147</i>		B7B0305	02/10/2017	02/10/17 20:47	
<i>Surrogate: Toluene-d8</i>	<i>110 %</i>	<i>61 - 119</i>		B7B0305	02/10/2017	02/10/17 20:47	
<i>Surrogate: Toluene-d8</i>	<i>108 %</i>	<i>61 - 119</i>		B7B0305	02/10/2017	02/10/17 20:24	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-21

Lab ID: 1700590-04

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	230	2.0	1	B7B0287	02/09/2017	02/09/17 18:48	B
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>46.5 %</i>	<i>17 - 101</i>		B7B0287	02/09/2017	<i>02/09/17 18:48</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>56.6 %</i>	<i>29 - 109</i>		B7B0287	02/09/2017	<i>02/09/17 18:48</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>101 %</i>	<i>49 - 122</i>		B7B0287	02/09/2017	<i>02/09/17 18:48</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>62.1 %</i>	<i>19 - 111</i>		B7B0287	02/09/2017	<i>02/09/17 18:48</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-32A

Lab ID: 1700590-05

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,1,1-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,1,2-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,1-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,1-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,1-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,2,3-Trichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,2-Dibromoethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,2-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,2-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,3-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,3-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
1,4-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
2,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
2-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
4-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
4-Isopropyltoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Benzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Bromobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Bromodichloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Bromoform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Bromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Carbon tetrachloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Chlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Chloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Chloroform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Chloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Dibromochloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-32A

Lab ID: 1700590-05

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Dichlorodifluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Ethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Hexachlorobutadiene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Isopropylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
m,p-Xylene	ND	1.0	1	B7B0267	02/09/2017	02/09/17 13:21	
Methylene chloride	ND	1.0	1	B7B0267	02/09/2017	02/09/17 13:21	
n-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
n-Propylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Naphthalene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
o-Xylene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
sec-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Styrene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
tert-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Tetrachloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Toluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Trichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Trichlorofluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Vinyl chloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:21	
Surrogate: 1,2-Dichloroethane-d4	132 %	51 - 157		B7B0267	02/09/2017	02/09/17 13:21	
Surrogate: 4-Bromofluorobenzene	111 %	61 - 123		B7B0267	02/09/2017	02/09/17 13:21	
Surrogate: Dibromofluoromethane	119 %	57 - 147		B7B0267	02/09/2017	02/09/17 13:21	
Surrogate: Toluene-d8	111 %	61 - 119		B7B0267	02/09/2017	02/09/17 13:21	



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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-32A

Lab ID: 1700590-05

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	1.6	0.20	1	B7B0294	02/09/2017	02/10/17 10:30	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>74.6 %</i>	<i>31 - 106</i>		B7B0294	02/09/2017	<i>02/10/17 10:30</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>85.8 %</i>	<i>28 - 122</i>		B7B0294	02/09/2017	<i>02/10/17 10:30</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>80.8 %</i>	<i>43 - 131</i>		B7B0294	02/09/2017	<i>02/10/17 10:30</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>68.8 %</i>	<i>20 - 119</i>		B7B0294	02/09/2017	<i>02/10/17 10:30</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-32C

Lab ID: 1700590-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,1,1-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,1,2-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,1-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,1-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,1-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,2,3-Trichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,2-Dibromoethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,2-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,2-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,3-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,3-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
1,4-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
2,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
2-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
4-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
4-Isopropyltoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Benzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Bromobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Bromodichloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Bromoform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Bromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Carbon tetrachloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Chlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Chloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Chloroform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Chloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Dibromochloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-32C

Lab ID: 1700590-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Dichlorodifluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Ethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Hexachlorobutadiene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Isopropylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
m,p-Xylene	ND	1.0	1	B7B0267	02/09/2017	02/09/17 13:44	
Methylene chloride	ND	1.0	1	B7B0267	02/09/2017	02/09/17 13:44	
n-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
n-Propylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Naphthalene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
o-Xylene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
sec-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Styrene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
tert-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Tetrachloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Toluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Trichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Trichlorofluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Vinyl chloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 13:44	
Surrogate: 1,2-Dichloroethane-d4	137 %	51 - 157		B7B0267	02/09/2017	02/09/17 13:44	
Surrogate: 4-Bromofluorobenzene	112 %	61 - 123		B7B0267	02/09/2017	02/09/17 13:44	
Surrogate: Dibromofluoromethane	123 %	57 - 147		B7B0267	02/09/2017	02/09/17 13:44	
Surrogate: Toluene-d8	111 %	61 - 119		B7B0267	02/09/2017	02/09/17 13:44	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-32C

Lab ID: 1700590-06

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0294	02/09/2017	02/09/17 22:31	
Surrogate: 1,2-Dichlorobenzene-d4	82.9 %	31 - 106		B7B0294	02/09/2017	02/09/17 22:31	
Surrogate: 2-Fluorobiphenyl	92.7 %	28 - 122		B7B0294	02/09/2017	02/09/17 22:31	
Surrogate: 4-Terphenyl-d14	91.7 %	43 - 131		B7B0294	02/09/2017	02/09/17 22:31	
Surrogate: Nitrobenzene-d5	76.8 %	20 - 119		B7B0294	02/09/2017	02/09/17 22:31	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-32B_15V

Lab ID: 1700590-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,1,1-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,1,2-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,1-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,1-Dichloroethene	8.4	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,1-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,2,3-Trichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,2-Dibromoethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,2-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,2-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,3-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,3-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
1,4-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
2,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
2-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
4-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
4-Isopropyltoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Benzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Bromobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Bromodichloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Bromoform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Bromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Carbon tetrachloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Chlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Chloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Chloroform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Chloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Dibromochloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-32B_15V

Lab ID: 1700590-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Dichlorodifluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Ethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Hexachlorobutadiene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Isopropylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
m,p-Xylene	ND	1.0	1	B7B0267	02/09/2017	02/09/17 16:09	
Methylene chloride	ND	1.0	1	B7B0267	02/09/2017	02/09/17 16:09	
n-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
n-Propylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Naphthalene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
o-Xylene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
sec-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Styrene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
tert-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Tetrachloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Toluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Trichloroethene	2.4	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Trichlorofluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
Vinyl chloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 16:09	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>144 %</i>	<i>51 - 157</i>		B7B0267	02/09/2017	02/09/17 16:09	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>114 %</i>	<i>61 - 123</i>		B7B0267	02/09/2017	02/09/17 16:09	
<i>Surrogate: Dibromofluoromethane</i>	<i>128 %</i>	<i>57 - 147</i>		B7B0267	02/09/2017	02/09/17 16:09	
<i>Surrogate: Toluene-d8</i>	<i>109 %</i>	<i>61 - 119</i>		B7B0267	02/09/2017	02/09/17 16:09	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-32B_15V

Lab ID: 1700590-07

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	2.0	1	B7B0287	02/09/2017	02/09/17 19:15	
Surrogate: 1,2-Dichlorobenzene-d4	53.2 %	17 - 101		B7B0287	02/09/2017	02/09/17 19:15	
Surrogate: 2-Fluorobiphenyl	63.2 %	29 - 109		B7B0287	02/09/2017	02/09/17 19:15	
Surrogate: 4-Terphenyl-d14	95.0 %	49 - 122		B7B0287	02/09/2017	02/09/17 19:15	
Surrogate: Nitrobenzene-d5	70.8 %	19 - 111		B7B0287	02/09/2017	02/09/17 19:15	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-32B

Lab ID: 1700590-08

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,1,1-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,1,2-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,1-Dichloroethane	0.57	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,1-Dichloroethene	77	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,1-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,2,3-Trichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,2-Dibromoethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,2-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,2-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,3-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,3-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
1,4-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
2,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
2-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
4-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
4-Isopropyltoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Benzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Bromobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Bromodichloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Bromoform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Bromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Carbon tetrachloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Chlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Chloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Chloroform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Chloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
cis-1,2-Dichloroethene	2.0	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Dibromochloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-32B

Lab ID: 1700590-08

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Dichlorodifluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Ethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Hexachlorobutadiene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Isopropylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
m,p-Xylene	ND	1.0	1	B7B0267	02/09/2017	02/09/17 15:23	
Methylene chloride	ND	1.0	1	B7B0267	02/09/2017	02/09/17 15:23	
n-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
n-Propylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Naphthalene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
o-Xylene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
sec-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Styrene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
tert-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Tetrachloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Toluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Trichloroethene	20	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Trichlorofluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
Vinyl chloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 15:23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>135 %</i>	<i>51 - 157</i>		B7B0267	02/09/2017	02/09/17 15:23	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>111 %</i>	<i>61 - 123</i>		B7B0267	02/09/2017	02/09/17 15:23	
<i>Surrogate: Dibromofluoromethane</i>	<i>123 %</i>	<i>57 - 147</i>		B7B0267	02/09/2017	02/09/17 15:23	
<i>Surrogate: Toluene-d8</i>	<i>103 %</i>	<i>61 - 119</i>		B7B0267	02/09/2017	02/09/17 15:23	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-32B

Lab ID: 1700590-08

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	2.0	1	B7B0287	02/09/2017	02/09/17 20:09	
Surrogate: 1,2-Dichlorobenzene-d4	58.2 %	17 - 101		B7B0287	02/09/2017	02/09/17 20:09	
Surrogate: 2-Fluorobiphenyl	68.3 %	29 - 109		B7B0287	02/09/2017	02/09/17 20:09	
Surrogate: 4-Terphenyl-d14	99.2 %	49 - 122		B7B0287	02/09/2017	02/09/17 20:09	
Surrogate: Nitrobenzene-d5	78.9 %	19 - 111		B7B0287	02/09/2017	02/09/17 20:09	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-3200B

Lab ID: 1700590-09

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,1,1-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,1,2-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,1-Dichloroethane	0.55	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,1-Dichloroethene	86	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,1-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,2,3-Trichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,2-Dibromoethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,2-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,2-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,3-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,3-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
1,4-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
2,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
2-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
4-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
4-Isopropyltoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Benzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Bromobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Bromodichloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Bromoform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Bromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Carbon tetrachloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Chlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Chloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Chloroform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Chloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
cis-1,2-Dichloroethene	2.3	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Dibromochloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-3200B

Lab ID: 1700590-09

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Dichlorodifluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Ethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Hexachlorobutadiene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Isopropylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
m,p-Xylene	ND	1.0	1	B7B0267	02/09/2017	02/09/17 14:54	
Methylene chloride	ND	1.0	1	B7B0267	02/09/2017	02/09/17 14:54	
n-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
n-Propylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Naphthalene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
o-Xylene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
sec-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Styrene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
tert-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Tetrachloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Toluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Trichloroethene	22	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Trichlorofluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
Vinyl chloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:54	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>139 %</i>	<i>51 - 157</i>		B7B0267	02/09/2017	<i>02/09/17 14:54</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>108 %</i>	<i>61 - 123</i>		B7B0267	02/09/2017	<i>02/09/17 14:54</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>121 %</i>	<i>57 - 147</i>		B7B0267	02/09/2017	<i>02/09/17 14:54</i>	
<i>Surrogate: Toluene-d8</i>	<i>106 %</i>	<i>61 - 119</i>		B7B0267	02/09/2017	<i>02/09/17 14:54</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-3200B

Lab ID: 1700590-09

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	2.0	2.0	1	B7B0287	02/09/2017	02/09/17 20:37	B
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>54.0 %</i>	<i>17 - 101</i>		B7B0287	02/09/2017	02/09/17 20:37	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>64.7 %</i>	<i>29 - 109</i>		B7B0287	02/09/2017	02/09/17 20:37	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>98.7 %</i>	<i>49 - 122</i>		B7B0287	02/09/2017	02/09/17 20:37	
<i>Surrogate: Nitrobenzene-d5</i>	<i>72.6 %</i>	<i>19 - 111</i>		B7B0287	02/09/2017	02/09/17 20:37	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-33_15V

Lab ID: 1700590-10

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,1,1-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,1,2-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,1-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,1-Dichloroethene	14	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,1-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,2,3-Trichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,2-Dibromoethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,2-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,2-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,3-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,3-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
1,4-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
2,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
2-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
4-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
4-Isopropyltoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Benzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Bromobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Bromodichloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Bromoform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Bromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Carbon tetrachloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Chlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Chloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Chloroform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Chloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Dibromochloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-33_15V

Lab ID: 1700590-10

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Dichlorodifluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Ethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Hexachlorobutadiene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Isopropylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
m,p-Xylene	ND	1.0	1	B7B0267	02/09/2017	02/09/17 14:07	
Methylene chloride	ND	1.0	1	B7B0267	02/09/2017	02/09/17 14:07	
n-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
n-Propylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Naphthalene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
o-Xylene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
sec-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Styrene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
tert-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Tetrachloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Toluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Trichloroethene	2.2	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Trichlorofluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
Vinyl chloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:07	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>136 %</i>	<i>51 - 157</i>		B7B0267	02/09/2017	02/09/17 14:07	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>109 %</i>	<i>61 - 123</i>		B7B0267	02/09/2017	02/09/17 14:07	
<i>Surrogate: Dibromofluoromethane</i>	<i>123 %</i>	<i>57 - 147</i>		B7B0267	02/09/2017	02/09/17 14:07	
<i>Surrogate: Toluene-d8</i>	<i>108 %</i>	<i>61 - 119</i>		B7B0267	02/09/2017	02/09/17 14:07	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-33_15V

Lab ID: 1700590-10

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0294	02/09/2017	02/09/17 22:58	
Surrogate: 1,2-Dichlorobenzene-d4	73.8 %	31 - 106		B7B0294	02/09/2017	02/09/17 22:58	
Surrogate: 2-Fluorobiphenyl	86.7 %	28 - 122		B7B0294	02/09/2017	02/09/17 22:58	
Surrogate: 4-Terphenyl-d14	88.4 %	43 - 131		B7B0294	02/09/2017	02/09/17 22:58	
Surrogate: Nitrobenzene-d5	68.5 %	20 - 119		B7B0294	02/09/2017	02/09/17 22:58	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-33

Lab ID: 1700590-11

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,1,1-Trichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,1,2-Trichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,1-Dichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,1-Dichloroethene	9.5	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,1-Dichloropropene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,2,3-Trichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,2-Dibromoethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,2-Dichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,2-Dichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,2-Dichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,3-Dichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,3-Dichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
1,4-Dichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
2,2-Dichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
2-Chlorotoluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
4-Chlorotoluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
4-Isopropyltoluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Benzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Bromobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Bromodichloromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Bromoform	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Bromomethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Carbon tetrachloride	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Chlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Chloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Chloroform	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Chloromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Dibromochloromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-33

Lab ID: 1700590-11

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Dichlorodifluoromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Ethylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Hexachlorobutadiene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Isopropylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
m,p-Xylene	ND	1.0	1	B7B0233	02/08/2017	02/08/17 19:33	
Methylene chloride	ND	1.0	1	B7B0233	02/08/2017	02/08/17 19:33	
n-Butylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
n-Propylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Naphthalene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
o-Xylene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
sec-Butylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Styrene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
tert-Butylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Tetrachloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Toluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Trichloroethene	1.3	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Trichlorofluoromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
Vinyl chloride	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:33	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>138 %</i>	<i>51 - 157</i>		B7B0233	02/08/2017	02/08/17 19:33	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>105 %</i>	<i>61 - 123</i>		B7B0233	02/08/2017	02/08/17 19:33	
<i>Surrogate: Dibromofluoromethane</i>	<i>123 %</i>	<i>57 - 147</i>		B7B0233	02/08/2017	02/08/17 19:33	
<i>Surrogate: Toluene-d8</i>	<i>108 %</i>	<i>61 - 119</i>		B7B0233	02/08/2017	02/08/17 19:33	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-33

Lab ID: 1700590-11

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0294	02/09/2017	02/09/17 23:24	
Surrogate: 1,2-Dichlorobenzene-d4	72.5 %	31 - 106		B7B0294	02/09/2017	02/09/17 23:24	
Surrogate: 2-Fluorobiphenyl	82.8 %	28 - 122		B7B0294	02/09/2017	02/09/17 23:24	
Surrogate: 4-Terphenyl-d14	86.7 %	43 - 131		B7B0294	02/09/2017	02/09/17 23:24	
Surrogate: Nitrobenzene-d5	67.0 %	20 - 119		B7B0294	02/09/2017	02/09/17 23:24	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-31

Lab ID: 1700590-12

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,1,1-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,1,2-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,1-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,1-Dichloroethene	52	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,1-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,2,3-Trichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,2-Dibromoethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,2-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,2-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,3-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,3-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
1,4-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
2,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
2-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
4-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
4-Isopropyltoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Benzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Bromobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Bromodichloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Bromoform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Bromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Carbon tetrachloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Chlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Chloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Chloroform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Chloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Dibromochloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-31

Lab ID: 1700590-12

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Dichlorodifluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Ethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Hexachlorobutadiene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Isopropylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
m,p-Xylene	ND	1.0	1	B7B0267	02/09/2017	02/09/17 18:28	
Methylene chloride	ND	1.0	1	B7B0267	02/09/2017	02/09/17 18:28	
n-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
n-Propylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Naphthalene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
o-Xylene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
sec-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Styrene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
tert-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Tetrachloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Toluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Trichloroethene	4.8	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Trichlorofluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
Vinyl chloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 18:28	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>140 %</i>	<i>51 - 157</i>		B7B0267	02/09/2017	02/09/17 18:28	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>111 %</i>	<i>61 - 123</i>		B7B0267	02/09/2017	02/09/17 18:28	
<i>Surrogate: Dibromofluoromethane</i>	<i>125 %</i>	<i>57 - 147</i>		B7B0267	02/09/2017	02/09/17 18:28	
<i>Surrogate: Toluene-d8</i>	<i>107 %</i>	<i>61 - 119</i>		B7B0267	02/09/2017	02/09/17 18:28	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-31

Lab ID: 1700590-12

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	2.0	1	B7B0287	02/09/2017	02/09/17 21:04	
Surrogate: 1,2-Dichlorobenzene-d4	59.2 %	17 - 101		B7B0287	02/09/2017	02/09/17 21:04	
Surrogate: 2-Fluorobiphenyl	68.8 %	29 - 109		B7B0287	02/09/2017	02/09/17 21:04	
Surrogate: 4-Terphenyl-d14	93.7 %	49 - 122		B7B0287	02/09/2017	02/09/17 21:04	
Surrogate: Nitrobenzene-d5	81.0 %	19 - 111		B7B0287	02/09/2017	02/09/17 21:04	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID P-07

Lab ID: 1700590-13

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,1,1-Trichloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,1,2,2-Tetrachloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,1,2-Trichloroethane	5.0	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,1-Dichloroethane	20	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,1-Dichloroethene	2100	25	50	B7B0305	02/10/2017	02/10/17 20:00	
1,1-Dichloropropene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,2,3-Trichloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,2,3-Trichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,2,4-Trichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,2,4-Trimethylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,2-Dibromo-3-chloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,2-Dibromoethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,2-Dichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,2-Dichloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,2-Dichloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,3,5-Trimethylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,3-Dichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,3-Dichloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
1,4-Dichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
2,2-Dichloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
2-Chlorotoluene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
4-Chlorotoluene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
4-Isopropyltoluene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Benzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Bromobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Bromodichloromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Bromoform	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Bromomethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Carbon tetrachloride	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Chlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Chloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Chloroform	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Chloromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
cis-1,2-Dichloroethene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
cis-1,3-Dichloropropene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Dibromochloromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID P-07

Lab ID: 1700590-13

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Dichlorodifluoromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Ethylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Hexachlorobutadiene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Isopropylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
m,p-Xylene	ND	5.0	5	B7B0305	02/10/2017	02/10/17 19:37	
Methylene chloride	ND	5.0	5	B7B0305	02/10/2017	02/10/17 19:37	
n-Butylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
n-Propylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Naphthalene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
o-Xylene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
sec-Butylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Styrene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
tert-Butylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Tetrachloroethene	4.6	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Toluene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
trans-1,2-Dichloroethene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Trichloroethene	6.2	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Trichlorofluoromethane	6.0	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
Vinyl chloride	ND	2.5	5	B7B0305	02/10/2017	02/10/17 19:37	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>142 %</i>	<i>51 - 157</i>		B7B0305	02/10/2017	<i>02/10/17 20:00</i>	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>148 %</i>	<i>51 - 157</i>		B7B0305	02/10/2017	<i>02/10/17 19:37</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>106 %</i>	<i>61 - 123</i>		B7B0305	02/10/2017	<i>02/10/17 20:00</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>107 %</i>	<i>61 - 123</i>		B7B0305	02/10/2017	<i>02/10/17 19:37</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>130 %</i>	<i>57 - 147</i>		B7B0305	02/10/2017	<i>02/10/17 20:00</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>128 %</i>	<i>57 - 147</i>		B7B0305	02/10/2017	<i>02/10/17 19:37</i>	
<i>Surrogate: Toluene-d8</i>	<i>107 %</i>	<i>61 - 119</i>		B7B0305	02/10/2017	<i>02/10/17 20:00</i>	
<i>Surrogate: Toluene-d8</i>	<i>106 %</i>	<i>61 - 119</i>		B7B0305	02/10/2017	<i>02/10/17 19:37</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID P-07

Lab ID: 1700590-13

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	1300	10	5	B7B0287	02/09/2017	02/10/17 18:23	B
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>53.7 %</i>	<i>17 - 101</i>		B7B0287	02/09/2017	02/10/17 18:23	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>60.0 %</i>	<i>29 - 109</i>		B7B0287	02/09/2017	02/10/17 18:23	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>82.0 %</i>	<i>49 - 122</i>		B7B0287	02/09/2017	02/10/17 18:23	
<i>Surrogate: Nitrobenzene-d5</i>	<i>67.1 %</i>	<i>19 - 111</i>		B7B0287	02/09/2017	02/10/17 18:23	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-08

Lab ID: 1700590-14

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,1,1-Trichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,1,2-Trichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,1-Dichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,1-Dichloroethene	13	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,1-Dichloropropene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,2,3-Trichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,2-Dibromoethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,2-Dichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,2-Dichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,2-Dichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,3-Dichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,3-Dichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
1,4-Dichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
2,2-Dichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
2-Chlorotoluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
4-Chlorotoluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
4-Isopropyltoluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Benzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Bromobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Bromodichloromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Bromoform	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Bromomethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Carbon tetrachloride	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Chlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Chloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Chloroform	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Chloromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
cis-1,2-Dichloroethene	1.1	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Dibromochloromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-08

Lab ID: 1700590-14

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Dichlorodifluoromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Ethylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Hexachlorobutadiene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Isopropylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
m,p-Xylene	ND	1.0	1	B7B0233	02/08/2017	02/08/17 19:56	
Methylene chloride	ND	1.0	1	B7B0233	02/08/2017	02/08/17 19:56	
n-Butylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
n-Propylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Naphthalene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
o-Xylene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
sec-Butylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Styrene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
tert-Butylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Tetrachloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Toluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Trichloroethene	22	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Trichlorofluoromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
Vinyl chloride	ND	0.50	1	B7B0233	02/08/2017	02/08/17 19:56	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>141 %</i>	<i>51 - 157</i>		B7B0233	02/08/2017	02/08/17 19:56	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>110 %</i>	<i>61 - 123</i>		B7B0233	02/08/2017	02/08/17 19:56	
<i>Surrogate: Dibromofluoromethane</i>	<i>123 %</i>	<i>57 - 147</i>		B7B0233	02/08/2017	02/08/17 19:56	
<i>Surrogate: Toluene-d8</i>	<i>104 %</i>	<i>61 - 119</i>		B7B0233	02/08/2017	02/08/17 19:56	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-08

Lab ID: 1700590-14

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0294	02/09/2017	02/09/17 23:51	
Surrogate: 1,2-Dichlorobenzene-d4	67.9 %	31 - 106		B7B0294	02/09/2017	02/09/17 23:51	
Surrogate: 2-Fluorobiphenyl	78.2 %	28 - 122		B7B0294	02/09/2017	02/09/17 23:51	
Surrogate: 4-Terphenyl-d14	87.4 %	43 - 131		B7B0294	02/09/2017	02/09/17 23:51	
Surrogate: Nitrobenzene-d5	63.4 %	20 - 119		B7B0294	02/09/2017	02/09/17 23:51	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID RB-020717

Lab ID: 1700590-15

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,1,1-Trichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,1,2-Trichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,1-Dichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,1-Dichloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,1-Dichloropropene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,2,3-Trichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,2-Dibromoethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,2-Dichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,2-Dichloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,2-Dichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,3-Dichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,3-Dichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
1,4-Dichlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
2,2-Dichloropropane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
2-Chlorotoluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
4-Chlorotoluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
4-Isopropyltoluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Benzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Bromobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Bromodichloromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Bromoform	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Bromomethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Carbon tetrachloride	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Chlorobenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Chloroethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Chloroform	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Chloromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Dibromochloromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID RB-020717

Lab ID: 1700590-15

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Dichlorodifluoromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Ethylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Hexachlorobutadiene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Isopropylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
m,p-Xylene	ND	1.0	1	B7B0233	02/08/2017	02/08/17 20:19	
Methylene chloride	ND	1.0	1	B7B0233	02/08/2017	02/08/17 20:19	
n-Butylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
n-Propylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Naphthalene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
o-Xylene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
sec-Butylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Styrene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
tert-Butylbenzene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Tetrachloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Toluene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Trichloroethene	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Trichlorofluoromethane	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Vinyl chloride	ND	0.50	1	B7B0233	02/08/2017	02/08/17 20:19	
Surrogate: 1,2-Dichloroethane-d4	142 %	51 - 157		B7B0233	02/08/2017	02/08/17 20:19	
Surrogate: 4-Bromofluorobenzene	107 %	61 - 123		B7B0233	02/08/2017	02/08/17 20:19	
Surrogate: Dibromofluoromethane	125 %	57 - 147		B7B0233	02/08/2017	02/08/17 20:19	
Surrogate: Toluene-d8	107 %	61 - 119		B7B0233	02/08/2017	02/08/17 20:19	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-20

Lab ID: 1700590-16

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,1,1-Trichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,1,2-Trichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,1-Dichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,1-Dichloroethene	0.66	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,1-Dichloropropene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,2,3-Trichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,2-Dibromoethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,2-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,2-Dichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,2-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,3-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,3-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
1,4-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
2,2-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
2-Chlorotoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
4-Chlorotoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
4-Isopropyltoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Benzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Bromobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Bromodichloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Bromoform	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Bromomethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Carbon tetrachloride	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Chlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Chloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Chloroform	0.67	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Chloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Dibromochloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-20

Lab ID: 1700590-16

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Dichlorodifluoromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Ethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Hexachlorobutadiene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Isopropylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
m,p-Xylene	ND	1.0	1	B7B0305	02/10/2017	02/10/17 14:35	
Methylene chloride	ND	1.0	1	B7B0305	02/10/2017	02/10/17 14:35	
n-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
n-Propylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Naphthalene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
o-Xylene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
sec-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Styrene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
tert-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Tetrachloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Toluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Trichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Trichlorofluoromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Vinyl chloride	ND	0.50	1	B7B0305	02/10/2017	02/10/17 14:35	
Surrogate: 1,2-Dichloroethane-d4	135 %	51 - 157		B7B0305	02/10/2017	02/10/17 14:35	
Surrogate: 4-Bromofluorobenzene	108 %	61 - 123		B7B0305	02/10/2017	02/10/17 14:35	
Surrogate: Dibromofluoromethane	122 %	57 - 147		B7B0305	02/10/2017	02/10/17 14:35	
Surrogate: Toluene-d8	110 %	61 - 119		B7B0305	02/10/2017	02/10/17 14:35	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-20

Lab ID: 1700590-16

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0294	02/09/2017	02/10/17 00:18	
Surrogate: 1,2-Dichlorobenzene-d4	76.9 %	31 - 106		B7B0294	02/09/2017	02/10/17 00:18	
Surrogate: 2-Fluorobiphenyl	89.9 %	28 - 122		B7B0294	02/09/2017	02/10/17 00:18	
Surrogate: 4-Terphenyl-d14	97.9 %	43 - 131		B7B0294	02/09/2017	02/10/17 00:18	
Surrogate: Nitrobenzene-d5	71.1 %	20 - 119		B7B0294	02/09/2017	02/10/17 00:18	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-09

Lab ID: 1700590-17

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,1,1-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,1,2-Trichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,1-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,1-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,1-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,2,3-Trichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,2-Dibromoethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,2-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,2-Dichloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,3-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,3-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
1,4-Dichlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
2,2-Dichloropropane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
2-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
4-Chlorotoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
4-Isopropyltoluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Benzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Bromobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Bromodichloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Bromoform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Bromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Carbon tetrachloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Chlorobenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Chloroethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Chloroform	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Chloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Dibromochloromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-09

Lab ID: 1700590-17

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Dichlorodifluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Ethylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Hexachlorobutadiene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Isopropylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
m,p-Xylene	ND	1.0	1	B7B0267	02/09/2017	02/09/17 14:30	
Methylene chloride	ND	1.0	1	B7B0267	02/09/2017	02/09/17 14:30	
n-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
n-Propylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Naphthalene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
o-Xylene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
sec-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Styrene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
tert-Butylbenzene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Tetrachloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Toluene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Trichloroethene	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Trichlorofluoromethane	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Vinyl chloride	ND	0.50	1	B7B0267	02/09/2017	02/09/17 14:30	
Surrogate: 1,2-Dichloroethane-d4	137 %	51 - 157		B7B0267	02/09/2017	02/09/17 14:30	
Surrogate: 4-Bromofluorobenzene	109 %	61 - 123		B7B0267	02/09/2017	02/09/17 14:30	
Surrogate: Dibromofluoromethane	122 %	57 - 147		B7B0267	02/09/2017	02/09/17 14:30	
Surrogate: Toluene-d8	108 %	61 - 119		B7B0267	02/09/2017	02/09/17 14:30	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-09

Lab ID: 1700590-17

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0294	02/09/2017	02/10/17 00:44	
Surrogate: 1,2-Dichlorobenzene-d4	67.5 %	31 - 106		B7B0294	02/09/2017	02/10/17 00:44	
Surrogate: 2-Fluorobiphenyl	77.3 %	28 - 122		B7B0294	02/09/2017	02/10/17 00:44	
Surrogate: 4-Terphenyl-d14	85.0 %	43 - 131		B7B0294	02/09/2017	02/10/17 00:44	
Surrogate: Nitrobenzene-d5	61.9 %	20 - 119		B7B0294	02/09/2017	02/10/17 00:44	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-16

Lab ID: 1700590-18

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,1,1-Trichloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,1,2,2-Tetrachloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,1,2-Trichloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,1-Dichloroethane	6.8	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,1-Dichloroethene	890	10	20	B7B0305	02/10/2017	02/10/17 19:14	
1,1-Dichloropropene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,2,3-Trichloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,2,3-Trichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,2,4-Trichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,2,4-Trimethylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,2-Dibromo-3-chloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,2-Dibromoethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,2-Dichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,2-Dichloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,2-Dichloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,3,5-Trimethylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,3-Dichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,3-Dichloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
1,4-Dichlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
2,2-Dichloropropane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
2-Chlorotoluene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
4-Chlorotoluene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
4-Isopropyltoluene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Benzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Bromobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Bromodichloromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Bromoform	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Bromomethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Carbon tetrachloride	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Chlorobenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Chloroethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Chloroform	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Chloromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
cis-1,2-Dichloroethene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
cis-1,3-Dichloropropene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Dibromochloromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-16

Lab ID: 1700590-18

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Dichlorodifluoromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Ethylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Hexachlorobutadiene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Isopropylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
m,p-Xylene	ND	5.0	5	B7B0305	02/10/2017	02/10/17 18:51	
Methylene chloride	ND	5.0	5	B7B0305	02/10/2017	02/10/17 18:51	
n-Butylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
n-Propylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Naphthalene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
o-Xylene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
sec-Butylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Styrene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
tert-Butylbenzene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Tetrachloroethene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Toluene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
trans-1,2-Dichloroethene	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Trichloroethene	3.8	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Trichlorofluoromethane	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
Vinyl chloride	ND	2.5	5	B7B0305	02/10/2017	02/10/17 18:51	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>146 %</i>	<i>51 - 157</i>		B7B0305	02/10/2017	<i>02/10/17 19:14</i>	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>146 %</i>	<i>51 - 157</i>		B7B0305	02/10/2017	<i>02/10/17 18:51</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>108 %</i>	<i>61 - 123</i>		B7B0305	02/10/2017	<i>02/10/17 19:14</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>109 %</i>	<i>61 - 123</i>		B7B0305	02/10/2017	<i>02/10/17 18:51</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>126 %</i>	<i>57 - 147</i>		B7B0305	02/10/2017	<i>02/10/17 18:51</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>126 %</i>	<i>57 - 147</i>		B7B0305	02/10/2017	<i>02/10/17 19:14</i>	
<i>Surrogate: Toluene-d8</i>	<i>107 %</i>	<i>61 - 119</i>		B7B0305	02/10/2017	<i>02/10/17 18:51</i>	
<i>Surrogate: Toluene-d8</i>	<i>109 %</i>	<i>61 - 119</i>		B7B0305	02/10/2017	<i>02/10/17 19:14</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Client Sample ID MW-16

Lab ID: 1700590-18

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	240	2.0	1	B7B0287	02/09/2017	02/09/17 21:58	B
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>57.4 %</i>	<i>17 - 101</i>		B7B0287	02/09/2017	<i>02/09/17 21:58</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>64.4 %</i>	<i>29 - 109</i>		B7B0287	02/09/2017	<i>02/09/17 21:58</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>97.4 %</i>	<i>49 - 122</i>		B7B0287	02/09/2017	<i>02/09/17 21:58</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>75.2 %</i>	<i>19 - 111</i>		B7B0287	02/09/2017	<i>02/09/17 21:58</i>	



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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

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

Batch B7B0233 - MSVOA_LL_W

Blank (B7B0233-BLK1)

Prepared: 2/8/2017 Analyzed: 2/8/2017

1,1,1,2-Tetrachloroethane	ND	0.50	0.18			NR			
1,1,1-Trichloroethane	ND	0.50	0.47			NR			
1,1,2,2-Tetrachloroethane	ND	0.50	0.17			NR			
1,1,2-Trichloroethane	ND	0.50	0.12			NR			
1,1-Dichloroethane	ND	0.50	0.16			NR			
1,1-Dichloroethene	ND	0.50	0.18			NR			
1,1-Dichloropropene	ND	0.50	0.30			NR			
1,2,3-Trichloropropane	ND	0.50	0.16			NR			
1,2,3-Trichlorobenzene	ND	0.50	0.20			NR			
1,2,4-Trichlorobenzene	ND	0.50	0.26			NR			
1,2,4-Trimethylbenzene	ND	0.50	0.23			NR			
1,2-Dibromo-3-chloropropane	ND	0.50	0.26			NR			
1,2-Dibromoethane	ND	0.50	0.15			NR			
1,2-Dichlorobenzene	ND	0.50	0.21			NR			
1,2-Dichloroethane	ND	0.50	0.15			NR			
1,2-Dichloropropane	ND	0.50	0.35			NR			
1,3,5-Trimethylbenzene	ND	0.50	0.19			NR			
1,3-Dichlorobenzene	ND	0.50	0.23			NR			
1,3-Dichloropropane	ND	0.50	0.15			NR			
1,4-Dichlorobenzene	ND	0.50	0.23			NR			
2,2-Dichloropropane	ND	0.50	0.35			NR			
2-Chlorotoluene	ND	0.50	0.25			NR			
4-Chlorotoluene	ND	0.50	0.24			NR			
4-Isopropyltoluene	ND	0.50	0.24			NR			
Benzene	ND	0.50	0.19			NR			
Bromobenzene	ND	0.50	0.19			NR			
Bromodichloromethane	ND	0.50	0.17			NR			
Bromoform	ND	0.50	0.10			NR			
Bromomethane	ND	0.50	0.28			NR			
Carbon tetrachloride	ND	0.50	0.21			NR			
Chlorobenzene	ND	0.50	0.22			NR			
Chloroethane	ND	0.50	0.17			NR			
Chloroform	ND	0.50	0.19			NR			
Chloromethane	ND	0.50	0.23			NR			
cis-1,2-Dichloroethene	ND	0.50	0.19			NR			
cis-1,3-Dichloropropene	ND	0.50	0.20			NR			
Dibromochloromethane	ND	0.50	0.13			NR			
Dibromomethane	ND	0.50	0.14			NR			
Dichlorodifluoromethane	ND	0.50	0.31			NR			



Certificate of Analysis

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Project Number : Raytheon Main, 532.30

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Reported : 02/16/2017

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

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

Batch B7B0233 - MSVOA_LL_W (continued)

Blank (B7B0233-BLK1) - Continued

Prepared: 2/8/2017 Analyzed: 2/8/2017

Ethylbenzene	ND	0.50	0.23			NR				
Hexachlorobutadiene	ND	0.50	0.34			NR				
Isopropylbenzene	ND	0.50	0.23			NR				
m,p-Xylene	ND	1.0	0.45			NR				
Methylene chloride	ND	1.0	0.30			NR				
n-Butylbenzene	ND	0.50	0.31			NR				
n-Propylbenzene	ND	0.50	0.24			NR				
Naphthalene	ND	0.50	0.21			NR				
o-Xylene	ND	0.50	0.20			NR				
sec-Butylbenzene	ND	0.50	0.25			NR				
Styrene	ND	0.50	0.20			NR				
tert-Butylbenzene	ND	0.50	0.22			NR				
Tetrachloroethene	ND	0.50	0.24			NR				
Toluene	ND	0.50	0.20			NR				
trans-1,2-Dichloroethene	ND	0.50	0.21			NR				
Trichloroethene	ND	0.50	0.47			NR				
Trichlorofluoromethane	ND	0.50	0.23			NR				
Vinyl chloride	ND	0.50	0.19			NR				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>31.37</i>			<i>25.0000</i>		<i>125</i>	<i>51 - 157</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>26.71</i>			<i>25.0000</i>		<i>107</i>	<i>61 - 123</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>29.22</i>			<i>25.0000</i>		<i>117</i>	<i>57 - 147</i>			
<i>Surrogate: Toluene-d8</i>	<i>27.27</i>			<i>25.0000</i>		<i>109</i>	<i>61 - 119</i>			

LCS (B7B0233-BS1)

Prepared: 2/8/2017 Analyzed: 2/8/2017

1,1,1,2-Tetrachloroethane	17.9200	0.50	0.18	20.0000		89.6	76 - 132
1,1,1-Trichloroethane	18.9800	0.50	0.47	20.0000		94.9	72 - 144
1,1,2,2-Tetrachloroethane	14.8600	0.50	0.17	20.0000		74.3	70 - 120
1,1,2-Trichloroethane	16.2900	0.50	0.12	20.0000		81.4	75 - 120
1,1-Dichloroethane	18.2800	0.50	0.16	20.0000		91.4	65 - 127
1,1-Dichloroethene	18.8000	0.50	0.18	20.0000		94.0	63 - 142
1,1-Dichloropropene	19.0400	0.50	0.30	20.0000		95.2	78 - 137
1,2,3-Trichloropropane	15.1100	0.50	0.16	20.0000		75.6	73 - 118
1,2,3-Trichlorobenzene	16.7500	0.50	0.20	20.0000		83.8	53 - 164
1,2,4-Trichlorobenzene	17.3800	0.50	0.26	20.0000		86.9	58 - 144
1,2,4-Trimethylbenzene	17.6100	0.50	0.23	20.0000		88.0	75 - 140
1,2-Dibromo-3-chloropropane	13.3400	0.50	0.26	20.0000		66.7	61 - 131
1,2-Dibromoethane	16.3500	0.50	0.15	20.0000		81.8	74 - 125
1,2-Dichlorobenzene	17.0300	0.50	0.21	20.0000		85.2	78 - 122
1,2-Dichloroethane	19.2700	0.50	0.15	20.0000		96.4	70 - 126
1,2-Dichloropropane	17.3700	0.50	0.35	20.0000		86.8	69 - 120
1,3,5-Trimethylbenzene	17.8800	0.50	0.19	20.0000		89.4	73 - 145



Certificate of Analysis

Hargis & Associates, Inc.

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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

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

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

Batch B7B0233 - MSVOA_LL_W (continued)

LCS (B7B0233-BS1) - Continued

Prepared: 2/8/2017 Analyzed: 2/8/2017

1,3-Dichlorobenzene	17.4400	0.50	0.23	20.0000		87.2	76 - 126		
1,3-Dichloropropane	16.3200	0.50	0.15	20.0000		81.6	76 - 117		
1,4-Dichlorobenzene	17.4000	0.50	0.23	20.0000		87.0	77 - 120		
2,2-Dichloropropane	18.2200	0.50	0.35	20.0000		91.1	47 - 169		
2-Chlorotoluene	17.3100	0.50	0.25	20.0000		86.6	75 - 135		
4-Chlorotoluene	16.9500	0.50	0.24	20.0000		84.8	70 - 133		
4-Isopropyltoluene	18.2600	0.50	0.24	20.0000		91.3	72 - 153		
Benzene	34.8800	0.50	0.19	40.0000		87.2	73 - 123		
Bromobenzene	17.1000	0.50	0.19	20.0000		85.5	75 - 121		
Bromodichloromethane	18.5800	0.50	0.17	20.0000		92.9	73 - 124		
Bromoform	16.1400	0.50	0.10	20.0000		80.7	70 - 135		
Bromomethane	26.7100	0.50	0.28	20.0000		134	10 - 166		
Carbon tetrachloride	21.3500	0.50	0.21	20.0000		107	65 - 171		
Chlorobenzene	16.7500	0.50	0.22	20.0000		83.8	80 - 121		
Chloroethane	17.3700	0.50	0.17	20.0000		86.8	55 - 143		
Chloroform	18.6900	0.50	0.19	20.0000		93.4	65 - 130		
Chloromethane	17.2900	0.50	0.23	20.0000		86.4	21 - 141		
cis-1,2-Dichloroethene	16.3600	0.50	0.19	20.0000		81.8	64 - 126		
cis-1,3-Dichloropropene	18.3200	0.50	0.20	20.0000		91.6	70 - 131		
Dibromochloromethane	16.7900	0.50	0.13	20.0000		84.0	74 - 125		
Dibromomethane	17.3100	0.50	0.14	20.0000		86.6	74 - 116		
Dichlorodifluoromethane	16.4000	0.50	0.31	20.0000		82.0	40 - 186		
Ethylbenzene	34.2600	0.50	0.23	40.0000		85.6	77 - 130		
Hexachlorobutadiene	18.6400	0.50	0.34	20.0000		93.2	52 - 176		
Isopropylbenzene	18.3400	0.50	0.23	20.0000		91.7	77 - 144		
m,p-Xylene	36.2800	1.0	0.45	40.0000		90.7	84 - 136		
Methylene chloride	16.1900	1.0	0.30	20.0000		81.0	72 - 150		
n-Butylbenzene	18.0300	0.50	0.31	20.0000		90.2	73 - 154		
n-Propylbenzene	17.5900	0.50	0.24	20.0000		88.0	77 - 145		
Naphthalene	14.9600	0.50	0.21	20.0000		74.8	55 - 137		
o-Xylene	35.1400	0.50	0.20	40.0000		87.8	79 - 135		
sec-Butylbenzene	17.7600	0.50	0.25	20.0000		88.8	73 - 157		
Styrene	17.0900	0.50	0.20	20.0000		85.4	78 - 125		
tert-Butylbenzene	17.6900	0.50	0.22	20.0000		88.4	78 - 149		
Tetrachloroethene	17.8000	0.50	0.24	20.0000		89.0	74 - 136		
Toluene	33.6400	0.50	0.20	40.0000		84.1	78 - 124		
trans-1,2-Dichloroethene	16.7100	0.50	0.21	20.0000		83.6	66 - 131		
Trichloroethene	16.9500	0.50	0.47	20.0000		84.8	78 - 128		
Trichlorofluoromethane	22.1500	0.50	0.23	20.0000		111	60 - 170		
Vinyl chloride	17.1200	0.50	0.19	20.0000		85.6	55 - 148		

Surrogate: 1,2-Dichloroethane-d4	30.90			25.0000		124	51 - 157		



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

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 B7B0233 - MSVOA_LL_W (continued)

LCS (B7B0233-BS1) - Continued

Prepared: 2/8/2017 Analyzed: 2/8/2017

Surrogate: 4-Bromofluorobenzene	27.32		25.0000		109	61 - 123			
Surrogate: Dibromofluoromethane	27.73		25.0000		111	57 - 147			
Surrogate: Toluene-d8	27.42		25.0000		110	61 - 119			

LCS Dup (B7B0233-BSD1)

Prepared: 2/8/2017 Analyzed: 2/8/2017

1,1,1,2-Tetrachloroethane	20.9000	0.50	0.18	20.0000	104	76 - 132	15.4	20	
1,1,1-Trichloroethane	22.3200	0.50	0.47	20.0000	112	72 - 144	16.2	20	
1,1,2,2-Tetrachloroethane	16.8500	0.50	0.17	20.0000	84.2	70 - 120	12.6	20	
1,1,2-Trichloroethane	18.7600	0.50	0.12	20.0000	93.8	75 - 120	14.1	20	
1,1-Dichloroethane	21.7200	0.50	0.16	20.0000	109	65 - 127	17.2	20	
1,1-Dichloroethene	21.5500	0.50	0.18	20.0000	108	63 - 142	13.6	20	
1,1-Dichloropropene	21.2800	0.50	0.30	20.0000	106	78 - 137	11.1	20	
1,2,3-Trichloropropane	17.5500	0.50	0.16	20.0000	87.8	73 - 118	14.9	20	
1,2,3-Trichlorobenzene	19.5400	0.50	0.20	20.0000	97.7	53 - 164	15.4	20	
1,2,4-Trichlorobenzene	20.0500	0.50	0.26	20.0000	100	58 - 144	14.3	20	
1,2,4-Trimethylbenzene	20.8600	0.50	0.23	20.0000	104	75 - 140	16.9	20	
1,2-Dibromo-3-chloropropane	16.2100	0.50	0.26	20.0000	81.0	61 - 131	19.4	20	
1,2-Dibromoethane	18.4200	0.50	0.15	20.0000	92.1	74 - 125	11.9	20	
1,2-Dichlorobenzene	19.9600	0.50	0.21	20.0000	99.8	78 - 122	15.8	20	
1,2-Dichloroethane	21.4200	0.50	0.15	20.0000	107	70 - 126	10.6	20	
1,2-Dichloropropane	19.6300	0.50	0.35	20.0000	98.2	69 - 120	12.2	20	
1,3,5-Trimethylbenzene	20.9400	0.50	0.19	20.0000	105	73 - 145	15.8	20	
1,3-Dichlorobenzene	20.1700	0.50	0.23	20.0000	101	76 - 126	14.5	20	
1,3-Dichloropropane	18.6700	0.50	0.15	20.0000	93.4	76 - 117	13.4	20	
1,4-Dichlorobenzene	20.4100	0.50	0.23	20.0000	102	77 - 120	15.9	20	
2,2-Dichloropropane	20.9800	0.50	0.35	20.0000	105	47 - 169	14.1	20	
2-Chlorotoluene	19.8600	0.50	0.25	20.0000	99.3	75 - 135	13.7	20	
4-Chlorotoluene	20.1100	0.50	0.24	20.0000	101	70 - 133	17.1	20	
4-Isopropyltoluene	21.7800	0.50	0.24	20.0000	109	72 - 153	17.6	20	
Benzene	40.0700	0.50	0.19	40.0000	100	73 - 123	13.8	20	
Bromobenzene	19.8600	0.50	0.19	20.0000	99.3	75 - 121	14.9	20	
Bromodichloromethane	20.9200	0.50	0.17	20.0000	105	73 - 124	11.8	20	
Bromoform	17.8100	0.50	0.10	20.0000	89.0	70 - 135	9.84	20	
Bromomethane	30.4900	0.50	0.28	20.0000	152	10 - 166	13.2	20	
Carbon tetrachloride	23.7900	0.50	0.21	20.0000	119	65 - 171	10.8	20	
Chlorobenzene	19.4200	0.50	0.22	20.0000	97.1	80 - 121	14.8	20	
Chloroethane	20.1100	0.50	0.17	20.0000	101	55 - 143	14.6	20	
Chloroform	21.5600	0.50	0.19	20.0000	108	65 - 130	14.3	20	
Chloromethane	20.2500	0.50	0.23	20.0000	101	21 - 141	15.8	20	
cis-1,2-Dichloroethene	19.7500	0.50	0.19	20.0000	98.8	64 - 126	18.8	20	
cis-1,3-Dichloropropene	21.1500	0.50	0.20	20.0000	106	70 - 131	14.3	20	
Dibromochloromethane	19.2500	0.50	0.13	20.0000	96.2	74 - 125	13.7	20	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

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

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

Batch B7B0233 - MSVOA_LL_W (continued)

LCS Dup (B7B0233-BSD1) - Continued

Prepared: 2/8/2017 Analyzed: 2/8/2017

Dibromomethane	19.3700	0.50	0.14	20.0000		96.8	74 - 116	11.2	20	
Dichlorodifluoromethane	18.7600	0.50	0.31	20.0000		93.8	40 - 186	13.4	20	
Ethylbenzene	39.4200	0.50	0.23	40.0000		98.6	77 - 130	14.0	20	
Hexachlorobutadiene	22.0900	0.50	0.34	20.0000		110	52 - 176	16.9	20	
Isopropylbenzene	21.4300	0.50	0.23	20.0000		107	77 - 144	15.5	20	
m,p-Xylene	41.8700	1.0	0.45	40.0000		105	84 - 136	14.3	20	
Methylene chloride	18.8700	1.0	0.30	20.0000		94.4	72 - 150	15.3	20	
n-Butylbenzene	21.5500	0.50	0.31	20.0000		108	73 - 154	17.8	20	
n-Propylbenzene	20.7800	0.50	0.24	20.0000		104	77 - 145	16.6	20	
Naphthalene	17.2500	0.50	0.21	20.0000		86.2	55 - 137	14.2	20	
o-Xylene	40.3800	0.50	0.20	40.0000		101	79 - 135	13.9	20	
sec-Butylbenzene	20.7500	0.50	0.25	20.0000		104	73 - 157	15.5	20	
Styrene	19.6800	0.50	0.20	20.0000		98.4	78 - 125	14.1	20	
tert-Butylbenzene	20.6500	0.50	0.22	20.0000		103	78 - 149	15.4	20	
Tetrachloroethene	20.4600	0.50	0.24	20.0000		102	74 - 136	13.9	20	
Toluene	39.5900	0.50	0.20	40.0000		99.0	78 - 124	16.3	20	
trans-1,2-Dichloroethene	20.0300	0.50	0.21	20.0000		100	66 - 131	18.1	20	
Trichloroethene	19.4000	0.50	0.47	20.0000		97.0	78 - 128	13.5	20	
Trichlorofluoromethane	25.6000	0.50	0.23	20.0000		128	60 - 170	14.5	20	
Vinyl chloride	19.8200	0.50	0.19	20.0000		99.1	55 - 148	14.6	20	

Surrogate: 1,2-Dichloroethane-d4	30.04			25.0000		120	51 - 157			
Surrogate: 4-Bromofluorobenzene	27.03			25.0000		108	61 - 123			
Surrogate: Dibromofluoromethane	27.66			25.0000		111	57 - 147			
Surrogate: Toluene-d8	28.03			25.0000		112	61 - 119			



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Volatile Organic Compounds by EPA 8260B - Quality Control

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

Batch B7B0267 - MSVOA_LL_W

Blank (B7B0267-BLK1)

Prepared: 2/9/2017 Analyzed: 2/9/2017

1,1,1,2-Tetrachloroethane	ND	0.50	0.18			NR			
1,1,1-Trichloroethane	ND	0.50	0.47			NR			
1,1,2,2-Tetrachloroethane	ND	0.50	0.17			NR			
1,1,2-Trichloroethane	ND	0.50	0.12			NR			
1,1-Dichloroethane	ND	0.50	0.16			NR			
1,1-Dichloroethene	ND	0.50	0.18			NR			
1,1-Dichloropropene	ND	0.50	0.30			NR			
1,2,3-Trichloropropane	ND	0.50	0.16			NR			
1,2,3-Trichlorobenzene	ND	0.50	0.20			NR			
1,2,4-Trichlorobenzene	ND	0.50	0.26			NR			
1,2,4-Trimethylbenzene	ND	0.50	0.23			NR			
1,2-Dibromo-3-chloropropane	ND	0.50	0.26			NR			
1,2-Dibromoethane	ND	0.50	0.15			NR			
1,2-Dichlorobenzene	ND	0.50	0.21			NR			
1,2-Dichloroethane	ND	0.50	0.15			NR			
1,2-Dichloropropane	ND	0.50	0.35			NR			
1,3,5-Trimethylbenzene	ND	0.50	0.19			NR			
1,3-Dichlorobenzene	ND	0.50	0.23			NR			
1,3-Dichloropropane	ND	0.50	0.15			NR			
1,4-Dichlorobenzene	ND	0.50	0.23			NR			
2,2-Dichloropropane	ND	0.50	0.35			NR			
2-Chlorotoluene	ND	0.50	0.25			NR			
4-Chlorotoluene	ND	0.50	0.24			NR			
4-Isopropyltoluene	ND	0.50	0.24			NR			
Benzene	ND	0.50	0.19			NR			
Bromobenzene	ND	0.50	0.19			NR			
Bromodichloromethane	ND	0.50	0.17			NR			
Bromoform	ND	0.50	0.10			NR			
Bromomethane	ND	0.50	0.28			NR			
Carbon tetrachloride	ND	0.50	0.21			NR			
Chlorobenzene	ND	0.50	0.22			NR			
Chloroethane	ND	0.50	0.17			NR			
Chloroform	ND	0.50	0.19			NR			
Chloromethane	ND	0.50	0.23			NR			
cis-1,2-Dichloroethene	ND	0.50	0.19			NR			
cis-1,3-Dichloropropene	ND	0.50	0.20			NR			
Dibromochloromethane	ND	0.50	0.13			NR			
Dibromomethane	ND	0.50	0.14			NR			
Dichlorodifluoromethane	ND	0.50	0.31			NR			
Ethylbenzene	ND	0.50	0.23			NR			
Hexachlorobutadiene	ND	0.50	0.34			NR			



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

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

Batch B7B0267 - MSVOA_LL_W (continued)

Blank (B7B0267-BLK1) - Continued

Prepared: 2/9/2017 Analyzed: 2/9/2017

Isopropylbenzene	ND	0.50	0.23				NR			
m,p-Xylene	ND	1.0	0.45				NR			
Methylene chloride	ND	1.0	0.30				NR			
n-Butylbenzene	ND	0.50	0.31				NR			
n-Propylbenzene	ND	0.50	0.24				NR			
Naphthalene	ND	0.50	0.21				NR			
o-Xylene	ND	0.50	0.20				NR			
sec-Butylbenzene	ND	0.50	0.25				NR			
Styrene	ND	0.50	0.20				NR			
tert-Butylbenzene	ND	0.50	0.22				NR			
Tetrachloroethene	ND	0.50	0.24				NR			
Toluene	ND	0.50	0.20				NR			
trans-1,2-Dichloroethene	ND	0.50	0.21				NR			
Trichloroethene	ND	0.50	0.47				NR			
Trichlorofluoromethane	ND	0.50	0.23				NR			
Vinyl chloride	ND	0.50	0.19				NR			

Surrogate: 1,2-Dichloroethane-d4	33.07			25.0000		132	51 - 157
Surrogate: 4-Bromofluorobenzene	27.47			25.0000		110	61 - 123
Surrogate: Dibromofluoromethane	29.88			25.0000		120	57 - 147
Surrogate: Toluene-d8	27.50			25.0000		110	61 - 119

LCS (B7B0267-BS1)

Prepared: 2/9/2017 Analyzed: 2/9/2017

1,1,1,2-Tetrachloroethane	20.3700	0.50	0.18	20.0000		102	76 - 132
1,1,1-Trichloroethane	21.6800	0.50	0.47	20.0000		108	72 - 144
1,1,2,2-Tetrachloroethane	16.6900	0.50	0.17	20.0000		83.4	70 - 120
1,1,2-Trichloroethane	18.2300	0.50	0.12	20.0000		91.2	75 - 120
1,1-Dichloroethane	21.1900	0.50	0.16	20.0000		106	65 - 127
1,1-Dichloroethene	21.1400	0.50	0.18	20.0000		106	63 - 142
1,1-Dichloropropene	20.2900	0.50	0.30	20.0000		101	78 - 137
1,2,3-Trichloropropane	17.0300	0.50	0.16	20.0000		85.2	73 - 118
1,2,3-Trichlorobenzene	19.0100	0.50	0.20	20.0000		95.0	53 - 164
1,2,4-Trichlorobenzene	18.9800	0.50	0.26	20.0000		94.9	58 - 144
1,2,4-Trimethylbenzene	19.2300	0.50	0.23	20.0000		96.2	75 - 140
1,2-Dibromo-3-chloropropane	16.4100	0.50	0.26	20.0000		82.0	61 - 131
1,2-Dibromoethane	18.4400	0.50	0.15	20.0000		92.2	74 - 125
1,2-Dichlorobenzene	18.5700	0.50	0.21	20.0000		92.8	78 - 122
1,2-Dichloroethane	21.9400	0.50	0.15	20.0000		110	70 - 126
1,2-Dichloropropane	18.9200	0.50	0.35	20.0000		94.6	69 - 120
1,3,5-Trimethylbenzene	19.4700	0.50	0.19	20.0000		97.4	73 - 145
1,3-Dichlorobenzene	18.7000	0.50	0.23	20.0000		93.5	76 - 126
1,3-Dichloropropane	18.6700	0.50	0.15	20.0000		93.4	76 - 117



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

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

Batch B7B0267 - MSVOA_LL_W (continued)

LCS (B7B0267-BS1) - Continued

Prepared: 2/9/2017 Analyzed: 2/9/2017

1,4-Dichlorobenzene	19.1000	0.50	0.23	20.0000		95.5	77 - 120		
2,2-Dichloropropane	20.8400	0.50	0.35	20.0000		104	47 - 169		
2-Chlorotoluene	18.3600	0.50	0.25	20.0000		91.8	75 - 135		
4-Chlorotoluene	18.5200	0.50	0.24	20.0000		92.6	70 - 133		
4-Isopropyltoluene	20.2100	0.50	0.24	20.0000		101	72 - 153		
Benzene	38.2700	0.50	0.19	40.0000		95.7	73 - 123		
Bromobenzene	18.6500	0.50	0.19	20.0000		93.2	75 - 121		
Bromodichloromethane	20.8400	0.50	0.17	20.0000		104	73 - 124		
Bromoform	18.1700	0.50	0.10	20.0000		90.8	70 - 135		
Bromomethane	31.1600	0.50	0.28	20.0000		156	10 - 166		
Carbon tetrachloride	23.5100	0.50	0.21	20.0000		118	65 - 171		
Chlorobenzene	18.7600	0.50	0.22	20.0000		93.8	80 - 121		
Chloroethane	19.7500	0.50	0.17	20.0000		98.8	55 - 143		
Chloroform	21.2100	0.50	0.19	20.0000		106	65 - 130		
Chloromethane	19.8200	0.50	0.23	20.0000		99.1	21 - 141		
cis-1,2-Dichloroethene	18.6800	0.50	0.19	20.0000		93.4	64 - 126		
cis-1,3-Dichloropropene	20.1400	0.50	0.20	20.0000		101	70 - 131		
Dibromochloromethane	19.2400	0.50	0.13	20.0000		96.2	74 - 125		
Dibromomethane	19.4900	0.50	0.14	20.0000		97.4	74 - 116		
Dichlorodifluoromethane	18.4800	0.50	0.31	20.0000		92.4	40 - 186		
Ethylbenzene	38.4900	0.50	0.23	40.0000		96.2	77 - 130		
Hexachlorobutadiene	21.0700	0.50	0.34	20.0000		105	52 - 176		
Isopropylbenzene	19.8900	0.50	0.23	20.0000		99.4	77 - 144		
m,p-Xylene	40.2200	1.0	0.45	40.0000		101	84 - 136		
Methylene chloride	17.7000	1.0	0.30	20.0000		88.5	72 - 150		
n-Butylbenzene	20.3900	0.50	0.31	20.0000		102	73 - 154		
n-Propylbenzene	19.2300	0.50	0.24	20.0000		96.2	77 - 145		
Naphthalene	17.1300	0.50	0.21	20.0000		85.6	55 - 137		
o-Xylene	39.5900	0.50	0.20	40.0000		99.0	79 - 135		
sec-Butylbenzene	19.6400	0.50	0.25	20.0000		98.2	73 - 157		
Styrene	18.9600	0.50	0.20	20.0000		94.8	78 - 125		
tert-Butylbenzene	19.4000	0.50	0.22	20.0000		97.0	78 - 149		
Tetrachloroethene	19.3200	0.50	0.24	20.0000		96.6	74 - 136		
Toluene	36.9200	0.50	0.20	40.0000		92.3	78 - 124		
trans-1,2-Dichloroethene	18.7000	0.50	0.21	20.0000		93.5	66 - 131		
Trichloroethene	18.2700	0.50	0.47	20.0000		91.4	78 - 128		
Trichlorofluoromethane	25.6000	0.50	0.23	20.0000		128	60 - 170		
Vinyl chloride	19.1100	0.50	0.19	20.0000		95.6	55 - 148		
Surrogate: 1,2-Dichloroethane-d4	31.74			25.0000		127	51 - 157		
Surrogate: 4-Bromofluorobenzene	27.22			25.0000		109	61 - 123		
Surrogate: Dibromofluoromethane	28.70			25.0000		115	57 - 147		



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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 B7B0267 - MSVOA_LL_W (continued)

LCS (B7B0267-BS1) - Continued

Prepared: 2/9/2017 Analyzed: 2/9/2017

Surrogate: Toluene-d8 27.18 25.0000 109 61 - 119

LCS Dup (B7B0267-BS1)

Prepared: 2/9/2017 Analyzed: 2/9/2017

1,1,1,2-Tetrachloroethane	21.0400	0.50	0.18	20.0000	105	76 - 132	3.24	20
1,1,1-Trichloroethane	23.5200	0.50	0.47	20.0000	118	72 - 144	8.14	20
1,1,2,2-Tetrachloroethane	18.8500	0.50	0.17	20.0000	94.2	70 - 120	12.2	20
1,1,2-Trichloroethane	19.3400	0.50	0.12	20.0000	96.7	75 - 120	5.91	20
1,1-Dichloroethane	22.8700	0.50	0.16	20.0000	114	65 - 127	7.63	20
1,1-Dichloroethene	22.8200	0.50	0.18	20.0000	114	63 - 142	7.64	20
1,1-Dichloropropene	21.2600	0.50	0.30	20.0000	106	78 - 137	4.67	20
1,2,3-Trichloropropane	19.0200	0.50	0.16	20.0000	95.1	73 - 118	11.0	20
1,2,3-Trichlorobenzene	20.3500	0.50	0.20	20.0000	102	53 - 164	6.81	20
1,2,4-Trichlorobenzene	20.4900	0.50	0.26	20.0000	102	58 - 144	7.65	20
1,2,4-Trimethylbenzene	21.4400	0.50	0.23	20.0000	107	75 - 140	10.9	20
1,2-Dibromo-3-chloropropane	16.8600	0.50	0.26	20.0000	84.3	61 - 131	2.71	20
1,2-Dibromoethane	19.3200	0.50	0.15	20.0000	96.6	74 - 125	4.66	20
1,2-Dichlorobenzene	19.7700	0.50	0.21	20.0000	98.8	78 - 122	6.26	20
1,2-Dichloroethane	22.0800	0.50	0.15	20.0000	110	70 - 126	0.636	20
1,2-Dichloropropane	19.3200	0.50	0.35	20.0000	96.6	69 - 120	2.09	20
1,3,5-Trimethylbenzene	21.4200	0.50	0.19	20.0000	107	73 - 145	9.54	20
1,3-Dichlorobenzene	20.0300	0.50	0.23	20.0000	100	76 - 126	6.87	20
1,3-Dichloropropane	20.0600	0.50	0.15	20.0000	100	76 - 117	7.18	20
1,4-Dichlorobenzene	20.5300	0.50	0.23	20.0000	103	77 - 120	7.22	20
2,2-Dichloropropane	21.9700	0.50	0.35	20.0000	110	47 - 169	5.28	20
2-Chlorotoluene	20.3400	0.50	0.25	20.0000	102	75 - 135	10.2	20
4-Chlorotoluene	20.4100	0.50	0.24	20.0000	102	70 - 133	9.71	20
4-Isopropyltoluene	21.9300	0.50	0.24	20.0000	110	72 - 153	8.16	20
Benzene	40.3000	0.50	0.19	40.0000	101	73 - 123	5.17	20
Bromobenzene	19.9200	0.50	0.19	20.0000	99.6	75 - 121	6.59	20
Bromodichloromethane	21.7600	0.50	0.17	20.0000	109	73 - 124	4.32	20
Bromoform	18.9400	0.50	0.10	20.0000	94.7	70 - 135	4.15	20
Bromomethane	32.1900	0.50	0.28	20.0000	161	10 - 166	3.25	20
Carbon tetrachloride	24.0200	0.50	0.21	20.0000	120	65 - 171	2.15	20
Chlorobenzene	19.7100	0.50	0.22	20.0000	98.6	80 - 121	4.94	20
Chloroethane	20.1300	0.50	0.17	20.0000	101	55 - 143	1.91	20
Chloroform	22.9700	0.50	0.19	20.0000	115	65 - 130	7.97	20
Chloromethane	20.8000	0.50	0.23	20.0000	104	21 - 141	4.83	20
cis-1,2-Dichloroethene	20.4100	0.50	0.19	20.0000	102	64 - 126	8.85	20
cis-1,3-Dichloropropene	21.7900	0.50	0.20	20.0000	109	70 - 131	7.87	20
Dibromochloromethane	20.0200	0.50	0.13	20.0000	100	74 - 125	3.97	20
Dibromomethane	20.4100	0.50	0.14	20.0000	102	74 - 116	4.61	20
Dichlorodifluoromethane	19.2200	0.50	0.31	20.0000	96.1	40 - 186	3.93	20



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

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

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

Batch B7B0267 - MSVOA_LL_W (continued)

LCS Dup (B7B0267-BSD1) - Continued

Prepared: 2/9/2017 Analyzed: 2/9/2017

Ethylbenzene	40.4500	0.50	0.23	40.0000		101	77 - 130	4.97	20
Hexachlorobutadiene	22.1900	0.50	0.34	20.0000		111	52 - 176	5.18	20
Isopropylbenzene	21.8800	0.50	0.23	20.0000		109	77 - 144	9.53	20
m,p-Xylene	42.1400	1.0	0.45	40.0000		105	84 - 136	4.66	20
Methylene chloride	19.3700	1.0	0.30	20.0000		96.8	72 - 150	9.01	20
n-Butylbenzene	22.5200	0.50	0.31	20.0000		113	73 - 154	9.93	20
n-Propylbenzene	21.1000	0.50	0.24	20.0000		106	77 - 145	9.27	20
Naphthalene	18.8500	0.50	0.21	20.0000		94.2	55 - 137	9.56	20
o-Xylene	40.9700	0.50	0.20	40.0000		102	79 - 135	3.43	20
sec-Butylbenzene	21.6100	0.50	0.25	20.0000		108	73 - 157	9.55	20
Styrene	19.9500	0.50	0.20	20.0000		99.8	78 - 125	5.09	20
tert-Butylbenzene	20.6400	0.50	0.22	20.0000		103	78 - 149	6.19	20
Tetrachloroethene	20.6200	0.50	0.24	20.0000		103	74 - 136	6.51	20
Toluene	40.0800	0.50	0.20	40.0000		100	78 - 124	8.21	20
trans-1,2-Dichloroethene	20.9600	0.50	0.21	20.0000		105	66 - 131	11.4	20
Trichloroethene	19.3400	0.50	0.47	20.0000		96.7	78 - 128	5.69	20
Trichlorofluoromethane	26.9700	0.50	0.23	20.0000		135	60 - 170	5.21	20
Vinyl chloride	20.3100	0.50	0.19	20.0000		102	55 - 148	6.09	20
Surrogate: 1,2-Dichloroethane-d4	32.68			25.0000		131	51 - 157		
Surrogate: 4-Bromofluorobenzene	26.58			25.0000		106	61 - 123		
Surrogate: Dibromofluoromethane	29.54			25.0000		118	57 - 147		
Surrogate: Toluene-d8	27.18			25.0000		109	61 - 119		



Certificate of Analysis

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San Diego , CA 92122

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Reported : 02/16/2017

Volatile Organic Compounds by EPA 8260B - Quality Control

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

Batch B7B0305 - MSVOA_LL_W

Blank (B7B0305-BLK1)

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,1,1,2-Tetrachloroethane	ND	0.50	0.18			NR			
1,1,1-Trichloroethane	ND	0.50	0.47			NR			
1,1,2,2-Tetrachloroethane	ND	0.50	0.17			NR			
1,1,2-Trichloroethane	ND	0.50	0.12			NR			
1,1-Dichloroethane	ND	0.50	0.16			NR			
1,1-Dichloroethene	ND	0.50	0.18			NR			
1,1-Dichloropropene	ND	0.50	0.30			NR			
1,2,3-Trichloropropane	ND	0.50	0.16			NR			
1,2,3-Trichlorobenzene	ND	0.50	0.20			NR			
1,2,4-Trichlorobenzene	ND	0.50	0.26			NR			
1,2,4-Trimethylbenzene	ND	0.50	0.23			NR			
1,2-Dibromo-3-chloropropane	ND	0.50	0.26			NR			
1,2-Dibromoethane	ND	0.50	0.15			NR			
1,2-Dichlorobenzene	ND	0.50	0.21			NR			
1,2-Dichloroethane	ND	0.50	0.15			NR			
1,2-Dichloropropane	ND	0.50	0.35			NR			
1,3,5-Trimethylbenzene	ND	0.50	0.19			NR			
1,3-Dichlorobenzene	ND	0.50	0.23			NR			
1,3-Dichloropropane	ND	0.50	0.15			NR			
1,4-Dichlorobenzene	ND	0.50	0.23			NR			
2,2-Dichloropropane	ND	0.50	0.35			NR			
2-Chlorotoluene	ND	0.50	0.25			NR			
4-Chlorotoluene	ND	0.50	0.24			NR			
4-Isopropyltoluene	ND	0.50	0.24			NR			
Benzene	ND	0.50	0.19			NR			
Bromobenzene	ND	0.50	0.19			NR			
Bromodichloromethane	ND	0.50	0.17			NR			
Bromoform	ND	0.50	0.10			NR			
Bromomethane	ND	0.50	0.28			NR			
Carbon tetrachloride	ND	0.50	0.21			NR			
Chlorobenzene	ND	0.50	0.22			NR			
Chloroethane	ND	0.50	0.17			NR			
Chloroform	ND	0.50	0.19			NR			
Chloromethane	ND	0.50	0.23			NR			
cis-1,2-Dichloroethene	ND	0.50	0.19			NR			
cis-1,3-Dichloropropene	ND	0.50	0.20			NR			
Dibromochloromethane	ND	0.50	0.13			NR			
Dibromomethane	ND	0.50	0.14			NR			
Dichlorodifluoromethane	ND	0.50	0.31			NR			
Ethylbenzene	ND	0.50	0.23			NR			
Hexachlorobutadiene	ND	0.50	0.34			NR			



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

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

Batch B7B0305 - MSVOA_LL_W (continued)

Blank (B7B0305-BLK1) - Continued

Prepared: 2/10/2017 Analyzed: 2/10/2017

Isopropylbenzene	ND	0.50	0.23				NR			
m,p-Xylene	ND	1.0	0.45				NR			
Methylene chloride	ND	1.0	0.30				NR			
n-Butylbenzene	ND	0.50	0.31				NR			
n-Propylbenzene	ND	0.50	0.24				NR			
Naphthalene	ND	0.50	0.21				NR			
o-Xylene	ND	0.50	0.20				NR			
sec-Butylbenzene	ND	0.50	0.25				NR			
Styrene	ND	0.50	0.20				NR			
tert-Butylbenzene	ND	0.50	0.22				NR			
Tetrachloroethene	ND	0.50	0.24				NR			
Toluene	ND	0.50	0.20				NR			
trans-1,2-Dichloroethene	ND	0.50	0.21				NR			
Trichloroethene	ND	0.50	0.47				NR			
Trichlorofluoromethane	ND	0.50	0.23				NR			
Vinyl chloride	ND	0.50	0.19				NR			

Surrogate: 1,2-Dichloroethane-d4	31.00		25.0000		124	51 - 157
Surrogate: 4-Bromofluorobenzene	27.64		25.0000		111	61 - 123
Surrogate: Dibromofluoromethane	29.17		25.0000		117	57 - 147
Surrogate: Toluene-d8	27.40		25.0000		110	61 - 119

LCS (B7B0305-BS1)

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,1,1,2-Tetrachloroethane	19.3300	0.50	0.18	20.0000	96.6	76 - 132
1,1,1-Trichloroethane	19.6500	0.50	0.47	20.0000	98.2	72 - 144
1,1,2,2-Tetrachloroethane	18.3700	0.50	0.17	20.0000	91.8	70 - 120
1,1,2-Trichloroethane	18.3000	0.50	0.12	20.0000	91.5	75 - 120
1,1-Dichloroethane	20.9300	0.50	0.16	20.0000	105	65 - 127
1,1-Dichloroethene	19.3800	0.50	0.18	20.0000	96.9	63 - 142
1,1-Dichloropropene	19.9100	0.50	0.30	20.0000	99.6	78 - 137
1,2,3-Trichloropropane	18.3100	0.50	0.16	20.0000	91.6	73 - 118
1,2,3-Trichlorobenzene	18.8200	0.50	0.20	20.0000	94.1	53 - 164
1,2,4-Trichlorobenzene	19.4400	0.50	0.26	20.0000	97.2	58 - 144
1,2,4-Trimethylbenzene	20.1000	0.50	0.23	20.0000	100	75 - 140
1,2-Dibromo-3-chloropropane	15.6800	0.50	0.26	20.0000	78.4	61 - 131
1,2-Dibromoethane	17.7200	0.50	0.15	20.0000	88.6	74 - 125
1,2-Dichlorobenzene	19.1500	0.50	0.21	20.0000	95.8	78 - 122
1,2-Dichloroethane	19.1900	0.50	0.15	20.0000	96.0	70 - 126
1,2-Dichloropropane	18.8200	0.50	0.35	20.0000	94.1	69 - 120
1,3,5-Trimethylbenzene	20.1000	0.50	0.19	20.0000	100	73 - 145
1,3-Dichlorobenzene	19.6400	0.50	0.23	20.0000	98.2	76 - 126
1,3-Dichloropropane	18.8300	0.50	0.15	20.0000	94.2	76 - 117



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Reported : 02/16/2017

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

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

Batch B7B0305 - MSVOA_LL_W (continued)

LCS (B7B0305-BS1) - Continued

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,4-Dichlorobenzene	19.5600	0.50	0.23	20.0000		97.8	77 - 120		
2,2-Dichloropropane	19.5400	0.50	0.35	20.0000		97.7	47 - 169		
2-Chlorotoluene	19.1800	0.50	0.25	20.0000		95.9	75 - 135		
4-Chlorotoluene	19.3300	0.50	0.24	20.0000		96.6	70 - 133		
4-Isopropyltoluene	21.0300	0.50	0.24	20.0000		105	72 - 153		
Benzene	37.7900	0.50	0.19	40.0000		94.5	73 - 123		
Bromobenzene	19.2400	0.50	0.19	20.0000		96.2	75 - 121		
Bromodichloromethane	18.7500	0.50	0.17	20.0000		93.8	73 - 124		
Bromoform	17.3200	0.50	0.10	20.0000		86.6	70 - 135		
Bromomethane	25.1500	0.50	0.28	20.0000		126	10 - 166		
Carbon tetrachloride	20.3000	0.50	0.21	20.0000		102	65 - 171		
Chlorobenzene	18.5600	0.50	0.22	20.0000		92.8	80 - 121		
Chloroethane	17.7100	0.50	0.17	20.0000		88.6	55 - 143		
Chloroform	20.0800	0.50	0.19	20.0000		100	65 - 130		
Chloromethane	19.2900	0.50	0.23	20.0000		96.4	21 - 141		
cis-1,2-Dichloroethene	19.2600	0.50	0.19	20.0000		96.3	64 - 126		
cis-1,3-Dichloropropene	19.9000	0.50	0.20	20.0000		99.5	70 - 131		
Dibromochloromethane	18.5000	0.50	0.13	20.0000		92.5	74 - 125		
Dibromomethane	18.4100	0.50	0.14	20.0000		92.0	74 - 116		
Dichlorodifluoromethane	16.6300	0.50	0.31	20.0000		83.2	40 - 186		
Ethylbenzene	36.9000	0.50	0.23	40.0000		92.2	77 - 130		
Hexachlorobutadiene	20.7500	0.50	0.34	20.0000		104	52 - 176		
Isopropylbenzene	21.0100	0.50	0.23	20.0000		105	77 - 144		
m,p-Xylene	38.6900	1.0	0.45	40.0000		96.7	84 - 136		
Methylene chloride	17.4100	1.0	0.30	20.0000		87.0	72 - 150		
n-Butylbenzene	20.7500	0.50	0.31	20.0000		104	73 - 154		
n-Propylbenzene	20.2500	0.50	0.24	20.0000		101	77 - 145		
Naphthalene	17.6700	0.50	0.21	20.0000		88.4	55 - 137		
o-Xylene	37.7200	0.50	0.20	40.0000		94.3	79 - 135		
sec-Butylbenzene	20.2500	0.50	0.25	20.0000		101	73 - 157		
Styrene	18.9000	0.50	0.20	20.0000		94.5	78 - 125		
tert-Butylbenzene	19.6500	0.50	0.22	20.0000		98.2	78 - 149		
Tetrachloroethene	19.3100	0.50	0.24	20.0000		96.6	74 - 136		
Toluene	36.9700	0.50	0.20	40.0000		92.4	78 - 124		
trans-1,2-Dichloroethene	19.3600	0.50	0.21	20.0000		96.8	66 - 131		
Trichloroethene	18.1800	0.50	0.47	20.0000		90.9	78 - 128		
Trichlorofluoromethane	21.7000	0.50	0.23	20.0000		108	60 - 170		
Vinyl chloride	18.0100	0.50	0.19	20.0000		90.0	55 - 148		
Surrogate: 1,2-Dichloroethane-d4	27.72			25.0000		111	51 - 157		
Surrogate: 4-Bromofluorobenzene	25.93			25.0000		104	61 - 123		
Surrogate: Dibromofluoromethane	27.68			25.0000		111	57 - 147		



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 B7B0305 - MSVOA_LL_W (continued)

LCS (B7B0305-BS1) - Continued

Prepared: 2/10/2017 Analyzed: 2/10/2017

Surrogate: Toluene-d8 27.38 25.0000 110 61 - 119

LCS Dup (B7B0305-BS1)

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,1,1,2-Tetrachloroethane	20.4800	0.50	0.18	20.0000	102	76 - 132	5.78	20	
1,1,1-Trichloroethane	21.1100	0.50	0.47	20.0000	106	72 - 144	7.16	20	
1,1,2,2-Tetrachloroethane	18.2200	0.50	0.17	20.0000	91.1	70 - 120	0.820	20	
1,1,2-Trichloroethane	18.5100	0.50	0.12	20.0000	92.6	75 - 120	1.14	20	
1,1-Dichloroethane	22.1400	0.50	0.16	20.0000	111	65 - 127	5.62	20	
1,1-Dichloroethene	20.3300	0.50	0.18	20.0000	102	63 - 142	4.78	20	
1,1-Dichloropropene	21.2600	0.50	0.30	20.0000	106	78 - 137	6.56	20	
1,2,3-Trichloropropane	18.7400	0.50	0.16	20.0000	93.7	73 - 118	2.32	20	
1,2,3-Trichlorobenzene	19.6500	0.50	0.20	20.0000	98.2	53 - 164	4.32	20	
1,2,4-Trichlorobenzene	20.0800	0.50	0.26	20.0000	100	58 - 144	3.24	20	
1,2,4-Trimethylbenzene	20.6900	0.50	0.23	20.0000	103	75 - 140	2.89	20	
1,2-Dibromo-3-chloropropane	15.7400	0.50	0.26	20.0000	78.7	61 - 131	0.382	20	
1,2-Dibromoethane	17.7600	0.50	0.15	20.0000	88.8	74 - 125	0.225	20	
1,2-Dichlorobenzene	19.4700	0.50	0.21	20.0000	97.4	78 - 122	1.66	20	
1,2-Dichloroethane	19.2300	0.50	0.15	20.0000	96.2	70 - 126	0.208	20	
1,2-Dichloropropane	19.6800	0.50	0.35	20.0000	98.4	69 - 120	4.47	20	
1,3,5-Trimethylbenzene	21.0500	0.50	0.19	20.0000	105	73 - 145	4.62	20	
1,3-Dichlorobenzene	20.1500	0.50	0.23	20.0000	101	76 - 126	2.56	20	
1,3-Dichloropropane	19.6800	0.50	0.15	20.0000	98.4	76 - 117	4.41	20	
1,4-Dichlorobenzene	20.0100	0.50	0.23	20.0000	100	77 - 120	2.27	20	
2,2-Dichloropropane	20.3100	0.50	0.35	20.0000	102	47 - 169	3.86	20	
2-Chlorotoluene	20.1100	0.50	0.25	20.0000	101	75 - 135	4.73	20	
4-Chlorotoluene	20.1700	0.50	0.24	20.0000	101	70 - 133	4.25	20	
4-Isopropyltoluene	21.6700	0.50	0.24	20.0000	108	72 - 153	3.00	20	
Benzene	39.3400	0.50	0.19	40.0000	98.4	73 - 123	4.02	20	
Bromobenzene	20.0400	0.50	0.19	20.0000	100	75 - 121	4.07	20	
Bromodichloromethane	19.1900	0.50	0.17	20.0000	96.0	73 - 124	2.32	20	
Bromoform	17.5400	0.50	0.10	20.0000	87.7	70 - 135	1.26	20	
Bromomethane	26.2500	0.50	0.28	20.0000	131	10 - 166	4.28	20	
Carbon tetrachloride	21.4100	0.50	0.21	20.0000	107	65 - 171	5.32	20	
Chlorobenzene	19.6300	0.50	0.22	20.0000	98.2	80 - 121	5.60	20	
Chloroethane	19.2300	0.50	0.17	20.0000	96.2	55 - 143	8.23	20	
Chloroform	21.4400	0.50	0.19	20.0000	107	65 - 130	6.55	20	
Chloromethane	20.4400	0.50	0.23	20.0000	102	21 - 141	5.79	20	
cis-1,2-Dichloroethene	20.4100	0.50	0.19	20.0000	102	64 - 126	5.80	20	
cis-1,3-Dichloropropene	20.4200	0.50	0.20	20.0000	102	70 - 131	2.58	20	
Dibromochloromethane	19.5300	0.50	0.13	20.0000	97.6	74 - 125	5.42	20	
Dibromomethane	18.7600	0.50	0.14	20.0000	93.8	74 - 116	1.88	20	
Dichlorodifluoromethane	17.4200	0.50	0.31	20.0000	87.1	40 - 186	4.64	20	



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

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

Batch B7B0305 - MSVOA_LL_W (continued)

LCS Dup (B7B0305-BSD1) - Continued

Prepared: 2/10/2017 Analyzed: 2/10/2017

Ethylbenzene	39.0200	0.50	0.23	40.0000		97.6	77 - 130	5.58	20
Hexachlorobutadiene	21.1600	0.50	0.34	20.0000		106	52 - 176	1.96	20
Isopropylbenzene	21.6400	0.50	0.23	20.0000		108	77 - 144	2.95	20
m,p-Xylene	41.0600	1.0	0.45	40.0000		103	84 - 136	5.94	20
Methylene chloride	18.9100	1.0	0.30	20.0000		94.6	72 - 150	8.26	20
n-Butylbenzene	21.8100	0.50	0.31	20.0000		109	73 - 154	4.98	20
n-Propylbenzene	20.8900	0.50	0.24	20.0000		104	77 - 145	3.11	20
Naphthalene	18.2700	0.50	0.21	20.0000		91.4	55 - 137	3.34	20
o-Xylene	39.7300	0.50	0.20	40.0000		99.3	79 - 135	5.19	20
sec-Butylbenzene	21.0300	0.50	0.25	20.0000		105	73 - 157	3.78	20
Styrene	19.6100	0.50	0.20	20.0000		98.0	78 - 125	3.69	20
tert-Butylbenzene	20.3900	0.50	0.22	20.0000		102	78 - 149	3.70	20
Tetrachloroethene	19.8100	0.50	0.24	20.0000		99.0	74 - 136	2.56	20
Toluene	38.0300	0.50	0.20	40.0000		95.1	78 - 124	2.83	20
trans-1,2-Dichloroethene	20.5900	0.50	0.21	20.0000		103	66 - 131	6.16	20
Trichloroethene	18.8700	0.50	0.47	20.0000		94.4	78 - 128	3.72	20
Trichlorofluoromethane	22.4700	0.50	0.23	20.0000		112	60 - 170	3.49	20
Vinyl chloride	19.3500	0.50	0.19	20.0000		96.8	55 - 148	7.17	20
Surrogate: 1,2-Dichloroethane-d4	30.12			25.0000		120	51 - 157		
Surrogate: 4-Bromofluorobenzene	27.36			25.0000		109	61 - 123		
Surrogate: Dibromofluoromethane	28.52			25.0000		114	57 - 147		
Surrogate: Toluene-d8	27.21			25.0000		109	61 - 119		

Matrix Spike (B7B0305-MS1)

Source: 1700590-04RE1

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,1,1,2-Tetrachloroethane	1905.00	50	18	2000.00	ND	95.2	76 - 132
1,1,1-Trichloroethane	2021.00	50	47	2000.00	ND	101	72 - 144
1,1,2,2-Tetrachloroethane	1900.00	50	17	2000.00	ND	95.0	70 - 120
1,1,2-Trichloroethane	1981.00	50	12	2000.00	ND	99.0	75 - 120
1,1-Dichloroethane	2008.00	50	16	2000.00	30.0000	98.9	65 - 127
1,1-Dichloroethene	3984.00	50	18	2000.00	2337.00	82.4	63 - 142
1,1-Dichloropropene	1715.00	50	30	2000.00	ND	85.8	78 - 137
1,2,3-Trichloropropane	1855.00	50	16	2000.00	ND	92.8	73 - 118
1,2,3-Trichlorobenzene	1674.00	50	20	2000.00	ND	83.7	53 - 164
1,2,4-Trichlorobenzene	1541.00	50	26	2000.00	ND	77.0	58 - 144
1,2,4-Trimethylbenzene	1803.00	50	23	2000.00	ND	90.2	75 - 140
1,2-Dibromo-3-chloropropane	1781.00	50	26	2000.00	ND	89.0	61 - 131
1,2-Dibromoethane	1901.00	50	15	2000.00	ND	95.0	74 - 125
1,2-Dichlorobenzene	1770.00	50	21	2000.00	ND	88.5	78 - 122
1,2-Dichloroethane	2180.00	50	15	2000.00	ND	109	70 - 126
1,2-Dichloropropane	1734.00	50	35	2000.00	ND	86.7	69 - 120
1,3,5-Trimethylbenzene	1773.00	50	19	2000.00	ND	88.6	73 - 145



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

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

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

Batch B7B0305 - MSVOA_LL_W (continued)

Matrix Spike (B7B0305-MS1) - Continued

Source: 1700590-04RE1

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,3-Dichlorobenzene	1691.00	50	23	2000.00	ND	84.6	76 - 126			
1,3-Dichloropropane	1828.00	50	15	2000.00	ND	91.4	76 - 117			
1,4-Dichlorobenzene	1714.00	50	23	2000.00	ND	85.7	77 - 120			
2,2-Dichloropropane	1563.00	50	35	2000.00	ND	78.2	47 - 169			
2-Chlorotoluene	1720.00	50	25	2000.00	ND	86.0	75 - 135			
4-Chlorotoluene	1696.00	50	24	2000.00	ND	84.8	77 - 130			
4-Isopropyltoluene	1687.00	50	24	2000.00	ND	84.4	72 - 153			
Benzene	3544.00	50	19	4000.00	ND	88.6	73 - 123			
Bromobenzene	1708.00	50	19	2000.00	ND	85.4	75 - 121			
Bromodichloromethane	2049.00	50	17	2000.00	ND	102	73 - 124			
Bromoform	1886.00	50	10	2000.00	ND	94.3	70 - 135			
Bromomethane	3061.00	50	28	2000.00	ND	153	10 - 166			
Carbon tetrachloride	2135.00	50	21	2000.00	ND	107	65 - 171			
Chlorobenzene	1711.00	50	22	2000.00	ND	85.6	80 - 121			
Chloroethane	1777.00	50	17	2000.00	ND	88.8	55 - 143			
Chloroform	2110.00	50	19	2000.00	ND	106	65 - 130			
Chloromethane	1710.00	50	23	2000.00	ND	85.5	21 - 141			
cis-1,2-Dichloroethene	1759.00	50	19	2000.00	ND	88.0	64 - 126			
cis-1,3-Dichloropropene	1865.00	50	20	2000.00	ND	93.2	70 - 131			
Dibromochloromethane	1951.00	50	13	2000.00	ND	97.6	74 - 125			
Dibromomethane	2046.00	50	14	2000.00	ND	102	74 - 116			
Dichlorodifluoromethane	1560.00	50	31	2000.00	ND	78.0	40 - 186			
Ethylbenzene	3492.00	50	23	4000.00	ND	87.3	77 - 130			
Hexachlorobutadiene	1524.00	50	34	2000.00	ND	76.2	52 - 176			
Isopropylbenzene	1837.00	50	23	2000.00	ND	91.8	77 - 144			
m,p-Xylene	3628.00	100	45	4000.00	ND	90.7	84 - 136			
Methylene chloride	1848.00	100	30	2000.00	ND	92.4	72 - 150			
n-Butylbenzene	1596.00	50	31	2000.00	ND	79.8	73 - 154			
n-Propylbenzene	1713.00	50	24	2000.00	ND	85.6	77 - 145			
Naphthalene	1785.00	50	21	2000.00	ND	89.2	55 - 137			
o-Xylene	3656.00	50	20	4000.00	ND	91.4	79 - 135			
sec-Butylbenzene	1722.00	50	25	2000.00	ND	86.1	73 - 157			
Styrene	1774.00	50	20	2000.00	ND	88.7	78 - 125			
tert-Butylbenzene	1726.00	50	22	2000.00	ND	86.3	78 - 149			
Tetrachloroethene	1516.00	50	24	2000.00	ND	75.8	74 - 136			
Toluene	3653.00	50	20	4000.00	ND	91.3	78 - 124			
trans-1,2-Dichloroethene	1714.00	50	21	2000.00	ND	85.7	66 - 131			
Trichloroethene	1627.00	50	47	2000.00	ND	81.4	78 - 128			
Trichlorofluoromethane	2371.00	50	23	2000.00	ND	119	60 - 170			
Vinyl chloride	1659.00	50	19	2000.00	ND	83.0	55 - 148			

Surrogate: 1,2-Dichloroethane-d4

34.59

25.0000

138

51 - 157



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

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 B7B0305 - MSVOA_LL_W (continued)

Matrix Spike (B7B0305-MS1) - Continued

Source: 1700590-04RE1

Prepared: 2/10/2017 Analyzed: 2/10/2017

Surrogate: 4-Bromofluorobenzene	27.74		25.0000		111	61 - 123			
Surrogate: Dibromofluoromethane	30.16		25.0000		121	57 - 147			
Surrogate: Toluene-d8	27.59		25.0000		110	61 - 119			

Matrix Spike Dup (B7B0305-MSD1)

Source: 1700590-04RE1

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,1,1,2-Tetrachloroethane	1718.00	50	18	2000.00	ND	85.9	76 - 132	10.3	20	
1,1,1-Trichloroethane	1891.00	50	47	2000.00	ND	94.6	72 - 144	6.65	20	
1,1,2,2-Tetrachloroethane	1774.00	50	17	2000.00	ND	88.7	70 - 120	6.86	20	
1,1,2-Trichloroethane	1785.00	50	12	2000.00	ND	89.2	75 - 120	10.4	20	
1,1-Dichloroethane	1929.00	50	16	2000.00	30.0000	95.0	65 - 127	4.01	20	
1,1-Dichloroethene	3843.00	50	18	2000.00	2337.00	75.3	63 - 142	3.60	20	
1,1-Dichloropropene	1540.00	50	30	2000.00	ND	77.0	78 - 137	10.8	20	M2
1,2,3-Trichloropropane	1750.00	50	16	2000.00	ND	87.5	73 - 118	5.83	20	
1,2,3-Trichlorobenzene	1485.00	50	20	2000.00	ND	74.2	53 - 164	12.0	20	
1,2,4-Trichlorobenzene	1277.00	50	26	2000.00	ND	63.8	58 - 144	18.7	20	
1,2,4-Trimethylbenzene	1560.00	50	23	2000.00	ND	78.0	75 - 140	14.5	20	
1,2-Dibromo-3-chloropropane	1610.00	50	26	2000.00	ND	80.5	61 - 131	10.1	20	
1,2-Dibromoethane	1708.00	50	15	2000.00	ND	85.4	74 - 125	10.7	20	
1,2-Dichlorobenzene	1580.00	50	21	2000.00	ND	79.0	78 - 122	11.3	20	
1,2-Dichloroethane	1944.00	50	15	2000.00	ND	97.2	70 - 126	11.4	20	
1,2-Dichloropropane	1660.00	50	35	2000.00	ND	83.0	69 - 120	4.36	20	
1,3,5-Trimethylbenzene	1563.00	50	19	2000.00	ND	78.2	73 - 145	12.6	20	
1,3-Dichlorobenzene	1475.00	50	23	2000.00	ND	73.8	76 - 126	13.6	20	M2
1,3-Dichloropropane	1661.00	50	15	2000.00	ND	83.0	76 - 117	9.57	20	
1,4-Dichlorobenzene	1482.00	50	23	2000.00	ND	74.1	77 - 120	14.5	20	M2
2,2-Dichloropropane	1494.00	50	35	2000.00	ND	74.7	47 - 169	4.51	20	
2-Chlorotoluene	1547.00	50	25	2000.00	ND	77.4	75 - 135	10.6	20	
4-Chlorotoluene	1499.00	50	24	2000.00	ND	75.0	77 - 130	12.3	20	M2
4-Isopropyltoluene	1454.00	50	24	2000.00	ND	72.7	72 - 153	14.8	20	
Benzene	3330.00	50	19	4000.00	ND	83.2	73 - 123	6.23	20	
Bromobenzene	1556.00	50	19	2000.00	ND	77.8	75 - 121	9.31	20	
Bromodichloromethane	1841.00	50	17	2000.00	ND	92.0	73 - 124	10.7	20	
Bromoform	1659.00	50	10	2000.00	ND	83.0	70 - 135	12.8	20	
Bromomethane	2843.00	50	28	2000.00	ND	142	10 - 166	7.38	20	
Carbon tetrachloride	1912.00	50	21	2000.00	ND	95.6	65 - 171	11.0	20	
Chlorobenzene	1523.00	50	22	2000.00	ND	76.2	80 - 121	11.6	20	M2
Chloroethane	1759.00	50	17	2000.00	ND	88.0	55 - 143	1.02	20	
Chloroform	1962.00	50	19	2000.00	ND	98.1	65 - 130	7.27	20	
Chloromethane	1704.00	50	23	2000.00	ND	85.2	21 - 141	0.351	20	
cis-1,2-Dichloroethene	1727.00	50	19	2000.00	ND	86.4	64 - 126	1.84	20	
cis-1,3-Dichloropropene	1730.00	50	20	2000.00	ND	86.5	70 - 131	7.51	20	
Dibromochloromethane	1678.00	50	13	2000.00	ND	83.9	74 - 125	15.0	20	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

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

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

Batch B7B0305 - MSVOA_LL_W (continued)

Matrix Spike Dup (B7B0305-MSD1) - Continued

Source: 1700590-04RE1

Prepared: 2/10/2017 Analyzed: 2/10/2017

Dibromomethane	1796.00	50	14	2000.00	ND	89.8	74 - 116	13.0	20	
Dichlorodifluoromethane	1428.00	50	31	2000.00	ND	71.4	40 - 186	8.84	20	
Ethylbenzene	3108.00	50	23	4000.00	ND	77.7	77 - 130	11.6	20	
Hexachlorobutadiene	1241.00	50	34	2000.00	ND	62.0	52 - 176	20.5	20	M2, R
Isopropylbenzene	1639.00	50	23	2000.00	ND	82.0	77 - 144	11.4	20	
m,p-Xylene	3195.00	100	45	4000.00	ND	79.9	84 - 136	12.7	20	M2
Methylene chloride	1745.00	100	30	2000.00	ND	87.2	72 - 150	5.73	20	
n-Butylbenzene	1314.00	50	31	2000.00	ND	65.7	73 - 154	19.4	20	M2
n-Propylbenzene	1479.00	50	24	2000.00	ND	74.0	77 - 145	14.7	20	M2
Naphthalene	1615.00	50	21	2000.00	ND	80.8	55 - 137	10.0	20	
o-Xylene	3275.00	50	20	4000.00	ND	81.9	79 - 135	11.0	20	
sec-Butylbenzene	1505.00	50	25	2000.00	ND	75.2	73 - 157	13.4	20	
Styrene	1602.00	50	20	2000.00	ND	80.1	78 - 125	10.2	20	
tert-Butylbenzene	1551.00	50	22	2000.00	ND	77.6	78 - 149	10.7	20	M2
Tetrachloroethene	1282.00	50	24	2000.00	ND	64.1	74 - 136	16.7	20	M2
Toluene	3313.00	50	20	4000.00	ND	82.8	78 - 124	9.76	20	
trans-1,2-Dichloroethene	1643.00	50	21	2000.00	ND	82.2	66 - 131	4.23	20	
Trichloroethene	1449.00	50	47	2000.00	ND	72.4	78 - 128	11.6	20	M2
Trichlorofluoromethane	2102.00	50	23	2000.00	ND	105	60 - 170	12.0	20	
Vinyl chloride	1646.00	50	19	2000.00	ND	82.3	55 - 148	0.787	20	
Surrogate: 1,2-Dichloroethane-d4	34.02			25.0000		136	51 - 157			
Surrogate: 4-Bromofluorobenzene	26.68			25.0000		107	61 - 123			
Surrogate: Dibromofluoromethane	30.01			25.0000		120	57 - 147			
Surrogate: Toluene-d8	27.44			25.0000		110	61 - 119			



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

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

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

Batch B7B0287 - MSSEMI_ISOTOPEDILN_W

Blank (B7B0287-BLK1)

Prepared: 2/9/2017 Analyzed: 2/9/2017

1,4-Dioxane	7.87000	2.0	0.84			NR				B
Surrogate: 1,2-Dichlorobenzene-d	61.70			100.000		61.7	17 - 101			
Surrogate: 2-Fluorobiphenyl	68.87			100.000		68.9	29 - 109			
Surrogate: 4-Terphenyl-d14	101.1			100.000		101	49 - 122			
Surrogate: Nitrobenzene-d5	80.55			100.000		80.6	19 - 111			

LCS (B7B0287-BS1)

Prepared: 2/9/2017 Analyzed: 2/9/2017

1,4-Dioxane	106.140	2.0	0.84	100.000		106	62 - 127			B
Surrogate: 1,2-Dichlorobenzene-d	45.90			100.000		45.9	17 - 101			
Surrogate: 2-Fluorobiphenyl	67.17			100.000		67.2	29 - 109			
Surrogate: 4-Terphenyl-d14	84.78			100.000		84.8	49 - 122			
Surrogate: Nitrobenzene-d5	66.99			100.000		67.0	19 - 111			

Matrix Spike (B7B0287-MS1)

Source: 1700590-04

Prepared: 2/9/2017 Analyzed: 2/9/2017

1,4-Dioxane	386.790	2.0	0.84	100.000	231.900	155	62 - 127			M2, B
Surrogate: 1,2-Dichlorobenzene-d	58.37			100.000		58.4	17 - 101			
Surrogate: 2-Fluorobiphenyl	75.66			100.000		75.7	29 - 109			
Surrogate: 4-Terphenyl-d14	90.15			100.000		90.2	49 - 122			
Surrogate: Nitrobenzene-d5	85.25			100.000		85.2	19 - 111			

Matrix Spike Dup (B7B0287-MSD1)

Source: 1700590-04

Prepared: 2/9/2017 Analyzed: 2/9/2017

1,4-Dioxane	383.090	2.0	0.84	100.000	231.900	151	62 - 127	0.961	20	M2, B
Surrogate: 1,2-Dichlorobenzene-d	53.22			100.000		53.2	17 - 101			
Surrogate: 2-Fluorobiphenyl	69.86			100.000		69.9	29 - 109			
Surrogate: 4-Terphenyl-d14	85.93			100.000		85.9	49 - 122			
Surrogate: Nitrobenzene-d5	77.02			100.000		77.0	19 - 111			



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

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

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

Batch B7B0294 - MSSEMI_W

Blank (B7B0294-BLK1)

Prepared: 2/9/2017 Analyzed: 2/9/2017

1,4-Dioxane	ND	0.20	0.11			NR			
Surrogate: 1,2-Dichlorobenzene-d	0.8218			1.00000		82.2	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.9380			1.00000		93.8	28 - 122		
Surrogate: 4-Terphenyl-d14	1.125			1.00000		113	43 - 131		
Surrogate: Nitrobenzene-d5	0.7612			1.00000		76.1	20 - 119		

LCS (B7B0294-BS1)

Prepared: 2/9/2017 Analyzed: 2/9/2017

1,4-Dioxane	1.15790	0.20	0.11	1.00000		116	49 - 169		
Surrogate: 1,2-Dichlorobenzene-d	0.8165			1.00000		81.6	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.9157			1.00000		91.6	28 - 122		
Surrogate: 4-Terphenyl-d14	0.9197			1.00000		92.0	43 - 131		
Surrogate: Nitrobenzene-d5	0.7518			1.00000		75.2	20 - 119		

LCS Dup (B7B0294-BSD1)

Prepared: 2/9/2017 Analyzed: 2/9/2017

1,4-Dioxane	1.37270	0.20	0.11	1.00000		137	49 - 169	17.0	20
Surrogate: 1,2-Dichlorobenzene-d	0.8360			1.00000		83.6	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.9467			1.00000		94.7	28 - 122		
Surrogate: 4-Terphenyl-d14	0.9576			1.00000		95.8	43 - 131		
Surrogate: Nitrobenzene-d5	0.7696			1.00000		77.0	20 - 119		



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Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/16/2017

Notes and Definitions

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.
B	Analyte detected in the associated method blank.
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
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.



HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 2/6/17
Page 1 of 3

PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto

QA Manager Tyler Evans

Phone 858.455.6500

Fax 858.455.6533

Sampled By:				SAMPLE COLLECTION		MATRIX		PRESERVATION		CONTAINERS		ANALYSIS REQUESTED				Expected Concentration Range (ppb) for VOA's				SPECIAL HANDLING				Laboratory				
LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)				Ice	40-ml VOA	1 L Amber						0 - 10	10 - 100	100 - 1,000	> 1,000	24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS	
1	IR-0206 2A	2/6/17	1300	X	X					X				X				X										Report J Flags
2	EW-01		1320	X	X					X				X														
3	EW-01		1320	X						X		1																
4	EW-0100		1330	X	X					X				X						X								
5	MW-21		1355	X	X					X				X														
6	MW-32A	02/6/17	10:05	X	X					X		3		X				X										
7	MW-32C		12:00	X	X					X				X	X			X										
8	MW-32B-1SV		12:31	X	X					X				X														
9	MW-32B		13:15	X	X					X				X														
10	MW-3200B		13:25	X	X					X				X														

Total number of containers per analysis:

32 / 112

Total No. of Containers: 0

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
<u>TL / HHA</u>	<u>2/7/17 1653</u>	<u>ATL</u>	<u>2-7-17 1653</u>
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
<u>ATL</u>	<u>2-7-17 1747</u>	<u>ATL</u>	<u>2/7/17 1747</u>

- ☐ No. of containers correct
- ☐ Received in good condition
- ☐ Custody seals secure
- ☐ Conforms to COC document

Send Results to: 77

Steve Netto

9171 Towne Centre Drive
Suite 375

San Diego, CA 92122

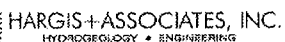
Ph: 858.455.5400

snetto@hargis.com

Instructions

- Fill out form completely and sign only after verified for completeness
- Complete in ballpoint pen. Draw one line through error, initial and date correction
- Indicate the number of sample containers in analytical request space; indicate choice with ✓ or ✗
- Note applicable preservatives, special instructions, and deviations from typical environmental samples.
- Consult project QA documents for specific instructions.

1.8, 2.5 Temperature on receipt



PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto

QA Manager Tyler Evans

Phone 858.455.6500

Fax 858.455.6533

Date: 2/7/17
Page 2 of 3

[illegible]

Instructions

Fill out form completely and sign only after verified for completeness
Complete in ballpoint pen. Draw one line through error, initial and date correction
Indicate the number of sample containers in analytical request space; indicate choice with ✓ or ×
Note applicable preservatives, special instructions, and deviations from typical environmental samples.
Consult project QA documents for specific instructions.

Temperature on receipt

Send Results to:

Steve Netto

9171 Towne Centre Drive

Suite 375

San Diego, CA 92122

Ph: 858.455.5400

snetto@hargis.com

Downloaded from <http://ajph.org/> on November 10, 2014

PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto

QA Manager Tyler Evans

Phone 858.455.6500

Fax 858.455.6533

Date: 2/7/17
Page 3 of 3

Sampled By:				SAMPLE COLLECTION				MATRIX		PRESERVATION		CONTAINERS		ANALYSIS REQUESTED		Expected Concentration Range (ppb) for VOA's		SPECIAL HANDLING		Laboratory				
LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)	Ice	40-ml VOA	1 L Amber	VOCs by EPA 824-2	1,4 Dioxane 8270 SIM	1,4-Dioxane 8270 MOD	0 - 10	10 - 100	100 - 1,000	>1,000	24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS		
A. Donnelly, K. Fong																								
1700510-14	MW-08	2/7/17	10:25	X	X		X	3	1	X	X		X	X										
16	RB-020017		10:35	X	X		X	3		X	X		X	X										
17	MW-20		11:55	X	X		X	3	1	X	X		X	X										
18	MW-07		14:50	X	X		X	3	1	X	X		X	X										
	MW-16		16:16	X	X		X	3	1	X	X	X				X								
Total number of containers per analysis:								15	4															
Relinquished By: / Company:				Date / Time	Received By: / Company				Date / Time				Total No. of Containers: 0											
WJG/HAA				2/7/17 1653	SM/ATL				2-7-17 1653															
Relinquished By: / Company:				Date / Time	Received By: / Company				Date / Time															
SM/ATL				2-7-17 1747	FROM / ATL				2/2/17 1747															

- ☐ No. of containers correct
- ☐ Received in good condition
- ☐ Custody seals secure
- ☐ Conforms to COC document

Send Results to:

Steve Netto

9171 Towne Centre Drive
Suite 375

San Diego, CA 92122

Ph: 858.455.5400

snetto@hargis.com

Instructions

- Fill out form completely and sign only after verified for completeness
Complete in ballpoint pen. Draw one line through error, initial and date correction
Indicate the number of sample containers in analytical request space; indicate choice with ✓ or ×
Note applicable preservatives, special instructions, and deviations from typical environmental samples.
Consult project QA documents for specific instructions.

Temperature on receipt

From: Rachelle Arada
Sent: Wednesday, February 08, 2017 9:54 AM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com
Subject: FW: Bottleware request
Attachments: 20170207_165530.jpg

Please log accordingly. Thanks.

-----Original Message-----

From: Tyler Evans [<mailto:TEvans@HARGIS.COM>]
Sent: Wednesday, February 08, 2017 9:08 AM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com
Subject: RE: Bottleware request

Hi Rachelle,
I made an error on one of the chain of custodes (picture attached) I gave to your courier yesterday. I would like to request that you run an MS/MSD on sample MW-21 collected at 1355. Let me know if you have any questions about this.

Thanks,
Tyler Evans

Sent via the Samsung Galaxy Note5, an AT&T 4G LTE smartphone

----- Original message -----

From: Rachelle Arada <Rachelle@atlglobal.com>
Date: 2/7/17 6:10 PM (GMT-08:00)
To: Tyler Evans <TEvans@HARGIS.COM>
Cc: customer.relations@atlglobal.com
Subject: RE: Bottleware request

Okay, I'll ask them to bring extra coolers. Thanks.

-----Original Message-----

From: Tyler Evans [<mailto:TEvans@HARGIS.COM>]
Sent: Tuesday, February 07, 2017 5:10 PM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com
Subject: RE: Bottleware request

Hi Rachelle,
Could you please have the courier scheduled for tomorrow bring two extra coolers please.

Thanks,
Tyler Evans

Sent via the Samsung Galaxy Note5, an AT&T 4G LTE smartphone



February 17, 2017

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
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1700610
Client Reference : Raytheon Main, 532.30

Enclosed are the results for sample(s) received on February 08, 2017 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 "Eddie Rodriguez", with a small "ER" monogram to the left.

