



FINAL

August 2016

2015 Annual

Groundwater Monitoring Report

Fire Training Pit (FTP) and Tracked Vehicle Repair/Old Mobilization and Training Equipment Site (TVR/Old MATES)

**Joint Base Lewis-McChord and Yakima Training Center
Yakima, Washington**

Joint Base Lewis-McChord Public Works – Environmental Division

IMLM-PWE

MS 17 Box 339500

Joint Base Lewis-McChord, Washington 98433



CONTRACT NO. W912DW-11-D-1031

TASK ORDER NO. 0001

FINAL

2015 ANNUAL

GROUNDWATER MONITORING REPORT

AUGUST 2016

FIRE TRAINING PIT (FTP) AND TRACKED VEHICLE REPAIR/OLD MOBILIZATION
AND TRAINING EQUIPMENT SITE (TVR/OLD MATES)

JOINT BASE LEWIS-McCHORD YAKIMA TRAINING CENTER
YAKIMA, WASHINGTON

DCN: TTEC-BTL-1031-003-16-028

Prepared for:

U.S. ARMY CORPS OF ENGINEERS, SEATTLE DISTRICT
AND
PUBLIC WORKS – ENVIRONMENTAL DIVISION
JOINT BASE LEWIS-MCCHORD, WASHINGTON

Prepared By:



TETRA TECH EC, INC

A SUBCONTRACTOR TO
SEALASKA ENVIRONMENTAL SERVICES, LLC
POULSBO, WASHINGTON

CONTENTS

Section	Page
1. INTRODUCTION	1-1
1.1 YTC BACKGROUND	1-1
1.2 SITE DESCRIPTIONS	1-1
1.2.1 Former Fire Training Pit.....	1-1
1.2.2 TVR/Old MATES	1-1
1.3 SITE GEOLOGY AND HYDROGEOLOGY	1-2
1.4 INVESTIGATION CHRONOLOGY	1-3
1.4.1 Facility-wide Investigations	1-3
1.4.2 Fire Training Pit	1-4
1.4.3 TVR/Old MATES	1-5
1.5 POTENTIAL GROUNDWATER RECEPTORS.....	1-7
1.6 ANALYSIS OF DATA.....	1-8
1.6.1 Shapiro-Wilk Test for Normality	1-9
1.6.2 Linear Regression and Mann-Kendall Correlation Analyses	1-9
1.6.3 Total Toxic Equivalent Concentrations of cPAHs	1-10
2. FIELD ACTIVITIES	2-1
2.1 GROUNDWATER MEASUREMENT, SAMPLING, AND ANALYSIS	2-1
2.2 INVESTIGATION-DERIVED WASTE	2-2
2.3 LAND USE CONTROL FIELD INSPECTION AND INTERVIEWS	2-2
3. RESULTS AND CONCLUSIONS.....	3-1
3.1 FORMER FTP SITE.....	3-1
3.2 TVR/OLD MATES SITE	3-2
3.3 DATA QUALITY REVIEW AND VERIFICATION.....	3-4
4. REFERENCES	4-1

APPENDICES

APPENDIX A	LAND USE CONTROL MONITORING CHECKLIST
APPENDIX B	COMPLETED FIELD FORMS AND LABORATORY ANALYTICAL REPORTS
APPENDIX C	FTP-1 AND TVR/OLD MATES STATISTICS AND LINEAR GRAPHS

CONTENTS (CONTINUED)

TABLES

- Table 1. Monitoring Well Construction Details
- Table 2. Depth-to-Water Measurements and Chemicals of Concern Concentrations
- Table 3. Selected VOC, PAH, and PCB Concentrations
- Table 4. Carcinogenic PAH and Total PAHs Concentrations
- Table 5. Depth-to-Water Measurements and TCE, and cis-1,2-DCE Concentrations
- Table 6. FTP-1 and TVR/Old MATES Statistics

FIGURES

- Figure 1. JBLM Yakima Training Center Location Map
- Figure 2. Project Location Map
- Figure 3. Former Fire Training Pit Spring/Fall Water Table Contours – 2015
- Figure 4. Change in Total Petroleum Hydrocarbon Concentrations Over Time in Well FTP 1
- Figure 5. TVR/Old MATES Area Spring/Fall Water Table Contours – 2015
- Figure 6. TVR/Old MATES Area Spring TCE Concentration Contours – 2015
- Figure 7. TVR/Old MATES Area Fall TCE Concentration Contours – 2015

ABBREVIATIONS AND ACRONYMS

BTEX	benzene, toluene, ethylbenzene, and xylenes
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cis-1,2-DCE	cis-1,2-dichloroethylene
cPAH	carcinogenic polycyclic aromatic hydrocarbon
DNAPL	dense non-aqueous phase liquid
E&E	Ecology & Environment
EPA	U.S. Environmental Protection Agency
ERP	Environmental Restoration Program
FTP	fire training pit
GIS	geographic information system
HRS	hazard ranking system
IRP	Installation Restoration Program
ITRC	Interstate Technology and Regulatory Council
JBLM	Joint Base Lewis-McChord
LNAPL	light non-aqueous phase liquid
LOQ	level of quantitation
LUC	land use control
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MMP	main motor pool
MTS	Old MATES
µg/L	micrograms per liter
MOGAS	motor gasoline
MTCA	Model Toxics Control Act
NPL	National Priorities List

ABBREVIATIONS AND ACRONYMS (CONTINUED)

Old MATES	old mobilization and training equipment site
PAIC	Pomona Artesian Irrigation Company
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyls
PDB	passive diffusion bag
PQL	practical quantitation limit
RCRA	Resource Conservation and Recovery Act
RFA	RCRA facility assessment
SAIC	Science Applications International Corporation
SI	site investigation
SVOC	semivolatile organic compound
SWMU	Solid Waste Management Unit
TCE	trichloroethylene
TCLP	Toxicity Characteristic Leaching Procedure
TEC	toxicity equivalency concentration
TEF	toxicity equivalency factor
TPH-D	total petroleum hydrocarbons – diesel range
TPH-G	total petroleum hydrocarbons – gasoline range
TPH-O	total petroleum hydrocarbons – heavy oil range
TtEC	Tetra Tech EC, Inc.
TVR	tracked vehicle repair
USACE	U.S. Army Corps of Engineers
UST	underground storage tank
VOC	volatile organic compound
WAC	<i>Washington Administrative Code</i>
YTC	Yakima Training Center

1. INTRODUCTION

This Annual Groundwater Monitoring Report documents the March (spring) and September (fall) 2015 groundwater monitoring events conducted at the Yakima Training Center (YTC) former Fire Training Pit (FTP) and the Tracked Vehicle Repair/Old Mobilization and Training Equipment Site (TVR/Old MATES). This report was prepared for Joint Base Lewis-McChord (JBLM) Public Works by Tetra Tech EC, Inc. (TtEC). Work completed was in accordance with the 2015 Draft-Final Groundwater Monitoring Plan, Revision 1 (TtEC 2015), and the *Washington Administrative Code* (WAC) chapters 173-340-810 and 173-340-820. This report presents water level measurements, sampling procedures, and analytical results for groundwater monitoring activities conducted at the FTP and TVR/Old MATES sites in 2015.

1.1 YTC BACKGROUND

YTC is an active United States Army sub-installation of JBLM located approximately 5 miles northeast of the City of Yakima (Figure 1). YTC has been used for training military artillery, infantry, and engineering units since 1941. Expansion of YTC occurred in the early 1950s with the acquisition of additional land and permanent construction of the Cantonment area in the southwest portion of YTC. An expansion of YTC to the north occurred in the early 1990s. Currently YTC is 327,231 acres.

1.2 SITE DESCRIPTIONS

1.2.1 Former Fire Training Pit

The former FTP is located in the northeast portion of the Cantonment area (Figure 2). The former FTP was used to practice extinguishing fires two or three times a year from an unknown start date until 1987 with a single training event in 1990 (Shapiro & Associates 1991). Practice events consisted of saturating an open, unlined earthen pit with water, adding and igniting 500 to 1,000 gallons of waste JP-4 aviation fuel, diesel fuel, or motor gasoline (MOGAS) and then extinguishing the fire (Shapiro & Associates 1991). Although reports of the releases differ slightly (Ecology & Environment [E&E] 1993, Science Applications International Corporation [SAIC] 1995), petroleum products were released to site soils as a result of past fire training practices. During the 1990s, the site was used for storing stockpiles of waste sand filter material and sediments from the adjacent vehicle wash rack treatment system (E&E 1993) as well as storing fuel bladders (Shannon & Wilson 2001). Currently the site is vacant and not being used by YTC. Monitoring wells FTP-1, FTP-14, FTP-15, and FTP-16 are located downgradient of the contaminant source (see Section 3.1).

1.2.2 TVR/Old MATES

Trichloroethylene (TCE) was detected during a 1993 Site Investigation (SI) conducted by E&E in two monitoring wells installed near the TVR facility (Building 845), two monitoring wells

installed near the Old MATES (Building 951), and the Marie well, a domestic drinking water well located southwest of both buildings 845 and 951. TCE had been detected in the Marie well before it was decommissioned in the late 1990s; however, TCE and other volatile organic compounds (VOCs) have not been detected in the Main Motor Pool (MMP) monitoring wells (MMP-1 and MMP-2) located in the vicinity of the former Marie well. Monitoring wells MTS-1, MTS-2, MTS-4, TVR-1 through TVR-7, MMP-1, MMP-2, and the Pomona production well and the Pomona Artesian Irrigation Company (PAIC) production well are located downgradient of the contaminant source (see Section 3.2). TCE and other VOCs have not been detected in either of the currently active water supply wells—the Pomona and PAIC wells located in the vicinity of monitoring wells TVR-6 and TVR-7.

Vehicle maintenance has been conducted and de-greasing solvents have been used at both facilities—since about 1968, at Building 845, and since 1975 at Building 951 (Shapiro & Associates 1991). Four 250-gallon underground storage tanks (USTs) used for waste oil were in use at Building 845 from 1975 until 1991 (Shapiro & Associates 1991, Pegasus 1993, SAIC 1995). A fifth waste oil UST (650 gallons) was used at Building 845 from 1980 until 1991 (Shapiro & Associates 1991, Pegasus 1993, SAIC 1995). One 2,000-gallon waste oil UST removed from Building 951 in 1995 was apparently in operation since 1968 (Shapiro & Associates 1991, SAIC 1995). All six of these former waste oil USTs have been removed. Three of the five waste oil tanks at Building 845 and the 2,000-gallon waste oil UST at Building 951 were “clean closed” with soil concentrations below cleanup levels promulgated under the Model Toxics Control Act (MTCA) (CEcon Corporation 1994, SAIC 1995). However, as discussed in the investigation chronology section below, soil contamination from waste oil USTs 845-3 and 845-4 remained under adjacent structures following tank removal activities. It should be noted that a downgradient monitoring well (TVR-2) is located as close to the UST 845-3/4 excavation as possible. In addition, it should also be noted that a former floor drain from Building 845 discharged immediately adjacent to the current location of monitoring well TVR-1 (Cory 2004).

1.3 SITE GEOLOGY AND HYDROGEOLOGY

YTC is located within the Yakima Fold Belt, which is characterized by southeast-trending anticlines and synclines. Most of the YTC Cantonment area is located within the synclinal valley between the anticlinal Yakima Ridge and Umtanum Ridge.

In general, YTC is underlain by a thick sequence of basalt flows known as the Columbia River Basalt Group. From youngest to oldest, the four formations that comprise the Columbia River Basalt Group are the Saddle Mountain Basalt, Wanapum Basalt, Grande Ronde Basalt, and Imnaha Basalt (Schuster et al. 1997). Portions of the YTC Cantonment area have sedimentary rocks/deposits of the Ellensburg Formation and/or quaternary deposits on top of the basalt flows (Schuster et al. 1997).

1.4 INVESTIGATION CHRONOLOGY

1.4.1 Facility-wide Investigations

A facility-wide preliminary assessment of YTC was completed in the early 1990s by Shapiro & Associates, Inc. The preliminary assessment documented the aforementioned site uses, identified potential receptors, and concluded that sites such as the two sites covered by this report could potentially be releasing hazardous substances to groundwater as a result of historical activities.

A Site Screening Inspection and Hazard Ranking System (HRS) Score for YTC were completed in January 1993 by Resource Applications, Inc. (1993a, 1993b). An HRS score was calculated; however, it was not high enough for YTC to be considered for inclusion on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Priorities List (NPL).

Yakima Health District collected groundwater samples from 12 private domestic wells located downgradient of YTC and analyzed those samples for VOCs in 1995 (Yakima Health District 1995). The PAIC Well (located on YTC across the street from YTC's Pomona Well) was one of the twelve wells sampled. No contaminants were detected in any of the wells, with the exception of styrene in a single well at a concentration equal to the detection limit of 0.1 micrograms per liter ($\mu\text{g/L}$).

The final Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) Report was completed in September 1995 by SAIC. The RFA for the entire installation was a result of a RCRA Part B Permit Application for the Range 14 open burning/open detonation area. The 1995 RFA indicated a high potential for releases to soil and possibly groundwater at the former FTP. As a result, there was a recommendation to remediate contaminated soil and the petroleum product in well FTP-1. Although the 1995 RFA did not explicitly address TCE in groundwater in the TVR/Old MATES area, the RFA recommended a corrective action for soil contamination that remained under a building adjacent to waste oil USTs 845-3 (Solid Waste Management Unit [SWMU] 43) and 845-4 (SWMU 44). RCRA corrective actions that were recommended or implied by the RFA need to satisfy MTCA regulations in accordance with WAC 173-303-646(3).

In October 2012, YTC had its first 5-year periodic review regarding six sites currently managed by the JBLM Installation Restoration Program (IRP). The review focused on sites where environmental remedies are currently in place; however, the chemicals of concern are still above their respective cleanup levels (U.S. Army Corps of Engineers [USACE] 2012). Both the former FTP and the TVR/Old MATES sites were part of this periodic review. No significant concerns regarding the monitoring network were noted for the former FTP site and no recommendations were made to change it. One concern was noted regarding the TVR/Old MATES monitoring

network. TCE concentrations have been increasing over time in samples collected from monitoring well TVR-6, located on the western end of the monitoring network. It was suggested that if TCE concentrations continue to increase in TVR-6 it may warrant installing additional downgradient monitoring wells.

In 2015, the Groundwater Monitoring Plan for the former FTP and TVR/Old MATES sites was updated (TtEC 2015).

1.4.2 Fire Training Pit

The uppermost geologic unit at the former FTP site is the Pomona Flow of the Saddle Mountain Basalt Formation (E&E 1993, Schuster et al. 1997, Shannon & Wilson 2001). In general, this unit is present at a depth of approximately 5 to 10 feet below ground surface (bgs) at the site (E&E 1993, Shannon & Wilson 2001). Basalt apparently extends to an approximate depth of 150 feet bgs without significant interbeds (E&E 1993, Shannon & Wilson 2001).

The former FTP site has impacted perched groundwater located in vesiculated fractured basalt near the top of the Pomona Basalt flow (E&E 1993, Shannon & Wilson 2001). Depth-to-water at the site is approximately 10 to 25 feet bgs (Shannon & Wilson 2001). The direction of perched groundwater flow is towards the southwest and generally mirrors the surface topography. Seasonal fluctuation in groundwater elevation appears to be slight based on limited data (Shannon & Wilson 2001). The next deepest groundwater-bearing unit is at approximately 150 feet below the site (Shannon & Wilson 2001).

The former FTP was one of the YTC facilities/sites investigated and summarized in the E&E SI Report (September 1993). Monitoring well FTP-1 was installed and four grab surface or near-surface soil samples and two composite surface soil samples were collected during the E&E SI. Significant groundwater was not encountered during the drilling of the FTP-1 borehole to a depth of approximately 140 feet. However, when it came time to decommission the FTP-1 borehole, several gallons of petroleum product were discovered on top of a column of water. As a result, FTP-1 was completed to a depth of approximately 20 feet in the perched groundwater, located at the fractured top of the uppermost basalt flow.

A RCRA Facility Investigation to further delineate the nature and extent of contamination at the former FTP site was completed in November 2001 by Shannon & Wilson. Monitoring wells FTP-13 through -16 were installed in 1999 in the perched groundwater located at the fractured top of the uppermost basalt flow. Groundwater monitoring events were conducted in July 1999, November 2000, and May 2001. The Shannon & Wilson report claimed that light non-aqueous phase liquid (LNAPL) and dense non-aqueous phase liquid (DNAPL) was present in well FTP-1 during each groundwater monitoring event. However, the thicknesses of LNAPL and DNAPL were not accurately quantified. Review of the field notes and observations from the January 2004 groundwater monitoring event indicted the DNAPL claim was in error (the LNAPL claim

might have been in error as well). Nine other soil borings were also advanced during the investigation.

An interim remedial action was completed in 2003 to remove soil contamination caused by the former FTP site that exceeded MTCA Method A/Standard Method B cleanup levels. Soil was excavated during three separate mobilizations: July 2003, September 2003, and October 2003. The total excavation area was approximately 5,000 square feet and extended downward until the underlying basalt was encountered. Soil (1,351 tons) was disposed off-site in November 2003. All contaminant concentrations in confirmation soil samples were below MTCA Method A/Standard Method B cleanup levels except for gasoline and diesel range total petroleum hydrocarbons (TPH-G and TPH-D respectively) in samples 13 and 14 collected from the soil/basalt interface. The excavation was backfilled with clean soil. The cleanup action was documented in a January 2004 Bay West report (Bay West 2004).

The terrestrial ecological pathway was closed as described in the April 2006 terrestrial ecological evaluation by Pacific Northwest National Laboratory (2006).

The Fort Lewis Environmental Restoration Program (ERP) conducted groundwater monitoring events in January 2004, March and August 2005, March and August 2006, March and September 2007, and March and September 2008. Between March 2005 and March 2007, four-inch diameter socks containing Oxygen Release Compound from Regensis were hung in the water column by Fort Lewis ERP in well FTP-1 between 11 to 18 feet bgs. While the socks were hung in FTP-1, depth-to-water ranged from 11.54 feet bgs in August 2006 to 15.59 feet bgs in March 2007.

Groundwater monitoring has been conducted semi-annually beginning in 2005. One sampling event, considered the “wet season,” or spring event, is typically conducted in February or March of each year. The other sampling event, considered the “dry season,” or fall event, is typically conducted in August or September of each year. Groundwater samples are collected for analysis of hydrocarbons and depth-to-water is measured during each event.

1.4.3 TVR/Old MATES

The uppermost bedrock unit underneath the overburden in the TVR/Old MATES area is the Pomona Flow of the Saddle Mountain Basalt Formation (E&E 1993, Shannon & Wilson 2001). In general, this unit was encountered at depths between 10 and 45 feet bgs in the six monitoring wells at TVR, Old MATES (MTS), and MMP (E&E 1993). Saddle Mountain Basalt extends beneath the site without significant interbeds to a depth of greater than 100 feet bgs (E&E 1993).

The six E&E monitoring wells “were completed within a fractured basalt zone confined aquifer, identified as the Selah Interbed [of the Ellensburg Formation] beneath the Pomona basalt flow” (E&E 1993). This was the first encountered groundwater during drilling. In general, depth to

groundwater in these six monitoring wells ranged from 60 to 100 feet bgs (E&E 1993). The direction of groundwater flow is to the west towards the Yakima River (E&E 1993).

In October 1991, Pegasus Environmental Management Services (Pegasus) evacuated, excavated, removed, cleaned, and disposed of five waste oil USTs at Building 845 (TVR). Pegasus noted visible surface contamination associated with three of the UST excavations. Soil samples from all excavations were analyzed for TPH, benzene, toluene, ethylbenzene, and xylenes (BTEX), Toxicity Characteristic Leaching Procedure (TCLP) VOCs, and TCLP metals. TPH concentrations exceeding 10,000 milligrams per kilogram (mg/kg) were detected in samples collected from all five UST excavations. TCLP TCE and TCLP tetrachloroethylene were detected at 20 milligrams per liter (mg/L) (sample from UST 845-5) and 17 mg/L (sample from UST 845-6), respectively. No TCLP VOCs were detected in samples collected from USTs 845-3 (SWMU 43) and 845-4 (SWMU 44) excavations. No additional corrective action was taken by Pegasus due to contract limitations. CEcon Corporation was contracted to excavate and remove contaminated soil left in place following the tank removal activities by Pegasus. CEcon Corporation removed on the order of 1,000 cubic yards of soil while excavating contaminated soil from the five Building 845 waste oil tank sites in October 1993. Confirmation samples collected by CEcon Corporation verified that no further action was required for USTs 845-2 (SWMU 42), 845-5 (SWMU 45), and 845-6 (SWMU 46); however, some TPH contaminated soil was left in place on the north and east sidewalls of the UST 845-3/4 (SWMUs 43/44) excavation, since existing structures (Building 845 lube rack and oil-water separator) prevented further excavation in those directions (over 400 cubic yards of soil had already been removed). Although all confirmation samples collected by CEcon Corporation were analyzed for all potential contaminants suspected at the time, no confirmation samples were analyzed for VOCs.

TVR, Old MATES, and MMP were among the facilities investigated in the September 1993 SI by E&E. Groundwater samples were collected from the two TVR, two MATES, and two MMP monitoring wells as well as the Pomona, PAIC, and Marie drinking water wells. In addition, soil samples were collected from each monitoring well borehole during drilling and analyzed for VOCs, semivolatile organic compounds (SVOCs), pesticides/polychlorinated biphenyls (PCBs), metals, and TPH. Based on the presence of TCE in groundwater at TVR and Old MATES and the absence of any contamination in corresponding soil samples, the SI Report concluded that TCE contamination in groundwater “may indicate migration from an unidentified source at the YTC facility.”

Fort Lewis ERP conducted a groundwater monitoring event in January 2004. Fort Lewis ERP installed monitoring wells MTS-3, MTS-4, TVR-3, and TVR-4 between October and November 2004. The ERP conducted groundwater monitoring events in March 2005 and August 2005. The ERP installed additional monitoring wells TVR-5, TVR-6, TVR-7, and 815-2 in October 2005.

Groundwater monitoring has been conducted semi-annually since 2005. Sampling events typically coincide with FTP sampling events. Beginning in August 2005, groundwater samples have been collected using disposable passive diffusion bags (PDBs). PDBs are sealed, low density polyethylene bags filled with de-ionized water. PDBs are hung so that the top of the PDBs are approximately 3 feet off of the bottom of monitoring wells using a dedicated stainless steel cable and clip. PDBs are hung approximately 3 months before the sampling event. It is suggested to allow PDBs a minimum of 2 weeks to be deployed in monitoring wells in order for VOC concentrations in groundwater and the water inside of the PDB to reach equilibrium (Interstate Technology and Regulatory Council [ITRC] 2004). During each sampling event, samples are analyzed for VOCs and depth-to-water is measured.

1.5 POTENTIAL GROUNDWATER RECEPTORS

The nearest potential groundwater receptors to the FTP and TVR/Old MATES sites are the Pomona and PAIC drinking water wells. A third well, the Marie drinking water well, was decommissioned in the late 1990s and is no longer a potential receptor. Before being decommissioned, the Marie well served as an emergency supply backup well to the Pomona well for the YTC Cantonment Area Water System. The Pomona and PAIC wells are domestic water supply wells located approximately 1 mile southwest of the FTP site and approximately 250 feet southwest of well TVR-1. Also, over the past decade additional residential drinking water wells have been installed west of the YTC boundary, approximately 1,500 to 3,000 feet northwest of the TVR/Old MATES TCE plume (Figure 2).