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 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, 532.30

Report To : Steve Netto

Reported : 02/17/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-35C	1700610-01	Groundwater	2/08/17 9:13	2/08/17 15:57
TB-020817	1700610-02	Lab prepared water	2/08/17 7:30	2/08/17 15:57
MW-36_15V	1700610-03	Groundwater	2/08/17 10:23	2/08/17 15:57
MW-36	1700610-04	Groundwater	2/08/17 11:09	2/08/17 15:57
MW-3600	1700610-05	Groundwater	2/08/17 11:19	2/08/17 15:57
MW-39	1700610-06	Groundwater	2/08/17 12:55	2/08/17 15:57
MW-37	1700610-07	Groundwater	2/08/17 14:09	2/08/17 15:57
MW-38	1700610-08	Groundwater	2/08/17 14:40	2/08/17 15:57
MW-41	1700610-09	Groundwater	2/08/17 15:25	2/08/17 15:57
MW-13	1700610-10	Groundwater	2/08/17 8:45	2/08/17 15:57
RB-020817	1700610-11	Lab prepared water	2/08/17 8:55	2/08/17 15:57
MW-18	1700610-12	Groundwater	2/08/17 10:11	2/08/17 15:57
P-09	1700610-13	Groundwater	2/08/17 13:35	2/08/17 15:57
MW-06	1700610-14	Groundwater	2/08/17 14:50	2/08/17 15:57



Certificate of Analysis

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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-35C

Lab ID: 1700610-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,1,1-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,1,2-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,1-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,1-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,1-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,2,3-Trichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,2-Dibromoethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,2-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,2-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,3-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,3-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
1,4-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
2,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
2-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
4-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
4-Isopropyltoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Benzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Bromobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Bromodichloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Bromoform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Bromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Carbon tetrachloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Chlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Chloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Chloroform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Chloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Dibromochloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-35C

Lab ID: 1700610-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Dichlorodifluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Ethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Hexachlorobutadiene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Isopropylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
m,p-Xylene	ND	1.0	1	B7B0351	02/13/2017	02/13/17 15:00	
Methylene chloride	ND	1.0	1	B7B0351	02/13/2017	02/13/17 15:00	
n-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
n-Propylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Naphthalene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
o-Xylene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
sec-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Styrene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
tert-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Tetrachloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Toluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Trichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Trichlorofluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Vinyl chloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:00	
Surrogate: 1,2-Dichloroethane-d4	147 %	51 - 157		B7B0351	02/13/2017	02/13/17 15:00	
Surrogate: 4-Bromofluorobenzene	109 %	61 - 123		B7B0351	02/13/2017	02/13/17 15:00	
Surrogate: Dibromofluoromethane	126 %	57 - 147		B7B0351	02/13/2017	02/13/17 15:00	
Surrogate: Toluene-d8	109 %	61 - 119		B7B0351	02/13/2017	02/13/17 15:00	



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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-35C

Lab ID: 1700610-01

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0363	02/13/2017	02/13/17 18:55	
Surrogate: 1,2-Dichlorobenzene-d4	83.5 %	31 - 106		B7B0363	02/13/2017	02/13/17 18:55	
Surrogate: 2-Fluorobiphenyl	93.5 %	28 - 122		B7B0363	02/13/2017	02/13/17 18:55	
Surrogate: 4-Terphenyl-d14	101 %	43 - 131		B7B0363	02/13/2017	02/13/17 18:55	
Surrogate: Nitrobenzene-d5	82.0 %	20 - 119		B7B0363	02/13/2017	02/13/17 18:55	



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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID TB-020817

Lab ID: 1700610-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,1,1-Trichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,1,2-Trichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,1-Dichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,1-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,1-Dichloropropene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,2,3-Trichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,2-Dibromoethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,2-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,2-Dichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,2-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,3-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,3-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
1,4-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
2,2-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
2-Chlorotoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
4-Chlorotoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
4-Isopropyltoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Benzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Bromobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Bromodichloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Bromoform	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Bromomethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Carbon tetrachloride	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Chlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Chloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Chloroform	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Chloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Dibromochloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID TB-020817

Lab ID: 1700610-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Dichlorodifluoromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Ethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Hexachlorobutadiene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Isopropylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
m,p-Xylene	ND	1.0	1	B7B0305	02/10/2017	02/10/17 16:08	
Methylene chloride	ND	1.0	1	B7B0305	02/10/2017	02/10/17 16:08	
n-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
n-Propylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Naphthalene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
o-Xylene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
sec-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Styrene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
tert-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Tetrachloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Toluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Trichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Trichlorofluoromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Vinyl chloride	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:08	
Surrogate: 1,2-Dichloroethane-d4	139 %	51 - 157		B7B0305	02/10/2017	02/10/17 16:08	
Surrogate: 4-Bromofluorobenzene	108 %	61 - 123		B7B0305	02/10/2017	02/10/17 16:08	
Surrogate: Dibromofluoromethane	124 %	57 - 147		B7B0305	02/10/2017	02/10/17 16:08	
Surrogate: Toluene-d8	108 %	61 - 119		B7B0305	02/10/2017	02/10/17 16:08	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-36_15V

Lab ID: 1700610-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,1,1-Trichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,1,2-Trichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,1-Dichloroethane	1.4	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,1-Dichloroethene	150	5.0	10	B7B0351	02/13/2017	02/13/17 16:56	
1,1-Dichloropropene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,2,3-Trichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,2-Dibromoethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,2-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,2-Dichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,2-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,3-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,3-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
1,4-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
2,2-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
2-Chlorotoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
4-Chlorotoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
4-Isopropyltoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Benzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Bromobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Bromodichloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Bromoform	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Bromomethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Carbon tetrachloride	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Chlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Chloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Chloroform	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Chloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Dibromochloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-36_15V

Lab ID: 1700610-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Dichlorodifluoromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Ethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Hexachlorobutadiene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Isopropylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
m,p-Xylene	ND	1.0	1	B7B0305	02/10/2017	02/10/17 16:31	
Methylene chloride	ND	1.0	1	B7B0305	02/10/2017	02/10/17 16:31	
n-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
n-Propylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Naphthalene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
o-Xylene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
sec-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Styrene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
tert-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Tetrachloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Toluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Trichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Trichlorofluoromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Vinyl chloride	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:31	
Surrogate: 1,2-Dichloroethane-d4	147 %	51 - 157		B7B0351	02/13/2017	02/13/17 16:56	
Surrogate: 1,2-Dichloroethane-d4	141 %	51 - 157		B7B0305	02/10/2017	02/10/17 16:31	
Surrogate: 4-Bromofluorobenzene	110 %	61 - 123		B7B0351	02/13/2017	02/13/17 16:56	
Surrogate: 4-Bromofluorobenzene	107 %	61 - 123		B7B0305	02/10/2017	02/10/17 16:31	
Surrogate: Dibromofluoromethane	127 %	57 - 147		B7B0305	02/10/2017	02/10/17 16:31	
Surrogate: Dibromofluoromethane	126 %	57 - 147		B7B0351	02/13/2017	02/13/17 16:56	
Surrogate: Toluene-d8	109 %	61 - 119		B7B0351	02/13/2017	02/13/17 16:56	
Surrogate: Toluene-d8	108 %	61 - 119		B7B0305	02/10/2017	02/10/17 16:31	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-36_15V

Lab ID: 1700610-03

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	8.2	2.0	1	B7B0382	02/14/2017	02/15/17 00:05	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>43.8 %</i>	<i>17 - 101</i>		B7B0382	02/14/2017	<i>02/15/17 00:05</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>52.7 %</i>	<i>29 - 109</i>		B7B0382	02/14/2017	<i>02/15/17 00:05</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>96.8 %</i>	<i>49 - 122</i>		B7B0382	02/14/2017	<i>02/15/17 00:05</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>53.0 %</i>	<i>19 - 111</i>		B7B0382	02/14/2017	<i>02/15/17 00:05</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-36

Lab ID: 1700610-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,1,1-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,1,2-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,1-Dichloroethane	1.4	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,1-Dichloroethene	150	5.0	10	B7B0351	02/13/2017	02/13/17 20:02	
1,1-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,2,3-Trichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,2-Dibromoethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,2-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,2-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,3-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,3-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
1,4-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
2,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
2-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
4-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
4-Isopropyltoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Benzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Bromobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Bromodichloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Bromoform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Bromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Carbon tetrachloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Chlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Chloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Chloroform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Chloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Dibromochloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-36

Lab ID: 1700610-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Dichlorodifluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Ethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Hexachlorobutadiene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Isopropylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
m,p-Xylene	ND	1.0	1	B7B0351	02/13/2017	02/13/17 19:39	
Methylene chloride	ND	1.0	1	B7B0351	02/13/2017	02/13/17 19:39	
n-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
n-Propylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Naphthalene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
o-Xylene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
sec-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Styrene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
tert-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Tetrachloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Toluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Trichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Trichlorofluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Vinyl chloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:39	
Surrogate: 1,2-Dichloroethane-d4	152 %	51 - 157		B7B0351	02/13/2017	02/13/17 20:02	
Surrogate: 1,2-Dichloroethane-d4	154 %	51 - 157		B7B0351	02/13/2017	02/13/17 19:39	
Surrogate: 4-Bromofluorobenzene	108 %	61 - 123		B7B0351	02/13/2017	02/13/17 20:02	
Surrogate: 4-Bromofluorobenzene	106 %	61 - 123		B7B0351	02/13/2017	02/13/17 19:39	
Surrogate: Dibromofluoromethane	129 %	57 - 147		B7B0351	02/13/2017	02/13/17 19:39	
Surrogate: Dibromofluoromethane	132 %	57 - 147		B7B0351	02/13/2017	02/13/17 20:02	
Surrogate: Toluene-d8	109 %	61 - 119		B7B0351	02/13/2017	02/13/17 20:02	
Surrogate: Toluene-d8	108 %	61 - 119		B7B0351	02/13/2017	02/13/17 19:39	



Certificate of Analysis

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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-36

Lab ID: 1700610-04

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	8.8	2.0	1	B7B0382	02/14/2017	02/15/17 00:32	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>40.2 %</i>	<i>17 - 101</i>		B7B0382	02/14/2017	02/15/17 00:32	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>46.0 %</i>	<i>29 - 109</i>		B7B0382	02/14/2017	02/15/17 00:32	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>101 %</i>	<i>49 - 122</i>		B7B0382	02/14/2017	02/15/17 00:32	
<i>Surrogate: Nitrobenzene-d5</i>	<i>46.6 %</i>	<i>19 - 111</i>		B7B0382	02/14/2017	02/15/17 00:32	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-3600

Lab ID: 1700610-05

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,1,1-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,1,2-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,1-Dichloroethane	1.3	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,1-Dichloroethene	150	5.0	10	B7B0351	02/13/2017	02/13/17 20:48	
1,1-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,2,3-Trichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,2-Dibromoethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,2-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,2-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,3-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,3-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
1,4-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
2,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
2-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
4-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
4-Isopropyltoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Benzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Bromobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Bromodichloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Bromoform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Bromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Carbon tetrachloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Chlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Chloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Chloroform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Chloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Dibromochloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-3600

Lab ID: 1700610-05

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Dichlorodifluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Ethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Hexachlorobutadiene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Isopropylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
m,p-Xylene	ND	1.0	1	B7B0351	02/13/2017	02/13/17 20:25	
Methylene chloride	ND	1.0	1	B7B0351	02/13/2017	02/13/17 20:25	
n-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
n-Propylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Naphthalene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
o-Xylene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
sec-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Styrene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
tert-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Tetrachloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Toluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Trichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Trichlorofluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Vinyl chloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 20:25	
Surrogate: 1,2-Dichloroethane-d4	151 %	51 - 157		B7B0351	02/13/2017	02/13/17 20:48	
Surrogate: 1,2-Dichloroethane-d4	154 %	51 - 157		B7B0351	02/13/2017	02/13/17 20:25	
Surrogate: 4-Bromofluorobenzene	107 %	61 - 123		B7B0351	02/13/2017	02/13/17 20:48	
Surrogate: 4-Bromofluorobenzene	107 %	61 - 123		B7B0351	02/13/2017	02/13/17 20:25	
Surrogate: Dibromofluoromethane	130 %	57 - 147		B7B0351	02/13/2017	02/13/17 20:25	
Surrogate: Dibromofluoromethane	128 %	57 - 147		B7B0351	02/13/2017	02/13/17 20:48	
Surrogate: Toluene-d8	110 %	61 - 119		B7B0351	02/13/2017	02/13/17 20:48	
Surrogate: Toluene-d8	110 %	61 - 119		B7B0351	02/13/2017	02/13/17 20:25	



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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-3600

Lab ID: 1700610-05

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	8.3	2.0	1	B7B0382	02/14/2017	02/15/17 00:59	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>54.4 %</i>	<i>17 - 101</i>		B7B0382	02/14/2017	<i>02/15/17 00:59</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>64.4 %</i>	<i>29 - 109</i>		B7B0382	02/14/2017	<i>02/15/17 00:59</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>99.4 %</i>	<i>49 - 122</i>		B7B0382	02/14/2017	<i>02/15/17 00:59</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>63.0 %</i>	<i>19 - 111</i>		B7B0382	02/14/2017	<i>02/15/17 00:59</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-39

Lab ID: 1700610-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,1,1-Trichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,1,2-Trichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,1-Dichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,1-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,1-Dichloropropene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,2,3-Trichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,2-Dibromoethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,2-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,2-Dichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,2-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,3-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,3-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
1,4-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
2,2-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
2-Chlorotoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
4-Chlorotoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
4-Isopropyltoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Benzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Bromobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Bromodichloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Bromoform	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Bromomethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Carbon tetrachloride	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Chlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Chloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Chloroform	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Chloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Dibromochloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-39

Lab ID: 1700610-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Dichlorodifluoromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Ethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Hexachlorobutadiene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Isopropylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
m,p-Xylene	ND	1.0	1	B7B0305	02/10/2017	02/10/17 16:55	
Methylene chloride	ND	1.0	1	B7B0305	02/10/2017	02/10/17 16:55	
n-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
n-Propylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Naphthalene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
o-Xylene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
sec-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Styrene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
tert-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Tetrachloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Toluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Trichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Trichlorofluoromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Vinyl chloride	ND	0.50	1	B7B0305	02/10/2017	02/10/17 16:55	
Surrogate: 1,2-Dichloroethane-d4	140 %	51 - 157		B7B0305	02/10/2017	02/10/17 16:55	
Surrogate: 4-Bromofluorobenzene	105 %	61 - 123		B7B0305	02/10/2017	02/10/17 16:55	
Surrogate: Dibromofluoromethane	124 %	57 - 147		B7B0305	02/10/2017	02/10/17 16:55	
Surrogate: Toluene-d8	106 %	61 - 119		B7B0305	02/10/2017	02/10/17 16:55	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-39

Lab ID: 1700610-06

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0363	02/13/2017	02/13/17 19:21	
Surrogate: 1,2-Dichlorobenzene-d4	85.1 %	31 - 106		B7B0363	02/13/2017	02/13/17 19:21	
Surrogate: 2-Fluorobiphenyl	95.4 %	28 - 122		B7B0363	02/13/2017	02/13/17 19:21	
Surrogate: 4-Terphenyl-d14	111 %	43 - 131		B7B0363	02/13/2017	02/13/17 19:21	
Surrogate: Nitrobenzene-d5	82.1 %	20 - 119		B7B0363	02/13/2017	02/13/17 19:21	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-37

Lab ID: 1700610-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,1,1-Trichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,1,2-Trichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,1-Dichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,1-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,1-Dichloropropene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,2,3-Trichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,2-Dibromoethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,2-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,2-Dichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,2-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,3-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,3-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
1,4-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
2,2-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
2-Chlorotoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
4-Chlorotoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
4-Isopropyltoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Benzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Bromobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Bromodichloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Bromoform	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Bromomethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Carbon tetrachloride	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Chlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Chloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Chloroform	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Chloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Dibromochloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-37

Lab ID: 1700610-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Dichlorodifluoromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Ethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Hexachlorobutadiene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Isopropylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
m,p-Xylene	ND	1.0	1	B7B0305	02/10/2017	02/10/17 17:18	
Methylene chloride	ND	1.0	1	B7B0305	02/10/2017	02/10/17 17:18	
n-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
n-Propylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Naphthalene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
o-Xylene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
sec-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Styrene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
tert-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Tetrachloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Toluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Trichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Trichlorofluoromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Vinyl chloride	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:18	
Surrogate: 1,2-Dichloroethane-d4	143 %	51 - 157		B7B0305	02/10/2017	02/10/17 17:18	
Surrogate: 4-Bromofluorobenzene	107 %	61 - 123		B7B0305	02/10/2017	02/10/17 17:18	
Surrogate: Dibromofluoromethane	126 %	57 - 147		B7B0305	02/10/2017	02/10/17 17:18	
Surrogate: Toluene-d8	108 %	61 - 119		B7B0305	02/10/2017	02/10/17 17:18	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-37

Lab ID: 1700610-07

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0363	02/13/2017	02/13/17 19:48	
Surrogate: 1,2-Dichlorobenzene-d4	86.4 %	31 - 106		B7B0363	02/13/2017	02/13/17 19:48	
Surrogate: 2-Fluorobiphenyl	95.7 %	28 - 122		B7B0363	02/13/2017	02/13/17 19:48	
Surrogate: 4-Terphenyl-d14	104 %	43 - 131		B7B0363	02/13/2017	02/13/17 19:48	
Surrogate: Nitrobenzene-d5	83.2 %	20 - 119		B7B0363	02/13/2017	02/13/17 19:48	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-38

Lab ID: 1700610-08

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,1,1-Trichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,1,2-Trichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,1-Dichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,1-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,1-Dichloropropene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,2,3-Trichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,2-Dibromoethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,2-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,2-Dichloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,2-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,3-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,3-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
1,4-Dichlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
2,2-Dichloropropane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
2-Chlorotoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
4-Chlorotoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
4-Isopropyltoluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Benzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Bromobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Bromodichloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Bromoform	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Bromomethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Carbon tetrachloride	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Chlorobenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Chloroethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Chloroform	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Chloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Dibromochloromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-38

Lab ID: 1700610-08

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Dichlorodifluoromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Ethylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Hexachlorobutadiene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Isopropylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
m,p-Xylene	ND	1.0	1	B7B0305	02/10/2017	02/10/17 17:41	
Methylene chloride	ND	1.0	1	B7B0305	02/10/2017	02/10/17 17:41	
n-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
n-Propylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Naphthalene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
o-Xylene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
sec-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Styrene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
tert-Butylbenzene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Tetrachloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Toluene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Trichloroethene	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Trichlorofluoromethane	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Vinyl chloride	ND	0.50	1	B7B0305	02/10/2017	02/10/17 17:41	
Surrogate: 1,2-Dichloroethane-d4	145 %	51 - 157		B7B0305	02/10/2017	02/10/17 17:41	
Surrogate: 4-Bromofluorobenzene	107 %	61 - 123		B7B0305	02/10/2017	02/10/17 17:41	
Surrogate: Dibromofluoromethane	122 %	57 - 147		B7B0305	02/10/2017	02/10/17 17:41	
Surrogate: Toluene-d8	108 %	61 - 119		B7B0305	02/10/2017	02/10/17 17:41	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-38

Lab ID: 1700610-08

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0363	02/13/2017	02/13/17 20:15	
Surrogate: 1,2-Dichlorobenzene-d4	86.2 %	31 - 106		B7B0363	02/13/2017	02/13/17 20:15	
Surrogate: 2-Fluorobiphenyl	95.3 %	28 - 122		B7B0363	02/13/2017	02/13/17 20:15	
Surrogate: 4-Terphenyl-d14	109 %	43 - 131		B7B0363	02/13/2017	02/13/17 20:15	
Surrogate: Nitrobenzene-d5	84.9 %	20 - 119		B7B0363	02/13/2017	02/13/17 20:15	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-41

Lab ID: 1700610-09

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,1,1-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,1,2-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,1-Dichloroethane	1.3	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,1-Dichloroethene	130	5.0	10	B7B0351	02/13/2017	02/13/17 18:06	
1,1-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,2,3-Trichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,2-Dibromoethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,2-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,2-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,3-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,3-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
1,4-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
2,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
2-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
4-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
4-Isopropyltoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Benzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Bromobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Bromodichloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Bromoform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Bromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Carbon tetrachloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Chlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Chloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Chloroform	0.60	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Chloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Dibromochloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-41

Lab ID: 1700610-09

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Dichlorodifluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Ethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Hexachlorobutadiene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Isopropylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
m,p-Xylene	ND	1.0	1	B7B0351	02/13/2017	02/13/17 17:42	
Methylene chloride	ND	1.0	1	B7B0351	02/13/2017	02/13/17 17:42	
n-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
n-Propylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Naphthalene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
o-Xylene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
sec-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Styrene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
tert-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Tetrachloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Toluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Trichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Trichlorofluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Vinyl chloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 17:42	
Surrogate: 1,2-Dichloroethane-d4	150 %	51 - 157		B7B0351	02/13/2017	02/13/17 18:06	
Surrogate: 1,2-Dichloroethane-d4	146 %	51 - 157		B7B0351	02/13/2017	02/13/17 17:42	
Surrogate: 4-Bromofluorobenzene	112 %	61 - 123		B7B0351	02/13/2017	02/13/17 18:06	
Surrogate: 4-Bromofluorobenzene	108 %	61 - 123		B7B0351	02/13/2017	02/13/17 17:42	
Surrogate: Dibromofluoromethane	127 %	57 - 147		B7B0351	02/13/2017	02/13/17 17:42	
Surrogate: Dibromofluoromethane	126 %	57 - 147		B7B0351	02/13/2017	02/13/17 18:06	
Surrogate: Toluene-d8	108 %	61 - 119		B7B0351	02/13/2017	02/13/17 17:42	
Surrogate: Toluene-d8	111 %	61 - 119		B7B0351	02/13/2017	02/13/17 18:06	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-41

Lab ID: 1700610-09

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	10	0.20	1	B7B0363	02/13/2017	02/13/17 20:41	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>83.9 %</i>	<i>31 - 106</i>		B7B0363	02/13/2017	<i>02/13/17 20:41</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>91.2 %</i>	<i>28 - 122</i>		B7B0363	02/13/2017	<i>02/13/17 20:41</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>97.4 %</i>	<i>43 - 131</i>		B7B0363	02/13/2017	<i>02/13/17 20:41</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>82.7 %</i>	<i>20 - 119</i>		B7B0363	02/13/2017	<i>02/13/17 20:41</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-13

Lab ID: 1700610-10

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,1,1-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,1,2-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,1-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,1-Dichloroethene	1.5	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,1-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,2,3-Trichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,2-Dibromoethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,2-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,2-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,3-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,3-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
1,4-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
2,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
2-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
4-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
4-Isopropyltoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Benzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Bromobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Bromodichloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Bromoform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Bromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Carbon tetrachloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Chlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Chloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Chloroform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Chloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Dibromochloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-13

Lab ID: 1700610-10

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Dichlorodifluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Ethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Hexachlorobutadiene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Isopropylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
m,p-Xylene	ND	1.0	1	B7B0351	02/13/2017	02/13/17 15:23	
Methylene chloride	ND	1.0	1	B7B0351	02/13/2017	02/13/17 15:23	
n-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
n-Propylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Naphthalene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
o-Xylene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
sec-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Styrene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
tert-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Tetrachloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Toluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Trichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Trichlorofluoromethane	6.3	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
Vinyl chloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 15:23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>150 %</i>	<i>51 - 157</i>		B7B0351	02/13/2017	02/13/17 15:23	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>110 %</i>	<i>61 - 123</i>		B7B0351	02/13/2017	02/13/17 15:23	
<i>Surrogate: Dibromofluoromethane</i>	<i>127 %</i>	<i>57 - 147</i>		B7B0351	02/13/2017	02/13/17 15:23	
<i>Surrogate: Toluene-d8</i>	<i>108 %</i>	<i>61 - 119</i>		B7B0351	02/13/2017	02/13/17 15:23	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-13

Lab ID: 1700610-10

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0363	02/13/2017	02/13/17 21:08	
Surrogate: 1,2-Dichlorobenzene-d4	85.4 %	31 - 106		B7B0363	02/13/2017	02/13/17 21:08	
Surrogate: 2-Fluorobiphenyl	95.2 %	28 - 122		B7B0363	02/13/2017	02/13/17 21:08	
Surrogate: 4-Terphenyl-d14	107 %	43 - 131		B7B0363	02/13/2017	02/13/17 21:08	
Surrogate: Nitrobenzene-d5	84.3 %	20 - 119		B7B0363	02/13/2017	02/13/17 21:08	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID RB-020817

Lab ID: 1700610-11

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,1,1-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,1,2-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,1-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,1-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,1-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,2,3-Trichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,2-Dibromoethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,2-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,2-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,3-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,3-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
1,4-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
2,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
2-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
4-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
4-Isopropyltoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Benzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Bromobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Bromodichloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Bromoform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Bromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Carbon tetrachloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Chlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Chloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Chloroform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Chloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Dibromochloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID RB-020817

Lab ID: 1700610-11

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Dichlorodifluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Ethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Hexachlorobutadiene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Isopropylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
m,p-Xylene	ND	1.0	1	B7B0351	02/13/2017	02/13/17 19:15	
Methylene chloride	ND	1.0	1	B7B0351	02/13/2017	02/13/17 19:15	
n-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
n-Propylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Naphthalene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
o-Xylene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
sec-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Styrene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
tert-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Tetrachloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Toluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Trichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Trichlorofluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Vinyl chloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 19:15	
Surrogate: 1,2-Dichloroethane-d4	153 %	51 - 157		B7B0351	02/13/2017	02/13/17 19:15	
Surrogate: 4-Bromofluorobenzene	109 %	61 - 123		B7B0351	02/13/2017	02/13/17 19:15	
Surrogate: Dibromofluoromethane	130 %	57 - 147		B7B0351	02/13/2017	02/13/17 19:15	
Surrogate: Toluene-d8	111 %	61 - 119		B7B0351	02/13/2017	02/13/17 19:15	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-18

Lab ID: 1700610-12

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,1,1-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,1,2-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,1-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,1-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,1-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,2,3-Trichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,2-Dibromoethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,2-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,2-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,3-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,3-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
1,4-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
2,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
2-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
4-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
4-Isopropyltoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Benzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Bromobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Bromodichloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Bromoform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Bromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Carbon tetrachloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Chlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Chloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Chloroform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Chloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
cis-1,2-Dichloroethene	1.2	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Dibromochloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-18

Lab ID: 1700610-12

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Dichlorodifluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Ethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Hexachlorobutadiene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Isopropylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
m,p-Xylene	ND	1.0	1	B7B0351	02/13/2017	02/13/17 16:09	
Methylene chloride	ND	1.0	1	B7B0351	02/13/2017	02/13/17 16:09	
n-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
n-Propylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Naphthalene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
o-Xylene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
sec-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Styrene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
tert-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Tetrachloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Toluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Trichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Trichlorofluoromethane	1.8	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
Vinyl chloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 16:09	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>144 %</i>	<i>51 - 157</i>		B7B0351	02/13/2017	<i>02/13/17 16:09</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>108 %</i>	<i>61 - 123</i>		B7B0351	02/13/2017	<i>02/13/17 16:09</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>124 %</i>	<i>57 - 147</i>		B7B0351	02/13/2017	<i>02/13/17 16:09</i>	
<i>Surrogate: Toluene-d8</i>	<i>108 %</i>	<i>61 - 119</i>		B7B0351	02/13/2017	<i>02/13/17 16:09</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-18

Lab ID: 1700610-12

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0363	02/13/2017	02/13/17 21:34	
Surrogate: 1,2-Dichlorobenzene-d4	80.2 %	31 - 106		B7B0363	02/13/2017	02/13/17 21:34	
Surrogate: 2-Fluorobiphenyl	91.5 %	28 - 122		B7B0363	02/13/2017	02/13/17 21:34	
Surrogate: 4-Terphenyl-d14	104 %	43 - 131		B7B0363	02/13/2017	02/13/17 21:34	
Surrogate: Nitrobenzene-d5	79.1 %	20 - 119		B7B0363	02/13/2017	02/13/17 21:34	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID P-09

Lab ID: 1700610-13

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,1,1-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,1,2-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,1-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,1-Dichloroethene	3.7	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,1-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,2,3-Trichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,2-Dibromoethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,2-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,2-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,3-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,3-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
1,4-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
2,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
2-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
4-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
4-Isopropyltoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Benzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Bromobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Bromodichloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Bromoform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Bromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Carbon tetrachloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Chlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Chloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Chloroform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Chloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Dibromochloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID P-09

Lab ID: 1700610-13

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Dichlorodifluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Ethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Hexachlorobutadiene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Isopropylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
m,p-Xylene	ND	1.0	1	B7B0351	02/13/2017	02/13/17 18:29	
Methylene chloride	ND	1.0	1	B7B0351	02/13/2017	02/13/17 18:29	
n-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
n-Propylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Naphthalene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
o-Xylene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
sec-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Styrene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
tert-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Tetrachloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Toluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Trichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Trichlorofluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Vinyl chloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:29	
Surrogate: 1,2-Dichloroethane-d4	144 %	51 - 157		B7B0351	02/13/2017	02/13/17 18:29	
Surrogate: 4-Bromofluorobenzene	108 %	61 - 123		B7B0351	02/13/2017	02/13/17 18:29	
Surrogate: Dibromofluoromethane	125 %	57 - 147		B7B0351	02/13/2017	02/13/17 18:29	
Surrogate: Toluene-d8	107 %	61 - 119		B7B0351	02/13/2017	02/13/17 18:29	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID P-09

Lab ID: 1700610-13

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0363	02/13/2017	02/13/17 22:01	
Surrogate: 1,2-Dichlorobenzene-d4	87.7 %	31 - 106		B7B0363	02/13/2017	02/13/17 22:01	
Surrogate: 2-Fluorobiphenyl	96.8 %	28 - 122		B7B0363	02/13/2017	02/13/17 22:01	
Surrogate: 4-Terphenyl-d14	107 %	43 - 131		B7B0363	02/13/2017	02/13/17 22:01	
Surrogate: Nitrobenzene-d5	85.8 %	20 - 119		B7B0363	02/13/2017	02/13/17 22:01	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-06

Lab ID: 1700610-14

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,1,1-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,1,2-Trichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,1-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,1-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,1-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,2,3-Trichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,2-Dibromoethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,2-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,2-Dichloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,3-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,3-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
1,4-Dichlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
2,2-Dichloropropane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
2-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
4-Chlorotoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
4-Isopropyltoluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Benzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Bromobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Bromodichloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Bromoform	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Bromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Carbon tetrachloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Chlorobenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Chloroethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Chloroform	0.94	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Chloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Dibromochloromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Client Sample ID MW-06

Lab ID: 1700610-14

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Dichlorodifluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Ethylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Hexachlorobutadiene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Isopropylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
m,p-Xylene	ND	1.0	1	B7B0351	02/13/2017	02/13/17 18:52	
Methylene chloride	ND	1.0	1	B7B0351	02/13/2017	02/13/17 18:52	
n-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
n-Propylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Naphthalene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
o-Xylene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
sec-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Styrene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
tert-Butylbenzene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Tetrachloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Toluene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Trichloroethene	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Trichlorofluoromethane	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Vinyl chloride	ND	0.50	1	B7B0351	02/13/2017	02/13/17 18:52	
Surrogate: 1,2-Dichloroethane-d4	152 %	51 - 157		B7B0351	02/13/2017	02/13/17 18:52	
Surrogate: 4-Bromofluorobenzene	110 %	61 - 123		B7B0351	02/13/2017	02/13/17 18:52	
Surrogate: Dibromofluoromethane	126 %	57 - 147		B7B0351	02/13/2017	02/13/17 18:52	
Surrogate: Toluene-d8	107 %	61 - 119		B7B0351	02/13/2017	02/13/17 18:52	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

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

Batch B7B0305 - MSVOA_LL_W

Blank (B7B0305-BLK1)

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,1,1,2-Tetrachloroethane	ND	0.50	0.18			NR			
1,1,1-Trichloroethane	ND	0.50	0.47			NR			
1,1,2,2-Tetrachloroethane	ND	0.50	0.17			NR			
1,1,2-Trichloroethane	ND	0.50	0.12			NR			
1,1-Dichloroethane	ND	0.50	0.16			NR			
1,1-Dichloroethene	ND	0.50	0.18			NR			
1,1-Dichloropropene	ND	0.50	0.30			NR			
1,2,3-Trichloropropane	ND	0.50	0.16			NR			
1,2,3-Trichlorobenzene	ND	0.50	0.20			NR			
1,2,4-Trichlorobenzene	ND	0.50	0.26			NR			
1,2,4-Trimethylbenzene	ND	0.50	0.23			NR			
1,2-Dibromo-3-chloropropane	ND	0.50	0.26			NR			
1,2-Dibromoethane	ND	0.50	0.15			NR			
1,2-Dichlorobenzene	ND	0.50	0.21			NR			
1,2-Dichloroethane	ND	0.50	0.15			NR			
1,2-Dichloropropane	ND	0.50	0.35			NR			
1,3,5-Trimethylbenzene	ND	0.50	0.19			NR			
1,3-Dichlorobenzene	ND	0.50	0.23			NR			
1,3-Dichloropropane	ND	0.50	0.15			NR			
1,4-Dichlorobenzene	ND	0.50	0.23			NR			
2,2-Dichloropropane	ND	0.50	0.35			NR			
2-Chlorotoluene	ND	0.50	0.25			NR			
4-Chlorotoluene	ND	0.50	0.24			NR			
4-Isopropyltoluene	ND	0.50	0.24			NR			
Benzene	ND	0.50	0.19			NR			
Bromobenzene	ND	0.50	0.19			NR			
Bromodichloromethane	ND	0.50	0.17			NR			
Bromoform	ND	0.50	0.10			NR			
Bromomethane	ND	0.50	0.28			NR			
Carbon tetrachloride	ND	0.50	0.21			NR			
Chlorobenzene	ND	0.50	0.22			NR			
Chloroethane	ND	0.50	0.17			NR			
Chloroform	ND	0.50	0.19			NR			
Chloromethane	ND	0.50	0.23			NR			
cis-1,2-Dichloroethene	ND	0.50	0.19			NR			
cis-1,3-Dichloropropene	ND	0.50	0.20			NR			
Dibromochloromethane	ND	0.50	0.13			NR			
Dibromomethane	ND	0.50	0.14			NR			
Dichlorodifluoromethane	ND	0.50	0.31			NR			



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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

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Reported : 02/17/2017

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

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

Batch B7B0305 - MSVOA_LL_W (continued)

Blank (B7B0305-BLK1) - Continued

Prepared: 2/10/2017 Analyzed: 2/10/2017

Ethylbenzene	ND	0.50	0.23			NR			
Hexachlorobutadiene	ND	0.50	0.34			NR			
Isopropylbenzene	ND	0.50	0.23			NR			
m,p-Xylene	ND	1.0	0.45			NR			
Methylene chloride	ND	1.0	0.30			NR			
n-Butylbenzene	ND	0.50	0.31			NR			
n-Propylbenzene	ND	0.50	0.24			NR			
Naphthalene	ND	0.50	0.21			NR			
o-Xylene	ND	0.50	0.20			NR			
sec-Butylbenzene	ND	0.50	0.25			NR			
Styrene	ND	0.50	0.20			NR			
tert-Butylbenzene	ND	0.50	0.22			NR			
Tetrachloroethene	ND	0.50	0.24			NR			
Toluene	ND	0.50	0.20			NR			
trans-1,2-Dichloroethene	ND	0.50	0.21			NR			
Trichloroethene	ND	0.50	0.47			NR			
Trichlorofluoromethane	ND	0.50	0.23			NR			
Vinyl chloride	ND	0.50	0.19			NR			
Surrogate: 1,2-Dichloroethane-d4	31.00			25.0000		124	51 - 157		
Surrogate: 4-Bromofluorobenzene	27.64			25.0000		111	61 - 123		
Surrogate: Dibromofluoromethane	29.17			25.0000		117	57 - 147		
Surrogate: Toluene-d8	27.40			25.0000		110	61 - 119		

LCS (B7B0305-BS1)

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,1,1,2-Tetrachloroethane	19.3300	0.50	0.18	20.0000		96.6	76 - 132		
1,1,1-Trichloroethane	19.6500	0.50	0.47	20.0000		98.2	72 - 144		
1,1,2,2-Tetrachloroethane	18.3700	0.50	0.17	20.0000		91.8	70 - 120		
1,1,2-Trichloroethane	18.3000	0.50	0.12	20.0000		91.5	75 - 120		
1,1-Dichloroethane	20.9300	0.50	0.16	20.0000		105	65 - 127		
1,1-Dichloroethene	19.3800	0.50	0.18	20.0000		96.9	63 - 142		
1,1-Dichloropropene	19.9100	0.50	0.30	20.0000		99.6	78 - 137		
1,2,3-Trichloropropane	18.3100	0.50	0.16	20.0000		91.6	73 - 118		
1,2,3-Trichlorobenzene	18.8200	0.50	0.20	20.0000		94.1	53 - 164		
1,2,4-Trichlorobenzene	19.4400	0.50	0.26	20.0000		97.2	58 - 144		
1,2,4-Trimethylbenzene	20.1000	0.50	0.23	20.0000		100	75 - 140		
1,2-Dibromo-3-chloropropane	15.6800	0.50	0.26	20.0000		78.4	61 - 131		
1,2-Dibromoethane	17.7200	0.50	0.15	20.0000		88.6	74 - 125		
1,2-Dichlorobenzene	19.1500	0.50	0.21	20.0000		95.8	78 - 122		
1,2-Dichloroethane	19.1900	0.50	0.15	20.0000		96.0	70 - 126		
1,2-Dichloropropane	18.8200	0.50	0.35	20.0000		94.1	69 - 120		
1,3,5-Trimethylbenzene	20.1000	0.50	0.19	20.0000		100	73 - 145		



Certificate of Analysis

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Reported : 02/17/2017

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

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

Batch B7B0305 - MSVOA_LL_W (continued)

LCS (B7B0305-BS1) - Continued

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,3-Dichlorobenzene	19.6400	0.50	0.23	20.0000		98.2	76 - 126		
1,3-Dichloropropane	18.8300	0.50	0.15	20.0000		94.2	76 - 117		
1,4-Dichlorobenzene	19.5600	0.50	0.23	20.0000		97.8	77 - 120		
2,2-Dichloropropane	19.5400	0.50	0.35	20.0000		97.7	47 - 169		
2-Chlorotoluene	19.1800	0.50	0.25	20.0000		95.9	75 - 135		
4-Chlorotoluene	19.3300	0.50	0.24	20.0000		96.6	70 - 133		
4-Isopropyltoluene	21.0300	0.50	0.24	20.0000		105	72 - 153		
Benzene	37.7900	0.50	0.19	40.0000		94.5	73 - 123		
Bromobenzene	19.2400	0.50	0.19	20.0000		96.2	75 - 121		
Bromodichloromethane	18.7500	0.50	0.17	20.0000		93.8	73 - 124		
Bromoform	17.3200	0.50	0.10	20.0000		86.6	70 - 135		
Bromomethane	25.1500	0.50	0.28	20.0000		126	10 - 166		
Carbon tetrachloride	20.3000	0.50	0.21	20.0000		102	65 - 171		
Chlorobenzene	18.5600	0.50	0.22	20.0000		92.8	80 - 121		
Chloroethane	17.7100	0.50	0.17	20.0000		88.6	55 - 143		
Chloroform	20.0800	0.50	0.19	20.0000		100	65 - 130		
Chloromethane	19.2900	0.50	0.23	20.0000		96.4	21 - 141		
cis-1,2-Dichloroethene	19.2600	0.50	0.19	20.0000		96.3	64 - 126		
cis-1,3-Dichloropropene	19.9000	0.50	0.20	20.0000		99.5	70 - 131		
Dibromochloromethane	18.5000	0.50	0.13	20.0000		92.5	74 - 125		
Dibromomethane	18.4100	0.50	0.14	20.0000		92.0	74 - 116		
Dichlorodifluoromethane	16.6300	0.50	0.31	20.0000		83.2	40 - 186		
Ethylbenzene	36.9000	0.50	0.23	40.0000		92.2	77 - 130		
Hexachlorobutadiene	20.7500	0.50	0.34	20.0000		104	52 - 176		
Isopropylbenzene	21.0100	0.50	0.23	20.0000		105	77 - 144		
m,p-Xylene	38.6900	1.0	0.45	40.0000		96.7	84 - 136		
Methylene chloride	17.4100	1.0	0.30	20.0000		87.0	72 - 150		
n-Butylbenzene	20.7500	0.50	0.31	20.0000		104	73 - 154		
n-Propylbenzene	20.2500	0.50	0.24	20.0000		101	77 - 145		
Naphthalene	17.6700	0.50	0.21	20.0000		88.4	55 - 137		
o-Xylene	37.7200	0.50	0.20	40.0000		94.3	79 - 135		
sec-Butylbenzene	20.2500	0.50	0.25	20.0000		101	73 - 157		
Styrene	18.9000	0.50	0.20	20.0000		94.5	78 - 125		
tert-Butylbenzene	19.6500	0.50	0.22	20.0000		98.2	78 - 149		
Tetrachloroethene	19.3100	0.50	0.24	20.0000		96.6	74 - 136		
Toluene	36.9700	0.50	0.20	40.0000		92.4	78 - 124		
trans-1,2-Dichloroethene	19.3600	0.50	0.21	20.0000		96.8	66 - 131		
Trichloroethene	18.1800	0.50	0.47	20.0000		90.9	78 - 128		
Trichlorofluoromethane	21.7000	0.50	0.23	20.0000		108	60 - 170		
Vinyl chloride	18.0100	0.50	0.19	20.0000		90.0	55 - 148		

Surrogate: 1,2-Dichloroethane-d4	27.72			25.0000		111	51 - 157		



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

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 B7B0305 - MSVOA_LL_W (continued)

LCS (B7B0305-BS1) - Continued

Prepared: 2/10/2017 Analyzed: 2/10/2017

Surrogate: 4-Bromofluorobenzene	25.93		25.0000		104	61 - 123			
Surrogate: Dibromofluoromethane	27.68		25.0000		111	57 - 147			
Surrogate: Toluene-d8	27.38		25.0000		110	61 - 119			

LCS Dup (B7B0305-BSD1)

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,1,1,2-Tetrachloroethane	20.4800	0.50	0.18	20.0000	102	76 - 132	5.78	20	
1,1,1-Trichloroethane	21.1100	0.50	0.47	20.0000	106	72 - 144	7.16	20	
1,1,2,2-Tetrachloroethane	18.2200	0.50	0.17	20.0000	91.1	70 - 120	0.820	20	
1,1,2-Trichloroethane	18.5100	0.50	0.12	20.0000	92.6	75 - 120	1.14	20	
1,1-Dichloroethane	22.1400	0.50	0.16	20.0000	111	65 - 127	5.62	20	
1,1-Dichloroethene	20.3300	0.50	0.18	20.0000	102	63 - 142	4.78	20	
1,1-Dichloropropene	21.2600	0.50	0.30	20.0000	106	78 - 137	6.56	20	
1,2,3-Trichloropropane	18.7400	0.50	0.16	20.0000	93.7	73 - 118	2.32	20	
1,2,3-Trichlorobenzene	19.6500	0.50	0.20	20.0000	98.2	53 - 164	4.32	20	
1,2,4-Trichlorobenzene	20.0800	0.50	0.26	20.0000	100	58 - 144	3.24	20	
1,2,4-Trimethylbenzene	20.6900	0.50	0.23	20.0000	103	75 - 140	2.89	20	
1,2-Dibromo-3-chloropropane	15.7400	0.50	0.26	20.0000	78.7	61 - 131	0.382	20	
1,2-Dibromoethane	17.7600	0.50	0.15	20.0000	88.8	74 - 125	0.225	20	
1,2-Dichlorobenzene	19.4700	0.50	0.21	20.0000	97.4	78 - 122	1.66	20	
1,2-Dichloroethane	19.2300	0.50	0.15	20.0000	96.2	70 - 126	0.208	20	
1,2-Dichloropropane	19.6800	0.50	0.35	20.0000	98.4	69 - 120	4.47	20	
1,3,5-Trimethylbenzene	21.0500	0.50	0.19	20.0000	105	73 - 145	4.62	20	
1,3-Dichlorobenzene	20.1500	0.50	0.23	20.0000	101	76 - 126	2.56	20	
1,3-Dichloropropane	19.6800	0.50	0.15	20.0000	98.4	76 - 117	4.41	20	
1,4-Dichlorobenzene	20.0100	0.50	0.23	20.0000	100	77 - 120	2.27	20	
2,2-Dichloropropane	20.3100	0.50	0.35	20.0000	102	47 - 169	3.86	20	
2-Chlorotoluene	20.1100	0.50	0.25	20.0000	101	75 - 135	4.73	20	
4-Chlorotoluene	20.1700	0.50	0.24	20.0000	101	70 - 133	4.25	20	
4-Isopropyltoluene	21.6700	0.50	0.24	20.0000	108	72 - 153	3.00	20	
Benzene	39.3400	0.50	0.19	40.0000	98.4	73 - 123	4.02	20	
Bromobenzene	20.0400	0.50	0.19	20.0000	100	75 - 121	4.07	20	
Bromodichloromethane	19.1900	0.50	0.17	20.0000	96.0	73 - 124	2.32	20	
Bromoform	17.5400	0.50	0.10	20.0000	87.7	70 - 135	1.26	20	
Bromomethane	26.2500	0.50	0.28	20.0000	131	10 - 166	4.28	20	
Carbon tetrachloride	21.4100	0.50	0.21	20.0000	107	65 - 171	5.32	20	
Chlorobenzene	19.6300	0.50	0.22	20.0000	98.2	80 - 121	5.60	20	
Chloroethane	19.2300	0.50	0.17	20.0000	96.2	55 - 143	8.23	20	
Chloroform	21.4400	0.50	0.19	20.0000	107	65 - 130	6.55	20	
Chloromethane	20.4400	0.50	0.23	20.0000	102	21 - 141	5.79	20	
cis-1,2-Dichloroethene	20.4100	0.50	0.19	20.0000	102	64 - 126	5.80	20	
cis-1,3-Dichloropropene	20.4200	0.50	0.20	20.0000	102	70 - 131	2.58	20	
Dibromochloromethane	19.5300	0.50	0.13	20.0000	97.6	74 - 125	5.42	20	



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

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

Batch B7B0305 - MSVOA_LL_W (continued)

LCS Dup (B7B0305-BSD1) - Continued

Prepared: 2/10/2017 Analyzed: 2/10/2017

Dibromomethane	18.7600	0.50	0.14	20.0000		93.8	74 - 116	1.88	20
Dichlorodifluoromethane	17.4200	0.50	0.31	20.0000		87.1	40 - 186	4.64	20
Ethylbenzene	39.0200	0.50	0.23	40.0000		97.6	77 - 130	5.58	20
Hexachlorobutadiene	21.1600	0.50	0.34	20.0000		106	52 - 176	1.96	20
Isopropylbenzene	21.6400	0.50	0.23	20.0000		108	77 - 144	2.95	20
m,p-Xylene	41.0600	1.0	0.45	40.0000		103	84 - 136	5.94	20
Methylene chloride	18.9100	1.0	0.30	20.0000		94.6	72 - 150	8.26	20
n-Butylbenzene	21.8100	0.50	0.31	20.0000		109	73 - 154	4.98	20
n-Propylbenzene	20.8900	0.50	0.24	20.0000		104	77 - 145	3.11	20
Naphthalene	18.2700	0.50	0.21	20.0000		91.4	55 - 137	3.34	20
o-Xylene	39.7300	0.50	0.20	40.0000		99.3	79 - 135	5.19	20
sec-Butylbenzene	21.0300	0.50	0.25	20.0000		105	73 - 157	3.78	20
Styrene	19.6100	0.50	0.20	20.0000		98.0	78 - 125	3.69	20
tert-Butylbenzene	20.3900	0.50	0.22	20.0000		102	78 - 149	3.70	20
Tetrachloroethene	19.8100	0.50	0.24	20.0000		99.0	74 - 136	2.56	20
Toluene	38.0300	0.50	0.20	40.0000		95.1	78 - 124	2.83	20
trans-1,2-Dichloroethene	20.5900	0.50	0.21	20.0000		103	66 - 131	6.16	20
Trichloroethene	18.8700	0.50	0.47	20.0000		94.4	78 - 128	3.72	20
Trichlorofluoromethane	22.4700	0.50	0.23	20.0000		112	60 - 170	3.49	20
Vinyl chloride	19.3500	0.50	0.19	20.0000		96.8	55 - 148	7.17	20

Surrogate: 1,2-Dichloroethane-d4	30.12			25.0000		120	51 - 157
Surrogate: 4-Bromofluorobenzene	27.36			25.0000		109	61 - 123
Surrogate: Dibromofluoromethane	28.52			25.0000		114	57 - 147
Surrogate: Toluene-d8	27.21			25.0000		109	61 - 119

Matrix Spike (B7B0305-MS1)

Source: 1700590-04RE1

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,1,1,2-Tetrachloroethane	1905.00	50	18	2000.00	ND	95.2	76 - 132
1,1,1-Trichloroethane	2021.00	50	47	2000.00	ND	101	72 - 144
1,1,2,2-Tetrachloroethane	1900.00	50	17	2000.00	ND	95.0	70 - 120
1,1,2-Trichloroethane	1981.00	50	12	2000.00	ND	99.0	75 - 120
1,1-Dichloroethane	2008.00	50	16	2000.00	30.0000	98.9	65 - 127
1,1-Dichloroethene	3984.00	50	18	2000.00	2337.00	82.4	63 - 142
1,1-Dichloropropene	1715.00	50	30	2000.00	ND	85.8	78 - 137
1,2,3-Trichloropropane	1855.00	50	16	2000.00	ND	92.8	73 - 118
1,2,3-Trichlorobenzene	1674.00	50	20	2000.00	ND	83.7	53 - 164
1,2,4-Trichlorobenzene	1541.00	50	26	2000.00	ND	77.0	58 - 144
1,2,4-Trimethylbenzene	1803.00	50	23	2000.00	ND	90.2	75 - 140
1,2-Dibromo-3-chloropropane	1781.00	50	26	2000.00	ND	89.0	61 - 131
1,2-Dibromoethane	1901.00	50	15	2000.00	ND	95.0	74 - 125
1,2-Dichlorobenzene	1770.00	50	21	2000.00	ND	88.5	78 - 122
1,2-Dichloroethane	2180.00	50	15	2000.00	ND	109	70 - 126



Certificate of Analysis

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San Diego , CA 92122

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Reported : 02/17/2017

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

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

Batch B7B0305 - MSVOA_LL_W (continued)

Matrix Spike (B7B0305-MS1) - Continued

Source: 1700590-04RE1

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,2-Dichloropropane	1734.00	50	35	2000.00	ND	86.7	69 - 120			
1,3,5-Trimethylbenzene	1773.00	50	19	2000.00	ND	88.6	73 - 145			
1,3-Dichlorobenzene	1691.00	50	23	2000.00	ND	84.6	76 - 126			
1,3-Dichloropropane	1828.00	50	15	2000.00	ND	91.4	76 - 117			
1,4-Dichlorobenzene	1714.00	50	23	2000.00	ND	85.7	77 - 120			
2,2-Dichloropropane	1563.00	50	35	2000.00	ND	78.2	47 - 169			
2-Chlorotoluene	1720.00	50	25	2000.00	ND	86.0	75 - 135			
4-Chlorotoluene	1696.00	50	24	2000.00	ND	84.8	77 - 130			
4-Isopropyltoluene	1687.00	50	24	2000.00	ND	84.4	72 - 153			
Benzene	3544.00	50	19	4000.00	ND	88.6	73 - 123			
Bromobenzene	1708.00	50	19	2000.00	ND	85.4	75 - 121			
Bromodichloromethane	2049.00	50	17	2000.00	ND	102	73 - 124			
Bromoform	1886.00	50	10	2000.00	ND	94.3	70 - 135			
Bromomethane	3061.00	50	28	2000.00	ND	153	10 - 166			
Carbon tetrachloride	2135.00	50	21	2000.00	ND	107	65 - 171			
Chlorobenzene	1711.00	50	22	2000.00	ND	85.6	80 - 121			
Chloroethane	1777.00	50	17	2000.00	ND	88.8	55 - 143			
Chloroform	2110.00	50	19	2000.00	ND	106	65 - 130			
Chloromethane	1710.00	50	23	2000.00	ND	85.5	21 - 141			
cis-1,2-Dichloroethene	1759.00	50	19	2000.00	ND	88.0	64 - 126			
cis-1,3-Dichloropropene	1865.00	50	20	2000.00	ND	93.2	70 - 131			
Dibromochloromethane	1951.00	50	13	2000.00	ND	97.6	74 - 125			
Dibromomethane	2046.00	50	14	2000.00	ND	102	74 - 116			
Dichlorodifluoromethane	1560.00	50	31	2000.00	ND	78.0	40 - 186			
Ethylbenzene	3492.00	50	23	4000.00	ND	87.3	77 - 130			
Hexachlorobutadiene	1524.00	50	34	2000.00	ND	76.2	52 - 176			
Isopropylbenzene	1837.00	50	23	2000.00	ND	91.8	77 - 144			
m,p-Xylene	3628.00	100	45	4000.00	ND	90.7	84 - 136			
Methylene chloride	1848.00	100	30	2000.00	ND	92.4	72 - 150			
n-Butylbenzene	1596.00	50	31	2000.00	ND	79.8	73 - 154			
n-Propylbenzene	1713.00	50	24	2000.00	ND	85.6	77 - 145			
Naphthalene	1785.00	50	21	2000.00	ND	89.2	55 - 137			
o-Xylene	3656.00	50	20	4000.00	ND	91.4	79 - 135			
sec-Butylbenzene	1722.00	50	25	2000.00	ND	86.1	73 - 157			
Styrene	1774.00	50	20	2000.00	ND	88.7	78 - 125			
tert-Butylbenzene	1726.00	50	22	2000.00	ND	86.3	78 - 149			
Tetrachloroethene	1516.00	50	24	2000.00	ND	75.8	74 - 136			
Toluene	3653.00	50	20	4000.00	ND	91.3	78 - 124			
trans-1,2-Dichloroethene	1714.00	50	21	2000.00	ND	85.7	66 - 131			
Trichloroethene	1627.00	50	47	2000.00	ND	81.4	78 - 128			
Trichlorofluoromethane	2371.00	50	23	2000.00	ND	119	60 - 170			
Vinyl chloride	1659.00	50	19	2000.00	ND	83.0	55 - 148			



Certificate of Analysis

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Reported : 02/17/2017

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 B7B0305 - MSVOA_LL_W (continued)

Matrix Spike (B7B0305-MS1) - Continued

Source: 1700590-04RE1

Prepared: 2/10/2017 Analyzed: 2/10/2017

Surrogate: 1,2-Dichloroethane-d4	34.59		25.0000		138	51 - 157			
Surrogate: 4-Bromofluorobenzene	27.74		25.0000		111	61 - 123			
Surrogate: Dibromofluoromethane	30.16		25.0000		121	57 - 147			
Surrogate: Toluene-d8	27.59		25.0000		110	61 - 119			

Matrix Spike Dup (B7B0305-MSD1)

Source: 1700590-04RE1

Prepared: 2/10/2017 Analyzed: 2/10/2017

1,1,1,2-Tetrachloroethane	1718.00	50	18	2000.00	ND	85.9	76 - 132	10.3	20	
1,1,1-Trichloroethane	1891.00	50	47	2000.00	ND	94.6	72 - 144	6.65	20	
1,1,2,2-Tetrachloroethane	1774.00	50	17	2000.00	ND	88.7	70 - 120	6.86	20	
1,1,2-Trichloroethane	1785.00	50	12	2000.00	ND	89.2	75 - 120	10.4	20	
1,1-Dichloroethane	1929.00	50	16	2000.00	30.0000	95.0	65 - 127	4.01	20	
1,1-Dichloroethene	3843.00	50	18	2000.00	2337.00	75.3	63 - 142	3.60	20	
1,1-Dichloropropene	1540.00	50	30	2000.00	ND	77.0	78 - 137	10.8	20	M2
1,2,3-Trichloropropane	1750.00	50	16	2000.00	ND	87.5	73 - 118	5.83	20	
1,2,3-Trichlorobenzene	1485.00	50	20	2000.00	ND	74.2	53 - 164	12.0	20	
1,2,4-Trichlorobenzene	1277.00	50	26	2000.00	ND	63.8	58 - 144	18.7	20	
1,2,4-Trimethylbenzene	1560.00	50	23	2000.00	ND	78.0	75 - 140	14.5	20	
1,2-Dibromo-3-chloropropane	1610.00	50	26	2000.00	ND	80.5	61 - 131	10.1	20	
1,2-Dibromoethane	1708.00	50	15	2000.00	ND	85.4	74 - 125	10.7	20	
1,2-Dichlorobenzene	1580.00	50	21	2000.00	ND	79.0	78 - 122	11.3	20	
1,2-Dichloroethane	1944.00	50	15	2000.00	ND	97.2	70 - 126	11.4	20	
1,2-Dichloropropane	1660.00	50	35	2000.00	ND	83.0	69 - 120	4.36	20	
1,3,5-Trimethylbenzene	1563.00	50	19	2000.00	ND	78.2	73 - 145	12.6	20	
1,3-Dichlorobenzene	1475.00	50	23	2000.00	ND	73.8	76 - 126	13.6	20	M2
1,3-Dichloropropane	1661.00	50	15	2000.00	ND	83.0	76 - 117	9.57	20	
1,4-Dichlorobenzene	1482.00	50	23	2000.00	ND	74.1	77 - 120	14.5	20	M2
2,2-Dichloropropane	1494.00	50	35	2000.00	ND	74.7	47 - 169	4.51	20	
2-Chlorotoluene	1547.00	50	25	2000.00	ND	77.4	75 - 135	10.6	20	
4-Chlorotoluene	1499.00	50	24	2000.00	ND	75.0	77 - 130	12.3	20	M2
4-Isopropyltoluene	1454.00	50	24	2000.00	ND	72.7	72 - 153	14.8	20	
Benzene	3330.00	50	19	4000.00	ND	83.2	73 - 123	6.23	20	
Bromobenzene	1556.00	50	19	2000.00	ND	77.8	75 - 121	9.31	20	
Bromodichloromethane	1841.00	50	17	2000.00	ND	92.0	73 - 124	10.7	20	
Bromoform	1659.00	50	10	2000.00	ND	83.0	70 - 135	12.8	20	
Bromomethane	2843.00	50	28	2000.00	ND	142	10 - 166	7.38	20	
Carbon tetrachloride	1912.00	50	21	2000.00	ND	95.6	65 - 171	11.0	20	
Chlorobenzene	1523.00	50	22	2000.00	ND	76.2	80 - 121	11.6	20	M2
Chloroethane	1759.00	50	17	2000.00	ND	88.0	55 - 143	1.02	20	
Chloroform	1962.00	50	19	2000.00	ND	98.1	65 - 130	7.27	20	
Chloromethane	1704.00	50	23	2000.00	ND	85.2	21 - 141	0.351	20	
cis-1,2-Dichloroethene	1727.00	50	19	2000.00	ND	86.4	64 - 126	1.84	20	



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

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

Batch B7B0305 - MSVOA_LL_W (continued)

Matrix Spike Dup (B7B0305-MSD1) - Continued

Source: 1700590-04RE1

Prepared: 2/10/2017 Analyzed: 2/10/2017

cis-1,3-Dichloropropene	1730.00	50	20	2000.00	ND	86.5	70 - 131	7.51	20	
Dibromochloromethane	1678.00	50	13	2000.00	ND	83.9	74 - 125	15.0	20	
Dibromomethane	1796.00	50	14	2000.00	ND	89.8	74 - 116	13.0	20	
Dichlorodifluoromethane	1428.00	50	31	2000.00	ND	71.4	40 - 186	8.84	20	
Ethylbenzene	3108.00	50	23	4000.00	ND	77.7	77 - 130	11.6	20	
Hexachlorobutadiene	1241.00	50	34	2000.00	ND	62.0	52 - 176	20.5	20	M2, R
Isopropylbenzene	1639.00	50	23	2000.00	ND	82.0	77 - 144	11.4	20	
m,p-Xylene	3195.00	100	45	4000.00	ND	79.9	84 - 136	12.7	20	M2
Methylene chloride	1745.00	100	30	2000.00	ND	87.2	72 - 150	5.73	20	
n-Butylbenzene	1314.00	50	31	2000.00	ND	65.7	73 - 154	19.4	20	M2
n-Propylbenzene	1479.00	50	24	2000.00	ND	74.0	77 - 145	14.7	20	M2
Naphthalene	1615.00	50	21	2000.00	ND	80.8	55 - 137	10.0	20	
o-Xylene	3275.00	50	20	4000.00	ND	81.9	79 - 135	11.0	20	
sec-Butylbenzene	1505.00	50	25	2000.00	ND	75.2	73 - 157	13.4	20	
Styrene	1602.00	50	20	2000.00	ND	80.1	78 - 125	10.2	20	
tert-Butylbenzene	1551.00	50	22	2000.00	ND	77.6	78 - 149	10.7	20	M2
Tetrachloroethene	1282.00	50	24	2000.00	ND	64.1	74 - 136	16.7	20	M2
Toluene	3313.00	50	20	4000.00	ND	82.8	78 - 124	9.76	20	
trans-1,2-Dichloroethene	1643.00	50	21	2000.00	ND	82.2	66 - 131	4.23	20	
Trichloroethene	1449.00	50	47	2000.00	ND	72.4	78 - 128	11.6	20	M2
Trichlorofluoromethane	2102.00	50	23	2000.00	ND	105	60 - 170	12.0	20	
Vinyl chloride	1646.00	50	19	2000.00	ND	82.3	55 - 148	0.787	20	
Surrogate: 1,2-Dichloroethane-d4	34.02			25.0000		136	51 - 157			
Surrogate: 4-Bromofluorobenzene	26.68			25.0000		107	61 - 123			
Surrogate: Dibromofluoromethane	30.01			25.0000		120	57 - 147			
Surrogate: Toluene-d8	27.44			25.0000		110	61 - 119			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Volatile Organic Compounds by EPA 8260B - Quality Control

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

Batch B7B0351 - MSVOA_LL_W

Blank (B7B0351-BLK1)

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,1,1,2-Tetrachloroethane	ND	0.50	0.18			NR			
1,1,1-Trichloroethane	ND	0.50	0.47			NR			
1,1,2,2-Tetrachloroethane	ND	0.50	0.17			NR			
1,1,2-Trichloroethane	ND	0.50	0.12			NR			
1,1-Dichloroethane	ND	0.50	0.16			NR			
1,1-Dichloroethene	ND	0.50	0.18			NR			
1,1-Dichloropropene	ND	0.50	0.30			NR			
1,2,3-Trichloropropane	ND	0.50	0.16			NR			
1,2,3-Trichlorobenzene	ND	0.50	0.20			NR			
1,2,4-Trichlorobenzene	ND	0.50	0.26			NR			
1,2,4-Trimethylbenzene	ND	0.50	0.23			NR			
1,2-Dibromo-3-chloropropane	ND	0.50	0.26			NR			
1,2-Dibromoethane	ND	0.50	0.15			NR			
1,2-Dichlorobenzene	ND	0.50	0.21			NR			
1,2-Dichloroethane	ND	0.50	0.15			NR			
1,2-Dichloropropane	ND	0.50	0.35			NR			
1,3,5-Trimethylbenzene	ND	0.50	0.19			NR			
1,3-Dichlorobenzene	ND	0.50	0.23			NR			
1,3-Dichloropropane	ND	0.50	0.15			NR			
1,4-Dichlorobenzene	ND	0.50	0.23			NR			
2,2-Dichloropropane	ND	0.50	0.35			NR			
2-Chlorotoluene	ND	0.50	0.25			NR			
4-Chlorotoluene	ND	0.50	0.24			NR			
4-Isopropyltoluene	ND	0.50	0.24			NR			
Benzene	ND	0.50	0.19			NR			
Bromobenzene	ND	0.50	0.19			NR			
Bromodichloromethane	ND	0.50	0.17			NR			
Bromoform	ND	0.50	0.10			NR			
Bromomethane	ND	0.50	0.28			NR			
Carbon tetrachloride	ND	0.50	0.21			NR			
Chlorobenzene	ND	0.50	0.22			NR			
Chloroethane	ND	0.50	0.17			NR			
Chloroform	ND	0.50	0.19			NR			
Chloromethane	ND	0.50	0.23			NR			
cis-1,2-Dichloroethene	ND	0.50	0.19			NR			
cis-1,3-Dichloropropene	ND	0.50	0.20			NR			
Dibromochloromethane	ND	0.50	0.13			NR			
Dibromomethane	ND	0.50	0.14			NR			
Dichlorodifluoromethane	ND	0.50	0.31			NR			
Ethylbenzene	ND	0.50	0.23			NR			
Hexachlorobutadiene	ND	0.50	0.34			NR			



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

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

Batch B7B0351 - MSVOA_LL_W (continued)

Blank (B7B0351-BLK1) - Continued

Prepared: 2/13/2017 Analyzed: 2/13/2017

Isopropylbenzene	ND	0.50	0.23			NR			
m,p-Xylene	ND	1.0	0.45			NR			
Methylene chloride	ND	1.0	0.30			NR			
n-Butylbenzene	ND	0.50	0.31			NR			
n-Propylbenzene	ND	0.50	0.24			NR			
Naphthalene	ND	0.50	0.21			NR			
o-Xylene	ND	0.50	0.20			NR			
sec-Butylbenzene	ND	0.50	0.25			NR			
Styrene	ND	0.50	0.20			NR			
tert-Butylbenzene	ND	0.50	0.22			NR			
Tetrachloroethene	ND	0.50	0.24			NR			
Toluene	ND	0.50	0.20			NR			
trans-1,2-Dichloroethene	ND	0.50	0.21			NR			
Trichloroethene	ND	0.50	0.47			NR			
Trichlorofluoromethane	ND	0.50	0.23			NR			
Vinyl chloride	ND	0.50	0.19			NR			

Surrogate: 1,2-Dichloroethane-d4

33.28

25.0000

133

51 - 157

Surrogate: 4-Bromofluorobenzene

27.22

25.0000

109

61 - 123

Surrogate: Dibromofluoromethane

30.23

25.0000

121

57 - 147

Surrogate: Toluene-d8

27.53

25.0000

110

61 - 119

LCS (B7B0351-BS1)

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,1,1,2-Tetrachloroethane	22.0500	0.50	0.18	20.0000		110	76 - 132
1,1,1-Trichloroethane	22.8700	0.50	0.47	20.0000		114	72 - 144
1,1,2,2-Tetrachloroethane	18.8000	0.50	0.17	20.0000		94.0	70 - 120
1,1,2-Trichloroethane	19.7500	0.50	0.12	20.0000		98.8	75 - 120
1,1-Dichloroethane	22.1800	0.50	0.16	20.0000		111	65 - 127
1,1-Dichloroethene	21.6900	0.50	0.18	20.0000		108	63 - 142
1,1-Dichloropropene	22.5500	0.50	0.30	20.0000		113	78 - 137
1,2,3-Trichloropropane	19.4900	0.50	0.16	20.0000		97.4	73 - 118
1,2,3-Trichlorobenzene	20.6400	0.50	0.20	20.0000		103	53 - 164
1,2,4-Trichlorobenzene	21.0500	0.50	0.26	20.0000		105	58 - 144
1,2,4-Trimethylbenzene	21.7100	0.50	0.23	20.0000		109	75 - 140
1,2-Dibromo-3-chloropropane	17.3100	0.50	0.26	20.0000		86.6	61 - 131
1,2-Dibromoethane	19.4700	0.50	0.15	20.0000		97.4	74 - 125
1,2-Dichlorobenzene	21.1300	0.50	0.21	20.0000		106	78 - 122
1,2-Dichloroethane	23.1900	0.50	0.15	20.0000		116	70 - 126
1,2-Dichloropropane	20.3500	0.50	0.35	20.0000		102	69 - 120
1,3,5-Trimethylbenzene	21.8600	0.50	0.19	20.0000		109	73 - 145
1,3-Dichlorobenzene	21.3600	0.50	0.23	20.0000		107	76 - 126
1,3-Dichloropropane	19.8800	0.50	0.15	20.0000		99.4	76 - 117



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

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

Batch B7B0351 - MSVOA_LL_W (continued)

LCS (B7B0351-BS1) - Continued

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,4-Dichlorobenzene	21.9400	0.50	0.23	20.0000		110	77 - 120		
2,2-Dichloropropane	22.8500	0.50	0.35	20.0000		114	47 - 169		
2-Chlorotoluene	21.1200	0.50	0.25	20.0000		106	75 - 135		
4-Chlorotoluene	21.2600	0.50	0.24	20.0000		106	70 - 133		
4-Isopropyltoluene	22.9800	0.50	0.24	20.0000		115	72 - 153		
Benzene	41.6700	0.50	0.19	40.0000		104	73 - 123		
Bromobenzene	21.2800	0.50	0.19	20.0000		106	75 - 121		
Bromodichloromethane	22.5200	0.50	0.17	20.0000		113	73 - 124		
Bromoform	19.2600	0.50	0.10	20.0000		96.3	70 - 135		
Bromomethane	30.1000	0.50	0.28	20.0000		150	10 - 166		
Carbon tetrachloride	26.1500	0.50	0.21	20.0000		131	65 - 171		
Chlorobenzene	19.9200	0.50	0.22	20.0000		99.6	80 - 121		
Chloroethane	19.8900	0.50	0.17	20.0000		99.4	55 - 143		
Chloroform	22.0600	0.50	0.19	20.0000		110	65 - 130		
Chloromethane	20.5900	0.50	0.23	20.0000		103	21 - 141		
cis-1,2-Dichloroethene	19.6400	0.50	0.19	20.0000		98.2	64 - 126		
cis-1,3-Dichloropropene	22.4100	0.50	0.20	20.0000		112	70 - 131		
Dibromochloromethane	20.1700	0.50	0.13	20.0000		101	74 - 125		
Dibromomethane	20.0300	0.50	0.14	20.0000		100	74 - 116		
Dichlorodifluoromethane	19.6500	0.50	0.31	20.0000		98.2	40 - 186		
Ethylbenzene	40.9100	0.50	0.23	40.0000		102	77 - 130		
Hexachlorobutadiene	23.2900	0.50	0.34	20.0000		116	52 - 176		
Isopropylbenzene	22.6700	0.50	0.23	20.0000		113	77 - 144		
m,p-Xylene	43.0300	1.0	0.45	40.0000		108	84 - 136		
Methylene chloride	19.5000	1.0	0.30	20.0000		97.5	72 - 150		
n-Butylbenzene	22.7900	0.50	0.31	20.0000		114	73 - 154		
n-Propylbenzene	21.7900	0.50	0.24	20.0000		109	77 - 145		
Naphthalene	18.3800	0.50	0.21	20.0000		91.9	55 - 137		
o-Xylene	41.7200	0.50	0.20	40.0000		104	79 - 135		
sec-Butylbenzene	22.0900	0.50	0.25	20.0000		110	73 - 157		
Styrene	20.1400	0.50	0.20	20.0000		101	78 - 125		
tert-Butylbenzene	21.9100	0.50	0.22	20.0000		110	78 - 149		
Tetrachloroethene	20.8800	0.50	0.24	20.0000		104	74 - 136		
Toluene	40.1500	0.50	0.20	40.0000		100	78 - 124		
trans-1,2-Dichloroethene	20.3300	0.50	0.21	20.0000		102	66 - 131		
Trichloroethene	19.8800	0.50	0.47	20.0000		99.4	78 - 128		
Trichlorofluoromethane	26.9700	0.50	0.23	20.0000		135	60 - 170		
Vinyl chloride	20.1100	0.50	0.19	20.0000		101	55 - 148		
Surrogate: 1,2-Dichloroethane-d4	30.50			25.0000		122	51 - 157		
Surrogate: 4-Bromofluorobenzene	26.91			25.0000		108	61 - 123		
Surrogate: Dibromofluoromethane	27.79			25.0000		111	57 - 147		



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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 B7B0351 - MSVOA_LL_W (continued)

LCS (B7B0351-BS1) - Continued

Prepared: 2/13/2017 Analyzed: 2/13/2017

Surrogate: Toluene-d8 27.56 25.0000 110 61 - 119

LCS Dup (B7B0351-BS1)

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,1,1,2-Tetrachloroethane	22.0800	0.50	0.18	20.0000	110	76 - 132	0.136	20	
1,1,1-Trichloroethane	22.6100	0.50	0.47	20.0000	113	72 - 144	1.14	20	
1,1,2,2-Tetrachloroethane	19.1700	0.50	0.17	20.0000	95.8	70 - 120	1.95	20	
1,1,2-Trichloroethane	20.1900	0.50	0.12	20.0000	101	75 - 120	2.20	20	
1,1-Dichloroethane	22.7000	0.50	0.16	20.0000	114	65 - 127	2.32	20	
1,1-Dichloroethene	21.8800	0.50	0.18	20.0000	109	63 - 142	0.872	20	
1,1-Dichloropropene	22.2600	0.50	0.30	20.0000	111	78 - 137	1.29	20	
1,2,3-Trichloropropane	19.6100	0.50	0.16	20.0000	98.0	73 - 118	0.614	20	
1,2,3-Trichlorobenzene	20.1000	0.50	0.20	20.0000	100	53 - 164	2.65	20	
1,2,4-Trichlorobenzene	20.5100	0.50	0.26	20.0000	103	58 - 144	2.60	20	
1,2,4-Trimethylbenzene	21.8800	0.50	0.23	20.0000	109	75 - 140	0.780	20	
1,2-Dibromo-3-chloropropane	17.6100	0.50	0.26	20.0000	88.0	61 - 131	1.72	20	
1,2-Dibromoethane	18.8800	0.50	0.15	20.0000	94.4	74 - 125	3.08	20	
1,2-Dichlorobenzene	20.6900	0.50	0.21	20.0000	103	78 - 122	2.10	20	
1,2-Dichloroethane	22.8300	0.50	0.15	20.0000	114	70 - 126	1.56	20	
1,2-Dichloropropane	20.1300	0.50	0.35	20.0000	101	69 - 120	1.09	20	
1,3,5-Trimethylbenzene	22.0000	0.50	0.19	20.0000	110	73 - 145	0.638	20	
1,3-Dichlorobenzene	21.2100	0.50	0.23	20.0000	106	76 - 126	0.705	20	
1,3-Dichloropropane	19.8300	0.50	0.15	20.0000	99.2	76 - 117	0.252	20	
1,4-Dichlorobenzene	21.0100	0.50	0.23	20.0000	105	77 - 120	4.33	20	
2,2-Dichloropropane	22.3000	0.50	0.35	20.0000	112	47 - 169	2.44	20	
2-Chlorotoluene	20.7600	0.50	0.25	20.0000	104	75 - 135	1.72	20	
4-Chlorotoluene	20.7100	0.50	0.24	20.0000	104	70 - 133	2.62	20	
4-Isopropyltoluene	22.7900	0.50	0.24	20.0000	114	72 - 153	0.830	20	
Benzene	41.1100	0.50	0.19	40.0000	103	73 - 123	1.35	20	
Bromobenzene	20.7000	0.50	0.19	20.0000	104	75 - 121	2.76	20	
Bromodichloromethane	22.4200	0.50	0.17	20.0000	112	73 - 124	0.445	20	
Bromoform	18.8900	0.50	0.10	20.0000	94.4	70 - 135	1.94	20	
Bromomethane	31.7300	0.50	0.28	20.0000	159	10 - 166	5.27	20	
Carbon tetrachloride	25.0200	0.50	0.21	20.0000	125	65 - 171	4.42	20	
Chlorobenzene	19.8300	0.50	0.22	20.0000	99.2	80 - 121	0.453	20	
Chloroethane	20.6000	0.50	0.17	20.0000	103	55 - 143	3.51	20	
Chloroform	22.4600	0.50	0.19	20.0000	112	65 - 130	1.80	20	
Chloromethane	20.6900	0.50	0.23	20.0000	103	21 - 141	0.484	20	
cis-1,2-Dichloroethene	20.0900	0.50	0.19	20.0000	100	64 - 126	2.27	20	
cis-1,3-Dichloropropene	22.0500	0.50	0.20	20.0000	110	70 - 131	1.62	20	
Dibromochloromethane	21.0200	0.50	0.13	20.0000	105	74 - 125	4.13	20	
Dibromomethane	20.0800	0.50	0.14	20.0000	100	74 - 116	0.249	20	
Dichlorodifluoromethane	19.4800	0.50	0.31	20.0000	97.4	40 - 186	0.869	20	



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

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

Batch B7B0351 - MSVOA_LL_W (continued)

LCS Dup (B7B0351-BSD1) - Continued

Prepared: 2/13/2017 Analyzed: 2/13/2017

Ethylbenzene	40.4200	0.50	0.23	40.0000		101	77 - 130	1.20	20
Hexachlorobutadiene	22.6600	0.50	0.34	20.0000		113	52 - 176	2.74	20
Isopropylbenzene	22.6200	0.50	0.23	20.0000		113	77 - 144	0.221	20
m,p-Xylene	42.7700	1.0	0.45	40.0000		107	84 - 136	0.606	20
Methylene chloride	19.8300	1.0	0.30	20.0000		99.2	72 - 150	1.68	20
n-Butylbenzene	22.1700	0.50	0.31	20.0000		111	73 - 154	2.76	20
n-Propylbenzene	21.6600	0.50	0.24	20.0000		108	77 - 145	0.598	20
Naphthalene	18.4600	0.50	0.21	20.0000		92.3	55 - 137	0.434	20
o-Xylene	41.7000	0.50	0.20	40.0000		104	79 - 135	0.0480	20
sec-Butylbenzene	21.9300	0.50	0.25	20.0000		110	73 - 157	0.727	20
Styrene	20.1600	0.50	0.20	20.0000		101	78 - 125	0.0993	20
tert-Butylbenzene	21.5100	0.50	0.22	20.0000		108	78 - 149	1.84	20
Tetrachloroethene	20.7300	0.50	0.24	20.0000		104	74 - 136	0.721	20
Toluene	40.1300	0.50	0.20	40.0000		100	78 - 124	0.0498	20
trans-1,2-Dichloroethene	20.9300	0.50	0.21	20.0000		105	66 - 131	2.91	20
Trichloroethene	19.7800	0.50	0.47	20.0000		98.9	78 - 128	0.504	20
Trichlorofluoromethane	27.0000	0.50	0.23	20.0000		135	60 - 170	0.111	20
Vinyl chloride	20.1200	0.50	0.19	20.0000		101	55 - 148	0.0497	20
Surrogate: 1,2-Dichloroethane-d4	31.31			25.0000		125	51 - 157		
Surrogate: 4-Bromofluorobenzene	26.55			25.0000		106	61 - 123		
Surrogate: Dibromofluoromethane	27.68			25.0000		111	57 - 147		
Surrogate: Toluene-d8	27.39			25.0000		110	61 - 119		

Matrix Spike (B7B0351-MS1)

Source: 1700610-01

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,1,1,2-Tetrachloroethane	23.5200	0.50	0.18	20.0000	ND	118	76 - 132		
1,1,1-Trichloroethane	25.8700	0.50	0.47	20.0000	ND	129	72 - 144		
1,1,2,2-Tetrachloroethane	23.1600	0.50	0.17	20.0000	ND	116	70 - 120		
1,1,2-Trichloroethane	23.6900	0.50	0.12	20.0000	ND	118	75 - 120		
1,1-Dichloroethane	24.3600	0.50	0.16	20.0000	ND	122	65 - 127		
1,1-Dichloroethene	24.4200	0.50	0.18	20.0000	ND	122	63 - 142		
1,1-Dichloropropene	21.8600	0.50	0.30	20.0000	ND	109	78 - 137		
1,2,3-Trichloropropane	22.4800	0.50	0.16	20.0000	ND	112	73 - 118		
1,2,3-Trichlorobenzene	22.0300	0.50	0.20	20.0000	ND	110	53 - 164		
1,2,4-Trichlorobenzene	20.5200	0.50	0.26	20.0000	ND	103	58 - 144		
1,2,4-Trimethylbenzene	22.7600	0.50	0.23	20.0000	ND	114	75 - 140		
1,2-Dibromo-3-chloropropane	21.8100	0.50	0.26	20.0000	ND	109	61 - 131		
1,2-Dibromoethane	22.8200	0.50	0.15	20.0000	ND	114	74 - 125		
1,2-Dichlorobenzene	21.5600	0.50	0.21	20.0000	ND	108	78 - 122		
1,2-Dichloroethane	25.5900	0.50	0.15	20.0000	ND	128	70 - 126		M2
1,2-Dichloropropane	20.5800	0.50	0.35	20.0000	ND	103	69 - 120		
1,3,5-Trimethylbenzene	22.4200	0.50	0.19	20.0000	ND	112	73 - 145		



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

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

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

Batch B7B0351 - MSVOA_LL_W (continued)

Matrix Spike (B7B0351-MS1) - Continued

Source: 1700610-01

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,3-Dichlorobenzene	21.2400	0.50	0.23	20.0000	ND	106	76 - 126			
1,3-Dichloropropane	22.1400	0.50	0.15	20.0000	ND	111	76 - 117			
1,4-Dichlorobenzene	21.3700	0.50	0.23	20.0000	ND	107	77 - 120			
2,2-Dichloropropane	20.1500	0.50	0.35	20.0000	ND	101	47 - 169			
2-Chlorotoluene	21.8000	0.50	0.25	20.0000	ND	109	75 - 135			
4-Chlorotoluene	21.5600	0.50	0.24	20.0000	ND	108	77 - 130			
4-Isopropyltoluene	22.4100	0.50	0.24	20.0000	ND	112	72 - 153			
Benzene	42.6400	0.50	0.19	40.0000	ND	107	73 - 123			
Bromobenzene	21.2100	0.50	0.19	20.0000	ND	106	75 - 121			
Bromodichloromethane	24.0900	0.50	0.17	20.0000	ND	120	73 - 124			
Bromoform	22.5200	0.50	0.10	20.0000	ND	113	70 - 135			
Bromomethane	39.3800	0.50	0.28	20.0000	ND	197	10 - 166			M2
Carbon tetrachloride	26.5300	0.50	0.21	20.0000	ND	133	65 - 171			
Chlorobenzene	20.5800	0.50	0.22	20.0000	ND	103	80 - 121			
Chloroethane	21.5400	0.50	0.17	20.0000	ND	108	55 - 143			
Chloroform	25.8200	0.50	0.19	20.0000	ND	129	65 - 130			
Chloromethane	20.2900	0.50	0.23	20.0000	ND	101	21 - 141			
cis-1,2-Dichloroethene	21.6000	0.50	0.19	20.0000	ND	108	64 - 126			
cis-1,3-Dichloropropene	20.7100	0.50	0.20	20.0000	ND	104	70 - 131			
Dibromochloromethane	23.2200	0.50	0.13	20.0000	ND	116	74 - 125			
Dibromomethane	24.2300	0.50	0.14	20.0000	ND	121	74 - 116			M2
Dichlorodifluoromethane	19.6800	0.50	0.31	20.0000	ND	98.4	40 - 186			
Ethylbenzene	43.6800	0.50	0.23	40.0000	ND	109	77 - 130			
Hexachlorobutadiene	21.2800	0.50	0.34	20.0000	ND	106	52 - 176			
Isopropylbenzene	22.5800	0.50	0.23	20.0000	ND	113	77 - 144			
m,p-Xylene	46.2200	1.0	0.45	40.0000	ND	116	84 - 136			
Methylene chloride	20.1000	1.0	0.30	20.0000	ND	100	72 - 150			
n-Butylbenzene	22.6400	0.50	0.31	20.0000	ND	113	73 - 154			
n-Propylbenzene	21.9200	0.50	0.24	20.0000	ND	110	77 - 145			
Naphthalene	22.3500	0.50	0.21	20.0000	ND	112	55 - 137			
o-Xylene	45.4000	0.50	0.20	40.0000	ND	114	79 - 135			
sec-Butylbenzene	22.2000	0.50	0.25	20.0000	ND	111	73 - 157			
Styrene	21.8800	0.50	0.20	20.0000	ND	109	78 - 125			
tert-Butylbenzene	21.7100	0.50	0.22	20.0000	ND	109	78 - 149			
Tetrachloroethene	19.6500	0.50	0.24	20.0000	ND	98.2	74 - 136			
Toluene	43.8900	0.50	0.20	40.0000	ND	110	78 - 124			
trans-1,2-Dichloroethene	21.5100	0.50	0.21	20.0000	ND	108	66 - 131			
Trichloroethene	19.8800	0.50	0.47	20.0000	ND	99.4	78 - 128			
Trichlorofluoromethane	30.4400	0.50	0.23	20.0000	ND	152	60 - 170			
Vinyl chloride	20.0200	0.50	0.19	20.0000	ND	100	55 - 148			

Surrogate: 1,2-Dichloroethane-d4

34.61

25.0000

138

51 - 157



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

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 B7B0351 - MSVOA_LL_W (continued)

Matrix Spike (B7B0351-MS1) - Continued

Source: 1700610-01

Prepared: 2/13/2017 Analyzed: 2/13/2017

Surrogate: 4-Bromofluorobenzene	27.17		25.0000		109	61 - 123			
Surrogate: Dibromofluoromethane	30.04		25.0000		120	57 - 147			
Surrogate: Toluene-d8	26.62		25.0000		106	61 - 119			

Matrix Spike Dup (B7B0351-MSD1)

Source: 1700610-01

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,1,1,2-Tetrachloroethane	22.0400	0.50	0.18	20.0000	ND	110	76 - 132	6.50	20	
1,1,1-Trichloroethane	23.6300	0.50	0.47	20.0000	ND	118	72 - 144	9.05	20	
1,1,2,2-Tetrachloroethane	22.4100	0.50	0.17	20.0000	ND	112	70 - 120	3.29	20	
1,1,2-Trichloroethane	21.5900	0.50	0.12	20.0000	ND	108	75 - 120	9.28	20	
1,1-Dichloroethane	22.6100	0.50	0.16	20.0000	ND	113	65 - 127	7.45	20	
1,1-Dichloroethene	22.8300	0.50	0.18	20.0000	ND	114	63 - 142	6.73	20	
1,1-Dichloropropene	20.2900	0.50	0.30	20.0000	ND	101	78 - 137	7.45	20	
1,2,3-Trichloropropane	21.9200	0.50	0.16	20.0000	ND	110	73 - 118	2.52	20	
1,2,3-Trichlorobenzene	20.1200	0.50	0.20	20.0000	ND	101	53 - 164	9.06	20	
1,2,4-Trichlorobenzene	19.3700	0.50	0.26	20.0000	ND	96.8	58 - 144	5.77	20	
1,2,4-Trimethylbenzene	20.8100	0.50	0.23	20.0000	ND	104	75 - 140	8.95	20	
1,2-Dibromo-3-chloropropane	21.8200	0.50	0.26	20.0000	ND	109	61 - 131	0.0458	20	
1,2-Dibromoethane	21.3200	0.50	0.15	20.0000	ND	107	74 - 125	6.80	20	
1,2-Dichlorobenzene	20.0000	0.50	0.21	20.0000	ND	100	78 - 122	7.51	20	
1,2-Dichloroethane	24.1600	0.50	0.15	20.0000	ND	121	70 - 126	5.75	20	
1,2-Dichloropropane	20.3300	0.50	0.35	20.0000	ND	102	69 - 120	1.22	20	
1,3,5-Trimethylbenzene	20.6900	0.50	0.19	20.0000	ND	103	73 - 145	8.03	20	
1,3-Dichlorobenzene	19.6600	0.50	0.23	20.0000	ND	98.3	76 - 126	7.73	20	
1,3-Dichloropropane	21.3600	0.50	0.15	20.0000	ND	107	76 - 117	3.59	20	
1,4-Dichlorobenzene	20.1500	0.50	0.23	20.0000	ND	101	77 - 120	5.88	20	
2,2-Dichloropropane	18.2100	0.50	0.35	20.0000	ND	91.0	47 - 169	10.1	20	
2-Chlorotoluene	20.1600	0.50	0.25	20.0000	ND	101	75 - 135	7.82	20	
4-Chlorotoluene	20.1700	0.50	0.24	20.0000	ND	101	77 - 130	6.66	20	
4-Isopropyltoluene	20.4800	0.50	0.24	20.0000	ND	102	72 - 153	9.00	20	
Benzene	40.2800	0.50	0.19	40.0000	ND	101	73 - 123	5.69	20	
Bromobenzene	19.9400	0.50	0.19	20.0000	ND	99.7	75 - 121	6.17	20	
Bromodichloromethane	22.9100	0.50	0.17	20.0000	ND	115	73 - 124	5.02	20	
Bromoform	22.6800	0.50	0.10	20.0000	ND	113	70 - 135	0.708	20	
Bromomethane	34.5700	0.50	0.28	20.0000	ND	173	10 - 166	13.0	20	M2
Carbon tetrachloride	24.1600	0.50	0.21	20.0000	ND	121	65 - 171	9.35	20	
Chlorobenzene	19.9000	0.50	0.22	20.0000	ND	99.5	80 - 121	3.36	20	
Chloroethane	19.8600	0.50	0.17	20.0000	ND	99.3	55 - 143	8.12	20	
Chloroform	23.8400	0.50	0.19	20.0000	ND	119	65 - 130	7.97	20	
Chloromethane	20.0600	0.50	0.23	20.0000	ND	100	21 - 141	1.14	20	
cis-1,2-Dichloroethene	20.8500	0.50	0.19	20.0000	ND	104	64 - 126	3.53	20	
cis-1,3-Dichloropropene	19.8100	0.50	0.20	20.0000	ND	99.0	70 - 131	4.44	20	
Dibromochloromethane	22.1000	0.50	0.13	20.0000	ND	110	74 - 125	4.94	20	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

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Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

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

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

Batch B7B0351 - MSVOA_LL_W (continued)

Matrix Spike Dup (B7B0351-MSD1) - Continued

Source: 1700610-01

Prepared: 2/13/2017 Analyzed: 2/13/2017

Dibromomethane	22.2800	0.50	0.14	20.0000	ND	111	74 - 116	8.39	20	
Dichlorodifluoromethane	18.8700	0.50	0.31	20.0000	ND	94.4	40 - 186	4.20	20	
Ethylbenzene	40.5400	0.50	0.23	40.0000	ND	101	77 - 130	7.46	20	
Hexachlorobutadiene	19.6400	0.50	0.34	20.0000	ND	98.2	52 - 176	8.02	20	
Isopropylbenzene	21.0600	0.50	0.23	20.0000	ND	105	77 - 144	6.97	20	
m,p-Xylene	42.4500	1.0	0.45	40.0000	ND	106	84 - 136	8.50	20	
Methylene chloride	20.9000	1.0	0.30	20.0000	ND	104	72 - 150	3.90	20	
n-Butylbenzene	20.1900	0.50	0.31	20.0000	ND	101	73 - 154	11.4	20	
n-Propylbenzene	20.1500	0.50	0.24	20.0000	ND	101	77 - 145	8.41	20	
Naphthalene	21.1800	0.50	0.21	20.0000	ND	106	55 - 137	5.38	20	
o-Xylene	42.8100	0.50	0.20	40.0000	ND	107	79 - 135	5.87	20	
sec-Butylbenzene	20.7000	0.50	0.25	20.0000	ND	104	73 - 157	6.99	20	
Styrene	20.9300	0.50	0.20	20.0000	ND	105	78 - 125	4.44	20	
tert-Butylbenzene	19.8100	0.50	0.22	20.0000	ND	99.0	78 - 149	9.15	20	
Tetrachloroethene	18.6400	0.50	0.24	20.0000	ND	93.2	74 - 136	5.28	20	
Toluene	41.0300	0.50	0.20	40.0000	ND	103	78 - 124	6.74	20	
trans-1,2-Dichloroethene	20.0300	0.50	0.21	20.0000	ND	100	66 - 131	7.13	20	
Trichloroethene	18.2800	0.50	0.47	20.0000	ND	91.4	78 - 128	8.39	20	
Trichlorofluoromethane	26.6200	0.50	0.23	20.0000	ND	133	60 - 170	13.4	20	
Vinyl chloride	19.9300	0.50	0.19	20.0000	ND	99.6	55 - 148	0.451	20	

Surrogate: 1,2-Dichloroethane-d4	33.73			25.0000		135	51 - 157			
Surrogate: 4-Bromofluorobenzene	27.83			25.0000		111	61 - 123			
Surrogate: Dibromofluoromethane	30.30			25.0000		121	57 - 147			
Surrogate: Toluene-d8	26.93			25.0000		108	61 - 119			



Certificate of Analysis

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Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

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

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

Batch B7B0382 - MSSEMI_ISOTOPEDILN_W

Blank (B7B0382-BLK1)

Prepared: 2/14/2017 Analyzed: 2/14/2017

1,4-Dioxane	ND	2.0	0.84			NR				
Surrogate: 1,2-Dichlorobenzene-d	56.54			100.000		56.5	17 - 101			
Surrogate: 2-Fluorobiphenyl	66.21			100.000		66.2	29 - 109			
Surrogate: 4-Terphenyl-d14	92.27			100.000		92.3	49 - 122			
Surrogate: Nitrobenzene-d5	64.66			100.000		64.7	19 - 111			

LCS (B7B0382-BS1)

Prepared: 2/14/2017 Analyzed: 2/14/2017

1,4-Dioxane	113.140	2.0	0.84	100.000		113	62 - 127			
Surrogate: 1,2-Dichlorobenzene-d	55.32			100.000		55.3	17 - 101			
Surrogate: 2-Fluorobiphenyl	68.61			100.000		68.6	29 - 109			
Surrogate: 4-Terphenyl-d14	81.45			100.000		81.4	49 - 122			
Surrogate: Nitrobenzene-d5	68.88			100.000		68.9	19 - 111			

Matrix Spike (B7B0382-MS1)

Source: 1700621-03

Prepared: 2/14/2017 Analyzed: 2/14/2017

1,4-Dioxane	119.050	2.0	0.84	100.000	8.20000	111	62 - 127			
Surrogate: 1,2-Dichlorobenzene-d	54.17			100.000		54.2	17 - 101			
Surrogate: 2-Fluorobiphenyl	68.14			100.000		68.1	29 - 109			
Surrogate: 4-Terphenyl-d14	85.30			100.000		85.3	49 - 122			
Surrogate: Nitrobenzene-d5	67.93			100.000		67.9	19 - 111			

Matrix Spike Dup (B7B0382-MSD1)

Source: 1700621-03

Prepared: 2/14/2017 Analyzed: 2/14/2017

1,4-Dioxane	120.830	2.0	0.84	100.000	8.20000	113	62 - 127	1.48	20	
Surrogate: 1,2-Dichlorobenzene-d	57.69			100.000		57.7	17 - 101			
Surrogate: 2-Fluorobiphenyl	73.62			100.000		73.6	29 - 109			
Surrogate: 4-Terphenyl-d14	88.68			100.000		88.7	49 - 122			
Surrogate: Nitrobenzene-d5	75.08			100.000		75.1	19 - 111			



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

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

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

Batch B7B0363 - MSSEMI_W

Blank (B7B0363-BLK1)

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,4-Dioxane	ND	0.20	0.11			NR			
Surrogate: 1,2-Dichlorobenzene-d	0.8399			1.00000		84.0	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.9315			1.00000		93.2	28 - 122		
Surrogate: 4-Terphenyl-d14	1.201			1.00000		120	43 - 131		
Surrogate: Nitrobenzene-d5	0.8061			1.00000		80.6	20 - 119		

LCS (B7B0363-BS1)

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,4-Dioxane	1.60935	0.20	0.11	1.00000		161	49 - 169		
Surrogate: 1,2-Dichlorobenzene-d	0.8699			1.00000		87.0	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.9541			1.00000		95.4	28 - 122		
Surrogate: 4-Terphenyl-d14	1.099			1.00000		110	43 - 131		
Surrogate: Nitrobenzene-d5	0.8613			1.00000		86.1	20 - 119		

Matrix Spike (B7B0363-MS1)

Source: 1700610-01

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,4-Dioxane	1.67596	0.20	0.11	1.00000	ND	168	49 - 169		
Surrogate: 1,2-Dichlorobenzene-d	0.8139			1.00000		81.4	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.8980			1.00000		89.8	28 - 122		
Surrogate: 4-Terphenyl-d14	1.016			1.00000		102	43 - 131		
Surrogate: Nitrobenzene-d5	0.7945			1.00000		79.5	20 - 119		

Matrix Spike Dup (B7B0363-MSD1)

Source: 1700610-01

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,4-Dioxane	2.07457	0.20	0.11	1.00000	ND	207	49 - 169	21.3	20	M2, R
Surrogate: 1,2-Dichlorobenzene-d	0.8140			1.00000		81.4	31 - 106			
Surrogate: 2-Fluorobiphenyl	0.9058			1.00000		90.6	28 - 122			
Surrogate: 4-Terphenyl-d14	1.027			1.00000		103	43 - 131			
Surrogate: Nitrobenzene-d5	0.7942			1.00000		79.4	20 - 119			



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Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/17/2017

Notes and Definitions

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.
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
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.



PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto

QA Manager Tyler Evans

Phone 858.455.6500

Fax 858.455.6533

Sampled By:		SAMPLE COLLECTION		MATRIX		PRESERVATION		CONTAINERS		ANALYSIS REQUESTED		Expected Concentration Range (ppb) for VOA's				SPECIAL HANDLING				Laboratory				
LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)		Ice	40-ml VOA	1 L Amber	VOCs by EPA 8210	1,4 Dioxane 8270 SIM	1,4-Dioxane 8270 MOD	0 - 10	10 - 100	100 - 1,000	>1,000	24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS	
1700C10 - 1	MW-35C	2/8/17	913	X	X			X	X		X			X							X			ATL
	TR-020			X				X	X	3		X									X			Report J Flags
-2	TR-020817		0730		X	X		X	2		X			X							X			
-3	MW-36-1SV		1023	X	X			X	3		X				X						X			
				X				X		1			X								X			
-4	MW-36		1109	X	X			X	3		X		X		X						X			
				X				X		1			X								X			
-5	MW-3600		1119	X	X			X	3		X		X		X						X			
				X				X		1			X								X			
-6	MW-39		1255	X	X			X	3		X			X							X			
				X				X		1		X									X			
-7	MW-37		1409	X	X			X	3		X			X							X			
				X				X		1		X									X			
-8	MW-38		1440	X	X			X	3		X			X							X			
				X				X		1		X									X			
-9	MW-41		1525	X	X			X	3		X			X							X			
				X				X		1		X									X			
Total number of containers per analysis:																								Total No. of Containers: 0
Relinquished By: / Company:		Date / Time	Received By: / Company		Date / Time																			
WSS / HPA		2/8/17 1557	ATL		2/8/17 1557																			
Relinquished By: / Company:		Date / Time	Received By: / Company		Date / Time																			
[Signature]		2/8/17 1703	FIDORA / ATL		2/8/17 1703																			

☐ No. of containers correct
☐ Received in good condition
☐ Custody seals secure
☐ Conforms to COC document

Instructions

Fill out form completely and sign only after verified for completeness
Complete in ballpoint pen. Draw one line through error, initial and date correction
Indicate the number of sample containers in analytical request space; indicate choice with ✓ or ✗
Note applicable preservatives, special instructions, and deviations from typical environmental samples.
Consult project QA documents for specific instructions.

4.4 °C Temperature on receipt

Send Results to:

Steve Netto

9171 Towne Centre Drive
Suite 375

San Diego, CA 92122

Ph: 858.455.5400

snetto@hargis.com



TASK NO.: 532.30

Project Manager Steve Netto

QA Manager Tyler Evans

Phone 858.455.6500

Fax 858.455.6533

Date: 2/8/17
Page 2 of 2

[illegible]

Instructions

1. Fill out form completely and sign only after verified for completeness
Complete in ballpoint pen. Draw one line through error, initial and date correction
Indicate the number of sample containers in analytical request space; indicate choice with ✓ or ✕
Note applicable preservatives, special instructions, and deviations from typical environmental samples.
Consult project QA documents for specific instructions.

4.4 °C Temperature on receipt

Send Results to:

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Suite 375

San Diego, CA 92122

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February 20, 2017

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
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1700621
Client Reference : Raytheon Main, 532.30

Enclosed are the results for sample(s) received on February 09, 2017 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 placed 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 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, 532.30

Report To : Steve Netto

Reported : 02/20/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-020917	1700621-01	Lab prepared water	2/09/17 7:30	2/09/17 15:56
MW-34C	1700621-02	Groundwater	2/09/17 9:00	2/09/17 15:56
MW-34B	1700621-03	Groundwater	2/09/17 9:36	2/09/17 15:56
MW-34A	1700621-04	Groundwater	2/09/17 10:39	2/09/17 15:56
MW-30A	1700621-05	Groundwater	2/09/17 12:58	2/09/17 15:56
MW-30B	1700621-06	Groundwater	2/09/17 13:35	2/09/17 15:56
MW-3000B	1700621-07	Groundwater	2/09/17 13:45	2/09/17 15:56
MW-26C	1700621-08	Groundwater	2/08/17 16:13	2/09/17 15:56
MW-28	1700621-09	Groundwater	2/08/17 16:46	2/09/17 15:56
MW-40	1700621-10	Groundwater	2/09/17 9:27	2/09/17 15:56
MW-24	1700621-11	Groundwater	2/09/17 10:42	2/09/17 15:56
MW-27	1700621-12	Groundwater	2/09/17 12:54	2/09/17 15:56
MW-15	1700621-13	Groundwater	2/09/17 14:25	2/09/17 15:56
MW-29	1700621-14	Groundwater	2/09/17 15:40	2/09/17 15:56



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID TB-020917

Lab ID: 1700621-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,1,1-Trichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,1,2-Trichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,1-Dichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,1-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,1-Dichloropropene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,2,3-Trichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,2-Dibromoethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,2-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,2-Dichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,2-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,3-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,3-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
1,4-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
2,2-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
2-Chlorotoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
4-Chlorotoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
4-Isopropyltoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Benzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Bromobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Bromodichloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Bromoform	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Bromomethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Carbon tetrachloride	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Chlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Chloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Chloroform	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Chloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Dibromochloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID TB-020917

Lab ID: 1700621-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Dichlorodifluoromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Ethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Hexachlorobutadiene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Isopropylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
m,p-Xylene	ND	1.0	1	B7B0376	02/14/2017	02/14/17 12:08	
Methylene chloride	ND	1.0	1	B7B0376	02/14/2017	02/14/17 12:08	
n-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
n-Propylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Naphthalene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
o-Xylene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
sec-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Styrene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
tert-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Tetrachloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Toluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Trichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Trichlorofluoromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Vinyl chloride	ND	0.50	1	B7B0376	02/14/2017	02/14/17 12:08	
Surrogate: 1,2-Dichloroethane-d4	141 %	51 - 157		B7B0376	02/14/2017	02/14/17 12:08	
Surrogate: 4-Bromofluorobenzene	102 %	61 - 123		B7B0376	02/14/2017	02/14/17 12:08	
Surrogate: Dibromofluoromethane	122 %	57 - 147		B7B0376	02/14/2017	02/14/17 12:08	
Surrogate: Toluene-d8	105 %	61 - 119		B7B0376	02/14/2017	02/14/17 12:08	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-34C

Lab ID: 1700621-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,1,1-Trichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,1,2-Trichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,1-Dichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,1-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,1-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,2,3-Trichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,2-Dibromoethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,2-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,2-Dichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,3-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,3-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
1,4-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
2,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
2-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
4-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
4-Isopropyltoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Benzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Bromobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Bromodichloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Bromoform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Bromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Carbon tetrachloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Chlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Chloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Chloroform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Chloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Dibromochloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-34C

Lab ID: 1700621-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Dichlorodifluoromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Ethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Hexachlorobutadiene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Isopropylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
m,p-Xylene	ND	1.0	1	B7B0418	02/15/2017	02/15/17 14:46	
Methylene chloride	ND	1.0	1	B7B0418	02/15/2017	02/15/17 14:46	
n-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
n-Propylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Naphthalene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
o-Xylene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
sec-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Styrene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
tert-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Tetrachloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Toluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Trichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Trichlorofluoromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Vinyl chloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:46	
Surrogate: 1,2-Dichloroethane-d4	146 %	51 - 157		B7B0418	02/15/2017	02/15/17 14:46	
Surrogate: 4-Bromofluorobenzene	108 %	61 - 123		B7B0418	02/15/2017	02/15/17 14:46	
Surrogate: Dibromofluoromethane	128 %	57 - 147		B7B0418	02/15/2017	02/15/17 14:46	
Surrogate: Toluene-d8	109 %	61 - 119		B7B0418	02/15/2017	02/15/17 14:46	



Certificate of Analysis

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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-34C

Lab ID: 1700621-02

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0363	02/13/2017	02/13/17 22:28	
Surrogate: 1,2-Dichlorobenzene-d4	76.2 %	31 - 106		B7B0363	02/13/2017	02/13/17 22:28	
Surrogate: 2-Fluorobiphenyl	88.0 %	28 - 122		B7B0363	02/13/2017	02/13/17 22:28	
Surrogate: 4-Terphenyl-d14	98.5 %	43 - 131		B7B0363	02/13/2017	02/13/17 22:28	
Surrogate: Nitrobenzene-d5	74.2 %	20 - 119		B7B0363	02/13/2017	02/13/17 22:28	



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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-34B

Lab ID: 1700621-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,1,1-Trichloroethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,1,2-Trichloroethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,1-Dichloroethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,1-Dichloroethene	30	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,1-Dichloropropene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,2,3-Trichloropropane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,2-Dibromoethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,2-Dichlorobenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,2-Dichloroethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,2-Dichloropropane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,3-Dichlorobenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,3-Dichloropropane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
1,4-Dichlorobenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
2,2-Dichloropropane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
2-Chlorotoluene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
4-Chlorotoluene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
4-Isopropyltoluene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Benzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Bromobenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Bromodichloromethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Bromoform	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Bromomethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Carbon tetrachloride	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Chlorobenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Chloroethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Chloroform	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Chloromethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Dibromochloromethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-34B

Lab ID: 1700621-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Dichlorodifluoromethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Ethylbenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Hexachlorobutadiene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Isopropylbenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
m,p-Xylene	ND	1.0	1	B7B0448	02/16/2017	02/16/17 15:20	
Methylene chloride	ND	1.0	1	B7B0448	02/16/2017	02/16/17 15:20	
n-Butylbenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
n-Propylbenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Naphthalene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
o-Xylene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
sec-Butylbenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Styrene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
tert-Butylbenzene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Tetrachloroethene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Toluene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Trichloroethene	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Trichlorofluoromethane	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Vinyl chloride	ND	0.50	1	B7B0448	02/16/2017	02/16/17 15:20	
Surrogate: 1,2-Dichloroethane-d4	138 %	51 - 157		B7B0448	02/16/2017	02/16/17 15:20	
Surrogate: 4-Bromofluorobenzene	108 %	61 - 123		B7B0448	02/16/2017	02/16/17 15:20	
Surrogate: Dibromofluoromethane	122 %	57 - 147		B7B0448	02/16/2017	02/16/17 15:20	
Surrogate: Toluene-d8	107 %	61 - 119		B7B0448	02/16/2017	02/16/17 15:20	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-34B

Lab ID: 1700621-03

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	8.2	2.0	1	B7B0382	02/14/2017	02/14/17 22:44	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>54.8 %</i>	<i>17 - 101</i>		B7B0382	02/14/2017	02/14/17 22:44	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>65.0 %</i>	<i>29 - 109</i>		B7B0382	02/14/2017	02/14/17 22:44	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>93.6 %</i>	<i>49 - 122</i>		B7B0382	02/14/2017	02/14/17 22:44	
<i>Surrogate: Nitrobenzene-d5</i>	<i>66.4 %</i>	<i>19 - 111</i>		B7B0382	02/14/2017	02/14/17 22:44	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-34A

Lab ID: 1700621-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,1,1-Trichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,1,2-Trichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,1-Dichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,1-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,1-Dichloropropene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,2,3-Trichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,2-Dibromoethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,2-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,2-Dichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,2-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,3-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,3-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
1,4-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
2,2-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
2-Chlorotoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
4-Chlorotoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
4-Isopropyltoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Benzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Bromobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Bromodichloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Bromoform	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Bromomethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Carbon tetrachloride	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Chlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Chloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Chloroform	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Chloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Dibromochloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-34A

Lab ID: 1700621-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Dichlorodifluoromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Ethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Hexachlorobutadiene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Isopropylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
m,p-Xylene	ND	1.0	1	B7B0376	02/14/2017	02/14/17 17:56	
Methylene chloride	ND	1.0	1	B7B0376	02/14/2017	02/14/17 17:56	
n-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
n-Propylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Naphthalene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
o-Xylene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
sec-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Styrene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
tert-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Tetrachloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Toluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Trichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Trichlorofluoromethane	1.4	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
Vinyl chloride	ND	0.50	1	B7B0376	02/14/2017	02/14/17 17:56	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>148 %</i>	<i>51 - 157</i>		B7B0376	02/14/2017	02/14/17 17:56	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>108 %</i>	<i>61 - 123</i>		B7B0376	02/14/2017	02/14/17 17:56	
<i>Surrogate: Dibromofluoromethane</i>	<i>127 %</i>	<i>57 - 147</i>		B7B0376	02/14/2017	02/14/17 17:56	
<i>Surrogate: Toluene-d8</i>	<i>109 %</i>	<i>61 - 119</i>		B7B0376	02/14/2017	02/14/17 17:56	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-34A

Lab ID: 1700621-04

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0363	02/13/2017	02/13/17 22:55	
Surrogate: 1,2-Dichlorobenzene-d4	87.2 %	31 - 106		B7B0363	02/13/2017	02/13/17 22:55	
Surrogate: 2-Fluorobiphenyl	99.2 %	28 - 122		B7B0363	02/13/2017	02/13/17 22:55	
Surrogate: 4-Terphenyl-d14	119 %	43 - 131		B7B0363	02/13/2017	02/13/17 22:55	
Surrogate: Nitrobenzene-d5	85.6 %	20 - 119		B7B0363	02/13/2017	02/13/17 22:55	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-30A

Lab ID: 1700621-05

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,1,1-Trichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,1,2-Trichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,1-Dichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,1-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,1-Dichloropropene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,2,3-Trichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,2-Dibromoethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,2-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,2-Dichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,2-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,3-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,3-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
1,4-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
2,2-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
2-Chlorotoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
4-Chlorotoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
4-Isopropyltoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Benzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Bromobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Bromodichloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Bromoform	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Bromomethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Carbon tetrachloride	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Chlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Chloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Chloroform	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Chloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Dibromochloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-30A

Lab ID: 1700621-05

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Dichlorodifluoromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Ethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Hexachlorobutadiene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Isopropylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
m,p-Xylene	ND	1.0	1	B7B0376	02/14/2017	02/14/17 18:19	
Methylene chloride	ND	1.0	1	B7B0376	02/14/2017	02/14/17 18:19	
n-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
n-Propylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Naphthalene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
o-Xylene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
sec-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Styrene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
tert-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Tetrachloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Toluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Trichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Trichlorofluoromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Vinyl chloride	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:19	
Surrogate: 1,2-Dichloroethane-d4	149 %	51 - 157		B7B0376	02/14/2017	02/14/17 18:19	
Surrogate: 4-Bromofluorobenzene	111 %	61 - 123		B7B0376	02/14/2017	02/14/17 18:19	
Surrogate: Dibromofluoromethane	128 %	57 - 147		B7B0376	02/14/2017	02/14/17 18:19	
Surrogate: Toluene-d8	110 %	61 - 119		B7B0376	02/14/2017	02/14/17 18:19	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-30A

Lab ID: 1700621-05

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0366	02/13/2017	02/14/17 13:26	
Surrogate: 1,2-Dichlorobenzene-d4	84.1 %	31 - 106		B7B0366	02/13/2017	02/14/17 13:26	
Surrogate: 2-Fluorobiphenyl	93.5 %	28 - 122		B7B0366	02/13/2017	02/14/17 13:26	
Surrogate: 4-Terphenyl-d14	91.6 %	43 - 131		B7B0366	02/13/2017	02/14/17 13:26	
Surrogate: Nitrobenzene-d5	85.8 %	20 - 119		B7B0366	02/13/2017	02/14/17 13:26	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-30B

Lab ID: 1700621-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,1,1-Trichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,1,2-Trichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,1-Dichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,1-Dichloroethene	18	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,1-Dichloropropene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,2,3-Trichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,2-Dibromoethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,2-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,2-Dichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,2-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,3-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,3-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
1,4-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
2,2-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
2-Chlorotoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
4-Chlorotoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
4-Isopropyltoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Benzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Bromobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Bromodichloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Bromoform	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Bromomethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Carbon tetrachloride	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Chlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Chloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Chloroform	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Chloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
cis-1,2-Dichloroethene	3.8	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Dibromochloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-30B

Lab ID: 1700621-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Dichlorodifluoromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Ethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Hexachlorobutadiene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Isopropylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
m,p-Xylene	ND	1.0	1	B7B0376	02/14/2017	02/14/17 18:42	
Methylene chloride	ND	1.0	1	B7B0376	02/14/2017	02/14/17 18:42	
n-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
n-Propylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Naphthalene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
o-Xylene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
sec-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Styrene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
tert-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Tetrachloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Toluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Trichloroethene	71	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Trichlorofluoromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
Vinyl chloride	ND	0.50	1	B7B0376	02/14/2017	02/14/17 18:42	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>145 %</i>	<i>51 - 157</i>		B7B0376	02/14/2017	02/14/17 18:42	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>107 %</i>	<i>61 - 123</i>		B7B0376	02/14/2017	02/14/17 18:42	
<i>Surrogate: Dibromofluoromethane</i>	<i>127 %</i>	<i>57 - 147</i>		B7B0376	02/14/2017	02/14/17 18:42	
<i>Surrogate: Toluene-d8</i>	<i>101 %</i>	<i>61 - 119</i>		B7B0376	02/14/2017	02/14/17 18:42	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-30B

Lab ID: 1700621-06

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0366	02/13/2017	02/14/17 13:53	
Surrogate: 1,2-Dichlorobenzene-d4	79.7 %	31 - 106		B7B0366	02/13/2017	02/14/17 13:53	
Surrogate: 2-Fluorobiphenyl	89.4 %	28 - 122		B7B0366	02/13/2017	02/14/17 13:53	
Surrogate: 4-Terphenyl-d14	90.9 %	43 - 131		B7B0366	02/13/2017	02/14/17 13:53	
Surrogate: Nitrobenzene-d5	81.7 %	20 - 119		B7B0366	02/13/2017	02/14/17 13:53	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-3000B

Lab ID: 1700621-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,1,1-Trichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,1,2-Trichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,1-Dichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,1-Dichloroethene	18	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,1-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,2,3-Trichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,2-Dibromoethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,2-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,2-Dichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,3-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,3-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
1,4-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
2,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
2-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
4-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
4-Isopropyltoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Benzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Bromobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Bromodichloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Bromoform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Bromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Carbon tetrachloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Chlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Chloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Chloroform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Chloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
cis-1,2-Dichloroethene	4.0	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Dibromochloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-3000B

Lab ID: 1700621-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Dichlorodifluoromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Ethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Hexachlorobutadiene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Isopropylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
m,p-Xylene	ND	1.0	1	B7B0418	02/15/2017	02/15/17 16:42	
Methylene chloride	ND	1.0	1	B7B0418	02/15/2017	02/15/17 16:42	
n-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
n-Propylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Naphthalene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
o-Xylene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
sec-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Styrene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
tert-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Tetrachloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Toluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Trichloroethene	72	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Trichlorofluoromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
Vinyl chloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 16:42	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>146 %</i>	<i>51 - 157</i>		B7B0418	02/15/2017	02/15/17 16:42	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>103 %</i>	<i>61 - 123</i>		B7B0418	02/15/2017	02/15/17 16:42	
<i>Surrogate: Dibromofluoromethane</i>	<i>125 %</i>	<i>57 - 147</i>		B7B0418	02/15/2017	02/15/17 16:42	
<i>Surrogate: Toluene-d8</i>	<i>102 %</i>	<i>61 - 119</i>		B7B0418	02/15/2017	02/15/17 16:42	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-3000B

Lab ID: 1700621-07

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0366	02/13/2017	02/14/17 14:20	
Surrogate: 1,2-Dichlorobenzene-d4	88.3 %	31 - 106		B7B0366	02/13/2017	02/14/17 14:20	
Surrogate: 2-Fluorobiphenyl	98.3 %	28 - 122		B7B0366	02/13/2017	02/14/17 14:20	
Surrogate: 4-Terphenyl-d14	102 %	43 - 131		B7B0366	02/13/2017	02/14/17 14:20	
Surrogate: Nitrobenzene-d5	91.0 %	20 - 119		B7B0366	02/13/2017	02/14/17 14:20	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-26C

Lab ID: 1700621-08

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,1,1-Trichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,1,2-Trichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,1-Dichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,1-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,1-Dichloropropene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,2,3-Trichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,2-Dibromoethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,2-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,2-Dichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,2-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,3-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,3-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
1,4-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
2,2-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
2-Chlorotoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
4-Chlorotoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
4-Isopropyltoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Benzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Bromobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Bromodichloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Bromoform	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Bromomethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Carbon tetrachloride	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Chlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Chloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Chloroform	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Chloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Dibromochloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-26C

Lab ID: 1700621-08

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Dichlorodifluoromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Ethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Hexachlorobutadiene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Isopropylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
m,p-Xylene	ND	1.0	1	B7B0376	02/14/2017	02/14/17 19:29	
Methylene chloride	ND	1.0	1	B7B0376	02/14/2017	02/14/17 19:29	
n-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
n-Propylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Naphthalene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
o-Xylene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
sec-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Styrene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
tert-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Tetrachloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Toluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Trichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Trichlorofluoromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Vinyl chloride	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:29	
Surrogate: 1,2-Dichloroethane-d4	150 %	51 - 157		B7B0376	02/14/2017	02/14/17 19:29	
Surrogate: 4-Bromofluorobenzene	107 %	61 - 123		B7B0376	02/14/2017	02/14/17 19:29	
Surrogate: Dibromofluoromethane	128 %	57 - 147		B7B0376	02/14/2017	02/14/17 19:29	
Surrogate: Toluene-d8	108 %	61 - 119		B7B0376	02/14/2017	02/14/17 19:29	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-26C

Lab ID: 1700621-08

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0366	02/13/2017	02/14/17 14:47	
Surrogate: 1,2-Dichlorobenzene-d4	87.4 %	31 - 106		B7B0366	02/13/2017	02/14/17 14:47	
Surrogate: 2-Fluorobiphenyl	99.4 %	28 - 122		B7B0366	02/13/2017	02/14/17 14:47	
Surrogate: 4-Terphenyl-d14	95.2 %	43 - 131		B7B0366	02/13/2017	02/14/17 14:47	
Surrogate: Nitrobenzene-d5	91.3 %	20 - 119		B7B0366	02/13/2017	02/14/17 14:47	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-28

Lab ID: 1700621-09

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,1,1-Trichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,1,2-Trichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,1-Dichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,1-Dichloroethene	0.76	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,1-Dichloropropene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,2,3-Trichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,2-Dibromoethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,2-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,2-Dichloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,2-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,3-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,3-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
1,4-Dichlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
2,2-Dichloropropane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
2-Chlorotoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
4-Chlorotoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
4-Isopropyltoluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Benzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Bromobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Bromodichloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Bromoform	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Bromomethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Carbon tetrachloride	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Chlorobenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Chloroethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Chloroform	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Chloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Dibromochloromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-28

Lab ID: 1700621-09

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Dichlorodifluoromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Ethylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Hexachlorobutadiene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Isopropylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
m,p-Xylene	ND	1.0	1	B7B0376	02/14/2017	02/14/17 19:06	
Methylene chloride	ND	1.0	1	B7B0376	02/14/2017	02/14/17 19:06	
n-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
n-Propylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Naphthalene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
o-Xylene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
sec-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Styrene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
tert-Butylbenzene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Tetrachloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Toluene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Trichloroethene	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Trichlorofluoromethane	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Vinyl chloride	ND	0.50	1	B7B0376	02/14/2017	02/14/17 19:06	
Surrogate: 1,2-Dichloroethane-d4	147 %	51 - 157		B7B0376	02/14/2017	02/14/17 19:06	
Surrogate: 4-Bromofluorobenzene	106 %	61 - 123		B7B0376	02/14/2017	02/14/17 19:06	
Surrogate: Dibromofluoromethane	129 %	57 - 147		B7B0376	02/14/2017	02/14/17 19:06	
Surrogate: Toluene-d8	109 %	61 - 119		B7B0376	02/14/2017	02/14/17 19:06	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-28

Lab ID: 1700621-09

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0366	02/13/2017	02/14/17 15:14	
Surrogate: 1,2-Dichlorobenzene-d4	84.9 %	31 - 106		B7B0366	02/13/2017	02/14/17 15:14	
Surrogate: 2-Fluorobiphenyl	95.5 %	28 - 122		B7B0366	02/13/2017	02/14/17 15:14	
Surrogate: 4-Terphenyl-d14	107 %	43 - 131		B7B0366	02/13/2017	02/14/17 15:14	
Surrogate: Nitrobenzene-d5	87.8 %	20 - 119		B7B0366	02/13/2017	02/14/17 15:14	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-40

Lab ID: 1700621-10

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,1,1-Trichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,1,2-Trichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,1-Dichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,1-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,1-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,2,3-Trichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,2-Dibromoethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,2-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,2-Dichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,3-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,3-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
1,4-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
2,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
2-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
4-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
4-Isopropyltoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Benzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Bromobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Bromodichloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Bromoform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Bromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Carbon tetrachloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Chlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Chloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Chloroform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Chloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Dibromochloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-40

Lab ID: 1700621-10

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Dichlorodifluoromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Ethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Hexachlorobutadiene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Isopropylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
m,p-Xylene	ND	1.0	1	B7B0418	02/15/2017	02/15/17 13:59	
Methylene chloride	ND	1.0	1	B7B0418	02/15/2017	02/15/17 13:59	
n-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
n-Propylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Naphthalene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
o-Xylene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
sec-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Styrene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
tert-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Tetrachloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Toluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Trichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Trichlorofluoromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Vinyl chloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:59	
Surrogate: 1,2-Dichloroethane-d4	139 %	51 - 157		B7B0418	02/15/2017	02/15/17 13:59	
Surrogate: 4-Bromofluorobenzene	105 %	61 - 123		B7B0418	02/15/2017	02/15/17 13:59	
Surrogate: Dibromofluoromethane	124 %	57 - 147		B7B0418	02/15/2017	02/15/17 13:59	
Surrogate: Toluene-d8	106 %	61 - 119		B7B0418	02/15/2017	02/15/17 13:59	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-40

Lab ID: 1700621-10

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0366	02/13/2017	02/14/17 15:42	
Surrogate: 1,2-Dichlorobenzene-d4	77.5 %	31 - 106		B7B0366	02/13/2017	02/14/17 15:42	
Surrogate: 2-Fluorobiphenyl	88.1 %	28 - 122		B7B0366	02/13/2017	02/14/17 15:42	
Surrogate: 4-Terphenyl-d14	101 %	43 - 131		B7B0366	02/13/2017	02/14/17 15:42	
Surrogate: Nitrobenzene-d5	81.5 %	20 - 119		B7B0366	02/13/2017	02/14/17 15:42	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-24

Lab ID: 1700621-11

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,1,1-Trichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,1,2-Trichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,1-Dichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,1-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,1-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,2,3-Trichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,2-Dibromoethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,2-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,2-Dichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,3-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,3-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
1,4-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
2,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
2-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
4-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
4-Isopropyltoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Benzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Bromobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Bromodichloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Bromoform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Bromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Carbon tetrachloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Chlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Chloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Chloroform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Chloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Dibromochloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-24

Lab ID: 1700621-11

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Dichlorodifluoromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Ethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Hexachlorobutadiene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Isopropylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
m,p-Xylene	ND	1.0	1	B7B0418	02/15/2017	02/15/17 13:36	
Methylene chloride	ND	1.0	1	B7B0418	02/15/2017	02/15/17 13:36	
n-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
n-Propylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Naphthalene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
o-Xylene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
sec-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Styrene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
tert-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Tetrachloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Toluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Trichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Trichlorofluoromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Vinyl chloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 13:36	
Surrogate: 1,2-Dichloroethane-d4	140 %	51 - 157		B7B0418	02/15/2017	02/15/17 13:36	
Surrogate: 4-Bromofluorobenzene	108 %	61 - 123		B7B0418	02/15/2017	02/15/17 13:36	
Surrogate: Dibromofluoromethane	124 %	57 - 147		B7B0418	02/15/2017	02/15/17 13:36	
Surrogate: Toluene-d8	110 %	61 - 119		B7B0418	02/15/2017	02/15/17 13:36	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-24

Lab ID: 1700621-11

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0366	02/13/2017	02/14/17 16:09	
Surrogate: 1,2-Dichlorobenzene-d4	88.4 %	31 - 106		B7B0366	02/13/2017	02/14/17 16:09	
Surrogate: 2-Fluorobiphenyl	99.9 %	28 - 122		B7B0366	02/13/2017	02/14/17 16:09	
Surrogate: 4-Terphenyl-d14	97.4 %	43 - 131		B7B0366	02/13/2017	02/14/17 16:09	
Surrogate: Nitrobenzene-d5	90.5 %	20 - 119		B7B0366	02/13/2017	02/14/17 16:09	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-27

Lab ID: 1700621-12

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,1,1-Trichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,1,2-Trichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,1-Dichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,1-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,1-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,2,3-Trichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,2-Dibromoethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,2-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,2-Dichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,3-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,3-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
1,4-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
2,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
2-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
4-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
4-Isopropyltoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Benzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Bromobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Bromodichloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Bromoform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Bromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Carbon tetrachloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Chlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Chloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Chloroform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Chloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Dibromochloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-27