The Pomona well is an artesian well used by YTC as a primary production source for the Pomona water distribution system. The Pomona well is completed in the Wanapum and/or Grande Ronde Formation (HongWest 1996) with open borehole completion between depths of approximately 353 and 407 feet bgs (Fain 2000, Cory 2004). Sources of information provided incorrect information about the well construction details of the Pomona Well (including a typo in Table 2-1 of the current Water System Plan) (Cory 2004). A downhole video survey conducted by YTC in 1995 is considered to be the most accurate source of construction detail information for the Pomona Well to date. In addition to indicating the open interval referenced above, the video survey also indicated that water was entering the Pomona Well at approximately 401 feet bgs (Fain 2000).

The PAIC well is an artesian well used by PAIC as the sole production well for the PAIC water system serving approximately 60 homes and businesses located west of YTC (Wilson 2004). It appears that the PAIC well was constructed in an identical fashion as the Pomona well. Both wells were installed by the PAIC in 1913 by the same driller within 100 feet of each other (Fain 2000). Well logs from pump tests conducted in 1940 indicate identical (although very generic) well construction details for the Pomona well and PAIC well (Fain 2000). The construction details on the 1940 well logs were 10-inch diameter casings to a depth of 60 feet bgs and 6 and

5/8-inch diameter casings from 60 to 430 feet bgs for both wells. Since the video survey of the Pomona well showed the 1940 well log and other sources of post-drilling anecdotal information to be incorrect with respect to the actual well construction details of the well, it is reasonable to assume that the video survey is also a more accurate representation of well construction details for the PAIC well than the 1940 well log.

The basis for assuming nearly identical well construction details for the two wells are 1) both wells are artesian, 2) both wells have similar production capacities, 3) both wells were installed at the same time and location by the same well driller for the same water system, and 4) both wells have identical 1940 well logs.

Given the distance of both wells from the FTP site and the hydraulic separation between the perched groundwater and the aquifer(s) the water supply wells are completed in, it is unlikely that these potential receptors are being impacted by the FTP site. It is also unlikely that either water supply well would be impacted by TCE contamination in the TVR/Old MATES area given the relatively low TCE concentrations detected in samples collected from monitoring wells and the hydraulic separation between the Selah Interbed and the aquifer(s) the water supply wells are completed in. Existing water quality data from both the Pomona and PAIC wells support this conclusion.

1.6 ANALYSIS OF DATA

Gasoline-range, diesel-range, and heavy oil-range total petroleum hydrocarbon (TPH-G, TPH-D and TPH-O, respectively) analyses were conducted on the samples collected from the FTP site, and BTEX, polycyclic aromatic hydrocarbons (PAHs), and VOCs were also analyzed in the sample from well FTP-1 (Tables 2, 3, and 4). The samples collected from the TVR/Old MATES site were analyzed for VOCs. Summary statistics (mean and standard deviation) were calculated using the Microsoft Excel[®] Descriptive Statistics tool. A Shapiro-Wilk test for normality, and a linear regression analysis were performed on the data using a Microsoft Excel add-in software package called Analyse-It[®]. A Mann-Kendall correlation test was also performed on the data using the Analyse-It software. The statistical methods used generally followed the guidelines presented in the U.S. Environmental Protection Agency's (EPA's) Methods for Evaluating the Attainment of Cleanup Standards, Volume 2: Ground Water (EPA 1992).

All concentration measurements not known to be in error were considered valid; suspect "outliers" were not removed from the data set and were included in the analyses. Non-detect data, which represent concentration measurements below the practical quantitation limits (PQL) but above the minimum detection limit for each constituent, were evaluated at the reporting limit value; i.e., if the reporting limit was 0.5 µg/L, then the concentration value was set at 0.5 µg/L. PQLs for all of the chemicals of concern for the TVR/Old MATES and FTP sites are listed in

Table 4 of the 2015 Sampling and Analyses Plan (TtEC 2015). All of the PQLs are below or equal to MTCA A and B cleanup levels for the constituent.

1.6.1 Shapiro-Wilk Test for Normality

Prior to analyzing data for trends, the data were tested for normal distribution. The null and alternate hypotheses are a summary of the objectives of a test, which in this case is to test for the distribution of the data. The null hypothesis, or what is assumed to be true before given evidence that it may be false, for all tests for normality is that a dataset is normally distributed. The alternate hypothesis, then, is that a dataset is not normally distributed (Helsel and Hirsch 2002). A significance level, or alpha level, of 0.05 was used when determining whether historical data from monitoring wells were normally distributed or not. P values, generated using the Shapiro-Wilk test for normality, were then compared to the alpha level (Table 6). The alpha level is the “cutoff” point for the test statistic in making a decision whether the data are normally distributed or not. P values show the strength of the test in determining whether the data were normally distributed or not. P values range from 0 to 1. The closer a P value is to 1, the higher the probability that the dataset is normally distributed. P values equal to or below 0.05 (alpha level) are not considered to be normally distributed.

Datasets that were not considered normally distributed were then transformed by taking the natural log of the original values. This is generally the most common transformation of water resources data. The Shapiro-Wilk test for normality was run on the transformed data with the same criteria as the datasets above (Table 6).

1.6.2 Linear Regression and Mann-Kendall Correlation Analyses

Linear regression trend analyses were conducted on all concentration data that were found to be normally or log normally distributed using the Shapiro-Wilk test (Table 6). In this instance, the null hypothesis for the test is that there is no trend in the data (Helsel and Hirsch 2002). The alpha level for the linear regression analysis was set at 0.05. P values generated by the analysis were then compared to the alpha level. P values less than the alpha value suggested a trend in the data.

The Mann-Kendall test for correlation was performed on data that were not normally or log-normally distributed (Table 6). No assumptions need to be made about the distribution of the data in order to perform the Mann-Kendall test (Helsel and Hirsch 2002). The null hypothesis is the same as the linear regression test above in that there is no trend in the data. The alpha level was kept the same at 0.05 although the Mann-Kendall test computes a P value for a two-tailed prediction interval. As such, the alpha levels are actually 0.025 or 0.975. A P value that is smaller than 0.025 or larger than 0.975 suggests a correlation between the change in constituent concentration and time.

1.6.3 Total Toxic Equivalent Concentrations of cPAHs

During YTC's 5-year review conducted by the USACE in 2011, it was noted that the updated 2007 groundwater monitoring plan stated that total carcinogenic polycyclic aromatic hydrocarbons (cPAHs) for the FTP site would be evaluated using the total toxic equivalent concentration (TEC) of the benz(a)pyrene method outlined in WAC 173-340-708(8)(e) (USACE 2012). The cPAHs required for this analyses include benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluroanthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene. The concentration of each of these cPAHs is multiplied by its corresponding toxicity equivalency factor (TEF) listed in Table 708-2 (WAC 173-340-900) to obtain the TEF for that cPAH. The TEFs from each cPAH are then added together to obtain the total TEF for that sample. If the total TEC is equal to or greater than 0.1, then the cPAHs are above the MTCA Method A cleanup level of 0.1 µg/L for cPAHs. During both the spring and fall 2015 sampling events, none of the specified cPAHs were detected in the sample from well FTP-1 and a TEF was not calculated (Table 4).

2. FIELD ACTIVITIES

Two groundwater sampling events were completed at the FTP and TVR/Old MATES sites in 2015 by TtEC on 19 and 20 March (spring), and 21 and 22 September (fall).

2.1 GROUNDWATER MEASUREMENT, SAMPLING, AND ANALYSIS

During each sampling event, an electronic water level indicator was used to measure depth-to-water at both the FTP and TVR/Old MATES sites (except well FTP-1), and an electronic interface probe was used to measure depth-to-water and any LNAPL or DNAPL thicknesses. There were no measurable amounts of LNAPL or DNAPL in well FTP-1 during either sampling event.

A disposable, Teflon bailer was used to purge water from the FTP monitoring wells prior to sampling. Three well volumes of water were bailed from each former FTP monitoring well scheduled for sampling. No monitoring wells were bailed dry in 2015. Groundwater samples were collected using the disposable bailer once the wells had recharged to at least 80 percent of the initial depth of water. Groundwater samples from the TVR/Old MATES wells scheduled for sampling were collected using disposable PDBs. A dedicated cable and harness was used to position the top of each PDB approximately 3 feet above the bottom of the monitoring well. The PDBs were sampled in March 2015, and were hung in June 2015 for the groundwater sampling event in September 2015. The PDBs will be redeployed in the TVR/Old MATES wells in December 2015 for the March 2016 sampling event. Samples from the Pomona and PAIC water production wells were collected from taps on each well while the pumps were running during each event. A field duplicate was collected at well TVR-7 during the spring sampling event.

Groundwater samples were transported overnight, under chain-of-custody documentation to ALS Environmental in Kelso, Washington for the March and September events. Groundwater samples collected from the former FTP site wells were analyzed for the following:

- TPH-G using Method NWTPH-Gx (FTP-1, FTP-14, FTP-15, and FTP-16)
- TPH-D and TPH-O using Method NWTPH-Dx (FTP-1, FTP-14, FTP-15, and FTP-16)
- VOCs using EPA Method 8260C (FTP-1)
- SVOCs (including PAHs) using EPA Method 8270C (FTP-1)

All groundwater samples collected from the TVR/Old MATES wells were analyzed for VOCs using EPA Method 8260C.

2.2 INVESTIGATION-DERIVED WASTE

Investigation-derived waste was disposed of in accordance with the approved Groundwater Monitoring Plan (TtEC 2015) as follows:

- Purge water and decontamination water from FTP-14 through FTP-16 were discarded to the ground on-site.
- Purge water and decontamination water from FTP-1 were dumped at a Main Vehicle Wash rack catch basin into an oil/water separator.
- Personal protective equipment (e.g., nitrile gloves), disposable bailers, used PDBs, and other garbage were disposed of in a YTC dumpster as part of the normal YTC solid waste stream.

2.3 LAND USE CONTROL FIELD INSPECTION AND INTERVIEWS

The 2015 land use control (LUC) field inspection and interviews were conducted in December 2015. A copy of the LUC monitoring checklist with the results of both the inspection and the interviews is included in Appendix A. Mr. Phil Fischer is no longer a YTC Staff Engineer, and Ms. Margaret Taaffe was able to answer the applicable questions. In addition, Mr. Gary Stedman was out of the office for an extended period of time and Ms. Jean Hecimovich answered the questions for the JBLM Master Planner. Results of the inspection and interviews indicated no changes in site conditions and no changes to the land use control process in 2015

3. RESULTS AND CONCLUSIONS

Monitoring well construction details for wells from both sites are shown in Table 1. Copies of field notes and laboratory analytical reports for both 2015 sampling events are included in Appendix B. Water sampling logs were inadvertently not completed during the September 2015 sampling event; however, sampling information was documented in the field notebook. Distribution histograms and linear regression scatter plots for data from monitoring well FTP-1 and the TCE results from TVR/Old MATES are presented in Appendix C. In addition, graphs of historical TCE results for wells with less than half non-detects for the TVR/Old MATES site are also included in Appendix C.

3.1 FORMER FTP SITE

Figure 3 presents groundwater elevation contours for the former FTP site based on depth-to-water elevations measured during the March (spring) and September (fall) 2015 monitoring events. No measurable amounts of LNAPL or DNAPL were observed in well FTP-1 during either event; however, a petroleum odor was noted during the September event. Tables 2 and 3 present depth-to-water measurements and summaries of relevant contaminant concentrations relative to MTCA Method A and Standard Method B cleanup levels. FTP-1 is the most impacted well at the site, the only well with TPH-G, TPH-D, and TPH-O concentrations above cleanup levels. Historical TPH-G, TPH-D, and TPH-O concentrations in well FTP-1 are presented on Figure 4.

In 2015 TPH-G was detected at 2,000 µg/L (spring) and at 1,300 µg/L (fall) in samples collected from well FTP-1 (Table 2). These concentrations exceed the 800 µg/L MTCA Method A cleanup level for TPH-G. Since 2011 the concentration of TPH-G reported in spring has consistently been higher than the concentration reported in the fall of the same year (Table 2). During the 2015 spring event, TPH-G was reported in wells FTP-14 at 83 µg/L, and was reported at 46J µg/L during the fall event. TPH-G was not detected in wells FTP-15 and FTP-16.

TPH-D was detected at 17,000 µg/L (spring) and 13,000 µg/L (fall) in samples collected from FTP-1. These concentrations exceed the 500 µg/L MTCA Method A cleanup level for TPH-D. TPH-D was also detected in samples collected from FTP-14 (190 µg/L in spring and 210 µg/L in fall), FTP-15 (55J µg/L in spring and 46J µg/L in fall), and FTP-16 (110J µg/L in spring and 300 µg/L in fall).

TPH-O was detected at 2,000 µg/L (spring) and 2,600 µg/L (fall) in samples collected from FTP-1. These concentrations exceed the 500 µg/L MTCA Method A cleanup level for TPH-O. TPH-O was also detected in samples collected from FTP-14 (120J µg/L in spring and 110 µg/L

fall), FTP-15 (180 µg/L in spring and 80J µg/L in fall), and FTP-16 (76J in spring and 540 µg/L in fall). The TPH-O concentration in well FTP-16 (540 µg/L) was the only TPH result above its cleanup level not from well FTP-1 (Table 2).

Other chemicals of concern detected in well FTP-1 include benzene at 4.3 µg/L (spring) and 6.0 µg/L (fall), and total PAHs at 140.1 µg/L (spring) and 251 µg/L (fall). The benzene concentration reported in the fall is above the MTCA Method A cleanup level for benzene (5 µg/L). No cPAHs were detected in either the spring or fall samples from FTP-1 (Table 4). Since cPAHs were not detected, the TEFs could not be calculated. Other VOCs and PAHs detected in well FTP-1 are presented in Tables 3 and 4, respectively.

TPH data from FTP-1 were statistically analyzed using the tests described above in Section 1.6. Descriptive statistics, data distribution, and trend analysis results are presented in Table 6. Histograms (data distribution), scatter plots with fit (linear regression) and a Mann–Kendall Correlation scatter plots are included in Appendix C. Trend analysis suggests that TPH-G concentrations have been decreasing over time in FTP-1; however, not statistically. The overall trend in TPH-D concentrations in FTP-1 is increasing, however, also not statistically, and since 2012 the TPH-D concentrations have been on a generally decreasing trend.

Although concentrations of TPH-G above MTCA cleanup levels continue to be detected in samples from well FTP-1, TPH-G continues to either not be detected or detected at relatively low levels in samples from downgradient wells. Concentrations of TPH-D and TPH-O in well FTP-1 also continue to be detected above MTCA cleanup levels and, similar to TPH-G, the TPH-D and TPH-O concentrations in downgradient wells continue to be relatively low and below cleanup levels. This has been consistent during the 15 years of monitoring at the FTP, suggesting that the petroleum hydrocarbons in groundwater are localized near well FTP-1, and are not migrating in any significant way.

3.2 TVR/OLD MATES SITE

Figure 5 presents estimated contours for the groundwater surface based on measured elevations from the spring and fall 2015 monitoring events for the TVR/Old MATES site. Figures 6 and 7 present TCE concentration contours based on samples collected during the 2015 spring and fall sampling events, respectively. Table 5 presents both depth-to-water measurements and a summary of the concentrations of TCE and cis-1,2-dichloroethene (cis-1,2-DCE) for the site.

Groundwater samples from five of the wells (MTS-2, MTS-4, TVR-3, TVR-6, and TVR-7) had TCE concentrations above the 5 µg/L MTCA Method A Cleanup level during both the 2015 spring and fall events. TCE was not detected above its cleanup level in any other TVR/Old MATES well. Overall, the TCE concentrations reported in groundwater are not significantly elevated. The highest TCE concentration was reported in well MTS-2 at 11 µg/L (fall). TCE was

detected below its cleanup level during both spring and fall events in wells 815-2, MTS-1, TVR-1, and TVR-5. TCE was also reported during one event in well TVR-2 (2.6 µg/L in spring). Cis-1,2-DCE was not detected above its cleanup level in any well sampled during 2015 (see Table 5).

TCE and cis-1,2-DCE were not detected in either of the 2015 spring or fall events in the samples collected from the Pomona and PAIC domestic production wells.

Results from the statistical analyses of the data are compiled on Table 6 and summarized below:

- Overall statistically significant downward trends for TCE concentrations are observed in seven TVR/Old MATES wells (815-2, MTS-1, MTS-2, MTS-4, TVR-1, TVR-3, and TVR-7).
- An overall downward trend for TCE was observed in TVR/Old MATES well TVR-2, however the trend is not considered statistically significant.
- An overall upward trend for TCE was seen in two TVR/Old MATES wells (TVR-5 and TVR-6), however, the trends are not considered statistically significant.

The TCE concentration in well TVR-6 (located near the PAIC production well with an overall, not statistically significant, upward trend in TCE concentration) has been above 5 µg/L in 13 of 20 samples collected since sampling began in March 2006. The highest concentration of TCE from well TVR-6 was 13 µg/L in 2010. Both the 2015 spring and fall samples from TVR-6 were above 5 µg/L (8 µg/L and 9.9 µg/L, respectively).

The TCE concentration in well TVR-7 (located near the Pomona production well with an overall statistically significant downward trend in TCE concentration) has been above 5 µg/L in 19 of 20 samples collected since sampling began in 2006. The highest concentration of TCE from well TVR-7 was 43 µg/L in August 2006. Both the 2015 spring and fall samples from TVR-7 were above 5 µg/L (10 µg/L during both events).

Since TCE concentrations are trending downward in most of the monitoring wells at the site, and the overall upward trend at TVR-6 is not considered statistically significant, it is believed that installing one or more additional monitoring wells downgradient of TVR-6 is not warranted at this time.

During 2015, other VOCs and non-chemicals of concern were reported by the project laboratory; however, all detections were estimated concentrations (below the sampling reporting limit), yielding higher uncertainty and a higher potential for false positives. In addition, acetone, carbon disulfide, chloroform and methylene chloride are common laboratory and analytical method contaminants. A data review report for the Spring and Fall 2015 sampling events is also included in Appendix B.

Acetone, a common laboratory and analytical method contaminant, was reported with a maximum estimated concentration of 15 µg/L during the Spring 2015 event and a maximum estimated concentration of 44 µg/L during the Fall 2015 event, orders of magnitude below the MTCA Method B level of 7,200 µg/L. The estimated concentrations are not indicative of an environmental source of contamination.

Toluene was reported only during the Fall 2015 event with a maximum estimated concentration of 0.33 µg/L. Toluene was also reported in the associated trip blank at an estimated concentration of 0.22 µg/L. All estimated concentrations of toluene reported were orders of magnitude below the MTCA Method A level of 1,000 µg/L and do not indicate an environmental source of contamination.

Chloroform, another common laboratory and analytical method contaminant, was reported with a maximum estimated concentration 0.33 µg/L during the Spring 2015 event and a maximum estimated concentration of 0.21 µg/L during the Fall 2015 event. Chloroform was also reported in the trip blanks during both sampling events. The estimated concentrations are not indicative of an environmental source of contamination.

Carbon disulfide was reported during the Spring 2015 and Fall 2015 events, with a maximum estimated concentration of 0.11 µg/L. The laboratory method blank also had carbon disulfide reported at an estimated concentration of 0.10 µg/L, indicating detections in the environmental samples are likely false positives and do not indicate an environmental source of contamination.

Tetrachloroethene was reported in one sample with a maximum estimated concentration of 0.16 µg/L. This estimated concentration is more than an order of magnitude below the MTCA Method A level of 5 µg/L, was not reported in any other environmental samples collected during 2015, and is not indicative of an environmental source of contamination.

Chloromethane, another laboratory and analytical method contaminant, was reported with a maximum estimated concentration of 0.07 µg/L in one environmental sample collected during the Fall 2015 event. This one detection does not indicate an environmental source of contamination.

3.3 DATA QUALITY REVIEW AND VERIFICATION

A data quality review was completed on the laboratory data from the spring and fall 2015 sampling events. The data quality review documentation is included in Appendix B. The data was reviewed by a party independent from the laboratory for adherence to the project quality control requirements and for usability. The review found that the data quality objectives for both the FTP and TVR/Old MATES sites during the spring and fall events were met. The data are considered acceptable for use and for comparison with other site data.

4. REFERENCES

- Bay West. 2004. Closure Report for Remedial Action – Various IRP Sites at YTC. January.
- CEcon Corporation. 1994. Field Report for DACA67-92-D-1018/0002 – Remove, Transport, Treat and Dispose of Contaminated Soil – Yakima Training Center. April.
- Cory, B. 2004. YTC water system operator, personal correspondence regarding YTC Cantonment Area Water System, PAIC Water System, and Building 845 historical operations. January.
- E&E (Ecology and Environment Inc.). 1993. Site Investigation Report – Yakima Training Center. September.
- EPA (U.S. Environmental Protection Agency). 1992. Methods for Evaluating the Attainment of Cleanup Standards, Vol. 2: Ground Water. Office of Policy, Planning, and Evaluation Publication EPA/230-R-92-014.
- Fain, L. 2000. Transmittal of Cantonment Area well logs and video survey report for Pomona Well to Rich Wilson. August.
- Helsel, D.R., and R.M. Hirsch. 2002. Chapter A3 Statistical Methods in Water Resources. Book 4 - Hydrologic Analysis and Interpretation. Techniques of Water – Resources Investigations of the United States Geological Survey.
- HongWest & Associates. 1996. Delineation Report for Yakima Training Center Wellhead Protection Plan. April.
- ITRC (Interstate Technology and Regulatory Council). 2004. Technical and Regulatory Guidance for Using Polyethylene Diffusion Bag Samplers to Monitor Volatile Organic Compounds in Groundwater. February.
- Pacific Northwest National Laboratory. 2006. Terrestrial Ecological Evaluations Yakima Training Center Sites. April.
- Pegasus Environmental Management Services Inc. 1993. Final Field Report for Yakima Firing Center WO#0003 – Contract #DACA67-91-D-1011. January.
- Resource Applications Inc. 1993a. Hazard Ranking System (HRS2) Score for the Yakima Training Center. January.

Resource Applications Inc. 1993b. Site Screening Inspection (SSI) for the Yakima Training Center. January.

SAIC (Science Applications International Corporation). 1995. Final RCRA Facility Assessment Report – U.S. Army Yakima Training Center. September.

Schuster, J.E., C.W. Gulick, S.P. Reidel, K.R. Fecht, and S. Zurenko. 1997. Geologic Map of Washington – Southeast Quadrant. Washington Division of Geology and Earth Resources Geologic Map GM-45.

Shannon & Wilson. 2001. Fire Training Pit (SWMU-59) RCRA Facility Investigation Report. November.

Shapiro & Associates Inc. 1991. Draft Preliminary Assessment of Yakima Firing Center. February.

TtEC (Tetra Tech EC, Inc.). 2015. Draft Final Rev 1 CY 2015 Groundwater Monitoring Plan. Fire Training Pit and Tracked Vehicle Repair/Old Mobilization and Training Equipment Site. JBLM Yakima Training Center, Yakima, Washington.

USACE (U.S. Army Corps of Engineers). 2012. Periodic Review Report, Yakima Training Center Yakima, Washington. October.

Wilson, M. 2004. DOH Drinking Water Regional Engineer for Yakima County, information from Washington State Department of Health – Drinking Water Division files, personal correspondence. January.

Yakima Health District. 1995. Final Report on Yakima Training Center Project. March.

TABLES

This page intentionally left blank.

Table 1
Monitoring Well Construction Details
 Fire Training Pit and TVR/Old MATES, Yakima Training Center, Washington

Well ID	Elevation at TOC (ft AMSL)	Ground Surface Elevation (ft AMSL)	Easting UTM (m)	Northing UTM (m)	Total Depth (ft)	Screen Interval (ft bgs)
Fire Training Pit Monitoring Wells						
FTP-1	1,467.72	1,464.59	695828.3	5173198.0	21.00	8 – 18
FTP-13	1,473.07	1,470.96	695878.5	5173153.0	25.00	10 – 20
FTP-14	1,457.48	1,455.35	695771.4	5173185.2	22.00	12 – 22
FTP-15	1,460.88	1,458.72	695783.1	5173228.9	20.00	10 – 20
FTP-16	1,444.81	1,442.68	695722.0	5173050.7	30.00	20 – 30
TVR/Old Mates Monitoring Wells						
815-2	1,304.28	1,301.86	694687.7	5172445.5	132.00	115 – 130
MMP-1	1,301.37	1,298.39	694553.4	5172215.3	100.50	88 – 98
MMP-2	1,301.31	1,298.55	694529.6	5172207.9	75.50	64 – 74
MRC-2	1,312.11	1,309.64	694558.9	5172939.9	113.50	101 – 111
MTS-1	1,361.02	1,359.05	695196.9	5172404.6	127.00	115 – 125
MTS-2	1,351.88	1,348.79	695135.9	5172405.4	113.00	101 – 111
MTS-3	1,362.36	1,362.62	695366.1	5172439.6	72.00	62 – 72
MTS-4	1,331.88	1,332.14	695078.6	5172347.7	97.00	82 – 97
TVR-1	1,320.17	1,317.32	694936.0	5172286.6	105.00	93 – 103
TVR-2	1,317.56	1,314.18	694910.0	5172337.7	95.00	83 – 93
TVR-3	1,310.60	1,310.86	694872.9	5172282.5	158.00	143 – 158
TVR-5	1,302.04	1,299.42	694704.2	5172275.0	142.00	132 – 142
TVR-6	1,310.06	1,310.30	694866.4	5172214.0	139.00	139 – 149
TVR-7	1,310.95	1,311.63	694882.5	5172255.6	140.00	140 – 150

Abbreviations and Acronyms:
 ft AMSL – feet above mean sea level
 ft bgs – feet below ground surface
 m – meter
 TOC – top-of-casing

This page intentionally left blank.

Table 2
Depth-to-Water Measurements and Chemicals of Concern Concentrations
 Fire Training Pit, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
FTP-1 1467.72	1-Mar-93	–	–	–	2,600,000J	3,500	50U	50U	60.0	1,100.0
	1-Jul-99	13.00	1,454.72	2,300	34,000J	1598J	7.5	0.074J	4.4	16.66J
	1-Nov-00	11.40	1,456.32	8,300	140,000J	450	7.7	4.7J	3.0J	41.2J
	1-May-01	14.21	1,453.51	6,800	750,000J	3540J	3.7U	0.77U	1.6U	52.0
	30-Jan-04	12.93	1,454.79	3,900	4,400	193	10.6	0.5U	3.8	9.4
	22-Mar-05	13.61	1,454.11	4,110	10,500	116	13.0	2.5U	4.6	2.8
	22-Aug-05	13.43	1,454.29	25,100	40,000	218	22.5	5U	7.2	10U
	21-Mar-06	15.53	1,452.19	1,000U	45,000	238	5U	5U	5U	10U
	8-Aug-06	11.54	1,456.18	2,600	25,000	93	6.3	1U	3.6	1.3
	21-Mar-07	15.59	1,452.13	2,300	35,500	150	4.0	0.5U	2.0	0.7
	19-Sep-07	12.49	1,455.23	1,300	19,000	190	7.1	0.5U	3.4	2.5
	18-Mar-08	13.21	1,454.51	5,120	11,400	500U	11.3	1.2	5.5	5.5
	Duplicate	18-Mar-08	13.21	1,454.51	4,830	8,230	500U	–	–	–
Duplicate	19-Sep-08	12.24	1,455.48	4,270	4,350	500U	10.9	0.5U	4.6	3.0
Duplicate	19-Sep-08	12.24	1,455.48	4,480	5,000	500U	-	–	–	–
Duplicate	23-Mar-09	13.72	1,454.00	2,200	32,900	500U	5.7	0.5U	3.3	2.6
Duplicate	23-Mar-09	13.72	1,454.00	1,950	28,800	500U	–	–	–	–
Duplicate	23-Sep-09	12.90	1,454.82	2,940	8,690	500U	10.7	0.5U	6.1	4.0
Duplicate	23-Sep-09	12.90	1,454.82	2,940	–	–	–	–	–	–
Duplicate	16-Mar-10	13.82	1,453.90	1,800	20,000	5,500	6.6	1U	3.8	3.5
Duplicate	16-Mar-10	13.82	1,453.90	1,800	19,000	5,400	–	–	–	–
Duplicate	28-Sep-10	11.33	1,456.39	2,800	35,000	11,000	9.4	0.5U	4.4	0.6
Duplicate	28-Sep-10	11.33	1,456.39	2,600	28,000	11,000	–	–	–	–
	22-Mar-11	13.00	1,454.72	1,900	23,000	4,600	4.7	0.5U	3.7	0.7
	21-Sep-11	11.34	1,456.38	1,500	17,000	5,600	7.4	0.5U	4.7	1.4
	27-Mar-12	13.27	1,454.45	5,400	38,000	5,700	3.8	0.5U	3.8	0.9
	20-Aug-12	11.21	1,456.51	1,100	30,000	13,000	6.5	0.5U	5.0	1.6
	20-Mar-13	13.54	1,454.18	7,600	110,000	7,900	3.7	0.2	4.5	0.8
	25-Sep-13	13.52	1,454.20	2,200	28,000	1,700	5.4	0.2	5.9	1.5

Table 2 (continued)
Depth-to-Water Measurements and Chemicals of Concern Concentrations
 Fire Training Pit, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
FTP-1	11-Mar-14	14.25	1,453.47	2,000	14,000	1,700	3.4	0.2	4.5	0.95
	22-Sep-14	13.60	1,454.12	1,100	22,000	3,400	6.4	0.22J	6.6	1.49
	19-Mar-15	14.0	1,453.72	2,000	17,000	2,000	4.3	0.26J	4.9	1.38
	22-Sep-15	13.16	1,454.56	1,300	13,000	2,600	6.0	0.41J	6.0	1.51
FTP-13 1473.07	1-Jul-99	16.25	1,456.82	100U	240U	1	0.4U	0.4U	0.4U	1.2U
	1-Nov-00	16.79	1,456.28	ND	240U	0.19U	0.4U	0.4U	0.4U	1.2U
	1-May-01	16.65	1,456.42	100U	240U	0.192U	0.4U	0.4U	0.4U	1.2U
	30-Jan-04	15.50	1,457.57	100U	100U	0.7U	0.5U	0.5U	0.5U	1U
	22-Mar-05	16.71	1,456.36	100U	100U	1U	0.5U	0.5U	0.5U	1U
	22-Aug-05	16.80	1,456.27	–	–	–	–	–	–	–
	21-Mar-06	12.66	1,460.41	100U	100U	1U	0.5U	0.5U	0.5U	1U
	8-Aug-06	12.57	1,460.50	–	–	–	–	–	–	–
	21-Mar-07	14.22	1,458.85	250U	100U	1.5U	0.5U	0.5U	0.5U	1U
	19-Sep-07	15.14	1,457.93	–	–	–	–	–	–	–
	18-Mar-08	15.05	1,458.02	–	–	–	–	–	–	–
	19-Sep-08	15.54	1,457.53	–	–	–	–	–	–	–
	23-Mar-09	16.06	1,457.01	–	–	–	–	–	–	–
	23-Sep-09	15.15	1,457.92	–	–	–	–	–	–	–
	16-Mar-10	14.72	1,458.35	–	–	–	–	–	–	–
	28-Sep-10	11.85	1,461.22	–	–	–	–	–	–	–
	22-Mar-11	13.02	1,460.05	–	–	–	–	–	–	–
	21-Sep-11	12.22	1,460.85	–	–	–	–	–	–	–
	27-Mar-12	13.85	1,459.22	–	–	–	–	–	–	–
	20-Aug-12	11.27	1,461.80	–	–	–	–	–	–	–
20-Mar-13	13.90	1,459.17	–	–	–	–	–	–	–	
25-Sep-13	13.47	1,459.60	–	–	–	–	–	–	–	
11-Mar-14	16.50	1,456.57	–	–	–	–	–	–	–	
22-Sep-14	–	–	–	–	–	–	–	–	–	

Table 2 (continued)
Depth-to-Water Measurements and Chemicals of Concern Concentrations
 Fire Training Pit, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	
FTP-13	19-Mar-15	14.32	1,458.75	–	–	–	–	–	–	–	
	22-Sep-15	–	–	–	–	–	–	–	–	–	
FTP-14 1457.48	1-Jul-99	17.63	1,439.85	100U	480J	0.192U	0.4U	0.4U	0.4U	1.2U	
	1-Nov-00	18.28	1,439.20	100U	240U	0.19U	0.4U	0.028J	0.4U	1.2U	
	1-May-01	18.69	1,438.79	2,100U	170J	0.19U	0.4U	0.4U	0.4U	1.2U	
	30-Jan-04	17.46	1,440.02	100U	100U	0.7U	0.5U	0.5U	0.5U	1U	
	22-Mar-05	17.83	1,439.65	310	400	1U	0.5U	0.5U	0.5U	1U	
	22-Aug-05	18.02	1,439.46	260	330	1U	0.5U	0.5U	0.5U	1U	
	21-Mar-06	17.92	1,439.56	1,000U	400	1U	0.5U	0.5U	0.5U	1U	
	8-Aug-06	17.49	1,439.99	200	–	–	0.5U	0.5U	0.5U	1U	
	21-Mar-07	17.59	1,439.89	250U	100U	1.5U	0.5U	0.5U	0.5U	1U	
	19-Sep-07	17.47	1,440.01	500U	250	1.5U	0.5U	0.5U	0.5U	1U	
	18-Mar-08	17.70	1,439.78	210	261	500U	–	–	–	–	
	19-Sep-08	17.58	1,439.90	500U	100U	500U	–	–	–	–	
	23-Mar-09	17.81	1,439.67	500U	–	–	–	–	–	–	
	23-Sep-09	17.84	1,439.64	500U	209	500U	–	–	–	–	
	16-Mar-10	18.00	1,439.48	53	290	440	–	–	–	–	
	28-Sep-10	17.68	1,439.80	55	350	330	–	–	–	–	
	22-Mar-11	17.65	1,439.83	57	350	240U	–	–	–	–	
	21-Sep-11	17.64	1,439.84	50U	–	–	–	–	–	–	
	27-Mar-12	17.68	1,439.80	50	420	420	–	–	–	–	
	20-Aug-12	16.93	1,440.55	59	170	240	–	–	–	–	
	20-Mar-13	17.86	1,439.62	250U	150	200U	–	–	–	–	
	25-Sep-13	18.94	1,438.54	250U	240	200U	–	–	–	–	
	11-Mar-14	18.20	1,439.28	250U	250	200U	–	–	–	–	
	Duplicate	11-Mar-14	18.20	1,439.28	250U	240	200U	–	–	–	–
		22-Sep-14	18.60	1,438.88	22	290	360	–	–	–	–
		19-Mar-15	18.76	1,438.72	83J	190	120J	–	–	–	–
		22-Sep-15	18.81	1,438.67	46J	210	110	–	–	–	–

Table 2 (continued)
Depth-to-Water Measurements and Chemicals of Concern Concentrations
 Fire Training Pit, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
FTP-15 1460.88	1-Jul-99	16.68	1,444.20	100U	240U	0	0.4U	0.4U	0.4U	1.2U
	1-Nov-00	18.00	1,442.88	100U	240U	0.19U	0.4U	0.052J	0.4U	0.042J
	1-May-01	17.98	1,442.90	100U	240U	0.192U	0.4U	0.4U	0.4U	1.2U
	30-Jan-04	16.58	1,444.30	100U	100U	0.7U	0.5U	0.5U	0.5U	1U
	22-Mar-05	17.89	1,442.99	100U	100U	1U	0.5U	0.5U	0.5U	1U
	22-Aug-05	17.91	1,442.97	100U	100U	1U	0.5U	0.5U	0.5U	1U
	21-Mar-06	17.93	1,442.95	100U	100U	–	0.5U	0.5U	0.5U	1U
	8-Aug-06	16.79	1,444.09	100U	100U	–	0.5U	0.5U	0.5U	1U
	21-Mar-07	17.91	1,442.97	250U	100U	1.5U	0.5U	0.5U	0.5U	1U
	19-Sep-07	16.93	1,443.95	500U	100U	–	0.5U	0.5U	0.5U	1U
	18-Mar-08	17.95	1,442.93	100U	100U	500U	–	–	–	–
	19-Sep-08	17.31	1,443.57	500U	100U	500U	–	–	–	–
	23-Mar-09	17.97	1,442.91	500U	100U	500U	–	–	–	–
	23-Sep-09	17.87	1,443.01	500U	100U	500U	–	–	–	–
Duplicate	16-Mar-10	17.96	1,442.92	50U	100U	240U	–	–	–	–
	28-Sep-10	16.62	1,444.26	50U	180	440	–	–	–	–
	22-Mar-11	17.85	1,443.03	50U	120U	240U	–	–	–	–
	22-Mar-11	17.85	1,443.03	50U	120U	240U	–	–	–	–
	21-Sep-11	16.81	1,444.07	50U	–	–	–	–	–	–
Duplicate	27-Mar-12	17.45	1,443.43	50U	150	370	–	–	–	–
	20-Aug-12	16.03	1,444.85	150	120	240U	–	–	–	–
	20-Aug-12	16.03	1,444.85	50U	120	240U	–	–	–	–
	20-Mar-13	16.77	1,444.11	250U	130	200U	–	–	–	–
Duplicate	25-Sep-13	16.62	1,444.26	250U	100U	200U	–	–	–	–
	25-Sep-13	16.62	1,444.26	250U	110	200U	–	–	–	–
	11-Mar-14	17.80	1,443.08	250U	100U	200U	–	–	–	–
	22-Sep-14	18.30	1,442.58	14J	46J	110J	–	–	–	–
	19-Mar-15	17.91	1,442.97	250U	55J	180J	–	–	–	–
	22-Sep-15	16.22	1,444.66	250U	46J	80J	–	–	–	–

Table 2 (continued)
Depth-to-Water Measurements and Chemicals of Concern Concentrations
 Fire Training Pit, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
FTP-16 1444.81	1-Jul-99	26.32	1,418.49	100U	360J	2	0.4U	0.4U	0.4U	1.2U
	1-Nov-00	26.51	1,418.30	100U	210J	0.19U	0.4U	0.064J	0.4U	0.043J
	1-May-01	26.41	1,418.40	100U	240U	0.188U	0.4U	0.4U	0.4U	1.2U
	30-Jan-04	26.34	1,418.47	100U	100U	0.7U	0.5U	0.5U	0.5U	1U
	22-Mar-05	26.77	1,418.04	100U	100U	1U	0.5U	0.5U	0.5U	1U
	22-Aug-05	26.49	1,418.32	100U	100U	1U	0.5U	0.5U	0.5U	1U
	21-Mar-06	26.05	1,418.76	100U	100U	1U	0.5U	0.5U	0.5U	1U
	8-Aug-06	26.11	1,418.70	100U	200	1U	0.5U	0.5U	0.5U	1U
	21-Mar-07	26.15	1,418.66	250U	100U	1.5U	0.5U	0.5U	0.5U	1U
	19-Sep-07	26.12	1,418.69	500U	100U	–	0.5U	0.5U	0.5U	1U
	18-Mar-08	26.09	1,418.72	100U	100U	500U	–	–	–	–
	19-Sep-08	26.18	1,418.63	500U	100U	500U	–	–	–	–
	23-Mar-09	26.20	1,418.61	500U	100U	500U	–	–	–	–
	23-Sep-09	26.28	1,418.53	500U	140	500U	–	–	–	–
	16-Mar-10	26.25	1,418.56	50U	180	470	–	–	–	–
	28-Sep-10	26.05	1,418.76	50U	320	450	–	–	–	–
	22-Mar-11	26.15	1,418.66	50U	310	240U	–	–	–	–
	21-Sep-11	26.16	1,418.65	50U	–	–	–	–	–	–
	27-Mar-12	26.15	1,418.66	50U	280	470	–	–	–	–
	20-Aug-12	25.93	1,418.88	50U	200	350	–	–	–	–
20-Mar-13	26.29	1,418.52	250U	130	200U	–	–	–	–	
25-Sep-13	26.50	1,418.31	250U	160	200U	–	–	–	–	
11-Mar-14	26.30	1,418.51	250U	150	200U	–	–	–	–	
22-Sep-14	26.35	1,418.46	250U	290	180	–	–	–	–	
19-Mar-15	26.19	1,418.62	250U	110J	76J	–	–	–	–	
22-Sep-15	26.09	1,418.72	250U	300	540	–	–	–	–	

Table 2 (continued)
Depth-to-Water Measurements and Chemicals of Concern Concentrations
 Fire Training Pit, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MTCA Method A Cleanup Level				800	500	500	5	1,000	700	1,000
MTCA Method B Cleanup Level				–	–	–	–	–	–	–

Notes:

BOLD – Analyte detected above laboratory reporting limit.

SHADE – Analyte detected above Model Toxics Control Act (MTCA) cleanup level.

– = not applicable, not sampled

Abbreviations and Acronyms:

µg/L – micrograms per liter

DTW – depth-to-water

ft/amsl – feet above mean sea level

ft/bgs – feet below ground surface

J – estimated concentration

ND – non-detect

TOC – top-of-casing elevation above mean sea level in feet

TPH-D – total petroleum hydrocarbons – diesel range

TPH-G – total petroleum hydrocarbons – gasoline range

TPH-O – total petroleum hydrocarbons – heavy oil range

U – Analyte not detected above laboratory practical quantitation limit (PQL).

Table 3
Selected VOC, PAH, and PCB Concentrations
 Fire Training Pit, Yakima Training Center, Washington

Well ID	Date	TCE (µg/L)	cis-DCE (µg/L)	Vinyl Chloride (µg/L)	Methylene Chloride (µg/L)	Bis-(2-ethylhexyl) phthalate (µg/L)	Flourene (µg/L)	Total Naphthalenes ¹ (µg/L)	Total PCBs (µg/L)	
FTP-1	1-Mar-93	50U	50U	100U	110B,J	270B,J	–	905U	70U	
	1-Jul-99	0.066J	0.4U	0.4U	0.4U	29J	7,600J	0.243J	23.1U	
	1-Nov-00	32J	70J	ND	3.7J	ND	11,000J	1.774U	ND	
	1-May-01	4U	4U	4U	4U	54J	46,000	5.02J	0.81U	
	30-Jan-04	0.5U	0.5U	0.5U	1.3	6.0	48,300	0.362U	–	
	22-Mar-05	2.5U	2.5U	2.5U	12.5U	1.0	500U	0.905U	–	
	22-Aug-05	5U	5U	5U	25U	0.5U	500U	0.905U	–	
	21-Mar-06	5U	5U	5U	25U	5U	500U	9.05U	–	
	8-Aug-06	1U	1U	1U	5U	2.4	500U	0.905U	–	
	21-Mar-07	0.5U	0.5U	0.5U	2.5U	3.6	10,000U	0.1	–	
	19-Sep-07	0.5U	0.5U	0.5U	2.5U	2.7	500U	0.905U	–	
	18-Mar-08	0.5U	0.5U	0.5U	2.5U	10U	1,000U	118.2	–	
	19-Sep-08	0.5U	0.5U	0.5U	2.5U	–	500U	52.6	–	
	23-Mar-09	0.5U	0.5U	0.5U	2.5U	–	9.1	93.2	–	
	Duplicate	23-Mar-09	0.5U	0.5U	0.5U	2.5U	–	–	–	–
	Duplicate	23-Sep-09	0.5U	0.5U	0.5U	2.5U	15U	5.4	121.1	–
	Duplicate	23-Sep-09	0.5U	0.5U	0.5U	2.5U	15U	-	-	–
		16-Mar-10	0.5U	0.5U	0.5U	2.5U	15U	3.3	13.9	–
		28-Sep-10	0.5U	0.5U	0.5U	2.5U	–	8.3	238	–
	22-Mar-11	0.5U	0.5U	0.5U	2.5U	ND	6.1	56.6	–	
	21-Sep-11	0.5U	0.5U	0.5U	2.5U	0.96U	4.2	120	–	
	27-Mar-12	0.5U	0.5U	0.5U	0.5U	5.6	10	66	–	
	20-Aug-12	0.5U	0.5U	0.5U	0.5U	14U	5.5	242	–	
	20-Mar-13	0.2U	0.2U	0.2U	1.0U	6.3	27	94	–	
	25-Sep-13	0.2U	0.2U	0.2U	1U	3U	11	260	–	
	11-Mar-14	0.2U	0.2U	0.2U	1U	9U	5.8	112	–	
	22-Sep-14	0.11J	0.5U	0.5U	2U	10U	7.8	154	–	
	19-Mar-15	0.12J	0.2U	0.1U	0.2U	4.9J	8.9J	105	–	
	22-Sep-15	0.17J	0.2U	0.1U	0.12J	2U	9.4J	218	–	

Table 3 (continued)

Selected VOC, PAH, and PCB Concentrations
 Fire Training Pit, Yakima Training Center, Washington

Well ID	Date	TCE (µg/L)	cis- DCE (µg/L)	Vinyl Chloride (µg/L)	Methylene Chloride (µg/L)	Bis-(2-ethylhexyl) phthalate (µg/L)	Flourene (µg/L)	Total Naphthalenes ¹ (µg/L)	Total PCBs (µg/L)
FTP-13	1-Mar-93	-	-	-	-	6.3			-
	1-Jul-99	0.4U	0.4U	0.4U	0.4U	0.5U	240J	0.172U	0.665U
	1-Nov-00	0.4U	0.4U	0.4U	0.4U	-	ND	0.172U	ND
	1-May-01	0.4U	0.4U	0.4U	0.4U	0.5U	480U	0.174U	0.076U
	30-Jan-04	0.5U	0.5U	0.5U	0.5U	-	500U	0.362U	-
	22-Mar-05	0.5U	0.5U	0.5U	2.5U	0.5U	500U	0.905U	-
	22-Aug-05	-	-	-	-	-	-	-	-
	21-Mar-06	0.5U	0.5U	0.5U	2.5U	0.96U	500U	0.905U	-
	8-Aug-06	-	-	-	-	9.5U	-	-	-
21-Mar-07	0.5U	0.5U	0.5U	2.5U	0.95U	500U	0.1	-	
FTP-14	1-Mar-93	-	-	-	-	9.2			-
	1-Jul-99	0.4U	0.4U	0.4U	0.4U	5.2	480	0.174U	0.665U
	1-Nov-00	ND	ND	ND	ND	0.8	480U	0.172U	0.076U
	1-May-01	0.4U	0.4U	0.4U	0.4U	0.5U	480U	0.172U	0.0766U
	30-Jan-04	0.5U	0.5U	0.5U	0.5U	-	900	0.362U	-
	22-Mar-05	0.5U	0.5U	0.5U	2.5U	2.3	500U	0.905U	-
	22-Aug-05	0.5U	0.5U	0.5U	2.5U	30.0	500U	0.905U	-
	21-Mar-06	0.5U	0.5U	0.5U	2.5U	-	500U	0.905U	-
	8-Aug-06	0.5U	0.5U	0.5U	2.5U	2.1J	-	-	-
	21-Mar-07	0.5U	0.5U	0.5U	2.5U	9.5U	500U	0.905U	-
19-Sep-07	0.5U	0.5U	0.5U	2.5U	0.96U	500U	0.905U	-	
FTP-15	1-Mar-93	-	-	-	-	1.4			-
	1-Jul-99	0.4U	0.4U	0.4U	0.4U	1.2	250J	0.172U	0.665U
	1-Nov-00	ND	ND	ND	ND	1.0	480U	0.172U	0.076U
	1-May-01	0.4U	0.4U	0.4U	0.4U	-	470U	0.174U	0.076U
	30-Jan-04	0.5U	0.5U	0.5U	0.5U	-	500	0.362U	-
	22-Mar-05	0.5U	0.5U	0.5U	2.5U	2.3	500U	0.905U	-
	22-Aug-05	0.5U	0.5U	0.5U	2.5U	-	500U	0.905U	-
	21-Mar-06	0.5U	0.5U	0.5U	2.5U	-	600	-	-
	8-Aug-06	0.5U	0.5U	0.5U	2.5U	0.9J	500U	-	-
	21-Mar-07	0.5U	0.5U	0.5U	2.5U	ND	500U	0.905U	-
19-Sep-07	0.5U	0.5U	0.5U	2.5U	0.63J	500U	-	-	

Table 3 (continued)
Selected VOC, PAH, and PCB Concentrations
 Fire Training Pit, Yakima Training Center, Washington

Well ID	Date	TCE (µg/L)	cis-DCE (µg/L)	Vinyl Chloride (µg/L)	Methylene Chloride (µg/L)	Bis-(2-ethylhexyl) phthalate (µg/L)	Flourene (µg/L)	Total Naphthalenes ¹ (µg/L)	Total PCBs (µg/L)
FTP-16	1-Mar-93	–	–	–	–	1.8	–	–	–
	1-Jul-99	0.4U	0.4U	0.4U	0.4U	1.5	600J	0.172U	0.665U
	1-Nov-00	ND	0.4U	ND	ND	0.8	480U	0.172U	0.076U
	1-May-01	0.4U	0.4U	0.4U	0.4U	0.5U	470U	0.170U	0.0754U
	30-Jan-04	0.5U	0.5U	0.5U	0.5U	0.5U	500	0.362U	–
	22-Mar-05	0.5U	0.5U	0.5U	2.5U	1.8	500U	0.905U	–
	22-Aug-05	0.5U	0.5U	0.5U	2.5U	–	500U	0.905U	–
	21-Mar-06	0.5U	0.5U	0.5U	2.5U	–	500U	0.905U	–
	8-Aug-06	0.5U	0.5U	0.5U	2.5U	–	500U	0.905U	–
	21-Mar-07	0.5U	0.5U	0.5U	2.5U	–	500U	0.1	–
19-Sep-07	0.5U	0.5U	0.5U	2.5U	–	500U	–	–	
MTCA Method A Cleanup Level		5	–	0.2	5	–	–	160	0.1
MTCA Standard Method B Cleanup Level		–	70	–	–	6	640	–	–

Notes:

BOLD – Analyte detected above laboratory Practical Quantitation Limit (PQL).