Lab ID: 1700621-12

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Dichlorodifluoromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Ethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Hexachlorobutadiene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Isopropylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
m,p-Xylene	ND	1.0	1	B7B0418	02/15/2017	02/15/17 14:22	
Methylene chloride	ND	1.0	1	B7B0418	02/15/2017	02/15/17 14:22	
n-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
n-Propylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Naphthalene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
o-Xylene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
sec-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Styrene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
tert-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Tetrachloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Toluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Trichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Trichlorofluoromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Vinyl chloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 14:22	
Surrogate: 1,2-Dichloroethane-d4	142 %	51 - 157		B7B0418	02/15/2017	02/15/17 14:22	
Surrogate: 4-Bromofluorobenzene	106 %	61 - 123		B7B0418	02/15/2017	02/15/17 14:22	
Surrogate: Dibromofluoromethane	122 %	57 - 147		B7B0418	02/15/2017	02/15/17 14:22	
Surrogate: Toluene-d8	106 %	61 - 119		B7B0418	02/15/2017	02/15/17 14:22	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-27

Lab ID: 1700621-12

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0366	02/13/2017	02/14/17 16:36	
Surrogate: 1,2-Dichlorobenzene-d4	90.8 %	31 - 106		B7B0366	02/13/2017	02/14/17 16:36	
Surrogate: 2-Fluorobiphenyl	102 %	28 - 122		B7B0366	02/13/2017	02/14/17 16:36	
Surrogate: 4-Terphenyl-d14	106 %	43 - 131		B7B0366	02/13/2017	02/14/17 16:36	
Surrogate: Nitrobenzene-d5	92.5 %	20 - 119		B7B0366	02/13/2017	02/14/17 16:36	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-15

Lab ID: 1700621-13

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,1,1-Trichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,1,2-Trichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,1-Dichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,1-Dichloroethene	4.2	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,1-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,2,3-Trichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,2-Dibromoethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,2-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,2-Dichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,3-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,3-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
1,4-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
2,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
2-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
4-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
4-Isopropyltoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Benzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Bromobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Bromodichloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Bromoform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Bromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Carbon tetrachloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Chlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Chloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Chloroform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Chloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Dibromochloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-15

Lab ID: 1700621-13

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Dichlorodifluoromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Ethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Hexachlorobutadiene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Isopropylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
m,p-Xylene	ND	1.0	1	B7B0418	02/15/2017	02/15/17 15:09	
Methylene chloride	ND	1.0	1	B7B0418	02/15/2017	02/15/17 15:09	
n-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
n-Propylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Naphthalene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
o-Xylene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
sec-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Styrene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
tert-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Tetrachloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Toluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Trichloroethene	0.55	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Trichlorofluoromethane	2.0	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
Vinyl chloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 15:09	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>144 %</i>	<i>51 - 157</i>		B7B0418	02/15/2017	<i>02/15/17 15:09</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>107 %</i>	<i>61 - 123</i>		B7B0418	02/15/2017	<i>02/15/17 15:09</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>128 %</i>	<i>57 - 147</i>		B7B0418	02/15/2017	<i>02/15/17 15:09</i>	
<i>Surrogate: Toluene-d8</i>	<i>108 %</i>	<i>61 - 119</i>		B7B0418	02/15/2017	<i>02/15/17 15:09</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-29

Lab ID: 1700621-14

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,1,1-Trichloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,1,2-Trichloroethane	0.90	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,1-Dichloroethane	2.9	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,1-Dichloroethene	320	5.0	10	B7B0418	02/15/2017	02/15/17 18:14	
1,1-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,2,3-Trichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,2-Dibromoethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,2-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,2-Dichloroethane	0.65	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,3-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,3-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
1,4-Dichlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
2,2-Dichloropropane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
2-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
4-Chlorotoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
4-Isopropyltoluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Benzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Bromobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Bromodichloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Bromoform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Bromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Carbon tetrachloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Chlorobenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Chloroethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Chloroform	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Chloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Dibromochloromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-29

Lab ID: 1700621-14

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Dichlorodifluoromethane	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Ethylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Hexachlorobutadiene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Isopropylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
m,p-Xylene	ND	1.0	1	B7B0418	02/15/2017	02/15/17 17:51	
Methylene chloride	ND	1.0	1	B7B0418	02/15/2017	02/15/17 17:51	
n-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
n-Propylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Naphthalene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
o-Xylene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
sec-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Styrene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
tert-Butylbenzene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Tetrachloroethene	0.70	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Toluene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Trichloroethene	1.8	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Trichlorofluoromethane	1.1	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	
Vinyl chloride	ND	0.50	1	B7B0418	02/15/2017	02/15/17 17:51	

Surrogate: 1,2-Dichloroethane-d4	147 %	51 - 157	B7B0418	02/15/2017	02/15/17 18:14
Surrogate: 1,2-Dichloroethane-d4	148 %	51 - 157	B7B0418	02/15/2017	02/15/17 17:51
Surrogate: 4-Bromofluorobenzene	107 %	61 - 123	B7B0418	02/15/2017	02/15/17 18:14
Surrogate: 4-Bromofluorobenzene	105 %	61 - 123	B7B0418	02/15/2017	02/15/17 17:51
Surrogate: Dibromofluoromethane	128 %	57 - 147	B7B0418	02/15/2017	02/15/17 17:51
Surrogate: Dibromofluoromethane	127 %	57 - 147	B7B0418	02/15/2017	02/15/17 18:14
Surrogate: Toluene-d8	110 %	61 - 119	B7B0418	02/15/2017	02/15/17 18:14
Surrogate: Toluene-d8	105 %	61 - 119	B7B0418	02/15/2017	02/15/17 17:51



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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Client Sample ID MW-29

Lab ID: 1700621-14

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	110	2.0	1	B7B0433	02/15/2017	02/17/17 19:16	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>42.8 %</i>	<i>17 - 101</i>		B7B0433	02/15/2017	<i>02/17/17 19:16</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>50.4 %</i>	<i>29 - 109</i>		B7B0433	02/15/2017	<i>02/17/17 19:16</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>110 %</i>	<i>49 - 122</i>		B7B0433	02/15/2017	<i>02/17/17 19:16</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>45.0 %</i>	<i>19 - 111</i>		B7B0433	02/15/2017	<i>02/17/17 19:16</i>	



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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

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Reported : 02/20/2017

QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

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

Batch B7B0376 - MSVOA_LL_W

Blank (B7B0376-BLK1)

Prepared: 2/14/2017 Analyzed: 2/14/2017

1,1,1,2-Tetrachloroethane	ND	0.50	0.18			NR			
1,1,1-Trichloroethane	ND	0.50	0.47			NR			
1,1,2,2-Tetrachloroethane	ND	0.50	0.17			NR			
1,1,2-Trichloroethane	ND	0.50	0.12			NR			
1,1-Dichloroethane	ND	0.50	0.16			NR			
1,1-Dichloroethene	ND	0.50	0.18			NR			
1,1-Dichloropropene	ND	0.50	0.30			NR			
1,2,3-Trichloropropane	ND	0.50	0.16			NR			
1,2,3-Trichlorobenzene	ND	0.50	0.20			NR			
1,2,4-Trichlorobenzene	ND	0.50	0.26			NR			
1,2,4-Trimethylbenzene	ND	0.50	0.23			NR			
1,2-Dibromo-3-chloropropane	ND	0.50	0.26			NR			
1,2-Dibromoethane	ND	0.50	0.15			NR			
1,2-Dichlorobenzene	ND	0.50	0.21			NR			
1,2-Dichloroethane	ND	0.50	0.15			NR			
1,2-Dichloropropane	ND	0.50	0.35			NR			
1,3,5-Trimethylbenzene	ND	0.50	0.19			NR			
1,3-Dichlorobenzene	ND	0.50	0.23			NR			
1,3-Dichloropropane	ND	0.50	0.15			NR			
1,4-Dichlorobenzene	ND	0.50	0.23			NR			
2,2-Dichloropropane	ND	0.50	0.35			NR			
2-Chlorotoluene	ND	0.50	0.25			NR			
4-Chlorotoluene	ND	0.50	0.24			NR			
4-Isopropyltoluene	ND	0.50	0.24			NR			
Benzene	ND	0.50	0.19			NR			
Bromobenzene	ND	0.50	0.19			NR			
Bromodichloromethane	ND	0.50	0.17			NR			
Bromoform	ND	0.50	0.10			NR			
Bromomethane	ND	0.50	0.28			NR			
Carbon tetrachloride	ND	0.50	0.21			NR			
Chlorobenzene	ND	0.50	0.22			NR			
Chloroethane	ND	0.50	0.17			NR			
Chloroform	ND	0.50	0.19			NR			
Chloromethane	ND	0.50	0.23			NR			
cis-1,2-Dichloroethene	ND	0.50	0.19			NR			
cis-1,3-Dichloropropene	ND	0.50	0.20			NR			
Dibromochloromethane	ND	0.50	0.13			NR			
Dibromomethane	ND	0.50	0.14			NR			
Dichlorodifluoromethane	ND	0.50	0.31			NR			



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

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

Batch B7B0376 - MSVOA_LL_W (continued)

Blank (B7B0376-BLK1) - Continued

Prepared: 2/14/2017 Analyzed: 2/14/2017

Ethylbenzene	ND	0.50	0.23			NR			
Hexachlorobutadiene	ND	0.50	0.34			NR			
Isopropylbenzene	ND	0.50	0.23			NR			
m,p-Xylene	ND	1.0	0.45			NR			
Methylene chloride	ND	1.0	0.30			NR			
n-Butylbenzene	ND	0.50	0.31			NR			
n-Propylbenzene	ND	0.50	0.24			NR			
Naphthalene	ND	0.50	0.21			NR			
o-Xylene	ND	0.50	0.20			NR			
sec-Butylbenzene	ND	0.50	0.25			NR			
Styrene	ND	0.50	0.20			NR			
tert-Butylbenzene	ND	0.50	0.22			NR			
Tetrachloroethene	ND	0.50	0.24			NR			
Toluene	ND	0.50	0.20			NR			
trans-1,2-Dichloroethene	ND	0.50	0.21			NR			
Trichloroethene	ND	0.50	0.47			NR			
Trichlorofluoromethane	ND	0.50	0.23			NR			
Vinyl chloride	ND	0.50	0.19			NR			
Surrogate: 1,2-Dichloroethane-d4	34.65			25.0000		139	51 - 157		
Surrogate: 4-Bromofluorobenzene	27.16			25.0000		109	61 - 123		
Surrogate: Dibromofluoromethane	29.88			25.0000		120	57 - 147		
Surrogate: Toluene-d8	26.57			25.0000		106	61 - 119		

LCS (B7B0376-BS1)

Prepared: 2/14/2017 Analyzed: 2/14/2017

1,1,1,2-Tetrachloroethane	22.0800	0.50	0.18	20.0000		110	76 - 132		
1,1,1-Trichloroethane	23.5200	0.50	0.47	20.0000		118	72 - 144		
1,1,2,2-Tetrachloroethane	21.2800	0.50	0.17	20.0000		106	70 - 120		
1,1,2-Trichloroethane	22.1800	0.50	0.12	20.0000		111	75 - 120		
1,1-Dichloroethane	22.9500	0.50	0.16	20.0000		115	65 - 127		
1,1-Dichloroethene	23.2600	0.50	0.18	20.0000		116	63 - 142		
1,1-Dichloropropene	21.3000	0.50	0.30	20.0000		106	78 - 137		
1,2,3-Trichloropropane	21.6400	0.50	0.16	20.0000		108	73 - 118		
1,2,3-Trichlorobenzene	21.0000	0.50	0.20	20.0000		105	53 - 164		
1,2,4-Trichlorobenzene	21.0100	0.50	0.26	20.0000		105	58 - 144		
1,2,4-Trimethylbenzene	21.7100	0.50	0.23	20.0000		109	75 - 140		
1,2-Dibromo-3-chloropropane	20.8000	0.50	0.26	20.0000		104	61 - 131		
1,2-Dibromoethane	21.0800	0.50	0.15	20.0000		105	74 - 125		
1,2-Dichlorobenzene	20.7900	0.50	0.21	20.0000		104	78 - 122		
1,2-Dichloroethane	23.9100	0.50	0.15	20.0000		120	70 - 126		
1,2-Dichloropropane	20.3700	0.50	0.35	20.0000		102	69 - 120		
1,3,5-Trimethylbenzene	21.6500	0.50	0.19	20.0000		108	73 - 145		



Certificate of Analysis

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San Diego , CA 92122

Project Number : Raytheon Main, 532.30

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Reported : 02/20/2017

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

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

Batch B7B0376 - MSVOA_LL_W (continued)

LCS (B7B0376-BS1) - Continued

Prepared: 2/14/2017 Analyzed: 2/14/2017

1,3-Dichlorobenzene	20.8900	0.50	0.23	20.0000		104	76 - 126		
1,3-Dichloropropane	20.9100	0.50	0.15	20.0000		105	76 - 117		
1,4-Dichlorobenzene	21.3800	0.50	0.23	20.0000		107	77 - 120		
2,2-Dichloropropane	22.8600	0.50	0.35	20.0000		114	47 - 169		
2-Chlorotoluene	20.9300	0.50	0.25	20.0000		105	75 - 135		
4-Chlorotoluene	21.1500	0.50	0.24	20.0000		106	70 - 133		
4-Isopropyltoluene	22.3900	0.50	0.24	20.0000		112	72 - 153		
Benzene	40.6800	0.50	0.19	40.0000		102	73 - 123		
Bromobenzene	20.6800	0.50	0.19	20.0000		103	75 - 121		
Bromodichloromethane	22.9400	0.50	0.17	20.0000		115	73 - 124		
Bromoform	20.8400	0.50	0.10	20.0000		104	70 - 135		
Bromomethane	33.2900	0.50	0.28	20.0000		166	10 - 166		L4
Carbon tetrachloride	24.9300	0.50	0.21	20.0000		125	65 - 171		
Chlorobenzene	19.7800	0.50	0.22	20.0000		98.9	80 - 121		
Chloroethane	21.0900	0.50	0.17	20.0000		105	55 - 143		
Chloroform	23.9400	0.50	0.19	20.0000		120	65 - 130		
Chloromethane	20.5600	0.50	0.23	20.0000		103	21 - 141		
cis-1,2-Dichloroethene	20.4900	0.50	0.19	20.0000		102	64 - 126		
cis-1,3-Dichloropropene	22.1800	0.50	0.20	20.0000		111	70 - 131		
Dibromochloromethane	21.2100	0.50	0.13	20.0000		106	74 - 125		
Dibromomethane	22.1800	0.50	0.14	20.0000		111	74 - 116		
Dichlorodifluoromethane	20.0000	0.50	0.31	20.0000		100	40 - 186		
Ethylbenzene	40.5100	0.50	0.23	40.0000		101	77 - 130		
Hexachlorobutadiene	21.4300	0.50	0.34	20.0000		107	52 - 176		
Isopropylbenzene	22.5000	0.50	0.23	20.0000		112	77 - 144		
m,p-Xylene	42.7000	1.0	0.45	40.0000		107	84 - 136		
Methylene chloride	19.9200	1.0	0.30	20.0000		99.6	72 - 150		
n-Butylbenzene	22.5000	0.50	0.31	20.0000		112	73 - 154		
n-Propylbenzene	21.5100	0.50	0.24	20.0000		108	77 - 145		
Naphthalene	20.9100	0.50	0.21	20.0000		105	55 - 137		
o-Xylene	41.7300	0.50	0.20	40.0000		104	79 - 135		
sec-Butylbenzene	21.8500	0.50	0.25	20.0000		109	73 - 157		
Styrene	20.7500	0.50	0.20	20.0000		104	78 - 125		
tert-Butylbenzene	21.2300	0.50	0.22	20.0000		106	78 - 149		
Tetrachloroethene	19.7400	0.50	0.24	20.0000		98.7	74 - 136		
Toluene	41.6300	0.50	0.20	40.0000		104	78 - 124		
trans-1,2-Dichloroethene	20.5200	0.50	0.21	20.0000		103	66 - 131		
Trichloroethene	19.6700	0.50	0.47	20.0000		98.4	78 - 128		
Trichlorofluoromethane	27.2700	0.50	0.23	20.0000		136	60 - 170		
Vinyl chloride	19.9600	0.50	0.19	20.0000		99.8	55 - 148		
Surrogate: 1,2-Dichloroethane-d4	34.84			25.0000		139	51 - 157		



Certificate of Analysis

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Reported : 02/20/2017

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 B7B0376 - MSVOA_LL_W (continued)

LCS (B7B0376-BS1) - Continued

Prepared: 2/14/2017 Analyzed: 2/14/2017

Surrogate: 4-Bromofluorobenzene	26.06		25.0000		104	61 - 123			
Surrogate: Dibromofluoromethane	29.26		25.0000		117	57 - 147			
Surrogate: Toluene-d8	27.12		25.0000		108	61 - 119			

LCS Dup (B7B0376-BSD1)

Prepared: 2/14/2017 Analyzed: 2/14/2017

1,1,1,2-Tetrachloroethane	21.6700	0.50	0.18	20.0000	108	76 - 132	1.87	20	
1,1,1-Trichloroethane	23.9100	0.50	0.47	20.0000	120	72 - 144	1.64	20	
1,1,2,2-Tetrachloroethane	21.4700	0.50	0.17	20.0000	107	70 - 120	0.889	20	
1,1,2-Trichloroethane	21.6200	0.50	0.12	20.0000	108	75 - 120	2.56	20	
1,1-Dichloroethane	23.4500	0.50	0.16	20.0000	117	65 - 127	2.16	20	
1,1-Dichloroethene	23.3500	0.50	0.18	20.0000	117	63 - 142	0.386	20	
1,1-Dichloropropene	20.8400	0.50	0.30	20.0000	104	78 - 137	2.18	20	
1,2,3-Trichloropropane	21.6100	0.50	0.16	20.0000	108	73 - 118	0.139	20	
1,2,3-Trichlorobenzene	20.8100	0.50	0.20	20.0000	104	53 - 164	0.909	20	
1,2,4-Trichlorobenzene	20.8500	0.50	0.26	20.0000	104	58 - 144	0.764	20	
1,2,4-Trimethylbenzene	21.8100	0.50	0.23	20.0000	109	75 - 140	0.460	20	
1,2-Dibromo-3-chloropropane	19.7100	0.50	0.26	20.0000	98.6	61 - 131	5.38	20	
1,2-Dibromoethane	20.9900	0.50	0.15	20.0000	105	74 - 125	0.428	20	
1,2-Dichlorobenzene	21.0600	0.50	0.21	20.0000	105	78 - 122	1.29	20	
1,2-Dichloroethane	23.5300	0.50	0.15	20.0000	118	70 - 126	1.60	20	
1,2-Dichloropropane	19.8500	0.50	0.35	20.0000	99.2	69 - 120	2.59	20	
1,3,5-Trimethylbenzene	22.1500	0.50	0.19	20.0000	111	73 - 145	2.28	20	
1,3-Dichlorobenzene	21.0400	0.50	0.23	20.0000	105	76 - 126	0.715	20	
1,3-Dichloropropane	20.7000	0.50	0.15	20.0000	104	76 - 117	1.01	20	
1,4-Dichlorobenzene	21.2900	0.50	0.23	20.0000	106	77 - 120	0.422	20	
2,2-Dichloropropane	22.2200	0.50	0.35	20.0000	111	47 - 169	2.84	20	
2-Chlorotoluene	21.2800	0.50	0.25	20.0000	106	75 - 135	1.66	20	
4-Chlorotoluene	21.2900	0.50	0.24	20.0000	106	70 - 133	0.660	20	
4-Isopropyltoluene	22.4900	0.50	0.24	20.0000	112	72 - 153	0.446	20	
Benzene	40.4400	0.50	0.19	40.0000	101	73 - 123	0.592	20	
Bromobenzene	20.5600	0.50	0.19	20.0000	103	75 - 121	0.582	20	
Bromodichloromethane	22.4100	0.50	0.17	20.0000	112	73 - 124	2.34	20	
Bromoform	20.8000	0.50	0.10	20.0000	104	70 - 135	0.192	20	
Bromomethane	33.5100	0.50	0.28	20.0000	168	10 - 166	0.659	20	L4
Carbon tetrachloride	24.4500	0.50	0.21	20.0000	122	65 - 171	1.94	20	
Chlorobenzene	19.6700	0.50	0.22	20.0000	98.4	80 - 121	0.558	20	
Chloroethane	20.8400	0.50	0.17	20.0000	104	55 - 143	1.19	20	
Chloroform	23.8200	0.50	0.19	20.0000	119	65 - 130	0.503	20	
Chloromethane	20.7700	0.50	0.23	20.0000	104	21 - 141	1.02	20	
cis-1,2-Dichloroethene	21.4800	0.50	0.19	20.0000	107	64 - 126	4.72	20	
cis-1,3-Dichloropropene	22.4900	0.50	0.20	20.0000	112	70 - 131	1.39	20	
Dibromochloromethane	21.3000	0.50	0.13	20.0000	106	74 - 125	0.423	20	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

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

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

Batch B7B0376 - MSVOA_LL_W (continued)

LCS Dup (B7B0376-BSD1) - Continued

Prepared: 2/14/2017 Analyzed: 2/14/2017

Dibromomethane	21.7300	0.50	0.14	20.0000		109	74 - 116	2.05	20
Dichlorodifluoromethane	19.9300	0.50	0.31	20.0000		99.6	40 - 186	0.351	20
Ethylbenzene	41.0300	0.50	0.23	40.0000		103	77 - 130	1.28	20
Hexachlorobutadiene	21.5900	0.50	0.34	20.0000		108	52 - 176	0.744	20
Isopropylbenzene	22.7700	0.50	0.23	20.0000		114	77 - 144	1.19	20
m,p-Xylene	43.1100	1.0	0.45	40.0000		108	84 - 136	0.956	20
Methylene chloride	21.1100	1.0	0.30	20.0000		106	72 - 150	5.80	20
n-Butylbenzene	22.8100	0.50	0.31	20.0000		114	73 - 154	1.37	20
n-Propylbenzene	21.7000	0.50	0.24	20.0000		108	77 - 145	0.879	20
Naphthalene	20.9400	0.50	0.21	20.0000		105	55 - 137	0.143	20
o-Xylene	42.2300	0.50	0.20	40.0000		106	79 - 135	1.19	20
sec-Butylbenzene	22.0400	0.50	0.25	20.0000		110	73 - 157	0.866	20
Styrene	20.8800	0.50	0.20	20.0000		104	78 - 125	0.625	20
tert-Butylbenzene	21.2900	0.50	0.22	20.0000		106	78 - 149	0.282	20
Tetrachloroethene	19.5400	0.50	0.24	20.0000		97.7	74 - 136	1.02	20
Toluene	41.8300	0.50	0.20	40.0000		105	78 - 124	0.479	20
trans-1,2-Dichloroethene	20.7600	0.50	0.21	20.0000		104	66 - 131	1.16	20
Trichloroethene	19.4500	0.50	0.47	20.0000		97.2	78 - 128	1.12	20
Trichlorofluoromethane	27.0400	0.50	0.23	20.0000		135	60 - 170	0.847	20
Vinyl chloride	20.1300	0.50	0.19	20.0000		101	55 - 148	0.848	20
Surrogate: 1,2-Dichloroethane-d4	34.29			25.0000		137	51 - 157		
Surrogate: 4-Bromofluorobenzene	26.37			25.0000		105	61 - 123		
Surrogate: Dibromofluoromethane	30.13			25.0000		121	57 - 147		
Surrogate: Toluene-d8	27.12			25.0000		108	61 - 119		



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Project Number : Raytheon Main, 532.30

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Volatile Organic Compounds by EPA 8260B - Quality Control

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

Batch B7B0418 - MSVOA_LL_W

Blank (B7B0418-BLK1)

Prepared: 2/15/2017 Analyzed: 2/15/2017

1,1,1,2-Tetrachloroethane	ND	0.50	0.18			NR			
1,1,1-Trichloroethane	ND	0.50	0.47			NR			
1,1,2,2-Tetrachloroethane	ND	0.50	0.17			NR			
1,1,2-Trichloroethane	ND	0.50	0.12			NR			
1,1-Dichloroethane	ND	0.50	0.16			NR			
1,1-Dichloroethene	ND	0.50	0.18			NR			
1,1-Dichloropropene	ND	0.50	0.30			NR			
1,2,3-Trichloropropane	ND	0.50	0.16			NR			
1,2,3-Trichlorobenzene	ND	0.50	0.20			NR			
1,2,4-Trichlorobenzene	ND	0.50	0.26			NR			
1,2,4-Trimethylbenzene	ND	0.50	0.23			NR			
1,2-Dibromo-3-chloropropane	ND	0.50	0.26			NR			
1,2-Dibromoethane	ND	0.50	0.15			NR			
1,2-Dichlorobenzene	ND	0.50	0.21			NR			
1,2-Dichloroethane	ND	0.50	0.15			NR			
1,2-Dichloropropane	ND	0.50	0.35			NR			
1,3,5-Trimethylbenzene	ND	0.50	0.19			NR			
1,3-Dichlorobenzene	ND	0.50	0.23			NR			
1,3-Dichloropropane	ND	0.50	0.15			NR			
1,4-Dichlorobenzene	ND	0.50	0.23			NR			
2,2-Dichloropropane	ND	0.50	0.35			NR			
2-Chlorotoluene	ND	0.50	0.25			NR			
4-Chlorotoluene	ND	0.50	0.24			NR			
4-Isopropyltoluene	ND	0.50	0.24			NR			
Benzene	ND	0.50	0.19			NR			
Bromobenzene	ND	0.50	0.19			NR			
Bromodichloromethane	ND	0.50	0.17			NR			
Bromoform	ND	0.50	0.10			NR			
Bromomethane	ND	0.50	0.28			NR			
Carbon tetrachloride	ND	0.50	0.21			NR			
Chlorobenzene	ND	0.50	0.22			NR			
Chloroethane	ND	0.50	0.17			NR			
Chloroform	ND	0.50	0.19			NR			
Chloromethane	ND	0.50	0.23			NR			
cis-1,2-Dichloroethene	ND	0.50	0.19			NR			
cis-1,3-Dichloropropene	ND	0.50	0.20			NR			
Dibromochloromethane	ND	0.50	0.13			NR			
Dibromomethane	ND	0.50	0.14			NR			
Dichlorodifluoromethane	ND	0.50	0.31			NR			
Ethylbenzene	ND	0.50	0.23			NR			
Hexachlorobutadiene	ND	0.50	0.34			NR			



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

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

Batch B7B0418 - MSVOA_LL_W (continued)

Blank (B7B0418-BLK1) - Continued

Prepared: 2/15/2017 Analyzed: 2/15/2017

Isopropylbenzene	ND	0.50	0.23				NR			
m,p-Xylene	ND	1.0	0.45				NR			
Methylene chloride	ND	1.0	0.30				NR			
n-Butylbenzene	ND	0.50	0.31				NR			
n-Propylbenzene	ND	0.50	0.24				NR			
Naphthalene	ND	0.50	0.21				NR			
o-Xylene	ND	0.50	0.20				NR			
sec-Butylbenzene	ND	0.50	0.25				NR			
Styrene	ND	0.50	0.20				NR			
tert-Butylbenzene	ND	0.50	0.22				NR			
Tetrachloroethene	ND	0.50	0.24				NR			
Toluene	ND	0.50	0.20				NR			
trans-1,2-Dichloroethene	ND	0.50	0.21				NR			
Trichloroethene	ND	0.50	0.47				NR			
Trichlorofluoromethane	ND	0.50	0.23				NR			
Vinyl chloride	ND	0.50	0.19				NR			

Surrogate: 1,2-Dichloroethane-d4

32.92

25.0000

132

51 - 157

Surrogate: 4-Bromofluorobenzene

27.27

25.0000

109

61 - 123

Surrogate: Dibromofluoromethane

29.45

25.0000

118

57 - 147

Surrogate: Toluene-d8

26.99

25.0000

108

61 - 119

LCS (B7B0418-BS1)

Prepared: 2/15/2017 Analyzed: 2/15/2017

1,1,1,2-Tetrachloroethane	19.7100	0.50	0.18	20.0000		98.6	76 - 132
1,1,1-Trichloroethane	21.9200	0.50	0.47	20.0000		110	72 - 144
1,1,2,2-Tetrachloroethane	18.1000	0.50	0.17	20.0000		90.5	70 - 120
1,1,2-Trichloroethane	19.1200	0.50	0.12	20.0000		95.6	75 - 120
1,1-Dichloroethane	21.2500	0.50	0.16	20.0000		106	65 - 127
1,1-Dichloroethene	21.5400	0.50	0.18	20.0000		108	63 - 142
1,1-Dichloropropene	20.1200	0.50	0.30	20.0000		101	78 - 137
1,2,3-Trichloropropane	18.5000	0.50	0.16	20.0000		92.5	73 - 118
1,2,3-Trichlorobenzene	18.2000	0.50	0.20	20.0000		91.0	53 - 164
1,2,4-Trichlorobenzene	18.3100	0.50	0.26	20.0000		91.6	58 - 144
1,2,4-Trimethylbenzene	19.6700	0.50	0.23	20.0000		98.4	75 - 140
1,2-Dibromo-3-chloropropane	16.2100	0.50	0.26	20.0000		81.0	61 - 131
1,2-Dibromoethane	19.1100	0.50	0.15	20.0000		95.6	74 - 125
1,2-Dichlorobenzene	18.7200	0.50	0.21	20.0000		93.6	78 - 122
1,2-Dichloroethane	20.7300	0.50	0.15	20.0000		104	70 - 126
1,2-Dichloropropane	18.9000	0.50	0.35	20.0000		94.5	69 - 120
1,3,5-Trimethylbenzene	19.8000	0.50	0.19	20.0000		99.0	73 - 145
1,3-Dichlorobenzene	18.2700	0.50	0.23	20.0000		91.4	76 - 126
1,3-Dichloropropane	18.4700	0.50	0.15	20.0000		92.4	76 - 117



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

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

Batch B7B0418 - MSVOA_LL_W (continued)

LCS (B7B0418-BS1) - Continued

Prepared: 2/15/2017 Analyzed: 2/15/2017

1,4-Dichlorobenzene	18.6300	0.50	0.23	20.0000		93.2	77 - 120		
2,2-Dichloropropane	20.0900	0.50	0.35	20.0000		100	47 - 169		
2-Chlorotoluene	18.8400	0.50	0.25	20.0000		94.2	75 - 135		
4-Chlorotoluene	19.0800	0.50	0.24	20.0000		95.4	70 - 133		
4-Isopropyltoluene	20.1800	0.50	0.24	20.0000		101	72 - 153		
Benzene	36.7300	0.50	0.19	40.0000		91.8	73 - 123		
Bromobenzene	18.2900	0.50	0.19	20.0000		91.4	75 - 121		
Bromodichloromethane	20.4400	0.50	0.17	20.0000		102	73 - 124		
Bromoform	18.0700	0.50	0.10	20.0000		90.4	70 - 135		
Bromomethane	30.2900	0.50	0.28	20.0000		151	10 - 166		
Carbon tetrachloride	22.5700	0.50	0.21	20.0000		113	65 - 171		
Chlorobenzene	18.0000	0.50	0.22	20.0000		90.0	80 - 121		
Chloroethane	19.6600	0.50	0.17	20.0000		98.3	55 - 143		
Chloroform	21.7600	0.50	0.19	20.0000		109	65 - 130		
Chloromethane	18.8100	0.50	0.23	20.0000		94.0	21 - 141		
cis-1,2-Dichloroethene	19.1400	0.50	0.19	20.0000		95.7	64 - 126		
cis-1,3-Dichloropropene	20.1800	0.50	0.20	20.0000		101	70 - 131		
Dibromochloromethane	18.7700	0.50	0.13	20.0000		93.8	74 - 125		
Dibromomethane	19.2800	0.50	0.14	20.0000		96.4	74 - 116		
Dichlorodifluoromethane	17.6600	0.50	0.31	20.0000		88.3	40 - 186		
Ethylbenzene	37.3400	0.50	0.23	40.0000		93.4	77 - 130		
Hexachlorobutadiene	19.4600	0.50	0.34	20.0000		97.3	52 - 176		
Isopropylbenzene	20.2900	0.50	0.23	20.0000		101	77 - 144		
m,p-Xylene	38.8300	1.0	0.45	40.0000		97.1	84 - 136		
Methylene chloride	19.2900	1.0	0.30	20.0000		96.4	72 - 150		
n-Butylbenzene	20.0600	0.50	0.31	20.0000		100	73 - 154		
n-Propylbenzene	19.3800	0.50	0.24	20.0000		96.9	77 - 145		
Naphthalene	17.9300	0.50	0.21	20.0000		89.6	55 - 137		
o-Xylene	38.1600	0.50	0.20	40.0000		95.4	79 - 135		
sec-Butylbenzene	19.8600	0.50	0.25	20.0000		99.3	73 - 157		
Styrene	18.9000	0.50	0.20	20.0000		94.5	78 - 125		
tert-Butylbenzene	19.2600	0.50	0.22	20.0000		96.3	78 - 149		
Tetrachloroethene	17.3800	0.50	0.24	20.0000		86.9	74 - 136		
Toluene	37.8900	0.50	0.20	40.0000		94.7	78 - 124		
trans-1,2-Dichloroethene	19.6400	0.50	0.21	20.0000		98.2	66 - 131		
Trichloroethene	18.1400	0.50	0.47	20.0000		90.7	78 - 128		
Trichlorofluoromethane	24.8400	0.50	0.23	20.0000		124	60 - 170		
Vinyl chloride	19.0600	0.50	0.19	20.0000		95.3	55 - 148		

Surrogate: 1,2-Dichloroethane-d4 32.17 25.0000 129 51 - 157

Surrogate: 4-Bromofluorobenzene 26.60 25.0000 106 61 - 123

Surrogate: Dibromofluoromethane 29.52 25.0000 118 57 - 147



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 B7B0418 - MSVOA_LL_W (continued)

LCS (B7B0418-BS1) - Continued

Prepared: 2/15/2017 Analyzed: 2/15/2017

Surrogate: Toluene-d8 27.42 25.0000 110 61 - 119

LCS Dup (B7B0418-BS1)

Prepared: 2/15/2017 Analyzed: 2/15/2017

1,1,1,2-Tetrachloroethane	18.6300	0.50	0.18	20.0000	93.2	76 - 132	5.63	20	
1,1,1-Trichloroethane	20.3800	0.50	0.47	20.0000	102	72 - 144	7.28	20	
1,1,2,2-Tetrachloroethane	16.5800	0.50	0.17	20.0000	82.9	70 - 120	8.77	20	
1,1,2-Trichloroethane	18.0900	0.50	0.12	20.0000	90.4	75 - 120	5.54	20	
1,1-Dichloroethane	19.9300	0.50	0.16	20.0000	99.6	65 - 127	6.41	20	
1,1-Dichloroethene	19.1400	0.50	0.18	20.0000	95.7	63 - 142	11.8	20	
1,1-Dichloropropene	17.8300	0.50	0.30	20.0000	89.2	78 - 137	12.1	20	
1,2,3-Trichloropropane	17.0200	0.50	0.16	20.0000	85.1	73 - 118	8.33	20	
1,2,3-Trichlorobenzene	17.1700	0.50	0.20	20.0000	85.8	53 - 164	5.82	20	
1,2,4-Trichlorobenzene	17.0100	0.50	0.26	20.0000	85.0	58 - 144	7.36	20	
1,2,4-Trimethylbenzene	18.7000	0.50	0.23	20.0000	93.5	75 - 140	5.06	20	
1,2-Dibromo-3-chloropropane	15.3900	0.50	0.26	20.0000	77.0	61 - 131	5.19	20	
1,2-Dibromoethane	17.6700	0.50	0.15	20.0000	88.4	74 - 125	7.83	20	
1,2-Dichlorobenzene	17.5000	0.50	0.21	20.0000	87.5	78 - 122	6.74	20	
1,2-Dichloroethane	19.2600	0.50	0.15	20.0000	96.3	70 - 126	7.35	20	
1,2-Dichloropropane	17.7200	0.50	0.35	20.0000	88.6	69 - 120	6.44	20	
1,3,5-Trimethylbenzene	18.8700	0.50	0.19	20.0000	94.4	73 - 145	4.81	20	
1,3-Dichlorobenzene	17.4700	0.50	0.23	20.0000	87.4	76 - 126	4.48	20	
1,3-Dichloropropane	17.1000	0.50	0.15	20.0000	85.5	76 - 117	7.70	20	
1,4-Dichlorobenzene	17.6300	0.50	0.23	20.0000	88.2	77 - 120	5.52	20	
2,2-Dichloropropane	18.2000	0.50	0.35	20.0000	91.0	47 - 169	9.87	20	
2-Chlorotoluene	17.8700	0.50	0.25	20.0000	89.4	75 - 135	5.28	20	
4-Chlorotoluene	17.6800	0.50	0.24	20.0000	88.4	70 - 133	7.62	20	
4-Isopropyltoluene	18.8300	0.50	0.24	20.0000	94.2	72 - 153	6.92	20	
Benzene	34.9700	0.50	0.19	40.0000	87.4	73 - 123	4.91	20	
Bromobenzene	17.4800	0.50	0.19	20.0000	87.4	75 - 121	4.53	20	
Bromodichloromethane	19.0200	0.50	0.17	20.0000	95.1	73 - 124	7.20	20	
Bromoform	16.8000	0.50	0.10	20.0000	84.0	70 - 135	7.28	20	
Bromomethane	29.9300	0.50	0.28	20.0000	150	10 - 166	1.20	20	
Carbon tetrachloride	20.4100	0.50	0.21	20.0000	102	65 - 171	10.1	20	
Chlorobenzene	17.1600	0.50	0.22	20.0000	85.8	80 - 121	4.78	20	
Chloroethane	17.5800	0.50	0.17	20.0000	87.9	55 - 143	11.2	20	
Chloroform	20.2200	0.50	0.19	20.0000	101	65 - 130	7.34	20	
Chloromethane	17.8500	0.50	0.23	20.0000	89.2	21 - 141	5.24	20	
cis-1,2-Dichloroethene	18.0900	0.50	0.19	20.0000	90.4	64 - 126	5.64	20	
cis-1,3-Dichloropropene	18.6600	0.50	0.20	20.0000	93.3	70 - 131	7.83	20	
Dibromochloromethane	17.6700	0.50	0.13	20.0000	88.4	74 - 125	6.04	20	
Dibromomethane	18.0600	0.50	0.14	20.0000	90.3	74 - 116	6.53	20	
Dichlorodifluoromethane	16.4400	0.50	0.31	20.0000	82.2	40 - 186	7.16	20	



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

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

Batch B7B0418 - MSVOA_LL_W (continued)

LCS Dup (B7B0418-BSD1) - Continued

Prepared: 2/15/2017 Analyzed: 2/15/2017

Ethylbenzene	35.3000	0.50	0.23	40.0000		88.2	77 - 130	5.62	20	
Hexachlorobutadiene	18.0900	0.50	0.34	20.0000		90.4	52 - 176	7.30	20	
Isopropylbenzene	19.2300	0.50	0.23	20.0000		96.2	77 - 144	5.36	20	
m,p-Xylene	36.9500	1.0	0.45	40.0000		92.4	84 - 136	4.96	20	
Methylene chloride	18.0000	1.0	0.30	20.0000		90.0	72 - 150	6.92	20	
n-Butylbenzene	18.7800	0.50	0.31	20.0000		93.9	73 - 154	6.59	20	
n-Propylbenzene	18.5200	0.50	0.24	20.0000		92.6	77 - 145	4.54	20	
Naphthalene	16.6100	0.50	0.21	20.0000		83.0	55 - 137	7.64	20	
o-Xylene	36.3900	0.50	0.20	40.0000		91.0	79 - 135	4.75	20	
sec-Butylbenzene	18.6600	0.50	0.25	20.0000		93.3	73 - 157	6.23	20	
Styrene	17.7000	0.50	0.20	20.0000		88.5	78 - 125	6.56	20	
tert-Butylbenzene	18.0700	0.50	0.22	20.0000		90.4	78 - 149	6.38	20	
Tetrachloroethene	16.9300	0.50	0.24	20.0000		84.6	74 - 136	2.62	20	
Toluene	36.1100	0.50	0.20	40.0000		90.3	78 - 124	4.81	20	
trans-1,2-Dichloroethene	18.3800	0.50	0.21	20.0000		91.9	66 - 131	6.63	20	
Trichloroethene	16.7700	0.50	0.47	20.0000		83.8	78 - 128	7.85	20	
Trichlorofluoromethane	22.9300	0.50	0.23	20.0000		115	60 - 170	8.00	20	
Vinyl chloride	17.7600	0.50	0.19	20.0000		88.8	55 - 148	7.06	20	
Surrogate: 1,2-Dichloroethane-d4	32.01			25.0000		128	51 - 157			
Surrogate: 4-Bromofluorobenzene	27.00			25.0000		108	61 - 123			
Surrogate: Dibromofluoromethane	29.65			25.0000		119	57 - 147			
Surrogate: Toluene-d8	27.73			25.0000		111	61 - 119			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Volatile Organic Compounds by EPA 8260B - Quality Control

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

Batch B7B0448 - MSVOA_W

Blank (B7B0448-BLK1)

Prepared: 2/16/2017 Analyzed: 2/16/2017

1,1,1,2-Tetrachloroethane	ND	0.50	0.18			NR			
1,1,1-Trichloroethane	ND	0.50	0.47			NR			
1,1,2,2-Tetrachloroethane	ND	0.50	0.17			NR			
1,1,2-Trichloroethane	ND	0.50	0.12			NR			
1,1-Dichloroethane	ND	0.50	0.16			NR			
1,1-Dichloroethene	ND	0.50	0.18			NR			
1,1-Dichloropropene	ND	0.50	0.30			NR			
1,2,3-Trichloropropane	ND	0.50	0.16			NR			
1,2,3-Trichlorobenzene	ND	0.50	0.20			NR			
1,2,4-Trichlorobenzene	ND	0.50	0.26			NR			
1,2,4-Trimethylbenzene	ND	0.50	0.23			NR			
1,2-Dibromo-3-chloropropane	ND	0.50	0.26			NR			
1,2-Dibromoethane	ND	0.50	0.15			NR			
1,2-Dichlorobenzene	ND	0.50	0.21			NR			
1,2-Dichloroethane	ND	0.50	0.15			NR			
1,2-Dichloropropane	ND	0.50	0.35			NR			
1,3,5-Trimethylbenzene	ND	0.50	0.19			NR			
1,3-Dichlorobenzene	ND	0.50	0.23			NR			
1,3-Dichloropropane	ND	0.50	0.15			NR			
1,4-Dichlorobenzene	ND	0.50	0.23			NR			
2,2-Dichloropropane	ND	0.50	0.35			NR			
2-Chlorotoluene	ND	0.50	0.25			NR			
4-Chlorotoluene	ND	0.50	0.24			NR			
4-Isopropyltoluene	ND	0.50	0.24			NR			
Benzene	ND	0.50	0.19			NR			
Bromobenzene	ND	0.50	0.19			NR			
Bromodichloromethane	ND	0.50	0.17			NR			
Bromoform	ND	0.50	0.10			NR			
Bromomethane	ND	0.50	0.28			NR			
Carbon tetrachloride	ND	0.50	0.21			NR			
Chlorobenzene	ND	0.50	0.22			NR			
Chloroethane	ND	0.50	0.17			NR			
Chloroform	ND	0.50	0.19			NR			
Chloromethane	ND	0.50	0.23			NR			
cis-1,2-Dichloroethene	ND	0.50	0.19			NR			
cis-1,3-Dichloropropene	ND	0.50	0.20			NR			
Dibromochloromethane	ND	0.50	0.13			NR			
Dibromomethane	ND	0.50	0.14			NR			
Dichlorodifluoromethane	ND	0.50	0.31			NR			
Ethylbenzene	ND	0.50	0.23			NR			
Hexachlorobutadiene	ND	0.50	0.34			NR			



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

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

Batch B7B0448 - MSVOA_W (continued)

Blank (B7B0448-BLK1) - Continued

Prepared: 2/16/2017 Analyzed: 2/16/2017

Isopropylbenzene	ND	0.50	0.23			NR				
m,p-Xylene	ND	1.0	0.45			NR				
Methylene chloride	ND	1.0	0.30			NR				
n-Butylbenzene	ND	0.50	0.31			NR				
n-Propylbenzene	ND	0.50	0.24			NR				
Naphthalene	ND	0.50	0.21			NR				
o-Xylene	ND	0.50	0.20			NR				
sec-Butylbenzene	ND	0.50	0.25			NR				
Styrene	ND	0.50	0.20			NR				
tert-Butylbenzene	ND	0.50	0.22			NR				
Tetrachloroethene	ND	0.50	0.24			NR				
Toluene	ND	0.50	0.20			NR				
trans-1,2-Dichloroethene	ND	0.50	0.21			NR				
Trichloroethene	ND	0.50	0.47			NR				
Trichlorofluoromethane	ND	0.50	0.23			NR				
Vinyl chloride	ND	0.50	0.19			NR				

Surrogate: 1,2-Dichloroethane-d4

32.49

25.0000

130

51 - 157

Surrogate: 4-Bromofluorobenzene

26.47

25.0000

106

61 - 123

Surrogate: Dibromofluoromethane

29.58

25.0000

118

57 - 147

Surrogate: Toluene-d8

26.75

25.0000

107

61 - 119

LCS (B7B0448-BS1)

Prepared: 2/16/2017 Analyzed: 2/16/2017

1,1,1,2-Tetrachloroethane	17.2900	0.50	0.18	20.0000		86.4	76 - 132
1,1,1-Trichloroethane	18.6500	0.50	0.47	20.0000		93.2	72 - 144
1,1,2,2-Tetrachloroethane	16.1000	0.50	0.17	20.0000		80.5	70 - 120
1,1,2-Trichloroethane	16.4000	0.50	0.12	20.0000		82.0	75 - 120
1,1-Dichloroethane	18.5300	0.50	0.16	20.0000		92.6	65 - 127
1,1-Dichloroethene	17.7400	0.50	0.18	20.0000		88.7	63 - 142
1,1-Dichloropropene	17.6000	0.50	0.30	20.0000		88.0	78 - 137
1,2,3-Trichloropropane	16.3300	0.50	0.16	20.0000		81.6	73 - 118
1,2,3-Trichlorobenzene	16.0900	0.50	0.20	20.0000		80.4	53 - 164
1,2,4-Trichlorobenzene	16.2200	0.50	0.26	20.0000		81.1	58 - 144
1,2,4-Trimethylbenzene	17.1800	0.50	0.23	20.0000		85.9	75 - 140
1,2-Dibromo-3-chloropropane	15.2600	0.50	0.26	20.0000		76.3	61 - 131
1,2-Dibromoethane	16.4900	0.50	0.15	20.0000		82.4	74 - 125
1,2-Dichlorobenzene	16.6700	0.50	0.21	20.0000		83.4	78 - 122
1,2-Dichloroethane	17.9600	0.50	0.15	20.0000		89.8	70 - 126
1,2-Dichloropropane	16.5400	0.50	0.35	20.0000		82.7	69 - 120
1,3,5-Trimethylbenzene	17.5500	0.50	0.19	20.0000		87.8	73 - 145
1,3-Dichlorobenzene	16.8800	0.50	0.23	20.0000		84.4	76 - 126
1,3-Dichloropropane	16.2800	0.50	0.15	20.0000		81.4	76 - 117



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

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

Batch B7B0448 - MSVOA_W (continued)

LCS (B7B0448-BS1) - Continued

Prepared: 2/16/2017 Analyzed: 2/16/2017

1,4-Dichlorobenzene	16.9000	0.50	0.23	20.0000		84.5	77 - 120		
2,2-Dichloropropane	17.7400	0.50	0.35	20.0000		88.7	47 - 169		
2-Chlorotoluene	16.9800	0.50	0.25	20.0000		84.9	75 - 135		
4-Chlorotoluene	16.9600	0.50	0.24	20.0000		84.8	70 - 133		
4-Isopropyltoluene	17.7400	0.50	0.24	20.0000		88.7	72 - 153		
Benzene	33.3300	0.50	0.19	40.0000		83.3	73 - 123		
Bromobenzene	16.5100	0.50	0.19	20.0000		82.6	75 - 121		
Bromodichloromethane	17.4000	0.50	0.17	20.0000		87.0	73 - 124		
Bromoform	15.6700	0.50	0.10	20.0000		78.4	70 - 135		
Bromomethane	25.7000	0.50	0.28	20.0000		128	10 - 166		
Carbon tetrachloride	18.9000	0.50	0.21	20.0000		94.5	65 - 171		
Chlorobenzene	16.4000	0.50	0.22	20.0000		82.0	80 - 121		
Chloroethane	16.0500	0.50	0.17	20.0000		80.2	55 - 143		
Chloroform	18.4900	0.50	0.19	20.0000		92.4	65 - 130		
Chloromethane	16.6100	0.50	0.23	20.0000		83.0	21 - 141		
cis-1,2-Dichloroethene	16.9700	0.50	0.19	20.0000		84.8	64 - 126		
cis-1,3-Dichloropropene	17.6400	0.50	0.20	20.0000		88.2	70 - 131		
Dibromochloromethane	16.7400	0.50	0.13	20.0000		83.7	74 - 125		
Dibromomethane	16.6700	0.50	0.14	20.0000		83.4	74 - 116		
Dichlorodifluoromethane	15.1900	0.50	0.31	20.0000		76.0	40 - 186		
Ethylbenzene	33.3300	0.50	0.23	40.0000		83.3	77 - 130		
Hexachlorobutadiene	16.8600	0.50	0.34	20.0000		84.3	52 - 176		
Isopropylbenzene	18.3200	0.50	0.23	20.0000		91.6	77 - 144		
m,p-Xylene	34.7100	1.0	0.45	40.0000		86.8	84 - 136		
Methylene chloride	15.8000	1.0	0.30	20.0000		79.0	72 - 150		
n-Butylbenzene	17.8100	0.50	0.31	20.0000		89.0	73 - 154		
n-Propylbenzene	17.2900	0.50	0.24	20.0000		86.4	77 - 145		
Naphthalene	15.4000	0.50	0.21	20.0000		77.0	55 - 137		
o-Xylene	34.3800	0.50	0.20	40.0000		86.0	79 - 135		
sec-Butylbenzene	17.5600	0.50	0.25	20.0000		87.8	73 - 157		
Styrene	17.0600	0.50	0.20	20.0000		85.3	78 - 125		
tert-Butylbenzene	17.0600	0.50	0.22	20.0000		85.3	78 - 149		
Tetrachloroethene	16.4500	0.50	0.24	20.0000		82.2	74 - 136		
Toluene	32.9600	0.50	0.20	40.0000		82.4	78 - 124		
trans-1,2-Dichloroethene	17.5400	0.50	0.21	20.0000		87.7	66 - 131		
Trichloroethene	16.2300	0.50	0.47	20.0000		81.2	78 - 128		
Trichlorofluoromethane	20.3100	0.50	0.23	20.0000		102	60 - 170		
Vinyl chloride	16.1300	0.50	0.19	20.0000		80.6	55 - 148		

Surrogate: 1,2-Dichloroethane-d4 30.16 25.0000 121 51 - 157

Surrogate: 4-Bromofluorobenzene 25.96 25.0000 104 61 - 123

Surrogate: Dibromofluoromethane 28.51 25.0000 114 57 - 147



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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 B7B0448 - MSVOA_W (continued)

LCS (B7B0448-BS1) - Continued

Prepared: 2/16/2017 Analyzed: 2/16/2017

Surrogate: Toluene-d8 26.96 25.0000 108 61 - 119

LCS Dup (B7B0448-BS1)

Prepared: 2/16/2017 Analyzed: 2/16/2017

1,1,1,2-Tetrachloroethane	18.7800	0.50	0.18	20.0000	93.9	76 - 132	8.26	20	
1,1,1-Trichloroethane	19.1200	0.50	0.47	20.0000	95.6	72 - 144	2.49	20	
1,1,2,2-Tetrachloroethane	17.1800	0.50	0.17	20.0000	85.9	70 - 120	6.49	20	
1,1,2-Trichloroethane	17.4700	0.50	0.12	20.0000	87.4	75 - 120	6.32	20	
1,1-Dichloroethane	19.3500	0.50	0.16	20.0000	96.8	65 - 127	4.33	20	
1,1-Dichloroethene	18.3200	0.50	0.18	20.0000	91.6	63 - 142	3.22	20	
1,1-Dichloropropene	18.1100	0.50	0.30	20.0000	90.6	78 - 137	2.86	20	
1,2,3-Trichloropropane	17.3300	0.50	0.16	20.0000	86.6	73 - 118	5.94	20	
1,2,3-Trichlorobenzene	17.9300	0.50	0.20	20.0000	89.6	53 - 164	10.8	20	
1,2,4-Trichlorobenzene	17.7600	0.50	0.26	20.0000	88.8	58 - 144	9.06	20	
1,2,4-Trimethylbenzene	18.7900	0.50	0.23	20.0000	94.0	75 - 140	8.95	20	
1,2-Dibromo-3-chloropropane	15.8300	0.50	0.26	20.0000	79.2	61 - 131	3.67	20	
1,2-Dibromoethane	17.2400	0.50	0.15	20.0000	86.2	74 - 125	4.45	20	
1,2-Dichlorobenzene	17.6600	0.50	0.21	20.0000	88.3	78 - 122	5.77	20	
1,2-Dichloroethane	18.4900	0.50	0.15	20.0000	92.4	70 - 126	2.91	20	
1,2-Dichloropropane	17.5800	0.50	0.35	20.0000	87.9	69 - 120	6.10	20	
1,3,5-Trimethylbenzene	19.0100	0.50	0.19	20.0000	95.0	73 - 145	7.99	20	
1,3-Dichlorobenzene	18.0900	0.50	0.23	20.0000	90.4	76 - 126	6.92	20	
1,3-Dichloropropane	17.6000	0.50	0.15	20.0000	88.0	76 - 117	7.79	20	
1,4-Dichlorobenzene	18.3300	0.50	0.23	20.0000	91.6	77 - 120	8.12	20	
2,2-Dichloropropane	18.0100	0.50	0.35	20.0000	90.0	47 - 169	1.51	20	
2-Chlorotoluene	17.9300	0.50	0.25	20.0000	89.6	75 - 135	5.44	20	
4-Chlorotoluene	18.1200	0.50	0.24	20.0000	90.6	70 - 133	6.61	20	
4-Isopropyltoluene	19.4400	0.50	0.24	20.0000	97.2	72 - 153	9.14	20	
Benzene	34.5400	0.50	0.19	40.0000	86.4	73 - 123	3.57	20	
Bromobenzene	17.7500	0.50	0.19	20.0000	88.8	75 - 121	7.24	20	
Bromodichloromethane	18.1500	0.50	0.17	20.0000	90.8	73 - 124	4.22	20	
Bromoform	16.5900	0.50	0.10	20.0000	83.0	70 - 135	5.70	20	
Bromomethane	26.2900	0.50	0.28	20.0000	131	10 - 166	2.27	20	
Carbon tetrachloride	19.5800	0.50	0.21	20.0000	97.9	65 - 171	3.53	20	
Chlorobenzene	17.3800	0.50	0.22	20.0000	86.9	80 - 121	5.80	20	
Chloroethane	16.7000	0.50	0.17	20.0000	83.5	55 - 143	3.97	20	
Chloroform	19.2400	0.50	0.19	20.0000	96.2	65 - 130	3.98	20	
Chloromethane	17.3700	0.50	0.23	20.0000	86.8	21 - 141	4.47	20	
cis-1,2-Dichloroethene	17.4300	0.50	0.19	20.0000	87.2	64 - 126	2.67	20	
cis-1,3-Dichloropropene	18.5600	0.50	0.20	20.0000	92.8	70 - 131	5.08	20	
Dibromochloromethane	17.9400	0.50	0.13	20.0000	89.7	74 - 125	6.92	20	
Dibromomethane	17.6800	0.50	0.14	20.0000	88.4	74 - 116	5.88	20	
Dichlorodifluoromethane	15.5400	0.50	0.31	20.0000	77.7	40 - 186	2.28	20	



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

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

Batch B7B0448 - MSVOA_W (continued)

LCS Dup (B7B0448-BSD1) - Continued

Prepared: 2/16/2017 Analyzed: 2/16/2017

Ethylbenzene	35.3400	0.50	0.23	40.0000		88.4	77 - 130	5.85	20
Hexachlorobutadiene	18.5900	0.50	0.34	20.0000		93.0	52 - 176	9.76	20
Isopropylbenzene	19.5800	0.50	0.23	20.0000		97.9	77 - 144	6.65	20
m,p-Xylene	37.1100	1.0	0.45	40.0000		92.8	84 - 136	6.68	20
Methylene chloride	16.3900	1.0	0.30	20.0000		82.0	72 - 150	3.67	20
n-Butylbenzene	19.4000	0.50	0.31	20.0000		97.0	73 - 154	8.55	20
n-Propylbenzene	18.8200	0.50	0.24	20.0000		94.1	77 - 145	8.47	20
Naphthalene	16.7800	0.50	0.21	20.0000		83.9	55 - 137	8.58	20
o-Xylene	36.2100	0.50	0.20	40.0000		90.5	79 - 135	5.18	20
sec-Butylbenzene	19.1100	0.50	0.25	20.0000		95.6	73 - 157	8.45	20
Styrene	18.1000	0.50	0.20	20.0000		90.5	78 - 125	5.92	20
tert-Butylbenzene	18.4700	0.50	0.22	20.0000		92.4	78 - 149	7.94	20
Tetrachloroethene	17.5000	0.50	0.24	20.0000		87.5	74 - 136	6.19	20
Toluene	34.7300	0.50	0.20	40.0000		86.8	78 - 124	5.23	20
trans-1,2-Dichloroethene	18.0700	0.50	0.21	20.0000		90.4	66 - 131	2.98	20
Trichloroethene	16.4400	0.50	0.47	20.0000		82.2	78 - 128	1.29	20
Trichlorofluoromethane	21.2300	0.50	0.23	20.0000		106	60 - 170	4.43	20
Vinyl chloride	16.4000	0.50	0.19	20.0000		82.0	55 - 148	1.66	20
Surrogate: 1,2-Dichloroethane-d4	30.34			25.0000		121	51 - 157		
Surrogate: 4-Bromofluorobenzene	27.38			25.0000		110	61 - 123		
Surrogate: Dibromofluoromethane	28.82			25.0000		115	57 - 147		
Surrogate: Toluene-d8	27.18			25.0000		109	61 - 119		

Matrix Spike (B7B0448-MS1)

Source: 1700621-03

Prepared: 2/16/2017 Analyzed: 2/16/2017

1,1,1,2-Tetrachloroethane	21.3200	0.50	0.18	20.0000	ND	107	76 - 132		
1,1,1-Trichloroethane	21.9600	0.50	0.47	20.0000	ND	110	72 - 144		
1,1,2,2-Tetrachloroethane	18.9300	0.50	0.17	20.0000	ND	94.6	70 - 120		
1,1,2-Trichloroethane	19.6500	0.50	0.12	20.0000	ND	98.2	75 - 120		
1,1-Dichloroethane	22.9400	0.50	0.16	20.0000	ND	115	65 - 127		
1,1-Dichloroethene	38.1800	0.50	0.18	20.0000	30.1100	40.4	63 - 142		M2
1,1-Dichloropropene	21.1100	0.50	0.30	20.0000	ND	106	78 - 137		
1,2,3-Trichloropropane	18.3700	0.50	0.16	20.0000	ND	91.8	73 - 118		
1,2,3-Trichlorobenzene	19.2300	0.50	0.20	20.0000	ND	96.2	53 - 164		
1,2,4-Trichlorobenzene	20.1100	0.50	0.26	20.0000	ND	101	58 - 144		
1,2,4-Trimethylbenzene	21.8000	0.50	0.23	20.0000	ND	109	75 - 140		
1,2-Dibromo-3-chloropropane	15.6500	0.50	0.26	20.0000	ND	78.2	61 - 131		
1,2-Dibromoethane	18.2800	0.50	0.15	20.0000	ND	91.4	74 - 125		
1,2-Dichlorobenzene	20.3300	0.50	0.21	20.0000	ND	102	78 - 122		
1,2-Dichloroethane	20.6500	0.50	0.15	20.0000	ND	103	70 - 126		
1,2-Dichloropropane	19.8600	0.50	0.35	20.0000	ND	99.3	69 - 120		
1,3,5-Trimethylbenzene	21.4400	0.50	0.19	20.0000	ND	107	73 - 145		



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

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

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

Batch B7B0448 - MSVOA_W (continued)

Matrix Spike (B7B0448-MS1) - Continued

Source: 1700621-03

Prepared: 2/16/2017 Analyzed: 2/16/2017

1,3-Dichlorobenzene	20.6400	0.50	0.23	20.0000	ND	103	76 - 126			
1,3-Dichloropropane	19.4000	0.50	0.15	20.0000	ND	97.0	76 - 117			
1,4-Dichlorobenzene	20.6300	0.50	0.23	20.0000	ND	103	77 - 120			
2,2-Dichloropropane	21.8800	0.50	0.35	20.0000	ND	109	47 - 169			
2-Chlorotoluene	20.6400	0.50	0.25	20.0000	ND	103	75 - 135			
4-Chlorotoluene	20.4400	0.50	0.24	20.0000	ND	102	77 - 130			
4-Isopropyltoluene	22.2700	0.50	0.24	20.0000	ND	111	72 - 153			
Benzene	39.5200	0.50	0.19	40.0000	ND	98.8	73 - 123			
Bromobenzene	19.8200	0.50	0.19	20.0000	ND	99.1	75 - 121			
Bromodichloromethane	20.2600	0.50	0.17	20.0000	ND	101	73 - 124			
Bromoform	18.3600	0.50	0.10	20.0000	ND	91.8	70 - 135			
Bromomethane	29.3800	0.50	0.28	20.0000	ND	147	10 - 166			
Carbon tetrachloride	22.8200	0.50	0.21	20.0000	ND	114	65 - 171			
Chlorobenzene	19.5900	0.50	0.22	20.0000	ND	98.0	80 - 121			
Chloroethane	19.1000	0.50	0.17	20.0000	ND	95.5	55 - 143			
Chloroform	22.2300	0.50	0.19	20.0000	ND	111	65 - 130			
Chloromethane	19.5300	0.50	0.23	20.0000	ND	97.6	21 - 141			
cis-1,2-Dichloroethene	20.4800	0.50	0.19	20.0000	ND	102	64 - 126			
cis-1,3-Dichloropropene	19.8300	0.50	0.20	20.0000	ND	99.2	70 - 131			
Dibromochloromethane	19.7100	0.50	0.13	20.0000	ND	98.6	74 - 125			
Dibromomethane	19.1000	0.50	0.14	20.0000	ND	95.5	74 - 116			
Dichlorodifluoromethane	18.0000	0.50	0.31	20.0000	ND	90.0	40 - 186			
Ethylbenzene	40.0500	0.50	0.23	40.0000	ND	100	77 - 130			
Hexachlorobutadiene	20.9100	0.50	0.34	20.0000	ND	105	52 - 176			
Isopropylbenzene	22.2900	0.50	0.23	20.0000	ND	111	77 - 144			
m,p-Xylene	42.1100	1.0	0.45	40.0000	ND	105	84 - 136			
Methylene chloride	18.6000	1.0	0.30	20.0000	ND	93.0	72 - 150			
n-Butylbenzene	22.1300	0.50	0.31	20.0000	ND	111	73 - 154			
n-Propylbenzene	21.6300	0.50	0.24	20.0000	ND	108	77 - 145			
Naphthalene	18.1400	0.50	0.21	20.0000	ND	90.7	55 - 137			
o-Xylene	40.9000	0.50	0.20	40.0000	ND	102	79 - 135			
sec-Butylbenzene	21.7000	0.50	0.25	20.0000	ND	108	73 - 157			
Styrene	20.2500	0.50	0.20	20.0000	ND	101	78 - 125			
tert-Butylbenzene	21.0800	0.50	0.22	20.0000	ND	105	78 - 149			
Tetrachloroethene	19.6900	0.50	0.24	20.0000	ND	98.4	74 - 136			
Toluene	38.5000	0.50	0.20	40.0000	ND	96.2	78 - 124			
trans-1,2-Dichloroethene	20.6700	0.50	0.21	20.0000	ND	103	66 - 131			
Trichloroethene	19.1900	0.50	0.47	20.0000	ND	96.0	78 - 128			
Trichlorofluoromethane	23.9700	0.50	0.23	20.0000	ND	120	60 - 170			
Vinyl chloride	18.7500	0.50	0.19	20.0000	ND	93.8	55 - 148			

Surrogate: 1,2-Dichloroethane-d4	29.82			25.0000		119	51 - 157			



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Reported : 02/20/2017

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 B7B0448 - MSVOA_W (continued)

Matrix Spike (B7B0448-MS1) - Continued

Source: 1700621-03

Prepared: 2/16/2017 Analyzed: 2/16/2017

Surrogate: 4-Bromofluorobenzene	27.14		25.0000		109	61 - 123			
Surrogate: Dibromofluoromethane	28.27		25.0000		113	57 - 147			
Surrogate: Toluene-d8	26.23		25.0000		105	61 - 119			

Matrix Spike Dup (B7B0448-MSD1)

Source: 1700621-03

Prepared: 2/16/2017 Analyzed: 2/16/2017

1,1,1,2-Tetrachloroethane	20.7800	0.50	0.18	20.0000	ND	104	76 - 132	2.57	20	
1,1,1-Trichloroethane	22.3900	0.50	0.47	20.0000	ND	112	72 - 144	1.94	20	
1,1,2,2-Tetrachloroethane	21.9900	0.50	0.17	20.0000	ND	110	70 - 120	15.0	20	
1,1,2-Trichloroethane	21.6800	0.50	0.12	20.0000	ND	108	75 - 120	9.82	20	
1,1-Dichloroethane	23.4400	0.50	0.16	20.0000	ND	117	65 - 127	2.16	20	
1,1-Dichloroethene	44.9300	0.50	0.18	20.0000	30.1100	74.1	63 - 142	16.2	20	
1,1-Dichloropropene	21.3500	0.50	0.30	20.0000	ND	107	78 - 137	1.13	20	
1,2,3-Trichloropropane	21.4900	0.50	0.16	20.0000	ND	107	73 - 118	15.7	20	
1,2,3-Trichlorobenzene	20.3600	0.50	0.20	20.0000	ND	102	53 - 164	5.71	20	
1,2,4-Trichlorobenzene	20.2700	0.50	0.26	20.0000	ND	101	58 - 144	0.792	20	
1,2,4-Trimethylbenzene	21.4700	0.50	0.23	20.0000	ND	107	75 - 140	1.53	20	
1,2-Dibromo-3-chloropropane	20.1700	0.50	0.26	20.0000	ND	101	61 - 131	25.2	20	R
1,2-Dibromoethane	20.5800	0.50	0.15	20.0000	ND	103	74 - 125	11.8	20	
1,2-Dichlorobenzene	20.7400	0.50	0.21	20.0000	ND	104	78 - 122	2.00	20	
1,2-Dichloroethane	21.8300	0.50	0.15	20.0000	ND	109	70 - 126	5.56	20	
1,2-Dichloropropane	20.4800	0.50	0.35	20.0000	ND	102	69 - 120	3.07	20	
1,3,5-Trimethylbenzene	21.5800	0.50	0.19	20.0000	ND	108	73 - 145	0.651	20	
1,3-Dichlorobenzene	20.5800	0.50	0.23	20.0000	ND	103	76 - 126	0.291	20	
1,3-Dichloropropane	20.8700	0.50	0.15	20.0000	ND	104	76 - 117	7.30	20	
1,4-Dichlorobenzene	21.0000	0.50	0.23	20.0000	ND	105	77 - 120	1.78	20	
2,2-Dichloropropane	22.0500	0.50	0.35	20.0000	ND	110	47 - 169	0.774	20	
2-Chlorotoluene	20.6400	0.50	0.25	20.0000	ND	103	75 - 135	0.00	20	
4-Chlorotoluene	20.8200	0.50	0.24	20.0000	ND	104	77 - 130	1.84	20	
4-Isopropyltoluene	21.8400	0.50	0.24	20.0000	ND	109	72 - 153	1.95	20	
Benzene	40.4700	0.50	0.19	40.0000	ND	101	73 - 123	2.38	20	
Bromobenzene	20.3900	0.50	0.19	20.0000	ND	102	75 - 121	2.84	20	
Bromodichloromethane	21.3700	0.50	0.17	20.0000	ND	107	73 - 124	5.33	20	
Bromoform	20.1000	0.50	0.10	20.0000	ND	100	70 - 135	9.05	20	
Bromomethane	30.2100	0.50	0.28	20.0000	ND	151	10 - 166	2.79	20	
Carbon tetrachloride	22.5200	0.50	0.21	20.0000	ND	113	65 - 171	1.32	20	
Chlorobenzene	19.8000	0.50	0.22	20.0000	ND	99.0	80 - 121	1.07	20	
Chloroethane	19.0700	0.50	0.17	20.0000	ND	95.4	55 - 143	0.157	20	
Chloroform	22.9000	0.50	0.19	20.0000	ND	114	65 - 130	2.97	20	
Chloromethane	19.5100	0.50	0.23	20.0000	ND	97.6	21 - 141	0.102	20	
cis-1,2-Dichloroethene	21.0300	0.50	0.19	20.0000	ND	105	64 - 126	2.65	20	
cis-1,3-Dichloropropene	21.0200	0.50	0.20	20.0000	ND	105	70 - 131	5.83	20	
Dibromochloromethane	20.7100	0.50	0.13	20.0000	ND	104	74 - 125	4.95	20	



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Reported : 02/20/2017

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

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

Batch B7B0448 - MSVOA_W (continued)

Matrix Spike Dup (B7B0448-MSD1) - Continued

Source: 1700621-03

Prepared: 2/16/2017 Analyzed: 2/16/2017

Dibromomethane	21.2000	0.50	0.14	20.0000	ND	106	74 - 116	10.4	20	
Dichlorodifluoromethane	17.8600	0.50	0.31	20.0000	ND	89.3	40 - 186	0.781	20	
Ethylbenzene	40.2100	0.50	0.23	40.0000	ND	101	77 - 130	0.399	20	
Hexachlorobutadiene	20.0100	0.50	0.34	20.0000	ND	100	52 - 176	4.40	20	
Isopropylbenzene	22.1200	0.50	0.23	20.0000	ND	111	77 - 144	0.766	20	
m,p-Xylene	41.6000	1.0	0.45	40.0000	ND	104	84 - 136	1.22	20	
Methylene chloride	19.8700	1.0	0.30	20.0000	ND	99.4	72 - 150	6.60	20	
n-Butylbenzene	21.7100	0.50	0.31	20.0000	ND	109	73 - 154	1.92	20	
n-Propylbenzene	21.0100	0.50	0.24	20.0000	ND	105	77 - 145	2.91	20	
Naphthalene	21.2300	0.50	0.21	20.0000	ND	106	55 - 137	15.7	20	
o-Xylene	41.0800	0.50	0.20	40.0000	ND	103	79 - 135	0.439	20	
sec-Butylbenzene	21.6000	0.50	0.25	20.0000	ND	108	73 - 157	0.462	20	
Styrene	20.5800	0.50	0.20	20.0000	ND	103	78 - 125	1.62	20	
tert-Butylbenzene	20.5300	0.50	0.22	20.0000	ND	103	78 - 149	2.64	20	
Tetrachloroethene	19.5500	0.50	0.24	20.0000	ND	97.8	74 - 136	0.714	20	
Toluene	40.2800	0.50	0.20	40.0000	ND	101	78 - 124	4.52	20	
trans-1,2-Dichloroethene	20.8900	0.50	0.21	20.0000	ND	104	66 - 131	1.06	20	
Trichloroethene	19.4000	0.50	0.47	20.0000	ND	97.0	78 - 128	1.09	20	
Trichlorofluoromethane	23.8500	0.50	0.23	20.0000	ND	119	60 - 170	0.502	20	
Vinyl chloride	19.3000	0.50	0.19	20.0000	ND	96.5	55 - 148	2.89	20	

Surrogate: 1,2-Dichloroethane-d4	30.60			25.0000		122	51 - 157			
Surrogate: 4-Bromofluorobenzene	26.25			25.0000		105	61 - 123			
Surrogate: Dibromofluoromethane	29.33			25.0000		117	57 - 147			
Surrogate: Toluene-d8	26.79			25.0000		107	61 - 119			



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Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

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

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

Batch B7B0382 - MSSEMI_ISOTOPEDILN_W

Blank (B7B0382-BLK2)

Prepared: 2/14/2017 Analyzed: 2/17/2017

1,4-Dioxane	ND	2.0	0.84				NR			
Surrogate: 1,2-Dichlorobenzene-d	55.19			100.000		55.2	17 - 101			
Surrogate: 2-Fluorobiphenyl	63.84			100.000		63.8	29 - 109			
Surrogate: 4-Terphenyl-d14	101.6			100.000		102	49 - 122			
Surrogate: Nitrobenzene-d5	56.96			100.000		57.0	19 - 111			

LCS (B7B0382-BS2)

Prepared: 2/14/2017 Analyzed: 2/17/2017

1,4-Dioxane	102.620	2.0	0.84	100.000		103	62 - 127			
Surrogate: 1,2-Dichlorobenzene-d	52.94			100.000		52.9	17 - 101			
Surrogate: 2-Fluorobiphenyl	67.16			100.000		67.2	29 - 109			
Surrogate: 4-Terphenyl-d14	78.98			100.000		79.0	49 - 122			
Surrogate: Nitrobenzene-d5	59.52			100.000		59.5	19 - 111			

Matrix Spike (B7B0382-MS2)

Source: 1700621-03

Prepared: 2/14/2017 Analyzed: 2/17/2017

1,4-Dioxane	112.380	2.0	0.84	100.000	8.20000	104	62 - 127			
Surrogate: 1,2-Dichlorobenzene-d	53.51			100.000		53.5	17 - 101			
Surrogate: 2-Fluorobiphenyl	68.30			100.000		68.3	29 - 109			
Surrogate: 4-Terphenyl-d14	81.78			100.000		81.8	49 - 122			
Surrogate: Nitrobenzene-d5	58.69			100.000		58.7	19 - 111			

Matrix Spike Dup (B7B0382-MSD2)

Source: 1700621-03

Prepared: 2/14/2017 Analyzed: 2/17/2017

1,4-Dioxane	115.810	2.0	0.84	100.000	8.20000	108	62 - 127	3.01	20	
Surrogate: 1,2-Dichlorobenzene-d	56.51			100.000		56.5	17 - 101			
Surrogate: 2-Fluorobiphenyl	73.16			100.000		73.2	29 - 109			
Surrogate: 4-Terphenyl-d14	83.13			100.000		83.1	49 - 122			
Surrogate: Nitrobenzene-d5	63.72			100.000		63.7	19 - 111			



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Project Number : Raytheon Main, 532.30

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Reported : 02/20/2017

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

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

Batch B7B0433 - MSSEMI_ISOTOPEDILN_W

Blank (B7B0433-BLK1)

Prepared: 2/15/2017 Analyzed: 2/17/2017

1,4-Dioxane	ND	2.0	0.84			NR			
Surrogate: 1,2-Dichlorobenzene-d	61.54			100.000		61.5	17 - 101		
Surrogate: 2-Fluorobiphenyl	73.34			100.000		73.3	29 - 109		
Surrogate: 4-Terphenyl-d14	119.5			100.000		119	49 - 122		
Surrogate: Nitrobenzene-d5	63.60			100.000		63.6	19 - 111		

LCS (B7B0433-BS1)

Prepared: 2/15/2017 Analyzed: 2/17/2017

1,4-Dioxane	102.310	2.0	0.84	100.000		102	62 - 127		
Surrogate: 1,2-Dichlorobenzene-d	58.95			100.000		59.0	17 - 101		
Surrogate: 2-Fluorobiphenyl	79.19			100.000		79.2	29 - 109		
Surrogate: 4-Terphenyl-d14	92.91			100.000		92.9	49 - 122		
Surrogate: Nitrobenzene-d5	65.61			100.000		65.6	19 - 111		

LCS Dup (B7B0433-BSD1)

Prepared: 2/15/2017 Analyzed: 2/17/2017

1,4-Dioxane	102.080	2.0	0.84	100.000		102	62 - 127	0.225	20
Surrogate: 1,2-Dichlorobenzene-d	56.53			100.000		56.5	17 - 101		
Surrogate: 2-Fluorobiphenyl	76.07			100.000		76.1	29 - 109		
Surrogate: 4-Terphenyl-d14	87.98			100.000		88.0	49 - 122		
Surrogate: Nitrobenzene-d5	65.51			100.000		65.5	19 - 111		



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Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

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

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

Batch B7B0363 - MSSEMI_W

Blank (B7B0363-BLK1)

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,4-Dioxane	ND	0.20	0.11			NR			
Surrogate: 1,2-Dichlorobenzene-d	0.8399			1.00000		84.0	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.9315			1.00000		93.2	28 - 122		
Surrogate: 4-Terphenyl-d14	1.201			1.00000		120	43 - 131		
Surrogate: Nitrobenzene-d5	0.8061			1.00000		80.6	20 - 119		

LCS (B7B0363-BS1)

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,4-Dioxane	1.60935	0.20	0.11	1.00000		161	49 - 169		
Surrogate: 1,2-Dichlorobenzene-d	0.8699			1.00000		87.0	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.9541			1.00000		95.4	28 - 122		
Surrogate: 4-Terphenyl-d14	1.099			1.00000		110	43 - 131		
Surrogate: Nitrobenzene-d5	0.8613			1.00000		86.1	20 - 119		

Matrix Spike (B7B0363-MS1)

Source: 1700610-01

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,4-Dioxane	1.67596	0.20	0.11	1.00000	ND	168	49 - 169		
Surrogate: 1,2-Dichlorobenzene-d	0.8139			1.00000		81.4	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.8980			1.00000		89.8	28 - 122		
Surrogate: 4-Terphenyl-d14	1.016			1.00000		102	43 - 131		
Surrogate: Nitrobenzene-d5	0.7945			1.00000		79.5	20 - 119		

Matrix Spike Dup (B7B0363-MSD1)

Source: 1700610-01

Prepared: 2/13/2017 Analyzed: 2/13/2017

1,4-Dioxane	2.07457	0.20	0.11	1.00000	ND	207	49 - 169	21.3	20	M2, R
Surrogate: 1,2-Dichlorobenzene-d	0.8140			1.00000		81.4	31 - 106			
Surrogate: 2-Fluorobiphenyl	0.9058			1.00000		90.6	28 - 122			
Surrogate: 4-Terphenyl-d14	1.027			1.00000		103	43 - 131			
Surrogate: Nitrobenzene-d5	0.7942			1.00000		79.4	20 - 119			



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Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

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

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

Batch B7B0366 - MSSEMI_W

Blank (B7B0366-BLK1)

Prepared: 2/13/2017 Analyzed: 2/14/2017

1,4-Dioxane	ND	0.20	0.11			NR			
Surrogate: 1,2-Dichlorobenzene-d	0.9226			1.00000		92.3	31 - 106		
Surrogate: 2-Fluorobiphenyl	1.024			1.00000		102	28 - 122		
Surrogate: 4-Terphenyl-d14	1.163			1.00000		116	43 - 131		
Surrogate: Nitrobenzene-d5	0.9043			1.00000		90.4	20 - 119		

LCS (B7B0366-BS1)

Prepared: 2/13/2017 Analyzed: 2/14/2017

1,4-Dioxane	1.04178	0.20	0.11	1.00000		104	49 - 169		
Surrogate: 1,2-Dichlorobenzene-d	0.8519			1.00000		85.2	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.9366			1.00000		93.7	28 - 122		
Surrogate: 4-Terphenyl-d14	1.021			1.00000		102	43 - 131		
Surrogate: Nitrobenzene-d5	0.8778			1.00000		87.8	20 - 119		

LCS Dup (B7B0366-BSD1)

Prepared: 2/13/2017 Analyzed: 2/14/2017

1,4-Dioxane	1.03119	0.20	0.11	1.00000		103	49 - 169	1.02	20
Surrogate: 1,2-Dichlorobenzene-d	0.8389			1.00000		83.9	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.9514			1.00000		95.1	28 - 122		
Surrogate: 4-Terphenyl-d14	1.045			1.00000		104	43 - 131		
Surrogate: Nitrobenzene-d5	0.8686			1.00000		86.9	20 - 119		



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main, 532.30

Report To : Steve Netto

Reported : 02/20/2017

Notes and Definitions

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.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
E3	Internal standard recoveries did not meet method acceptance due to matrix interference. 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
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.



PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto

QA Manager Tyler Evans

Phone 858.455.6500

Fax 858.455.6533

SAMPLER COLLECTION				MATRIX		PRESERVATION		CONTAINERS		ANALYSIS REQUESTED				Expected Concentration Range (ppb) for VOA's				SPECIAL HANDLING											
LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)				Ice	40-ml VOA	1 L Amber		VOCs by EPA 8242	1,4 Dioxane 8270 SIM	1,4-Dioxane 8270 MOD			0 - 10	10 - 100	100 - 1,000	>1,000	24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS	
1700C21-1	TB-020917	2/9/17	730		X	X				X	2			X						X					X				Report J Flags
-2-	MW-34C		900	X	X					X	3			X						X					X				
-3-	MW-34B		936	X	X					X	9			X	X					X					X		X		
-4-	MW-34A		1039	X	X					X	3			X		X				X					X		X		
-5-	MW-30A		1258	X	X					X	3			X	X					X					X		X		
-6-	MW-30B		1335	X	X					X	3			X	X					X					X		X		
-7-	MW-3000B		1345	X	X					X	3			X	X					X					X		X		
				X						X	1				X										X				

Total number of containers per analysis:				Total No. of Containers: 0			
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time				
TJS / HHA	2-9-17 1556	ATL	2-9-17 1556				
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time				
ATL	2-9-17 1700	From	2/9/17 1700				

- ☒ No. of containers correct
☒ Received in good condition
☒ Custody seals secure
☒ Conforms to COC document

Send Results to:
Steve Netto

9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Instructions

- Fill out form completely and sign only after verified for completeness
- Complete in ballpoint pen. Draw one line through error, initial and date correction
- Indicate the number of sample containers in analytical request space; indicate choice with ✓ or ✗
- Note applicable preservatives, special instructions, and deviations from typical environmental samples.
- Consult project QA documents for specific instructions.

5.0, 4.7 Temperature on receipt



PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto

QA Manager Tyler Evans

Phone 858.455.6500

Fax 858.455.6533

Sampled By:				SAMPLE COLLECTION																ANALYSIS REQUESTED																Expected Concentration Range (ppb) for VOA's				SPECIAL HANDLING				Laboratory
LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)	Ice	40-ml VOA	1 L Amber	VOCs by EPA 8260B	1,4 Dioxane 8270 SIM	1,4-Dioxane 8270 MOD	0-10	10-100	100-1,000	>1,000	24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS																						
170021 - 2	MW-26C	2/8/17	16:13	X	X		X	3		X			X										ATC																					
	↓		↓	X			X				X												ATC																					
-9	MW-28		16:46	X	X		X	3		X			X										ATC																					
	↓		↓	X			X				X												ATC																					
-10	MW-40	2/9/17	09:27	X	X		X	3		X	X		X										ATC																					
	↓		↓	X			X				X												ATC																					
-11	MW-24		10:42	X	X		X	3		X			X										ATC																					
	↓		↓	X			X				X												ATC																					
-12	MW-27		12:54	X	X		X	3		X			X										ATC																					
	↓		↓	X			X																ATC																					
-13	MW-15		14:25	X	X		X	3		X					X								ATC																					
-14	MW-29		15:40	X	X		X	3		X					X								ATC																					
	↓		↓	X			X				X												ATC																					
Total number of containers per analysis:										Total No. of Containers: 0																																		
Relinquished By: / Company:		Date / Time		Received By: / Company		Date / Time																																						
TJG / H+H		2/9/17 15:50		ATC		2-9-17 1556																																						
Relinquished By: / Company:		Date / Time		Received By: / Company		Date / Time																																						
ATC		2-9-17 1700		ATC		2/9/17 1700																																						

☒ No. of containers correct
☒ Received in good condition
☒ Custody seals secure
☒ Conforms to COC document

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓ or ✕
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

Temperature on receipt

From: Tyler Evans [TEvans@HARGIS.COM]
Sent: Thursday, February 09, 2017 4:36 PM
To: Rachelle Arada
Cc: customer.relations@atglobal.com; Carmen Aguila
Subject: RE: Bottleware request

Hi Rachelle,

Carmen brought an error on the coc to my attention for today. There was no analysis for 1 liter amber for MW-27. Please analyze 1,4 dioxane by 8270 SIM. Additionally, Mw-29 will be analyzed for 8270 MOD. Let me know if you have any questions.

Thanks,

Sent via the Samsung Galaxy Note5, an AT&T 4G LTE smartphone



WORK ORDER NUMBER: 17-02-0843

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

A handwritten signature in black ink, reading "Virendra Patel", enclosed within an oval-shaped stamp.

Approved for release on 02/16/2017 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, 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.

Contents

Client Project Name: Raytheon Main / 532.30
 Work Order Number: 17-02-0843

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Work Order Narrative

Work Order: 17-02-0843

Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 02/09/17. They were assigned to Work Order 17-02-0843.

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.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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.

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.

Sample Summary

Client: Hargis + Associates, Inc.	Work Order: 17-02-0843
9171 Towne Centre Drive, Suite 375	Project Name: Raytheon Main / 532.30
San Diego, CA 92122-6215	PO Number:
	Date/Time Received: 02/09/17 17:20
	Number of Containers: 18

Attn: Steve Netto

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TB-020617B	17-02-0843-1	02/06/17 13:00	2	Aqueous
EW-01	17-02-0843-2	02/06/17 13:20	4	Aqueous
MW-32B	17-02-0843-3	02/07/17 13:15	4	Aqueous
MW-36	17-02-0843-4	02/08/17 11:09	4	Aqueous
MW-30B	17-02-0843-5	02/09/17 13:35	4	Aqueous

Detections Summary

Client: Hargis + Associates, Inc.
 9171 Towne Centre Drive, Suite 375
 San Diego, CA 92122-6215

Work Order: 17-02-0843
 Project Name: Raytheon Main / 532.30
 Received: 02/09/17

Attn: Steve Netto

Page 1 of 1

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
EW-01 (17-02-0843-2)						
1,1-Dichloroethane	0.84	J	0.28*	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	64		1.0	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	46		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
MW-32B (17-02-0843-3)						
1,1-Dichloroethane	0.49	J	0.28*	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	68		1.0	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	2.0		1.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	21		1.0	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	2.1		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
MW-36 (17-02-0843-4)						
1,1-Dichloroethane	0.97	J	0.28*	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	110		1.0	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	10		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
MW-30B (17-02-0843-5)						
1,1-Dichloroethene	14		1.0	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	3.5		1.0	ug/L	EPA 8260B	EPA 5030C
Toluene	0.24	J	0.24*	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	66		1.0	ug/L	EPA 8260B	EPA 5030C

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

* MDL is shown

Analytical Report

Hargis + Associates, Inc.
 9171 Towne Centre Drive, Suite 375
 San Diego, CA 92122-6215

Date Received: 02/09/17
 Work Order: 17-02-0843
 Preparation: EPA 3510C
 Method: EPA 8270C (M) Isotope Dilution
 Units: ug/L

Project: Raytheon Main / 532.30

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EW-01	17-02-0843-2-F	02/06/17 13:20	Aqueous	GC/MS DDD	02/10/17	02/10/17 20:16	170210L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	46	1.0	0.28	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	95	56-123	
1,4-Dioxane-d8(IDS-IS)	43	30-120	

MW-32B	17-02-0843-3-F	02/07/17 13:15	Aqueous	GC/MS DDD	02/10/17	02/10/17 20:32	170210L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	2.1	1.0	0.28	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	90	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

MW-36	17-02-0843-4-F	02/08/17 11:09	Aqueous	GC/MS DDD	02/10/17	02/10/17 20:48	170210L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	10	1.0	0.28	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	95	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

MW-30B	17-02-0843-5-F	02/09/17 13:35	Aqueous	GC/MS DDD	02/10/17	02/10/17 21:04	170210L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	ND	1.0	0.28	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	90	56-123	
1,4-Dioxane-d8(IDS-IS)	38	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: 02/09/17
 Work Order: 17-02-0843
 Preparation: EPA 3510C
 Method: EPA 8270C (M) Isotope Dilution
 Units: ug/L

Project: Raytheon Main / 532.30

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-216-956	N/A	Aqueous	GC/MS DDD	02/10/17	02/10/17 15:44	170210L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	ND	1.0	0.28	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	96	56-123	
1,4-Dioxane-d8(IDS-IS)	43	30-120	

Analytical Report

Hargis + Associates, Inc.
 9171 Towne Centre Drive, Suite 375
 San Diego, CA 92122-6215

Date Received: 02/09/17
 Work Order: 17-02-0843
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main / 532.30

Page 1 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-020617B	17-02-0843-1-A	02/06/17 13:00	Aqueous	GC/MS UU	02/10/17	02/10/17 16:45	170210L012

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1.00	
Benzene	ND	0.50	0.14	1.00	
Bromobenzene	ND	1.0	0.30	1.00	
Bromochloromethane	ND	1.0	0.48	1.00	
Bromodichloromethane	ND	1.0	0.21	1.00	
Bromoform	ND	1.0	0.50	1.00	
Bromomethane	ND	10	3.9	1.00	
2-Butanone	ND	10	4.4	1.00	
n-Butylbenzene	ND	1.0	0.23	1.00	
sec-Butylbenzene	ND	1.0	0.25	1.00	
tert-Butylbenzene	ND	1.0	0.28	1.00	
Carbon Disulfide	ND	10	4.1	1.00	
Carbon Tetrachloride	ND	0.50	0.23	1.00	
Chlorobenzene	ND	1.0	0.17	1.00	
Chloroethane	ND	5.0	2.3	1.00	
Chloroform	ND	1.0	0.46	1.00	
Chloromethane	ND	10	3.5	1.00	
2-Chlorotoluene	ND	1.0	0.24	1.00	
4-Chlorotoluene	ND	1.0	0.13	1.00	
Dibromochloromethane	ND	1.0	0.25	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1.00	
1,2-Dibromoethane	ND	1.0	0.36	1.00	
Dibromomethane	ND	1.0	0.46	1.00	
1,2-Dichlorobenzene	ND	1.0	0.46	1.00	
1,3-Dichlorobenzene	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	1.0	0.43	1.00	
Dichlorodifluoromethane	ND	1.0	0.46	1.00	
1,1-Dichloroethane	ND	1.0	0.28	1.00	
1,2-Dichloroethane	ND	0.50	0.24	1.00	
1,1-Dichloroethene	ND	1.0	0.43	1.00	
c-1,2-Dichloroethene	ND	1.0	0.48	1.00	
t-1,2-Dichloroethene	ND	1.0	0.37	1.00	
1,2-Dichloropropane	ND	1.0	0.42	1.00	
1,3-Dichloropropane	ND	1.0	0.30	1.00	

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: 02/09/17
 Work Order: 17-02-0843
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main / 532.30

Page 2 of 12

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	4.2	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	3.8	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	5.0	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	ND	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	3.9	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	ND	1.0	0.37	1.00	
Trichlorofluoromethane	ND	10	3.3	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	5.6	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	77-120	
Dibromofluoromethane	91	80-128	
1,2-Dichloroethane-d4	87	80-129	
Toluene-d8	99	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: 02/09/17
 Work Order: 17-02-0843
 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
EW-01	17-02-0843-2-C	02/06/17 13:20	Aqueous	GC/MS UU	02/10/17	02/10/17 17:16	170210L012

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1.00	
Benzene	ND	0.50	0.14	1.00	
Bromobenzene	ND	1.0	0.30	1.00	
Bromochloromethane	ND	1.0	0.48	1.00	
Bromodichloromethane	ND	1.0	0.21	1.00	
Bromoform	ND	1.0	0.50	1.00	
Bromomethane	ND	10	3.9	1.00	
2-Butanone	ND	10	4.4	1.00	
n-Butylbenzene	ND	1.0	0.23	1.00	
sec-Butylbenzene	ND	1.0	0.25	1.00	
tert-Butylbenzene	ND	1.0	0.28	1.00	
Carbon Disulfide	ND	10	4.1	1.00	
Carbon Tetrachloride	ND	0.50	0.23	1.00	
Chlorobenzene	ND	1.0	0.17	1.00	
Chloroethane	ND	5.0	2.3	1.00	
Chloroform	ND	1.0	0.46	1.00	
Chloromethane	ND	10	3.5	1.00	
2-Chlorotoluene	ND	1.0	0.24	1.00	
4-Chlorotoluene	ND	1.0	0.13	1.00	
Dibromochloromethane	ND	1.0	0.25	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1.00	
1,2-Dibromoethane	ND	1.0	0.36	1.00	
Dibromomethane	ND	1.0	0.46	1.00	
1,2-Dichlorobenzene	ND	1.0	0.46	1.00	
1,3-Dichlorobenzene	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	1.0	0.43	1.00	
Dichlorodifluoromethane	ND	1.0	0.46	1.00	
1,1-Dichloroethane	0.84	1.0	0.28	1.00	J
1,2-Dichloroethane	ND	0.50	0.24	1.00	
1,1-Dichloroethene	64	1.0	0.43	1.00	
c-1,2-Dichloroethene	ND	1.0	0.48	1.00	
t-1,2-Dichloroethene	ND	1.0	0.37	1.00	
1,2-Dichloropropane	ND	1.0	0.42	1.00	
1,3-Dichloropropane	ND	1.0	0.30	1.00	

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: 02/09/17
 Work Order: 17-02-0843
 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>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	4.2	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	3.8	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	5.0	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	ND	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	3.9	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	ND	1.0	0.37	1.00	
Trichlorofluoromethane	ND	10	3.3	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	5.6	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	77-120	
Dibromofluoromethane	94	80-128	
1,2-Dichloroethane-d4	89	80-129	
Toluene-d8	97	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: 02/09/17
 Work Order: 17-02-0843
 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-32B	17-02-0843-3-A	02/07/17 13:15	Aqueous	GC/MS UU	02/10/17	02/10/17 17:47	170210L012

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1.00	
Benzene	ND	0.50	0.14	1.00	
Bromobenzene	ND	1.0	0.30	1.00	
Bromochloromethane	ND	1.0	0.48	1.00	
Bromodichloromethane	ND	1.0	0.21	1.00	
Bromoform	ND	1.0	0.50	1.00	
Bromomethane	ND	10	3.9	1.00	
2-Butanone	ND	10	4.4	1.00	
n-Butylbenzene	ND	1.0	0.23	1.00	
sec-Butylbenzene	ND	1.0	0.25	1.00	
tert-Butylbenzene	ND	1.0	0.28	1.00	
Carbon Disulfide	ND	10	4.1	1.00	
Carbon Tetrachloride	ND	0.50	0.23	1.00	
Chlorobenzene	ND	1.0	0.17	1.00	
Chloroethane	ND	5.0	2.3	1.00	
Chloroform	ND	1.0	0.46	1.00	
Chloromethane	ND	10	3.5	1.00	
2-Chlorotoluene	ND	1.0	0.24	1.00	
4-Chlorotoluene	ND	1.0	0.13	1.00	
Dibromochloromethane	ND	1.0	0.25	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1.00	
1,2-Dibromoethane	ND	1.0	0.36	1.00	
Dibromomethane	ND	1.0	0.46	1.00	
1,2-Dichlorobenzene	ND	1.0	0.46	1.00	
1,3-Dichlorobenzene	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	1.0	0.43	1.00	
Dichlorodifluoromethane	ND	1.0	0.46	1.00	
1,1-Dichloroethane	0.49	1.0	0.28	1.00	J
1,2-Dichloroethane	ND	0.50	0.24	1.00	
1,1-Dichloroethene	68	1.0	0.43	1.00	
c-1,2-Dichloroethene	2.0	1.0	0.48	1.00	
t-1,2-Dichloroethene	ND	1.0	0.37	1.00	
1,2-Dichloropropane	ND	1.0	0.42	1.00	
1,3-Dichloropropane	ND	1.0	0.30	1.00	

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: 02/09/17
 Work Order: 17-02-0843
 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>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	4.2	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	3.8	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	5.0	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	ND	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	3.9	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	21	1.0	0.37	1.00	
Trichlorofluoromethane	ND	10	3.3	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	5.6	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	77-120	
Dibromofluoromethane	93	80-128	
1,2-Dichloroethane-d4	89	80-129	
Toluene-d8	96	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: 02/09/17
 Work Order: 17-02-0843
 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	17-02-0843-4-A	02/08/17 11:09	Aqueous	GC/MS UU	02/10/17	02/10/17 18:17	170210L012

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1.00	
Benzene	ND	0.50	0.14	1.00	
Bromobenzene	ND	1.0	0.30	1.00	
Bromochloromethane	ND	1.0	0.48	1.00	
Bromodichloromethane	ND	1.0	0.21	1.00	
Bromoform	ND	1.0	0.50	1.00	
Bromomethane	ND	10	3.9	1.00	
2-Butanone	ND	10	4.4	1.00	
n-Butylbenzene	ND	1.0	0.23	1.00	
sec-Butylbenzene	ND	1.0	0.25	1.00	
tert-Butylbenzene	ND	1.0	0.28	1.00	
Carbon Disulfide	ND	10	4.1	1.00	
Carbon Tetrachloride	ND	0.50	0.23	1.00	
Chlorobenzene	ND	1.0	0.17	1.00	
Chloroethane	ND	5.0	2.3	1.00	
Chloroform	ND	1.0	0.46	1.00	
Chloromethane	ND	10	3.5	1.00	
2-Chlorotoluene	ND	1.0	0.24	1.00	
4-Chlorotoluene	ND	1.0	0.13	1.00	
Dibromochloromethane	ND	1.0	0.25	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1.00	
1,2-Dibromoethane	ND	1.0	0.36	1.00	
Dibromomethane	ND	1.0	0.46	1.00	
1,2-Dichlorobenzene	ND	1.0	0.46	1.00	
1,3-Dichlorobenzene	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	1.0	0.43	1.00	
Dichlorodifluoromethane	ND	1.0	0.46	1.00	
1,1-Dichloroethane	0.97	1.0	0.28	1.00	J
1,2-Dichloroethane	ND	0.50	0.24	1.00	
1,1-Dichloroethene	110	1.0	0.43	1.00	
c-1,2-Dichloroethene	ND	1.0	0.48	1.00	
t-1,2-Dichloroethene	ND	1.0	0.37	1.00	
1,2-Dichloropropane	ND	1.0	0.42	1.00	
1,3-Dichloropropane	ND	1.0	0.30	1.00	

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: 02/09/17
 Work Order: 17-02-0843
 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>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	4.2	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	3.8	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	5.0	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	ND	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	3.9	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	ND	1.0	0.37	1.00	
Trichlorofluoromethane	ND	10	3.3	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	5.6	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	77-120	
Dibromofluoromethane	92	80-128	
1,2-Dichloroethane-d4	87	80-129	
Toluene-d8	99	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: 02/09/17
 Work Order: 17-02-0843
 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-30B	17-02-0843-5-A	02/09/17 13:35	Aqueous	GC/MS UU	02/10/17	02/10/17 18:48	170210L012

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1.00	
Benzene	ND	0.50	0.14	1.00	
Bromobenzene	ND	1.0	0.30	1.00	
Bromochloromethane	ND	1.0	0.48	1.00	
Bromodichloromethane	ND	1.0	0.21	1.00	
Bromoform	ND	1.0	0.50	1.00	
Bromomethane	ND	10	3.9	1.00	
2-Butanone	ND	10	4.4	1.00	
n-Butylbenzene	ND	1.0	0.23	1.00	
sec-Butylbenzene	ND	1.0	0.25	1.00	
tert-Butylbenzene	ND	1.0	0.28	1.00	
Carbon Disulfide	ND	10	4.1	1.00	
Carbon Tetrachloride	ND	0.50	0.23	1.00	
Chlorobenzene	ND	1.0	0.17	1.00	
Chloroethane	ND	5.0	2.3	1.00	
Chloroform	ND	1.0	0.46	1.00	
Chloromethane	ND	10	3.5	1.00	
2-Chlorotoluene	ND	1.0	0.24	1.00	
4-Chlorotoluene	ND	1.0	0.13	1.00	
Dibromochloromethane	ND	1.0	0.25	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1.00	
1,2-Dibromoethane	ND	1.0	0.36	1.00	
Dibromomethane	ND	1.0	0.46	1.00	
1,2-Dichlorobenzene	ND	1.0	0.46	1.00	
1,3-Dichlorobenzene	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	1.0	0.43	1.00	
Dichlorodifluoromethane	ND	1.0	0.46	1.00	
1,1-Dichloroethane	ND	1.0	0.28	1.00	
1,2-Dichloroethane	ND	0.50	0.24	1.00	
1,1-Dichloroethene	14	1.0	0.43	1.00	
c-1,2-Dichloroethene	3.5	1.0	0.48	1.00	
t-1,2-Dichloroethene	ND	1.0	0.37	1.00	
1,2-Dichloropropane	ND	1.0	0.42	1.00	
1,3-Dichloropropane	ND	1.0	0.30	1.00	

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: 02/09/17
 Work Order: 17-02-0843
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main / 532.30

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Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	4.2	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	3.8	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	5.0	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	ND	1.0	0.39	1.00	
Toluene	0.24	1.0	0.24	1.00	J
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	3.9	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	66	1.0	0.37	1.00	
Trichlorofluoromethane	ND	10	3.3	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	5.6	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	77-120	
Dibromofluoromethane	93	80-128	
1,2-Dichloroethane-d4	88	80-129	
Toluene-d8	98	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: 02/09/17
 Work Order: 17-02-0843
 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	099-14-001-22466	N/A	Aqueous	GC/MS UU	02/10/17	02/10/17 11:04	170210L012

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1.00	
Benzene	ND	0.50	0.14	1.00	
Bromobenzene	ND	1.0	0.30	1.00	
Bromochloromethane	ND	1.0	0.48	1.00	
Bromodichloromethane	ND	1.0	0.21	1.00	
Bromoform	ND	1.0	0.50	1.00	
Bromomethane	ND	10	3.9	1.00	
2-Butanone	ND	10	4.4	1.00	
n-Butylbenzene	ND	1.0	0.23	1.00	
sec-Butylbenzene	ND	1.0	0.25	1.00	
tert-Butylbenzene	ND	1.0	0.28	1.00	
Carbon Disulfide	ND	10	4.1	1.00	
Carbon Tetrachloride	ND	0.50	0.23	1.00	
Chlorobenzene	ND	1.0	0.17	1.00	
Chloroethane	ND	5.0	2.3	1.00	
Chloroform	ND	1.0	0.46	1.00	
Chloromethane	ND	10	3.5	1.00	
2-Chlorotoluene	ND	1.0	0.24	1.00	
4-Chlorotoluene	ND	1.0	0.13	1.00	
Dibromochloromethane	ND	1.0	0.25	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1.00	
1,2-Dibromoethane	ND	1.0	0.36	1.00	
Dibromomethane	ND	1.0	0.46	1.00	
1,2-Dichlorobenzene	ND	1.0	0.46	1.00	
1,3-Dichlorobenzene	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	1.0	0.43	1.00	
Dichlorodifluoromethane	ND	1.0	0.46	1.00	
1,1-Dichloroethane	ND	1.0	0.28	1.00	
1,2-Dichloroethane	ND	0.50	0.24	1.00	
1,1-Dichloroethene	ND	1.0	0.43	1.00	
c-1,2-Dichloroethene	ND	1.0	0.48	1.00	
t-1,2-Dichloroethene	ND	1.0	0.37	1.00	
1,2-Dichloropropane	ND	1.0	0.42	1.00	
1,3-Dichloropropane	ND	1.0	0.30	1.00	

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: 02/09/17
 Work Order: 17-02-0843
 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>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	4.2	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	3.8	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	5.0	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	ND	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	3.9	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	ND	1.0	0.37	1.00	
Trichlorofluoromethane	ND	10	3.3	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	5.6	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	77-120	
Dibromofluoromethane	91	80-128	
1,2-Dichloroethane-d4	88	80-129	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/09/17
Work Order: 17-02-0843
Preparation: EPA 3510C
Method: EPA 8270C (M) Isotope Dilution

Project: Raytheon Main / 532.30

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
17-02-0606-1	Sample	Aqueous	GC/MS DDD	02/10/17	02/10/17 16:48	170210S07				
17-02-0606-1	Matrix Spike	Aqueous	GC/MS DDD	02/10/17	02/10/17 16:16	170210S07				
17-02-0606-1	Matrix Spike Duplicate	Aqueous	GC/MS DDD	02/10/17	02/10/17 16:32	170210S07				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	1.102	20.00	20.43	97	20.87	99	50-130	2	0-20	

Return to Contents

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: 02/09/17
 Work Order: 17-02-0843
 Preparation: EPA 3510C
 Method: EPA 8270C (M) Isotope Dilution

Project: Raytheon Main / 532.30

Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-216-956	LCS	Aqueous	GC/MS DDD	02/10/17	02/10/17 16:00	170210L07
<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	19.93	100	50-130	



Calscience

Quality Control - LCS/LCSD

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/09/17
Work Order: 17-02-0843
Preparation: EPA 5030C
Method: EPA 8260B

Project: Raytheon Main / 532.30

Page 2 of 3

Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-14-001-22466	LCS	Aqueous		GC/MS UU	02/10/17	02/10/17 09:16	170210L012			
099-14-001-22466	LCSD	Aqueous		GC/MS UU	02/10/17	02/10/17 12:39	170210L012			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	40.37	81	38.78	78	53-137	39-151	4	0-21	
Benzene	50.00	46.75	94	46.42	93	79-121	72-128	1	0-20	
Bromobenzene	50.00	53.97	108	52.31	105	80-120	73-127	3	0-20	
Bromochloromethane	50.00	49.69	99	49.67	99	80-122	73-129	0	0-20	
Bromodichloromethane	50.00	47.81	96	47.65	95	80-124	73-131	0	0-20	
Bromoform	50.00	49.61	99	49.72	99	73-127	64-136	0	0-20	
Bromomethane	50.00	51.12	102	49.08	98	50-150	33-167	4	0-26	
2-Butanone	50.00	44.93	90	43.76	88	60-126	49-137	3	0-20	
n-Butylbenzene	50.00	52.72	105	53.98	108	72-138	61-149	2	0-20	
sec-Butylbenzene	50.00	48.58	97	49.21	98	77-131	68-140	1	0-20	
tert-Butylbenzene	50.00	49.84	100	50.79	102	80-125	72-132	2	0-20	
Carbon Disulfide	50.00	47.33	95	46.69	93	50-150	33-167	1	0-22	
Carbon Tetrachloride	50.00	44.27	89	43.59	87	65-143	52-156	2	0-20	
Chlorobenzene	50.00	50.31	101	49.95	100	80-120	73-127	1	0-20	
Chloroethane	50.00	46.35	93	44.90	90	62-128	51-139	3	0-20	
Chloroform	50.00	43.54	87	43.41	87	80-120	73-127	0	0-20	
Chloromethane	50.00	43.60	87	41.15	82	43-133	28-148	6	0-20	
2-Chlorotoluene	50.00	47.80	96	46.91	94	80-121	73-128	2	0-20	
4-Chlorotoluene	50.00	45.48	91	45.54	91	80-120	73-127	0	0-20	
Dibromochloromethane	50.00	50.12	100	49.99	100	80-123	73-130	0	0-20	
1,2-Dibromo-3-Chloropropane	50.00	47.50	95	48.49	97	66-126	56-136	2	0-20	
1,2-Dibromoethane	50.00	51.75	104	51.37	103	80-120	73-127	1	0-20	
Dibromomethane	50.00	48.20	96	47.99	96	80-120	73-127	0	0-20	
1,2-Dichlorobenzene	50.00	52.55	105	52.67	105	80-120	73-127	0	0-20	
1,3-Dichlorobenzene	50.00	50.16	100	50.54	101	80-120	73-127	1	0-20	
1,4-Dichlorobenzene	50.00	49.59	99	49.92	100	80-120	73-127	1	0-20	
Dichlorodifluoromethane	50.00	44.09	88	43.45	87	50-150	33-167	1	0-30	
1,1-Dichloroethane	50.00	44.71	89	44.64	89	72-126	63-135	0	0-20	
1,2-Dichloroethane	50.00	47.66	95	47.36	95	76-120	69-127	1	0-20	
1,1-Dichloroethene	50.00	44.72	89	44.54	89	66-132	55-143	0	0-20	
c-1,2-Dichloroethene	50.00	45.95	92	45.89	92	78-120	71-127	0	0-20	
t-1,2-Dichloroethene	50.00	46.82	94	46.57	93	66-132	55-143	1	0-20	
1,2-Dichloropropane	50.00	47.04	94	47.35	95	80-120	73-127	1	0-20	
1,3-Dichloropropane	50.00	49.14	98	48.76	98	80-120	73-127	1	0-20	
2,2-Dichloropropane	50.00	64.85	130	64.57	129	50-150	33-167	0	0-20	
1,1-Dichloropropene	50.00	46.22	92	45.49	91	75-123	67-131	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/09/17
Work Order: 17-02-0843
Preparation: EPA 5030C
Method: EPA 8260B

Project: Raytheon Main / 532.30

Page 3 of 3

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	53.12	106	52.88	106	77-131	68-140	0	0-20	
t-1,3-Dichloropropene	50.00	55.68	111	55.43	111	76-136	66-146	0	0-20	
Ethylbenzene	50.00	49.00	98	48.63	97	80-120	73-127	1	0-20	
2-Hexanone	50.00	47.62	95	46.82	94	63-123	53-133	2	0-20	
Isopropylbenzene	50.00	50.06	100	49.30	99	80-128	72-136	2	0-20	
p-Isopropyltoluene	50.00	51.07	102	51.99	104	73-133	63-143	2	0-20	
Methylene Chloride	50.00	46.30	93	45.40	91	61-133	49-145	2	0-27	
4-Methyl-2-Pentanone	50.00	49.07	98	47.23	94	65-125	55-135	4	0-20	
Naphthalene	50.00	50.55	101	52.97	106	69-129	59-139	5	0-20	
n-Propylbenzene	50.00	51.50	103	50.57	101	80-128	72-136	2	0-20	
Styrene	50.00	51.25	102	50.18	100	80-126	72-134	2	0-20	
1,1,1,2-Tetrachloroethane	50.00	51.68	103	51.63	103	80-129	72-137	0	0-20	
1,1,2,2-Tetrachloroethane	50.00	48.38	97	49.48	99	74-122	66-130	2	0-20	
Tetrachloroethene	50.00	47.40	95	46.34	93	55-139	41-153	2	0-23	
Toluene	50.00	48.25	96	47.89	96	80-120	73-127	1	0-20	
1,2,3-Trichlorobenzene	50.00	57.73	115	60.71	121	72-132	62-142	5	0-20	
1,2,4-Trichlorobenzene	50.00	59.88	120	62.52	125	74-134	64-144	4	0-20	
1,1,1-Trichloroethane	50.00	43.48	87	43.32	87	76-124	68-132	0	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	49.26	99	50.25	100	54-150	38-166	2	0-30	
1,1,2-Trichloroethane	50.00	48.00	96	48.14	96	80-120	73-127	0	0-20	
Trichloroethene	50.00	46.67	93	45.97	92	79-121	72-128	2	0-20	
Trichlorofluoromethane	50.00	47.20	94	47.83	96	72-132	62-142	1	0-20	
1,2,3-Trichloropropane	50.00	51.56	103	49.86	100	75-123	67-131	3	0-20	
1,2,4-Trimethylbenzene	50.00	49.25	99	49.75	100	74-128	65-137	1	0-20	
1,3,5-Trimethylbenzene	50.00	52.55	105	51.27	103	77-131	68-140	2	0-20	
Vinyl Acetate	50.00	54.96	110	55.55	111	50-150	33-167	1	0-20	
Vinyl Chloride	50.00	44.86	90	43.56	87	63-129	52-140	3	0-20	
p/m-Xylene	100.0	92.99	93	91.88	92	80-122	73-129	1	0-20	
o-Xylene	50.00	47.57	95	46.77	94	80-128	72-136	2	0-20	

Total number of LCS compounds: 65

Total number of ME compounds: 0

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Sample Analysis Summary Report

Work Order: 17-02-0843

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8260B	EPA 5030C	996	GC/MS UU	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	928	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: 17-02-0843

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/PDSD 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.
CI	See case narrative.
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: 2/6/17
Page 1 of 1

Date: 2/6/18

Page 1 of 1[illegible]

Total number of containers per analysis:		
Relinquished By: / Company:	Date / Time	Receive
WJG/HHA	2/9/18 1636	ALV
Relinquished By: / Company:	Date / Time	Receive
ALV : ECR	2/9/18 PM	DAN

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓ or ✕
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

Temperature on receipt

Send Results to:

Steve Netto

9171 Towne Centre Drive
Suite 375

San Diego, CA 92122

Ph: 858.455.5400

snetto@hargis.com

snetto@hargis.com

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SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: HARGIS & ASSOCIATES

DATE: 02/9/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 3.7 °C (w/ CF): 3.7 °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

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 678

CUSTODY SEAL:

Cooler ☐ Present and Intact

☐ Present but Not Intact

☒ Not Present

☐ N/A

Checked by: 678

Sample(s) ☐ Present and Intact

☐ Present but Not Intact

☒ Not Present

☐ N/A

Checked by: 836

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☒	☐	☐
COC document(s) received complete	☒	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☒	☐	☐
Sample container label(s) consistent with COC	☒	☐	☐
Sample container(s) intact and in good condition	☒	☐	☐
Proper containers for analyses requested	☒	☐	☐
Sufficient volume/mass for analyses requested	☒	☐	☐
Samples received within holding time	☒	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☒
Proper preservation chemical(s) noted on COC and/or sample container	☒	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☒	☐	☐
☒ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☒

CONTAINER TYPE:

(Trip Blank Lot Number: N/A)

Aqueous: ☐ VOA ☒ VOAH ☐ VOAna₂ ☐ 100PJ ☐ 100PJna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB

☐ 125PBznnna ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 250PB ☐ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☐ 500PB ☒ 1AGB ☐ 1AGBna₂ ☐ 1AGBs ☐ 1PB ☐ 1PBna ☐ _____ ☐ _____ ☐ _____ ☐ _____

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

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (_____) ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 836

s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, znnna = Zn (CH₃CO₂)₂ + NaOH

Reviewed by: 774

GROUNDWATER EXTRACTION AND TREATMENT SYSTEM RESULTS



December 13, 2016

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
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604337

Client Reference : Raytheon Main GETS Quarterly Sample, 532.15

Enclosed are the results for sample(s) received on December 01, 2016 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 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 GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CEFF	1604337-01	Groundwater	12/01/16 7:50	12/01/16 10:40
POX	1604337-02	Groundwater	12/01/16 8:02	12/01/16 10:40
INF	1604337-03	Groundwater	12/01/16 8:15	12/01/16 10:40
EW-02	1604337-04	Groundwater	12/01/16 9:10	12/01/16 10:40
MW-29	1604337-05	Groundwater	12/01/16 9:32	12/01/16 10:40

CASE NARRATIVE

Sample Receiving/General Comments:

The following analytes lists were taken from sample containers:

Alkalinity - Hydroxide, Bicarbonate, Carbonate, and Total

Dissolved metals - Se, Fe, Mn, Ca, Na, Mg

Anions - Cl, SO₄, NO₃, NO₂, PO₄



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Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

Client Sample ID CEFF

Lab ID: 1604337-01

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: JL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	660	10	1	B6L0251	12/05/2016	12/06/16 15:00	



Certificate of Analysis

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San Diego , CA 92122

Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

Client Sample ID POX

Lab ID: 1604337-02

Anions Scan by Ion Chromatography EPA 300.0

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloride	120	10	20	B6L0429	12/01/2016	12/01/16 23:13	
Nitrate, as N	4.7	0.10	1	B6L0429	12/01/2016	12/01/16 21:08	
Nitrite, as N	ND	0.10	1	B6L0429	12/01/2016	12/01/16 21:08	
ortho-Phosphate, as P	ND	0.05	1	B6L0429	12/01/2016	12/01/16 21:08	
Sulfate	130	20	20	B6L0429	12/01/2016	12/01/16 23:13	

UV Absorption by EPA 415.3

Analyst: PT

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B6L0235	12/01/2016	12/01/16 15:55	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: JL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	670	10	1	B6L0251	12/05/2016	12/06/16 15:00	

Chemical Oxygen Demand by EPA 410.4

Analyst: SLO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chemical Oxygen Demand	ND	5.0	1	B6L0154	12/05/2016	12/05/16 16:00	



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Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

Client Sample ID INF

Lab ID: 1604337-03

Anions Scan by Ion Chromatography EPA 300.0

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloride	120	10	20	B6L0429	12/01/2016	12/01/16 23:59	
Nitrate, as N	4.7	0.10	1	B6L0429	12/01/2016	12/01/16 21:19	
Nitrite, as N	ND	0.10	1	B6L0429	12/01/2016	12/01/16 21:19	
ortho-Phosphate, as P	ND	0.05	1	B6L0429	12/01/2016	12/01/16 21:19	
Sulfate	130	20	20	B6L0429	12/01/2016	12/01/16 23:59	

UV Absorption by EPA 415.3

Analyst: PT

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B6L0235	12/01/2016	12/01/16 15:55	

Alkalinity, Speciated by SM 2320B

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO ₃)	220	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Carbonate (as CaCO ₃)	ND	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Hydroxide (as CaCO ₃)	ND	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Total (as CaCO ₃)	220	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: JL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	670	10	1	B6L0251	12/05/2016	12/06/16 15:00	

Total Organic Carbon by SM 5310B

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B6L0105	12/03/2016	12/05/16 04:04	

Chemical Oxygen Demand by EPA 410.4

Analyst: SLO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

Client Sample ID INF

Lab ID: 1604337-03

Chemical Oxygen Demand by EPA 410.4

Analyst: SLO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chemical Oxygen Demand	ND	5.0	1	B6L0154	12/05/2016	12/05/16 16:00	

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Selenium	ND	0.010	1	B6L0227	12/07/2016	12/08/16 13:19	

Dissolved Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Calcium	86	0.50	1	B6L0230	12/07/2016	12/08/16 12:12	
Iron	ND	0.50	1	B6L0230	12/07/2016	12/08/16 12:12	
Magnesium	26	0.10	1	B6L0230	12/07/2016	12/08/16 12:12	
Manganese	ND	0.50	1	B6L0230	12/07/2016	12/08/16 12:12	
Selenium	ND	0.010	1	B6L0230	12/07/2016	12/08/16 12:12	
Sodium	69	1.0	1	B6L0230	12/07/2016	12/08/16 12:12	



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Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

Client Sample ID EW-02

Lab ID: 1604337-04

Anions Scan by Ion Chromatography EPA 300.0

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloride	190	10	20	B6L0429	12/01/2016	12/02/16 00:10	
Nitrate, as N	6.4	0.10	1	B6L0429	12/01/2016	12/01/16 21:31	
Nitrite, as N	ND	0.10	1	B6L0429	12/01/2016	12/01/16 21:31	
ortho-Phosphate, as P	ND	0.05	1	B6L0429	12/01/2016	12/01/16 21:31	
Sulfate	120	20	20	B6L0429	12/01/2016	12/02/16 00:10	

UV Absorption by EPA 415.3

Analyst: PT

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B6L0235	12/01/2016	12/01/16 15:55	

Alkalinity, Speciated by SM 2320B

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO₃)	250	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Carbonate (as CaCO ₃)	ND	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Hydroxide (as CaCO ₃)	ND	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Total (as CaCO₃)	250	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: JL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	630	10	1	B6L0251	12/05/2016	12/06/16 15:00	

Total Organic Carbon by SM 5310B

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B6L0105	12/03/2016	12/05/16 04:22	

Chemical Oxygen Demand by EPA 410.4

Analyst: SLO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes



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Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

Client Sample ID EW-02

Lab ID: 1604337-04

Chemical Oxygen Demand by EPA 410.4

Analyst: SLO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chemical Oxygen Demand	ND	5.0	1	B6L0154	12/05/2016	12/05/16 16:00	

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Selenium	ND	0.010	1	B6L0227	12/07/2016	12/08/16 13:23	

Dissolved Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Calcium	91	0.50	1	B6L0230	12/07/2016	12/08/16 12:16	
Iron	ND	0.50	1	B6L0230	12/07/2016	12/08/16 12:16	
Magnesium	27	0.10	1	B6L0230	12/07/2016	12/08/16 12:16	
Manganese	ND	0.50	1	B6L0230	12/07/2016	12/08/16 12:16	
Selenium	ND	0.010	1	B6L0230	12/07/2016	12/08/16 12:16	
Sodium	70	1.0	1	B6L0230	12/07/2016	12/08/16 12:16	



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San Diego , CA 92122

Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

Client Sample ID MW-29

Lab ID: 1604337-05

Anions Scan by Ion Chromatography EPA 300.0

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloride	100	10	20	B6L0429	12/01/2016	12/02/16 00:22	
Nitrate, as N	4.3	0.10	1	B6L0429	12/01/2016	12/01/16 21:42	
Nitrite, as N	ND	0.10	1	B6L0429	12/01/2016	12/01/16 21:42	
ortho-Phosphate, as P	ND	0.05	1	B6L0429	12/01/2016	12/01/16 21:42	
Sulfate	140	20	20	B6L0429	12/01/2016	12/02/16 00:22	

UV Absorption by EPA 415.3

Analyst: PT

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B6L0235	12/01/2016	12/01/16 15:55	

Alkalinity, Speciated by SM 2320B

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO ₃)	220	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Carbonate (as CaCO ₃)	ND	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Hydroxide (as CaCO ₃)	ND	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Total (as CaCO ₃)	220	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: JL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	980	10	1	B6L0251	12/05/2016	12/06/16 15:00	

Total Organic Carbon by SM 5310B

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B6L0105	12/03/2016	12/05/16 04:37	

Chemical Oxygen Demand by EPA 410.4

Analyst: SLO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes



Certificate of Analysis

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San Diego , CA 92122

Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

Client Sample ID MW-29

Lab ID: 1604337-05

Chemical Oxygen Demand by EPA 410.4

Analyst: SLO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chemical Oxygen Demand	ND	5.0	1	B6L0154	12/05/2016	12/05/16 16:00	

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Selenium	ND	0.010	1	B6L0227	12/07/2016	12/08/16 13:27	

Dissolved Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Calcium	98	0.50	1	B6L0230	12/07/2016	12/08/16 12:20	
Iron	ND	0.50	1	B6L0230	12/07/2016	12/08/16 12:20	
Magnesium	29	0.10	1	B6L0230	12/07/2016	12/08/16 12:20	
Manganese	ND	0.50	1	B6L0230	12/07/2016	12/08/16 12:20	
Selenium	ND	0.010	1	B6L0230	12/07/2016	12/08/16 12:20	
Sodium	87	1.0	1	B6L0230	12/07/2016	12/08/16 12:20	



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Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

QUALITY CONTROL SECTION

Alkalinity, Speciated by SM 2320B - Quality Control

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

Batch B6L0270 - No_Prep_WC1_W

Blank (B6L0270-BLK1)

Prepared: 12/6/2016 Analyzed: 12/6/2016

Alkalinity, Bicarbonate (as CaCO ₃)	ND	5.0				NR			
Alkalinity, Carbonate (as CaCO ₃)	ND	5.0				NR			
Alkalinity, Hydroxide (as CaCO ₃)	ND	5.0				NR			
Alkalinity, Total (as CaCO ₃)	ND	5.0				NR			

LCS (B6L0270-BS1)

Prepared: 12/6/2016 Analyzed: 12/6/2016

Alkalinity, Total (as CaCO ₃)	100.810	5.0	99.9580		101	80 - 120			

Matrix Spike (B6L0270-MS1)

Source: 1604316-01

Prepared: 12/6/2016 Analyzed: 12/6/2016

Alkalinity, Total (as CaCO ₃)	221.770	10	199.916	30.2400	95.8	80 - 120			

Matrix Spike Dup (B6L0270-MSD1)

Source: 1604316-01

Prepared: 12/6/2016 Analyzed: 12/6/2016

Alkalinity, Total (as CaCO ₃)	221.770	10	199.916	30.2400	95.8	80 - 120	0.00	20	



Certificate of Analysis

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Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

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 B6L0251 - No_Prep_WC1_W

Blank (B6L0251-BLK1)

Prepared: 12/5/2016 Analyzed: 12/6/2016

Residue, Dissolved

ND

10

NR

LCS (B6L0251-BS1)

Prepared: 12/5/2016 Analyzed: 12/6/2016

Residue, Dissolved

991.000

10

988.000

100

80 - 120

Duplicate (B6L0251-DUP1)

Source: 1604364-02

Prepared: 12/5/2016 Analyzed: 12/6/2016

Residue, Dissolved

850.000

10

849.000

NR

0.118

10



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Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

Anions Scan by Ion Chromatography EPA 300.0 - Quality Control

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

Batch B6L0429 - No_Prep_IC1_W

Blank (B6L0429-BLK1)

Prepared: 12/1/2016 Analyzed: 12/1/2016

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 (B6L0429-BS1)

Prepared: 12/1/2016 Analyzed: 12/1/2016

Chloride	0.939200	0.50	1.00000		93.9	90 - 110			
Nitrate, as N	0.955700	0.10	1.00000		95.6	90 - 110			
Nitrite, as N	0.973700	0.10	1.00000		97.4	90 - 110			
ortho-Phosphate, as P	0.984200	0.05	1.00000		98.4	90 - 110			
Sulfate	1.92600	1.0	2.00000		96.3	90 - 110			

Duplicate (B6L0429-DUP1)

Source: 1604337-02

Prepared: 12/1/2016 Analyzed: 12/1/2016

Chloride	116.822	10		116.582	NR		0.206	20	
Nitrate, as N	5.54400	2.0		4.70740	NR		16.3	20	
Nitrite, as N	ND	2.0		ND	NR			20	
ortho-Phosphate, as P	ND	1.0		ND	NR			20	
Sulfate	133.682	20		133.564	NR		0.0883	20	

Matrix Spike (B6L0429-MS1)

Source: 1604337-02

Prepared: 12/1/2016 Analyzed: 12/1/2016

Chloride	7.63420		2.50000	5.82910	72.2	80 - 120			M1
Nitrate, as N	2.77480		2.50000	0.235370	102	80 - 120			
Nitrite, as N	2.76110		2.50000	0.00000	110	80 - 120			
ortho-Phosphate, as P	2.70760		2.50000	0.00000	108	80 - 120			
Sulfate	11.2228		5.00000	6.67820	90.9	80 - 120			

Matrix Spike Dup (B6L0429-MSD1)

Source: 1604337-02

Prepared: 12/1/2016 Analyzed: 12/1/2016

Chloride	7.67940		2.50000	5.82910	74.0	80 - 120	0.590	20	M1
Nitrate, as N	2.80140		2.50000	0.235370	103	80 - 120	0.954	20	
Nitrite, as N	2.80890		2.50000	0.00000	112	80 - 120	1.72	20	
ortho-Phosphate, as P	2.75640		2.50000	0.00000	110	80 - 120	1.79	20	
Sulfate	11.3579		5.00000	6.67820	93.6	80 - 120	1.20	20	



Certificate of Analysis

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Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

UV Absorption by EPA 415.3 - Quality Control

Analyte	Result (1/cm)	PQL (1/cm)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B6L0235 - No_Prep_II_W

Blank (B6L0235-BLK1)

Prepared: 12/1/2016 Analyzed: 12/1/2016

UV Absorption	ND	0.01			NR				
Duplicate (B6L0235-DUP1)		Source: 1604337-02							
UV Absorption	ND	0.01		ND	NR			20	
Duplicate (B6L0235-DUP2)		Source: 1604337-03							
UV Absorption	ND	0.01		ND	NR			20	
Duplicate (B6L0235-DUP3)		Source: 1604337-04							
UV Absorption	ND	0.01		ND	NR			20	
Duplicate (B6L0235-DUP4)		Source: 1604337-05							
UV Absorption	ND	0.01		ND	NR			20	
Duplicate (B6L0235-DUP5)		Source: 1604338-05							
UV Absorption	ND	0.01		ND	NR			20	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

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 B6L0105 - No_Prep_II_W

Blank (B6L0105-BLK1)

Prepared: 12/3/2016 Analyzed: 12/5/2016

Organic Carbon, Total

ND

3.0

NR

LCS (B6L0105-BS1)

Prepared: 12/3/2016 Analyzed: 12/5/2016

Organic Carbon, Total

22.5700

3.0

20.0000

113

80 - 120

LCS Dup (B6L0105-BSD1)

Prepared: 12/3/2016 Analyzed: 12/5/2016

Organic Carbon, Total

21.4700

3.0

20.0000

107

80 - 120

5.00

20



Certificate of Analysis

Hargis & Associates, Inc.