SHADE – Analyte detected above Model Toxics Control Act (MTCA) cleanup level.

total naphthalenes – Total value for naphthalene and 2-methyl naphthalene.

¹ Total Naphthalenes is the total of naphthalene, 1-methyl naphthalene, and 2-methyl naphthalene.

Abbreviations and Acronyms:

– = not applicable, not sampled

µg/L – micrograms per liter

cis-DCE – cis 1,2-dichloroethylene

J – estimated concentration

ND – non-detect

PCBs – polychlorinated biphenyls

TCE – trichloroethylene

U – Analyte not detected above laboratory practical quantitation limit (PQL).

This page intentionally left blank.

Table 4
Carcinogenic PAH and Total PAH Concentrations
 Fire Training Pit, Yakima Training Center, Washington

Well ID	Date	Benz(a) anthracene (µg/L)	Benzo(a) pyrene (µg/L)	Benzo(b) fluoranthene (µg/L)	Benzo(k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz(a,h) anthracene (µg/L)	Indeno(1,2,3- cd(pyrene (µg/L)	TEQ Total ⁽¹⁾ (µg/L)	Total PAHs ⁽²⁾ (µg/L)
FTP-1	1-Mar-93	–	–	–	–	–	–	–	–	1,100.0
	1-Jul-99	–	–	–	–	–	–	–	–	140J
	1-Nov-00	–	–	–	–	–	–	–	–	33.0
	1-May-01	–	–	–	–	–	–	–	–	450J
	30-Jan-04	–	–	–	–	–	–	–	–	9.1
	22-Mar-05	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	–	5.0
	22-Aug-05	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	–	5.7
	21-Mar-06	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	–	33.4
	8-Aug-06	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	–	4.9
	21-Mar-07	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5	0.05	5.9
	19-Sep-07	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	–	6.4
	18-Mar-08	10U	10U	10U	10U	10U	10U	10U	–	89.6
	19-Sep-08	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	–	158.8
	23-Mar-09	0.1U	0.1U	0.1U	0.1U	0.54	0.1U	0.1U	0.005	135.8
	23-Sep-09	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	–	117.2
	16-Mar-10	0.29U	0.19U	0.39U	0.29U	0.19U	0.29U	0.29U	–	107.2
	28-Sep-10	0.29U	0.19U	0.39U	0.29U	0.38	0.29U	0.29U	0.004	333.8
	22-Mar-11	0.29U	0.19U	0.39U	0.29U	0.19U	0.29U	0.29U	–	269.5
	21-Sep-11	0.28U	0.19U	0.38U	0.28U	0.19U	0.28U	0.28U	–	176.3
	27-Mar-12	0.1U	0.1U	0.1U	0.1U	0.64	0.1U	0.1U	0.01	246.14
20-Aug-12	0.29U	0.19U	0.38U	0.29U	0.19U	0.29U	0.29U	–	265.25	
20-Mar-13	3.3U	3.3U	17U	17U	3.3U	3.3U	3.3U	–	165.43	
25-Sep-13	1U	1U	5U	5U	1U	1U	1U	–	326.30	
11-Mar-14	3U	3U	15U	15U	3U	3U	3U	–	248.40	
22-Sep-14	10U	10U	10U	10U	10U	10U	10U	–	177.80	
19-Mar-15	10U	10U	10U	10U	10U	10U	10U	–	140.1	
22-Sep-15	10U	10U	10U	10U	10U	10U	10U	–	251.0	

Table 4 (continued)

Carcinogenic PAH and Total PAH Concentrations
 Fire Training Pit, Yakima Training Center, Washington

Well ID	Date	Benz(a) anthracene (µg/L)	Benzo(a) pyrene (µg/L)	Benzo(b) fluoranthene (µg/L)	Benzo(k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz(a,h) anthracene (µg/L)	Indeno(1,2,3- cd(pyrene (µg/L)	TEQ Total ⁽¹⁾ (µg/L)	Total PAHs ⁽²⁾ (µg/L)
FTP-13	1-Mar-93	–	–	–	–	–	–	–	–	–
	1-Jul-99	–	–	–	–	–	–	–	–	0.1
	1-Nov-00	–	–	–	–	–	–	–	–	ND
	1-May-01	–	–	–	–	–	–	–	–	0.096U
	30-Jan-04	–	–	–	–	–	–	–	–	0.2U
	22-Mar-05	–	–	–	–	–	–	–	–	0.5U
	22-Aug-05	–	–	–	–	–	–	–	–	–
	21-Mar-06	–	–	–	–	–	–	–	–	0.5U
	8-Aug-06	–	–	–	–	–	–	–	–	–
21-Mar-07	–	–	–	–	–	–	–	–	0.5U	
FTP-14	1-Mar-93	–	–	–	–	–	–	–	–	–
	1-Jul-99	–	–	–	–	–	–	–	–	0.096U
	1-Nov-00	–	–	–	–	–	–	–	–	0.095U
	1-May-01	–	–	–	–	–	–	–	–	0.095U
	30-Jan-04	–	–	–	–	–	–	–	–	0.2U
	22-Mar-05	–	–	–	–	–	–	–	–	0.5U
	22-Aug-05	–	–	–	–	–	–	–	–	0.5U
	21-Mar-06	–	–	–	–	–	–	–	–	0.5U
	8-Aug-06	–	–	–	–	–	–	–	–	–
	21-Mar-07	–	–	–	–	–	–	–	–	0.5U
19-Sep-07	–	–	–	–	–	–	–	–	0.5U	
FTP-15	1-Mar-93	–	–	–	–	–	–	–	–	–
	1-Jul-99	–	–	–	–	–	–	–	–	0.095U
	1-Nov-00	–	–	–	–	–	–	–	–	0.095U
	1-May-01	–	–	–	–	–	–	–	–	0.096U
	30-Jan-04	–	–	–	–	–	–	–	–	0.2U

Table 4 (continued)

Carcinogenic PAH and Total PAH Concentrations

Fire Training Pit, Yakima Training Center, Washington

Well ID	Date	Benz(a) anthracene (µg/L)	Benzo(a) pyrene (µg/L)	Benzo(b) fluoranthene (µg/L)	Benzo(k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz(a,h) anthracene (µg/L)	Indeno(1,2,3- cd(pyrene (µg/L)	TEQ Total ⁽¹⁾ (µg/L)	Total PAHs ⁽²⁾ (µg/L)
	22-Mar-05	–	–	–	–	–	–	–	–	0.5U
	22-Aug-05	–	–	–	–	–	–	–	–	0.5U
	21-Mar-06	–	–	–	–	–	–	–	–	–
	8-Aug-06	–	–	–	–	–	–	–	–	–
	21-Mar-07	–	–	–	–	–	–	–	–	0.5U
FTP-16	1-Mar-93	–	–	–	–	–	–	–	–	–
	1-Jul-99	–	–	–	–	–	–	–	–	0.095U
	1-Nov-00	–	–	–	–	–	–	–	–	0.095U
	1-May-01	–	–	–	–	–	–	–	–	0.094U
	30-Jan-04	–	–	–	–	–	–	–	–	0.2U
	22-Mar-05	–	–	–	–	–	–	–	–	0.5U
	22-Aug-05	–	–	–	–	–	–	–	–	0.5U
	21-Mar-06	–	–	–	–	–	–	–	–	0.5U
	8-Aug-06	–	–	–	–	–	–	–	–	0.5U
	21-Mar-07	–	–	–	–	–	–	–	–	0.5U
MTCA Method A Cleanup Level		–	0.1	–	–	–	–	–	0.1	–
TEF		0.1	1.0	0.1	0.1	0.01	0.1	0.1		–

Notes:

BOLD – analyte detected above laboratory practical quantitation limit (PQL).

SHADE – Analyte detected above Model Toxics Control Act (MTCA) cleanup level.

– = not applicable, not sampled

(1) TEQ= Benzo(a)pyrene x 1 + (benzo(a)anthracene + benzo(b)fluoranthene + benzo(k)fluoranthene + dibenz(ah)anthracene + indeno(123-cd)pyrene) x 0.1 + chrysene x 0.01.

(2) – includes naphthalene, 2-methylnaphthalene, acenaphthene, acenaphthylene, phenanthrene, anthracene, fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(123-cd)pyrene, dibenz(ah)anthracene, benzo(ghi)perylene.

Abbreviations and Acronyms:

Table 4 (continued)

Carcinogenic PAH and Total PAH Concentrations

Fire Training Pit, Yakima Training Center, Washington

µg/L – micrograms per liter

cPAHS – carcinogenic polycyclic aromatic hydrocarbons

ND – non-detect

PAHs – polycyclic aromatic hydrocarbons

PCBs – polychlorinated biphenyls

TEF – toxicity equivalency factor (TEF total is sum of all concentrations of cPAHs listed in table multiplied by their TEF values).

TEQ – toxicity equivalency quotient. TEQ values calculated from the TEF in Table 708-2 in WAC 173-340-900.

U – Analyte not detected above laboratory PQL.

Table 5

Depth-to-Water Measurements and TCE, and cis-1,2-DCE Concentrations
 TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TCE (µg/L)	cis-1,2-DCE (µg/L)	
815-2 1304.28	21-Mar-06	66.35	1,237.93	2.40	0.5U	
	1-Aug-06	54.17	1,250.11	3.30	0.5U	
	21-Mar-07	64.02	1,240.26	1.80	0.5U	
	19-Sep-07	55.56	1,248.72	3.20	0.5U	
	18-Mar-08	62.99	1,241.29	1.14	0.5U	
	19-Sep-08	54.95	1,249.33	1.94	0.5U	
	23-Mar-09	64.72	1,239.56	2.03	0.5U	
	23-Sep-09	58.03	1,246.25	1.06	0.5U	
	15-Mar-10	65.65	1,238.63	1U	1U	
	28-Sep-10	52.22	1,252.06	0.74	0.5U	
	21-Mar-11	60.85	1,243.43	1.00	0.5U	
	21-Sep-11	48.42	1,255.86	1.20	0.5U	
	28-Mar-12	60.20	1,244.08	0.89	0.5U	
	20-Aug-12	46.48	1,257.80	0.97	0.5U	
	Duplicate	20-Aug-12	46.48	1,257.80	0.99	0.5U
	Duplicate	19-Mar-13	58.62	1,245.66	0.67	0.2U
	Duplicate	19-Mar-13	58.62	1,245.66	0.66	0.2U
	Duplicate	26-Sep-13	54.37	1,249.91	0.65	0.2U
	Duplicate	26-Sep-13	54.37	1,249.91	0.72	0.2U
	12-Mar-14	62.75	1,241.53	0.45	0.2U	
	23-Sep-14	53.90	1,250.38	1.60	0.5U	
	19-Mar-15	62.89	1,241.39	0.75	0.2U	
	22-Sep-15	54.42	1,249.86	1.1	0.2U	
MMP-1 1301.37	1-Mar-93	–	1,239.41	5U	5U	
	28-Feb-95	–	–	–	–	
	1997 ¹	–	–	–	–	
	1-Aug-99	–	–	–	–	
	1-Jan-04		1,239.70	1U	1U	
	23-Mar-05	66.24	1,235.13	0.5U	0.5U	
	23-Aug-05	58.33	1,243.04	–	–	
	21-Mar-06	64.27	1,237.10	0.5U	0.5U	
	1-Aug-06	53.77	1,247.60	–	–	
	21-Mar-07	62.02	1,239.35	0.5U	0.5U	
	19-Sep-07	56.08	1,245.29	–	–	
	18-Mar-08	61.12	1,240.25	0.5U	0.5U	
	19-Sep-08	55.87	1,245.50	–	–	
	23-Mar-09	62.83	1,238.54	0.5U	0.5U	
	23-Sep-09	58.47	1,242.90	–	–	
	15-Mar-10	63.37	1,238.00	1U	1U	
	28-Sep-10	52.67	1,248.70	–	–	
	21-Mar-11	59.02	1,242.35	0.5U	0.5U	
21-Sep-11	47.02	1,254.35	–	–		

Table 5 (continued)

Depth-to-Water Measurements and TCE, and cis-DCE Concentrations
 TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MMP-1	28-Mar-12	57.83	1,243.54	0.5U	0.5U
	20-Aug-12	47.10	1,254.27	–	–
	19-Mar-13	55.90	1,245.47	0.2U	0.2U
	26-Sep-13	55.06	1,246.31	–	–
	12-Mar-14	59.80	1,241.57	0.2U	0.2U
	23-Sep-14	54.47	1,246.90	–	–
	19-Mar-15	60.04	1,241.33	–	–
	22-Sep-15	54.20	1,247.17	–	–
MMP-2 1301.31	1-Mar-93	–	1,239.35	5U	5U
	28-Feb-95	–	–	–	–
	1997 ¹	–	–	–	–
	1-Aug-99	–	–	–	–
	1-Jan-04	–	1,239.50	0.5U	0.5U
	23-Mar-05	66.25	1,235.06	0.5U	0.5U
	23-Aug-05	59.75	1,241.56	–	–
	21-Mar-06	64.54	1,236.77	0.5U	0.5U
	1-Aug-06	55.69	1,245.62	–	–
	21-Mar-07	62.13	1,239.18	0.5U	0.5U
	19-Sep-07	57.12	1,244.19	–	–
	18-Mar-08	61.27	1,240.04	–	–
	19-Sep-08	56.95	1,244.36	–	–
	23-Mar-09	62.92	1,238.39	–	–
	23-Sep-09	59.23	1,242.08	–	–
	15-Mar-10	63.48	1,237.83	–	–
	28-Sep-10	54.22	1,247.09	–	–
	21-Mar-11	59.17	1,242.14	–	–
	21-Sep-11	50.44	1,250.87	–	–
	28-Mar-12	57.83	1,243.48	–	–
	20-Aug-12	48.51	1,252.80	–	–
	19-Mar-13	55.98	1,245.33	–	–
26-Sep-13	–	–	–	–	
12-Mar-14	–	–	–	–	
23-Sep-14	55.70	1,245.61	–	–	
19-Mar-15	60.03	1,241.28	–	–	
22-Sep-15	55.90	1,245.41	–	–	
MRC-2 1312.11	1-Mar-93	–	1,236.27	5U	5U
	28-Feb-95	–	–	–	–
	1997 ¹	–	–	–	–
	1-Aug-99	–	–	–	–
	1-Jan-04	–	–	–	–
	23-Mar-05	81.82	1,230.29	–	–
	23-Aug-05	76.09	1,236.02	–	–

Table 5 (continued)

Depth-to-Water Measurements and TCE, and cis-DCE Concentrations
 TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MRC-2	21-Mar-06	–	–	–	–
	1-Aug-06	–	–	–	–
	21-Mar-07			0.5U [2]	0.5U [2]
	19-Sep-07	–	–	–	–
	18-Mar-08	74.59	1,237.52	0.5U	0.5U
	19-Sep-08	67.90	1,244.21	–	–
	23-Mar-09	75.90	1,236.21	0.5U	0.5U
	23-Sep-09	–	–	–	–
	16-Mar-10	77.38	1,234.73	1U	1U
	28-Sep-10	67.00	1,245.11	–	–
	21-Mar-11	73.20	1,238.91	0.5U	0.5U
	21-Sep-11	63.07	1,249.04	–	–
	28-Mar-12	72.42	1,239.69	0.5U	0.5U
	20-Aug-12	61.93	1,250.18	–	–
	19-Mar-13	71.36	1,240.75	–	–
	26-Sep-13	–	–	–	–
	12-Mar-14	–	–	–	–
	23-Sep-14	68.05	1,244.06	–	–
	19-Mar-15	75.27	1,236.84	–	–
22-Sep-15	69.02	1,243.09	–	–	
MTS-1 1361.02	1-Mar-93	–	1,257.88	7.90	5U
	28-Feb-95	–	–	–	–
	1997 ¹	–	–	–	–
	1-Aug-99	–	–	–	–
	1-Jan-04		1,261.96	5.60	0.5U
	23-Mar-05	104.71	1,256.31	7.60	0.5U
	23-Aug-05	95.98	1,265.04	4.60	0.5U
	21-Mar-06	100.98	1,260.04	6.30	0.5U
	1-Aug-06	93.82	1,267.20	7.50	0.5U
	21-Mar-07	99.62	1,261.40	6.80	0.5U
	19-Sep-07	94.08	1,266.94	5.90	0.5U
	18-Mar-08	99.36	1,261.66	5.56	0.5U
	19-Sep-08	95.47	1,265.55	4.88	0.5U
	23-Mar-09	100.72	1,260.30	6.36	0.5U
	23-Sep-09	94.90	1,266.12	6.55	0.5U
	16-Mar-10	99.92	1,261.10	4.90	1U
	28-Sep-10	91.30	1,269.72	4.10	0.5U
	21-Mar-11	96.35	1,264.67	4.90	0.5U
	21-Sep-11	91.44	1,269.58	4.30	0.5U
28-Mar-12	95.98	1,265.04	4.10	0.5U	
20-Aug-12	91.38	1,269.64	4.10	0.5U	
19-Mar-13	95.43	1,265.59	3.40	0.2U	

Table 5 (continued)

Depth-to-Water Measurements and TCE, and cis-DCE Concentrations
 TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTS-1 Duplicate	26-Sep-13	93.85	1,267.17	2.80	0.2U
	12-Mar-14	97.35	1,263.67	2.70	0.2U
	12-Mar-14	97.35	1,263.67	2.80	0.2U
	23-Sep-14	92.71	1,268.31	3.50	0.5U
	19-Mar-15	97.47	1,263.55	3.8	0.2U
	22-Sep-15	92.74	1,268.28	4.0	0.2U
MTS-2 1351.88 Duplicate	1-Mar-93	–	1,256.80	7.4	5U
	28-Feb-95	–	–	–	–
	1997 ¹	–	–	–	–
	1-Aug-99	–	–	–	–
	1-Jan-04	–	1,260.71	12.0	1U
	23-Mar-05	96.15	1,255.73	25.0	0.5U
	23-Aug-05	87.89	1,263.99	38.0	0.50
	21-Mar-06	92.33	1,259.55	28.0	0.70
	1-Aug-06	85.85	1,266.03	76.0	1.90
	21-Mar-07	90.96	1,260.92	32.0	0.60
	19-Sep-07	86.00	1,265.88	55.0	1.40
	18-Mar-08	90.68	1,261.20	18.6	0.50
	19-Sep-08	87.22	1,264.66	38.2	1.26
	19-Sep-08	87.22	1,264.66	37.3	1.21
	23-Mar-09	92.07	1,259.81	28.2	0.73
	23-Sep-09	86.65	1,265.23	43.2	1.01
	16-Mar-10	91.22	1,260.66	16.0	1U
	28-Sep-10	83.75	1,268.13	6.3	0.5U
	21-Mar-11	87.70	1,264.18	7.4	0.5U
	21-Sep-11	83.79	1,268.09	4.6	0.5U
	28-Mar-12	87.26	1,264.62	4.4	0.5U
	20-Aug-12	83.67	1,268.21	6.5	0.5U
	19-Mar-13	86.76	1,265.12	6.8	0.2U
	26-Sep-13	85.65	1,266.23	5.6	0.2U
	12-Mar-14	88.60	1,263.28	8.4	0.2U
	23-Sep-14	84.68	1,267.20	24	0.47J
	19-Mar-15	88.66	1,263.22	8	0.2J
22-Sep-15	89.81	1,262.07	11	0.22J	
MTS-3 1362.36	23-Mar-05	29.14	1,333.22	0.5U	0.5U
	23-Aug-05	27.73	1,334.63	–	–
	21-Mar-06	29.00	1,333.36	0.5U	0.5U
	1-Aug-06	26.86	1,335.50	–	–
	21-Mar-07	28.90	1,333.46	0.5U	0.5U
	19-Sep-07	26.43	1,335.93	–	–
	18-Mar-08	28.67	1,333.69	–	–
	19-Sep-08	26.62	1,335.74	–	–

Table 5 (continued)