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San Diego , CA 92122

Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

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 B6L0154 - Prep_WC1_W

Blank (B6L0154-BLK1)

Prepared: 12/5/2016 Analyzed: 12/5/2016

Chemical Oxygen Demand

ND

5.0

NR

LCS (B6L0154-BS1)

Prepared: 12/5/2016 Analyzed: 12/5/2016

Chemical Oxygen Demand

485.488

5.0

501.500

96.8

80 - 120

Matrix Spike (B6L0154-MS1)

Source: 1604337-02

Prepared: 12/5/2016 Analyzed: 12/5/2016

Chemical Oxygen Demand

494.759

5.0

501.500

ND

98.7

80 - 120

Matrix Spike Dup (B6L0154-MSD1)

Source: 1604337-02

Prepared: 12/5/2016 Analyzed: 12/5/2016

Chemical Oxygen Demand

494.205

5.0

501.500

ND

98.5

80 - 120

0.112

20



Certificate of Analysis

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San Diego , CA 92122

Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

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 B6L0227 - EPA 3010A_W

Blank (B6L0227-BLK1)

Prepared: 12/7/2016 Analyzed: 12/8/2016

Selenium ND 0.010 NR

LCS (B6L0227-BS1)

Prepared: 12/7/2016 Analyzed: 12/8/2016

Selenium 0.840097 0.010 1.00000 84.0 80 - 120

Matrix Spike (B6L0227-MS1)

Source: 1604316-01

Prepared: 12/7/2016 Analyzed: 12/8/2016

Selenium 2.06069 0.010 2.50000 0.005304 82.2 76 - 117

Matrix Spike Dup (B6L0227-MSD1)

Source: 1604316-01

Prepared: 12/7/2016 Analyzed: 12/8/2016

Selenium 2.11817 0.010 2.50000 0.005304 84.5 76 - 117 2.75 20



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San Diego , CA 92122

Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

Reported : 12/13/2016

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 B6L0230 - EPA 3010A_W

Blank (B6L0230-BLK1)

Prepared: 12/7/2016 Analyzed: 12/8/2016

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 (B6L0230-BS1)

Prepared: 12/7/2016 Analyzed: 12/8/2016

Calcium	17.9658	0.50	20.0000		89.8	80 - 120			
Iron	17.8076	0.50	20.0000		89.0	80 - 120			
Magnesium	17.8680	0.10	20.0000		89.3	80 - 120			
Manganese	9.11068	0.50	10.0000		91.1	80 - 120			
Selenium	0.833864	0.010	1.00000		83.4	80 - 120			
Sodium	16.1332	1.0	20.0000		80.7	80 - 120			

Matrix Spike (B6L0230-MS1)

Source: 1604316-01

Prepared: 12/7/2016 Analyzed: 12/8/2016

Calcium	26.3363	0.50	20.0000	7.40366	94.7	18 - 174			
Iron	19.2956	0.50	20.0000	0.614666	93.4	69 - 129			
Magnesium	22.0555	0.10	20.0000	3.18031	94.4	54 - 144			
Manganese	9.62591	0.50	10.0000	0.005891	96.2	83 - 109			
Selenium	2.19252	0.010	2.50000	ND	87.7	76 - 117			
Sodium	21.2157	1.0	20.0000	2.30332	94.6	18 - 185			

Matrix Spike Dup (B6L0230-MSD1)

Source: 1604316-01

Prepared: 12/7/2016 Analyzed: 12/8/2016

Calcium	25.5166	0.50	20.0000	7.40366	90.6	18 - 174	3.16	20	
Iron	18.5812	0.50	20.0000	0.614666	89.8	69 - 129	3.77	20	
Magnesium	21.3041	0.10	20.0000	3.18031	90.6	54 - 144	3.47	20	
Manganese	9.27142	0.50	10.0000	0.005891	92.7	83 - 109	3.75	20	
Selenium	2.13103	0.010	2.50000	ND	85.2	76 - 117	2.84	20	
Sodium	20.2601	1.0	20.0000	2.30332	89.8	18 - 185	4.61	20	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Quarterly Sample,

Report To : Steve Netto

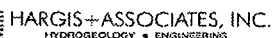
Reported : 12/13/2016

Notes and Definitions

M1	Matrix spike recovery outside of acceptance limit. 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
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.



Raytheon Main GETS Quarterly Sample

TASK NO.: 532.15

Project Manager Steve Netto

QA Manager Kevin Fong

Phone 858.455.6500

Fax 858.455.6533

Sampled By:

[illegible]

Total number of containers per analysis:

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
Kevin B. HHA	12/1/16 10:40	Matthew Arceo	12/1/16 10:40
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
Matthew Arceo	12/1/16 11:40	CL RTV	12/1/16 11:40

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical 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.

☐	No. of containers correct
☐	Received in good condition
☐	Custody seals secure
☐	Conforms to COC document

Temperature on receipt

Date: 12/1/16
Page 1 of 1

Laboratory
Advanced Technology
Laboratories
Attn: Rachelle Arada
3275 Walnut Ave
Signal Hill, CA 90755
(562) 989-4045

REMARKS

Lab to filter dissolved
metals, and anions

Send Results to:

Steve Netto

9171 Towne Centre Drive

Suite 275

San Diego, CA 92122

Ph: 858.455.6500

snetto@hargis.com



December 21, 2016

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
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604338

Client Reference : Raytheon Main GETS Monthly Sample, 532.15

Enclosed are the results for sample(s) received on December 01, 2016 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 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 GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-120116	1604338-01	Lab prepared water	12/01/16 7:00	12/01/16 10:40
CBT	1604338-02	Groundwater	12/01/16 7:55	12/01/16 10:40
CEFF	1604338-03	Groundwater	12/01/16 7:50	12/01/16 10:40
POX	1604338-04	Groundwater	12/01/16 8:02	12/01/16 10:40
PF	1604338-05	Groundwater	12/01/16 8:10	12/01/16 10:40
INF	1604338-06	Groundwater	12/01/16 8:15	12/01/16 10:40
EW-02	1604338-07	Groundwater	12/01/16 9:10	12/01/16 10:40
MW-29	1604338-08	Groundwater	12/01/16 9:32	12/01/16 10:40

CASE NARRATIVE

The samples for EPA 317 (Bromate) analysis were subcontracted to Exova, Inc. with ELAP Cert.# 2652.

Sample Receiving/General Comments:

The following analytes lists were taken from sample containers: Alkalinity - Hydroxide, Bicarbonate, Carbonate, and Total.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID TB-120116

Lab ID: 1604338-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,1,1-Trichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,1,2-Trichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,1-Dichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,1-Dichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,1-Dichloropropene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,2,3-Trichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,2-Dibromoethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,2-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,2-Dichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,2-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,3-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,3-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
1,4-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
2,2-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
2-Chlorotoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
4-Chlorotoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
4-Isopropyltoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Benzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Bromobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Bromodichloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Bromoform	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Bromomethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Carbon tetrachloride	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Chlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Chloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Chloroform	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Chloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Dibromochloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID TB-120116

Lab ID: 1604338-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Dichlorodifluoromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Ethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Hexachlorobutadiene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Isopropylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
m,p-Xylene	ND	1.0	1	B6L0249	12/07/2016	12/07/16 13:27	
Methylene chloride	ND	1.0	1	B6L0249	12/07/2016	12/07/16 13:27	
n-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
n-Propylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Naphthalene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
o-Xylene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
sec-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Styrene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
tert-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Tetrachloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Toluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Trichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Trichlorofluoromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Vinyl chloride	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:27	
Surrogate: 1,2-Dichloroethane-d4	97.8 %	51 - 157		B6L0249	12/07/2016	12/07/16 13:27	
Surrogate: 4-Bromofluorobenzene	107 %	61 - 123		B6L0249	12/07/2016	12/07/16 13:27	
Surrogate: Dibromofluoromethane	103 %	57 - 147		B6L0249	12/07/2016	12/07/16 13:27	
Surrogate: Toluene-d8	109 %	61 - 119		B6L0249	12/07/2016	12/07/16 13:27	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID CBT

Lab ID: 1604338-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,1,1-Trichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,1,2-Trichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,1-Dichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,1-Dichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,1-Dichloropropene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,2,3-Trichloropropane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,2-Dibromoethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,2-Dichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,2-Dichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,2-Dichloropropane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,3-Dichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,3-Dichloropropane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
1,4-Dichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
2,2-Dichloropropane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
2-Chlorotoluene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
4-Chlorotoluene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
4-Isopropyltoluene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Benzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Bromobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Bromodichloromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Bromoform	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Bromomethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Carbon tetrachloride	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Chlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Chloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Chloroform	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Chloromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Dibromochloromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID CBT

Lab ID: 1604338-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Dichlorodifluoromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Ethylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Hexachlorobutadiene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Isopropylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
m,p-Xylene	ND	1.0	1	B6L0197	12/06/2016	12/06/16 19:52	
Methylene chloride	ND	1.0	1	B6L0197	12/06/2016	12/06/16 19:52	
n-Butylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
n-Propylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Naphthalene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
o-Xylene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
sec-Butylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Styrene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
tert-Butylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Tetrachloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Toluene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Trichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Trichlorofluoromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Vinyl chloride	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:52	
Surrogate: 1,2-Dichloroethane-d4	101 %	51 - 157		B6L0197	12/06/2016	12/06/16 19:52	
Surrogate: 4-Bromofluorobenzene	98.6 %	61 - 123		B6L0197	12/06/2016	12/06/16 19:52	
Surrogate: Dibromofluoromethane	106 %	57 - 147		B6L0197	12/06/2016	12/06/16 19:52	
Surrogate: Toluene-d8	105 %	61 - 119		B6L0197	12/06/2016	12/06/16 19:52	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID CBT

Lab ID: 1604338-02

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B6L0257	12/07/2016	12/07/16 15:14	
Surrogate: 1,2-Dichlorobenzene-d4	79.1 %	31 - 106		B6L0257	12/07/2016	12/07/16 15:14	
Surrogate: 2-Fluorobiphenyl	74.8 %	28 - 122		B6L0257	12/07/2016	12/07/16 15:14	
Surrogate: 4-Terphenyl-d14	80.5 %	43 - 131		B6L0257	12/07/2016	12/07/16 15:14	
Surrogate: Nitrobenzene-d5	99.2 %	20 - 119		B6L0257	12/07/2016	12/07/16 15:14	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID CEFF

Lab ID: 1604338-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,1,1-Trichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,1,2-Trichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,1-Dichloroethane	0.52	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,1-Dichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,1-Dichloropropene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,2,3-Trichloropropane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,2-Dibromoethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,2-Dichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,2-Dichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,2-Dichloropropane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,3-Dichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,3-Dichloropropane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
1,4-Dichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
2,2-Dichloropropane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
2-Chlorotoluene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
4-Chlorotoluene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
4-Isopropyltoluene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Benzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Bromobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Bromodichloromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Bromoform	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Bromomethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Carbon tetrachloride	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Chlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Chloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Chloroform	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Chloromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Dibromochloromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID CEFF

Lab ID: 1604338-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Dichlorodifluoromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Ethylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Hexachlorobutadiene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Isopropylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
m,p-Xylene	ND	1.0	1	B6L0197	12/06/2016	12/06/16 20:15	
Methylene chloride	ND	1.0	1	B6L0197	12/06/2016	12/06/16 20:15	
n-Butylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
n-Propylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Naphthalene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
o-Xylene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
sec-Butylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Styrene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
tert-Butylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Tetrachloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Toluene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Trichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Trichlorofluoromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Vinyl chloride	ND	0.50	1	B6L0197	12/06/2016	12/06/16 20:15	
Surrogate: 1,2-Dichloroethane-d4	101 %	51 - 157		B6L0197	12/06/2016	12/06/16 20:15	
Surrogate: 4-Bromofluorobenzene	99.8 %	61 - 123		B6L0197	12/06/2016	12/06/16 20:15	
Surrogate: Dibromofluoromethane	106 %	57 - 147		B6L0197	12/06/2016	12/06/16 20:15	
Surrogate: Toluene-d8	107 %	61 - 119		B6L0197	12/06/2016	12/06/16 20:15	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID CEFF

Lab ID: 1604338-03

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B6L0257	12/07/2016	12/07/16 15:41	
Surrogate: 1,2-Dichlorobenzene-d4	72.9 %	31 - 106		B6L0257	12/07/2016	12/07/16 15:41	
Surrogate: 2-Fluorobiphenyl	71.4 %	28 - 122		B6L0257	12/07/2016	12/07/16 15:41	
Surrogate: 4-Terphenyl-d14	83.8 %	43 - 131		B6L0257	12/07/2016	12/07/16 15:41	
Surrogate: Nitrobenzene-d5	93.4 %	20 - 119		B6L0257	12/07/2016	12/07/16 15:41	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID POX

Lab ID: 1604338-04

Alkalinity, Speciated by SM 2320B

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO ₃)	230	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Carbonate (as CaCO ₃)	ND	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Hydroxide (as CaCO ₃)	ND	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Total (as CaCO ₃)	230	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	

Total Organic Carbon by SM 5310B

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B6L0105	12/03/2016	12/05/16 04:51	

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,1,1-Trichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,1,2-Trichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,1-Dichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,1-Dichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,1-Dichloropropene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,2,3-Trichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,2-Dibromoethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,2-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,2-Dichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,2-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,3-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,3-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
1,4-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
2,2-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
2-Chlorotoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID POX

Lab ID: 1604338-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4-Chlorotoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
4-Isopropyltoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Benzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Bromobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Bromodichloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Bromoform	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Bromomethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Carbon tetrachloride	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Chlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Chloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Chloroform	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Chloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Dibromochloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Dibromomethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Dichlorodifluoromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Ethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Hexachlorobutadiene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Isopropylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
m,p-Xylene	ND	1.0	1	B6L0249	12/07/2016	12/07/16 14:14	
Methylene chloride	ND	1.0	1	B6L0249	12/07/2016	12/07/16 14:14	
n-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
n-Propylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Naphthalene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
o-Xylene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
sec-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Styrene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
tert-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Tetrachloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Toluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Trichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Trichlorofluoromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	
Vinyl chloride	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:14	

Surrogate: 1,2-Dichloroethane-d4 99.2 % 51 - 157 B6L0249 12/07/2016 12/07/16 14:14

Surrogate: 4-Bromofluorobenzene 102 % 61 - 123 B6L0249 12/07/2016 12/07/16 14:14



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID POX

Lab ID: 1604338-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Dibromofluoromethane	104 %	57 - 147		B6L0249	12/07/2016	12/07/16 14:14	
Surrogate: Toluene-d8	105 %	61 - 119		B6L0249	12/07/2016	12/07/16 14:14	

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B6L0257	12/07/2016	12/07/16 16:08	
Surrogate: 1,2-Dichlorobenzene-d4	74.7 %	31 - 106		B6L0257	12/07/2016	12/07/16 16:08	
Surrogate: 2-Fluorobiphenyl	71.2 %	28 - 122		B6L0257	12/07/2016	12/07/16 16:08	
Surrogate: 4-Terphenyl-d14	70.9 %	43 - 131		B6L0257	12/07/2016	12/07/16 16:08	
Surrogate: Nitrobenzene-d5	93.8 %	20 - 119		B6L0257	12/07/2016	12/07/16 16:08	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID PF

Lab ID: 1604338-05

UV Absorption by EPA 415.3

Analyst: PT

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B6L0235	12/01/2016	12/01/16 15:55	

Alkalinity, Speciated by SM 2320B

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO ₃)	220	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Carbonate (as CaCO ₃)	ND	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Hydroxide (as CaCO ₃)	ND	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	
Alkalinity, Total (as CaCO ₃)	220	5.0	1	B6L0270	12/06/2016	12/06/16 19:00	

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D

Analyst: JL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Suspended	ND	1.1	1	B6L0128	12/03/2016	12/03/16 14:45	

Total Organic Carbon by SM 5310B

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B6L0105	12/03/2016	12/05/16 05:10	



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID INF

Lab ID: 1604338-06

Bromide by Ion Chromatography EPA 300

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.11	0.05	1	B6L0459	12/07/2016	12/07/16 12:32	

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,1,1-Trichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,1,2-Trichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,1-Dichloroethane	0.65	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,1-Dichloroethene	67	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,1-Dichloropropene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,2,3-Trichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,2-Dibromoethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,2-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,2-Dichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,2-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,3-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,3-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
1,4-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
2,2-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
2-Chlorotoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
4-Chlorotoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
4-Isopropyltoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Benzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Bromobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Bromodichloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Bromoform	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Bromomethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Carbon tetrachloride	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Chlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID INF

Lab ID: 1604338-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Chloroform	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Chloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Dibromochloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Dibromomethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Dichlorodifluoromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Ethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Hexachlorobutadiene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Isopropylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
m,p-Xylene	ND	1.0	1	B6L0249	12/07/2016	12/07/16 13:50	
Methylene chloride	ND	1.0	1	B6L0249	12/07/2016	12/07/16 13:50	
n-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
n-Propylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Naphthalene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
o-Xylene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
sec-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Styrene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
tert-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Tetrachloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Toluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Trichloroethene	0.55	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Trichlorofluoromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
Vinyl chloride	ND	0.50	1	B6L0249	12/07/2016	12/07/16 13:50	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>98.4 %</i>	<i>51 - 157</i>		B6L0249	12/07/2016	<i>12/07/16 13:50</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>99.8 %</i>	<i>61 - 123</i>		B6L0249	12/07/2016	<i>12/07/16 13:50</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>103 %</i>	<i>57 - 147</i>		B6L0249	12/07/2016	<i>12/07/16 13:50</i>	
<i>Surrogate: Toluene-d8</i>	<i>106 %</i>	<i>61 - 119</i>		B6L0249	12/07/2016	<i>12/07/16 13:50</i>	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID INF

Lab ID: 1604338-06

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	24	2.0	1	B6L0239	12/06/2016	12/07/16 18:31	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>47.6 %</i>	<i>42 - 106</i>		B6L0239	12/06/2016	<i>12/07/16 18:31</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>48.7 %</i>	<i>55 - 117</i>		B6L0239	12/06/2016	<i>12/07/16 18:31</i>	S3
<i>Surrogate: 4-Terphenyl-d14</i>	<i>85.4 %</i>	<i>52 - 142</i>		B6L0239	12/06/2016	<i>12/07/16 18:31</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>54.1 %</i>	<i>43 - 116</i>		B6L0239	12/06/2016	<i>12/07/16 18:31</i>	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID EW-02

Lab ID: 1604338-07

Bromide by Ion Chromatography EPA 300

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.10	0.05	1	B6L0459	12/07/2016	12/07/16 12:43	

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,1,1-Trichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,1,2-Trichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,1-Dichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,1-Dichloroethene	20	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,1-Dichloropropene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,2,3-Trichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,2-Dibromoethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,2-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,2-Dichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,2-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,3-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,3-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
1,4-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
2,2-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
2-Chlorotoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
4-Chlorotoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
4-Isopropyltoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Benzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Bromobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Bromodichloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Bromoform	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Bromomethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Carbon tetrachloride	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Chlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	



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San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID EW-02

Lab ID: 1604338-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Chloroform	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Chloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Dibromochloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Dibromomethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Dichlorodifluoromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Ethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Hexachlorobutadiene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Isopropylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
m,p-Xylene	ND	1.0	1	B6L0249	12/07/2016	12/07/16 14:37	
Methylene chloride	ND	1.0	1	B6L0249	12/07/2016	12/07/16 14:37	
n-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
n-Propylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Naphthalene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
o-Xylene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
sec-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Styrene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
tert-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Tetrachloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Toluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Trichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Trichlorofluoromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Vinyl chloride	ND	0.50	1	B6L0249	12/07/2016	12/07/16 14:37	
Surrogate: 1,2-Dichloroethane-d4	96.5 %	51 - 157		B6L0249	12/07/2016	12/07/16 14:37	
Surrogate: 4-Bromofluorobenzene	96.0 %	61 - 123		B6L0249	12/07/2016	12/07/16 14:37	
Surrogate: Dibromofluoromethane	100 %	57 - 147		B6L0249	12/07/2016	12/07/16 14:37	
Surrogate: Toluene-d8	101 %	61 - 119		B6L0249	12/07/2016	12/07/16 14:37	



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID EW-02

Lab ID: 1604338-07

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	6.2	2.0	1	B6L0239	12/06/2016	12/07/16 18:58	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>55.5 %</i>	<i>42 - 106</i>		B6L0239	12/06/2016	<i>12/07/16 18:58</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>57.7 %</i>	<i>55 - 117</i>		B6L0239	12/06/2016	<i>12/07/16 18:58</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>89.8 %</i>	<i>52 - 142</i>		B6L0239	12/06/2016	<i>12/07/16 18:58</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>59.6 %</i>	<i>43 - 116</i>		B6L0239	12/06/2016	<i>12/07/16 18:58</i>	



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID MW-29

Lab ID: 1604338-08

Bromide by Ion Chromatography EPA 300

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.18	0.05	1	B6L0459	12/07/2016	12/07/16 12:55	

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,1,1-Trichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,1,2-Trichloroethane	0.77	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,1-Dichloroethane	2.2	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,1-Dichloroethene	220	2.5	5	B6L0249	12/07/2016	12/07/16 19:23	
1,1-Dichloropropene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,2,3-Trichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,2-Dibromoethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,2-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,2-Dichloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,2-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,3-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,3-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
1,4-Dichlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
2,2-Dichloropropane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
2-Chlorotoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
4-Chlorotoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
4-Isopropyltoluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Benzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Bromobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Bromodichloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Bromoform	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Bromomethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Carbon tetrachloride	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Chlorobenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID MW-29

Lab ID: 1604338-08

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Chloroform	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Chloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Dibromochloromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Dibromomethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Dichlorodifluoromethane	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Ethylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Hexachlorobutadiene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Isopropylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
m,p-Xylene	ND	1.0	1	B6L0249	12/07/2016	12/07/16 18:59	
Methylene chloride	ND	1.0	1	B6L0249	12/07/2016	12/07/16 18:59	
n-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
n-Propylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Naphthalene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
o-Xylene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
sec-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Styrene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
tert-Butylbenzene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Tetrachloroethene	0.53	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Toluene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Trichloroethene	2.0	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Trichlorofluoromethane	0.72	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
Vinyl chloride	ND	0.50	1	B6L0249	12/07/2016	12/07/16 18:59	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>96.4 %</i>	<i>51 - 157</i>		B6L0249	12/07/2016	<i>12/07/16 19:23</i>	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>91.4 %</i>	<i>51 - 157</i>		B6L0249	12/07/2016	<i>12/07/16 18:59</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>98.5 %</i>	<i>61 - 123</i>		B6L0249	12/07/2016	<i>12/07/16 19:23</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>94.6 %</i>	<i>61 - 123</i>		B6L0249	12/07/2016	<i>12/07/16 18:59</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>95.5 %</i>	<i>57 - 147</i>		B6L0249	12/07/2016	<i>12/07/16 18:59</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>99.1 %</i>	<i>57 - 147</i>		B6L0249	12/07/2016	<i>12/07/16 19:23</i>	
<i>Surrogate: Toluene-d8</i>	<i>98.2 %</i>	<i>61 - 119</i>		B6L0249	12/07/2016	<i>12/07/16 18:59</i>	
<i>Surrogate: Toluene-d8</i>	<i>101 %</i>	<i>61 - 119</i>		B6L0249	12/07/2016	<i>12/07/16 19:23</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Client Sample ID MW-29

Lab ID: 1604338-08

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	85	2.0	1	B6L0239	12/06/2016	12/07/16 19:25	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>52.7 %</i>	<i>42 - 106</i>		B6L0239	12/06/2016	<i>12/07/16 19:25</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>55.0 %</i>	<i>55 - 117</i>		B6L0239	12/06/2016	<i>12/07/16 19:25</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>93.6 %</i>	<i>52 - 142</i>		B6L0239	12/06/2016	<i>12/07/16 19:25</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>58.2 %</i>	<i>43 - 116</i>		B6L0239	12/06/2016	<i>12/07/16 19:25</i>	



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

QUALITY CONTROL SECTION

Alkalinity, Speciated by SM 2320B - Quality Control

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

Batch B6L0270 - No_Prep_WC1_W

Blank (B6L0270-BLK1)

Prepared: 12/6/2016 Analyzed: 12/6/2016

Alkalinity, Bicarbonate (as CaCO ₃)	ND	5.0				NR			
Alkalinity, Carbonate (as CaCO ₃)	ND	5.0				NR			
Alkalinity, Hydroxide (as CaCO ₃)	ND	5.0				NR			
Alkalinity, Total (as CaCO ₃)	ND	5.0				NR			

LCS (B6L0270-BS1)

Prepared: 12/6/2016 Analyzed: 12/6/2016

Alkalinity, Total (as CaCO ₃)	100.810	5.0	99.9580		101	80 - 120			

Matrix Spike (B6L0270-MS1)

Source: 1604316-01

Prepared: 12/6/2016 Analyzed: 12/6/2016

Alkalinity, Total (as CaCO ₃)	221.770	10	199.916	30.2400	95.8	80 - 120			

Matrix Spike Dup (B6L0270-MSD1)

Source: 1604316-01

Prepared: 12/6/2016 Analyzed: 12/6/2016

Alkalinity, Total (as CaCO ₃)	221.770	10	199.916	30.2400	95.8	80 - 120	0.00	20	



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

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 B6L0128 - No_Prep_WC1_W

Blank (B6L0128-BLK1)

Prepared: 12/3/2016 Analyzed: 12/3/2016

Residue, Suspended

ND

1.0

NR

LCS (B6L0128-BS1)

Prepared: 12/3/2016 Analyzed: 12/3/2016

Residue, Suspended

91.0000

10

92.1000

98.8

80 - 120

Duplicate (B6L0128-DUP1)

Source: 1604316-04

Prepared: 12/3/2016 Analyzed: 12/3/2016

Residue, Suspended

28.5000

5.0

28.5000

NR

0.00

10



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San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

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 B6L0459 - No_Prep_IC1_W

Blank (B6L0459-BLK1)

Prepared: 12/7/2016 Analyzed: 12/7/2016

Bromide ND 0.05 NR

LCS (B6L0459-BS1)

Prepared: 12/7/2016 Analyzed: 12/7/2016

Bromide 0.909500 0.05 1.00000 91.0 90 - 110

Duplicate (B6L0459-DUP1)

Source: 1604429-01

Prepared: 12/7/2016 Analyzed: 12/7/2016

Bromide 0.506000 0.25 0.386800 NR 26.7 20 R

Matrix Spike (B6L0459-MS1)

Source: 1604429-01

Prepared: 12/7/2016 Analyzed: 12/7/2016

Bromide 2.48550 2.50000 0.07736 96.3 80 - 120

Matrix Spike Dup (B6L0459-MSD1)

Source: 1604429-01

Prepared: 12/7/2016 Analyzed: 12/7/2016

Bromide 2.53020 2.50000 0.07736 98.1 80 - 120 1.78 20



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

UV Absorption by EPA 415.3 - Quality Control

Analyte	Result (1/cm)	PQL (1/cm)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B6L0235 - No_Prep_II_W

Blank (B6L0235-BLK1)

Prepared: 12/1/2016 Analyzed: 12/1/2016

UV Absorption	ND	0.01			NR				

Duplicate (B6L0235-DUP1)

Source: 1604337-02

Prepared: 12/1/2016 Analyzed: 12/1/2016

UV Absorption	ND	0.01		ND	NR			20	

Duplicate (B6L0235-DUP2)

Source: 1604337-03

Prepared: 12/1/2016 Analyzed: 12/1/2016

UV Absorption	ND	0.01		ND	NR			20	

Duplicate (B6L0235-DUP3)

Source: 1604337-04

Prepared: 12/1/2016 Analyzed: 12/1/2016

UV Absorption	ND	0.01		ND	NR			20	

Duplicate (B6L0235-DUP4)

Source: 1604337-05

Prepared: 12/1/2016 Analyzed: 12/1/2016

UV Absorption	ND	0.01		ND	NR			20	

Duplicate (B6L0235-DUP5)

Source: 1604338-05

Prepared: 12/1/2016 Analyzed: 12/1/2016

UV Absorption	ND	0.01		ND	NR			20	



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

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 B6L0105 - No_Prep_II_W

Blank (B6L0105-BLK1)

Prepared: 12/3/2016 Analyzed: 12/5/2016

Organic Carbon, Total

ND

3.0

NR

LCS (B6L0105-BS1)

Prepared: 12/3/2016 Analyzed: 12/5/2016

Organic Carbon, Total

22.5700

3.0

20.0000

113

80 - 120

LCS Dup (B6L0105-BSD1)

Prepared: 12/3/2016 Analyzed: 12/5/2016

Organic Carbon, Total

21.4700

3.0

20.0000

107

80 - 120

5.00

20



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

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 B6L0197 - MSVOA_W

Blank (B6L0197-BLK1)

Prepared: 12/6/2016 Analyzed: 12/6/2016

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



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

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 B6L0197 - MSVOA_W (continued)

Blank (B6L0197-BLK1) - Continued

Prepared: 12/6/2016 Analyzed: 12/6/2016

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			

<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>21.49</i>		<i>25.0000</i>		<i>86.0</i>	<i>51 - 157</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>24.39</i>		<i>25.0000</i>		<i>97.6</i>	<i>61 - 123</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>23.11</i>		<i>25.0000</i>		<i>92.4</i>	<i>57 - 147</i>			
<i>Surrogate: Toluene-d8</i>	<i>24.81</i>		<i>25.0000</i>		<i>99.2</i>	<i>61 - 119</i>			

LCS (B6L0197-BS1)

Prepared: 12/6/2016 Analyzed: 12/6/2016

1,1,1,2-Tetrachloroethane	17.5400	0.50	20.0000		87.7	76 - 132			
1,1,1-Trichloroethane	17.5900	0.50	20.0000		88.0	72 - 144			
1,1,2,2-Tetrachloroethane	15.0900	0.50	20.0000		75.4	70 - 120			
1,1,2-Trichloroethane	16.3900	0.50	20.0000		82.0	75 - 120			
1,1-Dichloroethane	17.9100	0.50	20.0000		89.6	65 - 127			
1,1-Dichloroethene	18.3500	0.50	20.0000		91.8	63 - 142			
1,1-Dichloropropene	19.1000	0.50	20.0000		95.5	78 - 137			
1,2,3-Trichloropropane	14.9000	0.50	20.0000		74.5	73 - 118			
1,2,3-Trichlorobenzene	17.7500	0.50	20.0000		88.8	53 - 164			
1,2,4-Trichlorobenzene	18.8300	0.50	20.0000		94.2	58 - 144			
1,2,4-Trimethylbenzene	19.9500	0.50	20.0000		99.8	75 - 140			
1,2-Dibromo-3-chloropropane	13.6500	0.50	20.0000		68.2	61 - 131			
1,2-Dibromoethane	16.8700	0.50	20.0000		84.4	74 - 125			
1,2-Dichlorobenzene	18.2400	0.50	20.0000		91.2	78 - 122			
1,2-Dichloroethane	16.1800	0.50	20.0000		80.9	70 - 126			
1,2-Dichloropropane	17.4500	0.50	20.0000		87.2	69 - 120			
1,3,5-Trimethylbenzene	20.0700	0.50	20.0000		100	73 - 145			
1,3-Dichlorobenzene	18.9600	0.50	20.0000		94.8	76 - 126			
1,3-Dichloropropane	16.7900	0.50	20.0000		84.0	76 - 117			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

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 B6L0197 - MSVOA_W (continued)

LCS (B6L0197-BS1) - Continued

Prepared: 12/6/2016 Analyzed: 12/6/2016

1,4-Dichlorobenzene	18.6000	0.50	20.0000		93.0	77 - 120			
2,2-Dichloropropane	23.5400	0.50	20.0000		118	47 - 169			
2-Chlorotoluene	18.6600	0.50	20.0000		93.3	75 - 135			
4-Chlorotoluene	18.8600	0.50	20.0000		94.3	70 - 133			
4-Isopropyltoluene	19.7500	0.50	20.0000		98.8	72 - 153			
Benzene	38.1300	0.50	40.0000		95.3	73 - 123			
Bromobenzene	17.7400	0.50	20.0000		88.7	75 - 121			
Bromodichloromethane	16.1400	0.50	20.0000		80.7	73 - 124			
Bromoform	16.3900	0.50	20.0000		82.0	70 - 135			
Bromomethane	26.7300	0.50	20.0000		134	10 - 166			
Carbon tetrachloride	16.7800	0.50	20.0000		83.9	65 - 171			
Chlorobenzene	18.4800	0.50	20.0000		92.4	80 - 121			
Chloroethane	24.2900	0.50	20.0000		121	55 - 143			
Chloroform	16.8500	0.50	20.0000		84.2	65 - 130			
Chloromethane	22.2700	0.50	20.0000		111	21 - 141			
cis-1,2-Dichloroethene	17.8300	0.50	20.0000		89.2	64 - 126			
cis-1,3-Dichloropropene	18.7100	0.50	20.0000		93.6	70 - 131			
Dibromochloromethane	16.2400	0.50	20.0000		81.2	74 - 125			
Dibromomethane	16.1300	0.50	20.0000		80.6	74 - 116			
Dichlorodifluoromethane	22.8700	0.50	20.0000		114	40 - 186			
Ethylbenzene	37.9100	0.50	40.0000		94.8	77 - 130			
Hexachlorobutadiene	17.7400	0.50	20.0000		88.7	52 - 176			
Isopropylbenzene	19.8500	0.50	20.0000		99.2	77 - 144			
m,p-Xylene	40.9400	1.0	40.0000		102	84 - 136			
Methylene chloride	20.5000	1.0	20.0000		102	72 - 150			
n-Butylbenzene	20.2400	0.50	20.0000		101	73 - 154			
n-Propylbenzene	19.8800	0.50	20.0000		99.4	77 - 145			
Naphthalene	17.5100	0.50	20.0000		87.6	55 - 137			
o-Xylene	39.9800	0.50	40.0000		100	79 - 135			
sec-Butylbenzene	20.2900	0.50	20.0000		101	73 - 157			
Styrene	20.9500	0.50	20.0000		105	78 - 125			
tert-Butylbenzene	19.2000	0.50	20.0000		96.0	78 - 149			
Tetrachloroethene	17.5400	0.50	20.0000		87.7	74 - 136			
Toluene	37.8900	0.50	40.0000		94.7	78 - 124			
trans-1,2-Dichloroethene	18.1800	0.50	20.0000		90.9	66 - 131			
Trichloroethene	18.0400	0.50	20.0000		90.2	78 - 128			
Trichlorofluoromethane	16.3900	0.50	20.0000		82.0	60 - 170			
Vinyl chloride	20.8900	0.50	20.0000		104	55 - 148			

Surrogate: 1,2-Dichloroethane-d4 21.36 25.0000 85.4 51 - 157

Surrogate: 4-Bromofluorobenzene 23.61 25.0000 94.4 61 - 123

Surrogate: Dibromofluoromethane 22.00 25.0000 88.0 57 - 147



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

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 B6L0197 - MSVOA_W (continued)

LCS (B6L0197-BS1) - Continued

Prepared: 12/6/2016 Analyzed: 12/6/2016

Surrogate: Toluene-d8

24.00

25.0000

96.0

61 - 119

LCS Dup (B6L0197-BS1)

Prepared: 12/6/2016 Analyzed: 12/6/2016

1,1,1,2-Tetrachloroethane	17.9600	0.50	20.0000	89.8	76 - 132	2.37	20
1,1,1-Trichloroethane	17.3300	0.50	20.0000	86.6	72 - 144	1.49	20
1,1,2,2-Tetrachloroethane	14.9800	0.50	20.0000	74.9	70 - 120	0.732	20
1,1,2-Trichloroethane	16.7400	0.50	20.0000	83.7	75 - 120	2.11	20
1,1-Dichloroethane	17.6800	0.50	20.0000	88.4	65 - 127	1.29	20
1,1-Dichloroethene	17.7300	0.50	20.0000	88.6	63 - 142	3.44	20
1,1-Dichloropropene	18.8400	0.50	20.0000	94.2	78 - 137	1.37	20
1,2,3-Trichloropropane	14.8800	0.50	20.0000	74.4	73 - 118	0.134	20
1,2,3-Trichlorobenzene	18.0700	0.50	20.0000	90.4	53 - 164	1.79	20
1,2,4-Trichlorobenzene	19.1300	0.50	20.0000	95.6	58 - 144	1.58	20
1,2,4-Trimethylbenzene	20.1800	0.50	20.0000	101	75 - 140	1.15	20
1,2-Dibromo-3-chloropropane	13.1100	0.50	20.0000	65.6	61 - 131	4.04	20
1,2-Dibromoethane	16.8100	0.50	20.0000	84.0	74 - 125	0.356	20
1,2-Dichlorobenzene	18.4900	0.50	20.0000	92.4	78 - 122	1.36	20
1,2-Dichloroethane	15.8000	0.50	20.0000	79.0	70 - 126	2.38	20
1,2-Dichloropropane	17.7400	0.50	20.0000	88.7	69 - 120	1.65	20
1,3,5-Trimethylbenzene	20.2400	0.50	20.0000	101	73 - 145	0.843	20
1,3-Dichlorobenzene	19.1600	0.50	20.0000	95.8	76 - 126	1.05	20
1,3-Dichloropropane	17.2000	0.50	20.0000	86.0	76 - 117	2.41	20
1,4-Dichlorobenzene	19.0300	0.50	20.0000	95.2	77 - 120	2.29	20
2,2-Dichloropropane	22.6400	0.50	20.0000	113	47 - 169	3.90	20
2-Chlorotoluene	18.8000	0.50	20.0000	94.0	75 - 135	0.747	20
4-Chlorotoluene	19.0800	0.50	20.0000	95.4	70 - 133	1.16	20
4-Isopropyltoluene	19.9100	0.50	20.0000	99.6	72 - 153	0.807	20
Benzene	37.9200	0.50	40.0000	94.8	73 - 123	0.552	20
Bromobenzene	18.2900	0.50	20.0000	91.4	75 - 121	3.05	20
Bromodichloromethane	16.0200	0.50	20.0000	80.1	73 - 124	0.746	20
Bromoform	16.1200	0.50	20.0000	80.6	70 - 135	1.66	20
Bromomethane	29.0200	0.50	20.0000	145	10 - 166	8.22	20
Carbon tetrachloride	16.6500	0.50	20.0000	83.2	65 - 171	0.778	20
Chlorobenzene	18.8700	0.50	20.0000	94.4	80 - 121	2.09	20
Chloroethane	24.1000	0.50	20.0000	120	55 - 143	0.785	20
Chloroform	16.6800	0.50	20.0000	83.4	65 - 130	1.01	20
Chloromethane	21.8100	0.50	20.0000	109	21 - 141	2.09	20
cis-1,2-Dichloroethene	18.0200	0.50	20.0000	90.1	64 - 126	1.06	20
cis-1,3-Dichloropropene	18.7100	0.50	20.0000	93.6	70 - 131	0.00	20
Dibromochloromethane	16.6800	0.50	20.0000	83.4	74 - 125	2.67	20
Dibromomethane	16.1400	0.50	20.0000	80.7	74 - 116	0.0620	20
Dichlorodifluoromethane	22.7700	0.50	20.0000	114	40 - 186	0.438	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 B6L0197 - MSVOA_W (continued)

LCS Dup (B6L0197-BSD1) - Continued

Prepared: 12/6/2016 Analyzed: 12/6/2016

Ethylbenzene	38.4300	0.50	40.0000		96.1	77 - 130	1.36	20	
Hexachlorobutadiene	17.7400	0.50	20.0000		88.7	52 - 176	0.00	20	
Isopropylbenzene	20.2800	0.50	20.0000		101	77 - 144	2.14	20	
m,p-Xylene	41.4200	1.0	40.0000		104	84 - 136	1.17	20	
Methylene chloride	19.7300	1.0	20.0000		98.6	72 - 150	3.83	20	
n-Butylbenzene	20.4100	0.50	20.0000		102	73 - 154	0.836	20	
n-Propylbenzene	20.0500	0.50	20.0000		100	77 - 145	0.851	20	
Naphthalene	17.8300	0.50	20.0000		89.2	55 - 137	1.81	20	
o-Xylene	40.3300	0.50	40.0000		101	79 - 135	0.872	20	
sec-Butylbenzene	20.6000	0.50	20.0000		103	73 - 157	1.52	20	
Styrene	21.1700	0.50	20.0000		106	78 - 125	1.04	20	
tert-Butylbenzene	19.5700	0.50	20.0000		97.8	78 - 149	1.91	20	
Tetrachloroethene	18.0400	0.50	20.0000		90.2	74 - 136	2.81	20	
Toluene	37.4600	0.50	40.0000		93.6	78 - 124	1.14	20	
trans-1,2-Dichloroethene	18.1900	0.50	20.0000		91.0	66 - 131	0.0550	20	
Trichloroethene	18.4200	0.50	20.0000		92.1	78 - 128	2.08	20	
Trichlorofluoromethane	15.9800	0.50	20.0000		79.9	60 - 170	2.53	20	
Vinyl chloride	20.5100	0.50	20.0000		103	55 - 148	1.84	20	
Surrogate: 1,2-Dichloroethane-d4	21.05		25.0000		84.2	51 - 157			
Surrogate: 4-Bromofluorobenzene	24.11		25.0000		96.4	61 - 123			
Surrogate: Dibromofluoromethane	22.28		25.0000		89.1	57 - 147			
Surrogate: Toluene-d8	24.40		25.0000		97.6	61 - 119			



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Report To : Steve Netto

Reported : 12/21/2016

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 B6L0249 - MSVOA_LL_W

Blank (B6L0249-BLK1)

Prepared: 12/7/2016 Analyzed: 12/7/2016

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 B6L0249 - MSVOA_LL_W (continued)

Blank (B6L0249-BLK1) - Continued

Prepared: 12/7/2016 Analyzed: 12/7/2016

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	22.68		25.0000		90.7	51 - 157			
Surrogate: 4-Bromofluorobenzene	25.05		25.0000		100	61 - 123			
Surrogate: Dibromofluoromethane	24.64		25.0000		98.6	57 - 147			
Surrogate: Toluene-d8	25.76		25.0000		103	61 - 119			

LCS (B6L0249-BS1)

Prepared: 12/7/2016 Analyzed: 12/7/2016

1,1,1,2-Tetrachloroethane	17.0600	0.50	20.0000		85.3	76 - 132			
1,1,1-Trichloroethane	16.5900	0.50	20.0000		83.0	72 - 144			
1,1,2,2-Tetrachloroethane	13.6700	0.50	20.0000		68.4	70 - 120			L4
1,1,2-Trichloroethane	15.2200	0.50	20.0000		76.1	75 - 120			
1,1-Dichloroethane	16.8900	0.50	20.0000		84.4	65 - 127			
1,1-Dichloroethene	17.5100	0.50	20.0000		87.6	63 - 142			
1,1-Dichloropropene	18.7200	0.50	20.0000		93.6	78 - 137			
1,2,3-Trichloropropane	13.5100	0.50	20.0000		67.6	73 - 118			L4
1,2,3-Trichlorobenzene	16.8200	0.50	20.0000		84.1	53 - 164			
1,2,4-Trichlorobenzene	17.9300	0.50	20.0000		89.6	58 - 144			
1,2,4-Trimethylbenzene	19.5200	0.50	20.0000		97.6	75 - 140			
1,2-Dibromo-3-chloropropane	12.0100	0.50	20.0000		60.0	61 - 131			L4
1,2-Dibromoethane	15.2500	0.50	20.0000		76.2	74 - 125			
1,2-Dichlorobenzene	17.3800	0.50	20.0000		86.9	78 - 122			
1,2-Dichloroethane	15.4700	0.50	20.0000		77.4	70 - 126			
1,2-Dichloropropane	16.7400	0.50	20.0000		83.7	69 - 120			
1,3,5-Trimethylbenzene	19.6100	0.50	20.0000		98.0	73 - 145			
1,3-Dichlorobenzene	18.2400	0.50	20.0000		91.2	76 - 126			
1,3-Dichloropropane	15.7600	0.50	20.0000		78.8	76 - 117			



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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 B6L0249 - MSVOA_LL_W (continued)

LCS (B6L0249-BS1) - Continued

Prepared: 12/7/2016 Analyzed: 12/7/2016

1,4-Dichlorobenzene	18.0400	0.50	20.0000		90.2	77 - 120		
2,2-Dichloropropane	22.1300	0.50	20.0000		111	47 - 169		
2-Chlorotoluene	18.0700	0.50	20.0000		90.4	75 - 135		
4-Chlorotoluene	18.5800	0.50	20.0000		92.9	70 - 133		
4-Isopropyltoluene	19.2700	0.50	20.0000		96.4	72 - 153		
Benzene	36.7700	0.50	40.0000		91.9	73 - 123		
Bromobenzene	17.2100	0.50	20.0000		86.0	75 - 121		
Bromodichloromethane	15.6100	0.50	20.0000		78.0	73 - 124		
Bromoform	15.2500	0.50	20.0000		76.2	70 - 135		
Bromomethane	29.6300	0.50	20.0000		148	10 - 166		
Carbon tetrachloride	16.8200	0.50	20.0000		84.1	65 - 171		
Chlorobenzene	18.1100	0.50	20.0000		90.6	80 - 121		
Chloroethane	23.4400	0.50	20.0000		117	55 - 143		
Chloroform	16.1100	0.50	20.0000		80.6	65 - 130		
Chloromethane	21.8900	0.50	20.0000		109	21 - 141		
cis-1,2-Dichloroethene	17.0100	0.50	20.0000		85.0	64 - 126		
cis-1,3-Dichloropropene	17.6200	0.50	20.0000		88.1	70 - 131		
Dibromochloromethane	15.5800	0.50	20.0000		77.9	74 - 125		
Dibromomethane	15.0800	0.50	20.0000		75.4	74 - 116		
Dichlorodifluoromethane	22.4100	0.50	20.0000		112	40 - 186		
Ethylbenzene	37.0700	0.50	40.0000		92.7	77 - 130		
Hexachlorobutadiene	17.2100	0.50	20.0000		86.0	52 - 176		
Isopropylbenzene	19.4700	0.50	20.0000		97.4	77 - 144		
m,p-Xylene	39.9500	1.0	40.0000		99.9	84 - 136		
Methylene chloride	21.2900	1.0	20.0000		106	72 - 150		
n-Butylbenzene	19.9700	0.50	20.0000		99.8	73 - 154		
n-Propylbenzene	19.4600	0.50	20.0000		97.3	77 - 145		
Naphthalene	15.9300	0.50	20.0000		79.6	55 - 137		
o-Xylene	38.6900	0.50	40.0000		96.7	79 - 135		
sec-Butylbenzene	19.9500	0.50	20.0000		99.8	73 - 157		
Styrene	20.1500	0.50	20.0000		101	78 - 125		
tert-Butylbenzene	18.7800	0.50	20.0000		93.9	78 - 149		
Tetrachloroethene	17.2500	0.50	20.0000		86.2	74 - 136		
Toluene	36.6000	0.50	40.0000		91.5	78 - 124		
trans-1,2-Dichloroethene	17.1900	0.50	20.0000		86.0	66 - 131		
Trichloroethene	17.4000	0.50	20.0000		87.0	78 - 128		
Trichlorofluoromethane	16.1700	0.50	20.0000		80.8	60 - 170		
Vinyl chloride	20.2700	0.50	20.0000		101	55 - 148		

Surrogate: 1,2-Dichloroethane-d4 20.57 25.0000 82.3 51 - 157

Surrogate: 4-Bromofluorobenzene 24.46 25.0000 97.8 61 - 123

Surrogate: Dibromofluoromethane 22.11 25.0000 88.4 57 - 147



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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 B6L0249 - MSVOA_LL_W (continued)

LCS (B6L0249-BS1) - Continued

Prepared: 12/7/2016 Analyzed: 12/7/2016

Surrogate: Toluene-d8 24.43 25.0000 97.7 61 - 119

LCS Dup (B6L0249-BS1)

Prepared: 12/7/2016 Analyzed: 12/7/2016

1,1,1,2-Tetrachloroethane	17.7200	0.50	20.0000	88.6	76 - 132	3.80	20	
1,1,1-Trichloroethane	17.1700	0.50	20.0000	85.8	72 - 144	3.44	20	
1,1,2,2-Tetrachloroethane	14.9000	0.50	20.0000	74.5	70 - 120	8.61	20	
1,1,2-Trichloroethane	16.3500	0.50	20.0000	81.8	75 - 120	7.16	20	
1,1-Dichloroethane	17.4500	0.50	20.0000	87.2	65 - 127	3.26	20	
1,1-Dichloroethene	17.9100	0.50	20.0000	89.6	63 - 142	2.26	20	
1,1-Dichloropropene	19.3100	0.50	20.0000	96.6	78 - 137	3.10	20	
1,2,3-Trichloropropane	14.4200	0.50	20.0000	72.1	73 - 118	6.52	20	L4
1,2,3-Trichlorobenzene	17.7800	0.50	20.0000	88.9	53 - 164	5.55	20	
1,2,4-Trichlorobenzene	19.0200	0.50	20.0000	95.1	58 - 144	5.90	20	
1,2,4-Trimethylbenzene	20.4400	0.50	20.0000	102	75 - 140	4.60	20	
1,2-Dibromo-3-chloropropane	12.3600	0.50	20.0000	61.8	61 - 131	2.87	20	
1,2-Dibromoethane	16.1100	0.50	20.0000	80.6	74 - 125	5.48	20	
1,2-Dichlorobenzene	18.2400	0.50	20.0000	91.2	78 - 122	4.83	20	
1,2-Dichloroethane	15.6200	0.50	20.0000	78.1	70 - 126	0.965	20	
1,2-Dichloropropane	17.4400	0.50	20.0000	87.2	69 - 120	4.10	20	
1,3,5-Trimethylbenzene	20.4200	0.50	20.0000	102	73 - 145	4.05	20	
1,3-Dichlorobenzene	19.0800	0.50	20.0000	95.4	76 - 126	4.50	20	
1,3-Dichloropropane	16.4900	0.50	20.0000	82.4	76 - 117	4.53	20	
1,4-Dichlorobenzene	18.9400	0.50	20.0000	94.7	77 - 120	4.87	20	
2,2-Dichloropropane	22.8000	0.50	20.0000	114	47 - 169	2.98	20	
2-Chlorotoluene	19.1300	0.50	20.0000	95.6	75 - 135	5.70	20	
4-Chlorotoluene	19.5300	0.50	20.0000	97.6	70 - 133	4.99	20	
4-Isopropyltoluene	20.4100	0.50	20.0000	102	72 - 153	5.75	20	
Benzene	37.8500	0.50	40.0000	94.6	73 - 123	2.89	20	
Bromobenzene	18.1400	0.50	20.0000	90.7	75 - 121	5.26	20	
Bromodichloromethane	16.0800	0.50	20.0000	80.4	73 - 124	2.97	20	
Bromoform	15.6800	0.50	20.0000	78.4	70 - 135	2.78	20	
Bromomethane	30.8100	0.50	20.0000	154	10 - 166	3.90	20	
Carbon tetrachloride	17.0200	0.50	20.0000	85.1	65 - 171	1.18	20	
Chlorobenzene	18.8000	0.50	20.0000	94.0	80 - 121	3.74	20	
Chloroethane	24.5600	0.50	20.0000	123	55 - 143	4.67	20	
Chloroform	16.5400	0.50	20.0000	82.7	65 - 130	2.63	20	
Chloromethane	22.5200	0.50	20.0000	113	21 - 141	2.84	20	
cis-1,2-Dichloroethene	17.8900	0.50	20.0000	89.4	64 - 126	5.04	20	
cis-1,3-Dichloropropene	18.3300	0.50	20.0000	91.6	70 - 131	3.95	20	
Dibromochloromethane	16.1800	0.50	20.0000	80.9	74 - 125	3.78	20	
Dibromomethane	15.6300	0.50	20.0000	78.2	74 - 116	3.58	20	
Dichlorodifluoromethane	22.4900	0.50	20.0000	112	40 - 186	0.356	20	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

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 B6L0249 - MSVOA_LL_W (continued)

LCS Dup (B6L0249-BSD1) - Continued

Prepared: 12/7/2016 Analyzed: 12/7/2016

Ethylbenzene	38.2800	0.50	40.0000		95.7	77 - 130	3.21	20	
Hexachlorobutadiene	18.1700	0.50	20.0000		90.8	52 - 176	5.43	20	
Isopropylbenzene	20.6400	0.50	20.0000		103	77 - 144	5.83	20	
m,p-Xylene	41.3400	1.0	40.0000		103	84 - 136	3.42	20	
Methylene chloride	20.0400	1.0	20.0000		100	72 - 150	6.05	20	
n-Butylbenzene	20.8700	0.50	20.0000		104	73 - 154	4.41	20	
n-Propylbenzene	20.3900	0.50	20.0000		102	77 - 145	4.67	20	
Naphthalene	17.1400	0.50	20.0000		85.7	55 - 137	7.32	20	
o-Xylene	40.3600	0.50	40.0000		101	79 - 135	4.23	20	
sec-Butylbenzene	20.9200	0.50	20.0000		105	73 - 157	4.75	20	
Styrene	21.1600	0.50	20.0000		106	78 - 125	4.89	20	
tert-Butylbenzene	19.7100	0.50	20.0000		98.6	78 - 149	4.83	20	
Tetrachloroethene	17.8500	0.50	20.0000		89.2	74 - 136	3.42	20	
Toluene	37.5500	0.50	40.0000		93.9	78 - 124	2.56	20	
trans-1,2-Dichloroethene	18.1500	0.50	20.0000		90.8	66 - 131	5.43	20	
Trichloroethene	18.0200	0.50	20.0000		90.1	78 - 128	3.50	20	
Trichlorofluoromethane	16.2000	0.50	20.0000		81.0	60 - 170	0.185	20	
Vinyl chloride	20.6500	0.50	20.0000		103	55 - 148	1.86	20	
Surrogate: 1,2-Dichloroethane-d4	20.47		25.0000		81.9	51 - 157			
Surrogate: 4-Bromofluorobenzene	24.19		25.0000		96.8	61 - 123			
Surrogate: Dibromofluoromethane	21.91		25.0000		87.6	57 - 147			
Surrogate: Toluene-d8	24.45		25.0000		97.8	61 - 119			

Duplicate (B6L0249-DUP1)

Source: 1604348-04RE1

Prepared: 12/7/2016 Analyzed: 12/7/2016

1,1,1,2-Tetrachloroethane	ND	10		ND	NR			20	
1,1,1-Trichloroethane	ND	10		ND	NR			20	
1,1,2,2-Tetrachloroethane	ND	10		ND	NR			20	
1,1,2-Trichloroethane	ND	10		ND	NR			20	
1,1-Dichloroethane	ND	10		ND	NR			20	
1,1-Dichloroethene	ND	10		ND	NR			20	
1,1-Dichloropropene	ND	10		ND	NR			20	
1,2,3-Trichloropropane	ND	10		ND	NR			20	
1,2,3-Trichlorobenzene	ND	10		ND	NR			20	
1,2,4-Trichlorobenzene	ND	10		ND	NR			20	
1,2,4-Trimethylbenzene	ND	10		ND	NR			20	
1,2-Dibromo-3-chloropropane	ND	10		ND	NR			20	
1,2-Dibromoethane	ND	10		ND	NR			20	
1,2-Dichlorobenzene	ND	10		ND	NR			20	
1,2-Dichloroethane	16.0000	10		16.8000	NR		4.88	20	
1,2-Dichloropropane	ND	10		ND	NR			20	
1,3,5-Trimethylbenzene	ND	10		ND	NR			20	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

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 B6L0249 - MSVOA_LL_W (continued)

Duplicate (B6L0249-DUP1) - Continued

Source: 1604348-04RE1

Prepared: 12/7/2016 Analyzed: 12/7/2016

1,3-Dichlorobenzene	ND	10		ND	NR			20	
1,3-Dichloropropane	ND	10		ND	NR			20	
1,4-Dichlorobenzene	ND	10		ND	NR			20	
2,2-Dichloropropane	ND	10		ND	NR			20	
2-Chlorotoluene	ND	10		ND	NR			20	
4-Chlorotoluene	ND	10		ND	NR			20	
4-Isopropyltoluene	ND	10		ND	NR			20	
Benzene	ND	10		ND	NR			20	
Bromobenzene	ND	10		ND	NR			20	
Bromodichloromethane	ND	10		ND	NR			20	
Bromoform	ND	10		ND	NR			20	
Bromomethane	ND	10		ND	NR			20	
Carbon tetrachloride	ND	10		ND	NR			20	
Chlorobenzene	ND	10		ND	NR			20	
Chloroethane	ND	10		ND	NR			20	
Chloroform	ND	10		ND	NR			20	
Chloromethane	ND	10		ND	NR			20	
cis-1,2-Dichloroethene	ND	10		ND	NR			20	
cis-1,3-Dichloropropene	ND	10		ND	NR			20	
Dibromochloromethane	ND	10		ND	NR			20	
Dibromomethane	ND	10		ND	NR			20	
Dichlorodifluoromethane	ND	10		ND	NR			20	
Ethylbenzene	ND	10		ND	NR			20	
Hexachlorobutadiene	ND	10		ND	NR			20	
Isopropylbenzene	ND	10		ND	NR			20	
m,p-Xylene	ND	20		ND	NR			20	
Methylene chloride	ND	20		ND	NR			20	
n-Butylbenzene	ND	10		ND	NR			20	
n-Propylbenzene	ND	10		ND	NR			20	
Naphthalene	ND	10		ND	NR			20	
o-Xylene	ND	10		ND	NR			20	
sec-Butylbenzene	ND	10		ND	NR			20	
Styrene	ND	10		ND	NR			20	
tert-Butylbenzene	ND	10		ND	NR			20	
Tetrachloroethene	ND	10		ND	NR			20	
Toluene	ND	10		ND	NR			20	
trans-1,2-Dichloroethene	ND	10		ND	NR			20	
Trichloroethene	ND	10		ND	NR			20	
Trichlorofluoromethane	ND	10		ND	NR			20	
Vinyl chloride	ND	10		ND	NR			20	

Surrogate: 1,2-Dichloroethane-d4

24.63

25.0000

98.5

51 - 157



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

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 B6L0249 - MSVOA_LL_W (continued)

Duplicate (B6L0249-DUP1) - Continued

Source: 1604348-04RE1

Prepared: 12/7/2016 Analyzed: 12/7/2016

Surrogate: 4-Bromofluorobenzene	24.56	25.0000	98.2	61 - 123
Surrogate: Dibromofluoromethane	25.87	25.0000	103	57 - 147
Surrogate: Toluene-d8	25.71	25.0000	103	61 - 119



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

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 B6L0239 - MSSEMI_W

Blank (B6L0239-BLK1)

Prepared: 12/6/2016 Analyzed: 12/7/2016

1,4-Dioxane	ND	2.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	51.95		100.000		52.0	42 - 106			
Surrogate: 2-Fluorobiphenyl	54.12		100.000		54.1	55 - 117			S3
Surrogate: 4-Terphenyl-d14	93.13		100.000		93.1	52 - 142			
Surrogate: Nitrobenzene-d5	57.76		100.000		57.8	43 - 116			

LCS (B6L0239-BS1)

Prepared: 12/6/2016 Analyzed: 12/7/2016

1,4-Dioxane	99.8600	2.0	100.000		99.9	62 - 127			
Surrogate: 1,2-Dichlorobenzene-d4	61.83		100.000		61.8	42 - 106			
Surrogate: 2-Fluorobiphenyl	75.17		100.000		75.2	55 - 117			
Surrogate: 4-Terphenyl-d14	89.66		100.000		89.7	52 - 142			
Surrogate: Nitrobenzene-d5	76.13		100.000		76.1	43 - 116			

LCS Dup (B6L0239-BSD1)

Prepared: 12/6/2016 Analyzed: 12/7/2016

1,4-Dioxane	93.9700	2.0	100.000		94.0	62 - 127	6.08	20	
Surrogate: 1,2-Dichlorobenzene-d4	47.34		100.000		47.3	42 - 106			
Surrogate: 2-Fluorobiphenyl	62.83		100.000		62.8	55 - 117			
Surrogate: 4-Terphenyl-d14	80.64		100.000		80.6	52 - 142			
Surrogate: Nitrobenzene-d5	61.94		100.000		61.9	43 - 116			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

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

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

Batch B6L0257 - MSSEMI_W

Blank (B6L0257-BLK1)

Prepared: 12/7/2016 Analyzed: 12/7/2016

1,4-Dioxane	ND	0.20		NR				
Surrogate: 1,2-Dichlorobenzene-d4	0.7246		1.00000	72.5	31 - 106			
Surrogate: 2-Fluorobiphenyl	0.7468		1.00000	74.7	28 - 122			
Surrogate: 4-Terphenyl-d14	0.7979		1.00000	79.8	43 - 131			
Surrogate: Nitrobenzene-d5	0.8883		1.00000	88.8	20 - 119			

LCS (B6L0257-BS1)

Prepared: 12/7/2016 Analyzed: 12/7/2016

1,4-Dioxane	1.21678	0.20	1.00000	122	49 - 169			
Surrogate: 1,2-Dichlorobenzene-d4	0.7150		1.00000	71.5	31 - 106			
Surrogate: 2-Fluorobiphenyl	0.7115		1.00000	71.1	28 - 122			
Surrogate: 4-Terphenyl-d14	0.7758		1.00000	77.6	43 - 131			
Surrogate: Nitrobenzene-d5	0.8933		1.00000	89.3	20 - 119			

LCS Dup (B6L0257-BS1)

Prepared: 12/7/2016 Analyzed: 12/7/2016

1,4-Dioxane	1.30105	0.20	1.00000	130	49 - 169	6.69	20	
Surrogate: 1,2-Dichlorobenzene-d4	0.6868		1.00000	68.7	31 - 106			
Surrogate: 2-Fluorobiphenyl	0.6529		1.00000	65.3	28 - 122			
Surrogate: 4-Terphenyl-d14	0.7253		1.00000	72.5	43 - 131			
Surrogate: Nitrobenzene-d5	0.8699		1.00000	87.0	20 - 119			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 12/21/2016

Notes and Definitions

S3	Surrogate recovery outside of laboratory acceptance limit. Unable to confirm matrix effects.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
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
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.

Client: Advanced Technology Laboratories**Job No: 209285**

Bromate by EPA 317.0
Ion Chromatography with Post-Column Derivatization-Visible Absorption

Column: Dionex AS9-HC 250 mm x 4 mm, AG9-HC Guard 50 mm x 4 mm
Eluent: 10 mM Na₂CO₃
Flow: 1.2 mL/min
Injection: 250 µL
Detection: Post-column derivatization, Visible detection, 450 nm

Sample preparation: The undiluted samples were treated with a Dionex OnGuard II H cartridge to remove excess basic cations.

Parts Per Billion (µg/L)

<u>Sample ID</u>	<u>Result</u>
ATL Lab#: 1604338-04 / POX	ND
ATL Lab#: 1604338-04 / POX Duplicate	ND
ATL Lab#: 1604338-06 / INF	ND
Method Blank	ND
Detection Limit	0.3
Date Analyzed:	12-14-16

Quality Control Summary

Sample ID: ATL Lab#: 1604338-06 / INF

<u>Analyte</u>	<u>Sample Result</u>	<u>Spike Conc</u>	<u>Spike Result</u>	<u>Spike % Rec</u>
Bromate	ND	20.0	19.3	97

QC Guidelines 75-125

Sample ID: ATL Lab#: 1604338-04 / POX

<u>Analyte</u>	<u>Sample Result</u>	<u>Sample Duplicate Result</u>	<u>Sample RPD</u>
Bromate	ND	ND	NA

QC Guidelines NMT 10

NA - RPD not applicable for results less than ten times the detection limit.

Exova Inc – Santa Fe Springs – 562-948-2225
The above data is considered preliminary and may not reflect final reported values.
A final signed report will be mailed to you.

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1604338

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@atiglobal.com)

RECEIVING LABORATORY:

Exova Inc.
9240 Santa Fe Springs Road
Santa Fe Springs, CA 90670
Phone : (562) 948-2225
Fax: (562) 948-5850
PO#: SC11067-STANDARD TAT

(RA)

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1604338-04 / POX 317.0_SUB [Bromate] Poly Unpres - 125mL	12/16/16 17:00	Groundwater 12/02/16 08:02	12/01/16 08:02	
ATL Lab#: 1604338-06 / INF 317.0_SUB [Bromate] Poly Unpres - 125mL	12/07/16 17:00	Groundwater 12/02/16 08:15	12/01/16 08:15	

Released By	Date	Received By	Date

Released By	Date	Received By	Date

OC 12/1/16

PROJECT: Raytheon Main GETS Monthly Sample

TASK NO.: 532.15

Project Manager Steve Netto

QA Manager Kevin Fong

Phone 858.455.6500

Fax 858.455.6533

Sampled By:				SAMPLE COLLECTION		MATRIX		PRESERVATION		CONTAINERS				ANALYSIS REQUESTED										Expected Concentration Range (ppb) for VOAs				SPECIAL HANDLING				REMARKS			
LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Ice	40-ml VOA	125 mL Poly	250 mL Poly	250 mL Glass	1 L Poly	1L Amber	VOCs by EPA 8260B	Bromate by EPA 317	Bromide by EPA 300	Alkalinity by SM2320B	Total Organic Carbon by SM5310B	SM2540D	UV Absorption EPA 415.3 @254 nm	1,4-Dioxane by EPA 8270C MOD	1,4-Dioxane by EPA 8270 SIM	0 - 10	10 - 100	100 - 1,000	>1,000	24 hr TAT	48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested		
104718-1	TB-120116	12/1/2016	7:00	X	X			X		2						X									X										
2	CBT		7:55	X	X			X		3					1	X									X	X									
3	CEFF		7:50	X	X			X		3					1	X									X	X									
4	POX		8:02	X	X			X		6	1	1			1	X	X		X	X					X	X									
5	PF		8:10	X	X			X		3		1	1	1					X	X	X	X													
6	INF		8:15	X	X			X		3	2				1	X	X	X					X				X								
7	EW-02		9:10	X	X			X		3	1				1	X		X					X				X								
8	MW-29		9:32	X	X			X		3	1				1	X		X					X				X								
Total number of containers per analysis:										26	5	2	1	1	6	Total No. of Containers: <u>41</u>																			
Relinquished By: / Company:		Date / Time		Received By: / Company		Date / Time																													
Kevin Fong H+A		12/1/16 10:40		Steve Netto		12/1/16 1140																													
Relinquished By: / Company:		Date / Time		Received By: / Company		Date / Time																													
Steve Netto H+A		12/1/16 1140		Kevin Fong		12/1/16 1140																													

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical 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.

- ☒ No. of containers correct
☒ Received in good condition
☒ Custody seals secure
☒ Conforms to COC document

1.5°C Temperature on receipt

Send Results to:

Steve Netto

9171 Towne Centre Drive

Suite 275

San Diego, CA 92122

Ph: 858.455.6500

snetto@hargis.com



December 13, 2016

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
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604346

Client Reference : Raytheon Main GETS OCSD Quarterly Sample, 532.15

Enclosed are the results for sample(s) received on December 01, 2016 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 positioned above the printed name.

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 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 GETS OCSD Quarterly S

Report To : Steve Netto

Reported : 12/13/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-120116	1604346-01	Lab prepared water	12/01/16 7:00	12/01/16 10:40
CEFF	1604346-02	Groundwater	12/01/16 7:55	12/01/16 10:40



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS OCSD Quarterly S

Report To : Steve Netto

Reported : 12/13/2016

Client Sample ID TB-120116

Lab ID: 1604346-01

Volatile Organic Compounds by EPA 624

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1-Trichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
1,1,2-Trichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
1,1-Dichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
1,1-Dichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
1,2-Dichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
1,2-Dichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
1,2-Dichloropropane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
1,3-Dichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
1,4-Dichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
2-Chloroethyl vinyl ether	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Acrolein	ND	10	1	B6L0197	12/06/2016	12/06/16 14:27	
Acrylonitrile	ND	10	1	B6L0197	12/06/2016	12/06/16 14:27	
Benzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Bromodichloromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Bromoform	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Bromomethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Carbon tetrachloride	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Chlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Chloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Chloroform	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Chloromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Dibromochloromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Ethylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
m,p-Xylene	ND	1.0	1	B6L0197	12/06/2016	12/06/16 14:27	
Methylene chloride	ND	1.0	1	B6L0197	12/06/2016	12/06/16 14:27	
o-Xylene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Tetrachloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Toluene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
trans-1,3-Dichloropropene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Trichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Trichlorofluoromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	
Vinyl chloride	ND	0.50	1	B6L0197	12/06/2016	12/06/16 14:27	

Surrogate: 1,2-Dichloroethane-d4

97.5 %

51 - 157

B6L0197

12/06/2016

12/06/16 14:27

Surrogate: 4-Bromofluorobenzene

97.6 %

61 - 123

B6L0197

12/06/2016

12/06/16 14:27



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS OCSD Quarterly S

Report To : Steve Netto

Reported : 12/13/2016

Client Sample ID TB-120116

Lab ID: 1604346-01

Volatile Organic Compounds by EPA 624

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
<i>Surrogate: Dibromofluoromethane</i>	<i>101 %</i>	<i>57 - 147</i>		B6L0197	12/06/2016	<i>12/06/16 14:27</i>	
<i>Surrogate: Toluene-d8</i>	<i>104 %</i>	<i>61 - 119</i>		B6L0197	12/06/2016	<i>12/06/16 14:27</i>	



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San Diego , CA 92122

Project Number : Raytheon Main GETS OCSD Quarterly S

Report To : Steve Netto

Reported : 12/13/2016

Client Sample ID CEFF

Lab ID: 1604346-02

Ammonia, as Nitrogen N by ASTM D1426-08A

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Nitrogen, Ammonia (As N)	0.22	0.15	1	B6L0452	12/12/2016	12/12/16 13:21	

Volatile Organic Compounds by EPA 624

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1-Trichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
1,1,2-Trichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
1,1-Dichloroethane	0.51	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
1,1-Dichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
1,2-Dichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
1,2-Dichloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
1,2-Dichloropropane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
1,3-Dichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
1,4-Dichlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
2-Chloroethyl vinyl ether	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Acrolein	ND	10	1	B6L0197	12/06/2016	12/06/16 19:06	
Acrylonitrile	ND	10	1	B6L0197	12/06/2016	12/06/16 19:06	
Benzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Bromodichloromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Bromoform	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Bromomethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Carbon tetrachloride	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Chlorobenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Chloroethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Chloroform	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Chloromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Dibromochloromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Ethylbenzene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
m,p-Xylene	ND	1.0	1	B6L0197	12/06/2016	12/06/16 19:06	
Methylene chloride	ND	1.0	1	B6L0197	12/06/2016	12/06/16 19:06	
o-Xylene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Tetrachloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Toluene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS OCSD Quarterly S

Report To : Steve Netto

Reported : 12/13/2016

Client Sample ID CEFF

Lab ID: 1604346-02

Volatile Organic Compounds by EPA 624

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
trans-1,3-Dichloropropene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Trichloroethene	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Trichlorofluoromethane	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
Vinyl chloride	ND	0.50	1	B6L0197	12/06/2016	12/06/16 19:06	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>102 %</i>	<i>51 - 157</i>		B6L0197	12/06/2016	<i>12/06/16 19:06</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>100 %</i>	<i>61 - 123</i>		B6L0197	12/06/2016	<i>12/06/16 19:06</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>105 %</i>	<i>57 - 147</i>		B6L0197	12/06/2016	<i>12/06/16 19:06</i>	
<i>Surrogate: Toluene-d8</i>	<i>104 %</i>	<i>61 - 119</i>		B6L0197	12/06/2016	<i>12/06/16 19:06</i>	

Sulfide, Total by SM 4500-S=D

Analyst: SLO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	1	B6L0155	12/05/2016	12/05/16 15:00	

Sulfide, Dissolved by SM 4500-S=D

Analyst: SLO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Dissolved	ND	0.010	1	B6L0200	12/06/2016	12/06/16 12:20	

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Molybdenum	0.010	0.0050	1	B6L0227	12/07/2016	12/08/16 13:38	

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	2.0	1	B6L0239	12/06/2016	12/08/16 10:06	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>56.6 %</i>	<i>42 - 106</i>		B6L0239	12/06/2016	<i>12/08/16 10:06</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>60.1 %</i>	<i>55 - 117</i>		B6L0239	12/06/2016	<i>12/08/16 10:06</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>89.1 %</i>	<i>52 - 142</i>		B6L0239	12/06/2016	<i>12/08/16 10:06</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>65.2 %</i>	<i>43 - 116</i>		B6L0239	12/06/2016	<i>12/08/16 10:06</i>	



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Report To : Steve Netto

Reported : 12/13/2016

QUALITY CONTROL SECTION

Ammonia, as Nitrogen N by ASTM D1426-08A - Quality Control

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

Batch B6L0452 - Prep_WC3_W

Blank (B6L0452-BLK1)

Prepared: 12/12/2016 Analyzed: 12/12/2016

Nitrogen, Ammonia (As N)

ND

0.03

NR

LCS (B6L0452-BS1)

Prepared: 12/12/2016 Analyzed: 12/12/2016

Nitrogen, Ammonia (As N)

0.916000

0.03

1.00000

91.6

85 - 115

Matrix Spike (B6L0452-MS1)

Source: 1604321-01

Prepared: 12/12/2016 Analyzed: 12/12/2016

Nitrogen, Ammonia (As N)

5.23000

0.15

5.00000

2.55500

53.5

80 - 120

M1

Matrix Spike Dup (B6L0452-MSD1)

Source: 1604321-01

Prepared: 12/12/2016 Analyzed: 12/12/2016

Nitrogen, Ammonia (As N)

5.01500

0.15

5.00000

2.55500

49.2

80 - 120

4.20

20

M1



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Project Number : Raytheon Main GETS OCSD Quarterly S

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Reported : 12/13/2016

Sulfide, Total by SM 4500-S=D - Quality Control

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

Batch B6L0155 - Prep_WC3_W

Blank (B6L0155-BLK1)

Prepared: 12/5/2016 Analyzed: 12/5/2016

Sulfide, Total ND 0.010 NR

LCS (B6L0155-BS1)

Prepared: 12/5/2016 Analyzed: 12/5/2016

Sulfide, Total 0.108000 0.010 0.100000 108 80 - 120

Matrix Spike (B6L0155-MS1)

Source: 1604364-01

Prepared: 12/5/2016 Analyzed: 12/5/2016

Sulfide, Total 0.07 0.010 0.100000 ND 70.0 70 - 120

Matrix Spike Dup (B6L0155-MSD1)

Source: 1604364-01

Prepared: 12/5/2016 Analyzed: 12/5/2016

Sulfide, Total 0.065 0.010 0.100000 ND 65.0 70 - 120 7.41 20 M1



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Project Number : Raytheon Main GETS OCSD Quarterly S

Report To : Steve Netto

Reported : 12/13/2016

Sulfide, Dissolved by SM 4500-S=D - Quality Control

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

Batch B6L0200 - Prep_WC3_W

Blank (B6L0200-BLK1)

Prepared: 12/6/2016 Analyzed: 12/6/2016

Sulfide, Dissolved ND 0.010 NR

LCS (B6L0200-BS1)

Prepared: 12/6/2016 Analyzed: 12/6/2016

Sulfide, Dissolved 0.103000 0.010 0.100000 103 80 - 120

Matrix Spike (B6L0200-MS1)

Source: 1604336-01

Prepared: 12/6/2016 Analyzed: 12/6/2016

Sulfide, Dissolved 0.123000 0.010 0.100000 ND 123 80 - 120 M1

Matrix Spike Dup (B6L0200-MSD1)

Source: 1604336-01

Prepared: 12/6/2016 Analyzed: 12/6/2016

Sulfide, Dissolved 0.126000 0.010 0.100000 ND 126 80 - 120 2.41 20 M1



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Project Number : Raytheon Main GETS OCSD Quarterly S

Report To : Steve Netto

Reported : 12/13/2016

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 B6L0227 - EPA 3010A_W

Blank (B6L0227-BLK1)

Prepared: 12/7/2016 Analyzed: 12/8/2016

Molybdenum ND 0.0050 NR

LCS (B6L0227-BS1)

Prepared: 12/7/2016 Analyzed: 12/8/2016

Molybdenum 0.894231 0.0050 1.00000 89.4 80 - 120

Matrix Spike (B6L0227-MS1)

Source: 1604316-01

Prepared: 12/7/2016 Analyzed: 12/8/2016

Molybdenum 2.20497 0.0050 2.50000 0.002522 88.1 84 - 111

Matrix Spike Dup (B6L0227-MSD1)

Source: 1604316-01

Prepared: 12/7/2016 Analyzed: 12/8/2016

Molybdenum 2.27073 0.0050 2.50000 0.002522 90.7 84 - 111 2.94 20



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Volatile Organic Compounds by EPA 624 - Quality Control

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

Batch B6L0197 - MSVOA_W

Blank (B6L0197-BLK1)

Prepared: 12/6/2016 Analyzed: 12/6/2016

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				
1,2-Dichlorobenzene	ND	0.50			NR				
1,2-Dichloroethane	ND	0.50			NR				
1,2-Dichloropropane	ND	0.50			NR				
1,3-Dichlorobenzene	ND	0.50			NR				
1,4-Dichlorobenzene	ND	0.50			NR				
2-Chloroethyl vinyl ether	ND	0.50			NR				
Acrolein	ND	10			NR				
Acrylonitrile	ND	10			NR				
Benzene	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-1,3-Dichloropropene	ND	0.50			NR				
Dibromochloromethane	ND	0.50			NR				
Ethylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
o-Xylene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
trans-1,3-Dichloropropene	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	21.49		25.0000		86.0	51 - 157			
Surrogate: 4-Bromofluorobenzene	24.39		25.0000		97.6	61 - 123			
Surrogate: Dibromofluoromethane	23.11		25.0000		92.4	57 - 147			
Surrogate: Toluene-d8	24.81		25.0000		99.2	61 - 119			

LCS (B6L0197-BS1)

Prepared: 12/6/2016 Analyzed: 12/6/2016



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Report To : Steve Netto

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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 B6L0197 - MSVOA_W (continued)

LCS (B6L0197-BS1) - Continued

Prepared: 12/6/2016 Analyzed: 12/6/2016

1,1,1-Trichloroethane	17.5900	0.50	20.0000		88.0	72 - 144			
1,1,2,2-Tetrachloroethane	15.0900	0.50	20.0000		75.4	70 - 120			
1,1,2-Trichloroethane	16.3900	0.50	20.0000		82.0	75 - 120			
1,1-Dichloroethane	17.9100	0.50	20.0000		89.6	65 - 127			
1,1-Dichloroethene	18.3500	0.50	20.0000		91.8	63 - 142			
1,2-Dichlorobenzene	18.2400	0.50	20.0000		91.2	78 - 122			
1,2-Dichloroethane	16.1800	0.50	20.0000		80.9	70 - 126			
1,2-Dichloropropane	17.4500	0.50	20.0000		87.2	69 - 120			
1,3-Dichlorobenzene	18.9600	0.50	20.0000		94.8	76 - 126			
1,4-Dichlorobenzene	18.6000	0.50	20.0000		93.0	77 - 120			
2-Chloroethyl vinyl ether	7.30000	0.50	20.0000		36.5	4 - 145			
Acrolein	60.1900	10	200.000		30.1	0 - 184			
Acrylonitrile	149.570	10	200.000		74.8	43 - 163			
Benzene	38.1300	0.50	40.0000		95.3	73 - 123			
Bromodichloromethane	16.1400	0.50	20.0000		80.7	73 - 124			
Bromoform	16.3900	0.50	20.0000		82.0	70 - 135			
Bromomethane	26.7300	0.50	20.0000		134	10 - 166			
Carbon tetrachloride	16.7800	0.50	20.0000		83.9	65 - 171			
Chlorobenzene	18.4800	0.50	20.0000		92.4	80 - 121			
Chloroethane	24.2900	0.50	20.0000		121	55 - 143			
Chloroform	16.8500	0.50	20.0000		84.2	65 - 130			
Chloromethane	22.2700	0.50	20.0000		111	21 - 141			
cis-1,3-Dichloropropene	18.7100	0.50	20.0000		93.6	70 - 131			
Dibromochloromethane	16.2400	0.50	20.0000		81.2	74 - 125			
Ethylbenzene	37.9100	0.50	40.0000		94.8	77 - 130			
m,p-Xylene	40.9400	1.0	40.0000		102	84 - 136			
Methylene chloride	20.5000	1.0	20.0000		102	72 - 150			
o-Xylene	39.9800	0.50	40.0000		100	79 - 135			
Tetrachloroethene	17.5400	0.50	20.0000		87.7	74 - 136			
Toluene	37.8900	0.50	40.0000		94.7	78 - 124			
trans-1,2-Dichloroethene	18.1800	0.50	20.0000		90.9	66 - 131			
trans-1,3-Dichloropropene	17.8900	0.50	20.0000		89.4	63 - 134			
Trichloroethene	18.0400	0.50	20.0000		90.2	78 - 128			
Trichlorofluoromethane	16.3900	0.50	20.0000		82.0	60 - 170			
Vinyl chloride	20.8900	0.50	20.0000		104	55 - 148			
Surrogate: 1,2-Dichloroethane-d4	21.36		25.0000		85.4	51 - 157			
Surrogate: 4-Bromofluorobenzene	23.61		25.0000		94.4	61 - 123			
Surrogate: Dibromofluoromethane	22.00		25.0000		88.0	57 - 147			
Surrogate: Toluene-d8	24.00		25.0000		96.0	61 - 119			

LCS Dup (B6L0197-BSD1)

Prepared: 12/6/2016 Analyzed: 12/6/2016



Certificate of Analysis

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Reported : 12/13/2016

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 B6L0197 - MSVOA_W (continued)

LCS Dup (B6L0197-BSD1) - Continued

Prepared: 12/6/2016 Analyzed: 12/6/2016

1,1,1-Trichloroethane	17.3300	0.50	20.0000		86.6	72 - 144	1.49	20	
1,1,2,2-Tetrachloroethane	14.9800	0.50	20.0000		74.9	70 - 120	0.732	20	
1,1,2-Trichloroethane	16.7400	0.50	20.0000		83.7	75 - 120	2.11	20	
1,1-Dichloroethane	17.6800	0.50	20.0000		88.4	65 - 127	1.29	20	
1,1-Dichloroethene	17.7300	0.50	20.0000		88.6	63 - 142	3.44	20	
1,2-Dichlorobenzene	18.4900	0.50	20.0000		92.4	78 - 122	1.36	20	
1,2-Dichloroethane	15.8000	0.50	20.0000		79.0	70 - 126	2.38	20	
1,2-Dichloropropane	17.7400	0.50	20.0000		88.7	69 - 120	1.65	20	
1,3-Dichlorobenzene	19.1600	0.50	20.0000		95.8	76 - 126	1.05	20	
1,4-Dichlorobenzene	19.0300	0.50	20.0000		95.2	77 - 120	2.29	20	
2-Chloroethyl vinyl ether	8.77000	0.50	20.0000		43.8	4 - 145	18.3	20	
Acrolein	54.9500	10	200.000		27.5	0 - 184	9.10	20	
Acrylonitrile	140.210	10	200.000		70.1	43 - 163	6.46	20	
Benzene	37.9200	0.50	40.0000		94.8	73 - 123	0.552	20	
Bromodichloromethane	16.0200	0.50	20.0000		80.1	73 - 124	0.746	20	
Bromoform	16.1200	0.50	20.0000		80.6	70 - 135	1.66	20	
Bromomethane	29.0200	0.50	20.0000		145	10 - 166	8.22	20	
Carbon tetrachloride	16.6500	0.50	20.0000		83.2	65 - 171	0.778	20	
Chlorobenzene	18.8700	0.50	20.0000		94.4	80 - 121	2.09	20	
Chloroethane	24.1000	0.50	20.0000		120	55 - 143	0.785	20	
Chloroform	16.6800	0.50	20.0000		83.4	65 - 130	1.01	20	
Chloromethane	21.8100	0.50	20.0000		109	21 - 141	2.09	20	
cis-1,3-Dichloropropene	18.7100	0.50	20.0000		93.6	70 - 131	0.00	20	
Dibromochloromethane	16.6800	0.50	20.0000		83.4	74 - 125	2.67	20	
Ethylbenzene	38.4300	0.50	40.0000		96.1	77 - 130	1.36	20	
m,p-Xylene	41.4200	1.0	40.0000		104	84 - 136	1.17	20	
Methylene chloride	19.7300	1.0	20.0000		98.6	72 - 150	3.83	20	
o-Xylene	40.3300	0.50	40.0000		101	79 - 135	0.872	20	
Tetrachloroethene	18.0400	0.50	20.0000		90.2	74 - 136	2.81	20	
Toluene	37.4600	0.50	40.0000		93.6	78 - 124	1.14	20	
trans-1,2-Dichloroethene	18.1900	0.50	20.0000		91.0	66 - 131	0.0550	20	
trans-1,3-Dichloropropene	17.3900	0.50	20.0000		87.0	63 - 134	2.83	20	
Trichloroethene	18.4200	0.50	20.0000		92.1	78 - 128	2.08	20	
Trichlorofluoromethane	15.9800	0.50	20.0000		79.9	60 - 170	2.53	20	
Vinyl chloride	20.5100	0.50	20.0000		103	55 - 148	1.84	20	
Surrogate: 1,2-Dichloroethane-d4	21.05		25.0000		84.2	51 - 157			
Surrogate: 4-Bromofluorobenzene	24.11		25.0000		96.4	61 - 123			
Surrogate: Dibromofluoromethane	22.28		25.0000		89.1	57 - 147			
Surrogate: Toluene-d8	24.40		25.0000		97.6	61 - 119			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS OCSD Quarterly S

Report To : Steve Netto

Reported : 12/13/2016

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 B6L0239 - MSSEMI_W

Blank (B6L0239-BLK1)

Prepared: 12/6/2016 Analyzed: 12/7/2016

1,4-Dioxane	ND	2.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	51.95		100.000		52.0	42 - 106			
Surrogate: 2-Fluorobiphenyl	54.12		100.000		54.1	55 - 117			S3
Surrogate: 4-Terphenyl-d14	93.13		100.000		93.1	52 - 142			
Surrogate: Nitrobenzene-d5	57.76		100.000		57.8	43 - 116			

LCS (B6L0239-BS1)

Prepared: 12/6/2016 Analyzed: 12/7/2016

1,4-Dioxane	99.8600	2.0	100.000		99.9	62 - 127			
Surrogate: 1,2-Dichlorobenzene-d4	61.83		100.000		61.8	42 - 106			
Surrogate: 2-Fluorobiphenyl	75.17		100.000		75.2	55 - 117			
Surrogate: 4-Terphenyl-d14	89.66		100.000		89.7	52 - 142			
Surrogate: Nitrobenzene-d5	76.13		100.000		76.1	43 - 116			

LCS Dup (B6L0239-BSD1)

Prepared: 12/6/2016 Analyzed: 12/7/2016

1,4-Dioxane	93.9700	2.0	100.000		94.0	62 - 127	6.08	20	
Surrogate: 1,2-Dichlorobenzene-d4	47.34		100.000		47.3	42 - 106			
Surrogate: 2-Fluorobiphenyl	62.83		100.000		62.8	55 - 117			
Surrogate: 4-Terphenyl-d14	80.64		100.000		80.6	52 - 142			
Surrogate: Nitrobenzene-d5	61.94		100.000		61.9	43 - 116			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS OCSD Quarterly S

Report To : Steve Netto

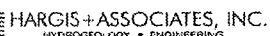
Reported : 12/13/2016

Notes and Definitions

S3	Surrogate recovery outside of laboratory acceptance limit. Unable to confirm matrix effects.
M1	Matrix spike recovery outside of acceptance limit. 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
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.



Date: 12/1/16
Page 1 of 1

PROJECT: Raytheon Main GETS OCSD Quarterly Sample

TASK NO.: 532.15

Project Manager Steve Netto

QA Manager Kevin Fong

Phone 858.455.6500

Fax 858.455.6533

Sampled By:

Kevin Fung Gray Peterson

SAMPLE COLLECTION

Total number of containers per analysis:				5	1	2	1	1	Total No. of Containers: <u>10</u>	
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time	☒ No. of containers correct ☒ Received in good condition ☐ Custody seals secure ☒ Conforms to COC document						
Kevin F. HTA	12/11/10 10:40	Justin L. Joffe/Arco	12/11/10 10:40							
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time	Send Results to: Steve Netto 9171 Towne Centre Drive Suite 275						
Justin L. Joffe/Arco	12/11/10 11:20	Justin L. Joffe/Arco	12/11/10 11:40							

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓ or x
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples. Consult project QA documents for specific instructions.

1.2

Temperature on receipt

Send Results to:

Steve Netto

9171 Towne Centre Drive

Suite 275

San Diego, CA 92122

Ph: 858.455.6500

snetto@hargis.com



December 28, 2016

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
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604755

Client Reference : Raytheon Main GETS Mid Month Sample, 532.15

Enclosed are the results for sample(s) received on December 16, 2016 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 "Eddie Rodriguez", with a stylized, cursive script.

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 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 GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-121616	1604755-01	Lab prepared water	12/16/16 7:00	12/16/16 10:15
CBT	1604755-02	Groundwater	12/16/16 8:40	12/16/16 10:15
POX	1604755-03	Groundwater	12/16/16 8:50	12/16/16 10:15
CEFF	1604755-04	Groundwater	12/16/16 8:35	12/16/16 10:15
INF	1604755-05	Groundwater	12/16/16 8:55	12/16/16 10:15
EW-02	1604755-06	Groundwater	12/15/16 13:40	12/16/16 10:15
MW-29	1604755-07	Groundwater	12/15/16 14:00	12/16/16 10:15



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID TB-121616

Lab ID: 1604755-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,1,1-Trichloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,1,2-Trichloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,1-Dichloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,1-Dichloroethene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,1-Dichloropropene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,2,3-Trichloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,2-Dibromoethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,2-Dichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,2-Dichloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,2-Dichloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,3-Dichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,3-Dichloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
1,4-Dichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
2,2-Dichloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
2-Chlorotoluene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
4-Chlorotoluene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
4-Isopropyltoluene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Benzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Bromobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Bromodichloromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Bromoform	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Bromomethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Carbon tetrachloride	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Chlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Chloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Chloroform	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Chloromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Dibromochloromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID TB-121616

Lab ID: 1604755-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Dichlorodifluoromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Ethylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Hexachlorobutadiene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Isopropylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
m,p-Xylene	ND	1.0	1	B6L0880	12/23/2016	12/23/16 14:02	
Methylene chloride	1.4	1.0	1	B6L0880	12/23/2016	12/23/16 14:02	
n-Butylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
n-Propylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Naphthalene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
o-Xylene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
sec-Butylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Styrene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
tert-Butylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Tetrachloroethene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Toluene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Trichloroethene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Trichlorofluoromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
Vinyl chloride	ND	0.50	1	B6L0880	12/23/2016	12/23/16 14:02	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>127 %</i>	<i>51 - 157</i>		B6L0880	12/23/2016	<i>12/23/16 14:02</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>102 %</i>	<i>61 - 123</i>		B6L0880	12/23/2016	<i>12/23/16 14:02</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>125 %</i>	<i>57 - 147</i>		B6L0880	12/23/2016	<i>12/23/16 14:02</i>	
<i>Surrogate: Toluene-d8</i>	<i>109 %</i>	<i>61 - 119</i>		B6L0880	12/23/2016	<i>12/23/16 14:02</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID CBT

Lab ID: 1604755-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,1,1-Trichloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,1,2-Trichloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,1-Dichloroethane	0.56	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,1-Dichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,1-Dichloropropene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,2,3-Trichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,2-Dibromoethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,2-Dichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,2-Dichloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,2-Dichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,3-Dichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,3-Dichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
1,4-Dichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
2,2-Dichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
2-Chlorotoluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
4-Chlorotoluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
4-Isopropyltoluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Benzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Bromobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Bromodichloromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Bromoform	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Bromomethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Carbon tetrachloride	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Chlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Chloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Chloroform	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Chloromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Dibromochloromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID CBT

Lab ID: 1604755-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Dichlorodifluoromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Ethylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Hexachlorobutadiene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Isopropylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
m,p-Xylene	ND	1.0	1	B6L0832	12/22/2016	12/22/16 20:00	
Methylene chloride	ND	1.0	1	B6L0832	12/22/2016	12/22/16 20:00	
n-Butylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
n-Propylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Naphthalene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
o-Xylene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
sec-Butylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Styrene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
tert-Butylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Tetrachloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Toluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Trichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Trichlorofluoromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Vinyl chloride	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:00	
Surrogate: 1,2-Dichloroethane-d4	123 %	51 - 157		B6L0832	12/22/2016	12/22/16 20:00	
Surrogate: 4-Bromofluorobenzene	101 %	61 - 123		B6L0832	12/22/2016	12/22/16 20:00	
Surrogate: Dibromofluoromethane	120 %	57 - 147		B6L0832	12/22/2016	12/22/16 20:00	
Surrogate: Toluene-d8	108 %	61 - 119		B6L0832	12/22/2016	12/22/16 20:00	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID CBT

Lab ID: 1604755-02

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

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B6L0847	12/22/2016	12/23/16 10:45	
Surrogate: 1,2-Dichlorobenzene-d4	61.1 %	31 - 106		B6L0847	12/22/2016	12/23/16 10:45	
Surrogate: 2-Fluorobiphenyl	72.1 %	28 - 122		B6L0847	12/22/2016	12/23/16 10:45	
Surrogate: 4-Terphenyl-d14	74.3 %	43 - 131		B6L0847	12/22/2016	12/23/16 10:45	
Surrogate: Nitrobenzene-d5	52.7 %	20 - 119		B6L0847	12/22/2016	12/23/16 10:45	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID POX

Lab ID: 1604755-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,1,1-Trichloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,1,2-Trichloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,1-Dichloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,1-Dichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,1-Dichloropropene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,2,3-Trichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,2-Dibromoethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,2-Dichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,2-Dichloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,2-Dichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,3-Dichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,3-Dichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
1,4-Dichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
2,2-Dichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
2-Chlorotoluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
4-Chlorotoluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
4-Isopropyltoluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Benzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Bromobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Bromodichloromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Bromoform	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Bromomethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Carbon tetrachloride	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Chlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Chloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Chloroform	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Chloromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Dibromochloromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID POX

Lab ID: 1604755-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Dichlorodifluoromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Ethylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Hexachlorobutadiene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Isopropylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
m,p-Xylene	ND	1.0	1	B6L0832	12/22/2016	12/22/16 20:24	
Methylene chloride	ND	1.0	1	B6L0832	12/22/2016	12/22/16 20:24	
n-Butylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
n-Propylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Naphthalene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
o-Xylene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
sec-Butylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Styrene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
tert-Butylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Tetrachloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Toluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Trichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Trichlorofluoromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Vinyl chloride	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:24	
Surrogate: 1,2-Dichloroethane-d4	129 %	51 - 157		B6L0832	12/22/2016	12/22/16 20:24	
Surrogate: 4-Bromofluorobenzene	102 %	61 - 123		B6L0832	12/22/2016	12/22/16 20:24	
Surrogate: Dibromofluoromethane	126 %	57 - 147		B6L0832	12/22/2016	12/22/16 20:24	
Surrogate: Toluene-d8	111 %	61 - 119		B6L0832	12/22/2016	12/22/16 20:24	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID POX

Lab ID: 1604755-03

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

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B6L0847	12/22/2016	12/23/16 11:12	
Surrogate: 1,2-Dichlorobenzene-d4	60.1 %	31 - 106		B6L0847	12/22/2016	12/23/16 11:12	
Surrogate: 2-Fluorobiphenyl	74.2 %	28 - 122		B6L0847	12/22/2016	12/23/16 11:12	
Surrogate: 4-Terphenyl-d14	87.1 %	43 - 131		B6L0847	12/22/2016	12/23/16 11:12	
Surrogate: Nitrobenzene-d5	54.1 %	20 - 119		B6L0847	12/22/2016	12/23/16 11:12	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID CEFF

Lab ID: 1604755-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,1,1-Trichloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,1,2-Trichloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,1-Dichloroethane	0.65	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,1-Dichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,1-Dichloropropene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,2,3-Trichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,2-Dibromoethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,2-Dichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,2-Dichloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,2-Dichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,3-Dichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,3-Dichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
1,4-Dichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
2,2-Dichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
2-Chlorotoluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
4-Chlorotoluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
4-Isopropyltoluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Benzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Bromobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Bromodichloromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Bromoform	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Bromomethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Carbon tetrachloride	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Chlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Chloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Chloroform	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Chloromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Dibromochloromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID CEFF

Lab ID: 1604755-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Dichlorodifluoromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Ethylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Hexachlorobutadiene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Isopropylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
m,p-Xylene	ND	1.0	1	B6L0832	12/22/2016	12/22/16 20:49	
Methylene chloride	ND	1.0	1	B6L0832	12/22/2016	12/22/16 20:49	
n-Butylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
n-Propylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Naphthalene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
o-Xylene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
sec-Butylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Styrene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
tert-Butylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Tetrachloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Toluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Trichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Trichlorofluoromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Vinyl chloride	ND	0.50	1	B6L0832	12/22/2016	12/22/16 20:49	
Surrogate: 1,2-Dichloroethane-d4	127 %	51 - 157		B6L0832	12/22/2016	12/22/16 20:49	
Surrogate: 4-Bromofluorobenzene	99.5 %	61 - 123		B6L0832	12/22/2016	12/22/16 20:49	
Surrogate: Dibromofluoromethane	124 %	57 - 147		B6L0832	12/22/2016	12/22/16 20:49	
Surrogate: Toluene-d8	108 %	61 - 119		B6L0832	12/22/2016	12/22/16 20:49	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID CEFF

Lab ID: 1604755-04

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

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B6L0847	12/22/2016	12/23/16 11:38	
Surrogate: 1,2-Dichlorobenzene-d4	59.8 %	31 - 106		B6L0847	12/22/2016	12/23/16 11:38	
Surrogate: 2-Fluorobiphenyl	78.6 %	28 - 122		B6L0847	12/22/2016	12/23/16 11:38	
Surrogate: 4-Terphenyl-d14	89.7 %	43 - 131		B6L0847	12/22/2016	12/23/16 11:38	
Surrogate: Nitrobenzene-d5	52.8 %	20 - 119		B6L0847	12/22/2016	12/23/16 11:38	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID INF

Lab ID: 1604755-05

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,1,1-Trichloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,1,2-Trichloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,1-Dichloroethane	1.1	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,1-Dichloroethene	85	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,1-Dichloropropene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,2,3-Trichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,2-Dibromoethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,2-Dichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,2-Dichloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,2-Dichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,3-Dichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,3-Dichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
1,4-Dichlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
2,2-Dichloropropane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
2-Chlorotoluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
4-Chlorotoluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
4-Isopropyltoluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Benzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Bromobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Bromodichloromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Bromoform	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Bromomethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Carbon tetrachloride	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Chlorobenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Chloroethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Chloroform	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Chloromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Dibromochloromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID INF

Lab ID: 1604755-05

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Dichlorodifluoromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Ethylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Hexachlorobutadiene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Isopropylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
m,p-Xylene	ND	1.0	1	B6L0832	12/22/2016	12/22/16 21:13	
Methylene chloride	ND	1.0	1	B6L0832	12/22/2016	12/22/16 21:13	
n-Butylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
n-Propylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Naphthalene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
o-Xylene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
sec-Butylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Styrene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
tert-Butylbenzene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Tetrachloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Toluene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Trichloroethene	0.57	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Trichlorofluoromethane	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
Vinyl chloride	ND	0.50	1	B6L0832	12/22/2016	12/22/16 21:13	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>134 %</i>	<i>51 - 157</i>		B6L0832	12/22/2016	<i>12/22/16 21:13</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>103 %</i>	<i>61 - 123</i>		B6L0832	12/22/2016	<i>12/22/16 21:13</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>129 %</i>	<i>57 - 147</i>		B6L0832	12/22/2016	<i>12/22/16 21:13</i>	
<i>Surrogate: Toluene-d8</i>	<i>111 %</i>	<i>61 - 119</i>		B6L0832	12/22/2016	<i>12/22/16 21:13</i>	



Certificate of Analysis

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San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID INF

Lab ID: 1604755-05

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	28	2.0	1	B6L0862	12/22/2016	12/24/16 11:24	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>52.9 %</i>	<i>42 - 106</i>		B6L0862	12/22/2016	<i>12/24/16 11:24</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>69.6 %</i>	<i>55 - 117</i>		B6L0862	12/22/2016	<i>12/24/16 11:24</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>103 %</i>	<i>52 - 142</i>		B6L0862	12/22/2016	<i>12/24/16 11:24</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>68.4 %</i>	<i>43 - 116</i>		B6L0862	12/22/2016	<i>12/24/16 11:24</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID EW-02

Lab ID: 1604755-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,1,1-Trichloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,1,2-Trichloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,1-Dichloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,1-Dichloroethene	20	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,1-Dichloropropene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,2,3-Trichloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,2-Dibromoethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,2-Dichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,2-Dichloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,2-Dichloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,3-Dichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,3-Dichloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
1,4-Dichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
2,2-Dichloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
2-Chlorotoluene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
4-Chlorotoluene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
4-Isopropyltoluene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Benzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Bromobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Bromodichloromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Bromoform	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Bromomethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Carbon tetrachloride	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Chlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Chloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Chloroform	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Chloromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Dibromochloromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID EW-02

Lab ID: 1604755-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Dichlorodifluoromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Ethylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Hexachlorobutadiene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Isopropylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
m,p-Xylene	ND	1.0	1	B6L0880	12/23/2016	12/23/16 16:28	
Methylene chloride	ND	1.0	1	B6L0880	12/23/2016	12/23/16 16:28	
n-Butylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
n-Propylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Naphthalene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
o-Xylene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
sec-Butylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Styrene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
tert-Butylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Tetrachloroethene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Toluene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Trichloroethene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Trichlorofluoromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Vinyl chloride	ND	0.50	1	B6L0880	12/23/2016	12/23/16 16:28	
Surrogate: 1,2-Dichloroethane-d4	132 %	51 - 157		B6L0880	12/23/2016	12/23/16 16:28	
Surrogate: 4-Bromofluorobenzene	102 %	61 - 123		B6L0880	12/23/2016	12/23/16 16:28	
Surrogate: Dibromofluoromethane	128 %	57 - 147		B6L0880	12/23/2016	12/23/16 16:28	
Surrogate: Toluene-d8	111 %	61 - 119		B6L0880	12/23/2016	12/23/16 16:28	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID EW-02

Lab ID: 1604755-06

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	85	2.0	1	B6L0862	12/22/2016	12/24/16 11:51	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>57.2 %</i>	<i>42 - 106</i>		B6L0862	12/22/2016	<i>12/24/16 11:51</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>79.0 %</i>	<i>55 - 117</i>		B6L0862	12/22/2016	<i>12/24/16 11:51</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>105 %</i>	<i>52 - 142</i>		B6L0862	12/22/2016	<i>12/24/16 11:51</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>72.9 %</i>	<i>43 - 116</i>		B6L0862	12/22/2016	<i>12/24/16 11:51</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID MW-29

Lab ID: 1604755-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,1,1-Trichloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,1,2-Trichloroethane	0.93	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,1-Dichloroethane	3.1	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,1-Dichloroethene	240	2.5	5	B6L0880	12/23/2016	12/23/16 18:05	
1,1-Dichloropropene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,2,3-Trichloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,2,3-Trichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,2,4-Trichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,2,4-Trimethylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,2-Dibromoethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,2-Dichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,2-Dichloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,2-Dichloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,3,5-Trimethylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,3-Dichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,3-Dichloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
1,4-Dichlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
2,2-Dichloropropane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
2-Chlorotoluene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
4-Chlorotoluene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
4-Isopropyltoluene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Benzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Bromobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Bromodichloromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Bromoform	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Bromomethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Carbon tetrachloride	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Chlorobenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Chloroethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Chloroform	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Chloromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
cis-1,2-Dichloroethene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
cis-1,3-Dichloropropene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Dibromochloromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID MW-29

Lab ID: 1604755-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Dichlorodifluoromethane	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Ethylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Hexachlorobutadiene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Isopropylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
m,p-Xylene	ND	1.0	1	B6L0880	12/23/2016	12/23/16 17:41	
Methylene chloride	ND	1.0	1	B6L0880	12/23/2016	12/23/16 17:41	
n-Butylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
n-Propylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Naphthalene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
o-Xylene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
sec-Butylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Styrene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
tert-Butylbenzene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Tetrachloroethene	0.59	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Toluene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
trans-1,2-Dichloroethene	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Trichloroethene	2.1	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Trichlorofluoromethane	0.98	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
Vinyl chloride	ND	0.50	1	B6L0880	12/23/2016	12/23/16 17:41	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>124 %</i>	<i>51 - 157</i>		B6L0880	12/23/2016	<i>12/23/16 18:05</i>	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>123 %</i>	<i>51 - 157</i>		B6L0880	12/23/2016	<i>12/23/16 17:41</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>100 %</i>	<i>61 - 123</i>		B6L0880	12/23/2016	<i>12/23/16 18:05</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>100 %</i>	<i>61 - 123</i>		B6L0880	12/23/2016	<i>12/23/16 17:41</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>120 %</i>	<i>57 - 147</i>		B6L0880	12/23/2016	<i>12/23/16 18:05</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>120 %</i>	<i>57 - 147</i>		B6L0880	12/23/2016	<i>12/23/16 17:41</i>	
<i>Surrogate: Toluene-d8</i>	<i>107 %</i>	<i>61 - 119</i>		B6L0880	12/23/2016	<i>12/23/16 17:41</i>	
<i>Surrogate: Toluene-d8</i>	<i>109 %</i>	<i>61 - 119</i>		B6L0880	12/23/2016	<i>12/23/16 18:05</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

Client Sample ID MW-29

Lab ID: 1604755-07

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	6.3	2.0	1	B6L0862	12/22/2016	12/24/16 12:17	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>54.9 %</i>	<i>42 - 106</i>		B6L0862	12/22/2016	<i>12/24/16 12:17</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>70.0 %</i>	<i>55 - 117</i>		B6L0862	12/22/2016	<i>12/24/16 12:17</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>106 %</i>	<i>52 - 142</i>		B6L0862	12/22/2016	<i>12/24/16 12:17</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>68.3 %</i>	<i>43 - 116</i>		B6L0862	12/22/2016	<i>12/24/16 12:17</i>	



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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 B6L0832 - MSVOA_LL_W

Blank (B6L0832-BLK1)

Prepared: 12/22/2016 Analyzed: 12/22/2016

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 Main GETS Mid Month Sample

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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 B6L0832 - MSVOA_LL_W (continued)

Blank (B6L0832-BLK1) - Continued

Prepared: 12/22/2016 Analyzed: 12/22/2016

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	30.37		25.0000		121	51 - 157			
Surrogate: 4-Bromofluorobenzene	25.96		25.0000		104	61 - 123			
Surrogate: Dibromofluoromethane	30.58		25.0000		122	57 - 147			
Surrogate: Toluene-d8	27.01		25.0000		108	61 - 119			

LCS (B6L0832-BS1)

Prepared: 12/22/2016 Analyzed: 12/22/2016

1,1,1,2-Tetrachloroethane	10.9700	0.50	10.0000		110	76 - 132			
1,1,1-Trichloroethane	10.5200	0.50	10.0000		105	72 - 144			
1,1,2,2-Tetrachloroethane	9.74000	0.50	10.0000		97.4	70 - 120			
1,1,2-Trichloroethane	9.44000	0.50	10.0000		94.4	75 - 120			
1,1-Dichloroethane	11.6500	0.50	10.0000		116	65 - 127			
1,1-Dichloroethene	10.3100	0.50	10.0000		103	63 - 142			
1,1-Dichloropropene	9.22000	0.50	10.0000		92.2	78 - 137			
1,2,3-Trichloropropane	9.35000	0.50	10.0000		93.5	73 - 118			
1,2,3-Trichlorobenzene	9.86000	0.50	10.0000		98.6	53 - 164			
1,2,4-Trichlorobenzene	9.64000	0.50	10.0000		96.4	58 - 144			
1,2,4-Trimethylbenzene	10.4700	0.50	10.0000		105	75 - 140			
1,2-Dibromo-3-chloropropane	9.67000	0.50	10.0000		96.7	61 - 131			
1,2-Dibromoethane	9.32000	0.50	10.0000		93.2	74 - 125			
1,2-Dichlorobenzene	10.0100	0.50	10.0000		100	78 - 122			
1,2-Dichloroethane	10.5900	0.50	10.0000		106	70 - 126			
1,2-Dichloropropane	9.50000	0.50	10.0000		95.0	69 - 120			
1,3,5-Trimethylbenzene	10.8200	0.50	10.0000		108	73 - 145			



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Project Number : Raytheon Main GETS Mid Month Sample

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Reported : 12/28/2016

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 B6L0832 - MSVOA_LL_W (continued)

LCS (B6L0832-BS1) - Continued

Prepared: 12/22/2016 Analyzed: 12/22/2016

1,3-Dichlorobenzene	10.2200	0.50	10.0000		102	76 - 126			
1,3-Dichloropropane	9.52000	0.50	10.0000		95.2	76 - 117			
1,4-Dichlorobenzene	9.97000	0.50	10.0000		99.7	77 - 120			
2,2-Dichloropropane	11.2800	0.50	10.0000		113	47 - 169			
2-Chlorotoluene	10.6000	0.50	10.0000		106	75 - 135			
4-Chlorotoluene	10.8100	0.50	10.0000		108	70 - 133			
4-Isopropyltoluene	10.9300	0.50	10.0000		109	72 - 153			
Benzene	19.8800	0.50	20.0000		99.4	73 - 123			
Bromobenzene	9.36000	0.50	10.0000		93.6	75 - 121			
Bromodichloromethane	10.4200	0.50	10.0000		104	73 - 124			
Bromoform	10.2700	0.50	10.0000		103	70 - 135			
Bromomethane	15.6100	0.50	10.0000		156	10 - 166			
Carbon tetrachloride	11.5000	0.50	10.0000		115	65 - 171			
Chlorobenzene	9.96000	0.50	10.0000		99.6	80 - 121			
Chloroethane	10.2400	0.50	10.0000		102	55 - 143			
Chloroform	10.8200	0.50	10.0000		108	65 - 130			
Chloromethane	10.8800	0.50	10.0000		109	21 - 141			
cis-1,2-Dichloroethene	10.3200	0.50	10.0000		103	64 - 126			
cis-1,3-Dichloropropene	10.1200	0.50	10.0000		101	70 - 131			
Dibromochloromethane	10.1100	0.50	10.0000		101	74 - 125			
Dibromomethane	9.55000	0.50	10.0000		95.5	74 - 116			
Dichlorodifluoromethane	8.41000	0.50	10.0000		84.1	40 - 186			
Ethylbenzene	20.3500	0.50	20.0000		102	77 - 130			
Hexachlorobutadiene	10.9100	0.50	10.0000		109	52 - 176			
Isopropylbenzene	10.8600	0.50	10.0000		109	77 - 144			
m,p-Xylene	20.9400	1.0	20.0000		105	84 - 136			
Methylene chloride	9.49000	1.0	10.0000		94.9	72 - 150			
n-Butylbenzene	10.9200	0.50	10.0000		109	73 - 154			
n-Propylbenzene	10.5000	0.50	10.0000		105	77 - 145			
Naphthalene	8.89000	0.50	10.0000		88.9	55 - 137			
o-Xylene	20.9500	0.50	20.0000		105	79 - 135			
sec-Butylbenzene	11.0500	0.50	10.0000		110	73 - 157			
Styrene	10.4000	0.50	10.0000		104	78 - 125			
tert-Butylbenzene	10.7000	0.50	10.0000		107	78 - 149			
Tetrachloroethene	9.12000	0.50	10.0000		91.2	74 - 136			
Toluene	20.2300	0.50	20.0000		101	78 - 124			
trans-1,2-Dichloroethene	10.3200	0.50	10.0000		103	66 - 131			
Trichloroethene	8.90000	0.50	10.0000		89.0	78 - 128			
Trichlorofluoromethane	10.7400	0.50	10.0000		107	60 - 170			
Vinyl chloride	9.52000	0.50	10.0000		95.2	55 - 148			
Surrogate: 1,2-Dichloroethane-d4	28.28		25.0000		113	51 - 157			



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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 B6L0832 - MSVOA_LL_W (continued)

LCS (B6L0832-BS1) - Continued

Prepared: 12/22/2016 Analyzed: 12/22/2016

Surrogate: 4-Bromofluorobenzene	25.85		25.0000		103	61 - 123			
Surrogate: Dibromofluoromethane	27.91		25.0000		112	57 - 147			
Surrogate: Toluene-d8	26.84		25.0000		107	61 - 119			

LCS Dup (B6L0832-BS1)

Prepared: 12/22/2016 Analyzed: 12/22/2016

1,1,1,2-Tetrachloroethane	11.4800	0.50	10.0000		115	76 - 132	4.54	20	
1,1,1-Trichloroethane	11.2200	0.50	10.0000		112	72 - 144	6.44	20	
1,1,2,2-Tetrachloroethane	10.3500	0.50	10.0000		104	70 - 120	6.07	20	
1,1,2-Trichloroethane	10.0400	0.50	10.0000		100	75 - 120	6.16	20	
1,1-Dichloroethane	12.1600	0.50	10.0000		122	65 - 127	4.28	20	
1,1-Dichloroethene	10.8200	0.50	10.0000		108	63 - 142	4.83	20	
1,1-Dichloropropene	9.42000	0.50	10.0000		94.2	78 - 137	2.15	20	
1,2,3-Trichloropropane	9.97000	0.50	10.0000		99.7	73 - 118	6.42	20	
1,2,3-Trichlorobenzene	10.7700	0.50	10.0000		108	53 - 164	8.82	20	
1,2,4-Trichlorobenzene	10.4500	0.50	10.0000		104	58 - 144	8.06	20	
1,2,4-Trimethylbenzene	11.5100	0.50	10.0000		115	75 - 140	9.46	20	
1,2-Dibromo-3-chloropropane	10.0500	0.50	10.0000		100	61 - 131	3.85	20	
1,2-Dibromoethane	9.87000	0.50	10.0000		98.7	74 - 125	5.73	20	
1,2-Dichlorobenzene	10.8300	0.50	10.0000		108	78 - 122	7.87	20	
1,2-Dichloroethane	11.1300	0.50	10.0000		111	70 - 126	4.97	20	
1,2-Dichloropropane	9.89000	0.50	10.0000		98.9	69 - 120	4.02	20	
1,3,5-Trimethylbenzene	11.8600	0.50	10.0000		119	73 - 145	9.17	20	
1,3-Dichlorobenzene	11.1200	0.50	10.0000		111	76 - 126	8.43	20	
1,3-Dichloropropane	9.90000	0.50	10.0000		99.0	76 - 117	3.91	20	
1,4-Dichlorobenzene	10.9600	0.50	10.0000		110	77 - 120	9.46	20	
2,2-Dichloropropane	11.8400	0.50	10.0000		118	47 - 169	4.84	20	
2-Chlorotoluene	11.4300	0.50	10.0000		114	75 - 135	7.54	20	
4-Chlorotoluene	11.8800	0.50	10.0000		119	70 - 133	9.43	20	
4-Isopropyltoluene	12.0300	0.50	10.0000		120	72 - 153	9.58	20	
Benzene	21.2700	0.50	20.0000		106	73 - 123	6.76	20	
Bromobenzene	10.1700	0.50	10.0000		102	75 - 121	8.29	20	
Bromodichloromethane	10.8500	0.50	10.0000		108	73 - 124	4.04	20	
Bromoform	10.9200	0.50	10.0000		109	70 - 135	6.13	20	
Bromomethane	16.2900	0.50	10.0000		163	10 - 166	4.26	20	
Carbon tetrachloride	12.3200	0.50	10.0000		123	65 - 171	6.88	20	
Chlorobenzene	10.4800	0.50	10.0000		105	80 - 121	5.09	20	
Chloroethane	10.7100	0.50	10.0000		107	55 - 143	4.49	20	
Chloroform	11.4500	0.50	10.0000		114	65 - 130	5.66	20	
Chloromethane	11.5300	0.50	10.0000		115	21 - 141	5.80	20	
cis-1,2-Dichloroethene	10.9600	0.50	10.0000		110	64 - 126	6.02	20	
cis-1,3-Dichloropropene	10.7300	0.50	10.0000		107	70 - 131	5.85	20	
Dibromochloromethane	10.6800	0.50	10.0000		107	74 - 125	5.48	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 B6L0832 - MSVOA_LL_W (continued)

LCS Dup (B6L0832-BSD1) - Continued

Prepared: 12/22/2016 Analyzed: 12/22/2016

Dibromomethane	10.2500	0.50	10.0000		102	74 - 116	7.07	20	
Dichlorodifluoromethane	9.11000	0.50	10.0000		91.1	40 - 186	7.99	20	
Ethylbenzene	21.6800	0.50	20.0000		108	77 - 130	6.33	20	
Hexachlorobutadiene	11.6800	0.50	10.0000		117	52 - 176	6.82	20	
Isopropylbenzene	11.9600	0.50	10.0000		120	77 - 144	9.64	20	
m,p-Xylene	22.2500	1.0	20.0000		111	84 - 136	6.07	20	
Methylene chloride	10.0600	1.0	10.0000		101	72 - 150	5.83	20	
n-Butylbenzene	12.1200	0.50	10.0000		121	73 - 154	10.4	20	
n-Propylbenzene	11.3700	0.50	10.0000		114	77 - 145	7.96	20	
Naphthalene	9.94000	0.50	10.0000		99.4	55 - 137	11.2	20	
o-Xylene	22.4500	0.50	20.0000		112	79 - 135	6.91	20	
sec-Butylbenzene	12.0000	0.50	10.0000		120	73 - 157	8.24	20	
Styrene	11.0700	0.50	10.0000		111	78 - 125	6.24	20	
tert-Butylbenzene	11.5300	0.50	10.0000		115	78 - 149	7.47	20	
Tetrachloroethene	9.71000	0.50	10.0000		97.1	74 - 136	6.27	20	
Toluene	21.3500	0.50	20.0000		107	78 - 124	5.39	20	
trans-1,2-Dichloroethene	10.7600	0.50	10.0000		108	66 - 131	4.17	20	
Trichloroethene	9.36000	0.50	10.0000		93.6	78 - 128	5.04	20	
Trichlorofluoromethane	11.1700	0.50	10.0000		112	60 - 170	3.93	20	
Vinyl chloride	10.2500	0.50	10.0000		102	55 - 148	7.38	20	
Surrogate: 1,2-Dichloroethane-d4	28.62		25.0000		114	51 - 157			
Surrogate: 4-Bromofluorobenzene	26.36		25.0000		105	61 - 123			
Surrogate: Dibromofluoromethane	27.43		25.0000		110	57 - 147			
Surrogate: Toluene-d8	26.88		25.0000		108	61 - 119			



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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 Limits	RPD	RPD Limit	Notes

Batch B6L0880 - MSVOA_LL_W

Blank (B6L0880-BLK1)

Prepared: 12/23/2016 Analyzed: 12/23/2016

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



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

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 B6L0880 - MSVOA_LL_W (continued)

Blank (B6L0880-BLK1) - Continued

Prepared: 12/23/2016 Analyzed: 12/23/2016

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	30.89		25.0000		124	51 - 157
Surrogate: 4-Bromofluorobenzene	24.21		25.0000		96.8	61 - 123
Surrogate: Dibromofluoromethane	29.63		25.0000		119	57 - 147
Surrogate: Toluene-d8	26.84		25.0000		107	61 - 119

LCS (B6L0880-BS1)

Prepared: 12/23/2016 Analyzed: 12/23/2016

1,1,1,2-Tetrachloroethane	10.2000	0.50	10.0000		102	76 - 132
1,1,1-Trichloroethane	9.58000	0.50	10.0000		95.8	72 - 144
1,1,2,2-Tetrachloroethane	9.02000	0.50	10.0000		90.2	70 - 120
1,1,2-Trichloroethane	8.94000	0.50	10.0000		89.4	75 - 120
1,1-Dichloroethane	10.5800	0.50	10.0000		106	65 - 127
1,1-Dichloroethene	9.30000	0.50	10.0000		93.0	63 - 142
1,1-Dichloropropene	8.28000	0.50	10.0000		82.8	78 - 137
1,2,3-Trichloropropane	8.50000	0.50	10.0000		85.0	73 - 118
1,2,3-Trichlorobenzene	9.04000	0.50	10.0000		90.4	53 - 164
1,2,4-Trichlorobenzene	8.88000	0.50	10.0000		88.8	58 - 144
1,2,4-Trimethylbenzene	9.39000	0.50	10.0000		93.9	75 - 140
1,2-Dibromo-3-chloropropane	9.24000	0.50	10.0000		92.4	61 - 131
1,2-Dibromoethane	8.85000	0.50	10.0000		88.5	74 - 125
1,2-Dichlorobenzene	9.12000	0.50	10.0000		91.2	78 - 122
1,2-Dichloroethane	9.82000	0.50	10.0000		98.2	70 - 126
1,2-Dichloropropane	8.49000	0.50	10.0000		84.9	69 - 120
1,3,5-Trimethylbenzene	9.71000	0.50	10.0000		97.1	73 - 145
1,3-Dichlorobenzene	9.28000	0.50	10.0000		92.8	76 - 126
1,3-Dichloropropane	8.78000	0.50	10.0000		87.8	76 - 117



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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 B6L0880 - MSVOA_LL_W (continued)

LCS (B6L0880-BS1) - Continued

Prepared: 12/23/2016 Analyzed: 12/23/2016

1,4-Dichlorobenzene	9.00000	0.50	10.0000		90.0	77 - 120			
2,2-Dichloropropane	10.2200	0.50	10.0000		102	47 - 169			
2-Chlorotoluene	9.41000	0.50	10.0000		94.1	75 - 135			
4-Chlorotoluene	9.74000	0.50	10.0000		97.4	70 - 133			
4-Isopropyltoluene	9.82000	0.50	10.0000		98.2	72 - 153			
Benzene	18.2100	0.50	20.0000		91.0	73 - 123			
Bromobenzene	8.22000	0.50	10.0000		82.2	75 - 121			
Bromodichloromethane	9.68000	0.50	10.0000		96.8	73 - 124			
Bromoform	10.0300	0.50	10.0000		100	70 - 135			
Bromomethane	13.8700	0.50	10.0000		139	10 - 166			
Carbon tetrachloride	10.8500	0.50	10.0000		108	65 - 171			
Chlorobenzene	9.04000	0.50	10.0000		90.4	80 - 121			
Chloroethane	9.64000	0.50	10.0000		96.4	55 - 143			
Chloroform	9.93000	0.50	10.0000		99.3	65 - 130			
Chloromethane	10.5000	0.50	10.0000		105	21 - 141			
cis-1,2-Dichloroethene	9.55000	0.50	10.0000		95.5	64 - 126			
cis-1,3-Dichloropropene	9.32000	0.50	10.0000		93.2	70 - 131			
Dibromochloromethane	9.63000	0.50	10.0000		96.3	74 - 125			
Dibromomethane	8.79000	0.50	10.0000		87.9	74 - 116			
Dichlorodifluoromethane	8.24000	0.50	10.0000		82.4	40 - 186			
Ethylbenzene	18.9500	0.50	20.0000		94.8	77 - 130			
Hexachlorobutadiene	9.90000	0.50	10.0000		99.0	52 - 176			
Isopropylbenzene	9.74000	0.50	10.0000		97.4	77 - 144			
m,p-Xylene	19.5900	1.0	20.0000		98.0	84 - 136			
Methylene chloride	8.20000	1.0	10.0000		82.0	72 - 150			
n-Butylbenzene	9.94000	0.50	10.0000		99.4	73 - 154			
n-Propylbenzene	9.48000	0.50	10.0000		94.8	77 - 145			
Naphthalene	8.18000	0.50	10.0000		81.8	55 - 137			
o-Xylene	19.4900	0.50	20.0000		97.4	79 - 135			
sec-Butylbenzene	9.97000	0.50	10.0000		99.7	73 - 157			
Styrene	9.68000	0.50	10.0000		96.8	78 - 125			
tert-Butylbenzene	9.54000	0.50	10.0000		95.4	78 - 149			
Tetrachloroethene	8.29000	0.50	10.0000		82.9	74 - 136			
Toluene	18.6900	0.50	20.0000		93.4	78 - 124			
trans-1,2-Dichloroethene	9.28000	0.50	10.0000		92.8	66 - 131			
Trichloroethene	7.81000	0.50	10.0000		78.1	78 - 128			
Trichlorofluoromethane	9.59000	0.50	10.0000		95.9	60 - 170			
Vinyl chloride	9.14000	0.50	10.0000		91.4	55 - 148			
Surrogate: 1,2-Dichloroethane-d4	28.60		25.0000		114	51 - 157			
Surrogate: 4-Bromofluorobenzene	26.55		25.0000		106	61 - 123			
Surrogate: Dibromofluoromethane	27.76		25.0000		111	57 - 147			



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Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

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 B6L0880 - MSVOA_LL_W (continued)

LCS (B6L0880-BS1) - Continued

Prepared: 12/23/2016 Analyzed: 12/23/2016

Surrogate: Toluene-d8 26.76 25.0000 107 61 - 119

LCS Dup (B6L0880-BSD1)

Prepared: 12/23/2016 Analyzed: 12/23/2016

1,1,1,2-Tetrachloroethane	10.9400	0.50	10.0000	109	76 - 132	7.00	20
1,1,1-Trichloroethane	10.2600	0.50	10.0000	103	72 - 144	6.85	20
1,1,2,2-Tetrachloroethane	9.69000	0.50	10.0000	96.9	70 - 120	7.16	20
1,1,2-Trichloroethane	9.66000	0.50	10.0000	96.6	75 - 120	7.74	20
1,1-Dichloroethane	11.3300	0.50	10.0000	113	65 - 127	6.85	20
1,1-Dichloroethene	10.1100	0.50	10.0000	101	63 - 142	8.35	20
1,1-Dichloropropene	8.91000	0.50	10.0000	89.1	78 - 137	7.33	20
1,2,3-Trichloropropane	9.64000	0.50	10.0000	96.4	73 - 118	12.6	20
1,2,3-Trichlorobenzene	9.85000	0.50	10.0000	98.5	53 - 164	8.58	20
1,2,4-Trichlorobenzene	9.49000	0.50	10.0000	94.9	58 - 144	6.64	20
1,2,4-Trimethylbenzene	10.4900	0.50	10.0000	105	75 - 140	11.1	20
1,2-Dibromo-3-chloropropane	9.89000	0.50	10.0000	98.9	61 - 131	6.80	20
1,2-Dibromoethane	9.48000	0.50	10.0000	94.8	74 - 125	6.87	20
1,2-Dichlorobenzene	9.89000	0.50	10.0000	98.9	78 - 122	8.10	20
1,2-Dichloroethane	10.6400	0.50	10.0000	106	70 - 126	8.02	20
1,2-Dichloropropane	9.04000	0.50	10.0000	90.4	69 - 120	6.27	20
1,3,5-Trimethylbenzene	10.4300	0.50	10.0000	104	73 - 145	7.15	20
1,3-Dichlorobenzene	10.0800	0.50	10.0000	101	76 - 126	8.26	20
1,3-Dichloropropane	9.44000	0.50	10.0000	94.4	76 - 117	7.24	20
1,4-Dichlorobenzene	9.66000	0.50	10.0000	96.6	77 - 120	7.07	20
2,2-Dichloropropane	10.7800	0.50	10.0000	108	47 - 169	5.33	20
2-Chlorotoluene	10.3600	0.50	10.0000	104	75 - 135	9.61	20
4-Chlorotoluene	10.4900	0.50	10.0000	105	70 - 133	7.41	20
4-Isopropyltoluene	10.5800	0.50	10.0000	106	72 - 153	7.45	20
Benzene	19.7500	0.50	20.0000	98.8	73 - 123	8.11	20
Bromobenzene	9.15000	0.50	10.0000	91.5	75 - 121	10.7	20
Bromodichloromethane	10.3900	0.50	10.0000	104	73 - 124	7.08	20
Bromoform	10.5800	0.50	10.0000	106	70 - 135	5.34	20
Bromomethane	13.8900	0.50	10.0000	139	10 - 166	0.144	20
Carbon tetrachloride	11.4800	0.50	10.0000	115	65 - 171	5.64	20
Chlorobenzene	9.81000	0.50	10.0000	98.1	80 - 121	8.17	20
Chloroethane	9.88000	0.50	10.0000	98.8	55 - 143	2.46	20
Chloroform	10.5900	0.50	10.0000	106	65 - 130	6.43	20
Chloromethane	10.8900	0.50	10.0000	109	21 - 141	3.65	20
cis-1,2-Dichloroethene	10.2400	0.50	10.0000	102	64 - 126	6.97	20
cis-1,3-Dichloropropene	10.0200	0.50	10.0000	100	70 - 131	7.24	20
Dibromochloromethane	10.3500	0.50	10.0000	104	74 - 125	7.21	20
Dibromomethane	9.52000	0.50	10.0000	95.2	74 - 116	7.97	20
Dichlorodifluoromethane	8.55000	0.50	10.0000	85.5	40 - 186	3.69	20



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Reported : 12/28/2016

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 B6L0880 - MSVOA_LL_W (continued)

LCS Dup (B6L0880-BSD1) - Continued

Prepared: 12/23/2016 Analyzed: 12/23/2016

Ethylbenzene	20.0100	0.50	20.0000		100	77 - 130	5.44	20	
Hexachlorobutadiene	10.5700	0.50	10.0000		106	52 - 176	6.55	20	
Isopropylbenzene	10.5700	0.50	10.0000		106	77 - 144	8.17	20	
m,p-Xylene	20.9100	1.0	20.0000		105	84 - 136	6.52	20	
Methylene chloride	8.67000	1.0	10.0000		86.7	72 - 150	5.57	20	
n-Butylbenzene	10.8400	0.50	10.0000		108	73 - 154	8.66	20	
n-Propylbenzene	10.1000	0.50	10.0000		101	77 - 145	6.33	20	
Naphthalene	9.23000	0.50	10.0000		92.3	55 - 137	12.1	20	
o-Xylene	20.7400	0.50	20.0000		104	79 - 135	6.21	20	
sec-Butylbenzene	10.7200	0.50	10.0000		107	73 - 157	7.25	20	
Styrene	10.4300	0.50	10.0000		104	78 - 125	7.46	20	
tert-Butylbenzene	10.3900	0.50	10.0000		104	78 - 149	8.53	20	
Tetrachloroethene	9.01000	0.50	10.0000		90.1	74 - 136	8.32	20	
Toluene	20.0000	0.50	20.0000		100	78 - 124	6.77	20	
trans-1,2-Dichloroethene	10.0200	0.50	10.0000		100	66 - 131	7.67	20	
Trichloroethene	8.70000	0.50	10.0000		87.0	78 - 128	10.8	20	
Trichlorofluoromethane	10.3600	0.50	10.0000		104	60 - 170	7.72	20	
Vinyl chloride	9.61000	0.50	10.0000		96.1	55 - 148	5.01	20	
Surrogate: 1,2-Dichloroethane-d4	28.93		25.0000		116	51 - 157			
Surrogate: 4-Bromofluorobenzene	26.51		25.0000		106	61 - 123			
Surrogate: Dibromofluoromethane	27.79		25.0000		111	57 - 147			
Surrogate: Toluene-d8	26.95		25.0000		108	61 - 119			



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Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

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 B6L0862 - MSSEMI_W

Blank (B6L0862-BLK2)

Prepared: 12/22/2016 Analyzed: 12/24/2016

1,4-Dioxane	ND	2.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	62.74		100.000		62.7	42 - 106			
Surrogate: 2-Fluorobiphenyl	78.97		100.000		79.0	55 - 117			
Surrogate: 4-Terphenyl-d14	102.6		100.000		103	52 - 142			
Surrogate: Nitrobenzene-d5	76.90		100.000		76.9	43 - 116			

LCS (B6L0862-BS2)

Prepared: 12/22/2016 Analyzed: 12/24/2016

1,4-Dioxane	89.8300	2.0	100.000		89.8	62 - 127			
Surrogate: 1,2-Dichlorobenzene-d4	63.68		100.000		63.7	42 - 106			
Surrogate: 2-Fluorobiphenyl	82.60		100.000		82.6	55 - 117			
Surrogate: 4-Terphenyl-d14	92.07		100.000		92.1	52 - 142			
Surrogate: Nitrobenzene-d5	79.41		100.000		79.4	43 - 116			

LCS Dup (B6L0862-BS2)

Prepared: 12/22/2016 Analyzed: 12/24/2016

1,4-Dioxane	93.3400	2.0	100.000		93.3	62 - 127	3.83	20	
Surrogate: 1,2-Dichlorobenzene-d4	68.77		100.000		68.8	42 - 106			
Surrogate: 2-Fluorobiphenyl	91.17		100.000		91.2	55 - 117			
Surrogate: 4-Terphenyl-d14	99.55		100.000		99.6	52 - 142			
Surrogate: Nitrobenzene-d5	87.46		100.000		87.5	43 - 116			



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Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 12/28/2016

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 B6L0847 - MSSEMI_W

Blank (B6L0847-BLK1)

Prepared: 12/22/2016 Analyzed: 12/23/2016

1,4-Dioxane	ND	0.20		NR					
Surrogate: 1,2-Dichlorobenzene-d4	0.8404		1.00000	84.0	31 - 106				
Surrogate: 2-Fluorobiphenyl	0.9801		1.00000	98.0	28 - 122				
Surrogate: 4-Terphenyl-d14	0.9936		1.00000	99.4	43 - 131				
Surrogate: Nitrobenzene-d5	0.6988		1.00000	69.9	20 - 119				

LCS (B6L0847-BS1)

Prepared: 12/22/2016 Analyzed: 12/23/2016

1,4-Dioxane	1.22357	0.20	1.00000	122	49 - 169				
Surrogate: 1,2-Dichlorobenzene-d4	0.7970		1.00000	79.7	31 - 106				
Surrogate: 2-Fluorobiphenyl	0.9490		1.00000	94.9	28 - 122				
Surrogate: 4-Terphenyl-d14	0.9244		1.00000	92.4	43 - 131				
Surrogate: Nitrobenzene-d5	0.7107		1.00000	71.1	20 - 119				

LCS Dup (B6L0847-BSD1)

Prepared: 12/22/2016 Analyzed: 12/23/2016

1,4-Dioxane	1.12345	0.20	1.00000	112	49 - 169	8.53	20		
Surrogate: 1,2-Dichlorobenzene-d4	0.7798		1.00000	78.0	31 - 106				
Surrogate: 2-Fluorobiphenyl	0.9048		1.00000	90.5	28 - 122				
Surrogate: 4-Terphenyl-d14	0.8897		1.00000	89.0	43 - 131				
Surrogate: Nitrobenzene-d5	0.6726		1.00000	67.3	20 - 119				



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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
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.

PROJECT: Raytheon Main GETS Mid Month Sample

TASK NO.: 532.15

Project Manager Steve Netto

QA Manager Kevin Fong

Phone 858.455.6500

Fax 858.455.6533

Sampled By:				SAMPLE COLLECTION		MATRIX		PRESERVATION		CONTAINERS				ANALYSIS REQUESTED										Expected Concentration Range (ppb) for		SPECIAL HANDLING				REMARKS							
LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Ice	40-ml VOA	125 mL Poly	250 mL Poly	250 mL Glass	1 L Poly	1L Amber	VOCs by EPA 8260B	Bromate by EPA 317	Bromide by EPA 300	Alkalinity by SM2320B	Total Organic Carbon by SM5310B	SM2540D	UV Absorption EPA 415.3 @254 nm	1,4-Dioxane by EPA 8270C MOD	1,4-Dioxane by EPA 8270 SIM	0 - 10	10 - 100	100 - 1,000	>1,000	24 hr TAT		48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested			
1604755-1	TB-121616	12/16/2016	7:00		X	X				X	2					X										X											
2	CBT		8:40	X	X					X	3				1	X									X	X											
3	POX		8:50	X	X					X	3				1	X								X	X												
4	CEFF		8:35	X	X					X	3				1	X								X	X												
5	INF		8:55	X	X					X	3				1	X							X				X										
6	EW-02	12/15/16	13:40	X	X					X	3				1	X							X			X											
7	MW-29		14:00	X	X					X	3				1	X							X			X											

Total number of containers per analysis:				20					6					Total No. of Containers: <u>26</u>			
Relinquished By: / Company:		Date / Time	Received By: / Company		Date / Time												
<u>Kevin Fong</u>		<u>12/16/16</u>	<u>[Signature]</u>		<u>12/16/16</u>												
<u>[Signature]</u> Jonathan Kuo		<u>12/16/16</u>	<u>Fong</u>		<u>12/16/16</u>												

- ☐ No. of containers correct
- ☐ Received in good condition
- ☐ Custody seals secure
- ☐ Conforms to COC document

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 275
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com

- Instructions
- Fill out form completely and sign only after verified for completeness
 - Complete in ballpoint pen. Draw one line through error, initial and date correction
 - Indicate the number of sample containers in analytical request space; indicate choice with ✓ or ✕
 - Note applicable preservatives, special instructions, and deviations from typical environmental samples.
 - Consult project QA documents for specific instructions.

Temperature on receipt



January 19, 2017

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
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1700065
Client Reference : Raytheon Main GETS Monthly Sample, 532.15

Enclosed are the results for sample(s) received on January 06, 2017 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 'ER', with a small 'En' written below it.

Eddie Rodriguez
Laboratory Director

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Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-010617	1700065-01	Lab prepared water	1/06/17 7:00	1/06/17 10:08
CBT	1700065-02	Groundwater	1/06/17 8:12	1/06/17 10:08
POX	1700065-03	Groundwater	1/06/17 8:18	1/06/17 10:08
CEFF	1700065-04	Groundwater	1/06/17 8:08	1/06/17 10:08
QCDUP1	1700065-05	Groundwater	1/06/17 8:15	1/06/17 10:08
PF	1700065-06	Groundwater	1/06/17 8:25	1/06/17 10:08
INF	1700065-07	Groundwater	1/06/17 8:32	1/06/17 10:08
QCDUP2	1700065-08	Groundwater	1/06/17 8:10	1/06/17 10:08
EW-02	1700065-09	Groundwater	1/06/17 8:45	1/06/17 10:08
MW-29	1700065-10	Groundwater	1/06/17 9:00	1/06/17 10:08

CASE NARRATIVE

The samples for EPA 317 (Bromate) analysis were subcontracted to Exova, Inc. with ELAP Cert.# 2652.

Sample Receiving/General Comments:

The following analytes lists were taken from sample containers: Alkalinity - Hydroxide, Bicarbonate, Carbonate, and Total.



Certificate of Analysis

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San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID TB-010617

Lab ID: 1700065-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,1,1-Trichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,1,2-Trichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,1-Dichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,1-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,1-Dichloropropene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,2,3-Trichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,2,3-Trichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,2,4-Trichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,2,4-Trimethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,2-Dibromoethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,2-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,2-Dichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,2-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,3,5-Trimethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,3-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,3-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
1,4-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
2,2-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
2-Chlorotoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
4-Chlorotoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
4-Isopropyltoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Benzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Bromobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Bromodichloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Bromoform	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Bromomethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Carbon tetrachloride	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Chlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Chloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Chloroform	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Chloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
cis-1,2-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
cis-1,3-Dichloropropene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Dibromochloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID TB-010617

Lab ID: 1700065-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Dichlorodifluoromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Ethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Hexachlorobutadiene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Isopropylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
m,p-Xylene	ND	1.0	1	B7A0172	01/06/2017	01/06/17 18:09	
Methylene chloride	ND	1.0	1	B7A0172	01/06/2017	01/06/17 18:09	
n-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
n-Propylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Naphthalene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
o-Xylene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
sec-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Styrene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
tert-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Tetrachloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Toluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
trans-1,2-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Trichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Trichlorofluoromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Vinyl chloride	ND	0.50	1	B7A0172	01/06/2017	01/06/17 18:09	
Surrogate: 1,2-Dichloroethane-d4	131 %	51 - 157		B7A0172	01/06/2017	01/06/17 18:09	
Surrogate: 4-Bromofluorobenzene	100 %	61 - 123		B7A0172	01/06/2017	01/06/17 18:09	
Surrogate: Dibromofluoromethane	132 %	57 - 147		B7A0172	01/06/2017	01/06/17 18:09	
Surrogate: Toluene-d8	110 %	61 - 119		B7A0172	01/06/2017	01/06/17 18:09	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID CBT

Lab ID: 1700065-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,1,1-Trichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,1,2-Trichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,1-Dichloroethane	0.65	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,1-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,1-Dichloropropene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,2,3-Trichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,2,3-Trichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,2,4-Trichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,2,4-Trimethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,2-Dibromoethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,2-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,2-Dichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,2-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,3,5-Trimethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,3-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,3-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
1,4-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
2,2-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
2-Chlorotoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
4-Chlorotoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
4-Isopropyltoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Benzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Bromobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Bromodichloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Bromoform	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Bromomethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Carbon tetrachloride	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Chlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Chloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Chloroform	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Chloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
cis-1,2-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
cis-1,3-Dichloropropene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Dibromochloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID CBT

Lab ID: 1700065-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Dichlorodifluoromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Ethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Hexachlorobutadiene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Isopropylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
m,p-Xylene	ND	1.0	1	B7A0172	01/06/2017	01/06/17 23:00	
Methylene chloride	ND	1.0	1	B7A0172	01/06/2017	01/06/17 23:00	
n-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
n-Propylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Naphthalene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
o-Xylene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
sec-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Styrene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
tert-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Tetrachloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Toluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
trans-1,2-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Trichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Trichlorofluoromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Vinyl chloride	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:00	
Surrogate: 1,2-Dichloroethane-d4	135 %	51 - 157		B7A0172	01/06/2017	01/06/17 23:00	
Surrogate: 4-Bromofluorobenzene	103 %	61 - 123		B7A0172	01/06/2017	01/06/17 23:00	
Surrogate: Dibromofluoromethane	135 %	57 - 147		B7A0172	01/06/2017	01/06/17 23:00	
Surrogate: Toluene-d8	112 %	61 - 119		B7A0172	01/06/2017	01/06/17 23:00	



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID CBT

Lab ID: 1700065-02

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7A0302	01/11/2017	01/11/17 12:57	
Surrogate: 1,2-Dichlorobenzene-d4	70.6 %	31 - 106		B7A0302	01/11/2017	01/11/17 12:57	
Surrogate: 2-Fluorobiphenyl	67.0 %	28 - 122		B7A0302	01/11/2017	01/11/17 12:57	
Surrogate: 4-Terphenyl-d14	87.1 %	43 - 131		B7A0302	01/11/2017	01/11/17 12:57	
Surrogate: Nitrobenzene-d5	76.1 %	20 - 119		B7A0302	01/11/2017	01/11/17 12:57	



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Client Sample ID POX

Lab ID: 1700065-03

Alkalinity, Speciated by SM 2320B

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO ₃)	190	5.0	1	B7A0434	01/14/2017	01/14/17 09:00	
Alkalinity, Carbonate (as CaCO ₃)	ND	5.0	1	B7A0434	01/14/2017	01/14/17 09:00	
Alkalinity, Hydroxide (as CaCO ₃)	ND	5.0	1	B7A0434	01/14/2017	01/14/17 09:00	
Alkalinity, Total (as CaCO ₃)	190	5.0	1	B7A0434	01/14/2017	01/14/17 09:00	

Total Organic Carbon by SM 5310B

Analyst: JL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B7A0362	01/11/2017	01/11/17 18:02	

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,1,1-Trichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,1,2-Trichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,1-Dichloroethane	0.59	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,1-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,1-Dichloropropene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,2,3-Trichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,2,3-Trichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,2,4-Trichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,2,4-Trimethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,2-Dibromoethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,2-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,2-Dichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,2-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,3,5-Trimethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,3-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,3-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
1,4-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
2,2-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
2-Chlorotoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID POX

Lab ID: 1700065-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4-Chlorotoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
4-Isopropyltoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Benzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Bromobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Bromodichloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Bromoform	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Bromomethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Carbon tetrachloride	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Chlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Chloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Chloroform	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Chloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
cis-1,2-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
cis-1,3-Dichloropropene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Dibromochloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Dibromomethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Dichlorodifluoromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Ethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Hexachlorobutadiene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Isopropylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
m,p-Xylene	ND	1.0	1	B7A0172	01/06/2017	01/06/17 23:48	
Methylene chloride	ND	1.0	1	B7A0172	01/06/2017	01/06/17 23:48	
n-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
n-Propylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Naphthalene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
o-Xylene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
sec-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Styrene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
tert-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Tetrachloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Toluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
trans-1,2-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Trichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Trichlorofluoromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	
Vinyl chloride	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:48	

Surrogate: 1,2-Dichloroethane-d4

137 %

51 - 157

B7A0172

01/06/2017

01/06/17 23:48

Surrogate: 4-Bromofluorobenzene

103 %

61 - 123

B7A0172

01/06/2017

01/06/17 23:48



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID POX

Lab ID: 1700065-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Dibromofluoromethane	134 %	57 - 147		B7A0172	01/06/2017	01/06/17 23:48	
Surrogate: Toluene-d8	112 %	61 - 119		B7A0172	01/06/2017	01/06/17 23:48	

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7A0302	01/11/2017	01/11/17 13:23	
Surrogate: 1,2-Dichlorobenzene-d4	70.4 %	31 - 106		B7A0302	01/11/2017	01/11/17 13:23	
Surrogate: 2-Fluorobiphenyl	66.2 %	28 - 122		B7A0302	01/11/2017	01/11/17 13:23	
Surrogate: 4-Terphenyl-d14	87.0 %	43 - 131		B7A0302	01/11/2017	01/11/17 13:23	
Surrogate: Nitrobenzene-d5	74.7 %	20 - 119		B7A0302	01/11/2017	01/11/17 13:23	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID CEFF

Lab ID: 1700065-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,1,1-Trichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,1,2-Trichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,1-Dichloroethane	0.66	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,1-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,1-Dichloropropene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,2,3-Trichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,2,3-Trichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,2,4-Trichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,2,4-Trimethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,2-Dibromoethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,2-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,2-Dichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,2-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,3,5-Trimethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,3-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,3-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
1,4-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
2,2-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
2-Chlorotoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
4-Chlorotoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
4-Isopropyltoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Benzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Bromobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Bromodichloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Bromoform	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Bromomethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Carbon tetrachloride	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Chlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Chloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Chloroform	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Chloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
cis-1,2-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
cis-1,3-Dichloropropene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Dibromochloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID CEFF

Lab ID: 1700065-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Dichlorodifluoromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Ethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Hexachlorobutadiene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Isopropylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
m,p-Xylene	ND	1.0	1	B7A0172	01/06/2017	01/06/17 22:36	
Methylene chloride	ND	1.0	1	B7A0172	01/06/2017	01/06/17 22:36	
n-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
n-Propylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Naphthalene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
o-Xylene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
sec-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Styrene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
tert-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Tetrachloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Toluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
trans-1,2-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Trichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Trichlorofluoromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Vinyl chloride	ND	0.50	1	B7A0172	01/06/2017	01/06/17 22:36	
Surrogate: 1,2-Dichloroethane-d4	132 %	51 - 157		B7A0172	01/06/2017	01/06/17 22:36	
Surrogate: 4-Bromofluorobenzene	99.0 %	61 - 123		B7A0172	01/06/2017	01/06/17 22:36	
Surrogate: Dibromofluoromethane	131 %	57 - 147		B7A0172	01/06/2017	01/06/17 22:36	
Surrogate: Toluene-d8	109 %	61 - 119		B7A0172	01/06/2017	01/06/17 22:36	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID CEFF

Lab ID: 1700065-04

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7A0302	01/11/2017	01/11/17 13:50	
Surrogate: 1,2-Dichlorobenzene-d4	65.1 %	31 - 106		B7A0302	01/11/2017	01/11/17 13:50	
Surrogate: 2-Fluorobiphenyl	67.2 %	28 - 122		B7A0302	01/11/2017	01/11/17 13:50	
Surrogate: 4-Terphenyl-d14	83.6 %	43 - 131		B7A0302	01/11/2017	01/11/17 13:50	
Surrogate: Nitrobenzene-d5	70.6 %	20 - 119		B7A0302	01/11/2017	01/11/17 13:50	



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San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID QCDUP1

Lab ID: 1700065-05

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	140	2.0	10	B7A0302	01/11/2017	01/11/17 17:26	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>97.0 %</i>	<i>31 - 106</i>		B7A0302	01/11/2017	<i>01/11/17 17:26</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>74.4 %</i>	<i>28 - 122</i>		B7A0302	01/11/2017	<i>01/11/17 17:26</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>103 %</i>	<i>43 - 131</i>		B7A0302	01/11/2017	<i>01/11/17 17:26</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>93.1 %</i>	<i>20 - 119</i>		B7A0302	01/11/2017	<i>01/11/17 17:26</i>	



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San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID PF

Lab ID: 1700065-06

UV Absorption by EPA 415.3

Analyst: PT

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B7A0367	01/07/2017	01/07/17 10:26	

Alkalinity, Speciated by SM 2320B

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO ₃)	170	5.0	1	B7A0434	01/14/2017	01/14/17 09:00	
Alkalinity, Carbonate (as CaCO ₃)	7.2	5.0	1	B7A0434	01/14/2017	01/14/17 09:00	
Alkalinity, Hydroxide (as CaCO ₃)	ND	5.0	1	B7A0434	01/14/2017	01/14/17 09:00	
Alkalinity, Total (as CaCO ₃)	170	5.0	1	B7A0434	01/14/2017	01/14/17 09:00	

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D

Analyst: JL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Suspended	ND	1.1	1	B7A0340	01/11/2017	01/11/17 17:09	

Total Organic Carbon by SM 5310B

Analyst: JL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B7A0362	01/11/2017	01/11/17 18:18	



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID INF

Lab ID: 1700065-07

Bromide by Ion Chromatography EPA 300

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	25	0.25	5	B7A0270	01/09/2017	01/09/17 15:49	D6

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,1,1-Trichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,1,2-Trichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,1-Dichloroethane	1.1	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,1-Dichloroethene	85	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,1-Dichloropropene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,2,3-Trichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,2,3-Trichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,2,4-Trichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,2,4-Trimethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,2-Dibromoethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,2-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,2-Dichloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,2-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,3,5-Trimethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,3-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,3-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
1,4-Dichlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
2,2-Dichloropropane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
2-Chlorotoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
4-Chlorotoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
4-Isopropyltoluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Benzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Bromobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Bromodichloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Bromoform	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Bromomethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Carbon tetrachloride	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Chlorobenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID INF

Lab ID: 1700065-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Chloroform	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Chloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
cis-1,2-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
cis-1,3-Dichloropropene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Dibromochloromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Dibromomethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Dichlorodifluoromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Ethylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Hexachlorobutadiene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Isopropylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
m,p-Xylene	ND	1.0	1	B7A0172	01/06/2017	01/06/17 23:24	
Methylene chloride	ND	1.0	1	B7A0172	01/06/2017	01/06/17 23:24	
n-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
n-Propylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Naphthalene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
o-Xylene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
sec-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Styrene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
tert-Butylbenzene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Tetrachloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Toluene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
trans-1,2-Dichloroethene	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Trichloroethene	0.53	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Trichlorofluoromethane	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
Vinyl chloride	ND	0.50	1	B7A0172	01/06/2017	01/06/17 23:24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>133 %</i>	<i>51 - 157</i>		B7A0172	01/06/2017	01/06/17 23:24	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>102 %</i>	<i>61 - 123</i>		B7A0172	01/06/2017	01/06/17 23:24	
<i>Surrogate: Dibromofluoromethane</i>	<i>132 %</i>	<i>57 - 147</i>		B7A0172	01/06/2017	01/06/17 23:24	
<i>Surrogate: Toluene-d8</i>	<i>112 %</i>	<i>61 - 119</i>		B7A0172	01/06/2017	01/06/17 23:24	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID INF

Lab ID: 1700065-07

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	27	2.0	1	B7A0352	01/12/2017	01/12/17 14:55	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>68.8 %</i>	<i>42 - 106</i>		<i>B7A0352</i>	<i>01/12/2017</i>	<i>01/12/17 14:55</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>71.6 %</i>	<i>55 - 117</i>		<i>B7A0352</i>	<i>01/12/2017</i>	<i>01/12/17 14:55</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>85.1 %</i>	<i>52 - 142</i>		<i>B7A0352</i>	<i>01/12/2017</i>	<i>01/12/17 14:55</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>71.4 %</i>	<i>43 - 116</i>		<i>B7A0352</i>	<i>01/12/2017</i>	<i>01/12/17 14:55</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID QCDUP2

Lab ID: 1700065-08

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	4.8	2.0	1	B7A0352	01/12/2017	01/12/17 15:22	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>64.1 %</i>	<i>42 - 106</i>		B7A0352	01/12/2017	<i>01/12/17 15:22</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>74.8 %</i>	<i>55 - 117</i>		B7A0352	01/12/2017	<i>01/12/17 15:22</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>90.1 %</i>	<i>52 - 142</i>		B7A0352	01/12/2017	<i>01/12/17 15:22</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>69.5 %</i>	<i>43 - 116</i>		B7A0352	01/12/2017	<i>01/12/17 15:22</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID EW-02

Lab ID: 1700065-09

Bromide by Ion Chromatography EPA 300

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	22	0.25	5	B7A0270	01/09/2017	01/09/17 16:01	D6

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,1,1-Trichloroethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,1,2-Trichloroethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,1-Dichloroethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,1-Dichloroethene	17	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,1-Dichloropropene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,2,3-Trichloropropane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,2,3-Trichlorobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,2,4-Trichlorobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,2,4-Trimethylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,2-Dibromoethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,2-Dichlorobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,2-Dichloroethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,2-Dichloropropane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,3,5-Trimethylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,3-Dichlorobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,3-Dichloropropane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
1,4-Dichlorobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
2,2-Dichloropropane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
2-Chlorotoluene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
4-Chlorotoluene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
4-Isopropyltoluene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Benzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Bromobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Bromodichloromethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Bromoform	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Bromomethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Carbon tetrachloride	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Chlorobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID EW-02

Lab ID: 1700065-09

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Chloroform	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Chloromethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
cis-1,2-Dichloroethene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
cis-1,3-Dichloropropene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Dibromochloromethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Dibromomethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Dichlorodifluoromethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Ethylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Hexachlorobutadiene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Isopropylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
m,p-Xylene	ND	1.0	1	B7A0258	01/10/2017	01/10/17 19:16	
Methylene chloride	ND	1.0	1	B7A0258	01/10/2017	01/10/17 19:16	
n-Butylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
n-Propylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Naphthalene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
o-Xylene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
sec-Butylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Styrene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
tert-Butylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Tetrachloroethene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Toluene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
trans-1,2-Dichloroethene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Trichloroethene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Trichlorofluoromethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Vinyl chloride	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:16	
Surrogate: 1,2-Dichloroethane-d4	138 %	51 - 157		B7A0258	01/10/2017	01/10/17 19:16	
Surrogate: 4-Bromofluorobenzene	101 %	61 - 123		B7A0258	01/10/2017	01/10/17 19:16	
Surrogate: Dibromofluoromethane	138 %	57 - 147		B7A0258	01/10/2017	01/10/17 19:16	
Surrogate: Toluene-d8	111 %	61 - 119		B7A0258	01/10/2017	01/10/17 19:16	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID EW-02

Lab ID: 1700065-09

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	4.5	2.0	1	B7A0352	01/12/2017	01/12/17 15:49	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>64.1 %</i>	<i>42 - 106</i>		<i>B7A0352</i>	<i>01/12/2017</i>	<i>01/12/17 15:49</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>74.5 %</i>	<i>55 - 117</i>		<i>B7A0352</i>	<i>01/12/2017</i>	<i>01/12/17 15:49</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>88.7 %</i>	<i>52 - 142</i>		<i>B7A0352</i>	<i>01/12/2017</i>	<i>01/12/17 15:49</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>68.3 %</i>	<i>43 - 116</i>		<i>B7A0352</i>	<i>01/12/2017</i>	<i>01/12/17 15:49</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID MW-29

Lab ID: 1700065-10

Bromide by Ion Chromatography EPA 300

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	43	0.25	5	B7A0270	01/09/2017	01/09/17 16:12	D6

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,1,1-Trichloroethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,1,2-Trichloroethane	1.1	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,1-Dichloroethane	3.5	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,1-Dichloroethene	260	2.5	5	B7A0258	01/10/2017	01/10/17 20:05	
1,1-Dichloropropene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,2,3-Trichloropropane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,2,3-Trichlorobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,2,4-Trichlorobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,2,4-Trimethylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,2-Dibromoethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,2-Dichlorobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,2-Dichloroethane	0.70	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,2-Dichloropropane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,3,5-Trimethylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,3-Dichlorobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,3-Dichloropropane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
1,4-Dichlorobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
2,2-Dichloropropane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
2-Chlorotoluene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
4-Chlorotoluene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
4-Isopropyltoluene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Benzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Bromobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Bromodichloromethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Bromoform	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Bromomethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Carbon tetrachloride	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Chlorobenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID MW-29

Lab ID: 1700065-10

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Chloroform	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Chloromethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
cis-1,2-Dichloroethene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
cis-1,3-Dichloropropene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Dibromochloromethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Dibromomethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Dichlorodifluoromethane	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Ethylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Hexachlorobutadiene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Isopropylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
m,p-Xylene	ND	1.0	1	B7A0258	01/10/2017	01/10/17 19:41	
Methylene chloride	ND	1.0	1	B7A0258	01/10/2017	01/10/17 19:41	
n-Butylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
n-Propylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Naphthalene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
o-Xylene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
sec-Butylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Styrene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
tert-Butylbenzene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Tetrachloroethene	0.60	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Toluene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
trans-1,2-Dichloroethene	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Trichloroethene	1.7	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Trichlorofluoromethane	0.80	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
Vinyl chloride	ND	0.50	1	B7A0258	01/10/2017	01/10/17 19:41	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>137 %</i>	<i>51 - 157</i>		B7A0258	01/10/2017	<i>01/10/17 20:05</i>	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>140 %</i>	<i>51 - 157</i>		B7A0258	01/10/2017	<i>01/10/17 19:41</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>102 %</i>	<i>61 - 123</i>		B7A0258	01/10/2017	<i>01/10/17 20:05</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>102 %</i>	<i>61 - 123</i>		B7A0258	01/10/2017	<i>01/10/17 19:41</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>138 %</i>	<i>57 - 147</i>		B7A0258	01/10/2017	<i>01/10/17 20:05</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>139 %</i>	<i>57 - 147</i>		B7A0258	01/10/2017	<i>01/10/17 19:41</i>	
<i>Surrogate: Toluene-d8</i>	<i>113 %</i>	<i>61 - 119</i>		B7A0258	01/10/2017	<i>01/10/17 19:41</i>	
<i>Surrogate: Toluene-d8</i>	<i>112 %</i>	<i>61 - 119</i>		B7A0258	01/10/2017	<i>01/10/17 20:05</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Client Sample ID MW-29

Lab ID: 1700065-10

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

Analyst: LT

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	110	2.0	1	B7A0352	01/12/2017	01/12/17 16:16	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>64.2 %</i>	<i>42 - 106</i>		B7A0352	01/12/2017	<i>01/12/17 16:16</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>69.1 %</i>	<i>55 - 117</i>		B7A0352	01/12/2017	<i>01/12/17 16:16</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>93.0 %</i>	<i>52 - 142</i>		B7A0352	01/12/2017	<i>01/12/17 16:16</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>63.7 %</i>	<i>43 - 116</i>		B7A0352	01/12/2017	<i>01/12/17 16:16</i>	



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QUALITY CONTROL SECTION

Alkalinity, Speciated by SM 2320B - Quality Control

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

Batch B7A0434 - No_Prep_WC1_W

Blank (B7A0434-BLK1)

Prepared: 1/14/2017 Analyzed: 1/14/2017

Alkalinity, Bicarbonate (as CaCO ₃)	ND	5.0			NR				
Alkalinity, Carbonate (as CaCO ₃)	ND	5.0			NR				
Alkalinity, Hydroxide (as CaCO ₃)	ND	5.0			NR				
Alkalinity, Total (as CaCO ₃)	ND	5.0			NR				

LCS (B7A0434-BS1)

Prepared: 1/14/2017 Analyzed: 1/14/2017

Alkalinity, Total (as CaCO ₃)	92.3900	5.0	99.9580		92.4	80 - 120			

Matrix Spike (B7A0434-MS1)

Source: 1700025-01

Prepared: 1/14/2017 Analyzed: 1/14/2017

Alkalinity, Total (as CaCO ₃)	612.320	10	199.916	431.160	90.6	80 - 120			

Matrix Spike Dup (B7A0434-MSD1)

Source: 1700025-01

Prepared: 1/14/2017 Analyzed: 1/14/2017

Alkalinity, Total (as CaCO ₃)	615.940	10	199.916	431.160	92.4	80 - 120	0.589	20	



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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 B7A0340 - No_Prep_WC1_W

Blank (B7A0340-BLK1)

Prepared: 1/11/2017 Analyzed: 1/11/2017

Residue, Suspended

ND

1.0

NR

LCS (B7A0340-BS1)

Prepared: 1/11/2017 Analyzed: 1/11/2017

Residue, Suspended

90.0000

10

92.1000

97.7

80 - 120

Duplicate (B7A0340-DUP1)

Source: 1700066-02

Prepared: 1/11/2017 Analyzed: 1/11/2017

Residue, Suspended

10.0000

5.0

10.0000

NR

0.00

10



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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 B7A0270 - No_Prep_IC1_W

Blank (B7A0270-BLK1)

Prepared: 1/9/2017 Analyzed: 1/9/2017

Bromide ND 0.05 NR

LCS (B7A0270-BS1)

Prepared: 1/9/2017 Analyzed: 1/9/2017

Bromide 0.964300 0.05 1.00000 96.4 90 - 110

Duplicate (B7A0270-DUP1)

Source: 1700099-01

Prepared: 1/9/2017 Analyzed: 1/9/2017

Bromide ND 2.5 ND NR 20 D2

Matrix Spike (B7A0270-MS1)

Source: 1700099-01

Prepared: 1/9/2017 Analyzed: 1/9/2017

Bromide 2.50770 2.50000 0.00000 100 80 - 120

Matrix Spike Dup (B7A0270-MSD1)

Source: 1700099-01

Prepared: 1/9/2017 Analyzed: 1/9/2017

Bromide 2.53650 2.50000 0.00000 101 80 - 120 1.14 20



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UV Absorption by EPA 415.3 - Quality Control

Analyte	Result (1/cm)	PQL (1/cm)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B7A0367 - No_Prep_II_W

Blank (B7A0367-BLK1)

Prepared: 1/7/2017 Analyzed: 1/7/2017

UV Absorption

ND

0.01

NR

Duplicate (B7A0367-DUP1)

Source: 1700065-06

Prepared: 1/7/2017 Analyzed: 1/7/2017

UV Absorption

0.03

0.01

ND

NR

20



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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 B7A0362 - No_Prep_II_W

Blank (B7A0362-BLK1)

Prepared: 1/11/2017 Analyzed: 1/11/2017

Organic Carbon, Total

ND

3.0

NR

LCS (B7A0362-BS1)

Prepared: 1/11/2017 Analyzed: 1/11/2017

Organic Carbon, Total

20.2000

3.0

20.0000

101

80 - 120

LCS Dup (B7A0362-BSD1)

Prepared: 1/11/2017 Analyzed: 1/11/2017

Organic Carbon, Total

19.5800

3.0

20.0000

97.9

80 - 120

3.12

20



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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 Limits	RPD	RPD Limit	Notes

Batch B7A0172 - MSVOA_W

Blank (B7A0172-BLK1)

Prepared: 1/6/2017 Analyzed: 1/6/2017

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 B7A0172 - MSVOA_W (continued)

Blank (B7A0172-BLK1) - Continued

Prepared: 1/6/2017 Analyzed: 1/6/2017

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	30.88		25.0000		124	51 - 157
Surrogate: 4-Bromofluorobenzene	25.16		25.0000		101	61 - 123
Surrogate: Dibromofluoromethane	30.81		25.0000		123	57 - 147
Surrogate: Toluene-d8	26.70		25.0000		107	61 - 119

LCS (B7A0172-BS1)

Prepared: 1/6/2017 Analyzed: 1/6/2017

1,1,1,2-Tetrachloroethane	11.5800	0.50	10.0000		116	76 - 132
1,1,1-Trichloroethane	11.3200	0.50	10.0000		113	72 - 144
1,1,2,2-Tetrachloroethane	9.65000	0.50	10.0000		96.5	70 - 120
1,1,2-Trichloroethane	9.89000	0.50	10.0000		98.9	75 - 120
1,1-Dichloroethane	12.4700	0.50	10.0000		125	65 - 127
1,1-Dichloroethene	10.8100	0.50	10.0000		108	63 - 142
1,1-Dichloropropene	9.51000	0.50	10.0000		95.1	78 - 137
1,2,3-Trichloropropane	8.97000	0.50	10.0000		89.7	73 - 118
1,2,3-Trichlorobenzene	9.78000	0.50	10.0000		97.8	53 - 164
1,2,4-Trichlorobenzene	9.60000	0.50	10.0000		96.0	58 - 144
1,2,4-Trimethylbenzene	11.3600	0.50	10.0000		114	75 - 140
1,2-Dibromo-3-chloropropane	9.62000	0.50	10.0000		96.2	61 - 131
1,2-Dibromoethane	9.72000	0.50	10.0000		97.2	74 - 125
1,2-Dichlorobenzene	10.4300	0.50	10.0000		104	78 - 122
1,2-Dichloroethane	10.8300	0.50	10.0000		108	70 - 126
1,2-Dichloropropane	9.83000	0.50	10.0000		98.3	69 - 120
1,3,5-Trimethylbenzene	11.4000	0.50	10.0000		114	73 - 145
1,3-Dichlorobenzene	10.9300	0.50	10.0000		109	76 - 126
1,3-Dichloropropane	9.26000	0.50	10.0000		92.6	76 - 117



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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 B7A0172 - MSVOA_W (continued)

LCS (B7A0172-BS1) - Continued

Prepared: 1/6/2017 Analyzed: 1/6/2017

1,4-Dichlorobenzene	10.4900	0.50	10.0000		105	77 - 120			
2,2-Dichloropropane	11.9900	0.50	10.0000		120	47 - 169			
2-Chlorotoluene	11.1500	0.50	10.0000		112	75 - 135			
4-Chlorotoluene	11.5200	0.50	10.0000		115	70 - 133			
4-Isopropyltoluene	11.7500	0.50	10.0000		118	72 - 153			
Benzene	21.0800	0.50	20.0000		105	73 - 123			
Bromobenzene	9.42000	0.50	10.0000		94.2	75 - 121			
Bromodichloromethane	11.1300	0.50	10.0000		111	73 - 124			
Bromoform	11.1000	0.50	10.0000		111	70 - 135			
Bromomethane	16.9100	0.50	10.0000		169	10 - 166			L4
Carbon tetrachloride	12.6800	0.50	10.0000		127	65 - 171			
Chlorobenzene	10.3100	0.50	10.0000		103	80 - 121			
Chloroethane	11.3800	0.50	10.0000		114	55 - 143			
Chloroform	11.6200	0.50	10.0000		116	65 - 130			
Chloromethane	11.6000	0.50	10.0000		116	21 - 141			
cis-1,2-Dichloroethene	10.8200	0.50	10.0000		108	64 - 126			
cis-1,3-Dichloropropene	10.3600	0.50	10.0000		104	70 - 131			
Dibromochloromethane	10.9600	0.50	10.0000		110	74 - 125			
Dibromomethane	9.68000	0.50	10.0000		96.8	74 - 116			
Dichlorodifluoromethane	9.33000	0.50	10.0000		93.3	40 - 186			
Ethylbenzene	21.3500	0.50	20.0000		107	77 - 130			
Hexachlorobutadiene	11.3200	0.50	10.0000		113	52 - 176			
Isopropylbenzene	11.2800	0.50	10.0000		113	77 - 144			
m,p-Xylene	22.1200	1.0	20.0000		111	84 - 136			
Methylene chloride	10.0000	1.0	10.0000		100	72 - 150			
n-Butylbenzene	11.9100	0.50	10.0000		119	73 - 154			
n-Propylbenzene	11.0100	0.50	10.0000		110	77 - 145			
Naphthalene	8.61000	0.50	10.0000		86.1	55 - 137			
o-Xylene	21.7800	0.50	20.0000		109	79 - 135			
sec-Butylbenzene	11.6800	0.50	10.0000		117	73 - 157			
Styrene	11.0800	0.50	10.0000		111	78 - 125			
tert-Butylbenzene	11.1100	0.50	10.0000		111	78 - 149			
Tetrachloroethene	9.36000	0.50	10.0000		93.6	74 - 136			
Toluene	21.9000	0.50	20.0000		110	78 - 124			
trans-1,2-Dichloroethene	11.0000	0.50	10.0000		110	66 - 131			
Trichloroethene	8.88000	0.50	10.0000		88.8	78 - 128			
Trichlorofluoromethane	11.6700	0.50	10.0000		117	60 - 170			
Vinyl chloride	10.3600	0.50	10.0000		104	55 - 148			
Surrogate: 1,2-Dichloroethane-d4	27.88		25.0000		112	51 - 157			
Surrogate: 4-Bromofluorobenzene	25.59		25.0000		102	61 - 123			
Surrogate: Dibromofluoromethane	28.23		25.0000		113	57 - 147			



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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 B7A0172 - MSVOA_W (continued)

LCS (B7A0172-BS1) - Continued

Prepared: 1/6/2017 Analyzed: 1/6/2017

Surrogate: Toluene-d8

27.01

25.0000

108

61 - 119

LCS Dup (B7A0172-BS1)

Prepared: 1/6/2017 Analyzed: 1/6/2017

1,1,1,2-Tetrachloroethane	11.8400	0.50	10.0000	118	76 - 132	2.22	20
1,1,1-Trichloroethane	11.2200	0.50	10.0000	112	72 - 144	0.887	20
1,1,2,2-Tetrachloroethane	9.90000	0.50	10.0000	99.0	70 - 120	2.56	20
1,1,2-Trichloroethane	10.0300	0.50	10.0000	100	75 - 120	1.41	20
1,1-Dichloroethane	12.3100	0.50	10.0000	123	65 - 127	1.29	20
1,1-Dichloroethene	10.8100	0.50	10.0000	108	63 - 142	0.00	20
1,1-Dichloropropene	9.67000	0.50	10.0000	96.7	78 - 137	1.67	20
1,2,3-Trichloropropane	9.34000	0.50	10.0000	93.4	73 - 118	4.04	20
1,2,3-Trichlorobenzene	10.1500	0.50	10.0000	102	53 - 164	3.71	20
1,2,4-Trichlorobenzene	9.72000	0.50	10.0000	97.2	58 - 144	1.24	20
1,2,4-Trimethylbenzene	11.3300	0.50	10.0000	113	75 - 140	0.264	20
1,2-Dibromo-3-chloropropane	9.86000	0.50	10.0000	98.6	61 - 131	2.46	20
1,2-Dibromoethane	9.79000	0.50	10.0000	97.9	74 - 125	0.718	20
1,2-Dichlorobenzene	10.6300	0.50	10.0000	106	78 - 122	1.90	20
1,2-Dichloroethane	10.9500	0.50	10.0000	110	70 - 126	1.10	20
1,2-Dichloropropane	9.64000	0.50	10.0000	96.4	69 - 120	1.95	20
1,3,5-Trimethylbenzene	11.6000	0.50	10.0000	116	73 - 145	1.74	20
1,3-Dichlorobenzene	10.8700	0.50	10.0000	109	76 - 126	0.550	20
1,3-Dichloropropane	9.55000	0.50	10.0000	95.5	76 - 117	3.08	20
1,4-Dichlorobenzene	10.6100	0.50	10.0000	106	77 - 120	1.14	20
2,2-Dichloropropane	11.7200	0.50	10.0000	117	47 - 169	2.28	20
2-Chlorotoluene	11.2200	0.50	10.0000	112	75 - 135	0.626	20
4-Chlorotoluene	11.4900	0.50	10.0000	115	70 - 133	0.261	20
4-Isopropyltoluene	11.7400	0.50	10.0000	117	72 - 153	0.0851	20
Benzene	21.2000	0.50	20.0000	106	73 - 123	0.568	20
Bromobenzene	9.77000	0.50	10.0000	97.7	75 - 121	3.65	20
Bromodichloromethane	11.1800	0.50	10.0000	112	73 - 124	0.448	20
Bromoform	11.1900	0.50	10.0000	112	70 - 135	0.808	20
Bromomethane	15.8300	0.50	10.0000	158	10 - 166	6.60	20
Carbon tetrachloride	12.5000	0.50	10.0000	125	65 - 171	1.43	20
Chlorobenzene	10.4200	0.50	10.0000	104	80 - 121	1.06	20
Chloroethane	11.1600	0.50	10.0000	112	55 - 143	1.95	20
Chloroform	11.5200	0.50	10.0000	115	65 - 130	0.864	20
Chloromethane	11.6700	0.50	10.0000	117	21 - 141	0.602	20
cis-1,2-Dichloroethene	11.0700	0.50	10.0000	111	64 - 126	2.28	20
cis-1,3-Dichloropropene	10.7400	0.50	10.0000	107	70 - 131	3.60	20
Dibromochloromethane	11.3500	0.50	10.0000	114	74 - 125	3.50	20
Dibromomethane	9.95000	0.50	10.0000	99.5	74 - 116	2.75	20
Dichlorodifluoromethane	9.15000	0.50	10.0000	91.5	40 - 186	1.95	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 B7A0172 - MSVOA_W (continued)

LCS Dup (B7A0172-BSD1) - Continued

Prepared: 1/6/2017 Analyzed: 1/6/2017

Ethylbenzene	21.5600	0.50	20.0000		108	77 - 130	0.979	20	
Hexachlorobutadiene	11.3700	0.50	10.0000		114	52 - 176	0.441	20	
Isopropylbenzene	11.4400	0.50	10.0000		114	77 - 144	1.41	20	
m,p-Xylene	22.3200	1.0	20.0000		112	84 - 136	0.900	20	
Methylene chloride	10.0500	1.0	10.0000		100	72 - 150	0.499	20	
n-Butylbenzene	11.9200	0.50	10.0000		119	73 - 154	0.0839	20	
n-Propylbenzene	11.1300	0.50	10.0000		111	77 - 145	1.08	20	
Naphthalene	8.92000	0.50	10.0000		89.2	55 - 137	3.54	20	
o-Xylene	22.2600	0.50	20.0000		111	79 - 135	2.18	20	
sec-Butylbenzene	11.7700	0.50	10.0000		118	73 - 157	0.768	20	
Styrene	11.2900	0.50	10.0000		113	78 - 125	1.88	20	
tert-Butylbenzene	11.2600	0.50	10.0000		113	78 - 149	1.34	20	
Tetrachloroethene	9.57000	0.50	10.0000		95.7	74 - 136	2.22	20	
Toluene	21.6400	0.50	20.0000		108	78 - 124	1.19	20	
trans-1,2-Dichloroethene	11.0000	0.50	10.0000		110	66 - 131	0.00	20	
Trichloroethene	9.00000	0.50	10.0000		90.0	78 - 128	1.34	20	
Trichlorofluoromethane	11.2100	0.50	10.0000		112	60 - 170	4.02	20	
Vinyl chloride	10.1700	0.50	10.0000		102	55 - 148	1.85	20	
Surrogate: 1,2-Dichloroethane-d4	28.44		25.0000		114	51 - 157			
Surrogate: 4-Bromofluorobenzene	26.05		25.0000		104	61 - 123			
Surrogate: Dibromofluoromethane	28.46		25.0000		114	57 - 147			
Surrogate: Toluene-d8	27.15		25.0000		109	61 - 119			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

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 B7A0258 - MSVOA_W

Blank (B7A0258-BLK1)

Prepared: 1/10/2017 Analyzed: 1/10/2017

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



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

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 B7A0258 - MSVOA_W (continued)

Blank (B7A0258-BLK1) - Continued

Prepared: 1/10/2017 Analyzed: 1/10/2017

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			

<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>30.40</i>		<i>25.0000</i>		<i>122</i>	<i>51 - 157</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>25.31</i>		<i>25.0000</i>		<i>101</i>	<i>61 - 123</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>30.92</i>		<i>25.0000</i>		<i>124</i>	<i>57 - 147</i>			
<i>Surrogate: Toluene-d8</i>	<i>26.97</i>		<i>25.0000</i>		<i>108</i>	<i>61 - 119</i>			

LCS (B7A0258-BS1)

Prepared: 1/10/2017 Analyzed: 1/10/2017

1,1,1,2-Tetrachloroethane	11.5000	0.50	10.0000		115	76 - 132			
1,1,1-Trichloroethane	11.2600	0.50	10.0000		113	72 - 144			
1,1,2,2-Tetrachloroethane	9.86000	0.50	10.0000		98.6	70 - 120			
1,1,2-Trichloroethane	10.0500	0.50	10.0000		100	75 - 120			
1,1-Dichloroethane	12.4000	0.50	10.0000		124	65 - 127			
1,1-Dichloroethene	10.8400	0.50	10.0000		108	63 - 142			
1,1-Dichloropropene	10.0200	0.50	10.0000		100	78 - 137			
1,2,3-Trichloropropane	9.42000	0.50	10.0000		94.2	73 - 118			
1,2,3-Trichlorobenzene	10.0700	0.50	10.0000		101	53 - 164			
1,2,4-Trichlorobenzene	9.39000	0.50	10.0000		93.9	58 - 144			
1,2,4-Trimethylbenzene	11.3300	0.50	10.0000		113	75 - 140			
1,2-Dibromo-3-chloropropane	9.84000	0.50	10.0000		98.4	61 - 131			
1,2-Dibromoethane	9.78000	0.50	10.0000		97.8	74 - 125			
1,2-Dichlorobenzene	10.4200	0.50	10.0000		104	78 - 122			
1,2-Dichloroethane	10.9100	0.50	10.0000		109	70 - 126			
1,2-Dichloropropane	9.75000	0.50	10.0000		97.5	69 - 120			
1,3,5-Trimethylbenzene	11.4800	0.50	10.0000		115	73 - 145			
1,3-Dichlorobenzene	10.6700	0.50	10.0000		107	76 - 126			
1,3-Dichloropropane	9.58000	0.50	10.0000		95.8	76 - 117			



Certificate of Analysis

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San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

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 B7A0258 - MSVOA_W (continued)

LCS (B7A0258-BS1) - Continued

Prepared: 1/10/2017 Analyzed: 1/10/2017

1,4-Dichlorobenzene	10.6300	0.50	10.0000		106	77 - 120			
2,2-Dichloropropane	12.0300	0.50	10.0000		120	47 - 169			
2-Chlorotoluene	11.1500	0.50	10.0000		112	75 - 135			
4-Chlorotoluene	11.4000	0.50	10.0000		114	70 - 133			
4-Isopropyltoluene	11.6500	0.50	10.0000		116	72 - 153			
Benzene	21.3400	0.50	20.0000		107	73 - 123			
Bromobenzene	9.47000	0.50	10.0000		94.7	75 - 121			
Bromodichloromethane	11.2900	0.50	10.0000		113	73 - 124			
Bromoform	11.2400	0.50	10.0000		112	70 - 135			
Bromomethane	14.8200	0.50	10.0000		148	10 - 166			
Carbon tetrachloride	12.2300	0.50	10.0000		122	65 - 171			
Chlorobenzene	10.4600	0.50	10.0000		105	80 - 121			
Chloroethane	11.4100	0.50	10.0000		114	55 - 143			
Chloroform	11.6500	0.50	10.0000		116	65 - 130			
Chloromethane	11.8700	0.50	10.0000		119	21 - 141			
cis-1,2-Dichloroethene	10.9700	0.50	10.0000		110	64 - 126			
cis-1,3-Dichloropropene	10.3300	0.50	10.0000		103	70 - 131			
Dibromochloromethane	11.2500	0.50	10.0000		112	74 - 125			
Dibromomethane	9.90000	0.50	10.0000		99.0	74 - 116			
Dichlorodifluoromethane	8.22000	0.50	10.0000		82.2	40 - 186			
Ethylbenzene	21.5900	0.50	20.0000		108	77 - 130			
Hexachlorobutadiene	10.8500	0.50	10.0000		108	52 - 176			
Isopropylbenzene	11.2400	0.50	10.0000		112	77 - 144			
m,p-Xylene	22.4100	1.0	20.0000		112	84 - 136			
Methylene chloride	12.1700	1.0	10.0000		122	72 - 150			
n-Butylbenzene	11.6900	0.50	10.0000		117	73 - 154			
n-Propylbenzene	10.9300	0.50	10.0000		109	77 - 145			
Naphthalene	8.71000	0.50	10.0000		87.1	55 - 137			
o-Xylene	22.0900	0.50	20.0000		110	79 - 135			
sec-Butylbenzene	11.5400	0.50	10.0000		115	73 - 157			
Styrene	11.3400	0.50	10.0000		113	78 - 125			
tert-Butylbenzene	11.1100	0.50	10.0000		111	78 - 149			
Tetrachloroethene	9.17000	0.50	10.0000		91.7	74 - 136			
Toluene	21.6300	0.50	20.0000		108	78 - 124			
trans-1,2-Dichloroethene	10.7800	0.50	10.0000		108	66 - 131			
Trichloroethene	8.96000	0.50	10.0000		89.6	78 - 128			
Trichlorofluoromethane	11.5100	0.50	10.0000		115	60 - 170			
Vinyl chloride	10.3900	0.50	10.0000		104	55 - 148			
Surrogate: 1,2-Dichloroethane-d4	28.53		25.0000		114	51 - 157			
Surrogate: 4-Bromofluorobenzene	26.07		25.0000		104	61 - 123			
Surrogate: Dibromofluoromethane	28.49		25.0000		114	57 - 147			



Certificate of Analysis

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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

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 B7A0258 - MSVOA_W (continued)

LCS (B7A0258-BS1) - Continued

Prepared: 1/10/2017 Analyzed: 1/10/2017

Surrogate: Toluene-d8 27.16 25.0000 109 61 - 119

LCS Dup (B7A0258-BS1)

Prepared: 1/10/2017 Analyzed: 1/10/2017

1,1,1,2-Tetrachloroethane	11.1700	0.50	10.0000	112	76 - 132	2.91	20
1,1,1-Trichloroethane	10.9600	0.50	10.0000	110	72 - 144	2.70	20
1,1,2,2-Tetrachloroethane	9.76000	0.50	10.0000	97.6	70 - 120	1.02	20
1,1,2-Trichloroethane	9.84000	0.50	10.0000	98.4	75 - 120	2.11	20
1,1-Dichloroethane	11.9700	0.50	10.0000	120	65 - 127	3.53	20
1,1-Dichloroethene	10.8000	0.50	10.0000	108	63 - 142	0.370	20
1,1-Dichloropropene	9.51000	0.50	10.0000	95.1	78 - 137	5.22	20
1,2,3-Trichloropropane	9.38000	0.50	10.0000	93.8	73 - 118	0.426	20
1,2,3-Trichlorobenzene	9.85000	0.50	10.0000	98.5	53 - 164	2.21	20
1,2,4-Trichlorobenzene	9.29000	0.50	10.0000	92.9	58 - 144	1.07	20
1,2,4-Trimethylbenzene	11.1000	0.50	10.0000	111	75 - 140	2.05	20
1,2-Dibromo-3-chloropropane	9.71000	0.50	10.0000	97.1	61 - 131	1.33	20
1,2-Dibromoethane	9.66000	0.50	10.0000	96.6	74 - 125	1.23	20
1,2-Dichlorobenzene	10.2900	0.50	10.0000	103	78 - 122	1.26	20
1,2-Dichloroethane	10.6300	0.50	10.0000	106	70 - 126	2.60	20
1,2-Dichloropropane	9.50000	0.50	10.0000	95.0	69 - 120	2.60	20
1,3,5-Trimethylbenzene	11.3700	0.50	10.0000	114	73 - 145	0.963	20
1,3-Dichlorobenzene	10.6000	0.50	10.0000	106	76 - 126	0.658	20
1,3-Dichloropropane	9.40000	0.50	10.0000	94.0	76 - 117	1.90	20
1,4-Dichlorobenzene	10.4800	0.50	10.0000	105	77 - 120	1.42	20
2,2-Dichloropropane	11.2600	0.50	10.0000	113	47 - 169	6.61	20
2-Chlorotoluene	11.0200	0.50	10.0000	110	75 - 135	1.17	20
4-Chlorotoluene	11.2000	0.50	10.0000	112	70 - 133	1.77	20
4-Isopropyltoluene	11.2900	0.50	10.0000	113	72 - 153	3.14	20
Benzene	20.8900	0.50	20.0000	104	73 - 123	2.13	20
Bromobenzene	9.51000	0.50	10.0000	95.1	75 - 121	0.421	20
Bromodichloromethane	10.8800	0.50	10.0000	109	73 - 124	3.70	20
Bromoform	11.1600	0.50	10.0000	112	70 - 135	0.714	20
Bromomethane	15.0800	0.50	10.0000	151	10 - 166	1.74	20
Carbon tetrachloride	12.0200	0.50	10.0000	120	65 - 171	1.73	20
Chlorobenzene	10.2400	0.50	10.0000	102	80 - 121	2.13	20
Chloroethane	10.5100	0.50	10.0000	105	55 - 143	8.21	20
Chloroform	11.2000	0.50	10.0000	112	65 - 130	3.94	20
Chloromethane	11.8000	0.50	10.0000	118	21 - 141	0.591	20
cis-1,2-Dichloroethene	10.7600	0.50	10.0000	108	64 - 126	1.93	20
cis-1,3-Dichloropropene	10.1600	0.50	10.0000	102	70 - 131	1.66	20
Dibromochloromethane	10.9000	0.50	10.0000	109	74 - 125	3.16	20
Dibromomethane	9.37000	0.50	10.0000	93.7	74 - 116	5.50	20
Dichlorodifluoromethane	8.69000	0.50	10.0000	86.9	40 - 186	5.56	20



Certificate of Analysis

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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

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 B7A0258 - MSVOA_W (continued)

LCS Dup (B7A0258-BSD1) - Continued

Prepared: 1/10/2017 Analyzed: 1/10/2017

Ethylbenzene	21.0900	0.50	20.0000		105	77 - 130	2.34	20	
Hexachlorobutadiene	11.2700	0.50	10.0000		113	52 - 176	3.80	20	
Isopropylbenzene	11.1400	0.50	10.0000		111	77 - 144	0.894	20	
m,p-Xylene	21.6500	1.0	20.0000		108	84 - 136	3.45	20	
Methylene chloride	11.8100	1.0	10.0000		118	72 - 150	3.00	20	
n-Butylbenzene	11.6800	0.50	10.0000		117	73 - 154	0.0856	20	
n-Propylbenzene	10.8400	0.50	10.0000		108	77 - 145	0.827	20	
Naphthalene	8.69000	0.50	10.0000		86.9	55 - 137	0.230	20	
o-Xylene	21.3600	0.50	20.0000		107	79 - 135	3.36	20	
sec-Butylbenzene	11.4400	0.50	10.0000		114	73 - 157	0.870	20	
Styrene	10.9500	0.50	10.0000		110	78 - 125	3.50	20	
tert-Butylbenzene	11.0300	0.50	10.0000		110	78 - 149	0.723	20	
Tetrachloroethene	9.10000	0.50	10.0000		91.0	74 - 136	0.766	20	
Toluene	20.9200	0.50	20.0000		105	78 - 124	3.34	20	
trans-1,2-Dichloroethene	10.5400	0.50	10.0000		105	66 - 131	2.25	20	
Trichloroethene	8.91000	0.50	10.0000		89.1	78 - 128	0.560	20	
Trichlorofluoromethane	10.9500	0.50	10.0000		110	60 - 170	4.99	20	
Vinyl chloride	10.1600	0.50	10.0000		102	55 - 148	2.24	20	
Surrogate: 1,2-Dichloroethane-d4	27.73		25.0000		111	51 - 157			
Surrogate: 4-Bromofluorobenzene	26.09		25.0000		104	61 - 123			
Surrogate: Dibromofluoromethane	28.02		25.0000		112	57 - 147			
Surrogate: Toluene-d8	26.64		25.0000		107	61 - 119			



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

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 B7A0352 - MSSEMI_ISOTOPEDILN_W

Blank (B7A0352-BLK1)

Prepared: 1/12/2017 Analyzed: 1/12/2017

1,4-Dioxane	ND	2.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	87.85		100.000		87.8	42 - 106			
Surrogate: 2-Fluorobiphenyl	97.59		100.000		97.6	55 - 117			
Surrogate: 4-Terphenyl-d14	114.4		100.000		114	52 - 142			
Surrogate: Nitrobenzene-d5	91.05		100.000		91.0	43 - 116			

LCS (B7A0352-BS1)

Prepared: 1/12/2017 Analyzed: 1/12/2017

1,4-Dioxane	91.7100	2.0	100.000		91.7	62 - 127			
Surrogate: 1,2-Dichlorobenzene-d4	90.85		100.000		90.8	42 - 106			
Surrogate: 2-Fluorobiphenyl	106.2		100.000		106	55 - 117			
Surrogate: 4-Terphenyl-d14	103.1		100.000		103	52 - 142			
Surrogate: Nitrobenzene-d5	95.92		100.000		95.9	43 - 116			

LCS Dup (B7A0352-BSD1)

Prepared: 1/12/2017 Analyzed: 1/12/2017

1,4-Dioxane	90.8900	2.0	100.000		90.9	62 - 127	0.898	20	
Surrogate: 1,2-Dichlorobenzene-d4	83.55		100.000		83.6	42 - 106			
Surrogate: 2-Fluorobiphenyl	97.14		100.000		97.1	55 - 117			
Surrogate: 4-Terphenyl-d14	96.47		100.000		96.5	52 - 142			
Surrogate: Nitrobenzene-d5	87.51		100.000		87.5	43 - 116			



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

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 B7A0302 - MSSEMI_W

Blank (B7A0302-BLK1)

Prepared: 1/11/2017 Analyzed: 1/11/2017

1,4-Dioxane	ND	6.7			NR				
Surrogate: 1,2-Dichlorobenzene-d4	26.19		33.3333		78.6	31 - 106			
Surrogate: 2-Fluorobiphenyl	27.23		33.3333		81.7	28 - 122			
Surrogate: 4-Terphenyl-d14	31.39		33.3333		94.2	43 - 131			
Surrogate: Nitrobenzene-d5	28.21		33.3333		84.6	20 - 119			

LCS (B7A0302-BS1)

Prepared: 1/11/2017 Analyzed: 1/11/2017

1,4-Dioxane	25.9430	6.7	33.3333		77.8	49 - 169			
Surrogate: 1,2-Dichlorobenzene-d4	27.24		33.3333		81.7	31 - 106			
Surrogate: 2-Fluorobiphenyl	28.10		33.3333		84.3	28 - 122			
Surrogate: 4-Terphenyl-d14	29.81		33.3333		89.4	43 - 131			
Surrogate: Nitrobenzene-d5	28.48		33.3333		85.4	20 - 119			

LCS Dup (B7A0302-BSD1)

Prepared: 1/11/2017 Analyzed: 1/11/2017

1,4-Dioxane	26.4467	6.7	33.3333		79.3	49 - 169	1.92	20	
Surrogate: 1,2-Dichlorobenzene-d4	26.09		33.3333		78.3	31 - 106			
Surrogate: 2-Fluorobiphenyl	26.64		33.3333		79.9	28 - 122			
Surrogate: 4-Terphenyl-d14	28.05		33.3333		84.1	43 - 131			
Surrogate: Nitrobenzene-d5	26.56		33.3333		79.7	20 - 119			



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 01/19/2017

Notes and Definitions

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.
D2	Sample required dilution due to high concentration of non-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
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.

Exova
9240 Santa Fe Springs Road
Santa Fe Springs
California
USA
90670

T: +1 (562) 948-2225
F: +1 (562) 948-5850
E: info400@exova.com
W: www.exova.com



Testing, calibrating, advising

Certificate of Analysis

January 17, 2017

Advanced Technology Laboratories
PO Box 92797
Long Beach, CA 90809-2797

Attn: Rachelle Arada

Exova Job No: 209990
Purchase Order: PAID - CREDIT CARD
Project Name: 1700065 / Groundwater
Samples Received: 2
Date Received: 01-09-17

Analysis	Page
Bromate by EPA 317.0	2


Michael Shelton
Technical Director


Patricia Metzger
Senior Chemist

Bromate by EPA 317.0
Ion Chromatography/Post Column Reaction-Visible Absorption Spectroscopy

Column: Dionex AS9-HC 250 mm x 4 mm, AG9-HC Guard 50 mm x 4 mm
Eluent: 10 mM Na₂CO₃
Flow: 1.2 mL/min
Injection: 250 µL
Detection: Post-column derivatization, Visible detection, 450 nm

Sample preparation: The undiluted samples were treated with a Dionex OnGuard II H cartridge to remove excess basic cations.

Parts Per Billion (µg/L)

<u>Sample ID</u>	<u>Result</u>
ATL Lab#: 1700065-03 / POX	ND
ATL Lab#: 1700065-07 / INF	ND
ATL Lab#: 1700065-07 / INF Duplicate	ND
Method Blank	ND
Detection Limit	0.3
Date Analyzed:	01-11-16

Quality Control Summary

Parts Per Billion (µg/L)

Sample ID: ATL Lab#: 1700065-07 / INF

<u>Analyte</u>	<u>Sample Result</u>	<u>Sample Duplicate Result</u>	<u>Sample RPD</u>	<u>Spike Conc</u>	<u>Spike Result</u>	<u>Spike % Rec</u>
Bromate	ND	ND	NA	20.0	18.8	94
QC Guidelines			NMT 10			75-125

NA – RPD not applicable for results less than ten times the detection limit.

ADVANCED TECHNOLOGY
LABORATORIES
SUBCONTRACT ORDER
Work Order: 1700065

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#: SC11199- STANDARD TAT

RA

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
<i>1</i> ATL Lab#: 1700065-03 / POX 317.0 SUB [Bromate] 1-Poly Unpres - 125mL	01/20/17 17:00	Groundwater 01/07/17 08:18	01/06/17 08:18	
<i>2</i> ATL Lab#: 1700065-07 / INF 317.0 SUB [Bromate] 1-Poly Unpres - 125mL	01/20/17 17:00	Groundwater 01/07/17 08:32	01/06/17 08:32	

1-09-17 RA also has

1 I

2 F

Released By <i>a</i>	Date <i>1/9/17</i>	Received By <i>[Signature]</i>	Date <i>1/9/17 0930</i>
Released By <i>[Signature]</i>	Date <i>1/9/17 1228</i>	Received By <i>[Signature]</i>	Date <i>1-9-17 12:28 pm</i>

209990

Page 1 of 1 *lilic*



PROJECT: Raytheon Main GETS Monthly Sample

TASK NO.: 532.15

Project Manager Steve Netto

QA Manager Kevin Fong

Phone 858.455.6500

Fax 858.455.6533

Sampled By:				SAMPLE COLLECTION		MATRIX		PRESERVATION		CONTAINERS				ANALYSIS REQUESTED										Expected Concentration Range (ppb) for VOAs				SPECIAL HANDLING				Laboratory					
LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Ice	40-ml VOA	125 mL Poly	250 mL Poly	250 mL Glass	1 L Poly	1L Amber	VOCs by EPA 8260B	Bromate by EPA 317	Bromide by EPA 300	Alkalinity by SM2320B	Total Organic Carbon by SM5310B	SM2540D	UV Absorption EPA 415.3 @254 nm	1,4-Dioxane by EPA 8270C MOD	1,4-Dioxane by EPA 8270 SIM	0 - 10	10 - 100	100 - 1,000	> 1,000	24 hr TAT	48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS			
	TB-010617	1/6/2017	7:00		X	X			X	2						X									X												
	CBT		8:12	X	X				X	3					1	X								X	X												
	POX		8:18	X	X				X	6	1	1			1	X	X		X	X				X	X												
	CEFF		8:08	X	X				X	3					1	X								X	X												
	QCDUP1		8:15	X					X						1									X													
	PF		8:25	X	X				X	3		1	1	1					X	X	X	X															
	INF		8:32	X	X				X	3	2				1	X	X	X					X				X										
	QCDUP2		8:10	X					X						1								X														
	EW-02		8:45	X	X				X	3	1				1	X		X					X			X											
	MW-29		9:00	X	X				X	3	1				1	X		X					X			X											
Total number of containers per analysis:										26	5	2	1	1	8											Total No. of Containers: 43											
Relinquished By: / Company:		Date / Time		Received By: / Company		Date / Time																															
JJS/HHA		1/6/17 1005		ATC		1/6/17 1008																															
Relinquished By: / Company:		Date / Time		Received By: / Company		Date / Time																															
ATZ		1/6/17 1100		C C Ayala ATZ		1/6/17 1100																															

☒ No. of containers correct
☒ Received in good condition
☐ Custody seals secure
☒ Conforms to COC document

48 °C Temperature on receipt

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 275
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com

Instructions

Fill out form completely and sign only after verified for completeness.
Complete in ballpoint pen. Draw one line through error, initial and date correction.
Indicate the number of sample containers in analytical 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.



February 03, 2017

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
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1700380

Client Reference : Raytheon Main GETS Mid Month Sample, 532.15

Enclosed are the results for sample(s) received on January 26, 2017 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 "Eddie Rodriguez", with a small "ER" monogram to the left.

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 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 GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-012617	1700380-01	Lab prepared water	1/26/17 7:00	1/26/17 14:30
CBT	1700380-02	Groundwater	1/26/17 10:40	1/26/17 14:30
POX	1700380-03	Groundwater	1/26/17 10:45	1/26/17 14:30
CEFF	1700380-04	Groundwater	1/26/17 10:35	1/26/17 14:30
INF	1700380-05	Groundwater	1/26/17 10:52	1/26/17 14:30
EW-02	1700380-06	Groundwater	1/26/17 11:25	1/26/17 14:30
MW-29	1700380-07	Groundwater	1/26/17 11:45	1/26/17 14:30



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID TB-012617

Lab ID: 1700380-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,1,1-Trichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,1,2-Trichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,1-Dichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,1-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,1-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,2,3-Trichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,2-Dibromoethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,2-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,2-Dichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,3-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,3-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
1,4-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
2,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
2-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
4-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
4-Isopropyltoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Benzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Bromobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Bromodichloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Bromoform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Bromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Carbon tetrachloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Chlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Chloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Chloroform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Chloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Dibromochloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID TB-012617

Lab ID: 1700380-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Dichlorodifluoromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Ethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Hexachlorobutadiene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Isopropylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
m,p-Xylene	ND	1.0	1	B7B0015	02/01/2017	02/01/17 14:05	
Methylene chloride	ND	1.0	1	B7B0015	02/01/2017	02/01/17 14:05	
n-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
n-Propylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Naphthalene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
o-Xylene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
sec-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Styrene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
tert-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Tetrachloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Toluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Trichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Trichlorofluoromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Vinyl chloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 14:05	
Surrogate: 1,2-Dichloroethane-d4	101 %	51 - 157		B7B0015	02/01/2017	02/01/17 14:05	
Surrogate: 4-Bromofluorobenzene	101 %	61 - 123		B7B0015	02/01/2017	02/01/17 14:05	
Surrogate: Dibromofluoromethane	99.6 %	57 - 147		B7B0015	02/01/2017	02/01/17 14:05	
Surrogate: Toluene-d8	98.4 %	61 - 119		B7B0015	02/01/2017	02/01/17 14:05	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID CBT

Lab ID: 1700380-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,1,1-Trichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,1,2-Trichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,1-Dichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,1-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,1-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,2,3-Trichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,2-Dibromoethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,2-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,2-Dichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,3-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,3-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
1,4-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
2,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
2-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
4-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
4-Isopropyltoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Benzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Bromobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Bromodichloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Bromoform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Bromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Carbon tetrachloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Chlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Chloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Chloroform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Chloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Dibromochloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID CBT

Lab ID: 1700380-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Dichlorodifluoromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Ethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Hexachlorobutadiene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Isopropylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
m,p-Xylene	ND	1.0	1	B7B0015	02/01/2017	02/01/17 19:07	
Methylene chloride	ND	1.0	1	B7B0015	02/01/2017	02/01/17 19:07	
n-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
n-Propylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Naphthalene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
o-Xylene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
sec-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Styrene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
tert-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Tetrachloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Toluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Trichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Trichlorofluoromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Vinyl chloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:07	
Surrogate: 1,2-Dichloroethane-d4	107 %	51 - 157		B7B0015	02/01/2017	02/01/17 19:07	
Surrogate: 4-Bromofluorobenzene	104 %	61 - 123		B7B0015	02/01/2017	02/01/17 19:07	
Surrogate: Dibromofluoromethane	103 %	57 - 147		B7B0015	02/01/2017	02/01/17 19:07	
Surrogate: Toluene-d8	101 %	61 - 119		B7B0015	02/01/2017	02/01/17 19:07	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID CBT

Lab ID: 1700380-02

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

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7A0820	01/27/2017	01/27/17 19:06	
Surrogate: 1,2-Dichlorobenzene-d4	82.5 %	31 - 106		B7A0820	01/27/2017	01/27/17 19:06	
Surrogate: 2-Fluorobiphenyl	95.3 %	28 - 122		B7A0820	01/27/2017	01/27/17 19:06	
Surrogate: 4-Terphenyl-d14	101 %	43 - 131		B7A0820	01/27/2017	01/27/17 19:06	
Surrogate: Nitrobenzene-d5	70.7 %	20 - 119		B7A0820	01/27/2017	01/27/17 19:06	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID POX

Lab ID: 1700380-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,1,1-Trichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,1,2-Trichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,1-Dichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,1-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,1-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,2,3-Trichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,2-Dibromoethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,2-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,2-Dichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,3-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,3-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
1,4-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
2,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
2-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
4-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
4-Isopropyltoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Benzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Bromobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Bromodichloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Bromoform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Bromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Carbon tetrachloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Chlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Chloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Chloroform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Chloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Dibromochloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID POX

Lab ID: 1700380-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Dichlorodifluoromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Ethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Hexachlorobutadiene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Isopropylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
m,p-Xylene	ND	1.0	1	B7B0015	02/01/2017	02/01/17 19:30	
Methylene chloride	ND	1.0	1	B7B0015	02/01/2017	02/01/17 19:30	
n-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
n-Propylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Naphthalene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
o-Xylene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
sec-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Styrene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
tert-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Tetrachloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Toluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Trichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Trichlorofluoromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Vinyl chloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:30	
Surrogate: 1,2-Dichloroethane-d4	106 %	51 - 157		B7B0015	02/01/2017	02/01/17 19:30	
Surrogate: 4-Bromofluorobenzene	103 %	61 - 123		B7B0015	02/01/2017	02/01/17 19:30	
Surrogate: Dibromofluoromethane	105 %	57 - 147		B7B0015	02/01/2017	02/01/17 19:30	
Surrogate: Toluene-d8	101 %	61 - 119		B7B0015	02/01/2017	02/01/17 19:30	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID POX

Lab ID: 1700380-03

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

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7A0820	01/27/2017	01/27/17 19:33	
Surrogate: 1,2-Dichlorobenzene-d4	79.4 %	31 - 106		B7A0820	01/27/2017	01/27/17 19:33	
Surrogate: 2-Fluorobiphenyl	91.2 %	28 - 122		B7A0820	01/27/2017	01/27/17 19:33	
Surrogate: 4-Terphenyl-d14	100 %	43 - 131		B7A0820	01/27/2017	01/27/17 19:33	
Surrogate: Nitrobenzene-d5	67.9 %	20 - 119		B7A0820	01/27/2017	01/27/17 19:33	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID CEFF

Lab ID: 1700380-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,1,1-Trichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,1,2-Trichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,1-Dichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,1-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,1-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,2,3-Trichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,2-Dibromoethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,2-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,2-Dichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,3-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,3-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
1,4-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
2,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
2-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
4-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
4-Isopropyltoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Benzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Bromobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Bromodichloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Bromoform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Bromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Carbon tetrachloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Chlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Chloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Chloroform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Chloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Dibromochloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID CEFF

Lab ID: 1700380-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Dichlorodifluoromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Ethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Hexachlorobutadiene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Isopropylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
m,p-Xylene	ND	1.0	1	B7B0015	02/01/2017	02/01/17 19:54	
Methylene chloride	ND	1.0	1	B7B0015	02/01/2017	02/01/17 19:54	
n-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
n-Propylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Naphthalene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
o-Xylene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
sec-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Styrene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
tert-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Tetrachloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Toluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Trichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Trichlorofluoromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Vinyl chloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 19:54	
Surrogate: 1,2-Dichloroethane-d4	112 %	51 - 157		B7B0015	02/01/2017	02/01/17 19:54	
Surrogate: 4-Bromofluorobenzene	105 %	61 - 123		B7B0015	02/01/2017	02/01/17 19:54	
Surrogate: Dibromofluoromethane	108 %	57 - 147		B7B0015	02/01/2017	02/01/17 19:54	
Surrogate: Toluene-d8	98.4 %	61 - 119		B7B0015	02/01/2017	02/01/17 19:54	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID CEFF

Lab ID: 1700380-04

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

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7A0820	01/27/2017	01/27/17 19:59	
Surrogate: 1,2-Dichlorobenzene-d4	77.3 %	31 - 106		B7A0820	01/27/2017	01/27/17 19:59	
Surrogate: 2-Fluorobiphenyl	88.3 %	28 - 122		B7A0820	01/27/2017	01/27/17 19:59	
Surrogate: 4-Terphenyl-d14	96.2 %	43 - 131		B7A0820	01/27/2017	01/27/17 19:59	
Surrogate: Nitrobenzene-d5	66.3 %	20 - 119		B7A0820	01/27/2017	01/27/17 19:59	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID INF

Lab ID: 1700380-05

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,1,1-Trichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,1,2-Trichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,1-Dichloroethane	1.1	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,1-Dichloroethene	95	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,1-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,2,3-Trichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,2-Dibromoethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,2-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,2-Dichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,3-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,3-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
1,4-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
2,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
2-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
4-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
4-Isopropyltoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Benzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Bromobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Bromodichloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Bromoform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Bromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Carbon tetrachloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Chlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Chloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Chloroform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Chloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Dibromochloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID INF

Lab ID: 1700380-05

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Dichlorodifluoromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Ethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Hexachlorobutadiene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Isopropylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
m,p-Xylene	ND	1.0	1	B7B0015	02/01/2017	02/01/17 20:17	
Methylene chloride	ND	1.0	1	B7B0015	02/01/2017	02/01/17 20:17	
n-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
n-Propylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Naphthalene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
o-Xylene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
sec-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Styrene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
tert-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Tetrachloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Toluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Trichloroethene	0.55	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Trichlorofluoromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
Vinyl chloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:17	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>113 %</i>	<i>51 - 157</i>		B7B0015	02/01/2017	02/01/17 20:17	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>107 %</i>	<i>61 - 123</i>		B7B0015	02/01/2017	02/01/17 20:17	
<i>Surrogate: Dibromofluoromethane</i>	<i>109 %</i>	<i>57 - 147</i>		B7B0015	02/01/2017	02/01/17 20:17	
<i>Surrogate: Toluene-d8</i>	<i>100 %</i>	<i>61 - 119</i>		B7B0015	02/01/2017	02/01/17 20:17	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID INF

Lab ID: 1700380-05

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

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	36	2.0	1	B7A0822	01/27/2017	01/27/17 17:16	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>55.4 %</i>	<i>42 - 106</i>		B7A0822	01/27/2017	<i>01/27/17 17:16</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>64.8 %</i>	<i>55 - 117</i>		B7A0822	01/27/2017	<i>01/27/17 17:16</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>87.0 %</i>	<i>52 - 142</i>		B7A0822	01/27/2017	<i>01/27/17 17:16</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>70.9 %</i>	<i>43 - 116</i>		B7A0822	01/27/2017	<i>01/27/17 17:16</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID EW-02

Lab ID: 1700380-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,1,1-Trichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,1,2-Trichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,1-Dichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,1-Dichloroethene	9.4	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,1-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,2,3-Trichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,2-Dibromoethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,2-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,2-Dichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,3-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,3-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
1,4-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
2,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
2-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
4-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
4-Isopropyltoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Benzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Bromobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Bromodichloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Bromoform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Bromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Carbon tetrachloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Chlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Chloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Chloroform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Chloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Dibromochloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID EW-02

Lab ID: 1700380-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Dichlorodifluoromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Ethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Hexachlorobutadiene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Isopropylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
m,p-Xylene	ND	1.0	1	B7B0015	02/01/2017	02/01/17 20:40	
Methylene chloride	ND	1.0	1	B7B0015	02/01/2017	02/01/17 20:40	
n-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
n-Propylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Naphthalene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
o-Xylene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
sec-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Styrene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
tert-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Tetrachloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Toluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Trichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Trichlorofluoromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Vinyl chloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 20:40	
Surrogate: 1,2-Dichloroethane-d4	111 %	51 - 157		B7B0015	02/01/2017	02/01/17 20:40	
Surrogate: 4-Bromofluorobenzene	102 %	61 - 123		B7B0015	02/01/2017	02/01/17 20:40	
Surrogate: Dibromofluoromethane	105 %	57 - 147		B7B0015	02/01/2017	02/01/17 20:40	
Surrogate: Toluene-d8	98.2 %	61 - 119		B7B0015	02/01/2017	02/01/17 20:40	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID EW-02

Lab ID: 1700380-06

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

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	3.5	2.0	1	B7A0822	01/27/2017	01/27/17 17:43	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>49.3 %</i>	<i>42 - 106</i>		<i>B7A0822</i>	<i>01/27/2017</i>	<i>01/27/17 17:43</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>56.7 %</i>	<i>55 - 117</i>		<i>B7A0822</i>	<i>01/27/2017</i>	<i>01/27/17 17:43</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>84.0 %</i>	<i>52 - 142</i>		<i>B7A0822</i>	<i>01/27/2017</i>	<i>01/27/17 17:43</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>61.5 %</i>	<i>43 - 116</i>		<i>B7A0822</i>	<i>01/27/2017</i>	<i>01/27/17 17:43</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID MW-29

Lab ID: 1700380-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,1,1-Trichloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,1,2-Trichloroethane	1.2	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,1-Dichloroethane	3.1	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,1-Dichloroethene	330	5.0	10	B7B0064	02/02/2017	02/02/17 21:41	
1,1-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,2,3-Trichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,2-Dibromoethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,2-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,2-Dichloroethane	0.68	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,3-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,3-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
1,4-Dichlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
2,2-Dichloropropane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
2-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
4-Chlorotoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
4-Isopropyltoluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Benzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Bromobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Bromodichloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Bromoform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Bromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Carbon tetrachloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Chlorobenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Chloroethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Chloroform	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Chloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Dibromochloromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID MW-29

Lab ID: 1700380-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Dichlorodifluoromethane	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Ethylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Hexachlorobutadiene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Isopropylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
m,p-Xylene	ND	1.0	1	B7B0015	02/01/2017	02/01/17 21:04	
Methylene chloride	ND	1.0	1	B7B0015	02/01/2017	02/01/17 21:04	
n-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
n-Propylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Naphthalene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
o-Xylene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
sec-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Styrene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
tert-Butylbenzene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Tetrachloroethene	0.84	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Toluene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Trichloroethene	1.8	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Trichlorofluoromethane	0.78	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	
Vinyl chloride	ND	0.50	1	B7B0015	02/01/2017	02/01/17 21:04	

<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>128 %</i>	<i>51 - 157</i>		B7B0064	02/02/2017	<i>02/02/17 21:41</i>
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>110 %</i>	<i>51 - 157</i>		B7B0015	02/01/2017	<i>02/01/17 21:04</i>
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>113 %</i>	<i>61 - 123</i>		B7B0064	02/02/2017	<i>02/02/17 21:41</i>
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>102 %</i>	<i>61 - 123</i>		B7B0015	02/01/2017	<i>02/01/17 21:04</i>
<i>Surrogate: Dibromofluoromethane</i>	<i>119 %</i>	<i>57 - 147</i>		B7B0064	02/02/2017	<i>02/02/17 21:41</i>
<i>Surrogate: Dibromofluoromethane</i>	<i>104 %</i>	<i>57 - 147</i>		B7B0015	02/01/2017	<i>02/01/17 21:04</i>
<i>Surrogate: Toluene-d8</i>	<i>99.9 %</i>	<i>61 - 119</i>		B7B0015	02/01/2017	<i>02/01/17 21:04</i>
<i>Surrogate: Toluene-d8</i>	<i>106 %</i>	<i>61 - 119</i>		B7B0064	02/02/2017	<i>02/02/17 21:41</i>



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

Client Sample ID MW-29

Lab ID: 1700380-07

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

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	130	2.0	1	B7A0822	01/27/2017	01/27/17 18:10	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>54.8 %</i>	<i>42 - 106</i>		B7A0822	01/27/2017	<i>01/27/17 18:10</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>63.2 %</i>	<i>55 - 117</i>		B7A0822	01/27/2017	<i>01/27/17 18:10</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>88.1 %</i>	<i>52 - 142</i>		B7A0822	01/27/2017	<i>01/27/17 18:10</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>67.6 %</i>	<i>43 - 116</i>		B7A0822	01/27/2017	<i>01/27/17 18:10</i>	



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San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

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 B7B0015 - MSVOA_W

Blank (B7B0015-BLK1)

Prepared: 2/1/2017 Analyzed: 2/1/2017

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 B7B0015 - MSVOA_W (continued)

Blank (B7B0015-BLK1) - Continued

Prepared: 2/1/2017 Analyzed: 2/1/2017

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	25.96		25.0000		104	51 - 157			
Surrogate: 4-Bromofluorobenzene	25.93		25.0000		104	61 - 123			
Surrogate: Dibromofluoromethane	26.36		25.0000		105	57 - 147			
Surrogate: Toluene-d8	25.25		25.0000		101	61 - 119			

LCS (B7B0015-BS1)

Prepared: 2/1/2017 Analyzed: 2/1/2017

1,1,1,2-Tetrachloroethane	20.9000	0.50	20.0000		104	76 - 132			
1,1,1-Trichloroethane	19.5900	0.50	20.0000		98.0	72 - 144			
1,1,2,2-Tetrachloroethane	20.8000	0.50	20.0000		104	70 - 120			
1,1,2-Trichloroethane	19.0400	0.50	20.0000		95.2	75 - 120			
1,1-Dichloroethane	20.8300	0.50	20.0000		104	65 - 127			
1,1-Dichloroethene	18.4300	0.50	20.0000		92.2	63 - 142			
1,1-Dichloropropene	22.1200	0.50	20.0000		111	78 - 137			
1,2,3-Trichloropropane	20.1200	0.50	20.0000		101	73 - 118			
1,2,3-Trichlorobenzene	21.2100	0.50	20.0000		106	53 - 164			
1,2,4-Trichlorobenzene	21.9600	0.50	20.0000		110	58 - 144			
1,2,4-Trimethylbenzene	21.5900	0.50	20.0000		108	75 - 140			
1,2-Dibromo-3-chloropropane	18.7900	0.50	20.0000		94.0	61 - 131			
1,2-Dibromoethane	19.6000	0.50	20.0000		98.0	74 - 125			
1,2-Dichlorobenzene	21.4400	0.50	20.0000		107	78 - 122			
1,2-Dichloroethane	19.7500	0.50	20.0000		98.8	70 - 126			
1,2-Dichloropropane	20.6300	0.50	20.0000		103	69 - 120			
1,3,5-Trimethylbenzene	22.0700	0.50	20.0000		110	73 - 145			



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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 B7B0015 - MSVOA_W (continued)								
LCS (B7B0015-BS1) - Continued				Prepared: 2/1/2017 Analyzed: 2/1/2017				
1,3-Dichlorobenzene	21.5700	0.50	20.0000		108	76 - 126		
1,3-Dichloropropane	20.5800	0.50	20.0000		103	76 - 117		
1,4-Dichlorobenzene	21.5600	0.50	20.0000		108	77 - 120		
2,2-Dichloropropane	21.7700	0.50	20.0000		109	47 - 169		
2-Chlorotoluene	21.4200	0.50	20.0000		107	75 - 135		
4-Chlorotoluene	21.2500	0.50	20.0000		106	70 - 133		
4-Isopropyltoluene	22.8000	0.50	20.0000		114	72 - 153		
Benzene	40.3500	0.50	40.0000		101	73 - 123		
Bromobenzene	22.2000	0.50	20.0000		111	75 - 121		
Bromodichloromethane	19.5100	0.50	20.0000		97.6	73 - 124		
Bromoform	19.2300	0.50	20.0000		96.2	70 - 135		
Bromomethane	21.1700	0.50	20.0000		106	10 - 166		
Carbon tetrachloride	20.8900	0.50	20.0000		104	65 - 171		
Chlorobenzene	20.2900	0.50	20.0000		101	80 - 121		
Chloroethane	17.6600	0.50	20.0000		88.3	55 - 143		
Chloroform	19.5000	0.50	20.0000		97.5	65 - 130		
Chloromethane	19.3700	0.50	20.0000		96.8	21 - 141		
cis-1,2-Dichloroethene	19.3100	0.50	20.0000		96.6	64 - 126		
cis-1,3-Dichloropropene	21.8000	0.50	20.0000		109	70 - 131		
Dibromochloromethane	20.8000	0.50	20.0000		104	74 - 125		
Dibromomethane	18.8400	0.50	20.0000		94.2	74 - 116		
Dichlorodifluoromethane	17.6000	0.50	20.0000		88.0	40 - 186		
Ethylbenzene	39.9100	0.50	40.0000		99.8	77 - 130		
Hexachlorobutadiene	22.4300	0.50	20.0000		112	52 - 176		
Isopropylbenzene	23.2400	0.50	20.0000		116	77 - 144		
m,p-Xylene	42.3000	1.0	40.0000		106	84 - 136		
Methylene chloride	16.1200	1.0	20.0000		80.6	72 - 150		
n-Butylbenzene	22.5000	0.50	20.0000		112	73 - 154		
n-Propylbenzene	22.3100	0.50	20.0000		112	77 - 145		
Naphthalene	20.7500	0.50	20.0000		104	55 - 137		
o-Xylene	41.0400	0.50	40.0000		103	79 - 135		
sec-Butylbenzene	21.8500	0.50	20.0000		109	73 - 157		
Styrene	20.7700	0.50	20.0000		104	78 - 125		
tert-Butylbenzene	21.9500	0.50	20.0000		110	78 - 149		
Tetrachloroethene	21.7200	0.50	20.0000		109	74 - 136		
Toluene	39.5400	0.50	40.0000		98.8	78 - 124		
trans-1,2-Dichloroethene	19.5200	0.50	20.0000		97.6	66 - 131		
Trichloroethene	19.8500	0.50	20.0000		99.2	78 - 128		
Trichlorofluoromethane	20.3300	0.50	20.0000		102	60 - 170		
Vinyl chloride	18.8000	0.50	20.0000		94.0	55 - 148		
Surrogate: 1,2-Dichloroethane-d4	25.20		25.0000		101	51 - 157		



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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 B7B0015 - MSVOA_W (continued)

LCS (B7B0015-BS1) - Continued

Prepared: 2/1/2017 Analyzed: 2/1/2017

Surrogate: 4-Bromofluorobenzene	25.85		25.0000		103	61 - 123			
Surrogate: Dibromofluoromethane	25.12		25.0000		100	57 - 147			
Surrogate: Toluene-d8	26.01		25.0000		104	61 - 119			

LCS Dup (B7B0015-BS1)

Prepared: 2/1/2017 Analyzed: 2/1/2017

1,1,1,2-Tetrachloroethane	20.1800	0.50	20.0000		101	76 - 132	3.51	20	
1,1,1-Trichloroethane	19.1700	0.50	20.0000		95.8	72 - 144	2.17	20	
1,1,2,2-Tetrachloroethane	19.4400	0.50	20.0000		97.2	70 - 120	6.76	20	
1,1,2-Trichloroethane	19.1600	0.50	20.0000		95.8	75 - 120	0.628	20	
1,1-Dichloroethane	19.7400	0.50	20.0000		98.7	65 - 127	5.37	20	
1,1-Dichloroethene	17.4700	0.50	20.0000		87.4	63 - 142	5.35	20	
1,1-Dichloropropene	20.7000	0.50	20.0000		104	78 - 137	6.63	20	
1,2,3-Trichloropropane	19.3400	0.50	20.0000		96.7	73 - 118	3.95	20	
1,2,3-Trichlorobenzene	19.9700	0.50	20.0000		99.8	53 - 164	6.02	20	
1,2,4-Trichlorobenzene	20.2300	0.50	20.0000		101	58 - 144	8.20	20	
1,2,4-Trimethylbenzene	20.6600	0.50	20.0000		103	75 - 140	4.40	20	
1,2-Dibromo-3-chloropropane	16.6000	0.50	20.0000		83.0	61 - 131	12.4	20	
1,2-Dibromoethane	19.0000	0.50	20.0000		95.0	74 - 125	3.11	20	
1,2-Dichlorobenzene	20.1100	0.50	20.0000		101	78 - 122	6.40	20	
1,2-Dichloroethane	18.9400	0.50	20.0000		94.7	70 - 126	4.19	20	
1,2-Dichloropropane	19.9200	0.50	20.0000		99.6	69 - 120	3.50	20	
1,3,5-Trimethylbenzene	20.6900	0.50	20.0000		103	73 - 145	6.45	20	
1,3-Dichlorobenzene	20.3300	0.50	20.0000		102	76 - 126	5.92	20	
1,3-Dichloropropane	19.8000	0.50	20.0000		99.0	76 - 117	3.86	20	
1,4-Dichlorobenzene	20.1300	0.50	20.0000		101	77 - 120	6.86	20	
2,2-Dichloropropane	20.3500	0.50	20.0000		102	47 - 169	6.74	20	
2-Chlorotoluene	20.3500	0.50	20.0000		102	75 - 135	5.12	20	
4-Chlorotoluene	20.3400	0.50	20.0000		102	70 - 133	4.38	20	
4-Isopropyltoluene	21.3900	0.50	20.0000		107	72 - 153	6.38	20	
Benzene	39.2800	0.50	40.0000		98.2	73 - 123	2.69	20	
Bromobenzene	20.7600	0.50	20.0000		104	75 - 121	6.70	20	
Bromodichloromethane	19.1500	0.50	20.0000		95.8	73 - 124	1.86	20	
Bromoform	18.7000	0.50	20.0000		93.5	70 - 135	2.79	20	
Bromomethane	20.5500	0.50	20.0000		103	10 - 166	2.97	20	
Carbon tetrachloride	19.7100	0.50	20.0000		98.6	65 - 171	5.81	20	
Chlorobenzene	19.4300	0.50	20.0000		97.2	80 - 121	4.33	20	
Chloroethane	17.8200	0.50	20.0000		89.1	55 - 143	0.902	20	
Chloroform	19.0900	0.50	20.0000		95.4	65 - 130	2.12	20	
Chloromethane	18.4300	0.50	20.0000		92.2	21 - 141	4.97	20	
cis-1,2-Dichloroethene	18.7900	0.50	20.0000		94.0	64 - 126	2.73	20	
cis-1,3-Dichloropropene	21.1200	0.50	20.0000		106	70 - 131	3.17	20	
Dibromochloromethane	19.7500	0.50	20.0000		98.8	74 - 125	5.18	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 B7B0015 - MSVOA_W (continued)