Depth-to-Water Measurements and TCE, and cis-DCE Concentrations
 TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTS-3	23-Mar-09	28.70	1,333.66	–	–
	23-Sep-09	26.65	1,335.71	–	–
	16-Mar-10	28.74	1,333.62	–	–
	28-Sep-10	25.53	1,336.83	–	–
	21-Mar-11	27.58	1,334.78	–	–
	21-Sep-11	25.41	1,336.95	–	–
	28-Mar-12	27.60	1,334.76	–	–
	20-Aug-12	25.64	1,336.72	–	–
	19-Mar-13	27.87	1,334.49	–	–
	26-Sep-13	27.24	1,335.12	–	–
	12-Mar-14	28.50	1,333.86	–	–
	23-Sep-14	26.45	1,335.91	–	–
	19-Mar-15	28.03	1,334.33	–	–
22-Sep-15	27.76	1,334.60	–	–	
MTS-4 1331.88	23-Mar-05	89.70	1,242.18	15.0	0.5U
	23-Aug-05	86.14	1,245.74	9.4	0.5U
	21-Mar-06	88.02	1,243.86	13.0	0.5U
	1-Aug-06	81.32	1,250.56	12.0	0.5U
	21-Mar-07	86.15	1,245.73	13.0	0.5U
	19-Sep-07	81.25	1,250.63	8.2	0.5U
	18-Mar-08	85.51	1,246.37	10.1	0.5U
	19-Sep-08	83.80	1,248.08	7.6	0.5U
	23-Mar-09	87.72	1,244.16	0.52	0.5U
	23-Sep-09	83.47	1,248.41	10.7	0.5U
	16-Mar-10	87.32	1,244.56	8.9	1U
	28-Sep-10	75.75	1,256.13	6.4	0.5U
	21-Mar-11	82.13	1,249.75	7.7	0.5U
	21-Sep-11	73.72	1,258.16	6.0	0.5U
	28-Mar-12	81.19	1,250.69	7.3	0.5U
	20-Aug-12	72.60	1,259.28	5.3	0.5U
	19-Mar-13	79.52	1,252.36	6.2	0.2U
	26-Sep-13	78.85	1,253.03	4.9	0.23
	12-Mar-14	83.70	1,248.18	5.4	0.2U
	23-Sep-14	79.06	1,252.82	5.6	0.16J
Duplicate	23-Sep-14	79.06	1,252.82	6.0	0.18J
	19-Mar-15	83.35	1,248.53	8.0	0.25J
	22-Sep-15	78.42	1,253.46	5.6	0.18J
TVR-1 1320.17	1-Mar-93	–	1,246.81	35.00	5U
	28-Feb-95	–	–	–	–
	1997 ¹	–	–	–	–
	1-Aug-99	–	–	–	–
	1-Jan-04	–	1,245.50	12.0	0.5U

Table 5 (continued)

Depth-to-Water Measurements and TCE, and cis-DCE Concentrations
 TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TCE (µg/L)	cis-1,2-DCE (µg/L)
TVR-1 Duplicate	23-Mar-05	78.98	1,241.19	9.8	0.5U
	23-Aug-05	75.48	1,244.69	6.2	0.5U
	21-Mar-06	71.17	1,249.00	8.4	0.5U
	1-Aug-06	71.43	1,248.74	12.0	0.5U
	21-Mar-07	75.32	1,244.85	12.0	0.5U
	19-Sep-07	71.34	1,248.83	12.0	0.5U
	18-Mar-08	74.63	1,245.54	9.2	0.5U
	19-Sep-08	73.52	1,246.65	9.0	0.5U
	23-Mar-09	76.76	1,243.41	8.8	0.5U
	23-Mar-09	76.76	1,243.41	9.0	0.5U
	23-Sep-09	73.40	1,246.77	8.6	0.5U
	16-Mar-10	76.50	1,243.67	5.8	1U
	29-Sep-10	67.05	1,253.12	3.2	0.5U
	21-Mar-11	71.58	1,248.59	6.9	0.5U
	21-Sep-11	64.61	1,255.56	8.7	0.5U
	28-Mar-12	70.63	1,249.54	7.3	0.5U
	20-Aug-12	63.45	1,256.72	7.9	0.5U
	19-Mar-13	69.00	1,251.17	6.8	0.2U
	26-Sep-13	69.35	1,250.82	5.9	0.2U
	12-Mar-14	73.10	1,247.07	5.4	0.2U
22-Sep-14	70.45	1,249.72	4.7	0.5U	
19-Mar-15	72.60	1,247.57	4.5	0.2U	
22-Sep-15	69.70	1,250.47	3.8	0.2U	
TVR-2 1317.56	1-Mar-93	–	1,247.03	14.0	5U
	28-Feb-95	–	–	–	–
	1997 ¹	–	–	–	–
	1-Aug-99	–	–	–	–
	1-Jan-04	–	1,245.30	3.60	1U
	23-Mar-05	76.96	1,240.60	4.40	0.5U
	23-Aug-05	72.13	1,245.43	3.40	0.5U
	21-Mar-06	74.22	1,243.34	3.30	0.5U
	1-Aug-06	67.69	1,249.87	2.90	0.5U
	21-Mar-07	72.55	1,245.01	2.60	0.5U
	19-Sep-07	68.19	1,249.37	1.70	0.5U
	18-Mar-08	71.91	1,245.65	3.37	0.5U
	19-Sep-08	70.15	1,247.41	–	–
	23-Mar-09	74.10	1,243.46	3.54	0.5U
	23-Sep-09	70.50	1,247.06	–	–
	16-Mar-10	73.75	1,243.81	3.20	1U
	29-Sep-10	63.72	1,253.84	–	–
21-Mar-11	68.75	1,248.81	2.90	0.5U	
21-Sep-11	60.89	1,256.67	–	–	

Table 5 (continued)

Depth-to-Water Measurements and TCE, and cis-DCE Concentrations
 TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TCE (µg/L)	cis-1,2-DCE (µg/L)	
TVR-2	28-Mar-12	68.06	1,249.50	2.8	0.5U	
	20-Aug-12	59.84	1,257.72	–	–	
	19-Mar-13	66.52	1,251.04	2.6	0.2U	
	26-Sep-13	66.35	1,251.21	–	–	
	12-Mar-14	70.55	1,247.01	2.1	0.2U	
	22-Sep-14	67.58	1,249.98	–	–	
	19-Mar-15	70.34	1,247.22	2.6	0.2U	
	22-Sep-15	66.53	1,251.03	–	–	
TVR-3 1310.60	23-Mar-05	69.63	1,240.97	43.0	1.30	
	23-Aug-05	64.98	1,245.62	25.0	0.50	
	21-Mar-06	67.32	1,243.28	26.0	0.5U	
	1-Aug-06	60.93	1,249.67	17.0	0.5U	
	21-Mar-07	65.64	1,244.96	33.0	0.5U	
	19-Sep-07	61.53	1,249.07	15.0	0.5U	
	18-Mar-08	64.98	1,245.62	21.0	0.5U	
	19-Sep-08	63.50	1,247.10	10.0	0.5U	
	23-Mar-09	67.11	1,243.49	14.8	0.5U	
	23-Sep-09	63.87	1,246.73	14.3	0.5U	
	Duplicate	23-Sep-09	63.87	1,246.73	14.0	0.5U
		16-Mar-10	66.83	1,243.77	17.0	1U
		29-Sep-10	57.00	1,253.60	11.0	0.5U
		21-Mar-11	61.80	1,248.80	14.0	0.5U
		21-Sep-11	54.07	1,256.53	10.0	0.5U
		28-Mar-12	61.20	1,249.40	12.0	0.5U
		20-Aug-12	53.12	1,257.48	8.0	0.5U
		19-Mar-13	59.52	1,251.08	9.2	0.2U
		26-Sep-13	59.65	1,250.95	6.6	0.2U
		12-Mar-14	63.50	1,247.10	8.2	0.2U
22-Sep-14		60.90	1,249.70	6.9	0.10J	
19-Mar-15		63.31	1,247.29	7.7	0.17J	
22-Sep-15	59.75	1,250.85	8.4	0.12J		
TVR-5 1302.04	21-Mar-06	60.48	1,241.56	1.6	0.5U	
	1-Aug-06	51.50	1,250.54	1.0	0.5U	
	21-Mar-07	58.53	1,243.51	1.2	0.5U	
	19-Sep-07	53.35	1,248.69	1.1	0.5U	
	18-Mar-08	57.81	1,244.23	1.0	0.5U	
	19-Sep-08	54.31	1,247.73	1.2	0.5U	
	23-Mar-09	59.85	1,242.19	1.2	0.5U	
	23-Sep-09	55.81	1,246.23	16.0	0.5U	
	16-Mar-10	59.91	1,242.13	3.5	0.5U	
	Duplicate	16-Mar-10	59.91	1,242.13	3.5	0.5U
		28-Sep-10	48.53	1,253.51	11.0	0.5U

Table 5 (continued)

Depth-to-Water Measurements and TCE, and cis-DCE Concentrations
 TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TCE (µg/L)	cis-1,2-DCE (µg/L)	
Duplicate	28-Sep-10	48.53	1,253.51	11.0	0.5U	
	21-Mar-11	54.90	1,247.14	2.4	0.5U	
Duplicate	21-Mar-11	54.90	1,247.14	2.4	0.5U	
	21-Sep-11	44.95	1,257.09	0.7	0.5U	
Duplicate	21-Sep-11	44.95	1,257.09	0.5	0.5U	
	28-Mar-12	54.25	1,247.79	0.7	0.5U	
Duplicate	28-Mar-12	54.25	1,247.79	0.7	0.5U	
	20-Aug-12	44.17	1,257.87	0.5U	0.5U	
	19-Mar-13	52.58	1,249.46	0.4	0.2U	
	26-Sep-13	51.60	1,250.44	3.7	0.2U	
	12-Mar-14	56.40	1,245.64	0.4	0.2U	
	22-Sep-14	52.52	1,249.52	6.6	0.5U	
	19-Mar-15	56.51	1,245.53	0.8	0.2U	
	22-Sep-15	51.05	1,250.99	4.4	0.2U	
TVR-6 1310.06	21-Mar-06	67.03	1,243.03	6.8	0.5U	
	1-Aug-06	60.88	1,249.18	7.7	0.5U	
	21-Mar-07	65.19	1,244.87	5.0	0.5U	
	19-Sep-07	61.50	1,248.56	2.8	0.5U	
	18-Mar-08	64.98	1,245.08	2.9	0.5U	
	19-Sep-08	63.39	1,246.67	1.7	0.5U	
	23-Mar-09	66.68	1,243.38	2.2	0.5U	
	23-Sep-09	63.62	1,246.44	10.6	0.5U	
	16-Mar-10	66.41	1,243.65	4.6	1U	
	29-Sep-10	57.03	1,253.03	13.0	0.5U	
	21-Mar-11	61.48	1,248.58	11.0	0.5U	
	21-Sep-11	54.01	1,256.05	5.2	0.5U	
	28-Mar-12	60.80	1,249.26	4.2	0.5U	
	20-Aug-12	53.26	1,256.80	2.9	0.5U	
	19-Mar-13	59.07	1,250.99	5.4	0.2U	
	25-Sep-13	58.65	1,251.41	10	0.2U	
	12-Mar-14	62.80	1,247.26	8.8	0.2U	
	23-Sep-14	59.94	1,250.12	11	0.090J	
19-Mar-15	62.61	1,247.45	8	0.2U		
22-Sep-15	59.50	1,250.56	9.9	0.2U		
TVR-7 1310.95	21-Mar-06	67.89	1,243.06	38.0	1.30	
	1-Aug-06	61.82	1,249.13	43.0	1.00	
	21-Mar-07	66.10	1,244.85	42.0	0.80	
	19-Sep-07	62.31	1,248.64	32.0	0.60	
	18-Mar-08	65.45	1,245.50	28.3	0.77	
	Duplicate	18-Mar-08	65.45	1,245.50	29.0	0.80
		19-Sep-08	64.30	1,246.65	20.7	0.5U
23-Mar-09		67.51	1,243.44	21.6	0.56	

Table 5 (continued)

Depth-to-Water Measurements and TCE, and cis-DCE Concentrations
 TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TCE (µg/L)	cis-1,2-DCE (µg/L)	
TVR-7	23-Sep-09	64.39	1,246.56	26.6	0.5U	
	16-Mar-10	67.29	1,243.66	20.0	1U	
	29-Sep-10	57.85	1,253.10	21.0	0.5U	
	21-Mar-11	62.35	1,248.60	21.0	0.5U	
	21-Sep-11	55.05	1,255.90	18.0	0.5U	
	28-Mar-12	61.66	1,249.29	15.0	0.5U	
	20-Aug-12	54.10	1,256.85	13.0	0.5U	
	19-Mar-13	59.97	1,250.98	0.4	0.2U	
	26-Sep-13	60.15	1,250.80	9.8	0.2U	
	12-Mar-14	63.75	1,247.20	6.2	0.2U	
	23-Sep-14	67.50	1,243.45	12.0	0.5U	
	Duplicate	19-Mar-15	63.60	1,247.35	10.0	0.2U
		22-Sep-15	60.45	1,250.50	10.0	0.2U
Marie Well	1-Mar-93	–	–	1.20	5U	
PAIC Well	1-Mar-93	–	–	5U	5U	
	28-Feb-95	–	–	0.1U	0.1U	
	1997 ¹	–	–	0.5U	0.5U	
PAIC Well	1-Aug-99	–	–	–	–	
	1-Jan-04	–	–	–	–	
	23-Mar-05	–	–	–	–	
	23-Aug-05	–	–	–	–	
	21-Mar-06	–	–	0.5U	0.5U	
	1-Aug-06	–	–	–	–	
	21-Mar-07	–	–	0.5U	0.5U	
	19-Sep-07	–	–	0.5U	0.5U	
	18-Mar-08	–	–	0.5U	0.5U	
	19-Sep-08	–	–	0.5U	0.5U	
	23-Mar-09	–	–	0.5U	0.5U	
	23-Sep-09	–	–	0.5U	0.5U	
	15-Mar-10	–	–	1U	1U	
	29-Sep-10	–	–	0.5U	0.5U	
	21-Mar-11	–	–	0.5U	0.5U	
	22-Sep-11	–	–	0.5U	0.5U	
	28-Mar-12	–	–	0.5U	0.5U	
	20-Aug-12	–	–	0.5U	0.5U	
	20-Mar-13	–	–	0.2U	0.2U	
	25-Sep-13	–	–	0.2U	0.2U	
	12-Mar-14	–	–	0.2U	0.2U	
	23-Sep-14	–	–	0.5U	0.5U	
	19-Mar-15	–	–	0.1U	0.2U	
22-Sep-15	–	–	0.1U	0.2U		

Table 5 (continued)

Depth-to-Water Measurements and TCE, and cis-DCE Concentrations
 TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC	Date	DTW (ft/bgs)	Groundwater Elevation (ft/amsl)	TCE (µg/L)	cis-1,2-DCE (µg/L)
Pomona Well	1-Mar-91	–	–	ND	ND
	1-Aug-92	–	–	0.5U	0.5U
	1-Mar-93	–	–	5U	5U
	28-Feb-95	–	–	–	–
	1997 ¹	–	–	ND	ND
	1-Aug-99	–	–	0.5U	0.5U
	1-Jan-04	–	–	–	–
	23-Mar-05	–	–	–	–
	23-Aug-05	–	–	–	–
	21-Mar-06	–	–	0.5U	0.5U
	1-Aug-06	–	–	0.5U	0.5U
	21-Mar-07	–	–	0.5U	0.5U
	19-Sep-07	–	–	0.5U	0.5U
	18-Mar-08	–	–	–	–
	19-Sep-08	–	–	0.5U	0.5U
	23-Mar-09	–	–	0.5U	0.5U
	23-Sep-09	–	–	0.5U	0.5U
	16-Mar-10	–	–	1U	1U
	29-Sep-10	–	–	0.5U	0.5U
Pomona Well	21-Mar-11	–	–	0.5U	0.5U
	21-Sep-11	–	–	0.5U	0.5U
	28-Mar-12	–	–	0.5U	0.5U
	20-Aug-12	–	–	0.5U	0.5U
	19-Mar-13	–	–	0.2U	0.2U
	26-Sep-13	–	–	0.2U	0.2U
	12-Mar-14	–	–	0.2U	0.2U
	23-Sep-14	–	–	0.5U	0.5U
	19-Mar-15	–	–	0.1U	0.2U
22-Sep-15	–	–	0.1U	0.2U	
MTCA Method A Cleanup Level		–	–	5.0	–
MTCA Method B Cleanup Level		–	–	–	16

Notes:

¹ 1997 Sampling Event

BOLD – analyte detected above laboratory practical quantitation limit (PQL).

SHADE – Analyte detected above Model Toxics Control Act (MTCA) cleanup level.

– = not applicable, not sampled

Abbreviations and Acronyms:

µg/L – micrograms per liter

cis-1,2-DCE – cis-1,2-dichloroethene

DTW – depth-to-water

J – estimated concentration

ND – non-detect

TCE – trichloroethylene

TOC – top-of-casing elevation

U – Analyte not detected above laboratory PQL.

Table 6
FTP-1 and TVR/Old MATES Statistics
 Yakima Training Center, Washington

Site	Fire Training Pit			TVR/Old MATES															
Well ID	FTP-1			815-2	MMP-1	MMP-2	MRC-2	MTS-1	MTS-2	MTS-3	MTS-4	TVR-1	TVR-2	TVR-3	TVR-5	TVR-6	TVR-7	PAIC Well	Pomona Well
Compound	TPH-G	TPH-D	TPH-O	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE
Descriptive Statistics																			
First Sample Date	30-Jan-04			21-Sep-06	1-Mar-93	1-Mar-93	1-Mar-93	1-Mar-93	1-Mar-93	23-Mar-05	23-Mar-05	1-Mar-93	1-Mar-93	23-Mar-05	21-Mar-06	21-Mar-06	21-Mar-06	1-Mar-93	1-Mar-91
Last Sample Date	22-Sep-15			22-Sep-15	19-Mar-13	21-Mar-07	19-Mar-13	22-Sep-15	22-Sep-15	22-Sep-14	22-Sep-15	22-Sep-15	12-Mar-14	22-Sep-15	22-Sep-15	22-Sep-15	22-Sep-15	22-Sep-15	22-Sep-15
Number of Samples	23			20	11	5	8	23	23	3	22	23	15	22	20	20	20	22	24
Number of NDs	1	0	7	1	11	5	8	0	0	3	0	0	0	0	0	0	0	20	22
Sample Mean	3,697.40	2,627.30	2,908.60	1.40	-	-	-	4.97	21.88	-	8.05	7.78	3.00	15.37	2.97	6.68	20.43	-	-
Standard Deviation	4,956.20	21,614.60	3,702.90	0.82	-	-	-	1.42	18.61	-	3.30	2.67	0.66	9.28	4.02	3.46	11.73	-	-
Minimum Concentration	500	4,350	93	0.45	-	-	-	2.7	4.4	-	0.52	3.2	1.7	6.6	0.4	1.71	0.38	-	-
Maximum Concentration	25,100	110,000	13,000	3.3	-	-	-	7.6	76	-	15	12	4.4	43	16	13	43	-	-
Date*	22-Aug-05	20-Mar-13	20-Aug-12	1-Aug-06	-	-	-	1-Mar-93	1-Aug-06	-	23-Mar-05	1-Mar-93	1-Mar-93	23-Mar-05	23-Sep-09	29-Sep-10	1-Aug-06	-	-
Distribution of Data																			
P Value	<0.0001	<0.0001	0.0002	0.0060	-	-	-	0.4706	0.0025	-	0.5047	0.2800	0.9062	0.0011	<0.0001	0.2418	0.4321	-	-
Normally Distributed?	No	No	No	No	-	-	-	Yes	No	-	Yes	Yes	Yes	No	No	Yes	Yes	-	-
Log P Value	0.244	0.561	0.007	0.581	-	-	-	-	0.181	-	-	-	-	0.268	0.141	-	-	-	-
Log Normally Distributed?	Yes	Yes	No	Yes	-	-	-	-	Yes	-	-	-	-	Yes	Yes	-	-	-	-
Trend Analysis																			
Linear Regression P Value	0.1750	0.3462	-	0.0003	-	-	-	<0.0001	0.0016	-	0.0008	<0.0001	0.0359	<0.0001	0.9102	0.0746	<0.0001	-	-
Slope	-0.0002	0.00012	-	-0.0004	-	-	-	-0.0009	-0.0004	-	-0.0018	-0.0016	-0.0003	-0.0004	-0.00003	0.0013	-0.0098	-	-
Trend**	Down	Up	-	Down	-	-	-	Down	Down	-	Down	Down	Down	Down	Up	Up	Down	-	-
Statistically Significant?	No	No	-	Yes	-	-	-	Yes	Yes	-	Yes	Yes	No	Yes	No	No	Yes	-	-
Tau Statistic	-	-	0.553	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Two Tailed P Value	-	-	0.0003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trend	-	-	Up	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistically Significant?	-	-	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

- = not applicable
- * = Date sample with highest concentration of TCE was collected from monitoring well.
- ** = Trend for entire dataset not taking discontinuities into consideration.

Abbreviations and Acronyms:

- TPH-G – gasoline-range total petroleum hydrocarbons in micrograms per liter
- TPH-D – diesel-range total petroleum hydrocarbons in micrograms per liter
- TPH-O – heavy oil-range total petroleum hydrocarbons in micrograms per liter
- TCE – trichloroethylene in micrograms per liter
- ND – non-detects

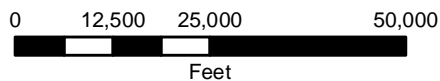
This page intentionally left blank.

FIGURES

This page intentionally left blank.