LCS Dup (B7B0015-BSD1) - Continued

Prepared: 2/1/2017 Analyzed: 2/1/2017

Dibromomethane	19.1800	0.50	20.0000		95.9	74 - 116	1.79	20	
Dichlorodifluoromethane	16.5900	0.50	20.0000		83.0	40 - 186	5.91	20	
Ethylbenzene	38.7800	0.50	40.0000		97.0	77 - 130	2.87	20	
Hexachlorobutadiene	20.5000	0.50	20.0000		102	52 - 176	8.99	20	
Isopropylbenzene	22.0100	0.50	20.0000		110	77 - 144	5.44	20	
m,p-Xylene	40.4400	1.0	40.0000		101	84 - 136	4.50	20	
Methylene chloride	15.9400	1.0	20.0000		79.7	72 - 150	1.12	20	
n-Butylbenzene	21.0800	0.50	20.0000		105	73 - 154	6.52	20	
n-Propylbenzene	20.8400	0.50	20.0000		104	77 - 145	6.81	20	
Naphthalene	19.4600	0.50	20.0000		97.3	55 - 137	6.42	20	
o-Xylene	39.4400	0.50	40.0000		98.6	79 - 135	3.98	20	
sec-Butylbenzene	20.7000	0.50	20.0000		104	73 - 157	5.41	20	
Styrene	20.1900	0.50	20.0000		101	78 - 125	2.83	20	
tert-Butylbenzene	20.5400	0.50	20.0000		103	78 - 149	6.64	20	
Tetrachloroethene	20.1000	0.50	20.0000		100	74 - 136	7.75	20	
Toluene	39.0100	0.50	40.0000		97.5	78 - 124	1.35	20	
trans-1,2-Dichloroethene	18.8100	0.50	20.0000		94.0	66 - 131	3.70	20	
Trichloroethene	19.5300	0.50	20.0000		97.6	78 - 128	1.63	20	
Trichlorofluoromethane	19.5400	0.50	20.0000		97.7	60 - 170	3.96	20	
Vinyl chloride	17.7100	0.50	20.0000		88.6	55 - 148	5.97	20	
Surrogate: 1,2-Dichloroethane-d4	25.20		25.0000		101	51 - 157			
Surrogate: 4-Bromofluorobenzene	24.94		25.0000		99.8	61 - 123			
Surrogate: Dibromofluoromethane	25.32		25.0000		101	57 - 147			
Surrogate: Toluene-d8	26.44		25.0000		106	61 - 119			



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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 Limits	RPD	RPD Limit	Notes

Batch B7B0064 - MSVOA_W

Blank (B7B0064-BLK1)

Prepared: 2/2/2017 Analyzed: 2/2/2017

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 B7B0064 - MSVOA_W (continued)

Blank (B7B0064-BLK1) - Continued

Prepared: 2/2/2017 Analyzed: 2/2/2017

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	27.33		25.0000		109	51 - 157			
Surrogate: 4-Bromofluorobenzene	27.27		25.0000		109	61 - 123			
Surrogate: Dibromofluoromethane	26.35		25.0000		105	57 - 147			
Surrogate: Toluene-d8	26.00		25.0000		104	61 - 119			

LCS (B7B0064-BS1)

Prepared: 2/2/2017 Analyzed: 2/2/2017

1,1,1,2-Tetrachloroethane	19.4000	0.50	20.0000		97.0	76 - 132			
1,1,1-Trichloroethane	19.5200	0.50	20.0000		97.6	72 - 144			
1,1,2,2-Tetrachloroethane	18.1100	0.50	20.0000		90.6	70 - 120			
1,1,2-Trichloroethane	18.0300	0.50	20.0000		90.2	75 - 120			
1,1-Dichloroethane	19.7200	0.50	20.0000		98.6	65 - 127			
1,1-Dichloroethene	18.7900	0.50	20.0000		94.0	63 - 142			
1,1-Dichloropropene	19.6400	0.50	20.0000		98.2	78 - 137			
1,2,3-Trichloropropane	18.0300	0.50	20.0000		90.2	73 - 118			
1,2,3-Trichlorobenzene	19.8100	0.50	20.0000		99.0	53 - 164			
1,2,4-Trichlorobenzene	20.4000	0.50	20.0000		102	58 - 144			
1,2,4-Trimethylbenzene	20.5900	0.50	20.0000		103	75 - 140			
1,2-Dibromo-3-chloropropane	15.7700	0.50	20.0000		78.8	61 - 131			
1,2-Dibromoethane	18.0100	0.50	20.0000		90.0	74 - 125			
1,2-Dichlorobenzene	19.4700	0.50	20.0000		97.4	78 - 122			
1,2-Dichloroethane	19.5300	0.50	20.0000		97.6	70 - 126			
1,2-Dichloropropane	19.1200	0.50	20.0000		95.6	69 - 120			
1,3,5-Trimethylbenzene	20.8500	0.50	20.0000		104	73 - 145			
1,3-Dichlorobenzene	19.8300	0.50	20.0000		99.2	76 - 126			
1,3-Dichloropropane	18.6500	0.50	20.0000		93.2	76 - 117			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

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 B7B0064 - MSVOA_W (continued)

LCS (B7B0064-BS1) - Continued

Prepared: 2/2/2017 Analyzed: 2/2/2017

1,4-Dichlorobenzene	20.0300	0.50	20.0000		100	77 - 120			
2,2-Dichloropropane	19.3400	0.50	20.0000		96.7	47 - 169			
2-Chlorotoluene	20.1200	0.50	20.0000		101	75 - 135			
4-Chlorotoluene	20.1900	0.50	20.0000		101	70 - 133			
4-Isopropyltoluene	20.8600	0.50	20.0000		104	72 - 153			
Benzene	37.7200	0.50	40.0000		94.3	73 - 123			
Bromobenzene	19.9800	0.50	20.0000		99.9	75 - 121			
Bromodichloromethane	19.0800	0.50	20.0000		95.4	73 - 124			
Bromoform	18.4900	0.50	20.0000		92.4	70 - 135			
Bromomethane	22.4800	0.50	20.0000		112	10 - 166			
Carbon tetrachloride	20.7200	0.50	20.0000		104	65 - 171			
Chlorobenzene	19.0100	0.50	20.0000		95.0	80 - 121			
Chloroethane	18.9200	0.50	20.0000		94.6	55 - 143			
Chloroform	19.4400	0.50	20.0000		97.2	65 - 130			
Chloromethane	19.1700	0.50	20.0000		95.8	21 - 141			
cis-1,2-Dichloroethene	18.6500	0.50	20.0000		93.2	64 - 126			
cis-1,3-Dichloropropene	20.1000	0.50	20.0000		100	70 - 131			
Dibromochloromethane	19.1600	0.50	20.0000		95.8	74 - 125			
Dibromomethane	18.8200	0.50	20.0000		94.1	74 - 116			
Dichlorodifluoromethane	17.0600	0.50	20.0000		85.3	40 - 186			
Ethylbenzene	38.8400	0.50	40.0000		97.1	77 - 130			
Hexachlorobutadiene	20.8700	0.50	20.0000		104	52 - 176			
Isopropylbenzene	21.7900	0.50	20.0000		109	77 - 144			
m,p-Xylene	40.6300	1.0	40.0000		102	84 - 136			
Methylene chloride	17.8700	1.0	20.0000		89.4	72 - 150			
n-Butylbenzene	21.5800	0.50	20.0000		108	73 - 154			
n-Propylbenzene	20.6700	0.50	20.0000		103	77 - 145			
Naphthalene	18.2700	0.50	20.0000		91.4	55 - 137			
o-Xylene	39.6700	0.50	40.0000		99.2	79 - 135			
sec-Butylbenzene	20.8100	0.50	20.0000		104	73 - 157			
Styrene	19.9500	0.50	20.0000		99.8	78 - 125			
tert-Butylbenzene	20.2500	0.50	20.0000		101	78 - 149			
Tetrachloroethene	20.2600	0.50	20.0000		101	74 - 136			
Toluene	38.1500	0.50	40.0000		95.4	78 - 124			
trans-1,2-Dichloroethene	18.9100	0.50	20.0000		94.6	66 - 131			
Trichloroethene	18.5700	0.50	20.0000		92.8	78 - 128			
Trichlorofluoromethane	21.8700	0.50	20.0000		109	60 - 170			
Vinyl chloride	18.3100	0.50	20.0000		91.6	55 - 148			
Surrogate: 1,2-Dichloroethane-d4	27.36		25.0000		109	51 - 157			
Surrogate: 4-Bromofluorobenzene	26.24		25.0000		105	61 - 123			
Surrogate: Dibromofluoromethane	25.84		25.0000		103	57 - 147			



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Project Number : Raytheon Main GETS Mid Month Sample

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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 B7B0064 - MSVOA_W (continued)

LCS (B7B0064-BS1) - Continued

Prepared: 2/2/2017 Analyzed: 2/2/2017

Surrogate: Toluene-d8

25.98

25.0000

104

61 - 119

LCS Dup (B7B0064-BS1)

Prepared: 2/2/2017 Analyzed: 2/2/2017

1,1,1,2-Tetrachloroethane	19.6700	0.50	20.0000	98.4	76 - 132	1.38	20
1,1,1-Trichloroethane	19.3200	0.50	20.0000	96.6	72 - 144	1.03	20
1,1,2,2-Tetrachloroethane	18.1800	0.50	20.0000	90.9	70 - 120	0.386	20
1,1,2-Trichloroethane	17.7200	0.50	20.0000	88.6	75 - 120	1.73	20
1,1-Dichloroethane	19.4000	0.50	20.0000	97.0	65 - 127	1.64	20
1,1-Dichloroethene	18.3100	0.50	20.0000	91.6	63 - 142	2.59	20
1,1-Dichloropropene	19.4100	0.50	20.0000	97.0	78 - 137	1.18	20
1,2,3-Trichloropropane	17.8100	0.50	20.0000	89.0	73 - 118	1.23	20
1,2,3-Trichlorobenzene	19.3200	0.50	20.0000	96.6	53 - 164	2.50	20
1,2,4-Trichlorobenzene	19.5200	0.50	20.0000	97.6	58 - 144	4.41	20
1,2,4-Trimethylbenzene	19.8000	0.50	20.0000	99.0	75 - 140	3.91	20
1,2-Dibromo-3-chloropropane	16.3900	0.50	20.0000	82.0	61 - 131	3.86	20
1,2-Dibromoethane	17.8100	0.50	20.0000	89.0	74 - 125	1.12	20
1,2-Dichlorobenzene	18.9600	0.50	20.0000	94.8	78 - 122	2.65	20
1,2-Dichloroethane	18.8500	0.50	20.0000	94.2	70 - 126	3.54	20
1,2-Dichloropropane	18.2800	0.50	20.0000	91.4	69 - 120	4.49	20
1,3,5-Trimethylbenzene	19.9800	0.50	20.0000	99.9	73 - 145	4.26	20
1,3-Dichlorobenzene	19.1800	0.50	20.0000	95.9	76 - 126	3.33	20
1,3-Dichloropropane	18.6100	0.50	20.0000	93.0	76 - 117	0.215	20
1,4-Dichlorobenzene	19.4600	0.50	20.0000	97.3	77 - 120	2.89	20
2,2-Dichloropropane	18.7100	0.50	20.0000	93.6	47 - 169	3.31	20
2-Chlorotoluene	19.5600	0.50	20.0000	97.8	75 - 135	2.82	20
4-Chlorotoluene	19.4300	0.50	20.0000	97.2	70 - 133	3.84	20
4-Isopropyltoluene	20.4300	0.50	20.0000	102	72 - 153	2.08	20
Benzene	36.6200	0.50	40.0000	91.6	73 - 123	2.96	20
Bromobenzene	19.3300	0.50	20.0000	96.6	75 - 121	3.31	20
Bromodichloromethane	18.6600	0.50	20.0000	93.3	73 - 124	2.23	20
Bromoform	18.3500	0.50	20.0000	91.8	70 - 135	0.760	20
Bromomethane	21.8800	0.50	20.0000	109	10 - 166	2.71	20
Carbon tetrachloride	20.0600	0.50	20.0000	100	65 - 171	3.24	20
Chlorobenzene	18.3400	0.50	20.0000	91.7	80 - 121	3.59	20
Chloroethane	17.6300	0.50	20.0000	88.2	55 - 143	7.06	20
Chloroform	19.1400	0.50	20.0000	95.7	65 - 130	1.56	20
Chloromethane	18.2100	0.50	20.0000	91.0	21 - 141	5.14	20
cis-1,2-Dichloroethene	17.8400	0.50	20.0000	89.2	64 - 126	4.44	20
cis-1,3-Dichloropropene	19.5600	0.50	20.0000	97.8	70 - 131	2.72	20
Dibromochloromethane	18.8700	0.50	20.0000	94.4	74 - 125	1.53	20
Dibromomethane	18.5500	0.50	20.0000	92.8	74 - 116	1.45	20
Dichlorodifluoromethane	16.7100	0.50	20.0000	83.6	40 - 186	2.07	20



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Reported : 02/03/2017

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 B7B0064 - MSVOA_W (continued)

LCS Dup (B7B0064-BSD1) - Continued

Prepared: 2/2/2017 Analyzed: 2/2/2017

Ethylbenzene	37.4300	0.50	40.0000		93.6	77 - 130	3.70	20	
Hexachlorobutadiene	20.6200	0.50	20.0000		103	52 - 176	1.21	20	
Isopropylbenzene	20.9000	0.50	20.0000		104	77 - 144	4.17	20	
m,p-Xylene	39.4500	1.0	40.0000		98.6	84 - 136	2.95	20	
Methylene chloride	17.5300	1.0	20.0000		87.6	72 - 150	1.92	20	
n-Butylbenzene	20.5900	0.50	20.0000		103	73 - 154	4.70	20	
n-Propylbenzene	20.0300	0.50	20.0000		100	77 - 145	3.14	20	
Naphthalene	18.3900	0.50	20.0000		92.0	55 - 137	0.655	20	
o-Xylene	38.5700	0.50	40.0000		96.4	79 - 135	2.81	20	
sec-Butylbenzene	20.0200	0.50	20.0000		100	73 - 157	3.87	20	
Styrene	19.3500	0.50	20.0000		96.8	78 - 125	3.05	20	
tert-Butylbenzene	19.7400	0.50	20.0000		98.7	78 - 149	2.55	20	
Tetrachloroethene	19.4000	0.50	20.0000		97.0	74 - 136	4.34	20	
Toluene	36.6200	0.50	40.0000		91.6	78 - 124	4.09	20	
trans-1,2-Dichloroethene	18.4300	0.50	20.0000		92.2	66 - 131	2.57	20	
Trichloroethene	18.1400	0.50	20.0000		90.7	78 - 128	2.34	20	
Trichlorofluoromethane	21.0900	0.50	20.0000		105	60 - 170	3.63	20	
Vinyl chloride	17.8900	0.50	20.0000		89.4	55 - 148	2.32	20	
Surrogate: 1,2-Dichloroethane-d4	28.23		25.0000		113	51 - 157			
Surrogate: 4-Bromofluorobenzene	26.03		25.0000		104	61 - 123			
Surrogate: Dibromofluoromethane	25.95		25.0000		104	57 - 147			
Surrogate: Toluene-d8	25.72		25.0000		103	61 - 119			

Duplicate (B7B0064-DUP1)

Source: 1700451-03

Prepared: 2/2/2017 Analyzed: 2/2/2017

1,1,1,2-Tetrachloroethane	ND	0.50		ND	NR			20	
1,1,1-Trichloroethane	ND	0.50		ND	NR			20	
1,1,2,2-Tetrachloroethane	ND	0.50		ND	NR			20	
1,1,2-Trichloroethane	ND	0.50		ND	NR			20	
1,1-Dichloroethane	ND	0.50		ND	NR			20	
1,1-Dichloroethene	3.39000	0.50		3.86000	NR		13.0	20	
1,1-Dichloropropene	ND	0.50		ND	NR			20	
1,2,3-Trichloropropane	ND	0.50		ND	NR			20	
1,2,3-Trichlorobenzene	ND	0.50		ND	NR			20	
1,2,4-Trichlorobenzene	ND	0.50		ND	NR			20	
1,2,4-Trimethylbenzene	ND	0.50		ND	NR			20	
1,2-Dibromo-3-chloropropane	ND	0.50		ND	NR			20	
1,2-Dibromoethane	ND	0.50		ND	NR			20	
1,2-Dichlorobenzene	ND	0.50		ND	NR			20	
1,2-Dichloroethane	ND	0.50		ND	NR			20	
1,2-Dichloropropane	ND	0.50		ND	NR			20	
1,3,5-Trimethylbenzene	ND	0.50		ND	NR			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 B7B0064 - MSVOA_W (continued)

Duplicate (B7B0064-DUP1) - Continued

Source: 1700451-03

Prepared: 2/2/2017 Analyzed: 2/2/2017

1,3-Dichlorobenzene	ND	0.50		ND	NR			20	
1,3-Dichloropropane	ND	0.50		ND	NR			20	
1,4-Dichlorobenzene	ND	0.50		ND	NR			20	
2,2-Dichloropropane	ND	0.50		ND	NR			20	
2-Chlorotoluene	ND	0.50		ND	NR			20	
4-Chlorotoluene	ND	0.50		ND	NR			20	
4-Isopropyltoluene	ND	0.50		ND	NR			20	
Benzene	ND	0.50		ND	NR			20	
Bromobenzene	ND	0.50		ND	NR			20	
Bromodichloromethane	ND	0.50		ND	NR			20	
Bromoform	ND	0.50		ND	NR			20	
Bromomethane	ND	0.50		ND	NR			20	
Carbon tetrachloride	ND	0.50		ND	NR			20	
Chlorobenzene	ND	0.50		ND	NR			20	
Chloroethane	ND	0.50		ND	NR			20	
Chloroform	0.860000	0.50		0.870000	NR		1.16	20	
Chloromethane	ND	0.50		ND	NR			20	
cis-1,2-Dichloroethene	ND	0.50		ND	NR			20	
cis-1,3-Dichloropropene	ND	0.50		ND	NR			20	
Dibromochloromethane	ND	0.50		ND	NR			20	
Dibromomethane	ND	0.50		ND	NR			20	
Dichlorodifluoromethane	ND	0.50		ND	NR			20	
Ethylbenzene	ND	0.50		ND	NR			20	
Hexachlorobutadiene	ND	0.50		ND	NR			20	
Isopropylbenzene	ND	0.50		ND	NR			20	
m,p-Xylene	ND	1.0		ND	NR			20	
Methylene chloride	ND	1.0		ND	NR			20	
n-Butylbenzene	ND	0.50		ND	NR			20	
n-Propylbenzene	ND	0.50		ND	NR			20	
Naphthalene	ND	0.50		ND	NR			20	
o-Xylene	ND	0.50		ND	NR			20	
sec-Butylbenzene	ND	0.50		ND	NR			20	
Styrene	ND	0.50		ND	NR			20	
tert-Butylbenzene	ND	0.50		ND	NR			20	
Tetrachloroethene	ND	0.50		ND	NR			20	
Toluene	ND	0.50		ND	NR			20	
trans-1,2-Dichloroethene	ND	0.50		ND	NR			20	
Trichloroethene	13.9300	0.50		14.7000	NR		5.38	20	
Trichlorofluoromethane	ND	0.50		ND	NR			20	
Vinyl chloride	ND	0.50		ND	NR			20	

Surrogate: 1,2-Dichloroethane-d4

31.63

25.0000

127

51 - 157



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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 B7B0064 - MSVOA_W (continued)

Duplicate (B7B0064-DUP1) - Continued

Source: 1700451-03

Prepared: 2/2/2017 Analyzed: 2/2/2017

Surrogate: 4-Bromofluorobenzene	27.40	25.0000	110	61 - 123
Surrogate: Dibromofluoromethane	29.03	25.0000	116	57 - 147
Surrogate: Toluene-d8	26.02	25.0000	104	61 - 119



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Report To : Steve Netto

Reported : 02/03/2017

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 B7A0822 - MSSEMI_ISOTOPEDILN_W

Blank (B7A0822-BLK1)

Prepared: 1/27/2017 Analyzed: 1/27/2017

1,4-Dioxane	ND	2.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	57.95		100.000		58.0	42 - 106			
Surrogate: 2-Fluorobiphenyl	65.82		100.000		65.8	55 - 117			
Surrogate: 4-Terphenyl-d14	86.23		100.000		86.2	52 - 142			
Surrogate: Nitrobenzene-d5	73.75		100.000		73.8	43 - 116			

LCS (B7A0822-BS1)

Prepared: 1/27/2017 Analyzed: 1/27/2017

1,4-Dioxane	108.760	2.0	100.000		109	62 - 127			
Surrogate: 1,2-Dichlorobenzene-d4	61.71		100.000		61.7	42 - 106			
Surrogate: 2-Fluorobiphenyl	72.15		100.000		72.2	55 - 117			
Surrogate: 4-Terphenyl-d14	85.82		100.000		85.8	52 - 142			
Surrogate: Nitrobenzene-d5	79.85		100.000		79.8	43 - 116			

LCS Dup (B7A0822-BSD1)

Prepared: 1/27/2017 Analyzed: 1/27/2017

1,4-Dioxane	110.360	2.0	100.000		110	62 - 127	1.46	20	
Surrogate: 1,2-Dichlorobenzene-d4	57.87		100.000		57.9	42 - 106			
Surrogate: 2-Fluorobiphenyl	69.20		100.000		69.2	55 - 117			
Surrogate: 4-Terphenyl-d14	82.93		100.000		82.9	52 - 142			
Surrogate: Nitrobenzene-d5	77.60		100.000		77.6	43 - 116			



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Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/03/2017

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 B7A0820 - MSSEMI_W

Blank (B7A0820-BLK1)

Prepared: 1/27/2017 Analyzed: 1/27/2017

1,4-Dioxane	ND	0.20			NR				
Surrogate: 1,2-Dichlorobenzene-d4	0.7246		1.00000		72.5	31 - 106			
Surrogate: 2-Fluorobiphenyl	0.8275		1.00000		82.7	28 - 122			
Surrogate: 4-Terphenyl-d14	1.030		1.00000		103	43 - 131			
Surrogate: Nitrobenzene-d5	0.6022		1.00000		60.2	20 - 119			

LCS (B7A0820-BS1)

Prepared: 1/27/2017 Analyzed: 1/27/2017

1,4-Dioxane	0.841570	0.20	1.00000		84.2	49 - 169			
Surrogate: 1,2-Dichlorobenzene-d4	0.7344		1.00000		73.4	31 - 106			
Surrogate: 2-Fluorobiphenyl	0.8304		1.00000		83.0	28 - 122			
Surrogate: 4-Terphenyl-d14	0.8822		1.00000		88.2	43 - 131			
Surrogate: Nitrobenzene-d5	0.6246		1.00000		62.5	20 - 119			

LCS Dup (B7A0820-BSD1)

Prepared: 1/27/2017 Analyzed: 1/27/2017

1,4-Dioxane	0.873520	0.20	1.00000		87.4	49 - 169	3.73	20	
Surrogate: 1,2-Dichlorobenzene-d4	0.7450		1.00000		74.5	31 - 106			
Surrogate: 2-Fluorobiphenyl	0.8632		1.00000		86.3	28 - 122			
Surrogate: 4-Terphenyl-d14	0.9550		1.00000		95.5	43 - 131			
Surrogate: Nitrobenzene-d5	0.6302		1.00000		63.0	20 - 119			



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Report To : Steve Netto

Reported : 02/03/2017

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
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.

Date: 1/26/17
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PROJECT: Raytheon Main GETS Mid Month Sample

TASK NO.: 532.15

Project Manager Steve Netto

QA Manager Kevin Fong

Phone 858.455.6500

Fax 858.455.6533

Sampled By:

SAMPLE COLLECTION

LAB ID	SAMPLE ID	Date	Time	CONTAINERS										ANALYSIS REQUESTED										Expected Concentration Range (ppb) for				SPECIAL HANDLING				REMARKS				
				Groundwater	Lab prepared water	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Ice	40-ml VOA	125 mL Poly	250 mL Poly	250 mL Glass	1 L Poly	1L Amber	VOCs by EPA 8260B	Bromate by EPA 317	Bromide by EPA 300	Alkalinity by SM2320B	Total Organic Carbon by SM5310B	SM2540D	UV Absorption EPA 415.3 @ 254 nm	1,4-Dioxane by EPA 8270C MOD	1,4-Dioxane by EPA 8270 SIM	0 - 10	10 - 100	100 - 1,000	>1,000	24 hr TAT	48 Hour TAT	5 Day TAT		Level IV Data Validation Requested	MS/MSD Requested		
	TB-012617	1/26/2017	7:00	X	X			X	2					X									X													
KE	~~CBT~~		~~8:12~~	X	X			X	3				1	X								X	X													
KE	~~POX~~		~~8:18~~	X	X			X	3				1	X								X	X													
KE	~~CEFF~~		~~8:08~~	X	X			X	3				1	X								X	X													
KE	~~INF~~		~~8:30~~	X	X			X	3				1	X																						
KE	~~FW-02~~		~~8:15~~	X	X			X	3				1	X							X			X												
KE	~~MW-29~~		~~9:00~~	X	X			X	3				1	X							X			X												
	CBT	1/26/17	10:40	X	X			X	3				1	X								X	X													
	POX		10:45	X	X			X	3				1	X								X	X													
	CEFF		10:55	X	X			X	3				1	X								X	X													
	INF		10:52	X	X			X	3				1	X																						
	FW-02		11:25	X	X			X	3				1	X							X		X													
	MW-29		11:45	X	X			X	3				1	X							X		X													

Total number of containers per analysis:

20

6

Total No. of Containers: 26

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
<i>Kevin Fong HFA</i>	1/26/17 14:30	<i>Steve Netto</i>	1/26/17 14:30
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
<i>John Doe</i>	1/26/17 17:30	<i>John Doe</i>	1/26/17 17:30

- ☐ No. of containers correct
☐ Received in good condition
☐ Custody seals secure
☐ Conforms to COC document

Send Results to:

Steve Netto

9171 Towne Centre Drive

Suite 275

San Diego, CA 92122

Ph: 858.455.6500

snetto@hargis.com

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical 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.

2.1 °C Temperature on receipt



February 23, 2017

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
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1700508
Client Reference : Raytheon Main GETS Monthly Sample, 532.15

Enclosed are the results for sample(s) received on February 03, 2017 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 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 GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-020317	1700508-01	Lab prepared water	2/03/17 7:00	2/03/17 10:44
CBT	1700508-02	Groundwater	2/03/17 9:25	2/03/17 10:44
POX	1700508-03	Groundwater	2/03/17 9:35	2/03/17 10:44
CEFF	1700508-04	Groundwater	2/03/17 9:20	2/03/17 10:44
PF	1700508-05	Groundwater	2/03/17 9:44	2/03/17 10:44
INF	1700508-06	Groundwater	2/03/17 9:52	2/03/17 10:44
EW-02	1700508-07	Groundwater	2/03/17 10:10	2/03/17 10:44

CASE NARRATIVE

The samples for EPA 317 (Bromate) analysis were subcontracted to Exova, Inc. with ELAP Cert.# 2652.

Sample Receiving/General Comments:

The following analytes lists were taken from sample containers: Alkalinity - Hydroxide, Bicarbonate, Carbonate, and Total.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID TB-020317

Lab ID: 1700508-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,1,1-Trichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,1,2-Trichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,1-Dichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,1-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,1-Dichloropropene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,2,3-Trichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,2-Dibromoethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,2-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,2-Dichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,2-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,3-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,3-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
1,4-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
2,2-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
2-Chlorotoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
4-Chlorotoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
4-Isopropyltoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Benzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Bromobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Bromodichloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Bromoform	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Bromomethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Carbon tetrachloride	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Chlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Chloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Chloroform	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Chloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Dibromochloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID TB-020317

Lab ID: 1700508-01

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Dichlorodifluoromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Ethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Hexachlorobutadiene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Isopropylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
m,p-Xylene	ND	1.0	1	B7B0161	02/06/2017	02/06/17 12:42	
Methylene chloride	ND	1.0	1	B7B0161	02/06/2017	02/06/17 12:42	
n-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
n-Propylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Naphthalene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
o-Xylene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
sec-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Styrene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
tert-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Tetrachloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Toluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Trichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Trichlorofluoromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Vinyl chloride	ND	0.50	1	B7B0161	02/06/2017	02/06/17 12:42	
Surrogate: 1,2-Dichloroethane-d4	130 %	51 - 157		B7B0161	02/06/2017	02/06/17 12:42	
Surrogate: 4-Bromofluorobenzene	107 %	61 - 123		B7B0161	02/06/2017	02/06/17 12:42	
Surrogate: Dibromofluoromethane	119 %	57 - 147		B7B0161	02/06/2017	02/06/17 12:42	
Surrogate: Toluene-d8	107 %	61 - 119		B7B0161	02/06/2017	02/06/17 12:42	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID CBT

Lab ID: 1700508-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,1,1-Trichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,1,2-Trichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,1-Dichloroethane	0.51	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,1-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,1-Dichloropropene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,2,3-Trichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,2-Dibromoethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,2-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,2-Dichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,2-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,3-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,3-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
1,4-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
2,2-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
2-Chlorotoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
4-Chlorotoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
4-Isopropyltoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Benzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Bromobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Bromodichloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Bromoform	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Bromomethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Carbon tetrachloride	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Chlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Chloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Chloroform	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Chloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Dibromochloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID CBT

Lab ID: 1700508-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Dichlorodifluoromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Ethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Hexachlorobutadiene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Isopropylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
m,p-Xylene	ND	1.0	1	B7B0161	02/06/2017	02/06/17 14:37	
Methylene chloride	ND	1.0	1	B7B0161	02/06/2017	02/06/17 14:37	
n-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
n-Propylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Naphthalene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
o-Xylene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
sec-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Styrene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
tert-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Tetrachloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Toluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Trichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Trichlorofluoromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Vinyl chloride	ND	0.50	1	B7B0161	02/06/2017	02/06/17 14:37	
Surrogate: 1,2-Dichloroethane-d4	132 %	51 - 157		B7B0161	02/06/2017	02/06/17 14:37	
Surrogate: 4-Bromofluorobenzene	111 %	61 - 123		B7B0161	02/06/2017	02/06/17 14:37	
Surrogate: Dibromofluoromethane	118 %	57 - 147		B7B0161	02/06/2017	02/06/17 14:37	
Surrogate: Toluene-d8	106 %	61 - 119		B7B0161	02/06/2017	02/06/17 14:37	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID CBT

Lab ID: 1700508-02

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0212	02/07/2017	02/07/17 14:31	
Surrogate: 1,2-Dichlorobenzene-d4	79.1 %	31 - 106		B7B0212	02/07/2017	02/07/17 14:31	
Surrogate: 2-Fluorobiphenyl	86.7 %	28 - 122		B7B0212	02/07/2017	02/07/17 14:31	
Surrogate: 4-Terphenyl-d14	98.4 %	43 - 131		B7B0212	02/07/2017	02/07/17 14:31	
Surrogate: Nitrobenzene-d5	73.7 %	20 - 119		B7B0212	02/07/2017	02/07/17 14:31	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID POX

Lab ID: 1700508-03

Alkalinity, Speciated by SM 2320B

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO ₃)	180	5.0	1	B7B0285	02/08/2017	02/09/17 13:45	
Alkalinity, Carbonate (as CaCO ₃)	ND	5.0	1	B7B0285	02/08/2017	02/09/17 13:45	
Alkalinity, Hydroxide (as CaCO ₃)	ND	5.0	1	B7B0285	02/08/2017	02/09/17 13:45	
Alkalinity, Total (as CaCO ₃)	180	5.0	1	B7B0285	02/08/2017	02/09/17 13:45	

Total Organic Carbon by SM 5310B

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B7B0268	02/08/2017	02/08/17 12:48	

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,1,1-Trichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,1,2-Trichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,1-Dichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,1-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,1-Dichloropropene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,2,3-Trichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,2-Dibromoethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,2-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,2-Dichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,2-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,3-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,3-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
1,4-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
2,2-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
2-Chlorotoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID POX

Lab ID: 1700508-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4-Chlorotoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
4-Isopropyltoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Benzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Bromobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Bromodichloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Bromoform	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Bromomethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Carbon tetrachloride	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Chlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Chloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Chloroform	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Chloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Dibromochloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Dibromomethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Dichlorodifluoromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Ethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Hexachlorobutadiene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Isopropylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
m,p-Xylene	ND	1.0	1	B7B0161	02/06/2017	02/06/17 15:00	
Methylene chloride	ND	1.0	1	B7B0161	02/06/2017	02/06/17 15:00	
n-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
n-Propylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Naphthalene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
o-Xylene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
sec-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Styrene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
tert-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Tetrachloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Toluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Trichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Trichlorofluoromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	
Vinyl chloride	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:00	

Surrogate: 1,2-Dichloroethane-d4

134 %

51 - 157

B7B0161

02/06/2017

02/06/17 15:00

Surrogate: 4-Bromofluorobenzene

114 %

61 - 123

B7B0161

02/06/2017

02/06/17 15:00



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID POX

Lab ID: 1700508-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Dibromofluoromethane	124 %	57 - 147		B7B0161	02/06/2017	02/06/17 15:00	
Surrogate: Toluene-d8	109 %	61 - 119		B7B0161	02/06/2017	02/06/17 15:00	

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0212	02/07/2017	02/07/17 14:57	
Surrogate: 1,2-Dichlorobenzene-d4	76.0 %	31 - 106		B7B0212	02/07/2017	02/07/17 14:57	
Surrogate: 2-Fluorobiphenyl	86.0 %	28 - 122		B7B0212	02/07/2017	02/07/17 14:57	
Surrogate: 4-Terphenyl-d14	89.7 %	43 - 131		B7B0212	02/07/2017	02/07/17 14:57	
Surrogate: Nitrobenzene-d5	70.4 %	20 - 119		B7B0212	02/07/2017	02/07/17 14:57	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID CEFF

Lab ID: 1700508-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,1,1-Trichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,1,2-Trichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,1-Dichloroethane	0.58	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,1-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,1-Dichloropropene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,2,3-Trichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,2-Dibromoethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,2-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,2-Dichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,2-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,3-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,3-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
1,4-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
2,2-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
2-Chlorotoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
4-Chlorotoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
4-Isopropyltoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Benzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Bromobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Bromodichloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Bromoform	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Bromomethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Carbon tetrachloride	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Chlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Chloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Chloroform	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Chloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Dibromochloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID CEFF

Lab ID: 1700508-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Dichlorodifluoromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Ethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Hexachlorobutadiene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Isopropylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
m,p-Xylene	ND	1.0	1	B7B0161	02/06/2017	02/06/17 15:24	
Methylene chloride	ND	1.0	1	B7B0161	02/06/2017	02/06/17 15:24	
n-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
n-Propylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Naphthalene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
o-Xylene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
sec-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Styrene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
tert-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Tetrachloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Toluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Trichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Trichlorofluoromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Vinyl chloride	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:24	
Surrogate: 1,2-Dichloroethane-d4	134 %	51 - 157		B7B0161	02/06/2017	02/06/17 15:24	
Surrogate: 4-Bromofluorobenzene	110 %	61 - 123		B7B0161	02/06/2017	02/06/17 15:24	
Surrogate: Dibromofluoromethane	122 %	57 - 147		B7B0161	02/06/2017	02/06/17 15:24	
Surrogate: Toluene-d8	106 %	61 - 119		B7B0161	02/06/2017	02/06/17 15:24	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID CEFF

Lab ID: 1700508-04

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0212	02/07/2017	02/07/17 15:24	
Surrogate: 1,2-Dichlorobenzene-d4	77.2 %	31 - 106		B7B0212	02/07/2017	02/07/17 15:24	
Surrogate: 2-Fluorobiphenyl	91.5 %	28 - 122		B7B0212	02/07/2017	02/07/17 15:24	
Surrogate: 4-Terphenyl-d14	111 %	43 - 131		B7B0212	02/07/2017	02/07/17 15:24	
Surrogate: Nitrobenzene-d5	72.8 %	20 - 119		B7B0212	02/07/2017	02/07/17 15:24	



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Project Number : Raytheon Main GETS Monthly Sample, 5

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Reported : 02/23/2017

Client Sample ID PF

Lab ID: 1700508-05

UV Absorption by EPA 415.3

Analyst: BL

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B7B0134	02/03/2017	02/03/17 15:22	

Alkalinity, Speciated by SM 2320B

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO ₃)	190	5.0	1	B7B0285	02/08/2017	02/09/17 13:45	
Alkalinity, Carbonate (as CaCO ₃)	ND	5.0	1	B7B0285	02/08/2017	02/09/17 13:45	
Alkalinity, Hydroxide (as CaCO ₃)	ND	5.0	1	B7B0285	02/08/2017	02/09/17 13:45	
Alkalinity, Total (as CaCO ₃)	190	5.0	1	B7B0285	02/08/2017	02/09/17 13:45	

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D

Analyst: JL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Suspended	ND	1.1	1	B7B0227	02/07/2017	02/07/17 14:56	

Total Organic Carbon by SM 5310B

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B7B0268	02/08/2017	02/08/17 13:04	



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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID INF

Lab ID: 1700508-06

Bromide by Ion Chromatography EPA 300

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.42	0.05	1	B7B0282	02/03/2017	02/03/17 16:53	

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,1,1-Trichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,1,2-Trichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,1-Dichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,1-Dichloroethene	15	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,1-Dichloropropene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,2,3-Trichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,2-Dibromoethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,2-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,2-Dichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,2-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,3-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,3-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
1,4-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
2,2-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
2-Chlorotoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
4-Chlorotoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
4-Isopropyltoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Benzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Bromobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Bromodichloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Bromoform	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Bromomethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Carbon tetrachloride	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Chlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	



Certificate of Analysis

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Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID INF

Lab ID: 1700508-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Chloroform	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Chloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Dibromochloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Dibromomethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Dichlorodifluoromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Ethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Hexachlorobutadiene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Isopropylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
m,p-Xylene	ND	1.0	1	B7B0161	02/06/2017	02/06/17 15:47	
Methylene chloride	ND	1.0	1	B7B0161	02/06/2017	02/06/17 15:47	
n-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
n-Propylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Naphthalene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
o-Xylene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
sec-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Styrene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
tert-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Tetrachloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Toluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Trichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Trichlorofluoromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
Vinyl chloride	ND	0.50	1	B7B0161	02/06/2017	02/06/17 15:47	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>135 %</i>	<i>51 - 157</i>		B7B0161	02/06/2017	<i>02/06/17 15:47</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>109 %</i>	<i>61 - 123</i>		B7B0161	02/06/2017	<i>02/06/17 15:47</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>121 %</i>	<i>57 - 147</i>		B7B0161	02/06/2017	<i>02/06/17 15:47</i>	
<i>Surrogate: Toluene-d8</i>	<i>107 %</i>	<i>61 - 119</i>		B7B0161	02/06/2017	<i>02/06/17 15:47</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID INF

Lab ID: 1700508-06

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	3.3	2.0	1	B7B0214	02/07/2017	02/07/17 18:35	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>43.4 %</i>	<i>17 - 101</i>		<i>B7B0214</i>	<i>02/07/2017</i>	<i>02/07/17 18:35</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>50.6 %</i>	<i>29 - 109</i>		<i>B7B0214</i>	<i>02/07/2017</i>	<i>02/07/17 18:35</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>78.6 %</i>	<i>49 - 122</i>		<i>B7B0214</i>	<i>02/07/2017</i>	<i>02/07/17 18:35</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>59.6 %</i>	<i>19 - 111</i>		<i>B7B0214</i>	<i>02/07/2017</i>	<i>02/07/17 18:35</i>	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID EW-02

Lab ID: 1700508-07

Bromide by Ion Chromatography EPA 300

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.42	0.05	1	B7B0282	02/03/2017	02/03/17 17:05	

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,1,1-Trichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,1,2-Trichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,1-Dichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,1-Dichloroethene	16	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,1-Dichloropropene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,2,3-Trichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,2-Dibromoethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,2-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,2-Dichloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,2-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,3-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,3-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
1,4-Dichlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
2,2-Dichloropropane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
2-Chlorotoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
4-Chlorotoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
4-Isopropyltoluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Benzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Bromobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Bromodichloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Bromoform	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Bromomethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Carbon tetrachloride	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Chlorobenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID EW-02

Lab ID: 1700508-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Chloroform	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Chloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Dibromochloromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Dibromomethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Dichlorodifluoromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Ethylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Hexachlorobutadiene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Isopropylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
m,p-Xylene	ND	1.0	1	B7B0161	02/06/2017	02/06/17 16:10	
Methylene chloride	ND	1.0	1	B7B0161	02/06/2017	02/06/17 16:10	
n-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
n-Propylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Naphthalene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
o-Xylene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
sec-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Styrene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
tert-Butylbenzene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Tetrachloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Toluene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Trichloroethene	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Trichlorofluoromethane	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Vinyl chloride	ND	0.50	1	B7B0161	02/06/2017	02/06/17 16:10	
Surrogate: 1,2-Dichloroethane-d4	136 %	51 - 157		B7B0161	02/06/2017	02/06/17 16:10	
Surrogate: 4-Bromofluorobenzene	110 %	61 - 123		B7B0161	02/06/2017	02/06/17 16:10	
Surrogate: Dibromofluoromethane	122 %	57 - 147		B7B0161	02/06/2017	02/06/17 16:10	
Surrogate: Toluene-d8	108 %	61 - 119		B7B0161	02/06/2017	02/06/17 16:10	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID EW-02

Lab ID: 1700508-07

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	4.5	2.0	1	B7B0214	02/07/2017	02/07/17 19:02	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>44.3 %</i>	<i>17 - 101</i>		<i>B7B0214</i>	<i>02/07/2017</i>	<i>02/07/17 19:02</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>52.9 %</i>	<i>29 - 109</i>		<i>B7B0214</i>	<i>02/07/2017</i>	<i>02/07/17 19:02</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>81.8 %</i>	<i>49 - 122</i>		<i>B7B0214</i>	<i>02/07/2017</i>	<i>02/07/17 19:02</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>61.4 %</i>	<i>19 - 111</i>		<i>B7B0214</i>	<i>02/07/2017</i>	<i>02/07/17 19:02</i>	



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San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

QUALITY CONTROL SECTION

Alkalinity, Speciated by SM 2320B - Quality Control

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

Batch B7B0285 - No_Prep_WC1_W

Blank (B7B0285-BLK1)

Prepared: 2/8/2017 Analyzed: 2/9/2017

Alkalinity, Bicarbonate (as CaCO ₃)	ND	5.0	1.5			NR		NR		
Alkalinity, Carbonate (as CaCO ₃)	ND	5.0	1.5			NR				
Alkalinity, Hydroxide (as CaCO ₃)	ND	5.0	1.5			NR				
Alkalinity, Total (as CaCO ₃)	ND	5.0	1.5			NR			NR	

LCS (B7B0285-BS1)

Prepared: 2/8/2017 Analyzed: 2/9/2017

Alkalinity, Total (as CaCO ₃)	90.5800	5.0	1.5	99.9580		90.6	80 - 120	NR		

Matrix Spike (B7B0285-MS1)

Source: 1700508-03

Prepared: 2/8/2017 Analyzed: 2/9/2017

Alkalinity, Total (as CaCO ₃)	369.570	10	2.9	199.916	184.780	92.4	80 - 120	NR		

Matrix Spike Dup (B7B0285-MSD1)

Source: 1700508-03

Prepared: 2/8/2017 Analyzed: 2/9/2017

Alkalinity, Total (as CaCO ₃)	373.190	10	2.9	199.916	184.780	94.2	80 - 120	0.975	20	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D - Quality Control

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

Batch B7B0227 - No_Prep_WC1_W

Blank (B7B0227-BLK1)

Prepared: 2/7/2017 Analyzed: 2/7/2017

Residue, Suspended	ND	1.0	1.0			NR		NR	

LCS (B7B0227-BS1)

Prepared: 2/7/2017 Analyzed: 2/7/2017

Residue, Suspended	96.0000	10	10	92.1000		104	80 - 120	NR	

Duplicate (B7B0227-DUP1)

Source: 1700514-02

Prepared: 2/7/2017 Analyzed: 2/7/2017

Residue, Suspended	23.0000	10	10		23.0000	NR		0.00	10



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San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Bromide by Ion Chromatography EPA 300 - Quality Control

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

Batch B7B0282 - No_Prep_IC1_W

Blank (B7B0282-BLK1)

Prepared: 2/3/2017 Analyzed: 2/3/2017

Bromide	ND	0.05	0.02			NR			

LCS (B7B0282-BS1)

Prepared: 2/3/2017 Analyzed: 2/3/2017

Bromide	1.07380	0.05	0.02	1.00000		107	90 - 110	NR	

Duplicate (B7B0282-DUP1)

Source: 1700507-01

Prepared: 2/3/2017 Analyzed: 2/3/2017

Bromide	ND	0.05	0.02		ND	NR			20

Matrix Spike (B7B0282-MS1)

Source: 1700507-01

Prepared: 2/3/2017 Analyzed: 2/3/2017

Bromide	2.57800			2.50000	0.00000	103	80 - 120	NR	

Matrix Spike Dup (B7B0282-MSD1)

Source: 1700507-01

Prepared: 2/3/2017 Analyzed: 2/3/2017

Bromide	2.57120			2.50000	0.00000	103	80 - 120	0.264	20



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San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

UV Absorption by EPA 415.3 - Quality Control

Analyte	Result (1/cm)	PQL (1/cm)	MDL (1/cm)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B7B0134 - No_Prep_II_W

Blank (B7B0134-BLK1)

Prepared: 2/3/2017 Analyzed: 2/3/2017

UV Absorption	ND	0.01	0.01			NR		NR	

Duplicate (B7B0134-DUP1)

Source: 1700508-05

Prepared: 2/3/2017 Analyzed: 2/3/2017

UV Absorption	ND	0.01	0.01		ND	NR		NR	20



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San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Total Organic Carbon by SM 5310B - Quality Control

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

Batch B7B0268 - No_Prep_II_W

Blank (B7B0268-BLK1)

Prepared: 2/8/2017 Analyzed: 2/8/2017

Organic Carbon, Total	ND	3.0	0.13			NR		NR	

LCS (B7B0268-BS1)

Prepared: 2/8/2017 Analyzed: 2/8/2017

Organic Carbon, Total	19.6800	3.0	0.13	20.0000		98.4	80 - 120	NR	

LCS Dup (B7B0268-BSD1)

Prepared: 2/8/2017 Analyzed: 2/8/2017

Organic Carbon, Total	20.1500	3.0	0.13	20.0000		101	80 - 120	2.36	20



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San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

Volatile Organic Compounds by EPA 8260B - Quality Control

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

Batch B7B0161 - MSVOA_LL_W

Blank (B7B0161-BLK1)

Prepared: 2/6/2017 Analyzed: 2/6/2017

1,1,1,2-Tetrachloroethane	ND	0.50	0.18			NR				
1,1,1-Trichloroethane	ND	0.50	0.47			NR				
1,1,2,2-Tetrachloroethane	ND	0.50	0.17			NR				
1,1,2-Trichloroethane	ND	0.50	0.12			NR				
1,1-Dichloroethane	ND	0.50	0.16			NR				
1,1-Dichloroethene	ND	0.50	0.18			NR				
1,1-Dichloropropene	ND	0.50	0.30			NR				
1,2,3-Trichloropropane	ND	0.50	0.16			NR				
1,2,3-Trichlorobenzene	ND	0.50	0.20			NR				
1,2,4-Trichlorobenzene	ND	0.50	0.26			NR				
1,2,4-Trimethylbenzene	ND	0.50	0.23			NR				
1,2-Dibromo-3-chloropropane	ND	0.50	0.26			NR				
1,2-Dibromoethane	ND	0.50	0.15			NR				
1,2-Dichlorobenzene	ND	0.50	0.21			NR				
1,2-Dichloroethane	ND	0.50	0.15			NR				
1,2-Dichloropropane	ND	0.50	0.35			NR				
1,3,5-Trimethylbenzene	ND	0.50	0.19			NR				
1,3-Dichlorobenzene	ND	0.50	0.23			NR				
1,3-Dichloropropane	ND	0.50	0.15			NR				
1,4-Dichlorobenzene	ND	0.50	0.23			NR				
2,2-Dichloropropane	ND	0.50	0.35			NR				
2-Chlorotoluene	ND	0.50	0.25			NR				
4-Chlorotoluene	ND	0.50	0.24			NR				
4-Isopropyltoluene	ND	0.50	0.24			NR				
Benzene	ND	0.50	0.19			NR				
Bromobenzene	ND	0.50	0.19			NR				
Bromodichloromethane	ND	0.50	0.17			NR				
Bromoform	ND	0.50	0.10			NR				
Bromomethane	ND	0.50	0.28			NR				
Carbon tetrachloride	ND	0.50	0.21			NR				
Chlorobenzene	ND	0.50	0.22			NR				
Chloroethane	ND	0.50	0.17			NR				
Chloroform	ND	0.50	0.19			NR				
Chloromethane	ND	0.50	0.23			NR				
cis-1,2-Dichloroethene	ND	0.50	0.19			NR				
cis-1,3-Dichloropropene	ND	0.50	0.20			NR				
Dibromochloromethane	ND	0.50	0.13			NR				
Dibromomethane	ND	0.50	0.14			NR				
Dichlorodifluoromethane	ND	0.50	0.31			NR				
Ethylbenzene	ND	0.50	0.23			NR				
Hexachlorobutadiene	ND	0.50	0.34			NR				



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

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

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

Batch B7B0161 - MSVOA_LL_W (continued)

Blank (B7B0161-BLK1) - Continued

Prepared: 2/6/2017 Analyzed: 2/6/2017

Isopropylbenzene	ND	0.50	0.23			NR			
m,p-Xylene	ND	1.0	0.45			NR			
Methylene chloride	ND	1.0	0.30			NR			
n-Butylbenzene	ND	0.50	0.31			NR			
n-Propylbenzene	ND	0.50	0.24			NR			
Naphthalene	ND	0.50	0.21			NR			
o-Xylene	ND	0.50	0.20			NR			
sec-Butylbenzene	ND	0.50	0.25			NR			
Styrene	ND	0.50	0.20			NR			
tert-Butylbenzene	ND	0.50	0.22			NR			
Tetrachloroethene	ND	0.50	0.24			NR			
Toluene	ND	0.50	0.20			NR			
trans-1,2-Dichloroethene	ND	0.50	0.21			NR			
Trichloroethene	ND	0.50	0.47			NR			
Trichlorofluoromethane	ND	0.50	0.23			NR			
Vinyl chloride	ND	0.50	0.19			NR			

Surrogate: 1,2-Dichloroethane-d4

32.21

25.0000

129

51 - 157

Surrogate: 4-Bromofluorobenzene

27.22

25.0000

109

61 - 123

Surrogate: Dibromofluoromethane

29.60

25.0000

118

57 - 147

Surrogate: Toluene-d8

27.27

25.0000

109

61 - 119

LCS (B7B0161-BS1)

Prepared: 2/6/2017 Analyzed: 2/6/2017

1,1,1,2-Tetrachloroethane	19.2700	0.50	0.18	20.0000		96.4	76 - 132	NR	
1,1,1-Trichloroethane	19.7500	0.50	0.47	20.0000		98.8	72 - 144	NR	
1,1,2,2-Tetrachloroethane	15.8000	0.50	0.17	20.0000		79.0	70 - 120	NR	
1,1,2-Trichloroethane	16.9800	0.50	0.12	20.0000		84.9	75 - 120	NR	
1,1-Dichloroethane	19.5600	0.50	0.16	20.0000		97.8	65 - 127	NR	
1,1-Dichloroethene	19.5800	0.50	0.18	20.0000		97.9	63 - 142	NR	
1,1-Dichloropropene	19.3800	0.50	0.30	20.0000		96.9	78 - 137	NR	
1,2,3-Trichloropropane	16.3400	0.50	0.16	20.0000		81.7	73 - 118	NR	
1,2,3-Trichlorobenzene	17.7200	0.50	0.20	20.0000		88.6	53 - 164	NR	
1,2,4-Trichlorobenzene	18.1000	0.50	0.26	20.0000		90.5	58 - 144	NR	
1,2,4-Trimethylbenzene	18.6300	0.50	0.23	20.0000		93.2	75 - 140	NR	
1,2-Dibromo-3-chloropropane	14.9000	0.50	0.26	20.0000		74.5	61 - 131	NR	
1,2-Dibromoethane	17.0200	0.50	0.15	20.0000		85.1	74 - 125	NR	
1,2-Dichlorobenzene	17.8300	0.50	0.21	20.0000		89.2	78 - 122	NR	
1,2-Dichloroethane	19.9200	0.50	0.15	20.0000		99.6	70 - 126	NR	
1,2-Dichloropropane	17.7800	0.50	0.35	20.0000		88.9	69 - 120	NR	
1,3,5-Trimethylbenzene	18.6800	0.50	0.19	20.0000		93.4	73 - 145	NR	
1,3-Dichlorobenzene	18.1300	0.50	0.23	20.0000		90.6	76 - 126	NR	
1,3-Dichloropropane	17.7200	0.50	0.15	20.0000		88.6	76 - 117	NR	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

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

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

Batch B7B0161 - MSVOA_LL_W (continued)

LCS (B7B0161-BS1) - Continued

Prepared: 2/6/2017 Analyzed: 2/6/2017

1,4-Dichlorobenzene	18.2100	0.50	0.23	20.0000		91.0	77 - 120	NR		
2,2-Dichloropropane	19.7500	0.50	0.35	20.0000		98.8	47 - 169	NR		
2-Chlorotoluene	17.6600	0.50	0.25	20.0000		88.3	75 - 135	NR		
4-Chlorotoluene	18.0700	0.50	0.24	20.0000		90.4	70 - 133	NR		
4-Isopropyltoluene	19.3900	0.50	0.24	20.0000		97.0	72 - 153	NR		
Benzene	36.2500	0.50	0.19	40.0000		90.6	73 - 123	NR		
Bromobenzene	18.0600	0.50	0.19	20.0000		90.3	75 - 121	NR		
Bromodichloromethane	19.4500	0.50	0.17	20.0000		97.2	73 - 124	NR		
Bromoform	16.9600	0.50	0.10	20.0000		84.8	70 - 135	NR		
Bromomethane	26.4200	0.50	0.28	20.0000		132	10 - 166	NR		
Carbon tetrachloride	21.5900	0.50	0.21	20.0000		108	65 - 171	NR		
Chlorobenzene	17.6900	0.50	0.22	20.0000		88.4	80 - 121	NR		
Chloroethane	18.2400	0.50	0.17	20.0000		91.2	55 - 143	NR		
Chloroform	19.1100	0.50	0.19	20.0000		95.6	65 - 130	NR		
Chloromethane	18.5800	0.50	0.23	20.0000		92.9	21 - 141	NR		
cis-1,2-Dichloroethene	17.0400	0.50	0.19	20.0000		85.2	64 - 126	NR		
cis-1,3-Dichloropropene	19.1000	0.50	0.20	20.0000		95.5	70 - 131	NR		
Dibromochloromethane	17.9600	0.50	0.13	20.0000		89.8	74 - 125	NR		
Dibromomethane	17.7400	0.50	0.14	20.0000		88.7	74 - 116	NR		
Dichlorodifluoromethane	16.0800	0.50	0.31	20.0000		80.4	40 - 186	NR		
Ethylbenzene	35.8400	0.50	0.23	40.0000		89.6	77 - 130	NR		
Hexachlorobutadiene	19.6600	0.50	0.34	20.0000		98.3	52 - 176	NR		
Isopropylbenzene	19.0800	0.50	0.23	20.0000		95.4	77 - 144	NR		
m,p-Xylene	38.0800	1.0	0.45	40.0000		95.2	84 - 136	NR		
Methylene chloride	16.2900	1.0	0.30	20.0000		81.4	72 - 150	NR		
n-Butylbenzene	19.3400	0.50	0.31	20.0000		96.7	73 - 154	NR		
n-Propylbenzene	18.3200	0.50	0.24	20.0000		91.6	77 - 145	NR		
Naphthalene	15.5700	0.50	0.21	20.0000		77.8	55 - 137	NR		
o-Xylene	37.0700	0.50	0.20	40.0000		92.7	79 - 135	NR		
sec-Butylbenzene	18.7300	0.50	0.25	20.0000		93.6	73 - 157	NR		
Styrene	17.8300	0.50	0.20	20.0000		89.2	78 - 125	NR		
tert-Butylbenzene	18.5100	0.50	0.22	20.0000		92.6	78 - 149	NR		
Tetrachloroethene	18.6400	0.50	0.24	20.0000		93.2	74 - 136	NR		
Toluene	35.6000	0.50	0.20	40.0000		89.0	78 - 124	NR		
trans-1,2-Dichloroethene	17.6100	0.50	0.21	20.0000		88.0	66 - 131	NR		
Trichloroethene	17.4900	0.50	0.47	20.0000		87.4	78 - 128	NR		
Trichlorofluoromethane	22.9000	0.50	0.23	20.0000		114	60 - 170	NR		
Vinyl chloride	17.7100	0.50	0.19	20.0000		88.6	55 - 148	NR		
Surrogate: 1,2-Dichloroethane-d4	30.24			25.0000		121	51 - 157			
Surrogate: 4-Bromofluorobenzene	27.46			25.0000		110	61 - 123			
Surrogate: Dibromofluoromethane	27.16			25.0000		109	57 - 147			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

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 B7B0161 - MSVOA_LL_W (continued)

LCS (B7B0161-BS1) - Continued

Prepared: 2/6/2017 Analyzed: 2/6/2017

Surrogate: Toluene-d8 27.97 25.0000 112 61 - 119

LCS Dup (B7B0161-BS1)

Prepared: 2/6/2017 Analyzed: 2/6/2017

1,1,1,2-Tetrachloroethane	18.3800	0.50	0.18	20.0000	91.9	76 - 132	4.73	20	
1,1,1-Trichloroethane	19.0800	0.50	0.47	20.0000	95.4	72 - 144	3.45	20	
1,1,2,2-Tetrachloroethane	15.2800	0.50	0.17	20.0000	76.4	70 - 120	3.35	20	
1,1,2-Trichloroethane	16.4400	0.50	0.12	20.0000	82.2	75 - 120	3.23	20	
1,1-Dichloroethane	18.7500	0.50	0.16	20.0000	93.8	65 - 127	4.23	20	
1,1-Dichloroethene	18.6700	0.50	0.18	20.0000	93.4	63 - 142	4.76	20	
1,1-Dichloropropene	18.4600	0.50	0.30	20.0000	92.3	78 - 137	4.86	20	
1,2,3-Trichloropropane	15.5200	0.50	0.16	20.0000	77.6	73 - 118	5.15	20	
1,2,3-Trichlorobenzene	17.1600	0.50	0.20	20.0000	85.8	53 - 164	3.21	20	
1,2,4-Trichlorobenzene	18.0300	0.50	0.26	20.0000	90.2	58 - 144	0.387	20	
1,2,4-Trimethylbenzene	18.7800	0.50	0.23	20.0000	93.9	75 - 140	0.802	20	
1,2-Dibromo-3-chloropropane	13.9100	0.50	0.26	20.0000	69.6	61 - 131	6.87	20	
1,2-Dibromoethane	16.0600	0.50	0.15	20.0000	80.3	74 - 125	5.80	20	
1,2-Dichlorobenzene	17.6800	0.50	0.21	20.0000	88.4	78 - 122	0.845	20	
1,2-Dichloroethane	19.2000	0.50	0.15	20.0000	96.0	70 - 126	3.68	20	
1,2-Dichloropropane	16.9200	0.50	0.35	20.0000	84.6	69 - 120	4.96	20	
1,3,5-Trimethylbenzene	18.7200	0.50	0.19	20.0000	93.6	73 - 145	0.214	20	
1,3-Dichlorobenzene	18.0700	0.50	0.23	20.0000	90.4	76 - 126	0.331	20	
1,3-Dichloropropane	16.0600	0.50	0.15	20.0000	80.3	76 - 117	9.83	20	
1,4-Dichlorobenzene	18.1600	0.50	0.23	20.0000	90.8	77 - 120	0.275	20	
2,2-Dichloropropane	18.8800	0.50	0.35	20.0000	94.4	47 - 169	4.50	20	
2-Chlorotoluene	18.0300	0.50	0.25	20.0000	90.2	75 - 135	2.07	20	
4-Chlorotoluene	18.1000	0.50	0.24	20.0000	90.5	70 - 133	0.166	20	
4-Isopropyltoluene	19.4200	0.50	0.24	20.0000	97.1	72 - 153	0.155	20	
Benzene	34.6900	0.50	0.19	40.0000	86.7	73 - 123	4.40	20	
Bromobenzene	17.9100	0.50	0.19	20.0000	89.6	75 - 121	0.834	20	
Bromodichloromethane	18.3400	0.50	0.17	20.0000	91.7	73 - 124	5.87	20	
Bromoform	15.7500	0.50	0.10	20.0000	78.8	70 - 135	7.40	20	
Bromomethane	26.2000	0.50	0.28	20.0000	131	10 - 166	0.836	20	
Carbon tetrachloride	20.9900	0.50	0.21	20.0000	105	65 - 171	2.82	20	
Chlorobenzene	16.7800	0.50	0.22	20.0000	83.9	80 - 121	5.28	20	
Chloroethane	18.0300	0.50	0.17	20.0000	90.2	55 - 143	1.16	20	
Chloroform	18.9000	0.50	0.19	20.0000	94.5	65 - 130	1.10	20	
Chloromethane	17.9500	0.50	0.23	20.0000	89.8	21 - 141	3.45	20	
cis-1,2-Dichloroethene	17.0000	0.50	0.19	20.0000	85.0	64 - 126	0.235	20	
cis-1,3-Dichloropropene	18.4300	0.50	0.20	20.0000	92.2	70 - 131	3.57	20	
Dibromochloromethane	16.8500	0.50	0.13	20.0000	84.2	74 - 125	6.38	20	
Dibromomethane	17.1700	0.50	0.14	20.0000	85.8	74 - 116	3.27	20	
Dichlorodifluoromethane	16.0600	0.50	0.31	20.0000	80.3	40 - 186	0.124	20	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

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

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

Batch B7B0161 - MSVOA_LL_W (continued)

LCS Dup (B7B0161-BSD1) - Continued

Prepared: 2/6/2017 Analyzed: 2/6/2017

Ethylbenzene	34.8400	0.50	0.23	40.0000		87.1	77 - 130	2.83	20
Hexachlorobutadiene	19.7800	0.50	0.34	20.0000		98.9	52 - 176	0.609	20
Isopropylbenzene	19.4000	0.50	0.23	20.0000		97.0	77 - 144	1.66	20
m,p-Xylene	36.2400	1.0	0.45	40.0000		90.6	84 - 136	4.95	20
Methylene chloride	16.3600	1.0	0.30	20.0000		81.8	72 - 150	0.429	20
n-Butylbenzene	19.3500	0.50	0.31	20.0000		96.8	73 - 154	0.0517	20
n-Propylbenzene	18.5800	0.50	0.24	20.0000		92.9	77 - 145	1.41	20
Naphthalene	15.4600	0.50	0.21	20.0000		77.3	55 - 137	0.709	20
o-Xylene	35.5200	0.50	0.20	40.0000		88.8	79 - 135	4.27	20
sec-Butylbenzene	18.9200	0.50	0.25	20.0000		94.6	73 - 157	1.01	20
Styrene	17.1100	0.50	0.20	20.0000		85.6	78 - 125	4.12	20
tert-Butylbenzene	18.5200	0.50	0.22	20.0000		92.6	78 - 149	0.0540	20
Tetrachloroethene	17.7900	0.50	0.24	20.0000		89.0	74 - 136	4.67	20
Toluene	34.9700	0.50	0.20	40.0000		87.4	78 - 124	1.79	20
trans-1,2-Dichloroethene	17.3700	0.50	0.21	20.0000		86.8	66 - 131	1.37	20
Trichloroethene	17.0000	0.50	0.47	20.0000		85.0	78 - 128	2.84	20
Trichlorofluoromethane	22.4000	0.50	0.23	20.0000		112	60 - 170	2.21	20
Vinyl chloride	17.6300	0.50	0.19	20.0000		88.2	55 - 148	0.453	20
Surrogate: 1,2-Dichloroethane-d4	30.22			25.0000		121	51 - 157		
Surrogate: 4-Bromofluorobenzene	26.82			25.0000		107	61 - 123		
Surrogate: Dibromofluoromethane	27.63			25.0000		111	57 - 147		
Surrogate: Toluene-d8	27.52			25.0000		110	61 - 119		

Duplicate (B7B0161-DUP1)

Source: 1700452-06

Prepared: 2/6/2017 Analyzed: 2/6/2017

1,1,1,2-Tetrachloroethane	ND	0.50	0.18		ND	NR			20
1,1,1-Trichloroethane	ND	0.50	0.47		ND	NR			20
1,1,2,2-Tetrachloroethane	ND	0.50	0.17		ND	NR			20
1,1,2-Trichloroethane	ND	0.50	0.12		ND	NR			20
1,1-Dichloroethane	ND	0.50	0.16		ND	NR			20
1,1-Dichloroethene	ND	0.50	0.18		ND	NR			20
1,1-Dichloropropene	ND	0.50	0.30		ND	NR			20
1,2,3-Trichloropropane	ND	0.50	0.16		ND	NR			20
1,2,3-Trichlorobenzene	ND	0.50	0.20		ND	NR			20
1,2,4-Trichlorobenzene	ND	0.50	0.26		ND	NR			20
1,2,4-Trimethylbenzene	ND	0.50	0.23		ND	NR			20
1,2-Dibromo-3-chloropropane	ND	0.50	0.26		ND	NR			20
1,2-Dibromoethane	ND	0.50	0.15		ND	NR			20
1,2-Dichlorobenzene	ND	0.50	0.21		ND	NR			20
1,2-Dichloroethane	ND	0.50	0.15		ND	NR			20
1,2-Dichloropropane	ND	0.50	0.35		ND	NR			20
1,3,5-Trimethylbenzene	ND	0.50	0.19		ND	NR			20



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

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

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

Batch B7B0161 - MSVOA_LL_W (continued)

Duplicate (B7B0161-DUP1) - Continued

Source: 1700452-06

Prepared: 2/6/2017 Analyzed: 2/6/2017

1,3-Dichlorobenzene	ND	0.50	0.23		ND	NR			20	
1,3-Dichloropropane	ND	0.50	0.15		ND	NR			20	
1,4-Dichlorobenzene	ND	0.50	0.23		ND	NR			20	
2,2-Dichloropropane	ND	0.50	0.35		ND	NR			20	
2-Chlorotoluene	ND	0.50	0.25		ND	NR			20	
4-Chlorotoluene	ND	0.50	0.24		ND	NR			20	
4-Isopropyltoluene	ND	0.50	0.24		ND	NR			20	
Benzene	ND	0.50	0.19		ND	NR			20	
Bromobenzene	ND	0.50	0.19		ND	NR			20	
Bromodichloromethane	ND	0.50	0.17		ND	NR			20	
Bromoform	ND	0.50	0.10		ND	NR			20	
Bromomethane	ND	0.50	0.28		ND	NR			20	
Carbon tetrachloride	6.28000	0.50	0.21		7.04000	NR		11.4	20	
Chlorobenzene	ND	0.50	0.22		ND	NR			20	
Chloroethane	ND	0.50	0.17		ND	NR			20	
Chloroform	3.71000	0.50	0.19		4.10000	NR		9.99	20	
Chloromethane	ND	0.50	0.23		ND	NR			20	
cis-1,2-Dichloroethene	ND	0.50	0.19		ND	NR			20	
cis-1,3-Dichloropropene	ND	0.50	0.20		ND	NR			20	
Dibromochloromethane	ND	0.50	0.13		ND	NR			20	
Dibromomethane	ND	0.50	0.14		ND	NR			20	
Dichlorodifluoromethane	ND	0.50	0.31		ND	NR			20	
Ethylbenzene	ND	0.50	0.23		ND	NR			20	
Hexachlorobutadiene	ND	0.50	0.34		ND	NR			20	
Isopropylbenzene	ND	0.50	0.23		ND	NR			20	
m,p-Xylene	ND	1.0	0.45		ND	NR			20	
Methylene chloride	ND	1.0	0.30		ND	NR			20	
n-Butylbenzene	ND	0.50	0.31		ND	NR			20	
n-Propylbenzene	ND	0.50	0.24		ND	NR			20	
Naphthalene	ND	0.50	0.21		ND	NR			20	
o-Xylene	ND	0.50	0.20		ND	NR			20	
sec-Butylbenzene	ND	0.50	0.25		ND	NR			20	
Styrene	ND	0.50	0.20		ND	NR			20	
tert-Butylbenzene	ND	0.50	0.22		ND	NR			20	
Tetrachloroethene	ND	0.50	0.24		ND	NR			20	
Toluene	ND	0.50	0.20		ND	NR			20	
trans-1,2-Dichloroethene	ND	0.50	0.21		ND	NR			20	
Trichloroethene	ND	0.50	0.47		ND	NR			20	
Trichlorofluoromethane	ND	0.50	0.23		ND	NR			20	
Vinyl chloride	ND	0.50	0.19		ND	NR			20	

Surrogate: 1,2-Dichloroethane-d4

33.23

25.0000

133

51 - 157



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

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 B7B0161 - MSVOA_LL_W (continued)

Duplicate (B7B0161-DUP1) - Continued

Source: 1700452-06

Prepared: 2/6/2017 Analyzed: 2/6/2017

Surrogate: 4-Bromofluorobenzene	27.39	25.0000	110	61 - 123
Surrogate: Dibromofluoromethane	30.71	25.0000	123	57 - 147
Surrogate: Toluene-d8	26.94	25.0000	108	61 - 119



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

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

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

Batch B7B0214 - MSSEMI_ISOTOPEDILN_W

Blank (B7B0214-BLK1)

Prepared: 2/7/2017 Analyzed: 2/7/2017

1,4-Dioxane	ND	2.0	0.84			NR			
Surrogate: 1,2-Dichlorobenzene-d	45.31			100.000		45.3	17 - 101		
Surrogate: 2-Fluorobiphenyl	51.97			100.000		52.0	29 - 109		
Surrogate: 4-Terphenyl-d14	78.46			100.000		78.5	49 - 122		
Surrogate: Nitrobenzene-d5	60.84			100.000		60.8	19 - 111		

LCS (B7B0214-BS1)

Prepared: 2/7/2017 Analyzed: 2/7/2017

1,4-Dioxane	108.710	2.0	0.84	100.000		109	62 - 127	NR	
Surrogate: 1,2-Dichlorobenzene-d	45.11			100.000		45.1	17 - 101		
Surrogate: 2-Fluorobiphenyl	57.66			100.000		57.7	29 - 109		
Surrogate: 4-Terphenyl-d14	68.65			100.000		68.6	49 - 122		
Surrogate: Nitrobenzene-d5	65.85			100.000		65.8	19 - 111		

LCS Dup (B7B0214-BSD1)

Prepared: 2/7/2017 Analyzed: 2/7/2017

1,4-Dioxane	111.040	2.0	0.84	100.000		111	62 - 127	2.12	20
Surrogate: 1,2-Dichlorobenzene-d	47.29			100.000		47.3	17 - 101		
Surrogate: 2-Fluorobiphenyl	59.85			100.000		59.8	29 - 109		
Surrogate: 4-Terphenyl-d14	70.03			100.000		70.0	49 - 122		
Surrogate: Nitrobenzene-d5	68.77			100.000		68.8	19 - 111		



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

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

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

Batch B7B0212 - MSSEMI_W

Blank (B7B0212-BLK1)

Prepared: 2/7/2017 Analyzed: 2/7/2017

1,4-Dioxane	ND	0.20	0.11			NR			
Surrogate: 1,2-Dichlorobenzene-d	0.6891			1.00000		68.9	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.8250			1.00000		82.5	28 - 122		
Surrogate: 4-Terphenyl-d14	1.108			1.00000		111	43 - 131		
Surrogate: Nitrobenzene-d5	0.6484			1.00000		64.8	20 - 119		

LCS (B7B0212-BS1)

Prepared: 2/7/2017 Analyzed: 2/7/2017

1,4-Dioxane	0.738090	0.20	0.11	1.00000		73.8	49 - 169	NR	
Surrogate: 1,2-Dichlorobenzene-d	0.8501			1.00000		85.0	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.9721			1.00000		97.2	28 - 122		
Surrogate: 4-Terphenyl-d14	1.092			1.00000		109	43 - 131		
Surrogate: Nitrobenzene-d5	0.7834			1.00000		78.3	20 - 119		

LCS Dup (B7B0212-BSD1)

Prepared: 2/7/2017 Analyzed: 2/7/2017

1,4-Dioxane	0.805320	0.20	0.11	1.00000		80.5	49 - 169	8.71	20
Surrogate: 1,2-Dichlorobenzene-d	0.8124			1.00000		81.2	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.9265			1.00000		92.7	28 - 122		
Surrogate: 4-Terphenyl-d14	1.004			1.00000		100	43 - 131		
Surrogate: Nitrobenzene-d5	0.7568			1.00000		75.7	20 - 119		



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Monthly Sample, 5

Report To : Steve Netto

Reported : 02/23/2017

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
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.

Exova
9240 Santa Fe Springs Road
Santa Fe Springs
California
USA
90670

T: +1 (562) 948-2225
F: +1 (562) 948-5850
E: info400@exova.com
W: www.exova.com



Testing, calibrating, advising

Certificate of Analysis

February 22, 2017

Advanced Technology Laboratories
PO Box 92797
Long Beach, CA 90809-2797

Attn: Rachelle Arada

Exova Job No: 210662
Purchase Order: CREDIT CARD
Project Name: 1700508 / Groundwater
Samples Received: 2
Date Received: 02-06-17

Analysis	Page
Bromate by EPA 317.0	2


Michael Shelton
Technical Director


Paul Colvin
Senior Chemist

Bromate by EPA 317.0
Ion Chromatography with Post-Column Derivatization-Visible Absorption

Column: Dionex AS9-HC 250 mm x 4 mm, AG9-HC Guard 50 mm x 4 mm
Eluent: 10 mM Na₂CO₃
Flow: 1.2 mL/min
Injection: 250 µL
Detection: Post-column derivatization, Visible detection, 450 nm

Sample preparation: The undiluted samples were treated with a Dionex OnGuard II H cartridge to remove excess basic cations.

Parts Per Billion (µg/L)

<u>Sample ID</u>	<u>Result</u>
ATL Lab#: 1700508-03 / POX	ND
ATL Lab#: 1700508-06 / INF	ND
Method Blank	ND
Detection Limit	0.3
Date Analyzed: 02-20-17	

Quality Control Summary

Parts Per Billion (µg/L)

Sample ID: Batch QC

<u>Analyte</u>	<u>Sample Result</u>	<u>Sample Duplicate Result</u>	<u>Sample RPD</u>	<u>Spike Conc</u>	<u>Spike Result</u>	<u>Spike % Rec</u>
Bromate	22.0	22.1	0	40.2	62.5	100
QC Guidelines			NMT 10			75-125

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1700508

Page 38 of 39

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#: SC11280- STANDARD TAT

(RA)

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1700508-03 / POX 317.0_SUB [Bromate] 1-Poly Unpres - 125mL	02/20/17 17:00	02/04/17 09:35	02/03/17 09:35	
ATL Lab#: 1700508-06 / INF 317.0_SUB [Bromate] 1-Poly Unpres - 125mL	02/20/17 17:00	02/04/17 09:52	02/03/17 09:52	

2-6-17 EQL: also has:

① I

② F

Released By <u>ECR</u>	Date <u>2-6-17</u>	Received By <u>[Signature]</u>	Date <u>2/6/17</u>
Released By <u>[Signature]</u>	Date <u>2/6/17</u>	Received By <u>[Signature]</u>	Date <u>2-6-17 4:07pm</u>

210662

[Handwritten signature]

PROJECT: Raytheon Main GETS Monthly Sample

TASK NO.: 532.15

Project Manager Steve Netto
QA Manager Kevin Fong
Phone 858.455.6500
Fax 858.455.6533

Sampled By:				SAMPLE COLLECTION		MATRIX		PRESERVATION		CONTAINERS					ANALYSIS REQUESTED										Expected Concentration Range (ppb) for VOAs				SPECIAL HANDLING				Laboratory		REMARKS		
LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Ice	40-mL VOA	125 mL Poly	250 mL Poly	250 mL Glass	1 L Poly	1L Amber	VOCs by EPA 8260B	Bromate by EPA 317	Bromide by EPA 300	Alkalinity by SM2320B	Total Organic Carbon by SM5310B	SM2540D	UV Absorption EPA 415.3 @ 254 nm	1,4-Dioxane by EPA 8270C MOD	1,4-Dioxane by EPA 8270 SIM	0 - 10	10 - 100	100 - 1,000	>1,000	24 hr TAT	48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested	Advanced Technology Laboratories Attn: Rachelle Arada 3275 Walnut Ave Signal Hill, CA 90755 (562) 989-4045			
1700508-1	TB-020317	2/3/2017	7:00		X	X			X	2						X									X												
	CBT		9:25	X		X			X	3					1	X								X	X												
	POX		9:35	X		X			X	6	1	1			1	X	X		X	X				X	X												
	CEFF		9:20	X		X			X	3					1	X								X	X												
	PF		9:44	X		X			X	3		1	1	1					X	X	X	X															
	INF		9:52	X		X			X	3	2				1	X	X	X					X				X										
	EW-02		10:10	X		X			X	3	1				1	X		X					X			X											
	MW-29			X		X			X	3	1				1	X		X					X			X											
Total number of containers per analysis:										28	8	2	1	1	8															Total No. of Containers: <u>4136</u>							
Relinquished By: / Company:				Date / Time		Received By: / Company				Date / Time																											
Kevin Fong H+A				2/2/17 10:43		JL AIC				2/3/17 1044																											
Relinquished By: / Company:				Date / Time		Received By: / Company				Date / Time																											
JL				2/3/17 1211		FPD				2/3/17 1211																											

- ☒ No. of containers correct
☒ Received in good condition
☒ Custody seals secure
☒ Conforms to COC document

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 275
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com

Instructions

- Fill out form completely and sign only after verified for completeness
- Complete in ballpoint pen. Draw one line through error, initial and date correction
- Indicate the number of sample containers in analytical request space; indicate choice with ✓ or ×
 Note applicable preservatives, special instructions, and deviations from typical environmental samples.
 Consult project QA documents for specific instructions.



February 23, 2017

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
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1700710

Client Reference : Raytheon Main GETS Mid Month Sample, 532.15

Enclosed are the results for sample(s) received on February 16, 2017 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 "Eddie Rodriguez", with a small "ER" monogram to the left.

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 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 GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-021617	1700710-01	Lab prepared water	2/16/17 7:00	2/16/17 10:30
CBT	1700710-02	Groundwater	2/16/17 8:40	2/16/17 10:30
POX	1700710-03	Groundwater	2/16/17 8:45	2/16/17 10:30
CEFF	1700710-04	Groundwater	2/16/17 8:32	2/16/17 10:30
INF	1700710-05	Groundwater	2/16/17 8:50	2/16/17 10:30
EW-02	1700710-06	Groundwater	2/16/17 9:40	2/16/17 10:30
MW-29	1700710-07	Groundwater	2/16/17 10:10	2/16/17 10:30



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID TB-021617

Lab ID: 1700710-01

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,1,1-Trichloroethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,1,2-Trichloroethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,1-Dichloroethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,1-Dichloroethene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,1-Dichloropropene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,2,3-Trichloropropane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,2-Dibromoethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,2-Dichlorobenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,2-Dichloroethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,2-Dichloropropane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,3-Dichlorobenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,3-Dichloropropane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
1,4-Dichlorobenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
2,2-Dichloropropane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
2-Chlorotoluene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
4-Chlorotoluene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
4-Isopropyltoluene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Benzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Bromobenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Bromodichloromethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Bromoform	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Bromomethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Carbon tetrachloride	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Chlorobenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Chloroethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Chloroform	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Chloromethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Dibromochloromethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID TB-021617

Lab ID: 1700710-01

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Dichlorodifluoromethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Ethylbenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Hexachlorobutadiene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Isopropylbenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
m,p-Xylene	ND	1.0	1	B7B0523	02/20/2017	02/20/17 15:22	
Methylene chloride	ND	1.0	1	B7B0523	02/20/2017	02/20/17 15:22	
n-Butylbenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
n-Propylbenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Naphthalene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
o-Xylene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
sec-Butylbenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Styrene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
tert-Butylbenzene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Tetrachloroethene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Toluene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Trichloroethene	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Trichlorofluoromethane	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Vinyl chloride	ND	0.50	1	B7B0523	02/20/2017	02/20/17 15:22	
Surrogate: 1,2-Dichloroethane-d4	137 %	51 - 157		B7B0523	02/20/2017	02/20/17 15:22	
Surrogate: 4-Bromofluorobenzene	106 %	61 - 123		B7B0523	02/20/2017	02/20/17 15:22	
Surrogate: Dibromofluoromethane	122 %	57 - 147		B7B0523	02/20/2017	02/20/17 15:22	
Surrogate: Toluene-d8	108 %	61 - 119		B7B0523	02/20/2017	02/20/17 15:22	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID CBT

Lab ID: 1700710-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,1,1-Trichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,1,2-Trichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,1-Dichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,1-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,1-Dichloropropene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,2,3-Trichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,2-Dibromoethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,2-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,2-Dichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,2-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,3-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,3-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
1,4-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
2,2-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
2-Chlorotoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
4-Chlorotoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
4-Isopropyltoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Benzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Bromobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Bromodichloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Bromoform	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Bromomethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Carbon tetrachloride	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Chlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Chloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Chloroform	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Chloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Dibromochloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID CBT

Lab ID: 1700710-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Dichlorodifluoromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Ethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Hexachlorobutadiene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Isopropylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
m,p-Xylene	ND	1.0	1	B7B0491	02/17/2017	02/17/17 19:46	
Methylene chloride	ND	1.0	1	B7B0491	02/17/2017	02/17/17 19:46	
n-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
n-Propylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Naphthalene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
o-Xylene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
sec-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Styrene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
tert-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Tetrachloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Toluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Trichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Trichlorofluoromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Vinyl chloride	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:46	
Surrogate: 1,2-Dichloroethane-d4	144 %	51 - 157		B7B0491	02/17/2017	02/17/17 19:46	
Surrogate: 4-Bromofluorobenzene	103 %	61 - 123		B7B0491	02/17/2017	02/17/17 19:46	
Surrogate: Dibromofluoromethane	127 %	57 - 147		B7B0491	02/17/2017	02/17/17 19:46	
Surrogate: Toluene-d8	104 %	61 - 119		B7B0491	02/17/2017	02/17/17 19:46	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID CBT

Lab ID: 1700710-02

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0561	02/21/2017	02/22/17 12:37	
Surrogate: 1,2-Dichlorobenzene-d4	77.4 %	31 - 106		B7B0561	02/21/2017	02/22/17 12:37	
Surrogate: 2-Fluorobiphenyl	87.2 %	28 - 122		B7B0561	02/21/2017	02/22/17 12:37	
Surrogate: 4-Terphenyl-d14	110 %	43 - 131		B7B0561	02/21/2017	02/22/17 12:37	
Surrogate: Nitrobenzene-d5	81.0 %	20 - 119		B7B0561	02/21/2017	02/22/17 12:37	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID POX

Lab ID: 1700710-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,1,1-Trichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,1,2-Trichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,1-Dichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,1-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,1-Dichloropropene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,2,3-Trichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,2-Dibromoethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,2-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,2-Dichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,2-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,3-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,3-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
1,4-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
2,2-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
2-Chlorotoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
4-Chlorotoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
4-Isopropyltoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Benzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Bromobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Bromodichloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Bromoform	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Bromomethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Carbon tetrachloride	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Chlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Chloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Chloroform	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Chloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Dibromochloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID POX

Lab ID: 1700710-03

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Dichlorodifluoromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Ethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Hexachlorobutadiene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Isopropylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
m,p-Xylene	ND	1.0	1	B7B0491	02/17/2017	02/17/17 20:09	
Methylene chloride	ND	1.0	1	B7B0491	02/17/2017	02/17/17 20:09	
n-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
n-Propylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Naphthalene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
o-Xylene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
sec-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Styrene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
tert-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Tetrachloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Toluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Trichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Trichlorofluoromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Vinyl chloride	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:09	
Surrogate: 1,2-Dichloroethane-d4	145 %	51 - 157		B7B0491	02/17/2017	02/17/17 20:09	
Surrogate: 4-Bromofluorobenzene	105 %	61 - 123		B7B0491	02/17/2017	02/17/17 20:09	
Surrogate: Dibromofluoromethane	127 %	57 - 147		B7B0491	02/17/2017	02/17/17 20:09	
Surrogate: Toluene-d8	104 %	61 - 119		B7B0491	02/17/2017	02/17/17 20:09	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID POX

Lab ID: 1700710-03

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0561	02/21/2017	02/22/17 13:03	
Surrogate: 1,2-Dichlorobenzene-d4	79.4 %	31 - 106		B7B0561	02/21/2017	02/22/17 13:03	
Surrogate: 2-Fluorobiphenyl	94.1 %	28 - 122		B7B0561	02/21/2017	02/22/17 13:03	
Surrogate: 4-Terphenyl-d14	115 %	43 - 131		B7B0561	02/21/2017	02/22/17 13:03	
Surrogate: Nitrobenzene-d5	83.1 %	20 - 119		B7B0561	02/21/2017	02/22/17 13:03	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID CEFF

Lab ID: 1700710-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,1,1-Trichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,1,2-Trichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,1-Dichloroethane	0.54	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,1-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,1-Dichloropropene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,2,3-Trichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,2-Dibromoethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,2-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,2-Dichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,2-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,3-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,3-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
1,4-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
2,2-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
2-Chlorotoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
4-Chlorotoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
4-Isopropyltoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Benzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Bromobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Bromodichloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Bromoform	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Bromomethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Carbon tetrachloride	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Chlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Chloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Chloroform	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Chloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Dibromochloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID CEFF

Lab ID: 1700710-04

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Dichlorodifluoromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Ethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Hexachlorobutadiene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Isopropylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
m,p-Xylene	ND	1.0	1	B7B0491	02/17/2017	02/17/17 19:23	
Methylene chloride	ND	1.0	1	B7B0491	02/17/2017	02/17/17 19:23	
n-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
n-Propylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Naphthalene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
o-Xylene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
sec-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Styrene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
tert-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Tetrachloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Toluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Trichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Trichlorofluoromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Vinyl chloride	ND	0.50	1	B7B0491	02/17/2017	02/17/17 19:23	
Surrogate: 1,2-Dichloroethane-d4	144 %	51 - 157		B7B0491	02/17/2017	02/17/17 19:23	
Surrogate: 4-Bromofluorobenzene	104 %	61 - 123		B7B0491	02/17/2017	02/17/17 19:23	
Surrogate: Dibromofluoromethane	129 %	57 - 147		B7B0491	02/17/2017	02/17/17 19:23	
Surrogate: Toluene-d8	106 %	61 - 119		B7B0491	02/17/2017	02/17/17 19:23	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID CEFF

Lab ID: 1700710-04

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B7B0561	02/21/2017	02/22/17 13:30	
Surrogate: 1,2-Dichlorobenzene-d4	83.4 %	31 - 106		B7B0561	02/21/2017	02/22/17 13:30	
Surrogate: 2-Fluorobiphenyl	95.7 %	28 - 122		B7B0561	02/21/2017	02/22/17 13:30	
Surrogate: 4-Terphenyl-d14	111 %	43 - 131		B7B0561	02/21/2017	02/22/17 13:30	
Surrogate: Nitrobenzene-d5	87.3 %	20 - 119		B7B0561	02/21/2017	02/22/17 13:30	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID INF

Lab ID: 1700710-05

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,1,1-Trichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,1,2-Trichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,1-Dichloroethane	0.79	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,1-Dichloroethene	82	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,1-Dichloropropene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,2,3-Trichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,2-Dibromoethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,2-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,2-Dichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,2-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,3-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,3-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
1,4-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
2,2-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
2-Chlorotoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
4-Chlorotoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
4-Isopropyltoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Benzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Bromobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Bromodichloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Bromoform	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Bromomethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Carbon tetrachloride	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Chlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Chloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Chloroform	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Chloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Dibromochloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID INF

Lab ID: 1700710-05

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Dichlorodifluoromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Ethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Hexachlorobutadiene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Isopropylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
m,p-Xylene	ND	1.0	1	B7B0491	02/17/2017	02/17/17 20:56	
Methylene chloride	ND	1.0	1	B7B0491	02/17/2017	02/17/17 20:56	
n-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
n-Propylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Naphthalene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
o-Xylene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
sec-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Styrene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
tert-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Tetrachloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Toluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Trichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Trichlorofluoromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Vinyl chloride	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:56	
Surrogate: 1,2-Dichloroethane-d4	143 %	51 - 157		B7B0491	02/17/2017	02/17/17 20:56	
Surrogate: 4-Bromofluorobenzene	102 %	61 - 123		B7B0491	02/17/2017	02/17/17 20:56	
Surrogate: Dibromofluoromethane	124 %	57 - 147		B7B0491	02/17/2017	02/17/17 20:56	
Surrogate: Toluene-d8	104 %	61 - 119		B7B0491	02/17/2017	02/17/17 20:56	



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Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID INF

Lab ID: 1700710-05

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	21	2.0	1	B7B0562	02/21/2017	02/21/17 19:47	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>51.7 %</i>	<i>17 - 101</i>		B7B0562	02/21/2017	<i>02/21/17 19:47</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>63.3 %</i>	<i>29 - 109</i>		B7B0562	02/21/2017	<i>02/21/17 19:47</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>107 %</i>	<i>49 - 122</i>		B7B0562	02/21/2017	<i>02/21/17 19:47</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>58.2 %</i>	<i>19 - 111</i>		B7B0562	02/21/2017	<i>02/21/17 19:47</i>	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID EW-02

Lab ID: 1700710-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,1,1-Trichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,1,2-Trichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,1-Dichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,1-Dichloroethene	16	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,1-Dichloropropene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,2,3-Trichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,2-Dibromoethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,2-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,2-Dichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,2-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,3-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,3-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
1,4-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
2,2-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
2-Chlorotoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
4-Chlorotoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
4-Isopropyltoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Benzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Bromobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Bromodichloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Bromoform	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Bromomethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Carbon tetrachloride	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Chlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Chloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Chloroform	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Chloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Dibromochloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID EW-02

Lab ID: 1700710-06

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Dichlorodifluoromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Ethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Hexachlorobutadiene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Isopropylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
m,p-Xylene	ND	1.0	1	B7B0491	02/17/2017	02/17/17 20:33	
Methylene chloride	ND	1.0	1	B7B0491	02/17/2017	02/17/17 20:33	
n-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
n-Propylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Naphthalene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
o-Xylene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
sec-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Styrene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
tert-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Tetrachloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Toluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Trichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Trichlorofluoromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Vinyl chloride	ND	0.50	1	B7B0491	02/17/2017	02/17/17 20:33	
Surrogate: 1,2-Dichloroethane-d4	145 %	51 - 157		B7B0491	02/17/2017	02/17/17 20:33	
Surrogate: 4-Bromofluorobenzene	100 %	61 - 123		B7B0491	02/17/2017	02/17/17 20:33	
Surrogate: Dibromofluoromethane	127 %	57 - 147		B7B0491	02/17/2017	02/17/17 20:33	
Surrogate: Toluene-d8	104 %	61 - 119		B7B0491	02/17/2017	02/17/17 20:33	



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San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID EW-02

Lab ID: 1700710-06

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	6.1	2.0	1	B7B0562	02/21/2017	02/22/17 14:27	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>56.6 %</i>	<i>17 - 101</i>		<i>B7B0562</i>	<i>02/21/2017</i>	<i>02/22/17 14:27</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>67.8 %</i>	<i>29 - 109</i>		<i>B7B0562</i>	<i>02/21/2017</i>	<i>02/22/17 14:27</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>106 %</i>	<i>49 - 122</i>		<i>B7B0562</i>	<i>02/21/2017</i>	<i>02/22/17 14:27</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>65.0 %</i>	<i>19 - 111</i>		<i>B7B0562</i>	<i>02/21/2017</i>	<i>02/22/17 14:27</i>	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID MW-29

Lab ID: 1700710-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,1,1-Trichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,1,2-Trichloroethane	0.98	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,1-Dichloroethane	2.9	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,1-Dichloroethene	220	5.0	10	B7B0523	02/20/2017	02/20/17 14:59	
1,1-Dichloropropene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,2,3-Trichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,2,3-Trichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,2,4-Trichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,2,4-Trimethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,2-Dibromoethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,2-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,2-Dichloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,2-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,3,5-Trimethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,3-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,3-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
1,4-Dichlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
2,2-Dichloropropane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
2-Chlorotoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
4-Chlorotoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
4-Isopropyltoluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Benzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Bromobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Bromodichloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Bromoform	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Bromomethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Carbon tetrachloride	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Chlorobenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Chloroethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Chloroform	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Chloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
cis-1,2-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
cis-1,3-Dichloropropene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Dibromochloromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID MW-29

Lab ID: 1700710-07

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Dichlorodifluoromethane	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Ethylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Hexachlorobutadiene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Isopropylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
m,p-Xylene	ND	1.0	1	B7B0491	02/17/2017	02/17/17 21:19	
Methylene chloride	ND	1.0	1	B7B0491	02/17/2017	02/17/17 21:19	
n-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
n-Propylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Naphthalene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
o-Xylene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
sec-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Styrene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
tert-Butylbenzene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Tetrachloroethene	0.70	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Toluene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
trans-1,2-Dichloroethene	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Trichloroethene	1.7	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Trichlorofluoromethane	0.81	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	
Vinyl chloride	ND	0.50	1	B7B0491	02/17/2017	02/17/17 21:19	

Surrogate: 1,2-Dichloroethane-d4	127 %	51 - 157	B7B0523	02/20/2017	02/20/17 14:59
Surrogate: 1,2-Dichloroethane-d4	145 %	51 - 157	B7B0491	02/17/2017	02/17/17 21:19
Surrogate: 4-Bromofluorobenzene	106 %	61 - 123	B7B0523	02/20/2017	02/20/17 14:59
Surrogate: 4-Bromofluorobenzene	106 %	61 - 123	B7B0491	02/17/2017	02/17/17 21:19
Surrogate: Dibromofluoromethane	118 %	57 - 147	B7B0523	02/20/2017	02/20/17 14:59
Surrogate: Dibromofluoromethane	127 %	57 - 147	B7B0491	02/17/2017	02/17/17 21:19
Surrogate: Toluene-d8	106 %	61 - 119	B7B0491	02/17/2017	02/17/17 21:19
Surrogate: Toluene-d8	108 %	61 - 119	B7B0523	02/20/2017	02/20/17 14:59



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Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Client Sample ID MW-29

Lab ID: 1700710-07

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

Analyst: SP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	81	2.0	1	B7B0562	02/21/2017	02/22/17 14:54	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>59.5 %</i>	<i>17 - 101</i>		B7B0562	02/21/2017	<i>02/22/17 14:54</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>72.4 %</i>	<i>29 - 109</i>		B7B0562	02/21/2017	<i>02/22/17 14:54</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>110 %</i>	<i>49 - 122</i>		B7B0562	02/21/2017	<i>02/22/17 14:54</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>68.0 %</i>	<i>19 - 111</i>		B7B0562	02/21/2017	<i>02/22/17 14:54</i>	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

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

Batch B7B0491 - MSVOA_LL_W

Blank (B7B0491-BLK1)

Prepared: 2/17/2017 Analyzed: 2/17/2017

1,1,1,2-Tetrachloroethane	ND	0.50	0.18			NR			
1,1,1-Trichloroethane	ND	0.50	0.47			NR			
1,1,2,2-Tetrachloroethane	ND	0.50	0.17			NR			
1,1,2-Trichloroethane	ND	0.50	0.12			NR			
1,1-Dichloroethane	ND	0.50	0.16			NR			
1,1-Dichloroethene	ND	0.50	0.18			NR			
1,1-Dichloropropene	ND	0.50	0.30			NR			
1,2,3-Trichloropropane	ND	0.50	0.16			NR			
1,2,3-Trichlorobenzene	ND	0.50	0.20			NR			
1,2,4-Trichlorobenzene	ND	0.50	0.26			NR			
1,2,4-Trimethylbenzene	ND	0.50	0.23			NR			
1,2-Dibromo-3-chloropropane	ND	0.50	0.26			NR			
1,2-Dibromoethane	ND	0.50	0.15			NR			
1,2-Dichlorobenzene	ND	0.50	0.21			NR			
1,2-Dichloroethane	ND	0.50	0.15			NR			
1,2-Dichloropropane	ND	0.50	0.35			NR			
1,3,5-Trimethylbenzene	ND	0.50	0.19			NR			
1,3-Dichlorobenzene	ND	0.50	0.23			NR			
1,3-Dichloropropane	ND	0.50	0.15			NR			
1,4-Dichlorobenzene	ND	0.50	0.23			NR			
2,2-Dichloropropane	ND	0.50	0.35			NR			
2-Chlorotoluene	ND	0.50	0.25			NR			
4-Chlorotoluene	ND	0.50	0.24			NR			
4-Isopropyltoluene	ND	0.50	0.24			NR			
Benzene	ND	0.50	0.19			NR			
Bromobenzene	ND	0.50	0.19			NR			
Bromodichloromethane	ND	0.50	0.17			NR			
Bromoform	ND	0.50	0.10			NR			
Bromomethane	ND	0.50	0.28			NR			
Carbon tetrachloride	ND	0.50	0.21			NR			
Chlorobenzene	ND	0.50	0.22			NR			
Chloroethane	ND	0.50	0.17			NR			
Chloroform	ND	0.50	0.19			NR			
Chloromethane	ND	0.50	0.23			NR			
cis-1,2-Dichloroethene	ND	0.50	0.19			NR			
cis-1,3-Dichloropropene	ND	0.50	0.20			NR			
Dibromochloromethane	ND	0.50	0.13			NR			
Dibromomethane	ND	0.50	0.14			NR			
Dichlorodifluoromethane	ND	0.50	0.31			NR			



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Project Number : Raytheon Main GETS Mid Month Sample

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Reported : 02/23/2017

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

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

Batch B7B0491 - MSVOA_LL_W (continued)

Blank (B7B0491-BLK1) - Continued

Prepared: 2/17/2017 Analyzed: 2/17/2017

Ethylbenzene	ND	0.50	0.23			NR			
Hexachlorobutadiene	ND	0.50	0.34			NR			
Isopropylbenzene	ND	0.50	0.23			NR			
m,p-Xylene	ND	1.0	0.45			NR			
Methylene chloride	ND	1.0	0.30			NR			
n-Butylbenzene	ND	0.50	0.31			NR			
n-Propylbenzene	ND	0.50	0.24			NR			
Naphthalene	ND	0.50	0.21			NR			
o-Xylene	ND	0.50	0.20			NR			
sec-Butylbenzene	ND	0.50	0.25			NR			
Styrene	ND	0.50	0.20			NR			
tert-Butylbenzene	ND	0.50	0.22			NR			
Tetrachloroethene	ND	0.50	0.24			NR			
Toluene	ND	0.50	0.20			NR			
trans-1,2-Dichloroethene	ND	0.50	0.21			NR			
Trichloroethene	ND	0.50	0.47			NR			
Trichlorofluoromethane	ND	0.50	0.23			NR			
Vinyl chloride	ND	0.50	0.19			NR			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>33.62</i>			<i>25.0000</i>		<i>134</i>	<i>51 - 157</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>25.84</i>			<i>25.0000</i>		<i>103</i>	<i>61 - 123</i>		
<i>Surrogate: Dibromofluoromethane</i>	<i>29.77</i>			<i>25.0000</i>		<i>119</i>	<i>57 - 147</i>		
<i>Surrogate: Toluene-d8</i>	<i>26.42</i>			<i>25.0000</i>		<i>106</i>	<i>61 - 119</i>		

LCS (B7B0491-BS1)

Prepared: 2/17/2017 Analyzed: 2/17/2017

1,1,1,2-Tetrachloroethane	17.3800	0.50	0.18	20.0000		86.9	76 - 132	NR	
1,1,1-Trichloroethane	18.7300	0.50	0.47	20.0000		93.6	72 - 144	NR	
1,1,2,2-Tetrachloroethane	16.7900	0.50	0.17	20.0000		84.0	70 - 120	NR	
1,1,2-Trichloroethane	17.8900	0.50	0.12	20.0000		89.4	75 - 120	NR	
1,1-Dichloroethane	18.3300	0.50	0.16	20.0000		91.6	65 - 127	NR	
1,1-Dichloroethene	18.0400	0.50	0.18	20.0000		90.2	63 - 142	NR	
1,1-Dichloropropene	17.8400	0.50	0.30	20.0000		89.2	78 - 137	NR	
1,2,3-Trichloropropane	16.5400	0.50	0.16	20.0000		82.7	73 - 118	NR	
1,2,3-Trichlorobenzene	16.1100	0.50	0.20	20.0000		80.6	53 - 164	NR	
1,2,4-Trichlorobenzene	16.1900	0.50	0.26	20.0000		81.0	58 - 144	NR	
1,2,4-Trimethylbenzene	17.3100	0.50	0.23	20.0000		86.6	75 - 140	NR	
1,2-Dibromo-3-chloropropane	15.3600	0.50	0.26	20.0000		76.8	61 - 131	NR	
1,2-Dibromoethane	17.1800	0.50	0.15	20.0000		85.9	74 - 125	NR	
1,2-Dichlorobenzene	16.6000	0.50	0.21	20.0000		83.0	78 - 122	NR	
1,2-Dichloroethane	19.1500	0.50	0.15	20.0000		95.8	70 - 126	NR	
1,2-Dichloropropane	16.3800	0.50	0.35	20.0000		81.9	69 - 120	NR	
1,3,5-Trimethylbenzene	16.8600	0.50	0.19	20.0000		84.3	73 - 145	NR	



Certificate of Analysis

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San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

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Reported : 02/23/2017

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

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
Batch B7B0491 - MSVOA_LL_W (continued)									
LCS (B7B0491-BS1) - Continued					Prepared: 2/17/2017 Analyzed: 2/17/2017				
1,3-Dichlorobenzene	16.4600	0.50	0.23	20.0000		82.3	76 - 126	NR	
1,3-Dichloropropane	16.3400	0.50	0.15	20.0000		81.7	76 - 117	NR	
1,4-Dichlorobenzene	16.5400	0.50	0.23	20.0000		82.7	77 - 120	NR	
2,2-Dichloropropane	17.4700	0.50	0.35	20.0000		87.4	47 - 169	NR	
2-Chlorotoluene	16.4700	0.50	0.25	20.0000		82.4	75 - 135	NR	
4-Chlorotoluene	16.3300	0.50	0.24	20.0000		81.6	70 - 133	NR	
4-Isopropyltoluene	17.3200	0.50	0.24	20.0000		86.6	72 - 153	NR	
Benzene	33.2100	0.50	0.19	40.0000		83.0	73 - 123	NR	
Bromobenzene	16.1800	0.50	0.19	20.0000		80.9	75 - 121	NR	
Bromodichloromethane	17.9500	0.50	0.17	20.0000		89.8	73 - 124	NR	
Bromoform	16.1300	0.50	0.10	20.0000		80.6	70 - 135	NR	
Bromomethane	12.2600	0.50	0.28	20.0000		61.3	10 - 166	NR	
Carbon tetrachloride	19.4500	0.50	0.21	20.0000		97.2	65 - 171	NR	
Chlorobenzene	16.0400	0.50	0.22	20.0000		80.2	80 - 121	NR	
Chloroethane	15.4700	0.50	0.17	20.0000		77.4	55 - 143	NR	
Chloroform	18.9200	0.50	0.19	20.0000		94.6	65 - 130	NR	
Chloromethane	13.7900	0.50	0.23	20.0000		69.0	21 - 141	NR	
cis-1,2-Dichloroethene	16.8900	0.50	0.19	20.0000		84.4	64 - 126	NR	
cis-1,3-Dichloropropene	17.9700	0.50	0.20	20.0000		89.8	70 - 131	NR	
Dibromochloromethane	17.1400	0.50	0.13	20.0000		85.7	74 - 125	NR	
Dibromomethane	17.5500	0.50	0.14	20.0000		87.8	74 - 116	NR	
Dichlorodifluoromethane	15.7100	0.50	0.31	20.0000		78.6	40 - 186	NR	
Ethylbenzene	32.5400	0.50	0.23	40.0000		81.4	77 - 130	NR	
Hexachlorobutadiene	16.3700	0.50	0.34	20.0000		81.8	52 - 176	NR	
Isopropylbenzene	17.5200	0.50	0.23	20.0000		87.6	77 - 144	NR	
m,p-Xylene	34.0500	1.0	0.45	40.0000		85.1	84 - 136	NR	
Methylene chloride	17.4900	1.0	0.30	20.0000		87.4	72 - 150	NR	
n-Butylbenzene	17.2500	0.50	0.31	20.0000		86.2	73 - 154	NR	
n-Propylbenzene	16.8200	0.50	0.24	20.0000		84.1	77 - 145	NR	
Naphthalene	16.0700	0.50	0.21	20.0000		80.4	55 - 137	NR	
o-Xylene	33.6100	0.50	0.20	40.0000		84.0	79 - 135	NR	
sec-Butylbenzene	17.0100	0.50	0.25	20.0000		85.0	73 - 157	NR	
Styrene	16.4900	0.50	0.20	20.0000		82.4	78 - 125	NR	
tert-Butylbenzene	16.6600	0.50	0.22	20.0000		83.3	78 - 149	NR	
Tetrachloroethene	15.9400	0.50	0.24	20.0000		79.7	74 - 136	NR	
Toluene	33.4700	0.50	0.20	40.0000		83.7	78 - 124	NR	
trans-1,2-Dichloroethene	16.8500	0.50	0.21	20.0000		84.2	66 - 131	NR	
Trichloroethene	15.8800	0.50	0.47	20.0000		79.4	78 - 128	NR	
Trichlorofluoromethane	20.9700	0.50	0.23	20.0000		105	60 - 170	NR	
Vinyl chloride	14.7900	0.50	0.19	20.0000		74.0	55 - 148	NR	
Surrogate: 1,2-Dichloroethane-d4	32.46			25.0000		130	51 - 157		



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 B7B0491 - MSVOA_LL_W (continued)

LCS (B7B0491-BS1) - Continued

Prepared: 2/17/2017 Analyzed: 2/17/2017

Surrogate: 4-Bromofluorobenzene	26.44		25.0000		106	61 - 123			
Surrogate: Dibromofluoromethane	29.05		25.0000		116	57 - 147			
Surrogate: Toluene-d8	27.35		25.0000		109	61 - 119			

LCS Dup (B7B0491-BS1)

Prepared: 2/17/2017 Analyzed: 2/17/2017

1,1,1,2-Tetrachloroethane	18.5700	0.50	0.18	20.0000	92.8	76 - 132	6.62	20	
1,1,1-Trichloroethane	20.0600	0.50	0.47	20.0000	100	72 - 144	6.86	20	
1,1,2,2-Tetrachloroethane	18.6200	0.50	0.17	20.0000	93.1	70 - 120	10.3	20	
1,1,2-Trichloroethane	18.2300	0.50	0.12	20.0000	91.2	75 - 120	1.88	20	
1,1-Dichloroethane	19.8000	0.50	0.16	20.0000	99.0	65 - 127	7.71	20	
1,1-Dichloroethene	19.2700	0.50	0.18	20.0000	96.4	63 - 142	6.59	20	
1,1-Dichloropropene	18.4800	0.50	0.30	20.0000	92.4	78 - 137	3.52	20	
1,2,3-Trichloropropane	18.2300	0.50	0.16	20.0000	91.2	73 - 118	9.72	20	
1,2,3-Trichlorobenzene	18.0100	0.50	0.20	20.0000	90.0	53 - 164	11.1	20	
1,2,4-Trichlorobenzene	17.6500	0.50	0.26	20.0000	88.2	58 - 144	8.63	20	
1,2,4-Trimethylbenzene	18.8700	0.50	0.23	20.0000	94.4	75 - 140	8.62	20	
1,2-Dibromo-3-chloropropane	17.5100	0.50	0.26	20.0000	87.6	61 - 131	13.1	20	
1,2-Dibromoethane	18.1300	0.50	0.15	20.0000	90.6	74 - 125	5.38	20	
1,2-Dichlorobenzene	18.1300	0.50	0.21	20.0000	90.6	78 - 122	8.81	20	
1,2-Dichloroethane	19.6400	0.50	0.15	20.0000	98.2	70 - 126	2.53	20	
1,2-Dichloropropane	17.6600	0.50	0.35	20.0000	88.3	69 - 120	7.52	20	
1,3,5-Trimethylbenzene	18.9400	0.50	0.19	20.0000	94.7	73 - 145	11.6	20	
1,3-Dichlorobenzene	17.9500	0.50	0.23	20.0000	89.8	76 - 126	8.66	20	
1,3-Dichloropropane	18.1500	0.50	0.15	20.0000	90.8	76 - 117	10.5	20	
1,4-Dichlorobenzene	18.0900	0.50	0.23	20.0000	90.4	77 - 120	8.95	20	
2,2-Dichloropropane	18.9900	0.50	0.35	20.0000	95.0	47 - 169	8.34	20	
2-Chlorotoluene	17.9500	0.50	0.25	20.0000	89.8	75 - 135	8.60	20	
4-Chlorotoluene	17.9500	0.50	0.24	20.0000	89.8	70 - 133	9.45	20	
4-Isopropyltoluene	19.0400	0.50	0.24	20.0000	95.2	72 - 153	9.46	20	
Benzene	35.6400	0.50	0.19	40.0000	89.1	73 - 123	7.06	20	
Bromobenzene	18.1900	0.50	0.19	20.0000	91.0	75 - 121	11.7	20	
Bromodichloromethane	18.6500	0.50	0.17	20.0000	93.2	73 - 124	3.83	20	
Bromoform	17.7500	0.50	0.10	20.0000	88.8	70 - 135	9.56	20	
Bromomethane	15.1800	0.50	0.28	20.0000	75.9	10 - 166	21.3	20	R
Carbon tetrachloride	21.3000	0.50	0.21	20.0000	106	65 - 171	9.08	20	
Chlorobenzene	17.4300	0.50	0.22	20.0000	87.2	80 - 121	8.31	20	
Chloroethane	16.7200	0.50	0.17	20.0000	83.6	55 - 143	7.77	20	
Chloroform	20.3400	0.50	0.19	20.0000	102	65 - 130	7.23	20	
Chloromethane	14.8200	0.50	0.23	20.0000	74.1	21 - 141	7.20	20	
cis-1,2-Dichloroethene	18.0400	0.50	0.19	20.0000	90.2	64 - 126	6.58	20	
cis-1,3-Dichloropropene	19.0100	0.50	0.20	20.0000	95.0	70 - 131	5.62	20	
Dibromochloromethane	18.6400	0.50	0.13	20.0000	93.2	74 - 125	8.38	20	



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

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

Batch B7B0491 - MSVOA_LL_W (continued)

LCS Dup (B7B0491-BSD1) - Continued

Prepared: 2/17/2017 Analyzed: 2/17/2017

Dibromomethane	18.4000	0.50	0.14	20.0000		92.0	74 - 116	4.73	20
Dichlorodifluoromethane	16.3900	0.50	0.31	20.0000		82.0	40 - 186	4.24	20
Ethylbenzene	35.6100	0.50	0.23	40.0000		89.0	77 - 130	9.01	20
Hexachlorobutadiene	18.4500	0.50	0.34	20.0000		92.2	52 - 176	11.9	20
Isopropylbenzene	19.2400	0.50	0.23	20.0000		96.2	77 - 144	9.36	20
m,p-Xylene	37.1000	1.0	0.45	40.0000		92.8	84 - 136	8.57	20
Methylene chloride	18.6600	1.0	0.30	20.0000		93.3	72 - 150	6.47	20
n-Butylbenzene	18.9000	0.50	0.31	20.0000		94.5	73 - 154	9.13	20
n-Propylbenzene	18.5200	0.50	0.24	20.0000		92.6	77 - 145	9.62	20
Naphthalene	18.0200	0.50	0.21	20.0000		90.1	55 - 137	11.4	20
o-Xylene	36.5100	0.50	0.20	40.0000		91.3	79 - 135	8.27	20
sec-Butylbenzene	18.9600	0.50	0.25	20.0000		94.8	73 - 157	10.8	20
Styrene	18.2900	0.50	0.20	20.0000		91.4	78 - 125	10.4	20
tert-Butylbenzene	18.4200	0.50	0.22	20.0000		92.1	78 - 149	10.0	20
Tetrachloroethene	17.3100	0.50	0.24	20.0000		86.6	74 - 136	8.24	20
Toluene	36.0600	0.50	0.20	40.0000		90.2	78 - 124	7.45	20
trans-1,2-Dichloroethene	18.6800	0.50	0.21	20.0000		93.4	66 - 131	10.3	20
Trichloroethene	16.8900	0.50	0.47	20.0000		84.4	78 - 128	6.16	20
Trichlorofluoromethane	22.5900	0.50	0.23	20.0000		113	60 - 170	7.44	20
Vinyl chloride	16.0700	0.50	0.19	20.0000		80.4	55 - 148	8.30	20

Surrogate: 1,2-Dichloroethane-d4	32.27			25.0000		129	51 - 157		
Surrogate: 4-Bromofluorobenzene	27.56			25.0000		110	61 - 123		
Surrogate: Dibromofluoromethane	29.25			25.0000		117	57 - 147		
Surrogate: Toluene-d8	27.12			25.0000		108	61 - 119		



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

Volatile Organic Compounds by EPA 8260B - Quality Control

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

Batch B7B0523 - MSVOA_LL_W

Blank (B7B0523-BLK1)

Prepared: 2/20/2017 Analyzed: 2/20/2017

1,1,1,2-Tetrachloroethane	ND	0.50	0.18			NR				
1,1,1-Trichloroethane	ND	0.50	0.47			NR				
1,1,2,2-Tetrachloroethane	ND	0.50	0.17			NR				
1,1,2-Trichloroethane	ND	0.50	0.12			NR				
1,1-Dichloroethane	ND	0.50	0.16			NR				
1,1-Dichloroethene	ND	0.50	0.18			NR				
1,1-Dichloropropene	ND	0.50	0.30			NR				
1,2,3-Trichloropropane	ND	0.50	0.16			NR				
1,2,3-Trichlorobenzene	ND	0.50	0.20			NR				
1,2,4-Trichlorobenzene	ND	0.50	0.26			NR				
1,2,4-Trimethylbenzene	ND	0.50	0.23			NR				
1,2-Dibromo-3-chloropropane	ND	0.50	0.26			NR				
1,2-Dibromoethane	ND	0.50	0.15			NR				
1,2-Dichlorobenzene	ND	0.50	0.21			NR				
1,2-Dichloroethane	ND	0.50	0.15			NR				
1,2-Dichloropropane	ND	0.50	0.35			NR				
1,3,5-Trimethylbenzene	ND	0.50	0.19			NR				
1,3-Dichlorobenzene	ND	0.50	0.23			NR				
1,3-Dichloropropane	ND	0.50	0.15			NR				
1,4-Dichlorobenzene	ND	0.50	0.23			NR				
2,2-Dichloropropane	ND	0.50	0.35			NR				
2-Chlorotoluene	ND	0.50	0.25			NR				
4-Chlorotoluene	ND	0.50	0.24			NR				
4-Isopropyltoluene	ND	0.50	0.24			NR				
Benzene	ND	0.50	0.19			NR				
Bromobenzene	ND	0.50	0.19			NR				
Bromodichloromethane	ND	0.50	0.17			NR				
Bromoform	ND	0.50	0.10			NR				
Bromomethane	ND	0.50	0.28			NR				
Carbon tetrachloride	ND	0.50	0.21			NR				
Chlorobenzene	ND	0.50	0.22			NR				
Chloroethane	ND	0.50	0.17			NR				
Chloroform	ND	0.50	0.19			NR				
Chloromethane	ND	0.50	0.23			NR				
cis-1,2-Dichloroethene	ND	0.50	0.19			NR				
cis-1,3-Dichloropropene	ND	0.50	0.20			NR				
Dibromochloromethane	ND	0.50	0.13			NR				
Dibromomethane	ND	0.50	0.14			NR				
Dichlorodifluoromethane	ND	0.50	0.31			NR				
Ethylbenzene	ND	0.50	0.23			NR				
Hexachlorobutadiene	ND	0.50	0.34			NR				



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

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

Batch B7B0523 - MSVOA_LL_W (continued)

Blank (B7B0523-BLK1) - Continued

Prepared: 2/20/2017 Analyzed: 2/20/2017

Isopropylbenzene	ND	0.50	0.23				NR			
m,p-Xylene	ND	1.0	0.45				NR			
Methylene chloride	ND	1.0	0.30				NR			
n-Butylbenzene	ND	0.50	0.31				NR			
n-Propylbenzene	ND	0.50	0.24				NR			
Naphthalene	ND	0.50	0.21				NR			
o-Xylene	ND	0.50	0.20				NR			
sec-Butylbenzene	ND	0.50	0.25				NR			
Styrene	ND	0.50	0.20				NR			
tert-Butylbenzene	ND	0.50	0.22				NR			
Tetrachloroethene	ND	0.50	0.24				NR			
Toluene	ND	0.50	0.20				NR			
trans-1,2-Dichloroethene	ND	0.50	0.21				NR			
Trichloroethene	ND	0.50	0.47				NR			
Trichlorofluoromethane	ND	0.50	0.23				NR			
Vinyl chloride	ND	0.50	0.19				NR			

Surrogate: 1,2-Dichloroethane-d4	33.02			25.0000		132	51 - 157			
Surrogate: 4-Bromofluorobenzene	26.16			25.0000		105	61 - 123			
Surrogate: Dibromofluoromethane	29.83			25.0000		119	57 - 147			
Surrogate: Toluene-d8	27.22			25.0000		109	61 - 119			

LCS (B7B0523-BS1)

Prepared: 2/20/2017 Analyzed: 2/20/2017

1,1,1,2-Tetrachloroethane	18.8800	0.50	0.18	20.0000		94.4	76 - 132	NR		
1,1,1-Trichloroethane	19.5300	0.50	0.47	20.0000		97.6	72 - 144	NR		
1,1,2,2-Tetrachloroethane	15.7100	0.50	0.17	20.0000		78.6	70 - 120	NR		
1,1,2-Trichloroethane	16.8400	0.50	0.12	20.0000		84.2	75 - 120	NR		
1,1-Dichloroethane	18.8000	0.50	0.16	20.0000		94.0	65 - 127	NR		
1,1-Dichloroethene	18.9700	0.50	0.18	20.0000		94.8	63 - 142	NR		
1,1-Dichloropropene	18.9800	0.50	0.30	20.0000		94.9	78 - 137	NR		
1,2,3-Trichloropropane	16.0800	0.50	0.16	20.0000		80.4	73 - 118	NR		
1,2,3-Trichlorobenzene	16.9300	0.50	0.20	20.0000		84.6	53 - 164	NR		
1,2,4-Trichlorobenzene	16.7500	0.50	0.26	20.0000		83.8	58 - 144	NR		
1,2,4-Trimethylbenzene	17.7500	0.50	0.23	20.0000		88.8	75 - 140	NR		
1,2-Dibromo-3-chloropropane	14.3300	0.50	0.26	20.0000		71.6	61 - 131	NR		
1,2-Dibromoethane	16.6700	0.50	0.15	20.0000		83.4	74 - 125	NR		
1,2-Dichlorobenzene	17.5100	0.50	0.21	20.0000		87.6	78 - 122	NR		
1,2-Dichloroethane	19.4600	0.50	0.15	20.0000		97.3	70 - 126	NR		
1,2-Dichloropropane	16.4500	0.50	0.35	20.0000		82.2	69 - 120	NR		
1,3,5-Trimethylbenzene	17.8700	0.50	0.19	20.0000		89.4	73 - 145	NR		
1,3-Dichlorobenzene	17.7700	0.50	0.23	20.0000		88.8	76 - 126	NR		
1,3-Dichloropropane	17.0700	0.50	0.15	20.0000		85.4	76 - 117	NR		



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

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

Batch B7B0523 - MSVOA_LL_W (continued)

LCS (B7B0523-BS1) - Continued

Prepared: 2/20/2017 Analyzed: 2/20/2017

1,4-Dichlorobenzene	17.8900	0.50	0.23	20.0000		89.4	77 - 120	NR		
2,2-Dichloropropane	18.7600	0.50	0.35	20.0000		93.8	47 - 169	NR		
2-Chlorotoluene	17.0500	0.50	0.25	20.0000		85.2	75 - 135	NR		
4-Chlorotoluene	17.3500	0.50	0.24	20.0000		86.8	70 - 133	NR		
4-Isopropyltoluene	18.8000	0.50	0.24	20.0000		94.0	72 - 153	NR		
Benzene	34.8400	0.50	0.19	40.0000		87.1	73 - 123	NR		
Bromobenzene	17.2900	0.50	0.19	20.0000		86.4	75 - 121	NR		
Bromodichloromethane	18.9200	0.50	0.17	20.0000		94.6	73 - 124	NR		
Bromoform	17.1100	0.50	0.10	20.0000		85.6	70 - 135	NR		
Bromomethane	14.7000	0.50	0.28	20.0000		73.5	10 - 166	NR		
Carbon tetrachloride	21.6400	0.50	0.21	20.0000		108	65 - 171	NR		
Chlorobenzene	17.2700	0.50	0.22	20.0000		86.4	80 - 121	NR		
Chloroethane	17.2000	0.50	0.17	20.0000		86.0	55 - 143	NR		
Chloroform	19.2500	0.50	0.19	20.0000		96.2	65 - 130	NR		
Chloromethane	13.8400	0.50	0.23	20.0000		69.2	21 - 141	NR		
cis-1,2-Dichloroethene	16.8600	0.50	0.19	20.0000		84.3	64 - 126	NR		
cis-1,3-Dichloropropene	18.5100	0.50	0.20	20.0000		92.6	70 - 131	NR		
Dibromochloromethane	17.8300	0.50	0.13	20.0000		89.2	74 - 125	NR		
Dibromomethane	17.7100	0.50	0.14	20.0000		88.6	74 - 116	NR		
Dichlorodifluoromethane	16.9500	0.50	0.31	20.0000		84.8	40 - 186	NR		
Ethylbenzene	35.0300	0.50	0.23	40.0000		87.6	77 - 130	NR		
Hexachlorobutadiene	18.5000	0.50	0.34	20.0000		92.5	52 - 176	NR		
Isopropylbenzene	18.2300	0.50	0.23	20.0000		91.2	77 - 144	NR		
m,p-Xylene	37.0800	1.0	0.45	40.0000		92.7	84 - 136	NR		
Methylene chloride	16.2100	1.0	0.30	20.0000		81.0	72 - 150	NR		
n-Butylbenzene	18.4900	0.50	0.31	20.0000		92.4	73 - 154	NR		
n-Propylbenzene	17.8400	0.50	0.24	20.0000		89.2	77 - 145	NR		
Naphthalene	15.0700	0.50	0.21	20.0000		75.4	55 - 137	NR		
o-Xylene	36.1000	0.50	0.20	40.0000		90.2	79 - 135	NR		
sec-Butylbenzene	17.8600	0.50	0.25	20.0000		89.3	73 - 157	NR		
Styrene	17.8000	0.50	0.20	20.0000		89.0	78 - 125	NR		
tert-Butylbenzene	17.6500	0.50	0.22	20.0000		88.2	78 - 149	NR		
Tetrachloroethene	18.1800	0.50	0.24	20.0000		90.9	74 - 136	NR		
Toluene	34.1200	0.50	0.20	40.0000		85.3	78 - 124	NR		
trans-1,2-Dichloroethene	17.1600	0.50	0.21	20.0000		85.8	66 - 131	NR		
Trichloroethene	16.7200	0.50	0.47	20.0000		83.6	78 - 128	NR		
Trichlorofluoromethane	22.8300	0.50	0.23	20.0000		114	60 - 170	NR		
Vinyl chloride	15.1100	0.50	0.19	20.0000		75.6	55 - 148	NR		
Surrogate: 1,2-Dichloroethane-d4	30.10			25.0000		120	51 - 157			
Surrogate: 4-Bromofluorobenzene	27.13			25.0000		109	61 - 123			
Surrogate: Dibromofluoromethane	27.90			25.0000		112	57 - 147			



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Reported : 02/23/2017

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 B7B0523 - MSVOA_LL_W (continued)

LCS (B7B0523-BS1) - Continued

Prepared: 2/20/2017 Analyzed: 2/20/2017

Surrogate: Toluene-d8 26.84 25.0000 107 61 - 119

LCS Dup (B7B0523-BS1)

Prepared: 2/20/2017 Analyzed: 2/20/2017

1,1,1,2-Tetrachloroethane	20.8500	0.50	0.18	20.0000	104	76 - 132	9.92	20	
1,1,1-Trichloroethane	22.3300	0.50	0.47	20.0000	112	72 - 144	13.4	20	
1,1,2,2-Tetrachloroethane	19.9400	0.50	0.17	20.0000	99.7	70 - 120	23.7	20	R
1,1,2-Trichloroethane	20.9000	0.50	0.12	20.0000	104	75 - 120	21.5	20	R
1,1-Dichloroethane	20.9900	0.50	0.16	20.0000	105	65 - 127	11.0	20	
1,1-Dichloroethene	21.1600	0.50	0.18	20.0000	106	63 - 142	10.9	20	
1,1-Dichloropropene	19.9900	0.50	0.30	20.0000	100	78 - 137	5.18	20	
1,2,3-Trichloropropane	19.8200	0.50	0.16	20.0000	99.1	73 - 118	20.8	20	R
1,2,3-Trichlorobenzene	18.7400	0.50	0.20	20.0000	93.7	53 - 164	10.1	20	
1,2,4-Trichlorobenzene	18.8100	0.50	0.26	20.0000	94.0	58 - 144	11.6	20	
1,2,4-Trimethylbenzene	19.6600	0.50	0.23	20.0000	98.3	75 - 140	10.2	20	
1,2-Dibromo-3-chloropropane	18.6700	0.50	0.26	20.0000	93.4	61 - 131	26.3	20	R
1,2-Dibromoethane	20.5000	0.50	0.15	20.0000	102	74 - 125	20.6	20	R
1,2-Dichlorobenzene	19.2900	0.50	0.21	20.0000	96.4	78 - 122	9.67	20	
1,2-Dichloroethane	22.0200	0.50	0.15	20.0000	110	70 - 126	12.3	20	
1,2-Dichloropropane	18.8800	0.50	0.35	20.0000	94.4	69 - 120	13.8	20	
1,3,5-Trimethylbenzene	19.7900	0.50	0.19	20.0000	99.0	73 - 145	10.2	20	
1,3-Dichlorobenzene	19.2600	0.50	0.23	20.0000	96.3	76 - 126	8.05	20	
1,3-Dichloropropane	19.1700	0.50	0.15	20.0000	95.8	76 - 117	11.6	20	
1,4-Dichlorobenzene	19.4700	0.50	0.23	20.0000	97.4	77 - 120	8.46	20	
2,2-Dichloropropane	21.1000	0.50	0.35	20.0000	106	47 - 169	11.7	20	
2-Chlorotoluene	18.9100	0.50	0.25	20.0000	94.6	75 - 135	10.3	20	
4-Chlorotoluene	19.1000	0.50	0.24	20.0000	95.5	70 - 133	9.60	20	
4-Isopropyltoluene	20.3100	0.50	0.24	20.0000	102	72 - 153	7.72	20	
Benzene	38.2900	0.50	0.19	40.0000	95.7	73 - 123	9.44	20	
Bromobenzene	19.0400	0.50	0.19	20.0000	95.2	75 - 121	9.63	20	
Bromodichloromethane	21.3600	0.50	0.17	20.0000	107	73 - 124	12.1	20	
Bromoform	19.6400	0.50	0.10	20.0000	98.2	70 - 135	13.8	20	
Bromomethane	16.8800	0.50	0.28	20.0000	84.4	10 - 166	13.8	20	
Carbon tetrachloride	23.7400	0.50	0.21	20.0000	119	65 - 171	9.26	20	
Chlorobenzene	18.6100	0.50	0.22	20.0000	93.0	80 - 121	7.47	20	
Chloroethane	18.1500	0.50	0.17	20.0000	90.8	55 - 143	5.37	20	
Chloroform	21.8100	0.50	0.19	20.0000	109	65 - 130	12.5	20	
Chloromethane	16.2400	0.50	0.23	20.0000	81.2	21 - 141	16.0	20	
cis-1,2-Dichloroethene	19.4000	0.50	0.19	20.0000	97.0	64 - 126	14.0	20	
cis-1,3-Dichloropropene	20.8400	0.50	0.20	20.0000	104	70 - 131	11.8	20	
Dibromochloromethane	19.8500	0.50	0.13	20.0000	99.2	74 - 125	10.7	20	
Dibromomethane	20.6800	0.50	0.14	20.0000	103	74 - 116	15.5	20	
Dichlorodifluoromethane	18.2100	0.50	0.31	20.0000	91.0	40 - 186	7.17	20	



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

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

Batch B7B0523 - MSVOA_LL_W (continued)

LCS Dup (B7B0523-BSD1) - Continued

Prepared: 2/20/2017 Analyzed: 2/20/2017

Ethylbenzene	38.1200	0.50	0.23	40.0000		95.3	77 - 130	8.45	20	
Hexachlorobutadiene	19.2900	0.50	0.34	20.0000		96.4	52 - 176	4.18	20	
Isopropylbenzene	20.2700	0.50	0.23	20.0000		101	77 - 144	10.6	20	
m,p-Xylene	39.7600	1.0	0.45	40.0000		99.4	84 - 136	6.98	20	
Methylene chloride	19.3200	1.0	0.30	20.0000		96.6	72 - 150	17.5	20	
n-Butylbenzene	20.0300	0.50	0.31	20.0000		100	73 - 154	8.00	20	
n-Propylbenzene	19.3000	0.50	0.24	20.0000		96.5	77 - 145	7.86	20	
Naphthalene	19.3300	0.50	0.21	20.0000		96.6	55 - 137	24.8	20	R
o-Xylene	38.9900	0.50	0.20	40.0000		97.5	79 - 135	7.70	20	
sec-Butylbenzene	19.6700	0.50	0.25	20.0000		98.4	73 - 157	9.65	20	
Styrene	19.1800	0.50	0.20	20.0000		95.9	78 - 125	7.46	20	
tert-Butylbenzene	19.2800	0.50	0.22	20.0000		96.4	78 - 149	8.83	20	
Tetrachloroethene	18.3600	0.50	0.24	20.0000		91.8	74 - 136	0.985	20	
Toluene	39.0300	0.50	0.20	40.0000		97.6	78 - 124	13.4	20	
trans-1,2-Dichloroethene	19.7600	0.50	0.21	20.0000		98.8	66 - 131	14.1	20	
Trichloroethene	18.5700	0.50	0.47	20.0000		92.8	78 - 128	10.5	20	
Trichlorofluoromethane	24.8200	0.50	0.23	20.0000		124	60 - 170	8.35	20	
Vinyl chloride	17.4300	0.50	0.19	20.0000		87.2	55 - 148	14.3	20	
Surrogate: 1,2-Dichloroethane-d4	32.36			25.0000		129	51 - 157			
Surrogate: 4-Bromofluorobenzene	27.12			25.0000		108	61 - 123			
Surrogate: Dibromofluoromethane	29.42			25.0000		118	57 - 147			
Surrogate: Toluene-d8	27.23			25.0000		109	61 - 119			



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Report To : Steve Netto

Reported : 02/23/2017

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

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

Batch B7B0562 - MSSEMI_ISOTOPEDILN_W

Blank (B7B0562-BLK1)

Prepared: 2/21/2017 Analyzed: 2/21/2017

1,4-Dioxane	ND	2.0	0.84			NR			
Surrogate: 1,2-Dichlorobenzene-d	46.05			100.000		46.0	17 - 101		
Surrogate: 2-Fluorobiphenyl	55.98			100.000		56.0	29 - 109		
Surrogate: 4-Terphenyl-d14	112.6			100.000		113	49 - 122		
Surrogate: Nitrobenzene-d5	50.84			100.000		50.8	19 - 111		

LCS (B7B0562-BS1)

Prepared: 2/21/2017 Analyzed: 2/22/2017

1,4-Dioxane	104.090	2.0	0.84	100.000		104	62 - 127	NR	
Surrogate: 1,2-Dichlorobenzene-d	49.67			100.000		49.7	17 - 101		
Surrogate: 2-Fluorobiphenyl	68.26			100.000		68.3	29 - 109		
Surrogate: 4-Terphenyl-d14	85.94			100.000		85.9	49 - 122		
Surrogate: Nitrobenzene-d5	61.93			100.000		61.9	19 - 111		

LCS Dup (B7B0562-BSD1)

Prepared: 2/21/2017 Analyzed: 2/21/2017

1,4-Dioxane	98.7300	2.0	0.84	100.000		98.7	62 - 127	5.29	20
Surrogate: 1,2-Dichlorobenzene-d	46.80			100.000		46.8	17 - 101		
Surrogate: 2-Fluorobiphenyl	68.80			100.000		68.8	29 - 109		
Surrogate: 4-Terphenyl-d14	88.37			100.000		88.4	49 - 122		
Surrogate: Nitrobenzene-d5	58.27			100.000		58.3	19 - 111		



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

Reported : 02/23/2017

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

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

Batch B7B0561 - MSSEMI_W

Blank (B7B0561-BLK1)

Prepared: 2/21/2017 Analyzed: 2/22/2017

1,4-Dioxane	ND	0.20	0.11			NR			
Surrogate: 1,2-Dichlorobenzene-d	0.7635			1.00000		76.4	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.8653			1.00000		86.5	28 - 122		
Surrogate: 4-Terphenyl-d14	1.201			1.00000		120	43 - 131		
Surrogate: Nitrobenzene-d5	0.7848			1.00000		78.5	20 - 119		

LCS (B7B0561-BS1)

Prepared: 2/21/2017 Analyzed: 2/22/2017

1,4-Dioxane	0.996740	0.20	0.11	1.00000		99.7	49 - 169	NR	
Surrogate: 1,2-Dichlorobenzene-d	0.7316			1.00000		73.2	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.8164			1.00000		81.6	28 - 122		
Surrogate: 4-Terphenyl-d14	1.078			1.00000		108	43 - 131		
Surrogate: Nitrobenzene-d5	0.7395			1.00000		74.0	20 - 119		

LCS Dup (B7B0561-BSD1)

Prepared: 2/21/2017 Analyzed: 2/22/2017

1,4-Dioxane	0.950670	0.20	0.11	1.00000		95.1	49 - 169	4.73	20
Surrogate: 1,2-Dichlorobenzene-d	0.6414			1.00000		64.1	31 - 106		
Surrogate: 2-Fluorobiphenyl	0.7442			1.00000		74.4	28 - 122		
Surrogate: 4-Terphenyl-d14	1.074			1.00000		107	43 - 131		
Surrogate: Nitrobenzene-d5	0.6570			1.00000		65.7	20 - 119		



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main GETS Mid Month Sample

Report To : Steve Netto

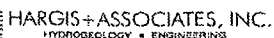
Reported : 02/23/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
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
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.