N

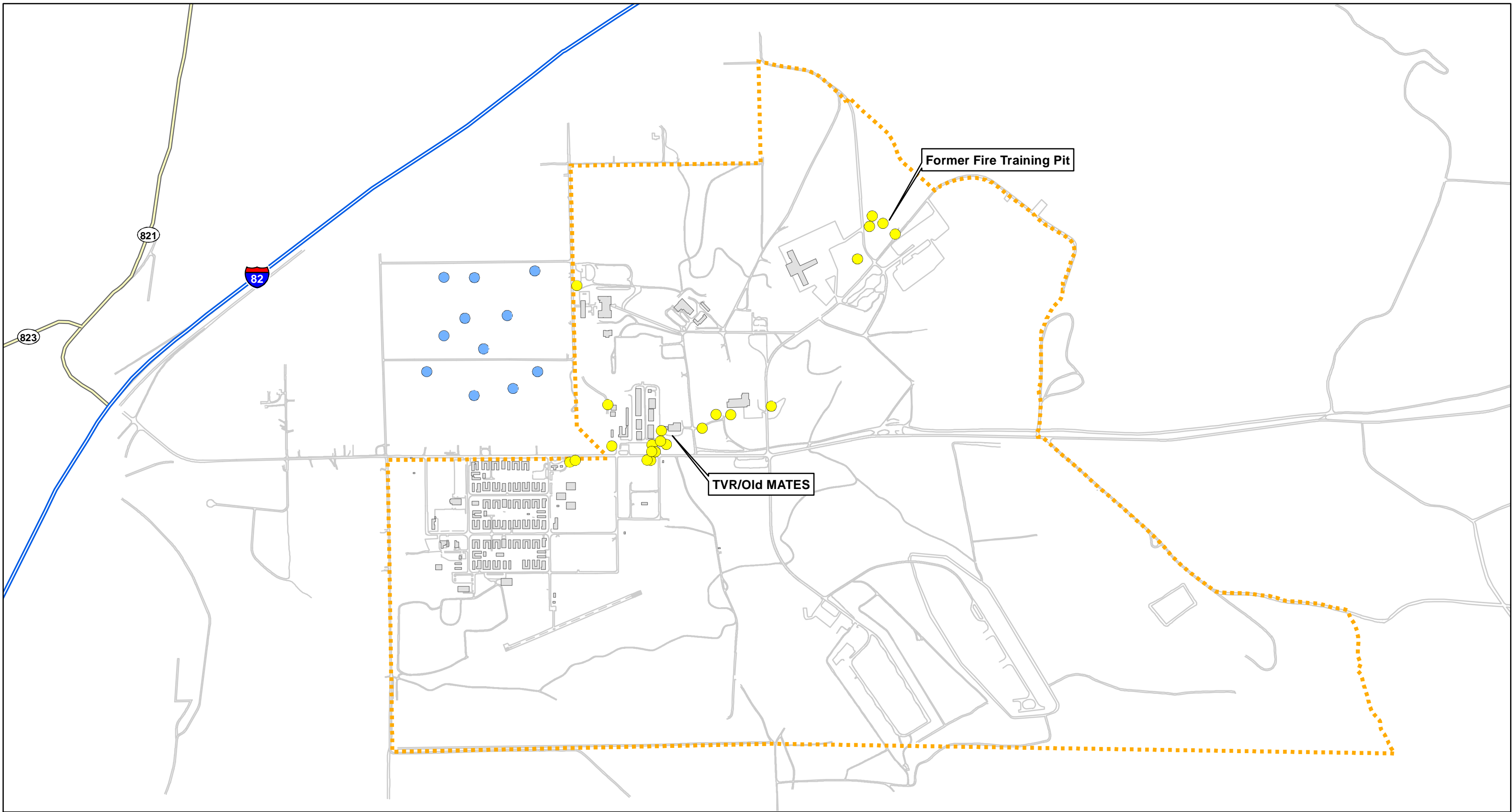


MAP DATA:
COORDINATE SYSTEM: UTM, Zone 10
HORIZONTAL DATUM: WGS 84

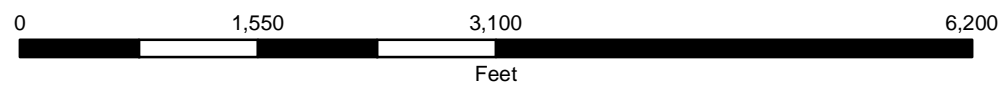
JBLM
Yakima Training Center
Location Map

Figure

1



- Monitoring Well
- Residential Drinking Water Wells
- - - Cantonment Boundary
- Building

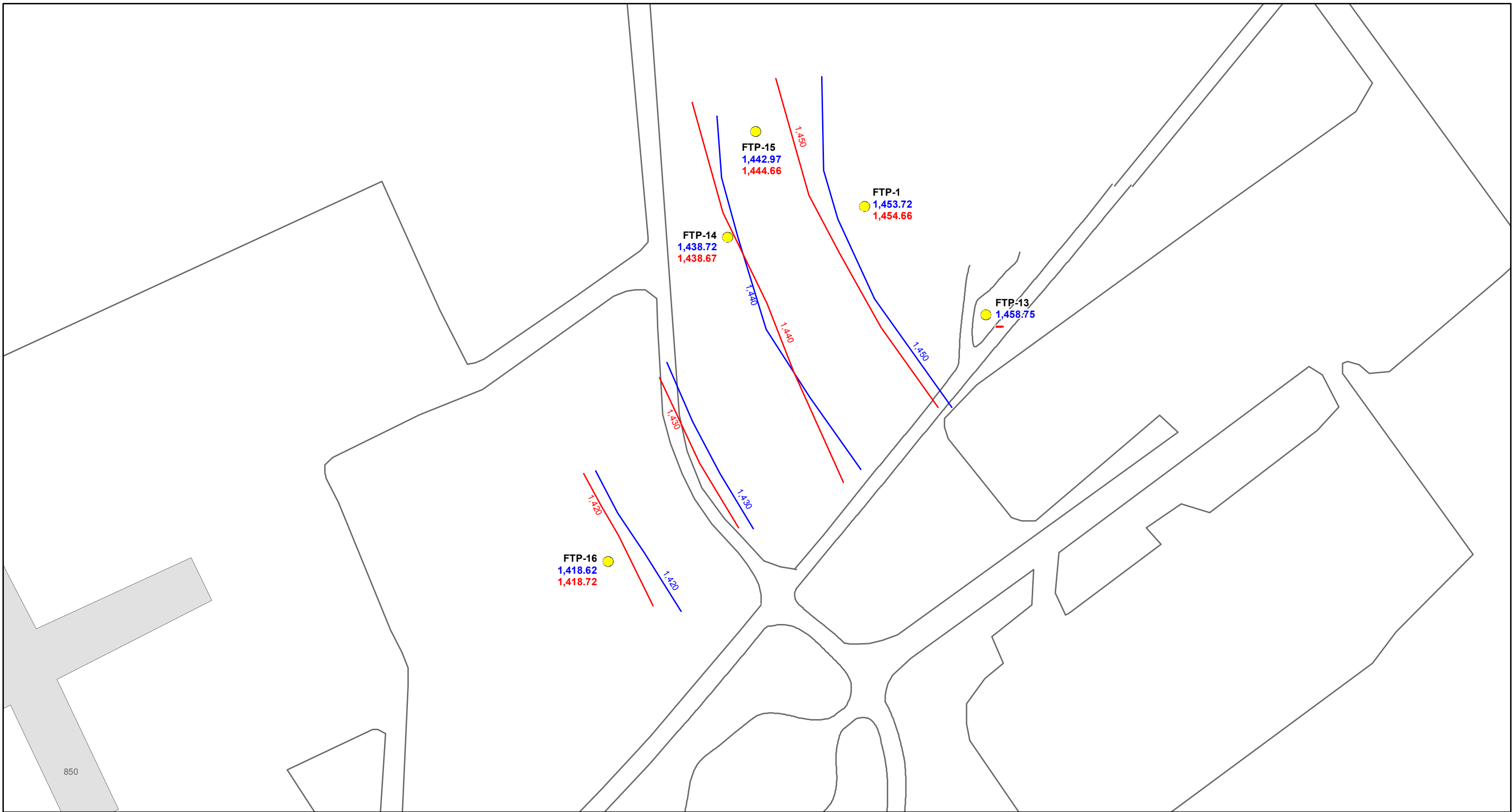






1 inch = 1,250 feet


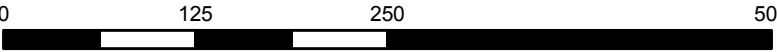
MAP DATA:
 COORDINATE SYSTEM: UTM, Zone 10
 HORIZONTAL DATUM: WGS 84

PROJECT LOCATION MAP

Figure
2



 Monitoring Well	Labels
 Contours - Spring	Well ID: FTP-1
 Contours - Fall	Spring WL (Ft/AMSL): 1,453.72
 Building	Fall WL (Ft/AMSL): 1,454.66
	Not Measured: - or -

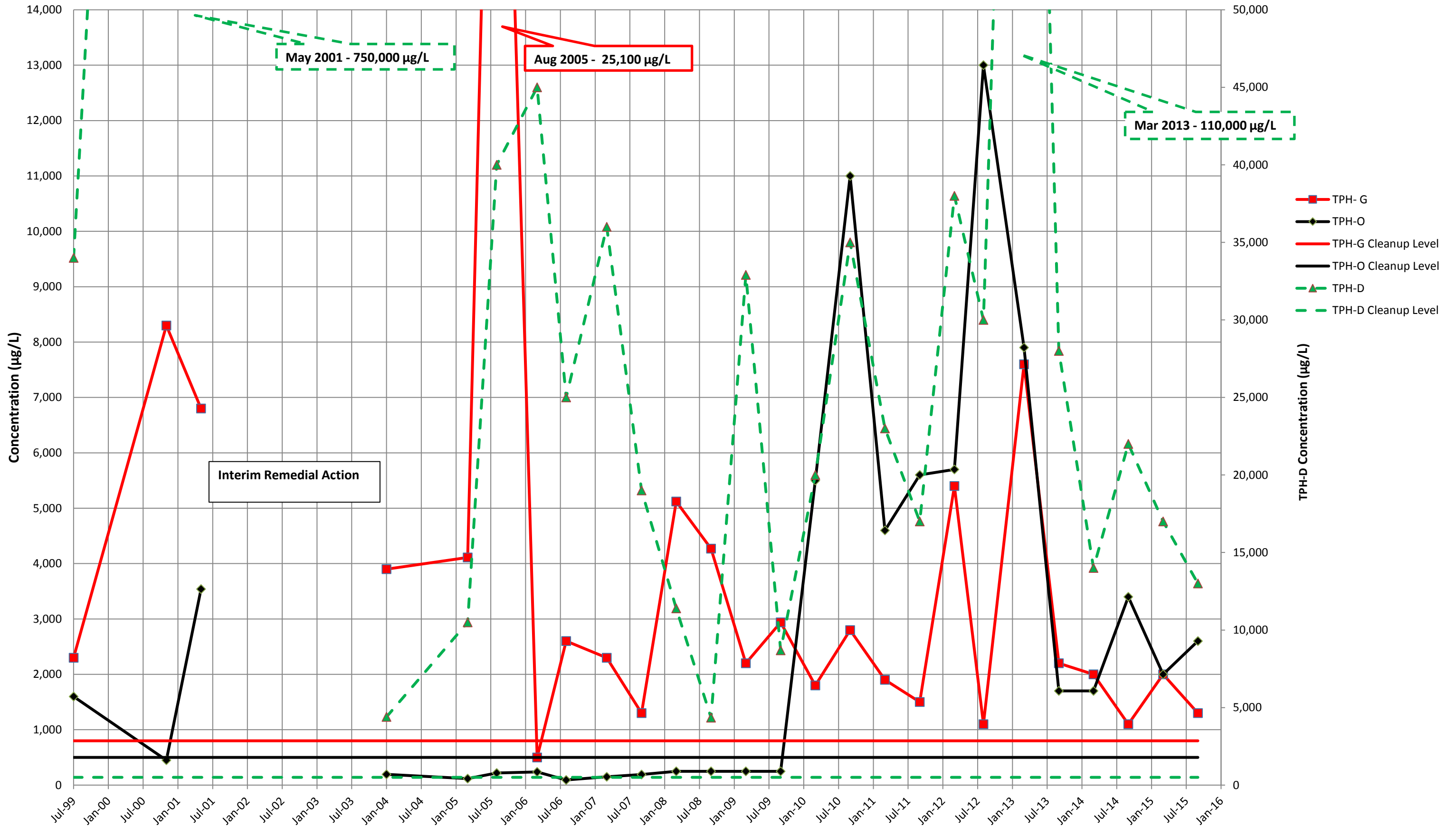
	 0 125 250 500 Feet 1 inch = 125 feet
MAP DATA: COORDINATE SYSTEM: UTM, Zone 10 HORIZONTAL DATUM: WGS 84	

FORMER FIRE TRAINING PIT
 SPRING / FALL
 WATER TABLE CONTOURS

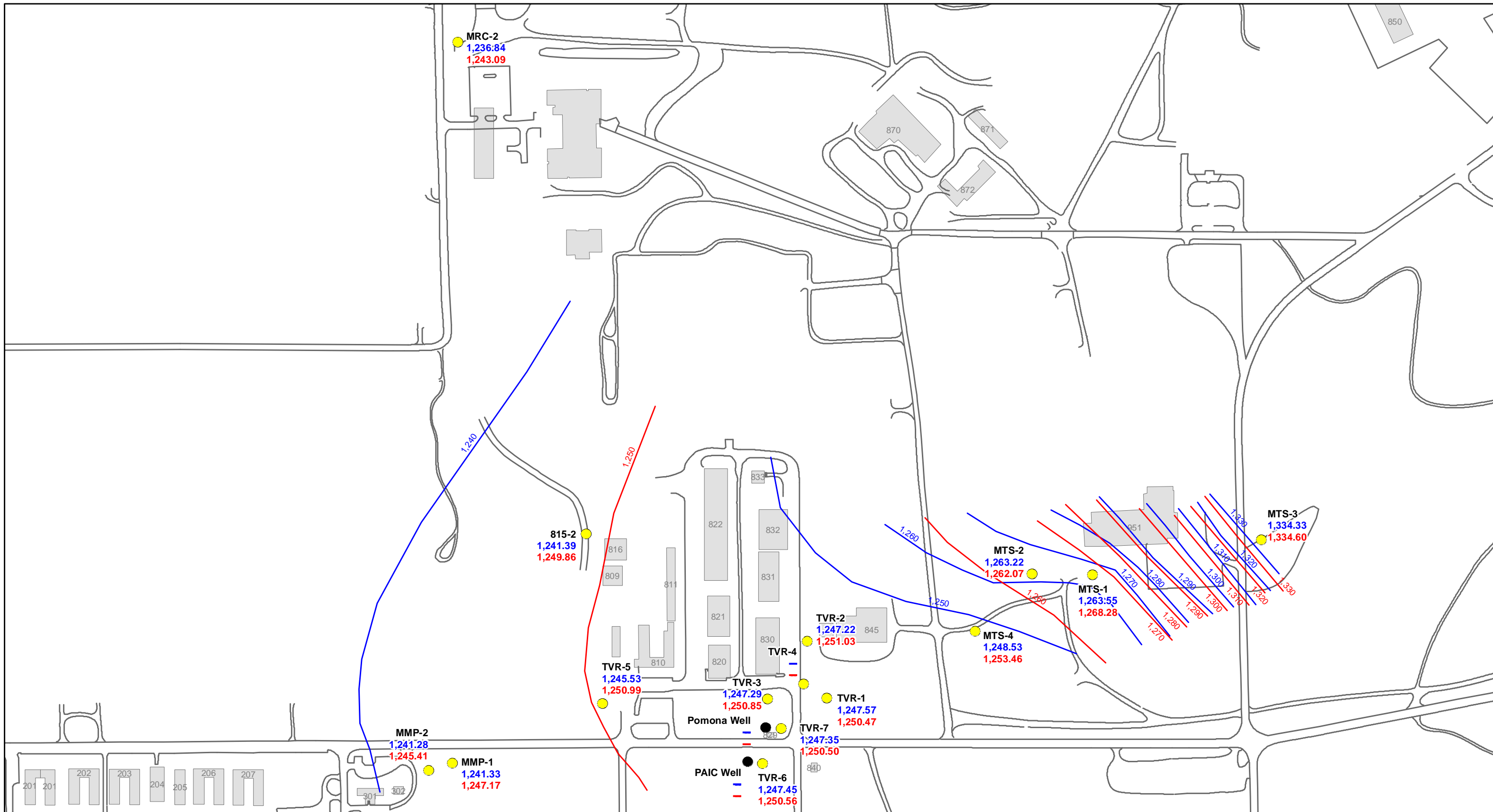
2015

Figure
3

Figure 4 - Change in Total Petroleum Hydrocarbon Concentrations Over Time in Well FTP 1
 Fire Training Pit, Yakima Training Center, Washington



Solid Line - Primary Axis
 Dashed Line - Secondary Axis



● Monitoring Well
● Production Well
— Contours - Spring
— Contours - Fall
 Building

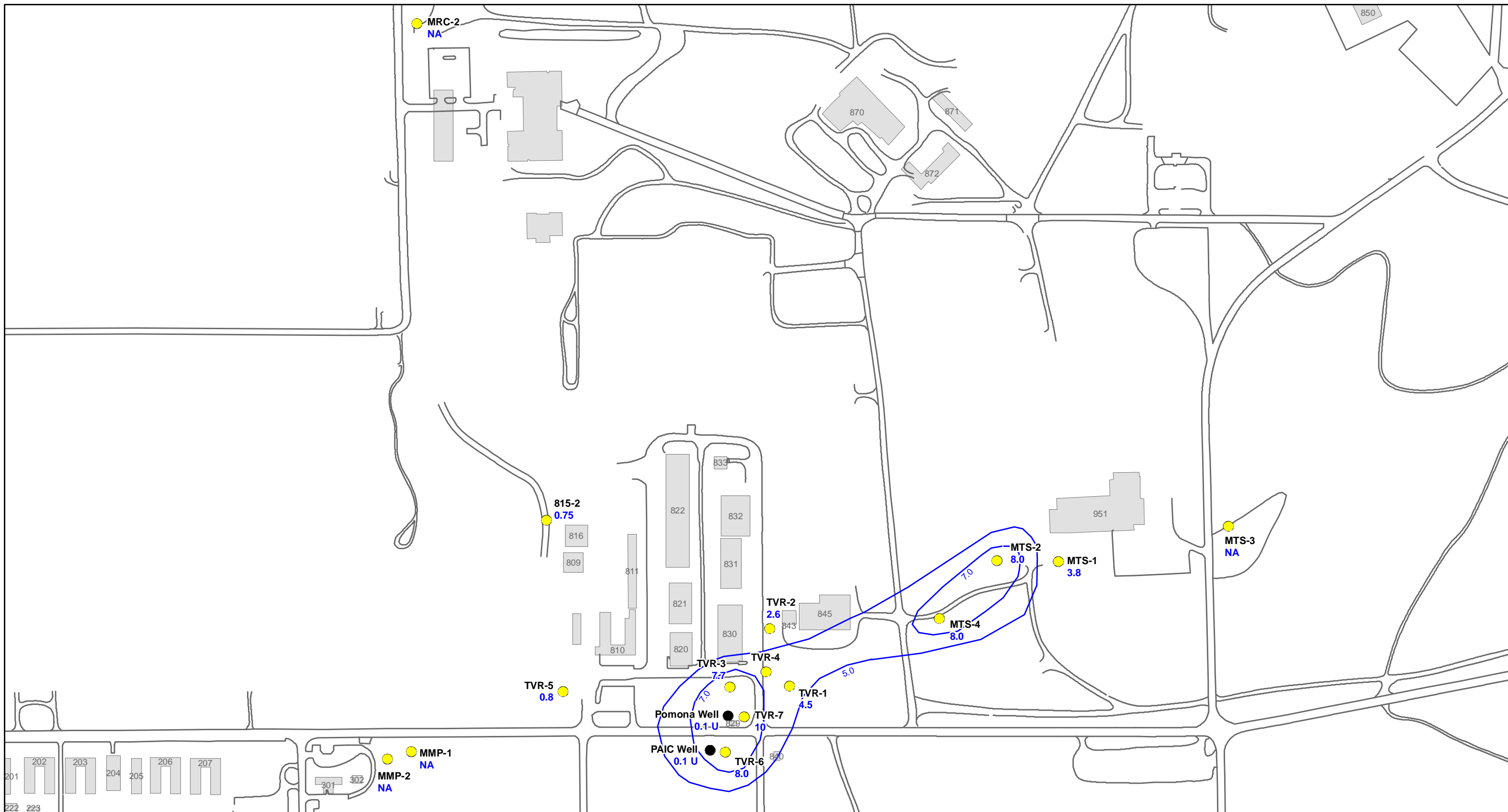
Labels
 Well ID: 815-2
 Spring WL (Ft/AMSL): 1,241.39
 Fall WL (Ft/AMSL): 1,249.86
 Not Measured: — or —

N


 0 375 750 1,500
 Feet
 1 inch = 300 feet
MAP DATA:
 COORDINATE SYSTEM: UTM, Zone 10
 HORIZONTAL DATUM: WGS 84

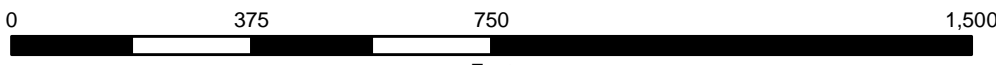
TVR/Old MATES AREA
 SPRING / FALL
 WATER TABLE CONTOURS
2015

Figure
5



<ul style="list-style-type: none"> ● Monitoring Well ● Production Well — Contours - Spring Building 	<p><u>Labels</u></p> <p>Well ID: 815-2</p> <p>Spring TCE (ug/L): 0.75</p> <p>Not Analyzed: NA</p>
--	---





0 375 750 1,500

Feet

1 inch = 300 feet

MAP DATA:

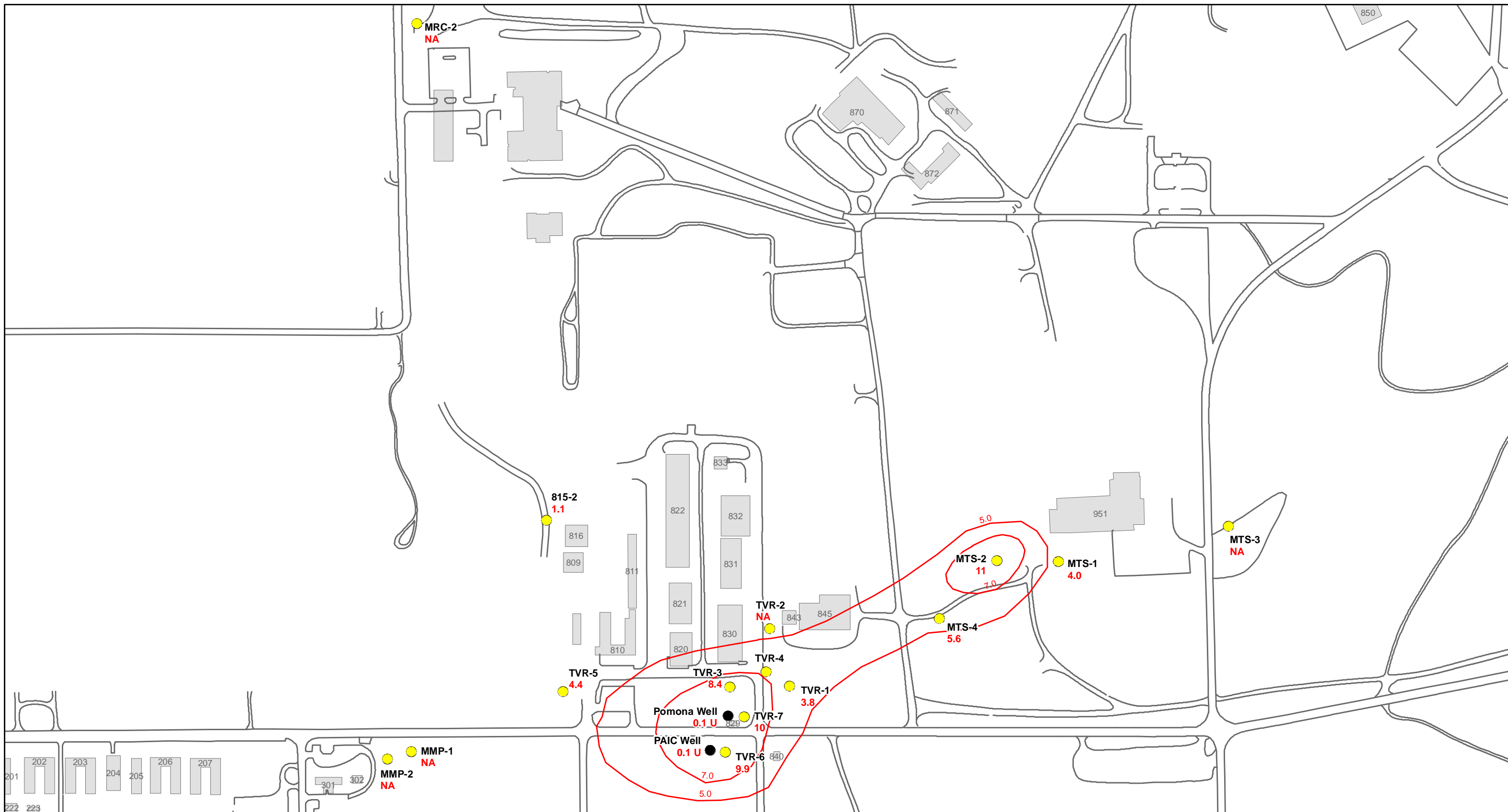
COORDINATE SYSTEM: UTM, Zone 10

HORIZONTAL DATUM: WGS 84


TVR/Old MATES AREA
SPRING TCE
CONCENTRATION CONTOURS

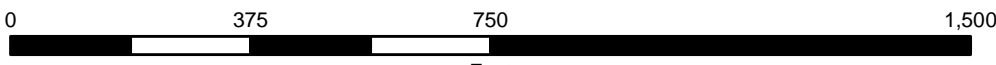
2015

Figure
6



<ul style="list-style-type: none"> ● Monitoring Well ● Production Well — Contours - Fall Building 	<p><u>Labels</u></p> <p>Well ID: 815-2</p> <p>FALL TCE (ug/L): 1.1</p> <p>Not Analyzed: NA</p>
---	--





0 375 750 1,500

Feet

1 inch = 300 feet

MAP DATA:

COORDINATE SYSTEM: UTM, Zone 10

HORIZONTAL DATUM: WGS 84

TVR/Old MATES AREA
FALL TCE
CONCENTRATION CONTOURS

2015

Figure
7

APPENDIX A
LAND USE CONTROL MONITORING CHECKLIST

This page intentionally left blank.

INSTRUCTIONS FOR: YTC LUC Monitoring Checklist

1. Conduct monitoring on annual basis, unless JBLM ERP/CCP reduces the routine monitoring frequency in the future with the concurrence of Ecology.
2. Conduct field inspection by visiting each of the 9 sites covered by this plan. Use Figure 1 from this Plan to identify location of each site/LUC. As installation conditions change over the years, if more detailed maps would be helpful for inspecting the 9 sites, use the GIS data layer in the JBLM PW GIS lab to generate new maps as needed.
3. Answer **Questions 1 – 14** by circling “Yes” or “No” on the checklist. This inspection is intended to identify obvious major changes in site conditions. For instance, in order to answer Questions, 5, and 7, it is not necessary to inspect every square foot of ground looking for holes. Likewise, to answer 8 and 11, it is not necessary to look in every building for the presence of a water well. Rather, a quick walk through or drive by the sites should be sufficient to answer the questions.
4. If any of the answers to Questions 1 – 4 are “Yes”, circle “Yes” on **Question 15** and add explanatory comments on a separate page. If there is any other any substantial change in land use that warrants noting even though the answers to Questions 1 – 14 are all “N ”, circle “Yes” on Question 15 and add comments on a separate page. .
5. Write date(s) field inspection on Question 16. o
6. Conduct interviews by calling or visiting person holding position associated with each question. Ask the question as stated on the checklist. Answer **Questions 17 -32** by circling “Yes” or “No” on the checklist. The current people holding these positions are shown below.

Position	Name	Phone Number
JBLM PW GIS Lab	Teresa Hansen	(253) 967-8029
YTC PW GIS	David Theirl	(509) 577-3739
JBLM Master Planner	Gary Stedman	(253) 966-1790
YTC Natural Resources Program Mgr.	Pete Nissen	(509) 577-3500
YTC Staff Engineer	Phil Fischer	(509) 577-3810
YTC Cultural Resources Program Manager	Randy Korgel	(509) 577-3535

7. If any of the answers to Questions 7-21, 24-25, 27-28, 31-32 are “No” or if any of the answers to Questions –22, 23, 26, 29, 30 are “Yes”, circle “Yes” on **Question 33** and add explanatory comments on backside of checklist. If you have any other comments to add based on interviews, circle “Yes” on Question 38 and explain on backside of checklist.
8. If it is discovered during interview process that LUC processes have changed, circle “Yes” on **Question 34** and explain how process has changed on backside of checklist.
9. Write date(s) of interviews on **Question 35**.
10. Sign and date checklist. Scan original checklist for placement in JBLM ERP document database and send copy of checklist to Ecology HTRW Program Site Manager.

YTC LUC MONITORING CHECKLIST

A. FIELD INSPECTION

Site	Question	Answer
F. Pesticide Handling Area	1. Any family housing within site boundary?	Yes / <input checked="" type="radio"/> No
Former ASP Burn Pits	2. Any family housing within site boundary?	Yes / <input checked="" type="radio"/> No
	3. Any obvious recent construction/excavation in site boundary?	Yes / <input checked="" type="radio"/> No
1969 – 1994 Landfill	4. Any family housing within landfill boundary?	Yes / <input checked="" type="radio"/> No
	5. Any obvious recent construction/excavation within landfill?	Yes / <input checked="" type="radio"/> No
1954 – 1968 Landfill/Burn Pits	6. Any family housing within landfill boundary?	Yes / <input checked="" type="radio"/> No
	7. Any obvious recent construction/excavation within landfill?	Yes / <input checked="" type="radio"/> No
Former Fire Training Pit	8. Any apparent new drinking water wells within site boundary?	Yes / <input checked="" type="radio"/> No
Building 218	9. Has Building 218 been torn down?	Yes / <input checked="" type="radio"/> No
Bldg 301 Former UST Site	10. Building 301 been torn down?	Yes / <input checked="" type="radio"/> No
TVR/Old MATES	11. Any apparent new drinking water wells within 1000 ft of site boundary?	Yes / <input checked="" type="radio"/> No
	12. Building 843 been torn down?	Yes / <input checked="" type="radio"/> No
Centralized Fueling Point	13. Has hard stand been penetrated?	Yes / <input checked="" type="radio"/> No
	14. Any obvious excavation within boundaries of the hard stand?	Yes / <input checked="" type="radio"/> No

15. Any comments (required for “Yes” answers from Field Inspection)? YES or NO If yes, describe on back.

16. Inspection Date: 12-2-15

B. INTERVIEWS

Position	Name	Question	Answer
JBLM PW GIS Lab	Teresa Hansen	17. Are you still storing LUC data layer in GIS?	<input checked="" type="radio"/> Yes / No
		18. Is LUC data layer still available to GIS users?	<input checked="" type="radio"/> Yes / No
YTC PW GIS	David Theirl	19. Do you still have LUC data layer in GIS?	<input checked="" type="radio"/> Yes / No
JBLM Master Planner	Jean Heimovich	20. Do you still have access to LUC data when you need it?	<input checked="" type="radio"/> Yes / No
		21. Are you still using the LUC data for a Master Plan overlay?	<input checked="" type="radio"/> Yes / No
		22. Any plans for future family housing at YTC?	Yes / <input checked="" type="radio"/> No
		23. Any plans for property conveyance in YTC Cantonment Area?	Yes / <input checked="" type="radio"/> No
YTC Natural Resources Program Mgr	Pete Nissen	24. Do you still have access to LUC data when you need it?	<input checked="" type="radio"/> Yes / No
		25. Are you still using the LUC data as environmental review overlay?	<input checked="" type="radio"/> Yes / No
		26. Any plans to take down Buildings 218, 301, or 843?	Yes / <input checked="" type="radio"/> No
YTC Staff Engineer	Margaret Taaffe	27. Do you still have access to LUC data when you need it?	<input checked="" type="radio"/> Yes / No
		28. Are you still aware that relevant LUC data needs to (be added / remain) in future SWSMP updates?	<input checked="" type="radio"/> Yes / No
		29. Any plans for new drinking water wells in Cantonment Water System?	Yes / <input checked="" type="radio"/> No
		30. Any plans for property conveyance in YTC Cantonment Area?	Yes / <input checked="" type="radio"/> No
YTC Cultural Resources PM	Randy Korge	31. Do you still have access to LUC data when you need it?	<input checked="" type="radio"/> Yes / No
		32. Are you still using the LUC data for a digging permit overlay?	<input checked="" type="radio"/> Yes / No

33. Any comments (required for any “No” answer from Interview Questions 17-21, 24-25, 27-28, 31-32 OR for any “Yes” answer from Questions 22, 23, 26, 29, 30)? YES or NO If yes, describe on back.

34. Any changes noted about how LUC mechanisms are executed? YES or NO If yes, describe on separate page.

35. Interview Dates: 12-3-15 to 12-21-15

C. CERTIFICATION

Based on this monitoring, LUC mechanisms appear to be working and achieving LUCs.



Signature

Mark Cutler

Print Name

12-21-15

Date

APPENDIX B
COMPLETED FIELD FORMS AND
LABORATORY ANALYTICAL REPORTS

This page intentionally left blank.

Tetra Tech, Inc. Data Review Report

Project Name: JBLM/Yakima Training Center
Project Number: K1502961
Collection Date: 03/19/15 and 03/20/15
Laboratory: ALS Environmental, Kelso, WA

DATA REVIEW

- Seventeen water samples were collected and received at the laboratory on 3/23/15. Of these, fourteen were analyzed for volatile organic compounds by EPA method SW-846 8260C, one was analyzed for semi-volatile organic compounds by EPA method SW-846 8270D, and four were analyzed for diesel range and gasoline range organics by methods NWTPH-DX and NWTPH-GX respectively. One trip blank was also collected to assess potential contamination for 8260C and for TPH during sample transport. A review was performed of the following parameters as applicable:
 - Chain-of-custody (C-O-C) documentation
 - Holding time compliance
 - Blank sample data
 - Spike sample recovery
 - Duplicate samples
 - Surrogate recoveries

Sample Identification:

FTP-1	TVR-3
FTP-14	TVR-5
FTP-15	TVR-6
FTP-16	TVR-7
815-2	TVR-7A
MTS-1	PAIC Well
MTS-2	POMONA Well
MTS-4	Trip Blank
TVR-1	TVR-2

Review Summary

1. Holding Time

All holding times were met. The cooler arrived at an acceptable temperature level. The chain of custody documentation and sample labels were in order. Sample TVR-2 was not listed on the chain of custody, however samples labeled TVR-2 were received by the laboratory and were analyzed. No field log exists for sample TVR-2.

2. Matrix Spikes

No matrix spikes were run for gasoline range organics or diesel range organics. Sample FTP-1 was used as the matrix spike and the matrix spike duplicate for volatile organics and semi-volatile organics. For SVOC's, 2-methylnaphthalene, 4-nitrophenol, and 3,3-dichlorobenzidine were out of the recommended limits of control low. The detection for 2-methylnaphthalene in the sample may be considered to be biased low. For VOC's, several compounds were out of the recommended limits of control low. Detections for benzene, ethylbenzene, o-xylene, isopropylbenzene, n-propylbenzene, 1,3,5-trimethylbenzene, tert-butylbenzene, 1,2,4-trimethylbenzene, sec-butylbenzene, 4-isopropyltoluene, n-butylbenzene, and naphthalene may be considered to be biased low.

3. Blanks

The method blanks for diesel range organics, gasoline range organics, and semi-volatile organics were free of contamination. The trip blank for gasoline range organics was free of contamination. Two method blanks for volatiles were reported with this sample delivery group. These method blanks had reported detections of carbon disulfide (0.10 ug/L) and methylene chloride (0.11 ug/L, 0.32 ug/L). The trip blank for these samples had reported detections for methylene chloride (0.19 ug/L) and chloroform (0.09 ug/L). There were no detections for methylene chloride in any of the samples. All detections for carbon disulfide and chloroform in the samples are considered to be biased high or non-detect.

4. Duplicates

Sample TVR-7A was collected as a field duplicate for sample TVR-7 for VOC's. TCE was the only detection in the both the sample and the duplicate at concentrations of 10 ug/L in both.

5. Laboratory Control Samples

All laboratory control sample recoveries and duplicate RPD's were within acceptable limits of control for gasoline range organics, diesel range organics, and semi-volatile organics. For volatile organics, 2,2-dichloropropane was out of control low. There were no detections in any of the samples for 2,2-dichloropropane and no action was required.

6. Surrogates

All surrogate recoveries for semi-volatile, diesel range and gasoline range organics were within acceptable limits of control. Surrogate 1,2-dichloroethane-d4 was outside of recommended limits of control high in the PAIC well and the POMONA well. No target analytes for this surrogate were detected in the samples and no action was required.

7. Comments

For DRO and GRO, the chromatographic fingerprint of the sample resembles a petroleum product eluting in the same range as the calibration standard, but does not exactly match the calibration standard. All data are complete and usable.

Tetra Tech, Inc. Data Review Report

Project Name: JBLM/Yakima Training Center
Project Number: K1510531
Collection Date: 09/21/15 and 09/22/15
Laboratory: ALS Environmental, Kelso, WA

DATA REVIEW

- Seventeen water samples and one field duplicate were collected and received at the laboratory on 9/23/15. Of these, fifteen were analyzed for volatile organic compounds by EPA method SW-846 8260C, one was analyzed for semi-volatile organic compounds by EPA method SW-846 8270D, and four were analyzed for diesel range and gasoline range organics by methods NWTPH-DX and NWTPH-GX respectively. Only MW-4 and MW-6 were analyzed for Dissolved Metals (EPA 200.7), Chloride, Nitrite, Nitrate, and Sulfate (EPA 300.0), Nitrate/Nitrite as Nitrogen (EPA 353.2), Ammonia as Nitrogen (SM 4500-NH3), Alkalinity as CaCO3 (SM 2320B), Total Dissolved Solids (SM 2540C), Total Organic Carbon (EPA 9060), and Biological Oxygen Demand (SM 5210B). One trip blank was also collected to assess potential contamination for 8260C and for TPH during sample transport. A review was performed of the following parameters as applicable:
 - Chain-of-custody (C-O-C) documentation
 - Holding time compliance
 - Blank sample data
 - Spike sample recovery
 - Duplicate samples
 - Surrogate recoveries

Sample Identification:

FTP-1	TVR-3
FTP-14	TVR-5
FTP-15	TVR-6
FTP-16	TVR-7
815-2	PAIC Well
DUP-1	POMONA Well
MTS-1	Trip-1
MTS-2	
MTS-4	MW-4
TVR-1	MW-6

Review Summary

1. Holding Time

All holding times were met. The cooler arrived at an acceptable temperature level. There were some chain of custody documentation and sample label inconsistencies. The samples were logged per the container labels and dates. Sample MW-6 had two 40 ml vials with observed headspace, and one vial for TVR-1 arrived broken. There was enough sample to complete the analyses.

2. Matrix Spikes

No matrix spikes were run for alkalinity, total dissolved solids, biological oxygen demand, or gasoline range organics. Sample FTP-1 was used as the matrix spike and the matrix spike duplicate for volatile organics, semi-volatile organics, and diesel range organics. For SVOC's, di-n-butyl phthalate, fluoranthene, 4-nitroaniline, and 3,3-dichlorobenzidine were outside of the recommended limits of control low. There were no detections for any of these compounds in the sample and no action was required. For diesel range organics, the concentration in the sample was significantly higher than the spike amount, preventing accurate evaluation of the spike recovery. For VOC's, several compounds were out of the recommended limits of control. Detections for benzene, 1,1,1,2-tetrachloroethane, 1,2,4-trimethylbenzene, n-butylbenzene, and naphthalene have been flagged as estimated per the DOD QAPP. Sample MW-4 was analyzed as the matrix spike and the matrix spike duplicate for chloride, nitrite, nitrate, sulfate, nitrate/nitrite, total organic carbon, ammonia, dissolved metals, and again for volatile organic compounds. All recoveries were within the recommended limits of control.

3. Blanks

The methods blanks for all of the inorganic analyses were free of contamination with the exception of total organic carbon (0.13 mg/L), alkalinity (6 mg/L), and ammonia (0.026 mg/L). For total organic carbon the samples may be considered to be biased high or non-detect due to the amount reported in the method blank. The detections for alkalinity were significantly higher than the amount reported in the method blank and no action was taken. For ammonia the samples were non-detect and no action was required. The method blanks for gasoline range organics and semi-volatile organics were free of contamination. The trip blank for gasoline range organics was free of contamination. The method blank for residual range organics had a reported detection of 21 ug/L. The reported detections of residual range organics in samples FTP-14 and FTP-15 may be considered to be biased high. Four method blanks for volatiles were reported with this sample delivery group. The method blanks had reported detections of carbon disulfide (0.09, 0.07 ug/L), methylene chloride (0.14 ug/L), naphthalene (0.19, 0.11 ug/L), n-butylbenzene (0.06 ug/L), 1,2,3-trichlorobenzene (0.11 ug/L), and 1,2,4-trichlorobenzene (0.12 ug/L). The trip blank for these samples had reported detections for toluene (0.22 ug/L) and chloroform (0.10 ug/L). There were no detections for 1,2,3-trichlorobenzene or 1,2,4-trichlorobenzene in any of the samples. The detections for naphthalene and n-butylbenzene in sample FTP-1 were significantly higher than the amounts reported in the method blanks and no action was taken. All detections for carbon disulfide, methylene chloride, toluene, and chloroform in the samples are considered to be biased high or non-detect.

4. Duplicates

Sample DUP-1 was collected as a field duplicate for sample TVR-5 for VOC's. TCE was the only detection in the both the sample (4.4 ug/L) and the duplicate (4.6 ug/L) that was above the reporting limit. The relative percent difference was within recommended limits of control.

5. Laboratory Control Samples

All laboratory control sample recoveries and duplicate RPD's were within acceptable limits of control for all methods.

6. Surrogates

All surrogate recoveries for semi-volatile, diesel range and gasoline range organics were within acceptable limits of control. For volatile organic compounds, surrogate dibromofluoromethane was outside of recommended limits of control high in sample FTP-1. The detections of any target analytes for this surrogate (only 2-butanone) in the sample were flagged as estimated per the DOD QAPP.

7. Comments

For DRO and GRO, the chromatographic fingerprint of the sample resembles a petroleum product eluting in the same range as the calibration standard, but does not exactly match the calibration standard. All data are complete and usable.

YTC

Date 3.19.15

Project / Client DRamquist / M Fawcett

Sunny 50F

0900 onsite tailgate
 check in ☉ 810 gpt
 LF remote
 Mob to LF to purge wells

0950 MW-4 begin purging
 198hz, 234hz DTW 67.81

1035 DTW - 119.35
 MW-6 DTW 37.55-

1100 begin purging
 1105 purged dry

1120 815-2 DTW 62.89

1135 TVR-5 DTW 80.51

1140 TVR-2 DTW 70.34

1155 TVR-3 DTW - 63.31

1200 TVR-7 DTW - 63.60

1210 TVR-7A dup of TVR-7

1220 TVR-1 DTW - 72.60

1225 TVR-6 DTW - 62.69

1230 PALL Well

1250 MTS-1 DTW - 97.47

1255 MTS-2 DTW - 88.66

MTS-3 DTW - 28.03

YTC

Date 3.19.15 33

Project / Client

Cloudy 50F

1320 MTS-4 DTW - 85.55

1400 MRC-2 DTW 75.27

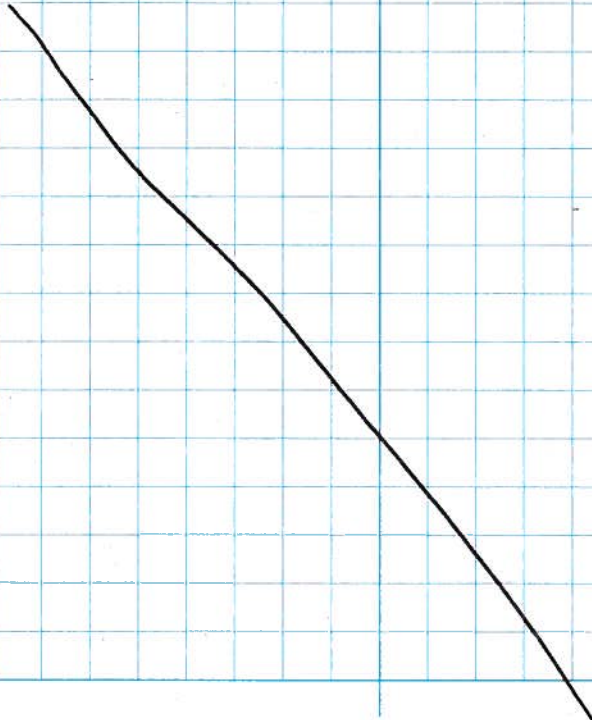
MMP-1 DTW - 60.04

MMP-2 DTW - 66.03

FTP-13 DTW - 14.32

1500 FTP-1 DTW - 14.0

Slight sheen, TPH odor
 MS/MSD



34

Location

YTC

Date 3.20.15

Project / Client

cloudy SOR

0830 onsite, Tailgate, walk
for snakes, heavy lifting

0900 set up on MW-4

DTW - 85.23

0930 MW-4 sampled

MW-7 Dry

MW-5 Dry

1015 MW-6 DTW - 40.84

1110 ~~AW-12~~ FTP-15 DTW 17.91 TD 22.5

1125 FTP-14 DTW - 18.76 TD 22.60

Slight shear

1145 FTP-16 DTW - 26.19 TD 32.30

pack samples

Location

JBLM

Date 5-26-15³⁵

Project / Client

Sunny SOR

Mike Baron D'Ranquiel

0730 onsite, lausale,
load equipment

Randy from golf course stopped

& showed us leak in 6"

? discharge pipe adj to trail
along fairway - 2+week leaking
called to M Ingersoll

0915 Meet Jimmy W/Verson

will not be able to pump kama wells, cannot drive on

1000 DM-06 DTW 29.35 DTW

1020 GM-15-005

1025 GM-15-04 dup

UA-02 DTW 29.36 trace top

1110 GM-15-006

1145 AZ-06 DTW - 24.16 (50.7 TD) trace

1215 GM-15-004

call to M. Ingersoll re: wells on kama

CW-4 DTW - 20.16

1315 GM-15-001

CW-14b DTW - 27.93

1415 GM-15-008

DL 32615

Location YTC

Date 6.29.15

Project / Client Ramquist / R Weingerz

Sunny AM 80F

0730 trace to site
 0815 arrive site, hwy gate -
 heat stress 100+ F expected
 Check in @ Building 810

0845 MW-4 DTW-67.85

0925 purge dry

0945 MW-6 DTW-39.47
 purge dry

Location YTC

Date 6.29.15

Project / Client WATER LEVELS

Sunny 100 F
Well ID:

Well ID	DTW	PDB Deployed
MW-4	67.85	
MW-5	DRY	
MW-6	39.47	
MW-7	DRY	
FTP-1	13.56	no bullv
FTP-13	13.91	
FTP-14	18.87	
FTP-15	17.96	
FTP-16	26.09	
BIS-2	59.65	PDB
MMP-1	58.99	
MMP-2	59.60	
MRC-2	73.66	
MTS-1	95.1	PDB
MTS-2	86.72	PDB
MTS-3	26.49	
MTS-4	84.30	PDB
TVR-1	74.1	PDB
TVR-2	71.31	(deployed PDB)
TVR-3	64.58	PDB
TVR-5	56.48	PDB
TVR-6	64.25	PDB
TVR-7	65.3	PDB