PROJECT: Raytheon Main GETS Mid Month Sample

TASK NO.: 532.15

Project Manager Steve Netto

QA Manager Kevin Fong

Phone 858.455.6500

Fax 858.455.6533

Total number of containers per analysis:	20				6	Total No. of Containers: 26

☒	No. of containers correct
☒	Received in good condition
☐	Custody seals secure
☒	Conforms to COC document

Send Results to:

Steve Netto

9171 Towne Centre Drive
Suite 275

San Diego, CA 92122

Ph: 858.455.6500

snetto@hargis.com

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓ or x
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.

5.0

Temperature on receipt



WORK ORDER NUMBER: 16-11-0026

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Hargis + Associates, Inc.

Client Project Name: Raytheon Main GETS 532.15

Attention: Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122-6215

A handwritten signature in black ink, enclosed in a hand-drawn oval. The signature appears to read "Virendra R. Patel".

Approved for release on 11/03/2016 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, 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.

Contents

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 Work Order Number: 16-11-0026

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Work Order Narrative

Work Order: 16-11-0026Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 11/01/16. They were assigned to Work Order 16-11-0026.

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.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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.

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.

Sample Summary

Client: Hargis + Associates, Inc.	Work Order: 16-11-0026
9171 Towne Centre Drive, Suite 375	Project Name: Raytheon Main GETS 532.15
San Diego, CA 92122-6215	PO Number:
	Date/Time Received: 11/01/16 11:53
	Number of Containers: 18

Attn: Steve Netto

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TB-110116	16-11-0026-1	11/01/16 07:00	2	Aqueous
CEFF	16-11-0026-2	11/01/16 08:15	4	Aqueous
CBT	16-11-0026-3	11/01/16 08:30	4	Aqueous
POX	16-11-0026-4	11/01/16 08:40	4	Aqueous
INF	16-11-0026-5	11/01/16 09:00	4	Aqueous

Detections Summary

Client: Hargis + Associates, Inc.
 9171 Towne Centre Drive, Suite 375
 San Diego, CA 92122-6215

Work Order: 16-11-0026
 Project Name: Raytheon Main GETS 532.15
 Received: 11/01/16

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>
CEFF (16-11-0026-2)						
1,1-Dichloroethane	0.63		0.50	ug/L	EPA 8260B	EPA 5030C
CBT (16-11-0026-3)						
1,1-Dichloroethane	0.59		0.50	ug/L	EPA 8260B	EPA 5030C
POX (16-11-0026-4)						
1,1-Dichloroethane	0.40	J	0.19*	ug/L	EPA 8260B	EPA 5030C
INF (16-11-0026-5)						
1,1-Dichloroethane	0.81		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	86		2.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.69		0.50	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	34		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C

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

Return to Contents

* MDL is shown



Calscience

Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 11/01/16
Work Order: 16-11-0026
Preparation: EPA 3510C
Method: EPA 8270C (M) Isotope Dilution
Units: ug/L

Project: Raytheon Main GETS 532.15

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CEFF	16-11-0026-2-D	11/01/16 08:15	Aqueous	GC/MS DDD	11/01/16	11/01/16 21:26	161101L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	93	56-123	
1,4-Dioxane-d8(IDS-IS)	43	30-120	

CBT	16-11-0026-3-D	11/01/16 08:30	Aqueous	GC/MS DDD	11/01/16	11/01/16 21:42	161101L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	95	56-123	
1,4-Dioxane-d8(IDS-IS)	41	30-120	

POX	16-11-0026-4-D	11/01/16 08:40	Aqueous	GC/MS DDD	11/01/16	11/01/16 21:58	161101L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	93	56-123	
1,4-Dioxane-d8(IDS-IS)	42	30-120	

INF	16-11-0026-5-D	11/01/16 09:00	Aqueous	GC/MS DDD	11/01/16	11/01/16 22:14	161101L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	34	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	92	56-123	
1,4-Dioxane-d8(IDS-IS)	40	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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 3510C
 Method: EPA 8270C (M) Isotope Dilution
 Units: ug/L

Project: Raytheon Main GETS 532.15

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-216-857	N/A	Aqueous	GC/MS DDD	11/01/16	11/01/16 13:57	161101L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	ND	1.0	0.28	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	100	56-123	
1,4-Dioxane-d8(IDS-IS)	41	30-120	

Analytical Report

Hargis + Associates, Inc.
 9171 Towne Centre Drive, Suite 375
 San Diego, CA 92122-6215

Date Received: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-110116	16-11-0026-1-A	11/01/16 07:00	Aqueous	GC/MS T	11/01/16	11/01/16 18:24	161101L009

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Acetone	ND	10	3.5	1.00	
Benzene	ND	0.50	0.32	1.00	
Bromobenzene	ND	0.50	0.33	1.00	
Bromochloromethane	ND	1.0	0.38	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.34	1.00	
Bromomethane	ND	1.0	0.38	1.00	
2-Butanone	ND	5.0	2.9	1.00	
n-Butylbenzene	ND	0.50	0.34	1.00	
sec-Butylbenzene	ND	0.50	0.23	1.00	
tert-Butylbenzene	ND	0.50	0.38	1.00	
Carbon Disulfide	ND	1.0	0.44	1.00	
Carbon Tetrachloride	ND	0.50	0.22	1.00	
Chlorobenzene	ND	0.50	0.14	1.00	
Chloroethane	ND	0.50	0.34	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	3.1	1.00	
Chloroform	ND	0.50	0.22	1.00	
Chloromethane	ND	0.50	0.22	1.00	
2-Chlorotoluene	ND	0.50	0.34	1.00	
4-Chlorotoluene	ND	0.50	0.33	1.00	
Dibromochloromethane	ND	0.50	0.24	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.9	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
Dibromomethane	ND	0.50	0.34	1.00	
1,2-Dichlorobenzene	ND	0.50	0.17	1.00	
1,3-Dichlorobenzene	ND	0.50	0.17	1.00	
1,4-Dichlorobenzene	ND	0.50	0.31	1.00	
Dichlorodifluoromethane	ND	1.0	0.24	1.00	
1,1-Dichloroethane	ND	0.50	0.19	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	
1,1-Dichloroethene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.24	1.00	
t-1,2-Dichloroethene	ND	0.50	0.26	1.00	
Acetonitrile	ND	10	2.2	1.00	

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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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Parameter	Result	RL	MDL	DF	Qualifiers
1,2-Dichloropropane	ND	0.50	0.24	1.00	
Acrolein	ND	20	8.8	1.00	
Acrylonitrile	ND	10	5.2	1.00	
1,3-Dichloropropane	ND	1.0	0.24	1.00	
2,2-Dichloropropane	ND	1.0	0.42	1.00	
Allyl Chloride	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	0.50	0.28	1.00	
c-1,3-Dichloropropene	ND	0.50	0.18	1.00	
t-1,3-Dichloropropene	ND	0.50	0.35	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
2-Hexanone	ND	10	2.6	1.00	
Isopropylbenzene	ND	0.50	0.42	1.00	
p-Isopropyltoluene	ND	0.50	0.14	1.00	
Methylene Chloride	ND	1.0	0.38	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.7	1.00	
Naphthalene	ND	1.0	0.41	1.00	
n-Propylbenzene	ND	0.50	0.38	1.00	
Styrene	ND	0.50	0.32	1.00	
Chloroprene	ND	0.50	0.24	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.22	1.00	
Tetrachloroethene	ND	0.50	0.22	1.00	
Toluene	ND	0.50	0.26	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.25	1.00	
Ethyl Methacrylate	ND	5.0	1.4	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.25	1.00	
1,1,1-Trichloroethane	ND	0.50	0.19	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.48	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.26	1.00	
1,1,2-Trichloroethane	ND	0.50	0.32	1.00	
Iodomethane	ND	10	6.8	1.00	
Trichloroethene	ND	0.50	0.23	1.00	
Trichlorofluoromethane	ND	0.50	0.25	1.00	
Isobutyl Alcohol	ND	10	6.7	1.00	
1,2,3-Trichloropropane	ND	1.0	0.25	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.15	1.00	
Methacrylonitrile	ND	10	2.5	1.00	
Methyl Methacrylate	ND	5.0	1.3	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.33	1.00	

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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Vinyl Acetate	ND	5.0	2.2	1.00	
Vinyl Chloride	ND	0.50	0.27	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
t-1,4-Dichloro-2-Butene	ND	5.0	3.0	1.00	
Tetrahydrofuran	ND	5.0	2.2	1.00	
Propionitrile	ND	10	3.1	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
Ethanol	ND	50	17	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	68-120	
Dibromofluoromethane	104	80-127	
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	98	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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CEFF	16-11-0026-2-A	11/01/16 08:15	Aqueous	GC/MS T	11/01/16	11/01/16 18:54	161101L009

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	10	3.5	1.00	
Benzene	ND	0.50	0.32	1.00	
Bromobenzene	ND	0.50	0.33	1.00	
Bromochloromethane	ND	1.0	0.38	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.34	1.00	
Bromomethane	ND	1.0	0.38	1.00	
2-Butanone	ND	5.0	2.9	1.00	
n-Butylbenzene	ND	0.50	0.34	1.00	
sec-Butylbenzene	ND	0.50	0.23	1.00	
tert-Butylbenzene	ND	0.50	0.38	1.00	
Carbon Disulfide	ND	1.0	0.44	1.00	
Carbon Tetrachloride	ND	0.50	0.22	1.00	
Chlorobenzene	ND	0.50	0.14	1.00	
Chloroethane	ND	0.50	0.34	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	3.1	1.00	
Chloroform	ND	0.50	0.22	1.00	
Chloromethane	ND	0.50	0.22	1.00	
2-Chlorotoluene	ND	0.50	0.34	1.00	
4-Chlorotoluene	ND	0.50	0.33	1.00	
Dibromochloromethane	ND	0.50	0.24	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.9	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
Dibromomethane	ND	0.50	0.34	1.00	
1,2-Dichlorobenzene	ND	0.50	0.17	1.00	
1,3-Dichlorobenzene	ND	0.50	0.17	1.00	
1,4-Dichlorobenzene	ND	0.50	0.31	1.00	
Dichlorodifluoromethane	ND	1.0	0.24	1.00	
1,1-Dichloroethane	0.63	0.50	0.19	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	
1,1-Dichloroethene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.24	1.00	
t-1,2-Dichloroethene	ND	0.50	0.26	1.00	
Acetonitrile	ND	10	2.2	1.00	

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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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Parameter	Result	RL	MDL	DF	Qualifiers
1,2-Dichloropropane	ND	0.50	0.24	1.00	
Acrolein	ND	20	8.8	1.00	
Acrylonitrile	ND	10	5.2	1.00	
1,3-Dichloropropane	ND	1.0	0.24	1.00	
2,2-Dichloropropane	ND	1.0	0.42	1.00	
Allyl Chloride	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	0.50	0.28	1.00	
c-1,3-Dichloropropene	ND	0.50	0.18	1.00	
t-1,3-Dichloropropene	ND	0.50	0.35	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
2-Hexanone	ND	10	2.6	1.00	
Isopropylbenzene	ND	0.50	0.42	1.00	
p-Isopropyltoluene	ND	0.50	0.14	1.00	
Methylene Chloride	ND	1.0	0.38	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.7	1.00	
Naphthalene	ND	1.0	0.41	1.00	
n-Propylbenzene	ND	0.50	0.38	1.00	
Styrene	ND	0.50	0.32	1.00	
Chloroprene	ND	0.50	0.24	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.22	1.00	
Tetrachloroethene	ND	0.50	0.22	1.00	
Toluene	ND	0.50	0.26	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.25	1.00	
Ethyl Methacrylate	ND	5.0	1.4	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.25	1.00	
1,1,1-Trichloroethane	ND	0.50	0.19	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.48	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.26	1.00	
1,1,2-Trichloroethane	ND	0.50	0.32	1.00	
Iodomethane	ND	10	6.8	1.00	
Trichloroethene	ND	0.50	0.23	1.00	
Trichlorofluoromethane	ND	0.50	0.25	1.00	
Isobutyl Alcohol	ND	10	6.7	1.00	
1,2,3-Trichloropropane	ND	1.0	0.25	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.15	1.00	
Methacrylonitrile	ND	10	2.5	1.00	
Methyl Methacrylate	ND	5.0	1.3	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.33	1.00	

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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Vinyl Acetate	ND	5.0	2.2	1.00	
Vinyl Chloride	ND	0.50	0.27	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
t-1,4-Dichloro-2-Butene	ND	5.0	3.0	1.00	
Tetrahydrofuran	ND	5.0	2.2	1.00	
Propionitrile	ND	10	3.1	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
Ethanol	ND	50	17	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	105	80-127	
1,2-Dichloroethane-d4	109	80-128	
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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CBT	16-11-0026-3-A	11/01/16 08:30	Aqueous	GC/MS T	11/01/16	11/01/16 19:24	161101L009

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	10	3.5	1.00	
Benzene	ND	0.50	0.32	1.00	
Bromobenzene	ND	0.50	0.33	1.00	
Bromochloromethane	ND	1.0	0.38	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.34	1.00	
Bromomethane	ND	1.0	0.38	1.00	
2-Butanone	ND	5.0	2.9	1.00	
n-Butylbenzene	ND	0.50	0.34	1.00	
sec-Butylbenzene	ND	0.50	0.23	1.00	
tert-Butylbenzene	ND	0.50	0.38	1.00	
Carbon Disulfide	ND	1.0	0.44	1.00	
Carbon Tetrachloride	ND	0.50	0.22	1.00	
Chlorobenzene	ND	0.50	0.14	1.00	
Chloroethane	ND	0.50	0.34	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	3.1	1.00	
Chloroform	ND	0.50	0.22	1.00	
Chloromethane	ND	0.50	0.22	1.00	
2-Chlorotoluene	ND	0.50	0.34	1.00	
4-Chlorotoluene	ND	0.50	0.33	1.00	
Dibromochloromethane	ND	0.50	0.24	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.9	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
Dibromomethane	ND	0.50	0.34	1.00	
1,2-Dichlorobenzene	ND	0.50	0.17	1.00	
1,3-Dichlorobenzene	ND	0.50	0.17	1.00	
1,4-Dichlorobenzene	ND	0.50	0.31	1.00	
Dichlorodifluoromethane	ND	1.0	0.24	1.00	
1,1-Dichloroethane	0.59	0.50	0.19	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	
1,1-Dichloroethene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.24	1.00	
t-1,2-Dichloroethene	ND	0.50	0.26	1.00	
Acetonitrile	ND	10	2.2	1.00	

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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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Parameter	Result	RL	MDL	DF	Qualifiers
1,2-Dichloropropane	ND	0.50	0.24	1.00	
Acrolein	ND	20	8.8	1.00	
Acrylonitrile	ND	10	5.2	1.00	
1,3-Dichloropropane	ND	1.0	0.24	1.00	
2,2-Dichloropropane	ND	1.0	0.42	1.00	
Allyl Chloride	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	0.50	0.28	1.00	
c-1,3-Dichloropropene	ND	0.50	0.18	1.00	
t-1,3-Dichloropropene	ND	0.50	0.35	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
2-Hexanone	ND	10	2.6	1.00	
Isopropylbenzene	ND	0.50	0.42	1.00	
p-Isopropyltoluene	ND	0.50	0.14	1.00	
Methylene Chloride	ND	1.0	0.38	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.7	1.00	
Naphthalene	ND	1.0	0.41	1.00	
n-Propylbenzene	ND	0.50	0.38	1.00	
Styrene	ND	0.50	0.32	1.00	
Chloroprene	ND	0.50	0.24	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.22	1.00	
Tetrachloroethene	ND	0.50	0.22	1.00	
Toluene	ND	0.50	0.26	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.25	1.00	
Ethyl Methacrylate	ND	5.0	1.4	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.25	1.00	
1,1,1-Trichloroethane	ND	0.50	0.19	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.48	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.26	1.00	
1,1,2-Trichloroethane	ND	0.50	0.32	1.00	
Iodomethane	ND	10	6.8	1.00	
Trichloroethene	ND	0.50	0.23	1.00	
Trichlorofluoromethane	ND	0.50	0.25	1.00	
Isobutyl Alcohol	ND	10	6.7	1.00	
1,2,3-Trichloropropane	ND	1.0	0.25	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.15	1.00	
Methacrylonitrile	ND	10	2.5	1.00	
Methyl Methacrylate	ND	5.0	1.3	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.33	1.00	

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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Vinyl Acetate	ND	5.0	2.2	1.00	
Vinyl Chloride	ND	0.50	0.27	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
t-1,4-Dichloro-2-Butene	ND	5.0	3.0	1.00	
Tetrahydrofuran	ND	5.0	2.2	1.00	
Propionitrile	ND	10	3.1	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
Ethanol	ND	50	17	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	96	68-120	
Dibromofluoromethane	102	80-127	
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	99	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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
POX	16-11-0026-4-A	11/01/16 08:40	Aqueous	GC/MS T	11/01/16	11/01/16 19:53	161101L009

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	10	3.5	1.00	
Benzene	ND	0.50	0.32	1.00	
Bromobenzene	ND	0.50	0.33	1.00	
Bromochloromethane	ND	1.0	0.38	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.34	1.00	
Bromomethane	ND	1.0	0.38	1.00	
2-Butanone	ND	5.0	2.9	1.00	
n-Butylbenzene	ND	0.50	0.34	1.00	
sec-Butylbenzene	ND	0.50	0.23	1.00	
tert-Butylbenzene	ND	0.50	0.38	1.00	
Carbon Disulfide	ND	1.0	0.44	1.00	
Carbon Tetrachloride	ND	0.50	0.22	1.00	
Chlorobenzene	ND	0.50	0.14	1.00	
Chloroethane	ND	0.50	0.34	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	3.1	1.00	
Chloroform	ND	0.50	0.22	1.00	
Chloromethane	ND	0.50	0.22	1.00	
2-Chlorotoluene	ND	0.50	0.34	1.00	
4-Chlorotoluene	ND	0.50	0.33	1.00	
Dibromochloromethane	ND	0.50	0.24	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.9	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
Dibromomethane	ND	0.50	0.34	1.00	
1,2-Dichlorobenzene	ND	0.50	0.17	1.00	
1,3-Dichlorobenzene	ND	0.50	0.17	1.00	
1,4-Dichlorobenzene	ND	0.50	0.31	1.00	
Dichlorodifluoromethane	ND	1.0	0.24	1.00	
1,1-Dichloroethane	0.40	0.50	0.19	1.00	J
1,2-Dichloroethane	ND	0.50	0.18	1.00	
1,1-Dichloroethene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.24	1.00	
t-1,2-Dichloroethene	ND	0.50	0.26	1.00	
Acetonitrile	ND	10	2.2	1.00	

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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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Parameter	Result	RL	MDL	DF	Qualifiers
1,2-Dichloropropane	ND	0.50	0.24	1.00	
Acrolein	ND	20	8.8	1.00	
Acrylonitrile	ND	10	5.2	1.00	
1,3-Dichloropropane	ND	1.0	0.24	1.00	
2,2-Dichloropropane	ND	1.0	0.42	1.00	
Allyl Chloride	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	0.50	0.28	1.00	
c-1,3-Dichloropropene	ND	0.50	0.18	1.00	
t-1,3-Dichloropropene	ND	0.50	0.35	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
2-Hexanone	ND	10	2.6	1.00	
Isopropylbenzene	ND	0.50	0.42	1.00	
p-Isopropyltoluene	ND	0.50	0.14	1.00	
Methylene Chloride	ND	1.0	0.38	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.7	1.00	
Naphthalene	ND	1.0	0.41	1.00	
n-Propylbenzene	ND	0.50	0.38	1.00	
Styrene	ND	0.50	0.32	1.00	
Chloroprene	ND	0.50	0.24	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.22	1.00	
Tetrachloroethene	ND	0.50	0.22	1.00	
Toluene	ND	0.50	0.26	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.25	1.00	
Ethyl Methacrylate	ND	5.0	1.4	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.25	1.00	
1,1,1-Trichloroethane	ND	0.50	0.19	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.48	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.26	1.00	
1,1,2-Trichloroethane	ND	0.50	0.32	1.00	
Iodomethane	ND	10	6.8	1.00	
Trichloroethene	ND	0.50	0.23	1.00	
Trichlorofluoromethane	ND	0.50	0.25	1.00	
Isobutyl Alcohol	ND	10	6.7	1.00	
1,2,3-Trichloropropane	ND	1.0	0.25	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.15	1.00	
Methacrylonitrile	ND	10	2.5	1.00	
Methyl Methacrylate	ND	5.0	1.3	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.33	1.00	

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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Vinyl Acetate	ND	5.0	2.2	1.00	
Vinyl Chloride	ND	0.50	0.27	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
t-1,4-Dichloro-2-Butene	ND	5.0	3.0	1.00	
Tetrahydrofuran	ND	5.0	2.2	1.00	
Propionitrile	ND	10	3.1	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
Ethanol	ND	50	17	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	68-120	
Dibromofluoromethane	105	80-127	
1,2-Dichloroethane-d4	109	80-128	
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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF	16-11-0026-5-A	11/01/16 09:00	Aqueous	GC/MS T	11/01/16	11/01/16 20:23	161101L009

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	10	3.5	1.00	
Benzene	ND	0.50	0.32	1.00	
Bromobenzene	ND	0.50	0.33	1.00	
Bromochloromethane	ND	1.0	0.38	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.34	1.00	
Bromomethane	ND	1.0	0.38	1.00	
2-Butanone	ND	5.0	2.9	1.00	
n-Butylbenzene	ND	0.50	0.34	1.00	
sec-Butylbenzene	ND	0.50	0.23	1.00	
tert-Butylbenzene	ND	0.50	0.38	1.00	
Carbon Disulfide	ND	1.0	0.44	1.00	
Carbon Tetrachloride	ND	0.50	0.22	1.00	
Chlorobenzene	ND	0.50	0.14	1.00	
Chloroethane	ND	0.50	0.34	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	3.1	1.00	
Chloroform	ND	0.50	0.22	1.00	
Chloromethane	ND	0.50	0.22	1.00	
2-Chlorotoluene	ND	0.50	0.34	1.00	
4-Chlorotoluene	ND	0.50	0.33	1.00	
Dibromochloromethane	ND	0.50	0.24	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.9	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
Dibromomethane	ND	0.50	0.34	1.00	
1,2-Dichlorobenzene	ND	0.50	0.17	1.00	
1,3-Dichlorobenzene	ND	0.50	0.17	1.00	
1,4-Dichlorobenzene	ND	0.50	0.31	1.00	
Dichlorodifluoromethane	ND	1.0	0.24	1.00	
1,1-Dichloroethane	0.81	0.50	0.19	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	
c-1,2-Dichloroethene	ND	0.50	0.24	1.00	
t-1,2-Dichloroethene	ND	0.50	0.26	1.00	
Acetonitrile	ND	10	2.2	1.00	
1,2-Dichloropropane	ND	0.50	0.24	1.00	

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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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Parameter	Result	RL	MDL	DF	Qualifiers
Acrolein	ND	20	8.8	1.00	
Acrylonitrile	ND	10	5.2	1.00	
1,3-Dichloropropane	ND	1.0	0.24	1.00	
2,2-Dichloropropane	ND	1.0	0.42	1.00	
Allyl Chloride	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	0.50	0.28	1.00	
c-1,3-Dichloropropene	ND	0.50	0.18	1.00	
t-1,3-Dichloropropene	ND	0.50	0.35	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
2-Hexanone	ND	10	2.6	1.00	
Isopropylbenzene	ND	0.50	0.42	1.00	
p-Isopropyltoluene	ND	0.50	0.14	1.00	
Methylene Chloride	ND	1.0	0.38	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.7	1.00	
Naphthalene	ND	1.0	0.41	1.00	
n-Propylbenzene	ND	0.50	0.38	1.00	
Styrene	ND	0.50	0.32	1.00	
Chloroprene	ND	0.50	0.24	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.22	1.00	
Tetrachloroethene	ND	0.50	0.22	1.00	
Toluene	ND	0.50	0.26	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.25	1.00	
Ethyl Methacrylate	ND	5.0	1.4	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.25	1.00	
1,1,1-Trichloroethane	ND	0.50	0.19	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.48	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.26	1.00	
1,1,2-Trichloroethane	ND	0.50	0.32	1.00	
Iodomethane	ND	10	6.8	1.00	
Trichloroethene	0.69	0.50	0.23	1.00	
Trichlorofluoromethane	ND	0.50	0.25	1.00	
Isobutyl Alcohol	ND	10	6.7	1.00	
1,2,3-Trichloropropane	ND	1.0	0.25	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.15	1.00	
Methacrylonitrile	ND	10	2.5	1.00	
Methyl Methacrylate	ND	5.0	1.3	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.33	1.00	
Vinyl Acetate	ND	5.0	2.2	1.00	

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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Vinyl Chloride	ND	0.50	0.27	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
t-1,4-Dichloro-2-Butene	ND	5.0	3.0	1.00	
Tetrahydrofuran	ND	5.0	2.2	1.00	
Propionitrile	ND	10	3.1	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
Ethanol	ND	50	17	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	68-120	
Dibromofluoromethane	105	80-127	
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	99	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF	16-11-0026-5-B	11/01/16 09:00	Aqueous	GC/MS L	11/01/16	11/02/16 08:19	161101L036

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloroethene	86	2.0	0.80	4.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	100	80-128	
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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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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	099-10-025-4319	N/A	Aqueous	GC/MS T	11/01/16	11/01/16 10:56	161101L009

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	10	3.5	1.00	
Benzene	ND	0.50	0.32	1.00	
Bromobenzene	ND	0.50	0.33	1.00	
Bromochloromethane	ND	1.0	0.38	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.34	1.00	
Bromomethane	ND	1.0	0.38	1.00	
2-Butanone	ND	5.0	2.9	1.00	
n-Butylbenzene	ND	0.50	0.34	1.00	
sec-Butylbenzene	ND	0.50	0.23	1.00	
tert-Butylbenzene	ND	0.50	0.38	1.00	
Carbon Disulfide	ND	1.0	0.44	1.00	
Carbon Tetrachloride	ND	0.50	0.22	1.00	
Chlorobenzene	ND	0.50	0.14	1.00	
Chloroethane	ND	0.50	0.34	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	3.1	1.00	
Chloroform	ND	0.50	0.22	1.00	
Chloromethane	ND	0.50	0.22	1.00	
2-Chlorotoluene	ND	0.50	0.34	1.00	
4-Chlorotoluene	ND	0.50	0.33	1.00	
Dibromochloromethane	ND	0.50	0.24	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.9	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
Dibromomethane	ND	0.50	0.34	1.00	
1,2-Dichlorobenzene	ND	0.50	0.17	1.00	
1,3-Dichlorobenzene	ND	0.50	0.17	1.00	
1,4-Dichlorobenzene	ND	0.50	0.31	1.00	
Dichlorodifluoromethane	ND	1.0	0.24	1.00	
1,1-Dichloroethane	ND	0.50	0.19	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	
1,1-Dichloroethene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.24	1.00	
t-1,2-Dichloroethene	ND	0.50	0.26	1.00	
Acetonitrile	ND	10	2.2	1.00	

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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: Raytheon Main GETS 532.15

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Parameter	Result	RL	MDL	DF	Qualifiers
1,2-Dichloropropane	ND	0.50	0.24	1.00	
Acrolein	ND	20	8.8	1.00	
Acrylonitrile	ND	10	5.2	1.00	
1,3-Dichloropropane	ND	1.0	0.24	1.00	
2,2-Dichloropropane	ND	1.0	0.42	1.00	
Allyl Chloride	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	0.50	0.28	1.00	
c-1,3-Dichloropropene	ND	0.50	0.18	1.00	
t-1,3-Dichloropropene	ND	0.50	0.35	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
2-Hexanone	ND	10	2.6	1.00	
Isopropylbenzene	ND	0.50	0.42	1.00	
p-Isopropyltoluene	ND	0.50	0.14	1.00	
Methylene Chloride	ND	1.0	0.38	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.7	1.00	
Naphthalene	ND	1.0	0.41	1.00	
n-Propylbenzene	ND	0.50	0.38	1.00	
Styrene	ND	0.50	0.32	1.00	
Chloroprene	ND	0.50	0.24	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.22	1.00	
Tetrachloroethene	ND	0.50	0.22	1.00	
Toluene	ND	0.50	0.26	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.25	1.00	
Ethyl Methacrylate	ND	5.0	1.4	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.25	1.00	
1,1,1-Trichloroethane	ND	0.50	0.19	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.48	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.26	1.00	
1,1,2-Trichloroethane	ND	0.50	0.32	1.00	
Iodomethane	ND	10	6.8	1.00	
Trichloroethene	ND	0.50	0.23	1.00	
Trichlorofluoromethane	ND	0.50	0.25	1.00	
Isobutyl Alcohol	ND	10	6.7	1.00	
1,2,3-Trichloropropane	ND	1.0	0.25	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.15	1.00	
Methacrylonitrile	ND	10	2.5	1.00	
Methyl Methacrylate	ND	5.0	1.3	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.33	1.00	

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: 11/01/16
Work Order: 16-11-0026
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Raytheon Main GETS 532.15

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Parameter	Result	RL	MDL	DF	Qualifiers
Vinyl Acetate	ND	5.0	2.2	1.00	
Vinyl Chloride	ND	0.50	0.27	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
t-1,4-Dichloro-2-Butene	ND	5.0	3.0	1.00	
Tetrahydrofuran	ND	5.0	2.2	1.00	
Propionitrile	ND	10	3.1	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
Ethanol	ND	50	17	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	68-120	
Dibromofluoromethane	103	80-127	
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	99	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4326	N/A	Aqueous	GC/MS L	11/01/16	11/01/16 23:09	161101L036

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,1-Dichloroethene	ND	0.50	0.20	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	68-120	
Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	104	80-128	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 11/01/16
Work Order: 16-11-0026
Preparation: EPA 3510C
Method: EPA 8270C (M) Isotope Dilution

Project: Raytheon Main GETS 532.15

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-10-2544-2	Sample	Aqueous	GC/MS DDD	11/01/16	11/01/16 15:01	161101S09
16-10-2544-2	Matrix Spike	Aqueous	GC/MS DDD	11/01/16	11/01/16 14:29	161101S09
16-10-2544-2	Matrix Spike Duplicate	Aqueous	GC/MS DDD	11/01/16	11/01/16 14:45	161101S09

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	70.51	20.00	82.53	60	90.46	100	50-130	9	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 11/01/16
Work Order: 16-11-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project: Raytheon Main GETS 532.15

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-10-2141-26	Sample	Aqueous	GC/MS L	11/01/16	11/02/16 01:41	161101S017
16-10-2141-26	Matrix Spike	Aqueous	GC/MS L	11/01/16	11/02/16 02:12	161101S017
16-10-2141-26	Matrix Spike Duplicate	Aqueous	GC/MS L	11/01/16	11/02/16 02:42	161101S017

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	200.0	206.5	103	220.2	110	20-180	6	0-52	
Benzene	ND	200.0	170.4	85	193.7	97	75-125	13	0-20	
Bromobenzene	ND	200.0	178.0	89	197.1	99	75-125	10	0-20	
Bromochloromethane	ND	200.0	184.3	92	200.2	100	75-128	8	0-20	
Bromodichloromethane	ND	200.0	189.9	95	210.1	105	75-125	10	0-20	
Bromoform	ND	200.0	174.4	87	184.2	92	71-137	5	0-20	
Bromomethane	ND	200.0	187.0	94	198.8	99	37-181	6	0-22	
2-Butanone	ND	200.0	194.9	97	193.0	96	20-180	1	0-40	
n-Butylbenzene	ND	200.0	171.9	86	182.9	91	75-125	6	0-20	
sec-Butylbenzene	ND	200.0	179.7	90	190.6	95	75-129	6	0-20	
tert-Butylbenzene	ND	200.0	175.9	88	185.6	93	75-129	5	0-20	
Carbon Disulfide	ND	200.0	170.0	85	196.3	98	58-136	14	0-20	
Carbon Tetrachloride	ND	200.0	199.5	100	216.3	108	69-135	8	0-20	
Chlorobenzene	ND	200.0	174.6	87	195.4	98	75-125	11	0-20	
Chloroethane	ND	200.0	192.6	96	193.4	97	20-180	0	0-20	
Chloroform	ND	200.0	176.2	88	195.9	98	75-128	11	0-20	
Chloromethane	ND	200.0	200.6	100	210.6	105	41-149	5	0-20	
2-Chlorotoluene	ND	200.0	173.3	87	199.3	100	75-128	14	0-20	
4-Chlorotoluene	ND	200.0	170.9	85	191.2	96	75-125	11	0-20	
Dibromochloromethane	ND	200.0	191.9	96	211.3	106	75-125	10	0-20	
1,2-Dibromo-3-Chloropropane	ND	200.0	203.7	102	214.0	107	75-127	5	0-20	
1,2-Dibromoethane	ND	200.0	184.2	92	202.6	101	75-126	10	0-20	
Dibromomethane	ND	200.0	180.5	90	197.3	99	75-129	9	0-20	
1,2-Dichlorobenzene	ND	200.0	174.1	87	189.1	95	75-125	8	0-20	
1,3-Dichlorobenzene	ND	200.0	170.6	85	191.5	96	75-126	12	0-20	
1,4-Dichlorobenzene	ND	200.0	173.2	87	192.1	96	75-125	10	0-20	
Dichlorodifluoromethane	ND	200.0	117.6	59	112.6	56	28-172	4	0-20	
1,1-Dichloroethane	ND	200.0	175.7	88	201.1	101	68-128	13	0-20	
1,2-Dichloroethane	ND	200.0	186.1	93	207.0	104	75-127	11	0-20	
1,1-Dichloroethene	10.83	200.0	197.6	93	223.0	106	66-126	12	0-20	
c-1,2-Dichloroethene	ND	200.0	169.0	85	190.6	95	75-130	12	0-20	
t-1,2-Dichloroethene	ND	200.0	168.3	84	190.0	95	73-133	12	0-20	
1,2-Dichloropropane	ND	200.0	177.5	89	201.3	101	75-125	13	0-20	
1,3-Dichloropropane	ND	200.0	182.7	91	197.6	99	75-125	8	0-20	
2,2-Dichloropropane	ND	200.0	136.1	68	151.5	76	52-160	11	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 11/01/16
Work Order: 16-11-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project: Raytheon Main GETS 532.15

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Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	200.0	170.2	85	195.4	98	74-134	14	0-20	
c-1,3-Dichloropropene	ND	200.0	170.3	85	186.9	93	75-128	9	0-20	
t-1,3-Dichloropropene	ND	200.0	177.4	89	192.4	96	75-125	8	0-20	
Ethylbenzene	ND	200.0	174.6	87	198.5	99	75-125	13	0-20	
2-Hexanone	ND	200.0	181.0	90	199.8	100	74-122	10	0-20	
Isopropylbenzene	ND	200.0	177.2	89	196.1	98	75-130	10	0-20	
p-Isopropyltoluene	ND	200.0	177.0	89	189.9	95	75-125	7	0-20	
Methylene Chloride	ND	200.0	176.4	88	197.4	99	74-128	11	0-20	
4-Methyl-2-Pentanone	ND	200.0	190.7	95	193.4	97	65-137	1	0-20	
Naphthalene	ND	200.0	179.3	90	192.8	96	75-136	7	0-20	
n-Propylbenzene	ND	200.0	178.3	89	195.6	98	75-129	9	0-20	
Styrene	ND	200.0	175.5	88	196.2	98	28-166	11	0-30	
1,1,1,2-Tetrachloroethane	ND	200.0	186.6	93	217.9	109	75-127	15	0-20	
1,1,2,2-Tetrachloroethane	ND	200.0	185.1	93	202.5	101	75-132	9	0-20	
Tetrachloroethene	ND	200.0	177.5	89	202.0	101	58-124	13	0-20	
Toluene	ND	200.0	175.8	88	200.6	100	75-125	13	0-20	
1,2,3-Trichlorobenzene	ND	200.0	174.7	87	186.4	93	75-125	6	0-20	
1,2,4-Trichlorobenzene	ND	200.0	169.4	85	183.1	92	75-125	8	0-20	
1,1,1-Trichloroethane	ND	200.0	183.2	92	204.0	102	72-132	11	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	200.0	165.5	83	172.7	86	70-130	4	0-20	
1,1,2-Trichloroethane	ND	200.0	182.7	91	196.9	98	75-125	8	0-20	
Trichloroethene	725.8	200.0	927.1	101	925.0	100	75-125	0	0-20	
Trichlorofluoromethane	ND	200.0	227.6	114	215.7	108	68-134	5	0-20	
1,2,3-Trichloropropane	ND	200.0	194.5	97	211.6	106	75-125	8	0-20	
1,2,4-Trimethylbenzene	ND	200.0	171.0	86	184.6	92	75-125	8	0-20	
1,3,5-Trimethylbenzene	ND	200.0	179.4	90	199.7	100	75-127	11	0-20	
Vinyl Acetate	ND	200.0	168.7	84	169.9	85	65-137	1	0-20	
Vinyl Chloride	ND	200.0	203.1	102	200.5	100	52-142	1	0-20	
p/m-Xylene	ND	400.0	348.2	87	392.9	98	75-125	12	0-20	
o-Xylene	ND	200.0	176.2	88	195.1	98	75-127	10	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	200.0	178.4	89	189.2	95	71-131	6	0-20	
Tert-Butyl Alcohol (TBA)	ND	1000	1006	101	1051	105	20-180	4	0-40	
Diisopropyl Ether (DIPE)	ND	200.0	174.9	87	194.5	97	64-136	11	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	200.0	175.7	88	190.0	95	73-133	8	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	200.0	176.5	88	194.3	97	75-125	10	0-20	
Ethanol	ND	2000	2178	109	2258	113	73-139	4	0-27	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 11/01/16
Work Order: 16-11-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project: Raytheon Main GETS 532.15

Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-10-2204-6	Sample	Aqueous	GC/MS T	11/01/16	11/01/16 12:37	161101S008
16-10-2204-6	Matrix Spike	Aqueous	GC/MS T	11/01/16	11/01/16 13:36	161101S008
16-10-2204-6	Matrix Spike Duplicate	Aqueous	GC/MS T	11/01/16	11/01/16 14:06	161101S008

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	9.932	99	9.912	99	75-125	0	0-20	
Carbon Tetrachloride	ND	10.00	7.651	77	8.243	82	69-135	7	0-20	
Chlorobenzene	ND	10.00	10.63	106	10.78	108	75-125	1	0-20	
1,2-Dibromoethane	ND	10.00	9.712	97	9.903	99	75-126	2	0-20	
1,2-Dichlorobenzene	ND	10.00	10.31	103	10.14	101	75-125	2	0-20	
1,2-Dichloroethane	ND	10.00	11.24	112	11.37	114	75-127	1	0-20	
1,1-Dichloroethene	ND	10.00	11.07	111	10.93	109	66-126	1	0-20	
Ethylbenzene	ND	10.00	10.56	106	10.58	106	75-125	0	0-20	
Toluene	ND	10.00	10.08	101	10.11	101	75-125	0	0-20	
Trichloroethene	ND	10.00	9.963	100	9.780	98	75-125	2	0-20	
Vinyl Chloride	ND	10.00	10.81	108	11.20	112	52-142	4	0-20	
p/m-Xylene	ND	20.00	21.11	106	20.98	105	75-125	1	0-20	
o-Xylene	ND	10.00	10.50	105	10.60	106	75-127	1	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	8.741	87	8.739	87	71-131	0	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	59.20	118	64.85	130	20-180	9	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	10.87	109	10.76	108	64-136	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.704	97	9.744	97	73-133	0	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	8.573	86	8.516	85	75-125	1	0-20	
Ethanol	ND	100.0	157.6	158	152.1	152	73-139	4	0-27	3

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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: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 3510C
 Method: EPA 8270C (M) Isotope Dilution

Project: Raytheon Main GETS 532.15

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-216-857	LCS	Aqueous	GC/MS DDD	11/01/16	11/01/16 14:13	161101L09
<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	19.73	99	50-130	

Quality Control - LCS/LCSD

Hargis + Associates, Inc.
 9171 Towne Centre Drive, Suite 375
 San Diego, CA 92122-6215

Date Received: 11/01/16
 Work Order: 16-11-0026
 Preparation: EPA 5030C
 Method: EPA 8260B

Project: Raytheon Main GETS 532.15

Page 2 of 3

Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-10-025-4326	LCS	Aqueous		GC/MS L	11/01/16	11/01/16 22:08	161101L036			
099-10-025-4326	LCSD	Aqueous		GC/MS L	11/01/16	11/01/16 22:39	161101L036			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	10.00	9.489	95	9.100	91	80-120	73-127	4	0-22	
Carbon Tetrachloride	10.00	10.86	109	10.42	104	80-129	72-137	4	0-36	
Chlorobenzene	10.00	9.614	96	9.277	93	80-120	73-127	4	0-29	
1,2-Dibromoethane	10.00	9.682	97	10.05	101	80-120	73-127	4	0-32	
1,2-Dichlorobenzene	10.00	9.427	94	9.352	94	80-120	73-127	1	0-30	
1,2-Dichloroethane	10.00	10.07	101	10.05	101	80-122	73-129	0	0-23	
1,1-Dichloroethene	10.00	10.38	104	9.564	96	77-120	70-127	8	0-26	
Ethylbenzene	10.00	9.699	97	9.421	94	80-120	73-127	3	0-25	
Toluene	10.00	9.622	96	9.418	94	80-120	73-127	2	0-28	
Trichloroethene	10.00	9.528	95	9.177	92	80-120	73-127	4	0-25	
Vinyl Chloride	10.00	9.494	95	9.015	90	63-135	51-147	5	0-30	
p/m-Xylene	20.00	19.22	96	18.45	92	80-120	73-127	4	0-30	
o-Xylene	10.00	9.643	96	9.434	94	80-120	73-127	2	0-30	
Methyl-t-Butyl Ether (MTBE)	10.00	9.482	95	9.515	95	75-123	67-131	0	0-27	
Tert-Butyl Alcohol (TBA)	50.00	49.80	100	51.76	104	80-120	73-127	4	0-30	
Diisopropyl Ether (DIPE)	10.00	9.612	96	9.453	95	73-121	65-129	2	0-26	
Ethyl-t-Butyl Ether (ETBE)	10.00	9.592	96	9.336	93	76-124	68-132	3	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	9.622	96	9.570	96	80-120	73-127	1	0-24	
Ethanol	100.0	97.47	97	100.1	100	73-133	63-143	3	0-30	

Total number of LCS compounds: 19

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - LCS/LCSD

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 11/01/16
Work Order: 16-11-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project: Raytheon Main GETS 532.15

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Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-10-025-4319	LCS	Aqueous		GC/MS T	11/01/16	11/01/16 09:10	161101L009			
099-10-025-4319	LCSD	Aqueous		GC/MS T	11/01/16	11/01/16 09:39	161101L009			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	10.00	9.668	97	9.790	98	80-120	73-127	1	0-22	
Carbon Tetrachloride	10.00	8.010	80	7.950	80	80-129	72-137	1	0-36	
Chlorobenzene	10.00	10.63	106	10.69	107	80-120	73-127	1	0-29	
1,2-Dibromoethane	10.00	9.818	98	10.26	103	80-120	73-127	4	0-32	
1,2-Dichlorobenzene	10.00	9.979	100	10.29	103	80-120	73-127	3	0-30	
1,2-Dichloroethane	10.00	10.96	110	11.41	114	80-122	73-129	4	0-23	
1,1-Dichloroethene	10.00	10.37	104	10.35	103	77-120	70-127	0	0-26	
Ethylbenzene	10.00	10.36	104	10.35	103	80-120	73-127	0	0-25	
Toluene	10.00	9.863	99	10.02	100	80-120	73-127	2	0-28	
Trichloroethene	10.00	9.653	97	9.701	97	80-120	73-127	0	0-25	
Vinyl Chloride	10.00	10.08	101	10.09	101	63-135	51-147	0	0-30	
p/m-Xylene	20.00	20.49	102	20.54	103	80-120	73-127	0	0-30	
o-Xylene	10.00	10.41	104	10.41	104	80-120	73-127	0	0-30	
Methyl-t-Butyl Ether (MTBE)	10.00	8.721	87	9.011	90	75-123	67-131	3	0-27	
Tert-Butyl Alcohol (TBA)	50.00	49.01	98	52.74	105	80-120	73-127	7	0-30	
Diisopropyl Ether (DIPE)	10.00	10.80	108	10.96	110	73-121	65-129	1	0-26	
Ethyl-t-Butyl Ether (ETBE)	10.00	9.717	97	10.07	101	76-124	68-132	4	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	8.449	84	8.953	90	80-120	73-127	6	0-24	
Ethanol	100.0	118.2	118	130.1	130	73-133	63-143	10	0-30	

Total number of LCS compounds: 19

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Sample Analysis Summary Report

Work Order: 16-11-0026

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8260B	EPA 5030C	316	GC/MS L	2
EPA 8260B	EPA 5030C	316	GC/MS T	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	928	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: 16-11-0026

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/PDSD 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.
CI	See case narrative.
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.

Virendra Patel

From: Kevin Fong <KFONG@HARGIS.COM>
Sent: Tuesday, November 01, 2016 3:57 PM
To: Virendra Patel
Cc: Anita Akacki; Christopher Liles; Stacia Prazen; Steve Netto; Tyler Evans; Erick Ovalle
Subject: RE: Raytheon Main -- 16-11-0026 <response requested>

Virendra,

Please CC me on future emails regarding 532 samples.

The EPA 8270C (M) Isotope Dilution for all samples is acceptable with the 0.28 MDL. Please J Flag detections which are below the reporting limit, and above the MDL.

Thanks,

Kevin Fong, PE
 Engineer
[HARGIS + ASSOCIATES, Inc.](#)
 9171 Towne Centre Drive, Suite 375
 San Diego, CA 92122
 Phone: 858-455-6500 x140
 Fax: 858-455-6533

From: Tyler Evans
Sent: Tuesday, November 01, 2016 3:11 PM
To: Kevin Fong <KFONG@HARGIS.COM>
Subject: FW: Raytheon Main -- 16-11-0026 <response requested>
Importance: High

Tyler Evans
 Hydrogeologist
HARGIS + ASSOCIATES, INC.
 9171 Towne Centre Drive, Suite 375
 San Diego, CA 92122

Office: 858-410-7461
 Cell: 509-954-2493



From: Virendra Patel [<mailto:VirendraPatel@eurofinsUS.com>]
Sent: Tuesday, November 01, 2016 3:09 PM
To: Anita Akacki <AAKACKI@HARGIS.COM>; Chris Ross <CRoss@HARGIS.COM>; Stacia Prazen

<SPRAZEN@HARGIS.COM>; Steve Netto <SNETTO@HARGIS.COM>; Tyler Evans <TEvans@HARGIS.COM>

Cc: Erick Ovalle <ErickOvalle@eurofinsUS.com>

Subject: Raytheon Main -- 16-11-0026 <response requested>

Importance: High

All –

The attached COC has two separate requests for 1,4-Dioxane?

We can provide by EPA 8270C (M) Isotope Dilution for all samples, is this acceptable? Detection limits are listed below, please advise.

METHOD	TC Description	Matrix	TYPE	COMPOUND	CAS
EPA 8270C (M) Isotope Dilution	1,4-Dioxane by EPA 8270C (M) Isotope Dilution Water	Water	A	1,4-Dioxane	123-91-1
EPA 8270C (M) Isotope Dilution	1,4-Dioxane by EPA 8270C (M) Isotope Dilution Water	Water	S	1,4-Dioxane-d8(IDS-IS)	
EPA 8270C (M) Isotope Dilution	1,4-Dioxane by EPA 8270C (M) Isotope Dilution Water	Water	S	Nitrobenzene-d5	4165-60-0

Please call with any questions or concerns.

Best Regards,

Virendra Patel
Project Manager

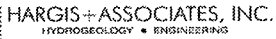
Eurofins Calscience, Inc.
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Notify us [here](#) to report this email as spam.



Fax 858.455.6533

SAMPLE COLLECTION

Total number of containers per analysis:

☐	No. of containers correct
☐	Received in good condition
☐	Custody seals secure
☐	Conforms to COC document

Date / Time

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓ or ✕
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

16-11-0026

(714) 895-5494

Please report "J" Flags

48 HR TAT

snetto@hargis.com

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Hargis

DATE: 11 / 1 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 1.4 °C (w/ CF): 1.4 °C; ☒ Blank ☐ Sample

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

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

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 1091

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: 1091

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: 1017

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ☒ Yes ☐ No ☐ N/A

COC document(s) received complete ☒ Yes ☐ No ☐ N/A

☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers

☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time

Sampler's name indicated on COC ☒ Yes ☐ No ☐ N/A

Sample container label(s) consistent with COC ☒ Yes ☐ No ☐ N/A

Sample container(s) intact and in good condition ☒ Yes ☐ No ☐ N/A

Proper containers for analyses requested ☒ Yes ☐ No ☐ N/A

Sufficient volume/mass for analyses requested ☒ Yes ☐ No ☐ N/A

Samples received within holding time ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ Yes ☐ No ☒ N/A

Proper preservation chemical(s) noted on COC and/or sample container ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals

Container(s) for certain analysis free of headspace ☒ Yes ☐ No ☐ N/A

☒ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)

☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☒ VOAh ☐ VOAna₂ ☐ 100PJ ☐ 100PJna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB

☐ 125PBznn ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 250PB ☐ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☐ 500PB ☒ 1AGB ☐ 1AGBna₂ ☐ 1AGBs ☐ 1PB ☐ 1PBna ☐ _____ ☐ _____ ☐ _____

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

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (_____) : ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1017

s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, znn = Zn (CH₃CO₂)₂ + NaOH

Reviewed by: 607



HARGIS + ASSOCIATES, INC.

APPENDIX B

GROUNDWATER SAMPLING FIELD FORMS

FEBRUARY 2017

ANNUAL GROUNDWATER MONITORING
FIELD NOTEBOOK
LARGE VOLUME MONITOR WELLS

RAYTHEON COMPANY

532.30

1901 MALVERN AVE.
FULLERTON, CALIFORNIA



HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

DAILY FIELD SAFETY BRIEFING ATTENDANCE SHEET

Date: 2/8/17

Location: FULLERTON, CA

Presented by: T. Evans

A. GENERAL INTRODUCTION

1. Location of site Health and Safety Plan (HSP) and ensure everyone has read the site HSP.
2. Primary hazards and controls (chemical, physical, and biological).
3. Sanitation and decontamination (potable water, nonpotable water, toilet, sink, shower).
4. General Site Rules.
5. Emergency Response Plan (location where emergency telephone numbers and hospital route posted, shower, first aid kit, fire extinguisher, alarm system, evacuation, meeting place, contingencies, upwind).
6. Establish buddy system.

B. SPECIFIC PRECAUTIONS FOR DAY'S ACTIVITIES Go over the hospital route daily; wear traffic vests, use safety cones, and be aware of traffic whenever in or near the roadways; wear sunscreen and hydrate well; wear gloves and take appropriate precautions when handling contaminated groundwater; watch for black widow spiders in vaults. Notify your supervisor and field partner of any issues.

C. ON-SITE ORGANIZATION AND COORDINATION

D. OTHER TOPICS:

ATTENDEE LIST

PRINT NAME	SIGNATURE	COMPANY	DATE
Tyler Evans		H+A	2/8/17
Andrew Donnelly		H+A	2/8/17
Kerion Fong		H+A	2/8/17

INSTRUMENT CALIBRATION LOG FOR GROUNDWATER SAMPLING: Temp + pH + EC + DO + ORP

[illegible]

STATIC WATER LEVEL DATA SHEET

MONTH/YEAR: February 2017

METHOD OF MEASUREMENT/SOUNDER IDENTIFIER: FLAT TAPE ELECTRIC SOUNDER #

PROJECT NUMBER: 532.30

WELL IDENTIFIER	DATE	TIME	MEASURING POINT	DEPTH TO WATER FROM REFERENCE POINT (+feet)	REFERENCE POINT ELEVATION (ft msl)	WATER LEVEL ELEVATION (ft msl)	November 2016 PREVIOUS DEPTH TO WATER (ft)	CHANGE IN WATER LEVEL ($\pm$ ft)	COMMENTS	INITIALS
P-07	02/6/17	12:54	TOC	114.96	142.31	27.35	114.91	-0.05		TJE/MJE
P-09	02/6/17	10:14	TOC	120.95	183.88	62.91	120.99	+0.04		AMD/KDF
MW-06	02/6/17	10:17	TOC	176.10	~~184.70~~ 184.20	8.60	181.63	+5.53		TJE/MJL
MW-08	02/6/17	11:02	TOC	149.06	155.91	6.85	150.60	+1.54		TJE/MJL
MW-09	02/6/17	10:00	TOC	175.72	180.10	4.38	179.41	+3.69		AMD/KDF
MW-13	02/6/17	08:49	TOC	141.47	141.84	0.37	146.91	+5.44		AMD/KDF
MW-15	02/6/17	11:06	TOC	157.51	144.95	-6.56	152.92	4.41		TJE/MJL
MW-16	02/6/17	12:23	TOC	139.01	142.40	3.39	153.21	14.2		TJE/MJL
MW-17	02/6/17	08:45	TOC	133.58	142.70	9.12	148.30	+14.72		AMD/KDF
MW-18	02/6/17	08:42	TOC	134.27	142.32	8.05	149.12	+14.85		
MW-19	02/6/17	08:47	TOST	133.94	142.06	8.12	148.77	+14.83		
MW-20	02/6/17	10:19	TOC	172.10	184.19	12.09	175.75	+3.65		
MW-21	02/6/17	12:33	TOC	137.28	141.18	3.90	145.60	8.32	Totalizer: 563935 Pumping? No	TJE/MJL
MW-22	02/6/17	8:51	TOST	129.85	138.65	8.80	144.84	+14.99		AMD/KDF
MW-23	02/6/17	9:33	TOST	129.45	137.33	7.88	144.88	+15.43		
MW-24	02/6/17	12:26	TOC	137.95	142.83	4.88	142.40	4.45		TJE/MJL
MW-25	02/6/17	12:28	TOC	136.69	142.64	5.95	145.72	9.03		TJE/MJL
MW-26A	02/6/17	9:30	TOC	136.55	137.04	0.49	142.78	+6.23		AMD/KDF
MW-26B	02/6/17	9:26	TOC	142.89	137.05	-5.84	144.57	+1.68		
MW-26C	02/6/17	9:32	TOC	133.66	137.22	3.56	150.54	+16.88		

msl = Mean sea level
ft = feet

STATIC WATER LEVEL DATA SHEET

MONTH/YEAR: February 2017

METHOD OF MEASUREMENT/SOUNDER IDENTIFIER: FLAT TAPE ELECTRIC SOUNDER # _____

PROJECT NUMBER: 532.30

WELL IDENTIFIER	DATE	TIME	MEASURING POINT	DEPTH TO WATER FROM REFERENCE POINT (+feet)	REFERENCE POINT ELEVATION (ft msl)	WATER LEVEL ELEVATION (ft msl)	November 2016 PREVIOUS DEPTH TO WATER (ft)	CHANGE IN WATER LEVEL (± ft)	COMMENTS	INITIALS
MW-27	02/ 6 /17	0906	TOST	133.13	137.16	4.03	149.93	+16.86		AMD/KDF
MW-28	02/ /17	0938	TOC	138.07	140.77	2.70	154.36	+16.29		↓
MW-29	02/ /17	10:42	TOC	180.00	139.81	-40.19	201.70	+21.70	Totalizer: 157 846.3 Pumping? 85	TJE/MJL
MW-30A	02/ /17	10:15	TOC	126.51	129.44	2.93	144.10	17.59		↓
MW-30B	02/ /17	10:17	TOC	124.45	129.39	4.94	140.60	16.15		↓
MW-31	02/ /17	9:45	TOC	113.84	119.60	5.76	133.00	19.16		↓
MW-32A	02/ /17	9:12	TOC	87.50	92.88	5.38	109.74	22.24		↓
MW-32B	02/ /17	9:14	TOC	87.94	92.89	4.95	109.15	21.21		↓
MW-32C	02/ /17	9:16	TOC	87.78	92.88	5.10	92.35	4.57		↓
MW-33	02/ 6 /17	9:25	TOC	78.63	83.19	4.56	103.55	24.92		↓
MW-34A	02/ /17	12:34	TOST	149.02	153.25	4.23	165.51	+16.49		AMD/KDF
MW-34B	02/ /17	12:32	TOST	152.36	153.11	+0.75	169.85	+17.49		↓
MW-34C	02/ /17	12:30	TOST	150.12	153.29	3.17	168.18	+18.06		↓
MW-35A	02/ /17	8:44	TOC	~~87.26~~ 78.82	93.57	14.75	95.80	16.98		TJE/MJL
MW-35B	02/ /17	8:46	TOC	85.75	93.56	7.81	105.55	19.8		↓
MW-35C	02/ /17	8:48	TOC	~~87.30~~ 87.36	93.55	6.19	109.20	21.84		↓
MW-36	02/ /17	10:42	TOST	83.55	86.65	3.10	108.73	+25.18		AMD/KDF
MW-37	02/ /17	11:10	TOST	152.72	155.60	2.88	162.06	+9.34		↓
MW-38	02/ /17	11:12	TOST	156.94	154.90	-2.04	169.69	+12.75		↓
MW-39	02/ /17	10:50	TOST	156.80.95	84.25	3.30	106.85	+25.90		↓
MW-40	02/ /17	11:20	TOC	115.56	123.40	7.84	133.75	18.19		TJE/MJL

msl = Mean sea level
ft = feet

STATIC WATER LEVEL DATA SHEET

MONTH/YEAR: February 2017

METHOD OF MEASUREMENT/SOUNDER IDENTIFIER: FLAT TAPE ELECTRIC SOUNDER # _____

PROJECT NUMBER: 532.30

WELL IDENTIFIER	DATE	TIME	MEASURING POINT	DEPTH TO WATER FROM REFERENCE POINT (+feet)	REFERENCE POINT ELEVATION (ft msl)	WATER LEVEL ELEVATION (ft msl)	November 2016 PREVIOUS DEPTH TO WATER (ft)	CHANGE IN WATER LEVEL (+ ft)	COMMENTS	INITIALS
MW-41	02/6/17	11:23	TOST	154.75	155.60	0.85	173.65	+18.05		AMD/KDF
EW-01	02/6/17	12:31	TOC	137.24	141.07	3.83	152.30	15.06	SOUNDING TUBE TO 172.65 Totalizer: ☒ Pumping? No	TJE/MJL
EW-02	02/6/17	10:00	TOC	137.38	132.97	-4.41	152.20	14.82	Totalizer: NM Pumping? yes	TJE/MJL

msl = Mean sea level
ft = feet

FEBRUARY 2017 GROUNDWATER SAMPLE PLAN
TEAM 1

QA/QC	Total VOC's	1,4-Dioxane	APPROX. GALLONS	ESTIMATED TIME (minutes)	WELL IDENTIFIER	HYDROGEOLOGIC ZONE	FEBRUARY 2014 SAMPLING SCHEDULE	SAMPLE METHOD
✓	0.85	< 0.20	80	30	MW-20	Water Table, D	VOCs; 1,4-Dioxane	Redi-flo
✓	ND	< 0.20	271	35	MW-40	Deep, B	VOCs; 1,4-Dioxane	Ded. 240V
✓	ND	< 0.20	200	50	MW-260	Deep, B	VOCs; 1,4-Dioxane	Ded. 240V
✓	ND	< 0.20	7.8	30	MW-09	Water Table, C	VOCs; 1,4-Dioxane	Bailer
✓	0.85	NS	6	20	MW-06	Water Table, D	VOCs	Bailer
✓	3.8	< 0.20	100	60	MW-18	Deep, A	VOCs; 1,4-Dioxane	Redi-flo
✓	7.6	< 0.20	10	15	MW-13	Water Table, AB	VOCs; 1,4-Dioxane	Redi-flo
✓	1.4	< 0.20	19	30	P-09	Perched Zone	VOCs; 1,4-Dioxane	Redi-flo
✓	12	NS	12	10	MW-15	Water Table, AB	VOCs	Redi-flo
✓	30	< 0.20	12	15	MW-08	Water Table, BC	VOCs; 1,4-Dioxane	Redi-flo
✓	1012	27	70	45	MW-16	Water Table, B	VOCs; 1,4-Dioxane (8270 MOD)	Redi-flo
✓	1642	1500	0.6	40	P-07	Perched Zone	VOCs; 1,4-Dioxane (8270 MOD)	Bailer

NOTES

A **MS** and **MSD** (3x40ml VOA and 1L amber) should be collected every day/ alternating 1,4-Dioxane methods as indicated.

1,4-Dioxane analysis method is 8270 SIM unless specified otherwise (if historical detect is > 5.0 ug/l MOD is used).

1 = Day - # refers to the day scheduled to sample and the corresponding dedicated pipestand to use: ND=1; 0-10=2; 10 - 100=3;

>100=4

Wells with dedicated pumps should follow concentration order when possible.

RB = Rinsate blank taken on non-dedicated equipment each day- will vary with schedule and should be confirmed with both teams each morning.

Redi-flo

**FEBRUARY 2017 GROUNDWATER SAMPLE PLAN
TEAM 2**

QA/QC	Total VOC's	1,4-Dioxane	APPROX. GALLONS	ESTIMATE D TIME (minutes)	WELL IDENTIFIER	HYDROGEOLOGIC ZONE	FEBRUARY 2014 SAMPLING SCHEDULE	SAMPLE METHOD
~~SP/DUP~~	308	90	57	25	EW-01	Deep, B	VOCs; 1,4-Dioxane (8270 MOD)	Dedicated
~~MS/MSD (V)~~	1457	220	227	30	MW-21	Water Table; BC	VOCs; 1,4-Dioxane (8270 MOD)	Dedicated
	ND	< 0.20	650	60	MW-32A	Deep; AB	VOCs; 1,4-Dioxane	Ded.320V
	ND	< 0.20	970	150	MW-32C	Water Table; C	VOCs; 1,4-Dioxane	Ded.320V
~~MS/MSD (V)~~	ND	< 0.20	1162	85	MW-35C	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	ND	< 0.20	577	45	MW-37	Deep; D	VOCs; 1,4-Dioxane	Ded.240V
	ND	< 0.20	64	25	MW-38	Deep; A	VOCs; 1,4-Dioxane	Ded.240V
	0.72	< 0.20	202	30	MW-41	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	0.66	< 0.20	877	85	MW-39	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
~~1.5SV~~	6.6	< 0.20	895	90	MW-23	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
~~SP/DUP~~	92	4	993	100	MW-36	Deep; B	VOCs; 1,4-Dioxane (8270 MOD)	Ded.240V
~~SP/DUP~~	169	5.0	610	90	MW-32B	Deep; B	VOCs; 1,4-Dioxane (8270 MOD)	Ded.320V

NOTE

1 = Day - # refers to the day scheduled to sample and the corresponding dedicated pipestand to use: ND=1; 0-10=2; 10 - 100=3; >100=4

A **MS** and **MSD** (3x40ml VOA and 1L amber) should be collected every day/ alternating 1,4-Dioxane methods as indicated

1,4-Dioxane analysis method is 8270 SIM unless specified otherwise (if historical detect is > 5.0 ug/l MOD is used).

Wells with dedicated pumps should follow concentration order when possible.

**FEBRUARY 2017 GROUNDWATER SAMPLE PLAN
SUPPLEMENTAL (TEAMS DIVIDE AND CONQUER)**

QA/QC	Total VOC's	1,4-Dioxane	APPROX. GALLONS	ESTIMATE D TIME (minutes)	WELL IDENTIFIER	HYDROGEOLOGIC ZONE	FEBRUARY 2014 SAMPLING SCHEDULE	PURGE METHOD
~~_____~~	ND	< 0.20	185	15	MW-34A	Deep, A	VOCs; 1,4-Dioxane	Ded. 240V
~~_____~~	ND	< 0.20	200	20	MW-34C	Deep, BC	VOCs; 1,4-Dioxane	Ded. 240V
~~MS/MSD (F)~~	ND	< 0.20	110	20	MW-27	Deep, B	VOCs; 1,4-Dioxane	Ded. 240V
~~_____~~	ND	< 0.20	38	45	MW-24	Deep, C	VOCs; 1,4-Dioxane	Ded. 240V
~~_____~~	0.5	< 0.20	80	15	MW-38A	Deep, B	VOCs; 1,4-Dioxane	Ded. 240V
~~SPT/DOP~~	0.84	< 0.20	104	15	MW-28	Deep, B	VOCs; 1,4-Dioxane	Ded. 240V
~~AP/DOP~~	88.2	< 0.20	122	30	MW-30B	Deep, BG	VOCs; 1,4-Dioxane	Ded. 240V
~~MS/MSD (F)~~	127	3.8	280	30	MW-31	Deep, B	VOCs; 1,4-Dioxane (8270 MOD)	Ded. 240V
~~_____~~	91	16	162	15	MW-34B	Deep, B	VOCs; 1,4-Dioxane (8270 MOD)	Ded. 240V

NOTES

1 = Day - # refers to the day scheduled to sample and the corresponding dedicated pipestand to use: ND=1; 0-10=2; 10 - 100=3; >100=4

An **MS** and **MSD** (3x40ml VOA and 1L amber) should be collected every day/ alternating 1,4-Dioxane methods as indicated.

1,4-Dioxane analysis method is 8270 SIM unless specified otherwise (if historical detect is > 5.0 ug/l MOD is used).

Wells with dedicated pumps should follow concentration order when possible.

MS/
MSD

GROUNDWATER SAMPLING INFORMATION

DATE: 2/6/17

TASK: 532.30

WELL ID: EW-01

Time 1231 Static DTW (ft below reference point) 137.24	Casing Volume (CV) (gallons) 33 3 CV (gallons) 99	Weather Conditions	Initials: TSE/MJL
Casing Total Depth (ft below reference point) 188	Purging Device ded pump Sampling Device ded sample port	Time 1252 Temp. 65	Begin Purge 1308 End Purge 1325
Water Column (feet) 50.74	Pump: Depth (ft brp) NA Type - Voltage - HP -	Skies Rainy	Gallons Purged 138 CVs Purged 4.1
Casing Capacity (Diameter 4") (gallons per foot) 0.66	Monitor Well Recharge Rate: Slow Fast X	Wind (mph) 0-2 From SW	DTW (ft brp) 137.27 Time 1326

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)		
13:08	137.24	- pump		DN						-	Q ≈ 7 gpm
13:10	137.69	14	0.4	20.8	7.26	1323	321.1	5.88	0.49	-	
13:12	137.69	28	0.8	21.1	7.30	1336	290.1	5.36	1.20	-	
13:14	137.69	56	1.7	20.9	7.29	1335	229.2	5.55	0.92	-	
13:18	137.69	84	2.5	21.3	7.34	1333	236.4	5.79	0.87	-	
13:20	137.68	98	3.0	21.2	7.34	1334	256.7	5.67	0.99	-	Sample
13:25		133									

SAMPLE COLLECTION	SAMPLE TIME 1320
ANALYSIS	QUANTITY TYPE
8280B VOCs	9 40 ml VOA (9)
8270 SIM 1,4 dioxane	1 L Amber
8270 MOD 1,4 dioxane	3 1 L Amber (3)
DUPLICATES / SPLIT / BLANKS?	(Y) N

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.)

Dup @ 1330

GROUNDWATER SAMPLING INFORMATION

DATE: 2/6/17

TASK: 532.30

WELL ID: MW-21

Time <u>1330</u> Static DTW (ft below reference point)	<u>137.28</u>	Casing Volume (CV) (gallons) <u>67.5</u> 3 CV (gallons) <u>187.5</u>	Weather Conditions
Casing Total Depth (ft below reference point)	<u>232</u>	Purging Device <u>ded pump</u> Sampling Device <u>ded sample puri</u>	Time <u>1330</u> Temp. <u>70</u>
Water Column (feet)	<u>94.72</u>	Pump: Depth (ft brp) <u>N/A</u> Type <u>-</u> Voltage <u>-</u> HP <u>-</u>	Skies <u>rainy</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>0-2</u> From <u>var.</u>
		Initials: <u>TJE/MJL</u>	Begin Purge <u>1340</u> End Purge <u>1358</u>
		Gallons Purged <u>364</u> CVs Purged <u>5.8</u>	DTW (ft brp) <u>140.33</u> Time <u>1359</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)		
1340	137.28	0	0	pump — on						-	TD: 563935 Q ≈ 21.1
1342	145.05	30	0.48	20.9	7.59	518.3	120.4	1.01	0.92	-	TD: 563963
1345	151.40	98	1.6	21.2	7.28	1752	131.6	2.04	1.32	-	TD: 564033
1347	151.69	137	2.2	21.3	7.34	1797	148.6	2.65	1.42	-	TD: 564072
1349	152.02	180	2.9	21.4	7.33	1792	164.1	2.95	1.25	-	TD: 564115
1351	152.10	229	3.6	21.3	7.33	1792	160.6	2.98	2.01	-	TD: 564164
1358	NM	364	5.8	pump off							TD: 564299

SAMPLE COLLECTION SAMPLE TIME 1355

ANALYSIS	QUANTITY	TYPE
8260B VOCs	<u>9</u>	40 ml VOA <u>(9)</u>
8270 SIM 1,4 dioxane	<u>43</u>	1 L Amber <u>(3)</u>
8270 MOD 1,4 dioxane		1 L Amber
DUPLICATES/SPLITS/BLANKS? <u>MS/MSD</u> <u>(Y)</u> 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.)

MS/MSD

GROUNDWATER SAMPLING INFORMATION

DATE: 2/7/17

TASK: 532.30

WELL ID: MW-32A

Time <u>8:55</u> Static DTW (ft below reference point) <u>87.23</u>	Screen <u>SV</u> Casing Volume (CV) (gallons) <u>207</u> 3 CV (gallons) <u>624</u>	Weather Conditions	
Casing Total Depth (ft below reference point) <u>905</u>	Purging Device <u>Ded. pump</u> Sampling Device <u>ND pip stand</u>	Time <u>0900</u> Temp. <u>65</u>	Initials: <u>TSE/MJL/GDP</u>
Screen Water Column (feet) <u>345</u>	Pump: Depth (ft brp) <u>560</u> Type <u>Grundfos</u> Voltage <u>240</u> HP	Skies <u>rainy</u>	Begin Purge <u>9:02</u> End Purge <u>10:08</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot) <u>0.69</u>	Monitor Well Recharge Rate: Slow Fast <u>X</u>	Wind (mph) <u>0</u> From <u>-</u>	Gallons Purged <u>640</u> CVs Purged <u>3.09</u>
			DTW (ft brp) <u>87.94</u> Time <u>10:09</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)		
9:02	87.23	0	0	Begin	Purge					-	Q = 10 gpm
9:05	88.89	30	0.14	20.6	7.35	870	-32.3	2.85	2.38	-	
9:18	88.96	160	0.77	20.9	7.32	876	122.1	2.09	6.19	-	
9:30	88.99	280	1.35	21.0	7.40	884	133.5	3.64	4.11	-	
9:41	89.00	390	1.89	21.0	7.38	881	135.7	2.16	0.77	-	
9:53	89.00	510	2.46	21.0	7.38	861	162.6	2.07	0.59	-	
10:04	89.00	620	3.00	21.0	7.40	861	167.5	2.52	0.62	-	sample
10:08	NM	640	3.09	- pump		off					

SAMPLE COLLECTION SAMPLE TIME 10:05

ANALYSIS	QUANTITY	TYPE
8260B VOCs	<u>3</u>	40 ml VOA <u>3</u>
8270 SIM 1,4 dioxane	<u>1</u>	1 L Amber <u>1</u>
8270 MOD 1,4 dioxane		1 L Amber
DUPLICATES / SPLITS / BLANKS? <u>Y</u> <u>(N)</u>		

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.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2/7/17

TASK: 532.30

WELL ID: MW-32C

Time ~~8:45~~ 10:10	Static DTW (ft below reference point) 87.65	Screen ^{SV} Casing Volume (GV) (gallons) 318	^{SV} 3 CV (gallons) 954	Weather Conditions	Initials: TJE/MJL/GDP
Casing Total Depth (ft below reference point) 1090	Purging Device <u>old pump</u>	Sampling Device <u>NP pipestair</u>	Time 1016	Temp. 60	Begin Purge 1014 End Purge 12:00
Water Column (feet) 530	Pump: Depth (ft brp) 560	Type Grundfos	Skies cloudy	Gallons Purged 954	CVs Purged 30
Casing Capacity (Diameter 4") (gallons per foot) 266	Monitor Well Recharge Rate: Slow	Fast X	Wind (mph) 0	From -	DTW (ft brp) 128.75 Time 12:03

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)		
10:14	87.65	0	0	- pump		on					Q ≈ 9 gpm
10:17	131.65	27	0.08	20.6	8.02	486.1	-16.7	2.06	0.75	-	
10:37	NM	207	0.65	21.1	8.06	486.6	-83.7	1.12	0.14	-	
10:58	NM	396	1.25	21.4	8.10	484.4	-42.2	1.00	1.04	-	
11:18	NM	576	1.81	21.4	8.10	486.0	-29.9	0.92	1.10	-	
11:39	NM	765	2.41	21.4	8.11	485.1	-20.2	0.93	0.74	-	
# 12:00	NM	954	3.0	21.4	8.10	485.6	-25.4	0.94	0.80	-	sample
12:00											

SAMPLE COLLECTION	SAMPLE TIME 1200
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)

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.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2/7/17

TASK: 532.30

WELL ID: MW-32B

Time <u>1200</u> Static DTW (ft below reference point) <u>87.55</u>	Screen <u>SV</u> Casing Volume (GV) (gallons) <u>264</u> <u>SV</u> 3 GV (gallons) <u>791</u>	Weather Conditions <u>65</u>	Initials: <u>TJE/MJL</u>
Casing Total Depth (ft below reference point) <u>999</u>	Purging Device <u>ded. pump</u> Sampling Device <u>>100' dcd pipe stn</u>	Time <u>1200</u> Temp <u>70</u>	Begin Purge <u>1205</u> End Purge <u>1320</u>
Screen Water Column (feet) <u>436</u>	Pump: Depth (ft brp) <u>520</u> Type <u>Grundfos</u> Voltage HP	Skies <u>cloud</u>	Gallons Purged <u>830</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>0-5</u> From <u>NW</u>	DTW (ft brp) <u>91.56</u> Time <u>1329</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)		
12:05	87.55	0	0	—	Begin		Purge			—	Q = 10 gpm
12:08	104.20	30	0.11	20.7	7.69	941	-142.4	0.84	0.38	—	
12:15	105.19	100	0.38	20.8	7.70	906	-142.7	0.97	0.42	—	
12:23	105.51	180	0.68	21.0	7.78	806	-125.8	1.00	0.29	—	
12:31	105.91	260	1	21.3	7.85	704	-79.2	1.07	0.86	—	1 SV sample taken
12:44	106.09	390	1.48	21.3	7.84	727	-40.9	1.06	0.52	—	
12:57	106.20	520	1.97	21.3	7.82	767	-77.9	0.87	0.72	—	
13:10	106.25	650	2.46	21.3	7.82	782	-73.5	0.85	0.69	—	
13:25	106.27	800	3.07	21.3	7.81	784	-70.9	0.88	0.60	—	Sample
13:28		830	3.1				off				

SAMPLE COLLECTION SAMPLE TIME <u>1315</u>	
ANALYSIS	QUANTITY TYPE
8260B VOCs	<u>12</u> 40 ml VOA <u>12</u>
8270 SIM 1,4 dioxane	<u>4</u> 1 L Amber <u>4</u>
8270 MOD 1,4 dioxane	<u>4</u> 1 L Amber <u>4</u>
DUPLICATES / SPLITS / BLANKS? <u>(Y)</u> 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.)

MW-32B-1SV @ 12:31
Dup @ 13:25

GROUNDWATER SAMPLING INFORMATION

DATE: 2/7/17

TASK: 532.30

WELL ID: MW-33

Time: 13:50	Static DTW (ft below reference point)	78.36	Screen SV	Casing Volume (CV) (gallons)	291	3 CV (gallons)	873	Weather Conditions		Initials: TJE/MJL
Casing Total Depth (ft below reference point)	1020	Purging Device	ded pump	Sampling Device	0-10 pipe stand	Time: 1350		Temp: 65	Begin Purge	1352
Water Column (feet)	Screen 485	Pump: Depth (ft brp)	535	Type	granufos	Voltage	-	HP	End Purge	1442
Casing Capacity (Diameter 4") (gallons per foot)	0.66	Monitor Well Recharge Rate: Slow		Fast	X	Skies		clear	Gallons Purged	900
						Wind (mph)		2	From	W
									CVs Purged	3.09
									DTW (ft brp)	79.12
									Time	1443

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)		
1352	78.36	0.54	0	Begin		purge				-	Q ≈ 10 ⁺² gpm
1355	80.25	3.36	0.19	19.9	7.68	636	80.1	0.32	1.36	-	Q ≈ 18 gpm
1409	80.45	3.09	1.05	20.8	7.69	642	-75.8	0.26	0.13	-	
1416	80.47	4.32	1.5	20.9	7.68	645	-59.5	0.78	0.25	-	sample @ 1.5 screen volume
1424	80.50	5.76	1.98	20.9	7.67	641	-48.5	0.49	0.06	-	
1432	80.51	7.20	2.47	20.9	7.66	639	-43.2	0.48	0.10	-	
1441	80.51	8.82	3.03	20.9	7.65	637	-37.6	0.50	0.10	-	
1442	NM	900	3.09	pump off							

SAMPLE COLLECTION		SAMPLE TIME		M41	
ANALYSIS	QUANTITY	TYPE			
8260B VOCs	6	40 ml VOA		6	
8270 SIM 1,4 dioxane	2	1 L Amber		2	
8270 MOD 1,4 dioxane		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.)

MW-33 ISV @ 1416

GROUNDWATER SAMPLING INFORMATION

DATE: 2/7/17

TASK: 532.30

WELL ID: MW-31

Time <u>1500</u> Static DTW (ft below reference point) <u>113.59</u>	Casing Volume (CV) (gallons) <u>81</u> 3 CV (gallons) <u>243</u>	Weather Conditions	Initials: <u>TJE/MSL</u>
Casing Total Depth (ft below reference point) <u>996</u>	Purging Device <u>ded pump</u> Sampling Device <u>>100 pipe stand</u>	Time <u>1528</u> Temp. <u>65</u>	Begin Purge <u>1507</u> End Purge <u>1530</u>
Screen Water Column (feet) <u>54</u>	Pump: Depth (ft brp) <u>942</u> Type <u>grundfos</u> Voltage <u>240</u> HP	Skies <u>P.C.</u>	Gallons Purged <u>276</u> CVs Purged <u>3.4</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>0-2</u> From <u>var.</u>	DTW (ft brp) <u>113.94</u> Time <u>1331</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)		
1507	113.59	0	0	- Begin						-	Q ≈ 12 gpm
1509	117.07	24	0.30	21.0	7.71	926	124.3	0.77	0.74	-	
1513	116.98	72	0.89	21.0	~~7.71~~	1285	43.0	0.45	15.3	-	pH probe not functioning properly
1516	117.01	108	1.33	21.2	7.80	1276	59.6	0.45	10.04	-	
1520	117.03	156	1.93	21.3	7.80	1119	64.1	0.46	7.51	-	
1524	117.04	204	2.52	21.3	7.73	647	68.5	0.58	3.92	-	
1528	117.03	252	3.1	21.3	7.70	1012	71.8	0.62	2.14	-	Sample
1530	113.94	276									

SAMPLE COLLECTION SAMPLE TIME <u>1530</u>	
ANALYSIS	QUANTITY TYPE
8280B VOCs	<u>3</u> 40 ml VOA <u>3</u>
8270 SIM 1,4 dioxane	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.	

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.)

GROUNDWATER SAMPLING INFORMATION

DATE:

2/7/17

TASK: 532.30

WELL ID:

P-07

Time <u>1553</u> Static DTW (ft below reference point)	<u>114.94</u>	Casing Volume (CV) (gallons) <u>0.25</u> 3 CV (gallons) <u>0.75</u>	Weather Conditions	Initials: <u>TJE/KDF</u>
Casing Total Depth (ft below reference point)	<u>116.38</u>	Purging Device <u>ded bailer</u> Sampling Device <u>ded bailer</u>	Time <u>1550</u> Temp. <u>65</u>	Begin Purge <u>1556</u> End Purge <u>1640</u>
Water Column (feet)	<u>1.44</u>	Pump: Depth (ft brp) <u>-</u> Type <u>-</u> Voltage <u>-</u> HP <u>-</u>	Skies <u>cloudy</u>	Gallons Purged <u>~1</u> CVs Purged <u>4.0</u>
Casing Capacity (Diameter <u>2"</u>) (gallons per foot)	<u>0.17</u>	Monitor Well Recharge Rate: Slow <u>X</u> Fast <u>-</u>	Wind (mph) <u>-</u> From <u>-</u>	DTW (ft brp) <u>114.94</u> Time <u>1553</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	FIELD PARAMETERS						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (µS/cm)	ORP (mV)	Turbidity (mg/L)	Turbidity (NTU)		
1556	114.94	0.1	0.45	21.5	7.26	2263	5.66	2186	25.2	-	
1559	NM	0.3	1.2	21.8	7.22	2272	5.36	221.1	>1000	-	
1602	115.51	0.4	1.6	21.7	7.16	2268	4.87	226.0	9100	-	
1613	NM	0.5	2.0	21.8	7.16	2282	4.93	245.3	>1000	-	
1618	NM	0.6	2.4	21.8	7.18	2285	5.34	253.3	>1000	-	
1626	NM	0.75	3.0	21.7	7.27	2270	5.76	266.7	>1000	-	Sample
1640	finish										

SAMPLE COLLECTION	SAMPLE TIME	<u>1630</u>
ANALYSIS	QUANTITY	TYPE
8260B VOCs	<u>3</u>	40 ml VOA <u>3</u>
8270 SIM 1,4 dioxane	<u>1</u>	1 L Amber
8270 MOD 1,4 dioxane	<u>1</u>	1 L Amber
DUPLICATES / SPLITS / BLANKS?	Y	<u>N</u>
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.)

GROUNDWATER SAMPLING INFORMATION

DATE:

2/8/17

TASK: 532.30

WELL ID:

MW-35C

Time <u>812</u> Static DTW (ft below reference point)	<u>86.83</u>	Screen Casing Volume (CV) (gallons) <u>378</u>	3 CV (gallons) <u>1134</u>	Weather Conditions		Initials: <u>TJE/MJL</u>
Casing Total Depth (ft below reference point)	<u>1040</u>	Purging Device <u>Ded pump</u>	Sampling Device <u>NO sample port</u>	Time <u>815</u>	Temp. <u>65</u>	Begin Purge <u>815</u> End Purge <u>9:16</u>
Water Column (feet)	<u>630</u>	Pump: Depth (ft brp) <u>410</u>	Type <u>Grundfos</u>	Skies <u>cloudy</u>		Gallons Purged <u>1218</u> CVs Purged <u>3.2</u>
Casing Capacity (Diameter <u>4</u> ") (gallons per foot)	<u>0.66</u>	Monitor Well Recharge Rate: Slow	Fast <u>Y</u>	Wind (mph) <u>0</u>	From <u>-</u>	DTW (ft brp) <u>86.94</u> Time <u>9:18</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)		
<u>818</u>	<u>86.83</u>	<u>0</u>	<u>0</u>	<u>Begin purge</u>						<u>-</u>	<u>Q ≈ 21 gpm</u>
<u>820</u>	<u>90.89</u>	<u>42</u>	<u>0.11</u>	<u>20.2</u>	<u>NM</u>	<u>835</u>	<u>88.0</u>	<u>4.09</u>	<u>23</u>	<u>-</u>	<u>pH probe not functioning</u>
<u>828</u>	<u>90.85</u>	<u>210</u>	<u>0.55</u>	<u>20.3</u>	<u>NM</u>	<u>835</u>	<u>69.6</u>	<u>2.30</u>	<u>24.7</u>	<u>-</u>	
<u>838</u>	<u>90.86</u>	<u>389</u>	<u>1.06</u>	<u>20.5</u>	<u>NM</u>	<u>714</u>	<u>52.5</u>	<u>3.78</u>	<u>9.27</u>	<u>-</u>	
<u>845</u>	<u>90.86</u>	<u>567</u>	<u>1.5</u>	<u>20.5</u>	<u>NM</u>	<u>703</u>	<u>48.8</u>	<u>3.85</u>	<u>4.10</u>	<u>-</u>	
<u>854</u>	<u>90.91</u>	<u>756</u>	<u>2.0</u>	<u>20.5</u>	<u>NM</u>	<u>701</u>	<u>52.9</u>	<u>3.89</u>	<u>2.22</u>	<u>-</u>	
<u>9:02</u>	<u>90.97</u>	<u>924</u>	<u>2.4</u>	<u>20.5</u>	<u>NM</u>	<u>697</u>	<u>42.3</u>	<u>3.79</u>	<u>1.11</u>	<u>-</u>	
<u>9:12</u>	<u>90.99</u>	<u>1134</u>	<u>3.0</u>	<u>20.5</u>	<u>NM</u>	<u>690</u>	<u>48.5</u>	<u>7.76</u>	<u>1.05</u>	<u>-</u>	
<u>9:16</u>	<u>NM</u>	<u>1218</u>	<u>3.2</u>	<u>pump off</u>						<u>-</u>	

SAMPLE COLLECTION SAMPLE TIME 913

ANALYSIS	QUANTITY	TYPE
8280B VOCs	<u>9</u>	40 ml VOA <u>9</u>
8270 SIM 1,4 dioxane	<u>3</u>	1 L Amber <u>3</u>
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS?

If yes, complete appropriate forms.

(Y)

N

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.)

MS/MSD collected

GROUNDWATER SAMPLING INFORMATION

DATE: 2/8/17

TASK: 532.30

WELL ID: MW-36

Time <u>9:57</u> Static DTW (ft below reference point) <u>8300</u>	Casing Volume (CV) (gallons) <u>320</u> 3 CV (gallons) <u>960</u>	Weather Conditions	Initials: <u>TJE/WJL</u>
Casing Total Depth (ft below reference point) <u>994</u>	Purging Device <u>ded pump</u> Sampling Device <u>10-100 ded</u>	Time <u>1000</u> Temp. <u>70</u>	Begin Purge <u>003</u> End Purge <u>11:11</u>
<u>screen</u> Water Column (feet) <u>4</u>	Pump: Depth (ft brp) <u>460</u> Type <u>Grundfos</u> Voltage <u>HP</u>	Skies <u>cloudy</u>	Gallons Purged <u>1005</u> CVs Purged <u>3.2</u>
Casing Capacity (Diameter <u>6"</u>) (gallons per foot) <u>0.66</u>	Monitor Well Recharge Rate: Slow <u>Fast</u> <u>X</u>	Wind (mph) <u>0</u> From <u>-</u>	DTW (ft brp) <u>8352</u> Time <u>11:12</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)		
10:03	83.00	0	0	- Begin							<u>Q ≈ 15 GPM</u>
10:06	85.95	45	0.14	20.3	NM	921	135.9	0.74	0.18	-	<u>pH probe not functioning</u>
10:13	86.05	150	0.47	20.9	NM	890	106.3	0.26	0.10	-	
10:24	86.06	315	1.0	21.4	NM	742	101.3	0.17	0.02	-	<u>Sample @ 1 SV</u>
10:38	86.05	525	1.64	21.7	NM	939	101.5	0.21	0.16	-	
10:48	86.23	675	2.11	21.8	NM	964	108.7	0.28	0.19	-	
10:58	86.26	825	2.58	21.7	NM	969	114.5	0.29	0.15	-	
11:07	86.26	960	3.00	21.8	NM	971	119.2	0.30	0.17	-	<u>Sample</u>
11:11	~~83.52~~	<u>1005</u>		- pump	off						

SAMPLE COLLECTION SAMPLE TIME <u>1109</u>		
ANALYSIS	QUANTITY	TYPE
8260B VOCs	<u>12</u>	40 ml VOA <u>12</u>
8270 SIM 1,4 dioxane	<u>4</u>	1 L Amber
8270 MOD 1,4 dioxane	<u>4</u>	1 L Amber <u>4</u>
DUPLICATES / SPLIT / BLANKS? <u>(Y)</u> N		

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.)

MW-36-15V @ 1023
MW-3600 @ 1119 - Duplicate

GROUNDWATER SAMPLING INFORMATION

DATE: 2/8/17

TASK: 532.30

WELL ID: MW-39

Time 11:37	Static DTW (ft below reference point) 80.47	Screen SV	Casing Volume (CV) (gallons) 271	SV	3 CV (gallons) 814	Weather Conditions		Initials: TJE/MJL
Casing Total Depth (ft below reference point) 1020	Purging Device dead pump	Sampling Device 0-10 dead pipe stand	Time 11:35		Temp. 75	Begin Purge 12:02		End Purge 12:57
Screen Water Column (feet) 452	Pump: Depth (ft brp) 560	Type Grundfos	Voltage -	HP	Skies cloudy	Gallons Purged 912		CVs Purged 3.50
Casing Capacity (Diameter 4") (gallons per foot) 0.66	Monitor Well Recharge Rate: Slow		Fast x	Wind (mph) 0-2		From E	DTW (ft brp) 81.02	
						Time 12:57		

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)		
12:02	80.47	0	0	- Begin		Purge				-	Q ≈ 21 gpm
12:04	94.21	42	0.15	20.8	NM	361.7	27.8	1.72	0.08	-	
12:11	94.82	189	0.70	21.9	7.91	269.49	-240	6.96	0.09	-	Switched YSI to Horiba multimeter
12:18	93.55	336	1.24	22.5	8.17	427	-266	6.35	0.07	-	Q ≈ 12 gpm
12:28	88.55	456	1.68	22.6	8.20	439	-242	4.80	0.10	-	adjusted flow using valve on pipe stand
12:38	88.50	576	2.13	22.6	8.18	446	-243	4.99	0.06	-	Q ≈ 21 gpm
12:48	94.85	660	2.43	22.6	8.01	449	-237	3.88	0.05	-	Q ≈ 21 gpm
12:49	94.86	744	2.75	22.5	8.03	449	-264	4.14	0.09	-	
12:53	94.86	828	3.06	22.5	8.04	450	-253	4.39	0.12	-	
12:55	94.87	870	3.2	22.5	8.04	450	-254	4.25	0.09	-	Sample
12:57	-	912	3.37	- end		purge				-	

SAMPLE COLLECTION SAMPLE TIME 12:55			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	3									
8270 SIM 1,4 dioxane	1	1 L Amber	1									
8270 MOD 1,4 dioxane		1 L Amber										
DUPLICATES / SPLITS / BLANKS?			Y (N)									
If yes, complete appropriate forms.												

GROUNDWATER SAMPLING INFORMATION

DATE:

2/8/17

TASK: 532.30

WELL ID:

MW-37

Time <u>1340</u> Static DTW (ft below reference point)	<u>152.00</u>	Casing Volume (CV) (gallons) <u>180</u>	3 CV (gallons) <u>540</u>	Weather Conditions		Initials: <u>TJE/MJL</u>
Casing Total Depth (ft below reference point)	<u>820</u>	Purging Device <u>ded pump</u>	Sampling Device <u>ND pipe</u>	Time <u>1340</u>	Temp <u>75</u>	Begin Purge <u>1342</u> End Purge <u>1409</u>
<u>screen</u> Water Column (feet)	<u>300</u>	Pump: Depth (ft brp) <u>520</u>	Type <u>Grand fos</u>	Skies <u>p.c.</u>		Gallons Purged <u>567</u> CVs Purged <u>3.15</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</u>	From <u>-</u>	DTW (ft brp) <u>15247</u> Time <u>1410</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)		
1342	152.00	0	0	- Begin						-	<u>Q=450 21 GPM</u>
1345	157.08	63	0.35	22.2	8.16	566	-241	4.71	0.65	-	
1349	157.11	147	0.82	22.5	8.08	569	-204	3.92	0.88	-	
1354	157.15	252	1.40	22.8	7.99	530	-154	3.79	6.57	-	
1358	157.16	336	1.87	22.8	7.87	792	-127	3.67	7.68	-	
1402	157.20	420	2.33	22.9	7.77	791	-110	3.66	5.65	-	
1405	157.21	483	2.68	22.9	7.69	790	-105	3.62	4.99	-	
1408	157.28	546	3.03	22.9	7.70	790	-103	3.64	4.98	-	sample
1409	NM	567	3.15	- end						-	

SAMPLE COLLECTION TIME <u>1409</u>	
ANALYSIS	QUANTITY TYPE
8260B VOCs	<u>3</u> 40 ml VOA <u>3</u>
8270 SIM 1,4 dioxane	<u>1</u> 1 L Amber <u>1</u>
8270 MOD 1,4 dioxane	<u>1</u> 1 L Amber
DUPLICATES / SPLITS / BLANKS? Y <u>(N)</u>	
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.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2/8/17

TASK: 532.30

WELL ID: MW-38

Time <u>1414</u> Static DTW (ft below reference point) <u>156.34</u>	Casing Volume (CV) (gallons) <u>28.9</u> 3 CV (gallons) <u>86.7</u>	Weather Conditions	Initials: <u>TSE/MSL</u>
Casing Total Depth (ft below reference point) <u>200</u>	Purging Device <u>ded pump</u> Sampling Device <u>NP Pinestaw</u>	Time <u>1415</u> Temp. <u>75</u>	Begin Purge <u>1418</u> End Purge <u>1441</u>
Water Column (feet) <u>43.69</u>	Pump: Depth (ft brp) <u>190</u> Type <u>Grundfos</u> Voltage <u>280</u> HP	Skies <u>partly cloudy</u>	Gallons Purged <u>92</u> CVs Purged <u>3.2</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</u> From <u>-</u>	DTW (ft brp) <u>156.45</u> Time <u>1445</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)		
1418	156.34	0	0	Begin							Qs = 4 gpm
1422	156.65	16	0.55	22.5	7.97	1340	99	3.07	2.70	-	
1425	156.72	28	1.0	22.1	7.98	1730	97	2.82	0.68	-	
1429	156.79	44	1.52	22.1	7.93	1730	91	2.93	0.30	-	
1433	156.75	60	2.08	22.1	7.87	1740	90	3.13	0.25	-	
1436	156.76	72	2.5	22.1	7.83	1740	91	3.07	0.18	-	
1440	156.77	88	3.0	22.1	7.85	1730	92	3.05	0.20	-	Sample
1441	15M	92	3.18				off				

SAMPLE COLLECTION SAMPLE TIME <u>1440</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>3</u>	40 ml VOA <u>3</u>				
8270 SIM 1,4 dioxane	<u>1</u>	1 L Amber <u>1</u>				
8270 MOD 1,4 dioxane		1 L Amber				
DUPLICATES / SPLITS / BLANKS? Y <u>(N)</u>						
If yes, complete appropriate forms.						

GROUNDWATER SAMPLING INFORMATION

DATE: _____

TASK: 532.30 _____

WELL ID: MW-41

Time <u>1456</u> Static DTW (ft below reference point) <u>154.35</u>	Casing Volume (CV) (gallons) <u>39</u> <u>SV</u> <u>118</u>	Weather Conditions	Initials: <u>TOE/MOZ</u>
Casing Total Depth (ft below reference point) <u>425</u>	Purging Device <u>ded pump</u> Sampling Device <u>0-10 ded pipe stand</u>	Time <u>1455</u> Temp. <u>75</u>	Begin Purge <u>1458</u> End Purge <u>1526</u>
<u>screen</u> Water Column (feet) <u>65</u>	Pump: Depth (ft brp) <u>360</u> Type <u>Grants</u> Voltage <u>240</u> HP	Skies <u>mostly sunny</u>	Gallons Purged <u>280</u> CVs Purged <u>7.0</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>0-2</u> From <u>W</u>	DTW (ft brp) <u>155.05</u> Time <u>1528</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)		
1458	154.35	0	0	- Begin		purge				-	Q ₂ 10 gpm
1500	164.20	20	0.5	22.1	7.78	2150	101	2.90	27.5	-	
1502	164.25	40	1.0	21.9	7.79	1960	-13	2.60	11.8	-	
1504	164.45	60	1.5	22.0	7.77	2020	-7	2.33	120	-	
1508	164.50	100	2.5	22.0	7.71	2000	22	2.05	612	-	
1510	164.59	120	3.0	22.0	7.68	2000	24	2.08	75	-	
1514	164.59	160	4.0	22.0	7.66	2000	27	2.12	56.3	-	
1518	164.76	200	5.0	22.0	7.63	2020	31	2.16	33.7	-	
1520	164.65	220	5.5	22.0	7.62	2020	33	2.22	26.7	-	
1524	164.45	260	6.5	22.0	7.61	2020	35	2.31	26.2	-	sample
1526	NM	280	7.0	- pump		off				-	

SAMPLE COLLECTION SAMPLE TIME <u>1525</u>		
ANALYSIS	QUANTITY	TYPE
8260B VOCs	<u>3</u>	40 ml VOA <u>3</u>
8270 SIM 1,4 dioxane	<u>1</u>	1 L Amber <u>1</u>
8270 MOD 1,4 dioxane		1 L Amber
DUPLICATES / SPLITS / BLANKS? Y <u>N</u>		
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.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2/9/17

TASK: 532.30

WELL ID: MW-34C

Time <u>8:45</u> Static DTW (ft below reference point) <u>149.45</u>	Casing Volume (CV) (gallons) <u>35</u> ⁶³⁶ 3 CV (gallons) <u>190.08</u>	Weather Conditions
Casing Total Depth (ft below reference point) <u>576</u>	Purging Device <u>Per pump</u> Sampling Device <u>stand</u>	Time <u>841</u> Temp. <u>65</u>
Water Column (feet) <u>96</u>	Pump: Depth (ft brp) <u>470</u> Type <u>perforated</u> Voltage <u>240</u> HP	Skies <u>mostly sunny</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>SW</u>
Initials: <u>TJE/MJL/GDP</u>		
Begin Purge <u>848</u> End Purge <u>902</u>		
Gallons Purged <u>352</u> CVs Purged <u>11</u>		
DTW (ft brp) <u>159.10</u> Time <u>9:04</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)		
848	149.45	0	0	-Begin						-	Q ≈ 18 GPM
849	169.49	18	0.63	20.9	6.97	643	153.6	0.53	0.25	-	
851	172.39	54	7.808	21.7	7.34	577	-218.4	0.14	1.19	-	
853	173.69	90	3.14	21.8	7.48	753	-236.0	0.19	2.29	-	
854	174.04	108	3.617	21.8	7.51	877	-226.0	0.19	1.62	-	
856	173.67	144	4.823	21.9	7.57	879	-218.2	0.19	1.01	-	Pump temp. unplugged - accident
858	UTM	180	6.028	21.9	7.59	879	-214.2	0.13	0.74	-	
900	UTM	206	7.0534	21.9	7.62	875	-215.9	0.13	0.82	-	Sample
902	UTM	252	7.739	-Purge	end					-	

SAMPLE COLLECTION SAMPLE TIME <u>900</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>3</u>	40 ml VOA <u>3</u>				
8270 SIM 1,4 dioxane	<u>1</u>	1 L Amber <u>1</u>				
8270 MOD 1,4 dioxane	<u>1</u>	1 L Amber <u>1</u>				
DUPLICATES / SPLITS / BLANKS? <u>Y</u> <u>(N)</u>						
If yes, complete appropriate forms.						

GROUNDWATER SAMPLING INFORMATION

DATE: 2/9/17

TASK: 532.30

WELL ID: MW-34A

34B

Time <u>921</u> Static DTW (ft below reference point) <u>151.50</u>	Screen <u>SV</u> Casing Volume (GV) (gallons) <u>53</u> <u>30</u> <u>SV</u> <u>159</u> <u>120</u>	Weather Conditions	Initials: <u>TJE/MJL/GDP</u>
Casing Total Depth (ft below reference point) <u>180</u>	Purging Device <u>ded pump</u> Sampling Device <u>stand</u>	Time <u>920</u> Temp. <u>70</u>	Begin Purge <u>923</u> End Purge <u>939</u>
Screen Water Column (feet) <u>0.66</u>	Pump: Depth (ft brp) <u>400</u> Type <u>Grundfos</u> Voltage <u>240</u> HP	Skies <u>partly cloudy</u>	Gallons Purged <u>306</u> CVs Purged <u>102</u>
Casing Capacity (Diameter <u>4</u>) (gallons per foot) <u>0.66</u>	Monitor Well Recharge Rate: Slow <u>Fast</u> <u>X</u>	Wind (mph) <u>0-2</u> From <u>SW</u>	DTW (ft brp) <u>151.91</u> Time <u>943</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)		
923	151.50									—	Q ₂ 18 GPM
924	153.96	18	0.3	21.2	7.56	1090	-111.4	2.05	3.86	—	
925	154.00	36	0.7 ^{1.2}	21.4	7.51	1000	-159.1	0.70	8.63	—	
927	154.10	72	1.4 ^{2.4}	21.7	7.56	960	-136.8	1.35	24.3	—	
929	154.30	108	3.6	21.7	7.58	990	-118.0	1.89	33.3	—	
930	154.25	144	4.8	21.7	7.57	1000	-112.2	2.02	13.0	—	
932	154.28	180	6.0	21.7	7.57	1000	-104.9	2.20	10.46	—	
934	154.36	216	7.2	21.8	7.56	1010	-98.9	2.30	6.85	—	
936	NM	252	8.4	21.8	7.56	1010	-96.2	2.29	7.25	—	
939	NM	306	10.2	pump		off				—	

SAMPLE COLLECTION SAMPLE TIME 936
 ANALYSIS QUANTITY TYPE

8260B VOCs 9 40 ml VOA 9
 8270 SIM 1,4 dioxane 3 1 L Amber
 8270 MOD 1,4 dioxane 3 1 L Amber

DUPLICATES / SPLITS / BLANKS?

If yes, complete appropriate forms.

(Y)

N

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.)

MS/MSD collected



HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: _____

TASK: 532.30 _____

WELL ID: MW-34A

Time <u>10:20</u> Static DTW (ft below reference point) <u>148.50</u>	Casing Volume (CV) (gallons) <u>52.8</u> 3 CV (gallons) <u>158.4</u>	Weather Conditions Time <u>953</u> Temp. <u>70</u>	Initials: <u>TJE/GDP</u>
Casing Total Depth (ft below reference point) <u>280</u>	Purging Device <u>Ded pump</u> Sampling Device <u>ND pipetted</u>	Skies <u>partly cloudy</u>	Begin Purge <u>10:27</u> End Purge <u>10:40</u>
<u>screen</u> Water Column (feet) <u>80</u>	Pump: Depth (ft brp) <u>200</u> Type <u>Grundfos</u> Voltage <u>240</u> HP	Wind (mph) <u>2</u> From <u>SW</u>	Gallons Purged <u>273</u> CVs Purged <u>5.2</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>148.50</u> Time <u>1045</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)		
10:27	148.50	0	0	- Begin		Purge				-	Q ≈ 21 GPM
10:28	151.39	21	0.4	21.3	6.98	1567	-57.7	7.20	4.39	-	
10:29	151.42	42	0.8	21.3	7.14	1558	-33.0	6.66	68.0	-	
10:30	151.47	63	1.2	21.4	7.15	1560	-24.6	6.69	43.2	-	
10:31	151.49	84	1.6	21.4	7.16	1578	-15.9	6.90	57.8	-	
10:33	151.49	126	2.4	21.4	7.16	1582	-2.4	6.45	18.7	-	
10:35	151.50	168	3.2	21.4	7.17	1584	5.2	6.43	10.35	-	
10:37	151.51	210	4.0	21.4	7.17	1582	9.8	6.51	8.11	-	
10:38	151.50	231	4.4	21.4	7.16	1580	11.8	6.52	9.57	-	
10:40	NM	273	5.2	Pump		off				-	

SAMPLE COLLECTION SAMPLE TIME <u>1039</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>3</u>	40 ml VOA <u>3</u>				
8270 SIM 1,4 dioxane	<u>1</u>	1 L Amber <u>1</u>				
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:

2/9/17

TASK: 532.30

WELL ID:

MW-30A

Time 12:41 Static DTW (ft below reference point)	125.87	Casing Volume (CV) (gallons) 17.6	3 CV (gallons) 52.8	Weather Conditions	Initials: TSE/TSA
Casing Total Depth (ft below reference point)	56.4	Purging Device Ded pump	Sampling Device 0.10 pipe stand	Time 1240 Temp. 75	Begin Purge 12:48 End Purge 13:00
Screen Water Column (feet)	4.4	Pump: Depth (ft brp) 520 Type grundfos Voltage 240 HP		Skies clear	Gallons Purged 77 CVs Purged 4.4
Casing Capacity (Diameter 3") (gallons per foot)	0.4	Monitor Well Recharge Rate: Slow Fast		Wind (mph) 0-2 From SW	DTW (ft brp) 125.85 Time 13:02

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)		
12:48	125.87	0	0							-	(2) 6.6 7 GPN
12:51	127.80	14	0.8	21.6	7.73	900	55.2	2.20	1.11	-	
12:52	127.70	21	1.2	21.4	7.68	888	-138.0	1.54	0.91	-	
12:54	127.72	35	2.0	21.4	7.66	883	-111.1	0.62	1.40	-	
12:55	127.75	42	2.4	21.5	7.58	882	-90.6	0.43	0.79	-	
12:56	127.73	49	2.8	21.6	7.58	881	-82.9	0.42	0.71	-	
12:57	127.73	56	3.2	21.6	7.57	881	-74.4	0.43	0.75	-	
12:58	127.73	63	3.6	21.6	7.57	881	-75.2	0.43	0.55	-	
13:00	NM	77	4.4	- Pump	off						

SAMPLE COLLECTION SAMPLE TIME 1258			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				
8270 SIM 1,4 dioxane	1	1 L Amber				
8270 MOD 1,4 dioxane		1 L Amber				
DUPLICATES / SPLITS / BLANKS? Y						
If yes, complete appropriate forms.						

GROUNDWATER SAMPLING INFORMATION

DATE: 2/9/17

TASK: 532.30

WELL ID: MW-30B

Time 1310 Static DTW (ft below reference point)	123.70	Casing Volume (CV) (gallons) 40	3 CV (gallons) 120	Weather Conditions	Initials: TJE/TJA
Casing Total Depth (ft below reference point)	919	Purging Device ded pump	Sampling Device 10-100 Ded pipe stand	Time 1305 Temp. 75	Begin Purge 1311 End Purge 1339
Screen Water Column (feet)	99	Pump: Depth (ft brp) 520 Type Grundfos	Voltage 240 HP	Skies clear	Gallons Purged 140 CVs Purged 3.5
Casing Capacity (Diameter 3") (gallons per foot)	0.4	Monitor Well Recharge Rate: Slow	Fast X	Wind (mph) 0-2 From SW	DTW (ft brp) 130.71 Time 1343

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)		
1311	123.70	0	0	-Begin		purge	—	—	—	—	Q ≈ 5 GPM
1313	142.10	10	0.25	21.6	7.45	1363	21.9	0.26	4.59	—	
1317	144.15	30	~~70~~ 0.75	21.5	7.72	955	-191.4	0.06	0.79	—	
1322	146.00	~~80~~ 55	1.4	21.6	7.59	1280	-149.5	0.07	4.54	—	
1326	146.75	75	1.9	21.7	7.44	1325	-131.2	0.07	6.03	—	
1331	147.60	100	2.5	21.7	7.42	1331	-125.7	0.07	3.15	—	
1335	147.91	120	3.0	21.7	7.41	1334	-124.8	0.07	2.87	—	sample
1339	NM	140	3.5	pump		off	—	—	—	—	

SAMPLE COLLECTION SAMPLE TIME 1335			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	MW-3000B @ 1345			
8270 SIM 1,4 dioxane	3	1 L Amber				
8270 MOD 1,4 dioxane		1 L Amber				
DUPLICATES / SPLITS / BLANKS? ☒ Y ☐ N If yes, complete appropriate forms.						

FEBRUARY 2017

ANNUAL GROUNDWATER MONITORING
FIELD NOTEBOOK
LOW VOLUME MONITOR WELLS

RAYTHEON COMPANY

532.30

1901 MALVERN AVE.
FULLERTON, CALIFORNIA



HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

DAILY FIELD SAFETY BRIEFING ATTENDANCE SHEET

Date: 2/6/17

Location: FULLERTON, CA

Presented by: T. Evans

A. GENERAL INTRODUCTION

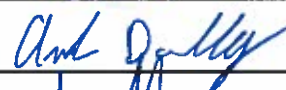
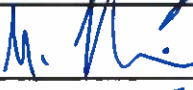
1. Location of site Health and Safety Plan (HSP) and ensure everyone has read the site HSP.
2. Primary hazards and controls (chemical, physical, and biological).
3. Sanitation and decontamination (potable water, nonpotable water, toilet, sink, shower).
4. General Site Rules.
5. Emergency Response Plan (location where emergency telephone numbers and hospital route posted, shower, first aid kit, fire extinguisher, alarm system, evacuation, meeting place, contingencies, upwind).
6. Establish buddy system.

B. SPECIFIC PRECAUTIONS FOR DAY'S ACTIVITIES Go over the hospital route daily; wear traffic vests, use safety cones, and be aware of traffic whenever in or near the roadways; wear sunscreen and hydrate well; wear gloves and take appropriate precautions when handling contaminated groundwater; watch for black widow spiders in vaults. Notify your supervisor and field partner of any issues.

C. ON-SITE ORGANIZATION AND COORDINATION

D. OTHER TOPICS:

ATTENDEE LIST

PRINT NAME	SIGNATURE	COMPANY	DATE
Tyler Evans		H+A	2/6/17
Andrew Donnelly		H+A	2/6/17
Mike Larkin		H+A	2/6/17
Kevin Fong		H+A	2/6/17

DAILY FIELD SAFETY BRIEFING ATTENDANCE SHEET

2/7/17
Date: ~~2/6/17~~

Location: FULLERTON, CA

Presented by: T. Evans

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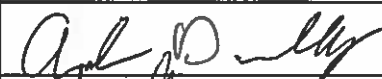
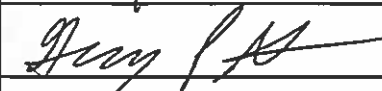
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Andrew Donnelly		H+A	2/7/17
Mike Larkin		H+A	2/7/17
Greg Peterson		H+A	02/7/17

DAILY FIELD SAFETY BRIEFING ATTENDANCE SHEET

Date: 2/9/17

Location: FULLERTON, CA

Presented by: AMD

A. GENERAL INTRODUCTION

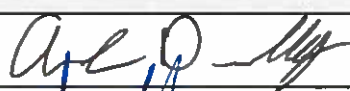
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ATTENDEE LIST

PRINT NAME	SIGNATURE	COMPANY	DATE
Andrew Donnelly		H+A	2/9/17
Mike Larkin		H+A	2/9/17
Greg Peterson		H+A	2/9/17
Kevin Fong		H+A	2/9/17
Tyler Evans		H+A	2/9/17

INSTRUMENT CALIBRATION LOG FOR GROUNDWATER SAMPLING: Temp + pH + EC + DO + ORP

DATE	TIME	pH BUFFER	pH READING	TEMP of Soln (C)	METER TYPE	EC STAN DARD (mS/cm)	EC READ- ING (mS/cm)	DO READ- ING (mg/l)	ORP READ-ING (mV)	COMMENTS/ TEMP OR ALTITUDE CORRECTION FACTOR	INITIALS
2/6/17	0730	4.0	4.1	16.7	Pro Plus	—	—	—	—		TJE
↓		10.0	9.4	16.8	↓	—	—	—	—		
↓		7.0	7.1	16.8	↓	—	—	—	—		
		—	—	—	↓	1413	1413	9.3	-30.1		
2/6/17	0730	4.0	4.1	14.9	Pro Plus	—	—	—	—		
↓		10.0	9.9	14.9	↓	—	—	—	—		
↓		7.0	7.0	15.1	↓	—	—	—	—		
		—	—	—	↓	1413	1413	9.2	341.2		
2/7/17	0735	4.0	4.9	17.3	Pro Plus						AND
↓		10.0	9.4	17.1	↓						
↓		7.0	7.2	17.1	↓						
		—	—	17.1	↓	1413	1410	9.0	182.2		

STATIC WATER LEVEL DATA SHEET

MONTH/YEAR: February 2017

METHOD OF MEASUREMENT/SOUNDER IDENTIFIER: FLAT TAPE ELECTRIC SOUNDER # _____

PROJECT NUMBER: 532.30

WELL IDENTIFIER	DATE	TIME	MEASURING POINT	DEPTH TO WATER FROM REFERENCE POINT (+feet)	REFERENCE POINT ELEVATION (ft msl)	WATER LEVEL ELEVATION (ft msl)	November 2016 PREVIOUS DEPTH TO WATER (ft)	CHANGE IN WATER LEVEL (+ ft)	COMMENTS	INITIALS
P-07	02/ 17				142.31		114.91			
P-09	02/ 17	10:14	TOC	120.95	183.86	62.91	120.99	+0.04		KDF/Am
MW-06	02/ 17	10:17	TOC	176.10	~~184.70~~ 184.20	8.60	181.63	+5.53		
MW-08	02/ 17				155.91		150.60			
MW-09	02/ 17	10:00	TOC	175.72	180.10	4.38	179.41	+3.69		
MW-13	02/ 17	0849	TOC	141.47	141.84	0.37	146.91	5.44		
MW-15	02/ 17				144.95		152.92			
MW-16	02/ 17				142.40		153.21			
MW-17	02/ 17	0845	TOC	133.58	142.70	9.12	148.30	14.72		
MW-18	02/ 6 17	0842	TOC	134.27	142.32	8.05	149.12	14.85		
MW-19	02/ 17	0847	TOST	133.94	142.08	8.12	148.77	14.83		
MW-20	02/ 17	10:19	TOC	172.10	184.19	12.09	175.75	3.65		
MW-21	02/ 17				141.18		145.60		Totalizer:	Pumping?
MW-22	02/ 6 17	8:51	TOST	129.85	138.65	8.80	144.84	14.99		
MW-23	02/ 17	9:33	TOST	129.45	137.33	7.88	144.88	15.43		
MW-24	02/ 17				142.83		142.40			
MW-25	02/ 17				142.64		145.72			
MW-26A	02/ 17	9:30	TOC	136.55	137.04	0.49	142.78	6.23		
MW-26B	02/ 17	9:26	TOC	142.89	137.05	-5.84	144.57	1.68		
MW-26C	02/ 17	9:32	TOC	133.66	137.22	3.56	150.54	16.88		

msl = Mean sea level
ft = feet

STATIC WATER LEVEL DATA SHEET

MONTH/YEAR: February 2017

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MW-27	02/ 6 /17	0906	TOST	133.13	137.16	4.03	149.93	16.80		AND/KJF
MW-28	02/ /17	0938	TOL	138.07	140.77	2.70	154.36	16.29		
MW-29	02/ /17				139.81		201.70		Totalizer: Pumping?	
MW-30A	02/ /17				129.44		144.10			
MW-30B	02/ /17				129.39		140.60			
MW-31	02/ /17				119.60		133.00			
MW-32A	02/ /17				92.88		109.74			
MW-32B	02/ /17				92.89		109.15			
MW-32C	02/ /17				92.88		92.35			
MW-33	02/ /17				83.19		103.55			
MW-34A	02/ /17	1234	TOST	149.02	153.25	4.23	165.51	16.49		
MW-34B	02/ /17	1232	TOST	152.36	153.11	0.75	169.85	17.49		
MW-34C	02/ /17	1230	TOST	150.12	153.29	3.17	168.18	18.06		
MW-35A	02/ /17				93.57		95.80			
MW-35B	02/ /17				93.56		105.55			
MW-35C	02/ /17				93.55		109.20			
MW-36	02/ 6 /17	10:42	TOST	83.55	86.65	3.10	108.73	25.18		
MW-37	02/ 6 /17	11:10	TOST	152.72	155.60	2.88	162.06	9.34		
MW-38	02/ 6 /17	11:12	TOST	156.94	154.90	-2.04	169.69	12.75		
MW-39	02/ 6 /17	10:50	TOST	80.95	84.25	3.30	106.85	25.90		
MW-40	02/ /17				123.40		133.75			

msl = Mean sea level
ft = feet

STATIC WATER LEVEL DATA SHEET

MONTH/YEAR: February 2017

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MW-41	02/16/17	11:23	FOSS	154.75	155.60	0.85	173.65	18.05		AMD/KDP
EW-01	02/17				141.07		152.30		SOUNDING TUBE TO 172.65 Totalizer: Pumping?	
EW-02	02/17				132.97		152.20		Totalizer: Pumping?	

msl = Mean sea level
ft = feet

FEBRUARY 2017 GROUNDWATER SAMPLE PLAN
TEAM 1

QA/QC	Total VOC's	1,4-Dioxane	APPROX. GALLONS	ESTIMATED TIME (minutes)	WELL IDENTIFIER	HYDROGEOLOGIC ZONE	FEBRUARY 2014 SAMPLING SCHEDULE	SAMPLE METHOD
	~~9.85~~	~~< 0.20~~	~~60~~	~~30~~	~~MW-20~~	~~Water Table; D~~	~~VOCs; 1,4-Dioxane~~	~~Redi-flo~~
	~~ND~~	~~< 0.20~~	~~271~~	~~35~~	~~MW-40~~	~~Deep; B~~	~~VOCs; 1,4-Dioxane~~	~~Bed 240V~~
	~~ND~~	~~< 0.20~~	~~200~~	~~50~~	~~MW-26C~~	~~Deep; B~~	~~VOCs; 1,4-Dioxane~~	~~Bed 240V~~
	~~ND~~	~~< 0.20~~	~~7.6~~	~~30~~	~~MW-89~~	~~Water Table; C~~	~~VOCs; 1,4-Dioxane~~	~~Bailer~~
	~~0.85~~	~~NS~~	~~6~~	~~20~~	~~MW-66~~	~~Water Table; D~~	~~VOCs~~	~~Bailer~~
	~~3.8~~	~~< 0.20~~	~~100~~	~~60~~	~~MW-18~~	~~Deep; A~~	~~VOCs; 1,4-Dioxane~~	~~Redi-flo~~
RB-020817	✓ RB 7.0	< 0.20	10	15	MW-13	Water Table; AB	VOCs; 1,4-Dioxane	Redi-flo
	~~1.4~~	~~< 0.20~~	~~19~~	~~30~~	~~P-09~~	~~Perched Zone~~	~~VOCs; 1,4-Dioxane~~	~~Redi-flo~~
	~~12~~	~~NS~~	~~12~~	~~10~~	~~MW-15~~	~~Water Table; AB~~	~~VOCs~~	~~Redi-flo~~
RB-020717	✓ RB 30	< 0.20	12	15	MW-08	Water Table; BC	VOCs; 1,4-Dioxane	Redi-flo
	~~1012~~	~~27~~	~~70~~	~~45~~	~~MW-16~~	~~Water Table; B~~	~~VOCs; 1,4-Dioxane (8270 MOD)~~	~~Redi-flo~~
	~~1642~~	~~1500~~	~~0.6~~	~~40~~	~~P-07~~	~~Perched Zone~~	~~VOCs; 1,4-Dioxane (8270 MOD)~~	~~Bailer~~

NOTES

A **MS** and **MSD** (3x40ml VOA and 1L amber) should be collected every day/ alternating 1,4-Dioxane methods as indicated.

1,4-Dioxane analysis method is 8270 SIM unless specified otherwise (if historical detect is > 5.0 ug/l MOD is used).

1 = Day - # refers to the day scheduled to sample and the corresponding dedicated pipestand to use: ND=1; 0-10=2; 10 - 100=3; >100=4

Wells with dedicated pumps should follow concentration order when possible.

RB = Rinsate blank taken on non-dedicated equipment each day- will vary with schedule and should be confirmed with both teams each morning.

MW-36/MW-39 Gate access code 3252

4/1/17

**FEBRUARY 2017 GROUNDWATER SAMPLE PLAN
TEAM 2**

QA/QC	Total VOC's	1,4-Dioxane	APPROX. GALLONS	ESTIMATE D TIME (minutes)	WELL IDENTIFIER	HYDROGEOLOGIC ZONE	FEBRUARY 2014 SAMPLING SCHEDULE	SAMPLE METHOD
SPT/DUP	308	90	57	25	EW-01	Deep; B	VOCs; 1,4-Dioxane (8270 MOD)	Dedicated
MS/MSD (M)	1457	220	227	30	MW-21	Water Table; BC	VOCs; 1,4-Dioxane (8270 MOD)	Dedicated
	ND	< 0.20	650	60	MW-32A	Deep; AB	VOCs; 1,4-Dioxane	Ded 320V
	ND	< 0.20	979	150	MW-32C	Water Table; C	VOCs; 1,4-Dioxane	Ded 320V
MS/MSD (W)	ND	< 0.20	1152	85	MW-35C	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	ND	< 0.20	577	45	MW-37	Deep; D	VOCs; 1,4-Dioxane	Ded.240V
	ND	< 0.20	64	25	MW-38	Deep; A	VOCs; 1,4-Dioxane	Ded.240V
	0.72	< 0.20	202	30	MW-41	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	0.66	< 0.20	877	65	MW-39	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
1.5SV	6.6	< 0.20	895	90	MW-33	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
SPT/DUP /1.5SV	92	4	993	100	MW-36	Deep; B	VOCs; 1,4-Dioxane (8270 MOD)	Ded.240V
SPT/DUP /1.5SV	169	3.6	810	90	MW-32B	Deep; B	VOCs; 1,4-Dioxane (8270 MOD)	Ded 320V

NOTE

1 = Day - # refers to the day scheduled to sample and the corresponding dedicated pipestand to use: ND=1; 0-10=2; 10 - 100=3; >100=4

A **MS** and **MSD** (3x40ml VOA and 1L amber) should be collected every day/ alternating 1,4-Dioxane methods as indicated

1,4-Dioxane analysis method is 8270 SIM unless specified otherwise (if historical detect is > 5.0 ug/l MOD is used).

Wells with dedicated pumps should follow concentration order when possible.

**FEBRUARY 2017 GROUNDWATER SAMPLE PLAN
SUPPLEMENTAL (TEAMS DIVIDE AND CONQUER)**

QA/QC	Total VOC's	1,4-Dioxane	APPROX. GALLONS	ESTIMATE D TIME (minutes)	WELL IDENTIFIER	HYDROGEOLOGIC ZONE	FEBRUARY 2014 SAMPLING SCHEDULE	PURGE METHOD
	ND	< 0.20	185	15	MW-34A	Deep; A	VOCs; 1,4-Dioxane	Ded 240V
	ND	< 0.20	200	20	MW-34C	Deep; BC	VOCs; 1,4-Dioxane	Ded 240V
~~MS/MSD (F)~~	ND	< 0.20	110	20	MW-27	Deep; B	VOCs; 1,4-Dioxane	Ded 240V
<del></del>	ND	< 0.20	38	45	MW-24	Deep; C	VOCs; 1,4-Dioxane	Ded 240V
	0.5	< 0.20	80	15	MW-30A	Deep; B	VOCs; 1,4-Dioxane	Ded 240V
~~SP/DOP~~	0.84	< 0.20	104	15	MW-28	Deep; B	VOCs; 1,4-Dioxane	Ded 240V
~~SP/DOP~~	90.2	< 0.20	122	30	MW-30B	Deep; BC	VOCs; 1,4-Dioxane	Ded 240V
~~MS/MSD (Th)~~	127	3.8	280	30	MW-31	Deep; B	VOCs; 1,4-Dioxane (8270 MOD)	Ded 240V
	91	16	162	15	MW-34B	Deep; B	VOCs; 1,4-Dioxane (8270 MOD)	Ded 240V

NOTES

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An **MS** and **MSD** (3x40ml VOA and 1L amber) should be collected every day/ alternating 1,4-Dioxane methods as indicated.

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GROUNDWATER SAMPLING INFORMATION

DATE: 2 / 7 / 17TASK: 532.30WELL ID: MW-09

Time <u>1323</u> Static DTW (ft below reference point)	<u>175.66</u>	Casing Volume (CV) (gallons) <u>2.5</u> 3 CV (gallons) <u>7.5</u>	Weather Conditions
Casing Total Depth (ft below reference point)	<u>191</u>	Purging Device <u>Bailer</u> Sampling Device <u>Bailer</u>	Time <u>1320</u> Temp. <u>70</u>
Water Column (feet)	<u>15.34</u>	Pump: Depth (ft brp) <u>-</u> Type <u>-</u> Voltage <u>-</u> HP <u>-</u>	Skies <u>cloudy</u>
Casing Capacity (Diameter <u>2</u> ") (gallons per foot)	<u>0.163</u>	Monitor Well Recharge Rate: Slow <u>X</u> Fast	Wind (mph) <u>0</u> From <u>-</u>
		Initials: <u>AMP/KDF</u>	Begin Purge <u>1330</u> End Purge <u>1450</u>
		Gallons Purged <u>7.5</u> CVs Purged <u>3.0</u>	DTW (ft brp) <u>175.66</u> Time <u>1323</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)		
<u>1330</u>	<u>175.66</u>	<u>1</u>	<u>1</u>	<u>BEGIN</u>	<u>BAILING</u>					<u>1</u>	
<u>13:33</u>	<u>NM</u>	<u>0.5</u>	<u>0.2</u>	<u>22.3</u>	<u>5.37</u>	<u>1868</u>	<u>171.6</u>	<u>5.02</u>	<u>7.37</u>	<u>-</u>	
<u>13:48</u>	<u>NM</u>	<u>1.5</u>	<u>0.6</u>	<u>22.0</u>	<u>5.42</u>	<u>1781</u>	<u>132.5</u>	<u>8.42</u>	<u>55.3</u>	<u>-</u>	
<u>14:11</u>	<u>NM</u>	<u>2.5</u>	<u>1.0</u>	<u>21.7</u> ^{AMO}	<u>5.29</u>	<u>1676</u>	<u>130.5</u>	<u>7.92</u> ^{3.42}	<u>40.8</u>	<u>-</u>	
<u>14:23</u>	<u>NM</u>	<u>4.5</u>	<u>1.8</u>	<u>21.7</u>	<u>5.39</u>	<u>1482</u>	<u>130.4</u>	<u>3.23</u>	<u>35.5</u>	<u>-</u>	
<u>14:35</u>	<u>NM</u>	<u>6</u>	<u>2.4</u>	<u>21.7</u>	<u>5.33</u>	<u>1357</u>	<u>140.8</u>	<u>3.47</u>	<u>32.7</u>		
<u>14:48</u>	<u>NM</u>	<u>7.5</u>	<u>3.0</u>	<u>21.2</u>	<u>5.29</u>	<u>1295</u>	<u>150.0</u>	<u>3.83</u>	<u>13.8</u>	<u>-</u>	
<u>14:50</u>	<u>NM</u>	<u>1</u>	<u>SAMPLE</u>								

SAMPLE COLLECTION SAMPLE TIME <u>14:50</u>	
ANALYSIS	QUANTITY TYPE
8280B VOCs	<u>3</u> 40 ml VOA <u>3</u>
8270 SIM 1,4 dioxane	<u>1</u> 1 L Amber <u>1</u>
8270 MOD 1,4 dioxane	<u>1</u> 1 L Amber
DUPLICATES / SPLITS / BLANKS? <u>Y</u> <u>(N)</u>	
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.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2 / 7 / 17

TASK: 532.30

WELL ID: MW-08

Time 10:07 Static DTW (ft below reference point) 149.12	Casing Volume (CV) (gallons) 2.77 3 CV (gallons) 8.30	Weather Conditions	Initials: AMD/KDF
Casing Total Depth (ft below reference point) 166.188	Purging Device Grundfos Sampling Device ded tubing	Time 10:05 Temp. 65	Begin Purge 1016 End Purge 1025
Water Column (feet) 16.78	Pump: Depth (ft brp) 16.3 Type Voltage HP	Skies cloudy/light rain	Gallons Purged 3.6 CVs Purged 3.6
Casing Capacity (Diameter *) (gallons per foot) 0.163	Monitor Well Recharge Rate: Slow Fast X	Wind (mph) 0 From -	DTW (ft brp) 152.68 Time 1025

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)		
1016	149.12	0	0	PUMP	ON					370	Q ≈ 1 gpm
1018	149.34	1	0.36	21.2	6.71	1246	150.7	5.00	14.1	370	
1019	150.01	2	0.72	21.8	6.83	1259	132.3	2.71	109.6	300	
1020	150.13	3	1.08	22.4	6.76	1247	135.0	3.12	275	275 300 AMD	
1021	150.68	5	1.81	22.8	6.76	1250	132.7	2.61	219	300	
1022	151.93	6	2.17	22.9	6.82	1254	131.2	2.85	34.4	300	
1023	152.60	8	2.88	23.4	6.85	1262	125.2	2.26	11.8	300	
1025	152.68	10	3.61	SAMPLE							

SAMPLE COLLECTION SAMPLE TIME 10:25
 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
 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.)

RB- 020717 @ 10:35

GROUNDWATER SAMPLING INFORMATION

DATE: 2 / 7 / 17

TASK: 532.30

WELL ID: MW-20

Time 11:07 Static DTW (ft below reference point)	172.07	Casing Volume (CV) (gallons) 17.2 3 CV (gallons) 51.7	Weather Conditions
Casing Total Depth (ft below reference point)	198.2	Purging Device Grundfos Sampling Device ded. tubing	Time 11:05 Temp. 65
Water Column (feet)	26.13	Pump: Depth (ft brp) 196 Type Voltage HP	Skies cloudy/mist
Casing Capacity (Diameter 4") (gallons per foot)	0.67	Monitor Well Recharge Rate: Slow Fast ☒	Wind (mph) 0 From -
		Initials: AMD/KOF/GDF	
		Begin Purge 11:14 End Purge 11:55	
		Gallons Purged 60 CVs Purged 3.48	
		DTW (ft brp) 180.49 Time 11:55	

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)		
11:14	172.07	0	0	21.6	BEGIN PUMPING				28.8	325	
11:16	176.51	4	0.23	21.6	5.77	791	158.6	6.37	28.8	325	Q ≈ 1.5 gpm
11:20	177.40	12	0.67	23.0	5.82	812	161.7	5.17	10.0	325	
11:26	178.71	20	1.16	23.2	5.69	809	173.5	4.83	1.2	325	
11:38	179.65	31.5	1.83	23.3	5.59	808	189.4	4.69	1.0	325	
11:42	180.13	42	2.44	22.8	5.61	803	187.7	5.01	0.87	325	
11:50	180.41	52	3.02	23.3	5.78	810	184.9	4.70	0.80	325	
11:55	180.49	60	3.48	SAMPLE							
11:56				PUMP OFF							

SAMPLE COLLECTION SAMPLE TIME 11:55
ANALYSIS QUANTITY TYPE

8280B 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.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2 / 7 / 17

TASK: 532.30

WELL ID: MW-16

Time 15:10 Static DTW (ft below reference point)	138.77	Casing Volume (CV) (gallons) 26 3 CV (gallons) 78	Weather Conditions	Initials: AMO/KOF
Casing Total Depth (ft below reference point)	178.50	Purging Device Grundfos Sampling Device ded tubing	Time 15:10 Temp. 65	Begin Purge 1530 End Purge 1618
Water Column (feet)	39.73	Pump: Depth (ft brp) 176.5 Type Grundfos Voltage HP	Skies clear	Gallons Purged 83.25 CVs Purged 3.2
Casing Capacity (Diameter 4" (gallons per foot)	0.66	Monitor Well Recharge Rate: Slow Fast X	Wind (mph) 0 From -	DTW (ft brp) 138.77 Time 1510

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)		
1530	-	0	0	- BEGIN PUMPING						303	Q=1.75
1535	141.25	8.75	0.34	22.2	6.45	799	216.9	4.24	1.82	303	
1545	141.29	26.3	1.0	23.0	6.11	811	170.5	4.47	1.32	303	
1552	142.96	38.5	1.49	23.0	6.09	835	133.3	3.49	1.22	303	
1600	143.04	52.5	2.0	23.0	6.02	907	131.4	3.57	1.29	303	
1607	143.10	64.8	2.49	22.7	5.98	919	130.7	3.74	1.09	303	
1615	143.11	78	3.00	23.0	5.95	953	130.0	3.69	1.32	303	
1616	4 NM	79.75	3.07	SAMPLE							
1618		83.25	3.2	PUMP OFF							

SAMPLE COLLECTION SAMPLE TIME 16:16
ANALYSIS QUANTITY TYPE

8260B VOCs 3 40 ml VOA
8270 SIM 1,4-dioxane 1 L Amber
8270 MOD 1,4 dioxane 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.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2 / 8 / 17

TASK: 532.30

WELL ID: MW-13

Time <u>8:16</u> Static DTW (ft below reference point) <u>141.36</u>	Casing Volume (CV) (gallons) <u>3</u> 3 CV (gallons) <u>9</u>	Weather Conditions	Initials: <u>AMP/KDF</u>
Casing Total Depth (ft below reference point) <u>159.67</u>	Purging Device <u>Grundfos</u> Sampling Device <u>ded. tubing</u>	Time <u>8:10</u> Temp. <u>65</u>	Begin Purge <u>0825</u> End Purge <u>0847</u>
Water Column (feet) <u>18.31</u>	Pump: Depth (ft brp) <u>157</u> Type Voltage <u>115</u> HP <u>0.5</u>	Skies <u>cloudy</u>	Gallons Purged <u>11</u> CVs Purged <u>3.7</u>
Casing Capacity (Diameter <u>2"</u>) (gallons per foot) <u>0.163</u>	Monitor Well Recharge Rate: Slow Fast <u>✓</u>	Wind (mph) <u>0</u> From <u>-</u>	DTW (ft brp) <u>UTM</u> Time <u>-</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)		
0825	141.36	0	0	16.5	7.71	956	242.3	6.53	17.1	281	
0827	145.00	1.0	0.33	17.7	7.66	862	217.0	5.72	25.8	281	Q ≈ 0.5 gpm
0831	144.21	3.0	1.0	18.2	7.66	858	209.0	5.51	21.5	281	WL meter getting stuck
0834	UTM	4.5	1.5	19.0	7.63	811	204.6	5.32	36.2	281	
0837	UTM	6.0	2.0	20.5	7.60	733	204.5	4.61	32.9	281	
0840	UTM	7.5	2.5	21.9	7.56	688	201.8	4.32	27.4	281	
0843	UTM	9.0	3.0								
0845				SAMPLE							
0847	UTM	11.0	3.67								

SAMPLE COLLECTION SAMPLE TIME <u>0845</u>		
ANALYSIS	QUANTITY	TYPE
8280B VOCs	<u>3</u>	40 ml VOA
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.		

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.)

RB-020817 @ 8:55

GROUNDWATER SAMPLING INFORMATION

DATE: 2 / 8 / 17

TASK: 532.30

WELL ID: MW-18

Time 9:00 Static DTW (ft below reference point)	133.75	Casing Volume (CV) (gallons) ~~40~~ 3 CV (gallons) 120	Weather Conditions
Casing Total Depth (ft below reference point)	194.10	Purging Device Grundfos Sampling Device ded tubing	Time 9:00 Temp. 65
Water Column (feet)	60.35	Pump: Depth (ft brp) 192 Type MPI Voltage 115 HP 0.5	Skies cloudy
Casing Capacity (Diameter 4") (gallons per foot)	0.66	Monitor Well Recharge Rate: Slow Fast ☒	Wind (mph) 0 From -
		Initials: AMD/KDF	
		Begin Purge 0910 End Purge 1010	
		Gallons Purged 122 CVs Purged 31	
		DTW (ft brp) 152.49 Time 1010	

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)		
0910	133.75	0	0							315	
0913	143.91	6	0.15	22.0	7.17	948	240.5	4.52	9.17	315	Q ≈ 2 gpm
0924	149.63	28	0.70	22.5	7.02	713	276.3	4.59	4.79	315	
0935	151.72	50	1.25	22.6	7.09	938	301.6	4.71	0.58	315	
0947	152.18	74	1.85	22.6	7.11	997	319.1	4.85	0.41	315	
0959	152.37	98	2.45	22.6	7.11	1013	331.2	5.20	0.39	315	
1010	152.49	120	3.0	22.6	7.12	1023	338.6	5.00		315	
1011		122	4.1								

SAMPLE COLLECTION SAMPLE TIME 10:11
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?
If yes, complete appropriate forms.

Y

N

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.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2 / 8 / 17

TASK: 532.30

WELL ID: P-09

Time <u>1252</u> Static DTW (ft below reference point)	<u>120.97</u>	Casing Volume (CV) (gallons) <u>6</u> 3 CV (gallons) <u>18</u>	Weather Conditions
Casing Total Depth (ft below reference point)	<u>130</u>	Purging Device <u>Grundfos</u> Sampling Device <u>ded. tubing</u>	Time <u>1250</u> Temp. <u>70</u>
Water Column (feet)	<u>9.03</u>	Pump: Depth (ft brp) <u>129'</u> Type <u>MPI</u> Voltage <u>115</u> HP <u>0.5</u>	Skies <u>cloudy</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot)	<u>0.66</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>✓</u>	Wind (mph) <u>0-2</u> From <u>W</u>
			Initials: <u>AMD/KDF</u>
			Begin Purge <u>1258</u> End Purge <u>1328</u>
			Gallons Purged <u>20</u> CVs Purged <u>3.3</u>
			DTW (ft brp) <u>121.22</u> Time <u>13:39</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)		
1258	120.97	0	0	—	PUMP ON	—	—	—	—	259	
1301	122.16	1.5	0.25	24.4	7.00	1416	318.8	6.03	5.98	259	Q ≈ 0.5 gpm
1307	122.30	4.5	0.75	24.0	6.83	2027	320.5	4.10	3.99	259	
1314	122.52	8.0	1.33	24.6	6.77	2348	324.0	3.66	3.72	259	
1321	122.69	11.5	1.92	24.9	6.76	2491	327.3	3.63	5.02	259	
1328	122.80	15	2.5	25.1	6.75	2516	331.6	3.41	2.09	259	
1334	122.93	18	3.0	25.2	6.75	2540	337.7	3.31	1.86	259	
1335	—	—	—	—	SAMPLE	—	—	—	—	—	
1338	121.22	20	3.3	—	PUMP OFF	—	—	—	—	—	

SAMPLE COLLECTION SAMPLE TIME <u>1335</u>		
ANALYSIS	QUANTITY	TYPE
8280B VOCs	<u>3</u>	40 ml VOA
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.		

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.)

~~VOCs only~~ VOCs and 1,4 Diox samples taken

GROUNDWATER SAMPLING INFORMATION

DATE: 2/8/17

TASK: 532.30

WELL ID: MW-06

Time <u>12:55</u> Static DTW (ft below reference point)	<u>174.71</u>	Casing Volume (CV) (gallons) <u>2.1x</u> 3 CV (gallons) <u>6.5</u>	Weather Conditions
Casing Total Depth (ft below reference point)	<u>188</u>	Purging Device <u>ded. bailer</u> Sampling Device <u>ded. bailer</u>	Time <u>12:55</u> Temp. <u>75</u>
Water Column (feet)	<u>13.29</u>	Pump: Depth (ft brp) <u>NA</u> Type <u>NA</u> Voltage <u>NA</u> HP <u>NA</u>	Skies <u>cloudy</u>
Casing Capacity (Diameter <u>2</u>) (gallons per foot)	<u>0.17</u>	Monitor Well Recharge Rate: Slow ☒ Fast ☐	Wind (mph) <u>0</u> From <u>-</u>
		Initials: <u>AMD/KDF</u>	
		Begin Purge <u>1305</u> End Purge <u>1450</u>	
		Gallons Purged <u>6.5</u> CVs Purged <u>3</u>	
		DTW (ft brp) <u>NM</u> Time <u>NA</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	NM	0.25	0.11	22.8	7.94	802	95.8	4.56	55.4	NA	
1341	NM	1.0	0.46	22.6	7.85	796	93.7	3.21	86.3	NA	
14:23	NM	2.5	1.15	22.5	7.72	976	86.3	3.71	61.1	NA	
14:30	NM	4.0	1.85	22.1	7.74	950	86.0	5.04	52.1	NA	
14:40	NM	5.5	2.55	22.0	7.65	637	96.3	5.32	51.9	NA	
14:50	NM	6.5	3.0	22.1	7.73	999	96.0	5.47	45.8	NA	SAMPLE

SAMPLE COLLECTION SAMPLE TIME <u>14:50</u>		
ANALYSIS	QUANTITY	TYPE
8260B VOCs	<u>3</u>	40 ml VOA
8270 SIM 1,4 dioxane		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.		

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.)

- VOCs only

- Recommend weighted bailer.

GROUNDWATER SAMPLING INFORMATION

DATE: 2/8/17

TASK: 532.30

WELL ID: MW-260

Time <u>1530</u> Static DTW (ft below reference point)	<u>133.03</u>	Screen <u>SV</u> Casing Volume (gallons) <u>60</u>	<u>SV</u> 3" Volume (gallons) <u>180</u>	Weather Conditions		Initials: <u>AMD/KDF</u>
Casing Total Depth (ft below reference point)	<u>499</u>	Purging Device <u>Grundfos</u>	Sampling Device <u>det tubing</u>	Time <u>1530</u>	Temp. <u>70</u>	Begin Purge <u>1535</u> End Purge
Water Column (feet)	<u>366</u>	Pump: Depth (ft brp) <u>200</u> Type <u>grundfos</u>	Voltage	HP	Skies <u>clear</u>	Gallons Purged <u>130 SV</u> Gals Purged <u>1</u>
Casing Capacity (Diameter <u>2"</u>) (gallons per foot)	<u>0.163</u>	Monitor Well Recharge Rate: Slow		Fast	Wind (mph) <u>0-2</u> From <u>W</u>	DTW (ft brp) <u>133.28</u> Time <u>16:07</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)		
1535	133.03	0	0	+ PUMP ON						400	
1540	133.11	25	0.41	22.3	8.36	212.4	156.6	2.92	5.03	400	Q ≈ 5 gpm
1546	134.38	55	0.91	22.3	8.62	202.3	144.9	2.24	5.61	400	
1552	134.41	85	1.42	22.2	7.83	606	-130.0	0.91	6.72	400	
1558	134.50	115	1.92	22.2	7.76	617	-112.3	0.88	3.21	400	
1604	134.54	145	2.42	22.2	7.73	616	-110.8	0.84	0.27	400	
~~1610~~ 1611	134.60	180	3	22.3	7.70	616	-106.5	0.82	0.22	400	
16:15			Pump Off								

SAMPLE COLLECTION SAMPLE TIME 16:13
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.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2/8/17

TASK: 532.30

WELL ID: MW-28

Time 1630	Static DTW (ft below reference point) 137.52	Screen SV Casing Volume (CV) (gallons) 29.7	SV 89.1	Weather Conditions	Initials: AMD/KDF/TJE
Casing Total Depth (ft below reference point) 375	~~515~~	Purging Device ded pump	Sampling Device pipe stand	Time 1630 Temp 70	Begin Purge 1634 End Purge 1647
Screen Water Column (feet) 45		Pump: Depth (ft brp) 330	Type grinder Voltage 240 HP	Skies Mostly sunny	Gallons Purged 115.3 CVs Purged 3.9
Casing Capacity (Diameter 4") (gallons per foot) 0.66		Monitor Well Recharge Rate: Slow	Fast X	Wind (mph) 2 From E	DTW (ft brp) 138.01 Time 1648

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)		
1634	137.52	0	0	—	Begin	Purge	—	—	—	—	Q ≈ 9 GPM
1636	146.66	17.5	0.59	20.7	7.70	847	172.8	4.77	1.72	—	
1638	146.66	37.8	1.3	21.5	7.40	857	173.8	4.26	0.97	—	Q ≈ 7 GPM
1640	146.78	52.0	1.75	21.5	7.41	865	174.4	4.23	0.65	—	
1643	146.77	76.0	2.56	21.6	7.43	860	181.6	4.17	0.57	—	
1644	146.78	89.2	3.0	21.6	7.43	853	185.7	4.21	0.74	—	
1646	146.78	101.3	3.4	21.6	7.43	854	189.9	4.22	0.69	—	Sample
1647	NM	115.3	3.9	—	Pump	off	—	—	—	—	

SAMPLE COLLECTION SAMPLE TIME 1646
ANALYSIS QUANTITY TYPE

8260B VOCs 3 40 ml VOA 3
8270 SIM 1.4 dioxane 1 1 L Amber 1
8270 MOD 1.4 dioxane 1 1 L Amber

DUPLICATES / SPLITS / BLANKS?
If yes, complete appropriate forms.

Y

(N)

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.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2/9/17

TASK: 532.30

WELL ID: MW-40

Time <u>0848</u> Static DTW (ft below reference point) <u>114.80</u>	Casing Volume (CV) (gallons) <u>75</u> 3 CV (gallons) <u>225</u>	Weather Conditions	Initials: <u>AMD/KDF</u>
Casing Total Depth (ft below reference point) <u>470</u>	Purging Device <u>ded pump</u> Sampling Device <u>NO pipestand</u>	Time <u>0840</u> Temp. <u>65</u>	Begin Purge <u>0900</u> End Purge <u>0927</u>
<u>pump screen</u> Water Column (feet) <u>50</u>	Pump: Depth (ft brp) <u>420</u> Type <u>grundfos</u> Voltage <u>240</u> HP	Skies <u>clear</u>	Gallons Purged <u>236</u> CVs Purged
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>-</u>	DTW (ft brp) <u>115.71</u> Time <u>0925</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)		
0900	114.80	Ø	Ø	20	PUMP ON						
0902	115.60	16	0.22	20.6	7.26	604	329.7	1.32	0.86	NA	Q ≈ 8gpm
0906	115.65	48	0.64	20.9	7.40	573	174.8	0.93	1.25	NA	
0911	115.68	96	1.28	21.2	7.66	555	112.7	1.20	0.64	NA	
0915	115.68	128	1.71	21.2	7.68	556	126.1	1.58	0.31	NA	
0920	115.69	175	2.33	21.1	7.68	558	122.9	2.23	0.29	NA	
0925	115.71	225	3.0	21.0	7.63	559	112.2	1.22	0.33	NA	sample @ 0927
0928	114.99	236	3.15		PUMP OFF						

SAMPLE COLLECTION SAMPLE TIME 0927
 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.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2/9/17

TASK: 532.30

WELL ID: MW-24

Time <u>0958</u> Static DTW (ft below reference point) <u>137.72</u>	Casing Volume (CV) (gallons) <u>127</u> 3 CV (gallons) <u>381</u>	Weather Conditions Time <u>0956</u> Temp. <u>70</u>	Initials: <u>AMD/KDF</u>
Casing Total Depth (ft below reference point) <u>330</u>	Purging Device <u>ded pump</u> Sampling Device <u>NO pipeland</u>	Skies <u>clear</u>	Begin Purge <u>1004</u> End Purge <u>1043</u>
Water Column (feet) <u>192.3</u>	Pump: Depth (ft brp) <u>240</u> Type <u>grundfos</u> Voltage <u>240</u> HP	Wind (mph) <u>0</u> From <u>-</u>	Gallons Purged <u>395</u> CVs Purged <u>3.11</u>
Casing Capacity (Diameter <u>4</u> ") (gallons per foot) <u>0.66</u>	Monitor Well Recharge Rate: Slow <u>X</u> Fast	DTW (ft brp) <u>143.21</u> Time <u>10:43</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)		
10:04	137.72	Ø	Ø	1	PUMP	ON					
10:07	144.62	30	0.24	21.8	9.99	282.1	189.3	0.12	8.88	NA	Q ≈ 10 gpm
10:14	145.15	100	0.79	21.9	8.00	390.2	-90.1	0.04	1.34	NA	
10:21	145.30	170	1.34	21.9	7.92	391.4	-104.1	0.04	1.33	NA	
10:28	145.32	240	1.89	22.0	7.90	391.9	-109.5	0.04	0.88	NA	
10:35	145.41	310	2.44	22.0	7.86	392.4	-118.5	0.03	0.81	NA	
10:41	145.42	381	3.0	22.0	7.85	392.4	-122.6	0.03	0.63	NA	
10:42				SAMPLE							
10:43	143.21	395.3	3.11	1	PUMP	OFF					

SAMPLE COLLECTION SAMPLE TIME <u>1042</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>3</u>	40 ml VOA			
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: 2/9/17

TASK: 532.30

WELL ID: MW-27

Time 1237 Static DTW (ft below reference point)	132.35	Casing Volume (CV) (gallons) 29.7	3 CV (gallons) 89.1	Weather Conditions	Initials: AMD/KDF
Casing Total Depth (ft below reference point)	515	Purging Device ded. pump	Sampling Device pipe stand	Time 1237 Temp. 75	Begin Purge 1242 End Purge 1259
Screen Water Column (feet)	345	Pump: Depth (ft brp)	Type Grundfos Voltage 240 HP	Skies clear	Gallons Purged 120 CVs Purged 4.04
Casing Capacity (Diameter 4") (gallons per foot)	0.66	Monitor Well Recharge Rate: Slow	Fast X	Wind (mph) 0 From -	DTW (ft brp) 138.70 Time 1251

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)		
12:42	132.35	0	0	PUMP ON							
12:44	138.40	8	0.27	22.1	7.71	156.3	129.0	0.99	2.58	NA	Q = 7.5
12:46	138.59	26	0.9	21.6	7.55	603	-25.5	1.22	7.40	NA	
12:47	138.71	42	1.4	21.7	7.54	603	10.9	1.35	40.2	NA	
12:49	138.71	58	1.95	21.7	7.55	602	38.2	1.34	7.36	NA	
12:51	138.70	74	2.5	21.7	7.57	600	47.1	1.34	9.96	NA	
12:53	NM	90	3.03	21.7	7.56	601	57.7	1.33	5.33	NA	
12:54				SAMPLE							
12:59	NM	120	4.04	pump off							

SAMPLE COLLECTION	SAMPLE TIME	12:54
ANALYSIS	QUANTITY	TYPE
8260B VOCs	39	40 ml VOA
8270 SIM 1,4 dioxane	13	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber
DUPLICATES / SPLITS / BLANKS?	Y	
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.)

MS/MSD collected,

GROUNDWATER SAMPLING INFORMATION

DATE: 2/9/17

TASK: 532.30

WELL ID: MW-15

Time 1405 Static DTW (ft below reference point) 151.21	Casing Volume (CV) (gallons) 3.2 3 CV (gallons) 9.6	Weather Conditions	Initials: AMD/KDF
Casing Total Depth (ft below reference point) 170.8	Purging Device Grundfor Sampling Device ded. tubing	Time 1405 Temp. 65	Begin Purge 1415 End Purge 1426
Water Column (feet) 19.59	Pump: Depth (ft brp) 167 Type MPI Voltage 115 HP 0.5	Skies clear	Gallons Purged 18 CVs Purged 6.9
Casing Capacity (Diameter 2") (gallons per foot) 0.163	Monitor Well Recharge Rate: Slow Fast X	Wind (mph) 0-2 From E	DTW (ft brp) 151.82 Time 1424

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)		
1415	151.21	Ø	Ø	PUMP ON						305	
1417	152.10	4	1.25	22.9	7.47	603	191.9	2.51	12.7	305	Q = 2gpm
1419	UTM	8	2.5	22.8	7.44	604	195.3	2.62	10.6	305	WL meter getting stuck
1421	UTM	12	3.75	22.8	7.35	588	198.1	2.75	5.66	305	
1422	UTM	14	4.4	22.8	7.34	583	198.9	2.79	5.01	305	
1423	UTM	16	5	22.8	7.33	570	200.5	2.67	3.72	305	
1424	151.82	18	5.0	22.8	7.33	571	202.1	2.58	3.10	305	
1425			SAMPLE	LE							
1426	NM	22	6.9	PUMP OFF							

SAMPLE COLLECTION	SAMPLE TIME 1425
ANALYSIS	QUANTITY TYPE
8260B VOCs	3 40 ml VOA
8270 SIM 1,4 dioxane	1 L Amber
8270 MOD 1,4 dioxane	1 L Amber
DUPLICATES / SPLITS / BLANKS?	Y
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.)

- VOCs only

- New dedicated tubing set into well. Old tubing ripped so was removed and disposed.



GROUNDWATER SAMPLING INFORMATION

2/9/17

TASK: 532.30

WELL ID:

MW
EW-29

Time _____ Static DTW (ft below reference point)	_____	Casing Volume (CV) (gallons) _____ 3 CV (gallons)	<u>Weather Conditions</u>	Initials: <u>AMD/KDF</u>
Casing Total Depth (ft below reference point)	_____	Purging Device _____ Sampling Device _____	Time _____ Temp. _____	Begin Purge _____ End Purge _____
Water Column (feet)	_____	Pump: Depth (ft brp) _____ Type _____ Voltage _____ HP _____	Skies _____	Gallons Purged _____ CVs Purged _____
Casing Capacity (Diameter _____) (gallons per foot)	_____	Monitor Well Recharge Rate: Slow _____ Fast _____	Wind (mph) _____ From _____	DTW (ft brp) _____ Time _____

[illegible]

SAMPLE COLLECTION		SAMPLE TIME	
ANALYSIS	QUANTITY	TYPE	
8260B VOCs	3	40 ml VOA	
8270 SIM 1,4 dioxane		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.)

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

part of ~~0.8M~~ 0.8M sampling



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 HYDROGRAPHSTABLE OF CONTENTSFigure

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C-3	CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-16
C-4	CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-26C
C-5	CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-27
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C-8	CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-30A
C-9	CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-31
C-10	CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-32B
C-11	CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-33



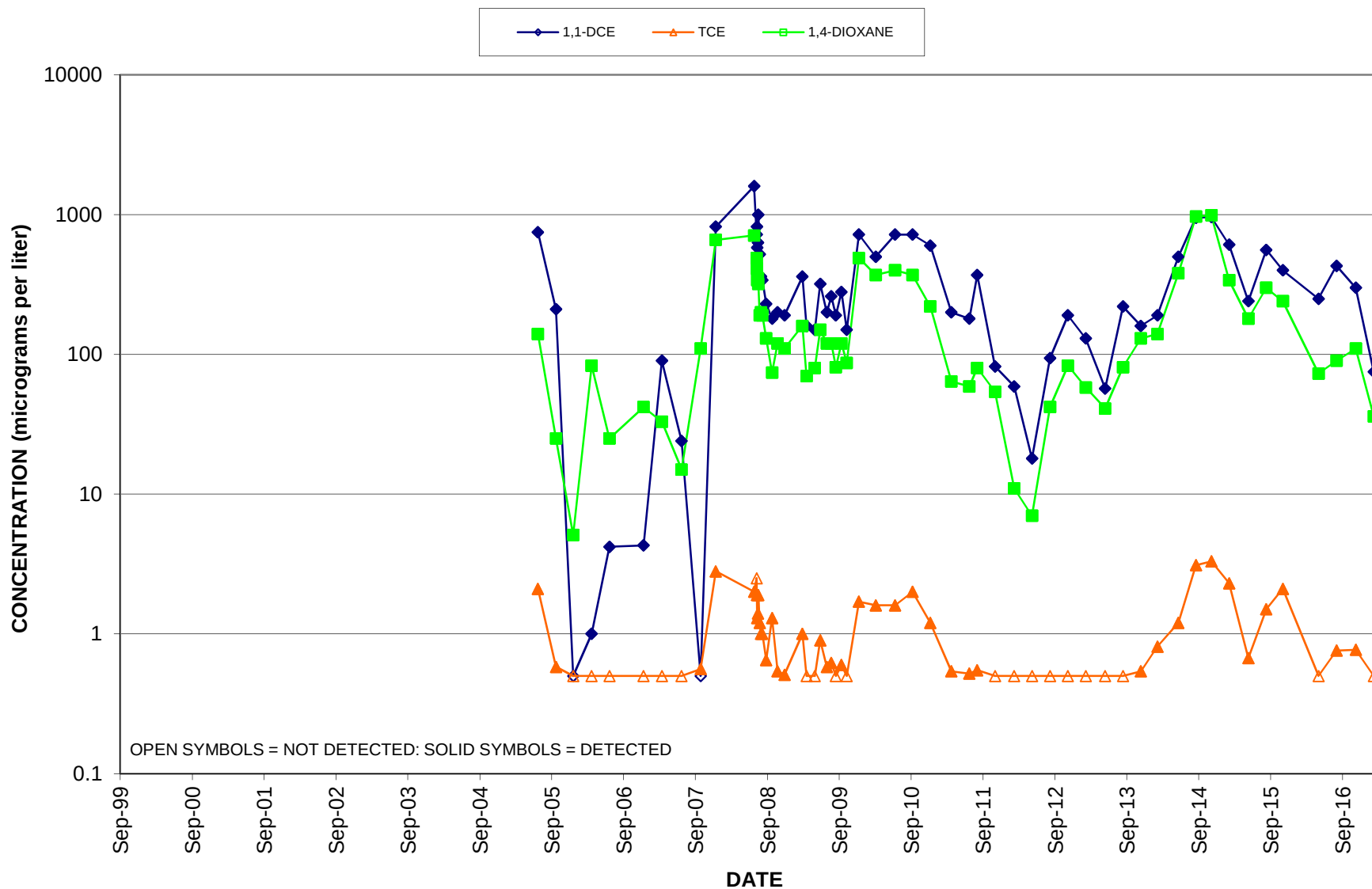
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C-12	CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-34B
C-13	CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-35C
C-14	CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-36
C-15	CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-39
C-16	CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-40
C-17	CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-41



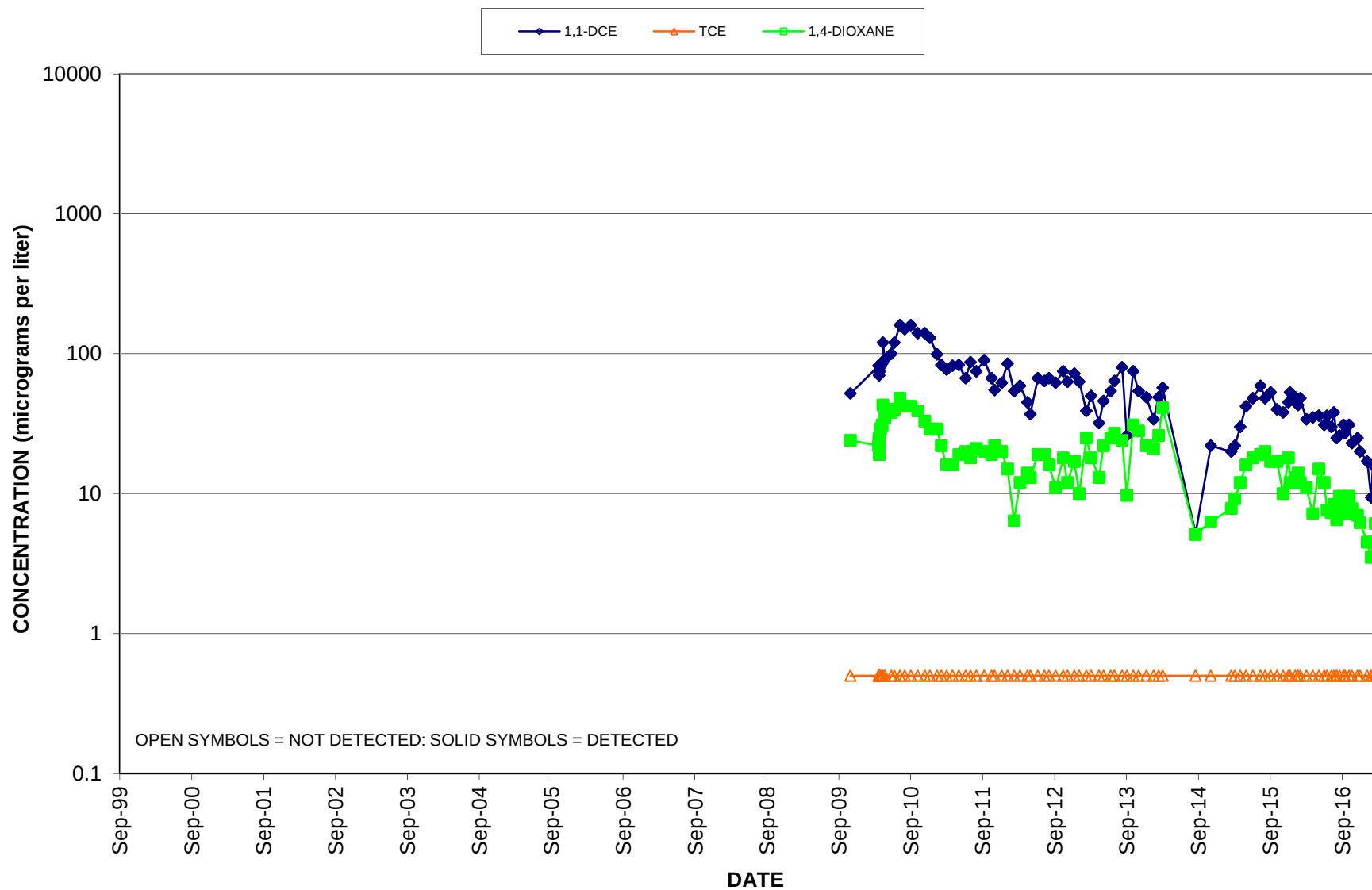
FIGURE C-1: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, EW-01



1,1-DCE = 1,1-Dichloroethylene
TCE = Trichloroethylene



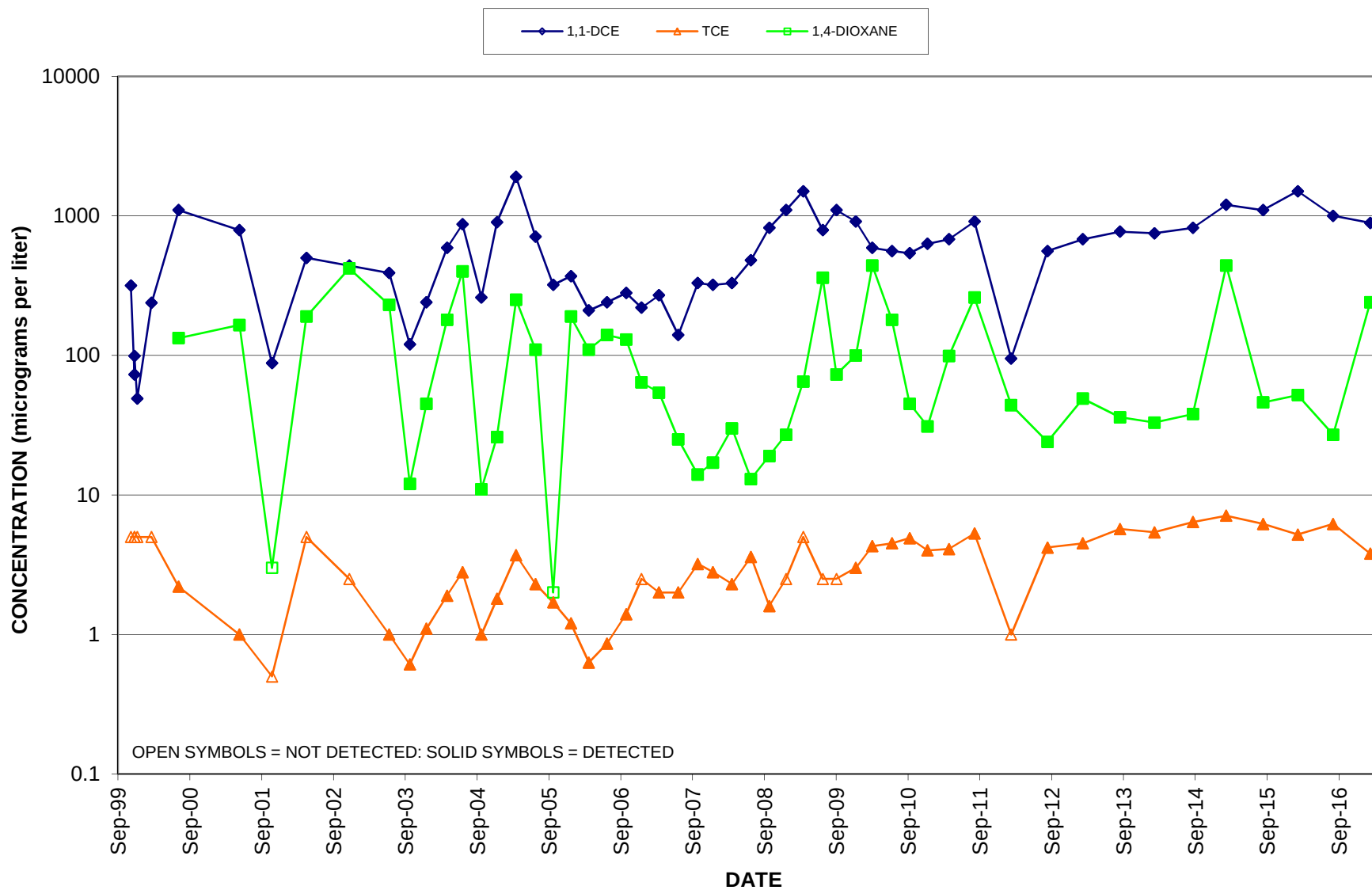
FIGURE C-2: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, EW-02



1,1-DCE = 1,1-Dichloroethylene
TCE = Trichloroethylene



FIGURE C-3: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-16

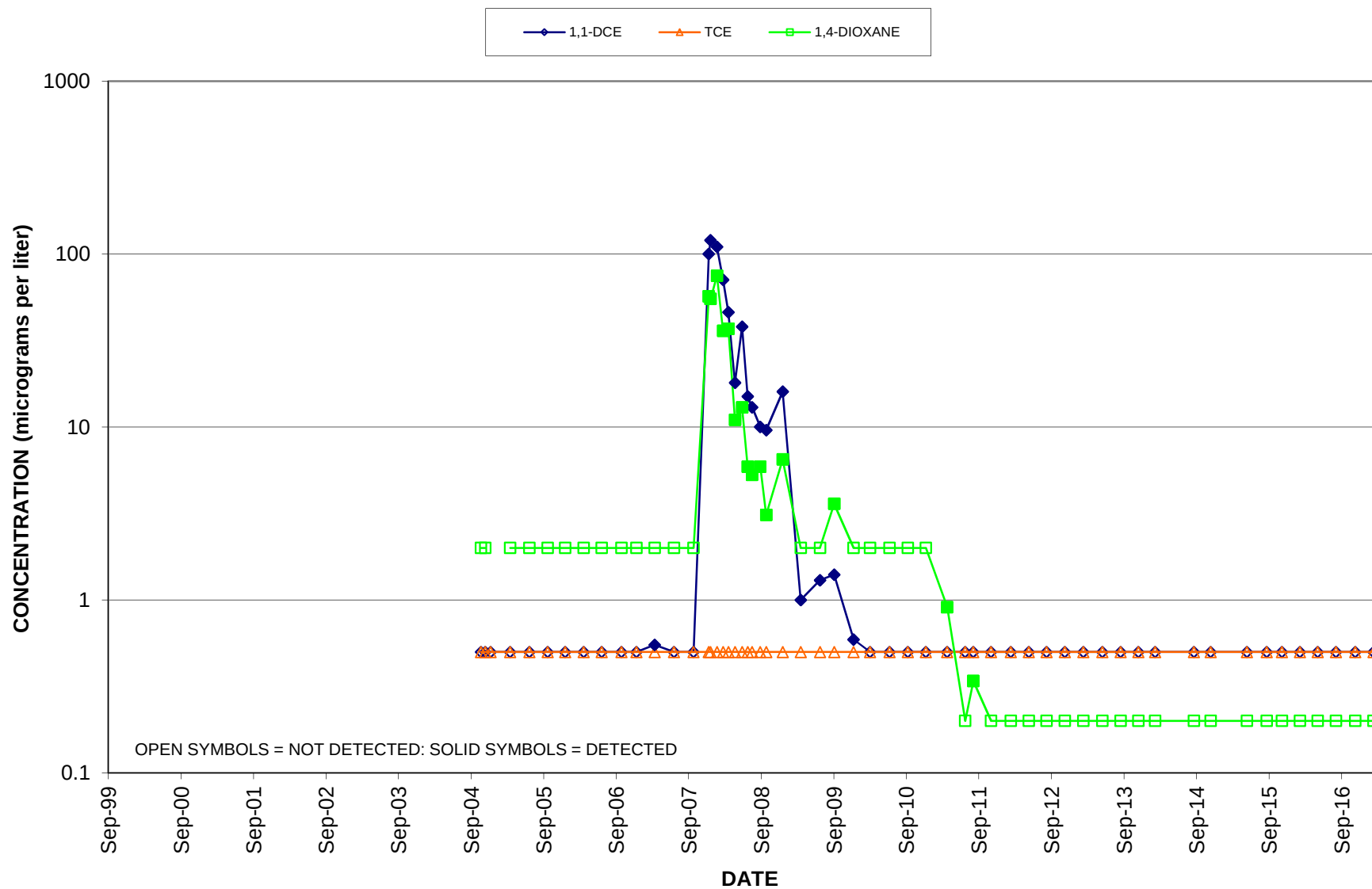


1,1-DCE = 1,1-Dichloroethylene

TCE = Trichloroethylene



FIGURE C-4: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-26C

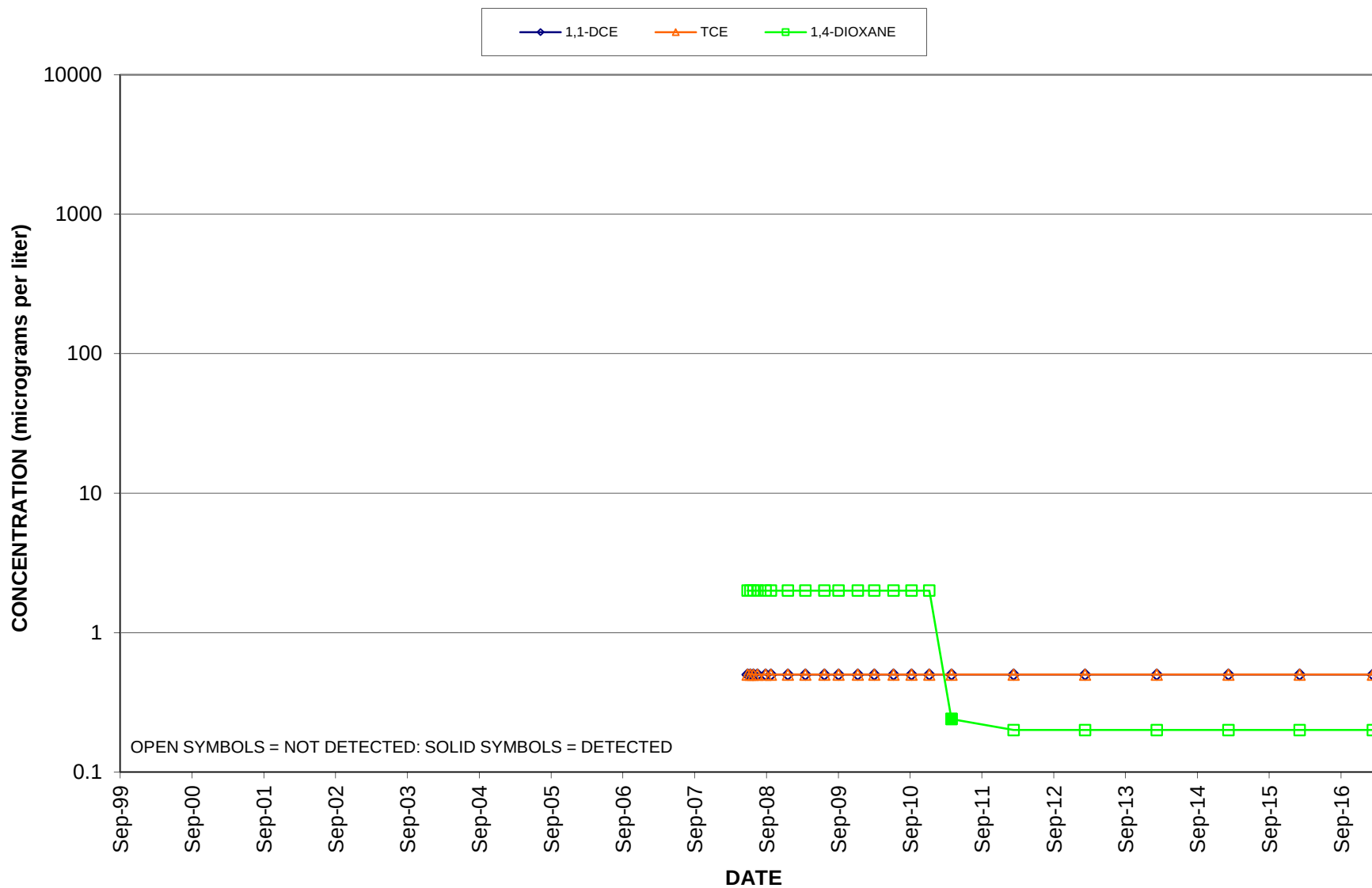


1,1-DCE = 1,1-Dichloroethylene

TCE = Trichloroethylene



FIGURE C-5: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-27

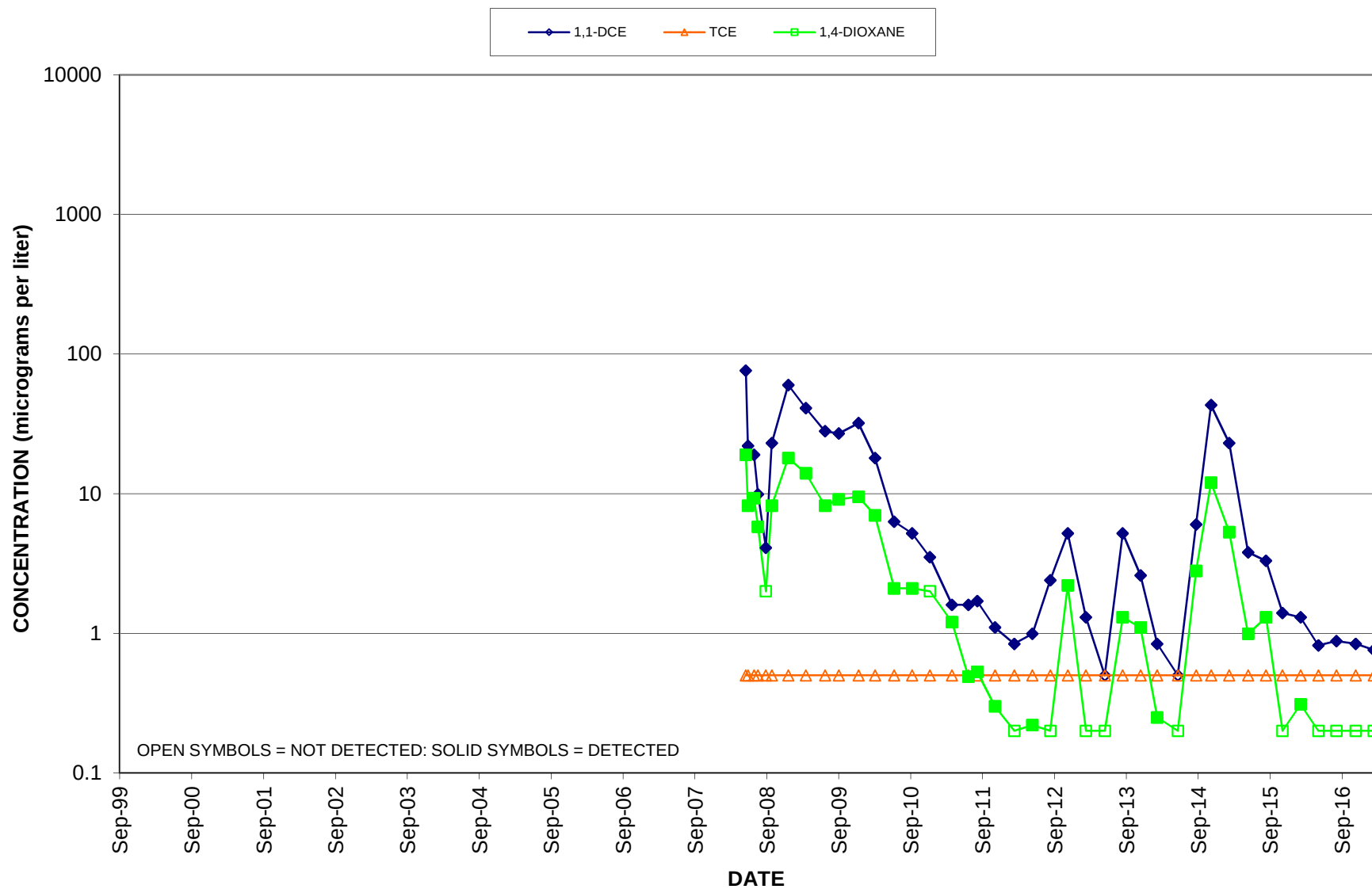


1,1-DCE = 1,1-Dichloroethylene

TCE = Trichloroethylene



FIGURE C-6: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-28

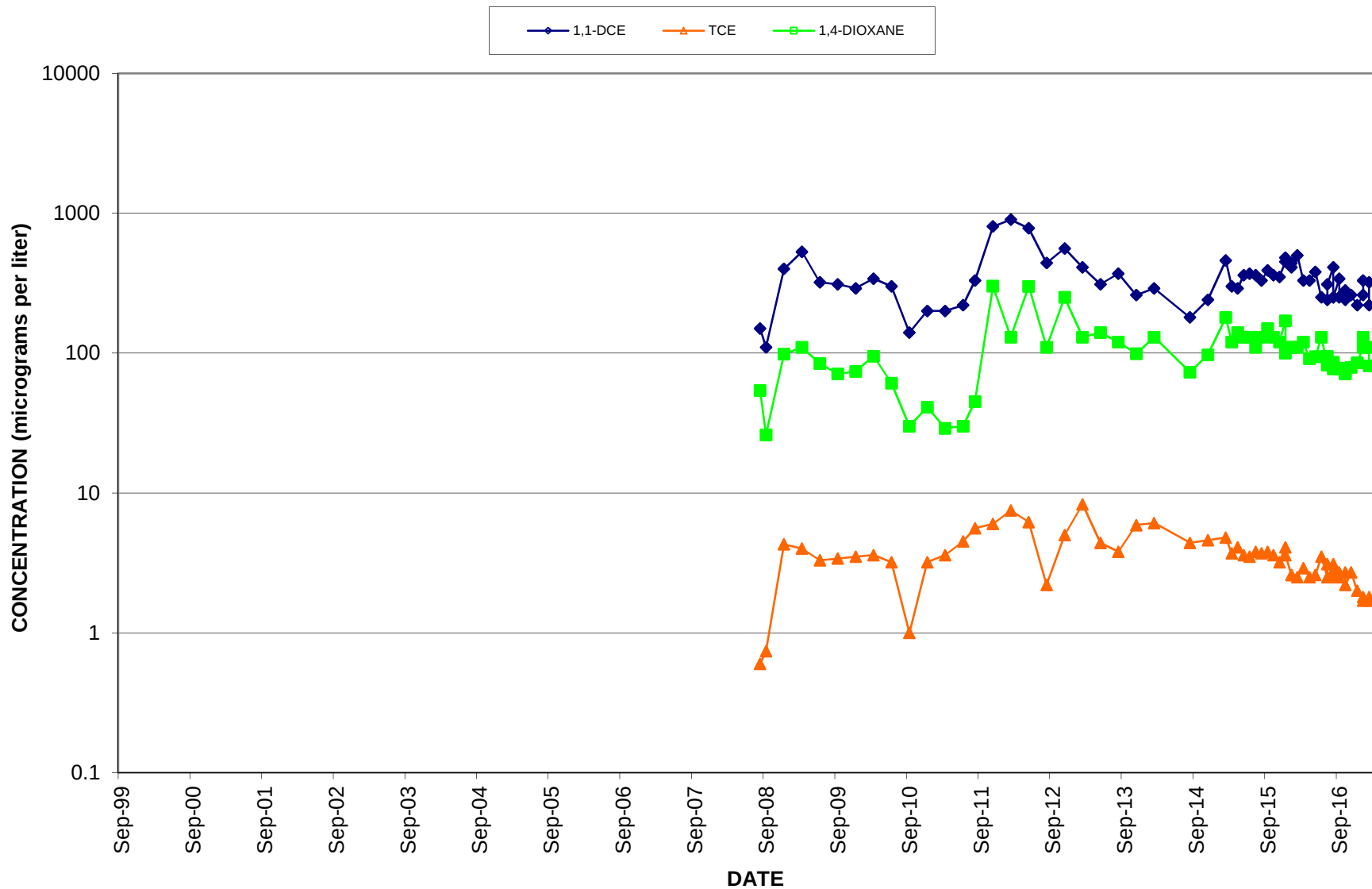


1,1-DCE = 1,1-Dichloroethylene

TCE = Trichloroethylene



FIGURE C-7: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-29

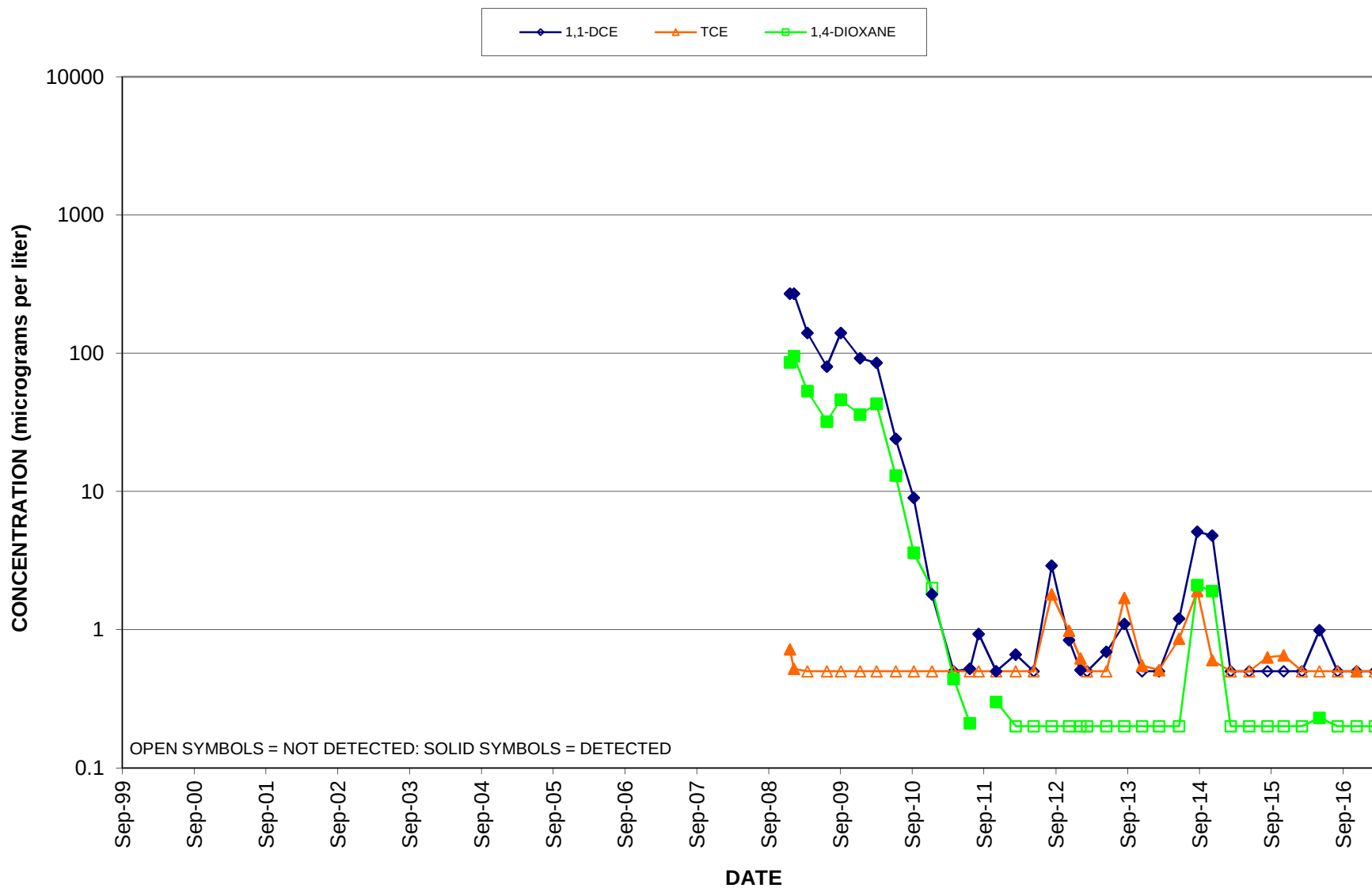


1,1-DCE = 1,1-Dichloroethylene

TCE = Trichloroethylene

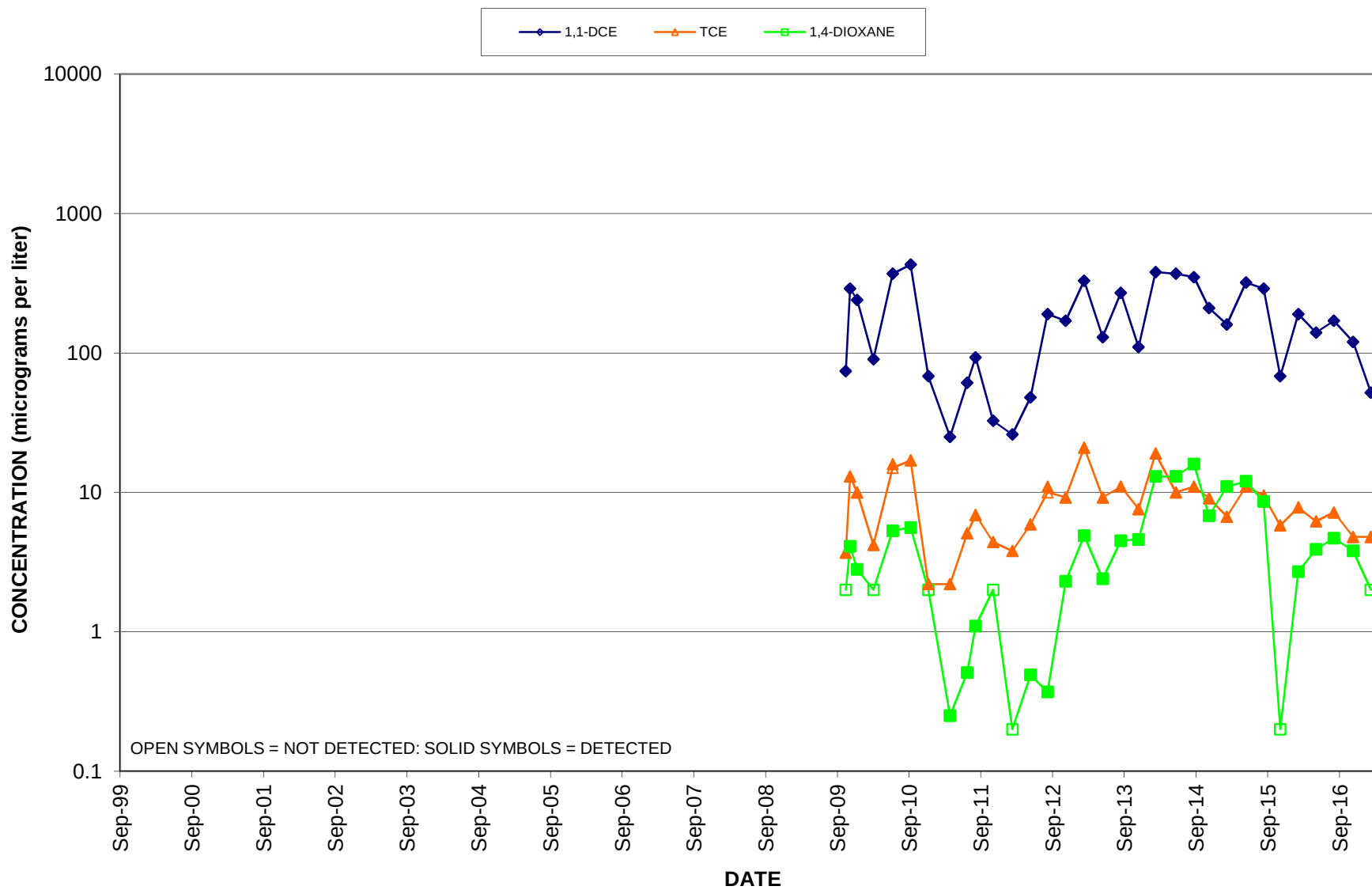


FIGURE C-8: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-30A



1,1-DCE = 1,1-Dichloroethylene
TCE = Trichloroethylene

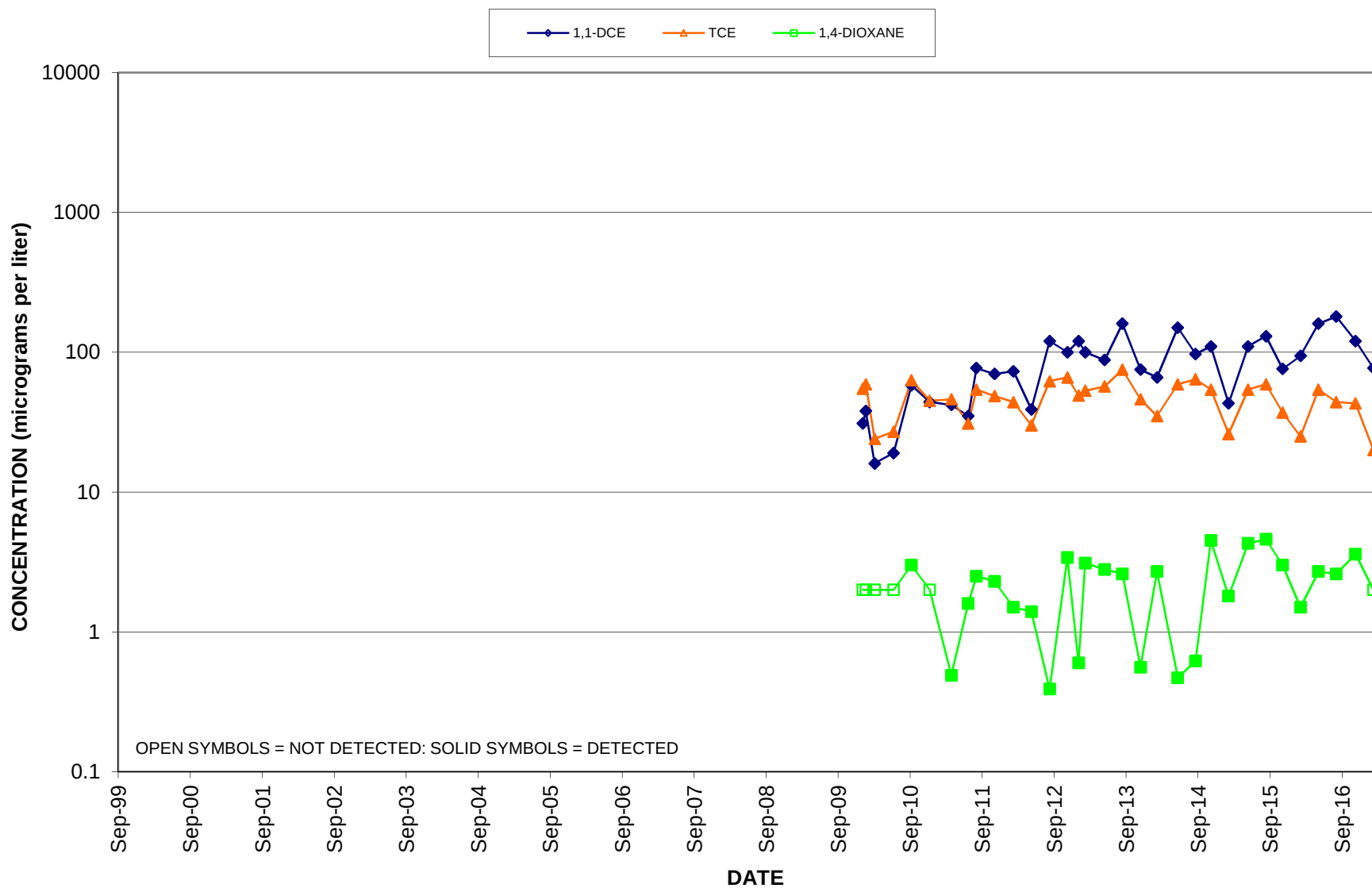
FIGURE C-9: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-31



1,1-DCE = 1,1-Dichloroethylene
TCE = Trichloroethylene



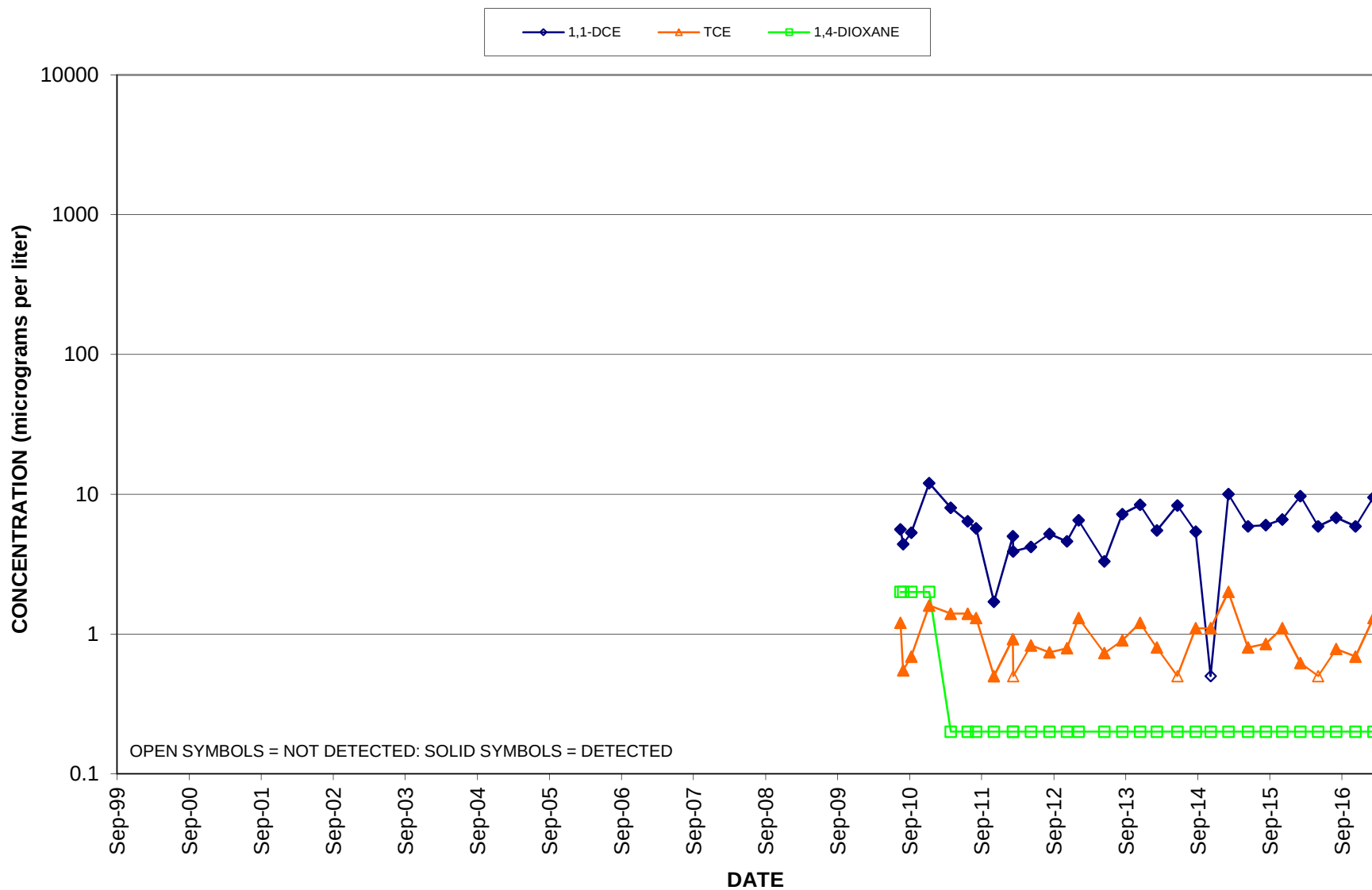
FIGURE C-10: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-32B



1,1-DCE = 1,1-Dichloroethylene
TCE = Trichloroethylene



FIGURE C-11: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-33

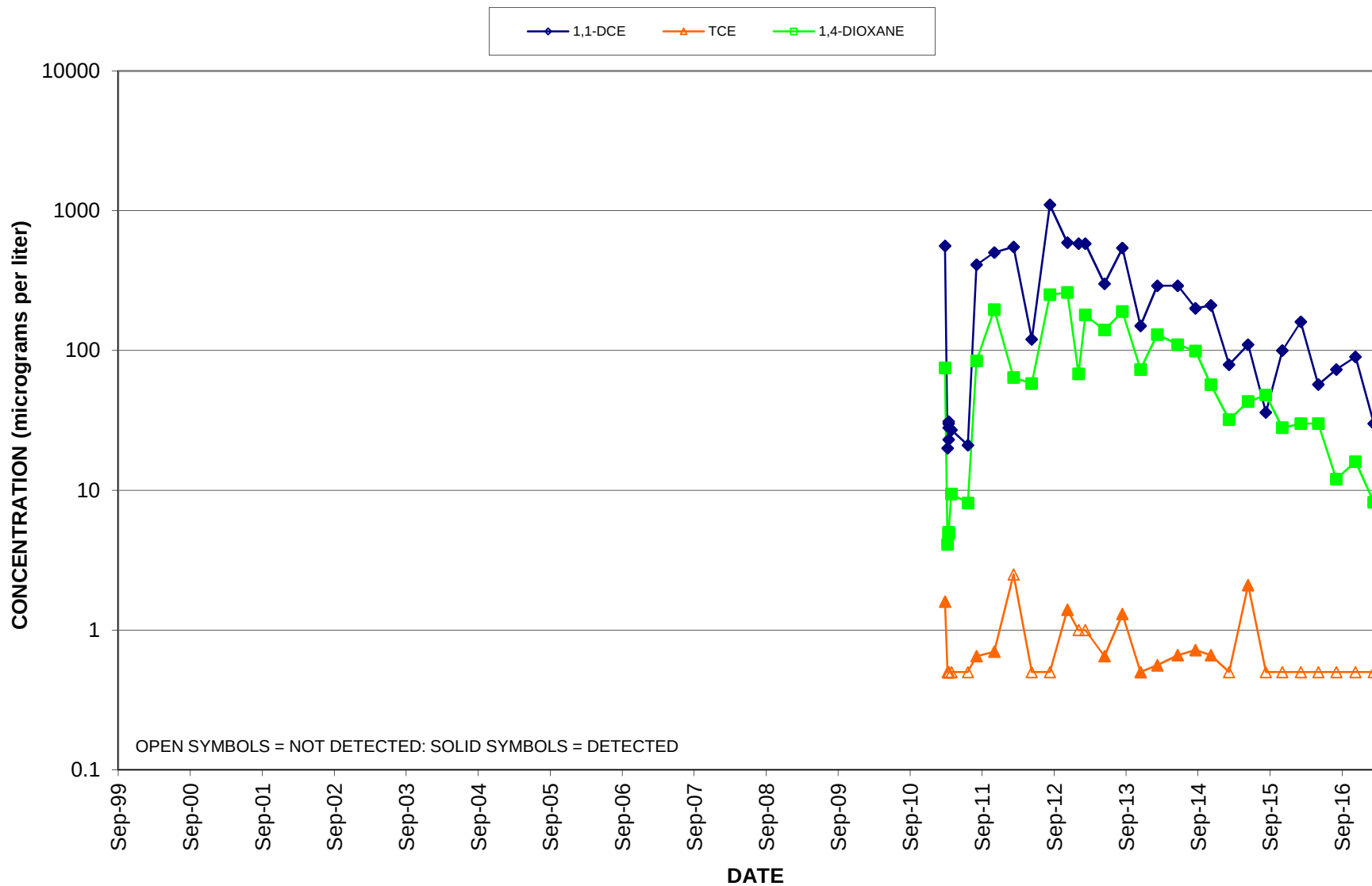


1,1-DCE = 1,1-Dichloroethylene

TCE = Trichloroethylene



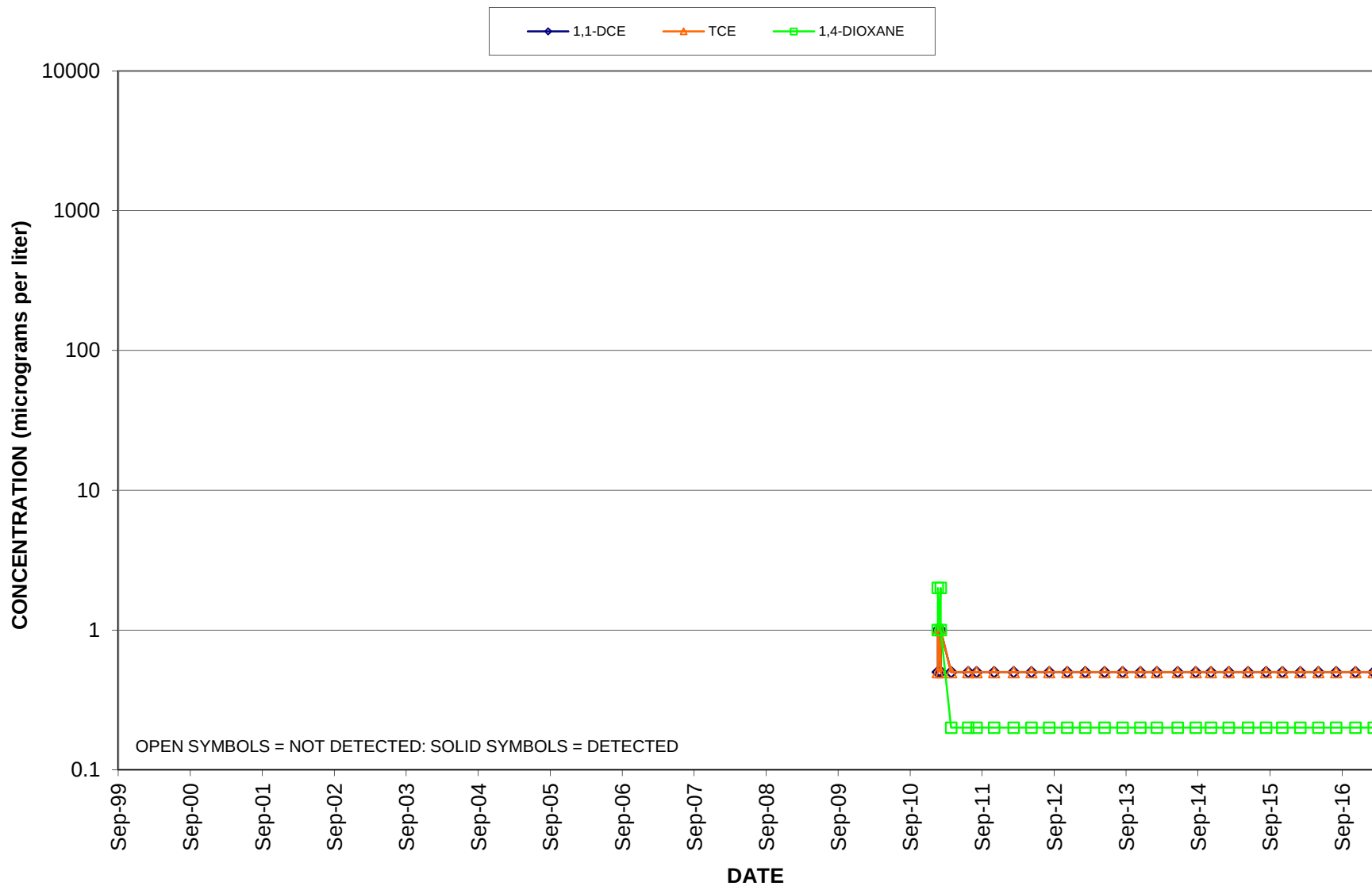
FIGURE C-12: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-34B



1,1-DCE = 1,1-Dichloroethylene
TCE = Trichloroethylene



FIGURE C-13: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-35C

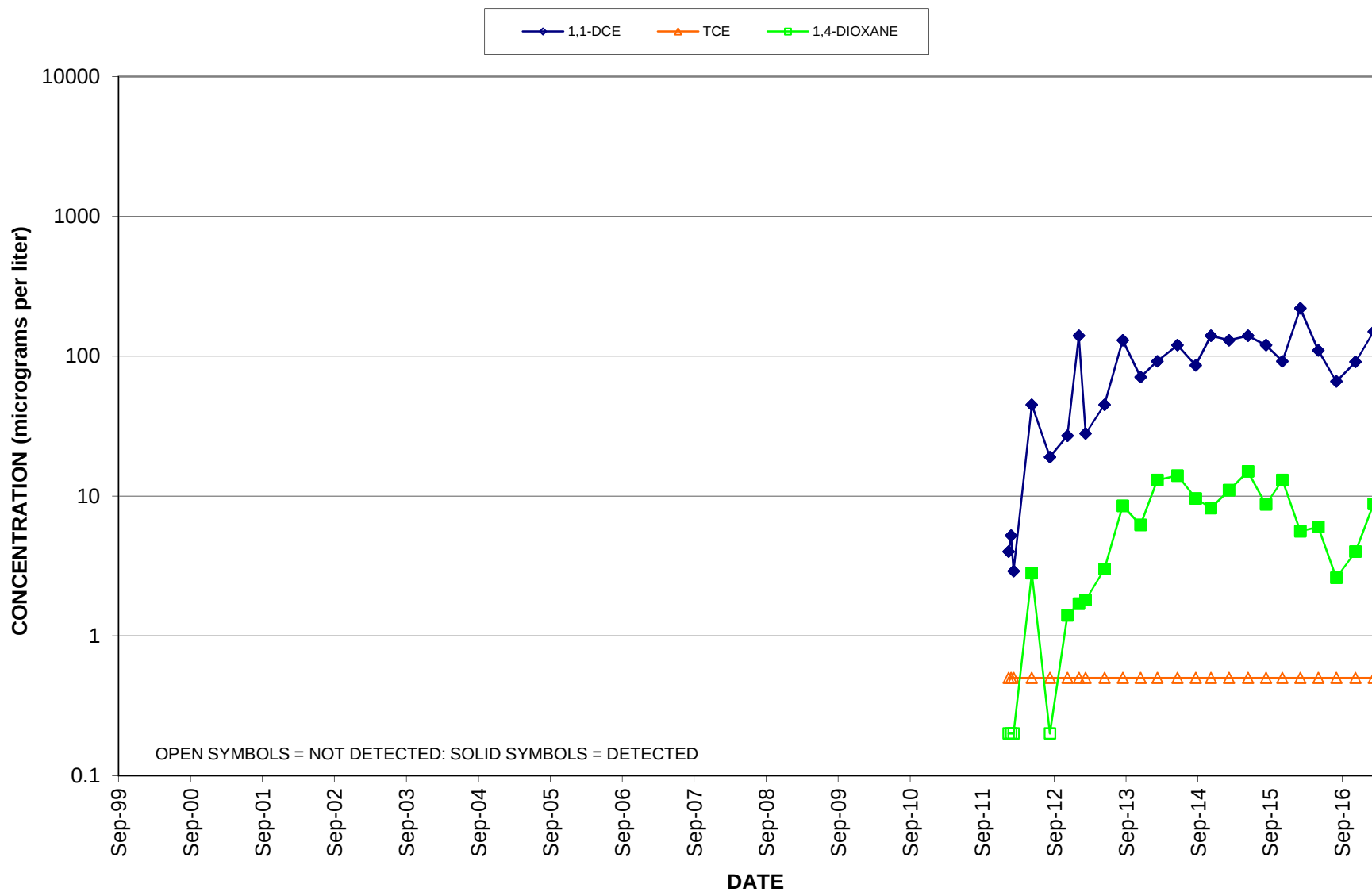


1,1-DCE = 1,1-Dichloroethylene

TCE = Trichloroethylene



FIGURE C-14: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-36

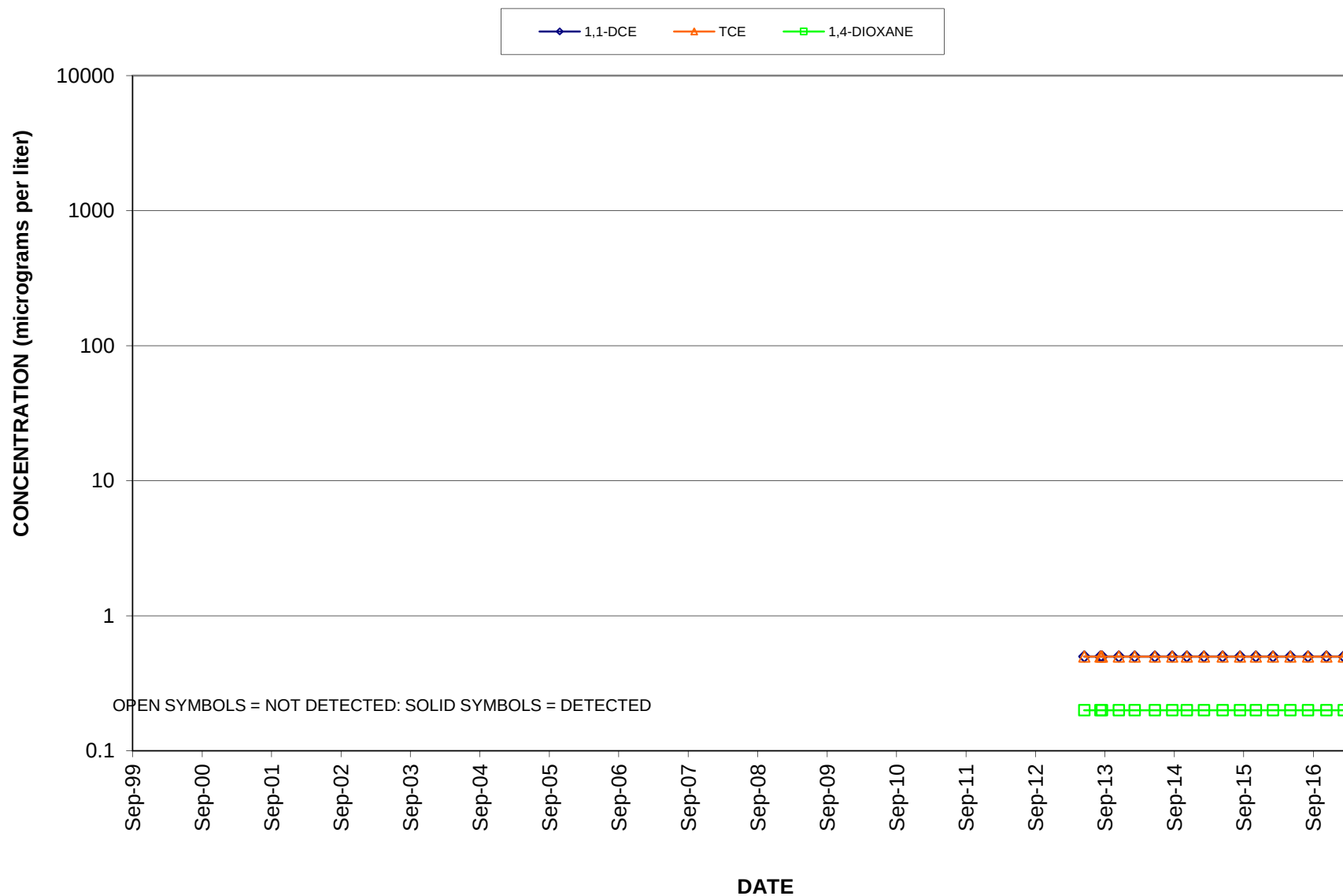


1,1-DCE = 1,1-Dichloroethylene

TCE = Trichloroethylene



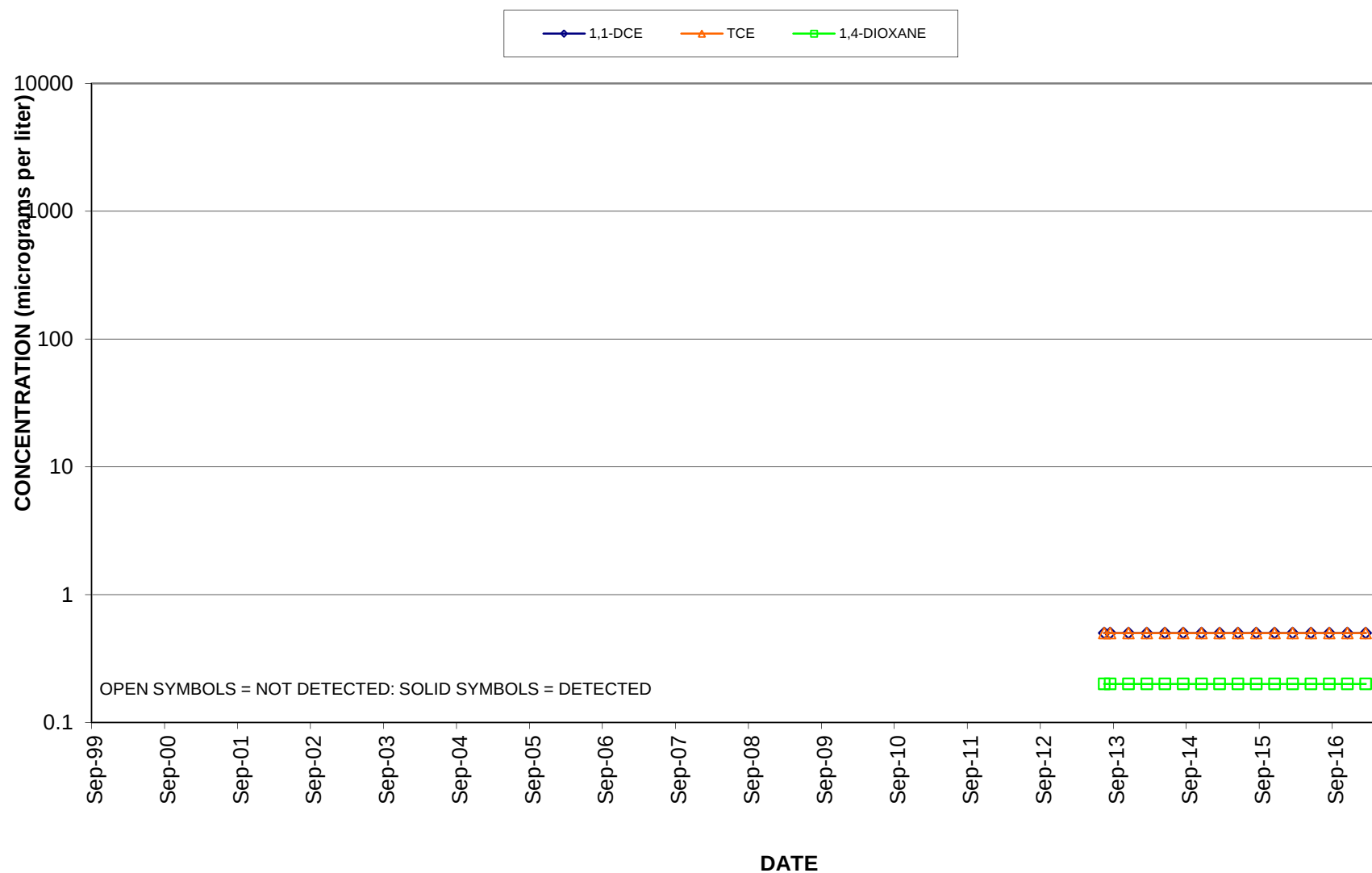
FIGURE C-15: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-39



1,1-DCE = 1,1-Dichloroethylene

TCE = Trichloroethylene

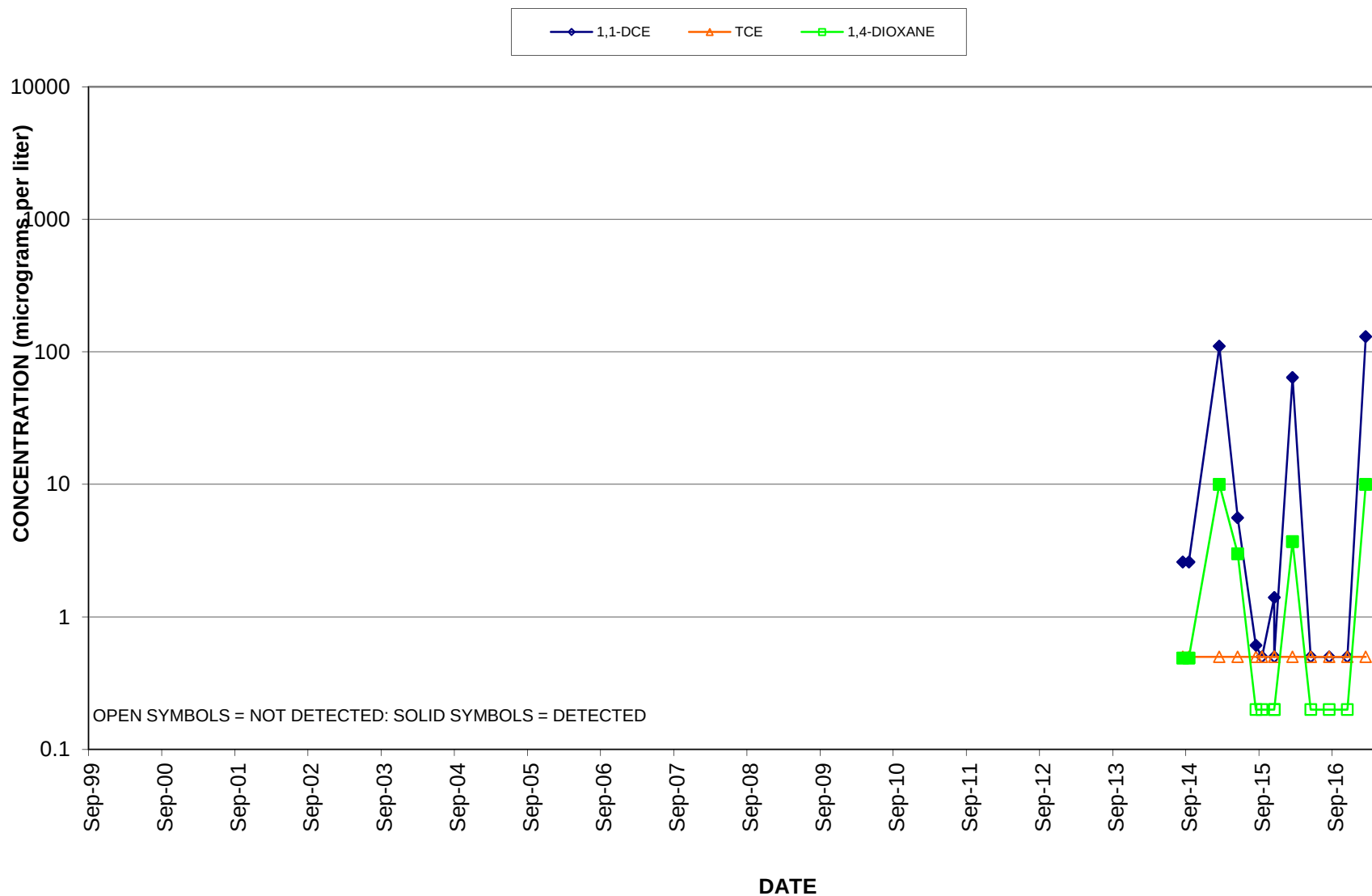
FIGURE C-16: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-40



1,1-DCE = 1,1-Dichloroethylene
TCE = Trichloroethylene



FIGURE C-17: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-41



1,1-DCE = 1,1-Dichloroethylene

TCE = Trichloroethylene