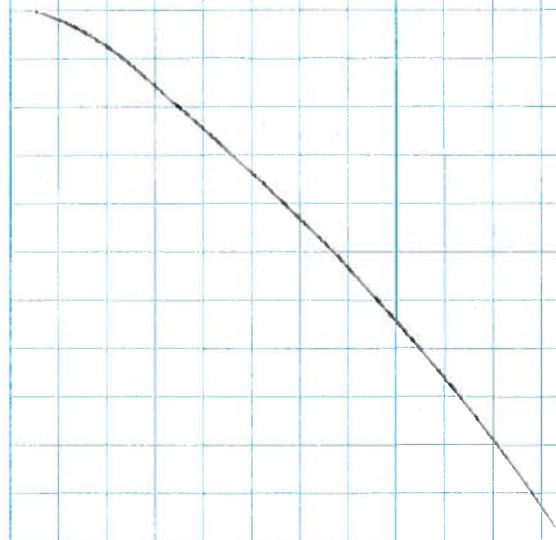
Location UTC - Date 9-21-15Project / Client Army

- 0810 arrive onsite prep Equip
M. Farron RWenger
Act: LTM Sample
Weather (temp / mo) 60's
- 0900 Setup to purge MW-4
DTW 67.83
- 1020 SET up at MW-6
DTW-39.55 purge dry
- 1045 collect WL at FTP-15
DTW 13.22
- 1120 at FTP-15
DTW 17.75 TD-22.50
precollect TPH Gx and Dy 10-FTP-15
Purged 0.55 gal at 9.5 gallons
- 1140 - collect FTP-15 - TPH Gx w Dy
- 1150 at FTP-14 DTW 18.51 TD 22.73
3X purge 7.75 gallons
- 1205 - collect FTP-14 for TPH Gx Dy
- 1210 - set up at FTP-1
DTW 13.16, no product, 23.50
10.01 gal in well purged 3.2 gallons
- 1235 - pulled at 47 meter well is dry
allow to recharge and collect sample

Location _____ Date _____

Project / Client _____

- 1235 collect FTP-1 - TPH Gx, Dy, UG, SVOL
- 1326 set up at FTP-16
DTW 26.40 TD 32.40
well volume 12.33 gal
3X Pul 3X pulled 27 Barrels
- 1332 - run dry - let recharge
and collect sample
- 1345 - collect FTP-16 TPH-Gx Dy
- 1400 - 102 samples complete paperwork
- 1500 End of Day



Location YTC - LTM Date 9-22-15

Project / Client _____

0800 arrive at site over small container

Act. Sample QPL and TUR

RW engine / M Farrow

Weather - clear mid 50's

0850 set up at MW-1. WL - 64.73

0900 collect MW-4

0940 set up at MW-6 WL - 42.07

1000 collect MW-6

1030 collect PIAC well

1040 collect TUR-7 DTW - 60.45

1050 collect Ramona well

1055 TUR-3 DTW 54.75 collect TUR-5

1105 TUR-6 DTW 59.50

1115 DTW TUR-2 - 66.53

1120 TUR-1 DTW 69.70

1130 collect BIS-2 ~~by~~ DUP-~~(14)~~

DTW 54.42

1140 collect TUR-5 w/ Dup-1

DTW 51.05

1145- MTS-3 27.76 DTW

1200 collect MTS-4 DTW 54.2

1215 collect MTS-1 DTW - 92.74

1220 collect MTS-2 DTW - 84.81

Location YTC - LTM Date 9-22-15 55

Project / Client _____

1230 AT MRC-2 69.02 DTW

1240 AT MMP-1 DTW 54.20

1245 AT MMP-2 DTW 55.90



ALS Environmental
ALS Group SA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T : 1 360 577 7222
F : 1 360 636 1068
www.alsglobal.com

April 20, 2015

Analytical Report for Service Request No: K1502961

Keir Craigie
Tetra Tech, Inc.
19803 North Creek Parkway
Bothell, WA 98011

RE: YTC / 106-45760003

Dear Keir,

Enclosed are the results of the sample(s) submitted to our laboratory March 23, 2015
For your reference, these analyses have been assigned our service request number **K1502961**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group SA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at gregory.salata@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Gregory Salata, Ph.D.
Client Services
Manager



ALS Environmental
ALS Group USA, Corp.
1317 South 13th Avenue
Kelso, WA 98626
T: +1 360 577 7222
F: +1 360 636 1068
www.alsglobal.com

Table of Contents

Acronyms

Qualifiers

State Certifications, Accreditations, And Licenses

Case Narrative

Chain Of Custody

Diesel Range Organics by Method NWTPH-Dx

Gasoline Range Organics By Method NWTPH-Gx

Volatile Organic Compounds By EPA Method 8260

Semivolatile Organic Compounds By EPA Method 8270

Raw Data

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.



Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS ENVIRONMENTAL

Client: Tetra Tech, Incorporated
Project: YTC/ 106-45760003
Sample Matrix: Water

Service Request No.: K1502961
Date Received: 03/23/15

Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Seventeen water samples were received for analysis at ALS Environmental on 03/23/15. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Diesel Range Organics by Method NWTPH-Dx

Sample Notes and Discussion:

Manual integration of one or more chromatographic peaks was required to correct the integration performed by the automated data processing program. The manual integration was performed in accordance with ALS policy, which is consistent with the National Environmental Laboratory Accreditation Program (NELAP), Department of Defense (DOD), and other certifying agencies. The analytes that required manual integrations are identified on each sample report contained in this data package.

No other anomalies associated with the analysis of these samples were observed.

Gasoline Range Organics by Method NWTPH-Gx

No anomalies associated with the analysis of these samples were observed.

Volatile Organic Compounds by EPA Method 8260

Calibration Verification Exceptions:

The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS46\0330F033.D: Bromomethane and 2,2-Dichloropropane. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS13\0331F004.D: 2,2-Dichloropropane, cis-1,3-Dichloropropane, trans-1,3-Dichloropropane, Bromoform and 1,2-Dibromo-3-Chloropropane (DBCP). In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Approved by _____



Surrogate Exceptions:

The upper control criterion was exceeded for 1,2-Dichloroethane-d4 in samples PAIC, POMONA WELL, TRIP BLANK and Method Blank (MB) KWG1502651-5. No target analytes were detected above the Method Reporting Limit (MRL) in the samples. The error associated with the elevated recoveries equated to a high bias. The quality of the sample data was not significantly affected. No further corrective action was appropriate.

The control criterion was exceeded for Dibromofluoromethane in the Laboratory Control Sample (LCS) KWG1502651-3. The associated matrix spike recoveries of target compounds were in control, indicating the analysis was in control. The surrogate outlier was flagged accordingly. No further corrective action was appropriate.

Matrix Spike Recovery Exceptions:

The replicate Matrix Spikes (MS/DMS) KWG1502651-1 and KWG1502651-2 recoveries of numerous analytes for sample FTP-1 were outside control criteria. Positive detections in the parent sample are "J" flagged as per the DOD QAPP. No further corrective action was appropriate.

Relative Percent Difference Exceptions:

The Relative Percent Difference (RPD) for Bromomethane in the replicate Matrix spike (MS/DMS) KWG1502651-1 and KWG1502651-2 analyses of FTP-1 was outside control criteria. Since the compound in question was not detected in the parent sample the result was not flagged as per the DOD QAPP. No further corrective action was appropriate.

Lab Control Sample Exceptions:

The control criterion was exceeded for 2,2-Dichloropropane in replicate Laboratory Control Sample (LCS/DLCS) KWG1502651-4, KWG1502669-3 and KWG1502669-4. The recoveries were within the marginal exceedance limits listed in DOD Quality Systems Manual 4.2. The data was flagged to indicate the issue. No further corrective action was required.

Sample Notes and Discussion:

Manual integration of one or more chromatographic peaks was required to correct the integration performed by the automated data processing program. The manual integrations were performed in accordance with ALS policy, which is consistent with the National Environmental Laboratory Accreditation Program (NELAP), Department of Defense (DOD), and other certifying agencies. The analytes that required manual integrations are identified on each sample report contained in this data package.

No other anomalies associated with the analysis of these samples were observed.

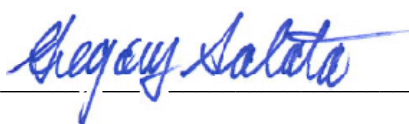
Semivolatile Organic Compounds by EPA Method 8270**Calibration Verification Exceptions:**

The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS07(0402F002.D: 4-Nitrophenol, Di-n-butyl Phthalate, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene and Benzo(g,h,i)perylene. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Matrix Spike Recovery Exceptions:

The matrix spike recovery of 2-Methylnaphthalene and 3,3'Dichlorobenzidine for sample FTP-1 was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicated the analytical batch was in control. The matrix spike outlier suggested a potential low bias in this matrix. No further corrective action was appropriate.

Approved by _____



The matrix spike recovery of 4-Nitrophenol for sample FTP-1 was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicated the analytical batch was in control. The matrix spike outlier suggested a potential high bias in this matrix. No further corrective action was appropriate.

Relative Percent Difference Exceptions:

The Relative Percent Difference (RPD) for 2-Methylnaphthalene in the replicate matrix spike analyses of FTP-1 was outside control criteria. All spike recoveries in the MS, DMS, and associated Laboratory Control Sample (LCS) were within acceptance limits, indicating the analytical batch was in control. No further corrective action was appropriate.

Sample Notes and Discussion:

Manual integration of one or more chromatographic peaks was required to correct the integration performed by the automated data processing program. The manual integration was performed in accordance with ALS policy, which is consistent with the National Environmental Laboratory Accreditation Program (NELAP), Department of Defense (DOD), and other certifying agencies. Refer to the raw data for the compounds impacted by the manual integration.

No other anomalies associated with the analysis of these samples were observed.

Approved by _____





Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

PROJECT NAME <u>VTC</u>	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS 825 <input type="checkbox"/> 8270 <input type="checkbox"/> 8270LL <input type="checkbox"/> SIM PAH <input type="checkbox"/>
PROJECT NUMBER <u>100-45760003</u>		Volatile Organics 624 <input type="checkbox"/> 8260 <input checked="" type="checkbox"/>
PROJECT MANAGER <u>Mark Ingersoll</u>		Hydrocarbons Gas <input type="checkbox"/> 8021 <input type="checkbox"/>
COMPANY NAME <u>Tetra Tech</u>		Oil & Grease <input type="checkbox"/> Diesel <input type="checkbox"/> BTEX <input type="checkbox"/>
ADDRESS <u>19803 North Creek Pkwy</u>		100+ Metals <input type="checkbox"/> TPH <input type="checkbox"/>
CITY/STATE/ZIP <u>Bothell WA 98041</u>		PCBs <input type="checkbox"/> Aroclors <input type="checkbox"/> Congeners <input type="checkbox"/>
E-MAIL ADDRESS <u>Mark.ingersoll@tetratech.com</u>		Pesticides/Herbicides 608 <input type="checkbox"/> 808 <input type="checkbox"/>
PHONE # _____ FAX # _____	Chlorophenolics Tri <input type="checkbox"/> 814 <input type="checkbox"/> 8151 <input type="checkbox"/>	
SAMPLER'S SIGNATURE <u>Dana Camquist</u>	Metals, Total or Dissolved (See List below) PCP <input type="checkbox"/>	
	Cyanide <input type="checkbox"/>	
	(circle) pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS, Turb.	
	(circle) NH3-N, COD, TKN, TOC, DOC, NO2+NO3, T-Phos	
	TOX 9020 <input type="checkbox"/> AOX 1650 <input type="checkbox"/> 506 <input type="checkbox"/>	
	Alkalinity <input type="checkbox"/> CO3 <input type="checkbox"/> HCO3 <input type="checkbox"/>	
	Dioxins/Furans 1613 <input type="checkbox"/> 8290 <input type="checkbox"/>	
	Dissolved Gases RSK 175 <input type="checkbox"/> Methane <input type="checkbox"/> Ethane <input type="checkbox"/> Ethene <input type="checkbox"/>	

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	CONTAINERS	825	8270	8270LL	8260	8021	BTEX	100+ Metals	TPH	PCBs	Aroclors	Congeners	608	808	Tri	814	8151	Metals, Total or Dissolved	PCP	Cyanide	(circle) pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS, Turb.	(circle) NH3-N, COD, TKN, TOC, DOC, NO2+NO3, T-Phos	TOX 9020	AOX 1650	506	Alkalinity	CO3	HCO3	Dioxins/Furans	1613	8290	Dissolved Gases	RSK 175	Methane	Ethane	Ethene	REMARKS							
FTP-1	3/15	1500		N	30	X	X	X	X																																			MS/MSO				
FTP-14	3/20/15	1125		W	5				X	X																																						
FTP-15	3/20/15	1110		W	5				X	X																																						
FTP-16	3/20/15	1145		W	5				X	X																																						
BIS-2	3/19/15	1120		W	3		X																																									
MTS-1	3/19/15	1250		W	3		X																																									
MTS-2	3/19/15	1255		W	3		X																																									
MTS-4	3/19/15	1320		W	3		X																																									
TVR-1	3/15	1220		W	3		X																																									
TVR-3	3/15	1155		W	3		X																																									

REPORT REQUIREMENTS ___ I. Routine Report: Method Blank, Surrogate, as required ___ II. Report Dup., MS, MSD as required ___ III. CLP Like Summary (no raw data) <input checked="" type="checkbox"/> IV. Data Validation Report ___ V. EDD	INVOICE INFORMATION P.O. # _____ Bill To: _____ _____ _____	Circle which metals are to be analyzed: Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg *INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: _____ (CIRCLE ONE)	
	TURNAROUND REQUIREMENTS ___ 24 hr. ___ 48 hr. ___ 5 day <input checked="" type="checkbox"/> Standard (15 working days) ___ Provide FAX Results Requested Report Date _____	SPECIAL INSTRUCTIONS/COMMENTS: <p style="font-size: 2em; text-align: center;">3 coolers</p> <input type="checkbox"/> Sample Shipment contains USDA regulated soil samples (check box if applicable)	

RELINQUISHED BY: <u>Dana Camquist</u> Signature: _____ Date/Time: <u>3/20/15 1400</u> Printed Name: Dana Camquist Firm: TREC	RECEIVED BY: <u>[Signature]</u> Signature: _____ Date/Time: <u>3-23-15 9:00</u> Printed Name: _____ Firm: _____	RELINQUISHED BY: Signature: _____ Date/Time: _____ Printed Name: _____ Firm: _____	RECEIVED BY: Signature: _____ Date/Time: _____ Printed Name: _____ Firm: _____
--	---	---	---

PROJECT NAME <u>YTC</u>	NUMBER OF CONTAINERS
PROJECT NUMBER <u>100-45760003</u>	
PROJECT MANAGER <u>Marc Ingersoll</u>	
COMPANY NAME <u>Terra Tech</u>	
ADDRESS <u>1503 North Creek Pkwy Bothell, WA 98011</u>	
CITY/STATE <u>Bothell, WA 98011</u>	
E-MAIL ADDRESS <u>Marc.Ingersoll@khrackh.com</u>	
PHONE # _____ FAX # _____	
SAMPLER'S SIGNATURE <u>[Signature]</u>	

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS 625 <input type="checkbox"/> 8270 <input type="checkbox"/> 8270LL <input type="checkbox"/> SIM PAH <input type="checkbox"/>	Volatile Organics 624 <input type="checkbox"/> 8260 <input type="checkbox"/> <u>VOCs</u>	Hydrocarbons (*see below) Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Oil <input type="checkbox"/> BTEX <input type="checkbox"/>	Oil & Grease/TRPH 1664 HEM <input type="checkbox"/> 1664 SGT <input type="checkbox"/>	PCBs Aroclors <input type="checkbox"/> Congeners <input type="checkbox"/>	Pesticides/Herbicides 608 <input type="checkbox"/> 808 <input type="checkbox"/> 814 <input type="checkbox"/> 8151 <input type="checkbox"/>	Chlorophenolics Tri <input type="checkbox"/> Tetra - 8151M <input type="checkbox"/>	Metals, Total or Dissolved (See List below) PCP <input type="checkbox"/>	Cyanide <input type="checkbox"/>	Hex-Chrom <input type="checkbox"/>	(circle) pH, Cond., Cl, SO ₄ , PO ₄ , F, NO ₂ , DOC, NH ₃ -N, COD, TKN, TOC, TOX-9020 <input type="checkbox"/> AOX 1650 <input type="checkbox"/> 506 <input type="checkbox"/>	Alkalinity <input type="checkbox"/> CO ₃ <input type="checkbox"/> HCO ₃ <input type="checkbox"/>	Dioxins/Furans 1613 <input type="checkbox"/> 8290 <input type="checkbox"/>	Dissolved Gases RSK 175 <input type="checkbox"/> Methane <input type="checkbox"/> Ethane <input type="checkbox"/> Ethene <input type="checkbox"/>	REMARKS	
<u>TVR-5</u>	<u>3/15</u>	<u>1135</u>		<u>W</u>	<u>3</u>	<input checked="" type="checkbox"/>															
<u>TVR-4</u>	<u>3/15</u>	<u>1225</u>		<u>W</u>	<u>3</u>	<input checked="" type="checkbox"/>															
<u>TVR-7</u>	<u>3/15</u>	<u>1200</u>		<u>W</u>	<u>3</u>	<input checked="" type="checkbox"/>															
<u>TVR-7A</u>	<u>3/15</u>	<u>1210</u>		<u>W</u>	<u>3</u>	<input checked="" type="checkbox"/>															
<u>PAIC Well</u>	<u>3/15</u>	<u>1230</u>		<u>W</u>	<u>3</u>	<input checked="" type="checkbox"/>															
<u>Pomona Well</u>	<u>3/15</u>	<u>1205</u>		<u>W</u>	<u>3</u>	<input checked="" type="checkbox"/>															
<u>Trip Blank</u>	<u>3/15</u>			<u>W</u>	<u>3</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>														
<u>PA 3/20/15</u>																					

REPORT REQUIREMENTS <input type="checkbox"/> I. Routine Report: Method Blank, Surrogate, as required <input type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. CLP Like Summary (no raw data) <input checked="" type="checkbox"/> IV. Data Validation Report <input type="checkbox"/> V. EDD	INVOICE INFORMATION P.O. # _____ Bill To: _____ _____ _____	Circle which metals are to be analyzed: Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg *INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: _____ (CIRCLE ONE)
	TURNAROUND REQUIREMENTS <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard (15 working days) <input type="checkbox"/> Provide FAX Results Requested Report Date _____	SPECIAL INSTRUCTIONS/COMMENTS: <input type="checkbox"/> Sample Shipment contains USDA regulated soil samples (check box if applicable)

RELINQUISHED BY: <u>[Signature]</u> <u>3/20/15</u> <u>1400</u> Signature Date/Time <u>Dana Vanquist</u> Printed Name Firm	RECEIVED BY: <u>[Signature]</u> <u>3/23/15</u> <u>900</u> Signature Date/Time <u>FED EX</u> Printed Name Firm	RELINQUISHED BY: Signature Date/Time Printed Name Firm	RECEIVED BY: Signature Date/Time Printed Name Firm
--	--	---	---



PC Meg

Cooler Receipt and Preservation Form

Client Tetra Tech Service Request K15 02961

Received: 3/23/15 Opened: 3/23/15 By: BW Unloaded: 3/23/15 By: BW

- 1. Samples were received via? Mail Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other _____ NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 Front
- If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
0.9	0.9	0.3	0.3	0	322	<u>NA</u>	7803 7914 3460		
1.6	1.6	0.9	0.9	0	356		7803 7914 3450		
1.2	1.3	1.2	1.3	+0.1	360		7803 7914 34285 BW/3/23/15		

- 4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
- 5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 6. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N
- 7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
- 8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
- 9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
- 11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
- 12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
FTP-1	(1) VOA			empty						
815-2	(1) VOA			✓						

Notes, Discrepancies, & Resolutions: Received 6 Trip Banks
* Rec'd 3-VOAs with TVR-2 - 3/19/15 1140 not on the COC.



Diesel and Residual Range Organics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003

Service Request: K1502961

**Cover Page - Organic Analysis Data Package
 Diesel and Residual Range Organics**

Sample Name	Lab Code	Date Collected	Date Received
FTP-1	K1502961-001	03/19/2015	03/23/2015
FTP-14	K1502961-002	03/20/2015	03/23/2015
FTP-15	K1502961-003	03/20/2015	03/23/2015
FTP-16	K1502961-004	03/20/2015	03/23/2015
FTP-1	KWG1502427-1	03/19/2015	03/23/2015

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Diesel and Residual Range Organics

Sample Name: FTP-1
Lab Code: K1502961-001
Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	17000	Y	140	22	12	1	03/24/15	03/26/15	KWG1502427	
Residual Range Organics (RRO)	2000	L	270	54	21	1	03/24/15	03/26/15	KWG1502427	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	77	50-150	03/26/15	Acceptable
n-Triacontane	72	50-150	03/26/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/20/2015
Date Received: 03/23/2015

Diesel and Residual Range Organics

Sample Name: FTP-14
Lab Code: K1502961-002
Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	190	Y	130	21	12	1	03/24/15	03/26/15	KWG1502427	
Residual Range Organics (RRO)	120	J	260	52	20	1	03/24/15	03/26/15	KWG1502427	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	80	50-150	03/26/15	Acceptable
n-Triacontane	70	50-150	03/26/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/20/2015
Date Received: 03/23/2015

Diesel and Residual Range Organics

Sample Name: FTP-15
Lab Code: K1502961-003
Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	55	J	140	21	12	1	03/24/15	03/26/15	KWG1502427	
Residual Range Organics (RRO)	180	J	270	53	20	1	03/24/15	03/26/15	KWG1502427	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	78	50-150	03/26/15	Acceptable
n-Triacontane	71	50-150	03/26/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/20/2015
Date Received: 03/23/2015

Diesel and Residual Range Organics

Sample Name: FTP-16
Lab Code: K1502961-004
Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	110	J	130	20	11	1	03/24/15	03/26/15	KWG1502427	
Residual Range Organics (RRO)	76	J	250	50	19	1	03/24/15	03/26/15	KWG1502427	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	74	50-150	03/26/15	Acceptable
n-Triacontane	68	50-150	03/26/15	Acceptable

Comments: _____



Gasoline Range Organics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003

Service Request: K1502961

**Cover Page - Organic Analysis Data Package
 Gasoline Range Organics**

Sample Name	Lab Code	Date Collected	Date Received
FTP-1	K1502961-001	03/19/2015	03/23/2015
FTP-14	K1502961-002	03/20/2015	03/23/2015
FTP-15	K1502961-003	03/20/2015	03/23/2015
FTP-16	K1502961-004	03/20/2015	03/23/2015
TRIP BLANK	K1502961-017	03/19/2015	03/23/2015
FTP-1	KWG1502776-1	03/19/2015	03/23/2015

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Gasoline Range Organics

Sample Name: FTP-1
Lab Code: K1502961-001
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	2000	Y	250	13	1	03/29/15	03/29/15	KWG1502776	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	96	50-150	03/29/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/20/2015
Date Received: 03/23/2015

Gasoline Range Organics

Sample Name: FTP-14
Lab Code: K1502961-002
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	83	J	250	13	1	03/29/15	03/29/15	KWG1502776	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	97	50-150	03/29/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/20/2015
Date Received: 03/23/2015

Gasoline Range Organics

Sample Name: FTP-15
Lab Code: K1502961-003
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	13	1	03/29/15	03/29/15	KWG1502776	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	103	50-150	03/29/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/20/2015
Date Received: 03/23/2015

Gasoline Range Organics

Sample Name: FTP-16
Lab Code: K1502961-004
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	13	1	03/29/15	03/29/15	KWG1502776	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	96	50-150	03/29/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Gasoline Range Organics

Sample Name: TRIP BLANK
Lab Code: K1502961-017
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	13	1	03/29/15	03/29/15	KWG1502776	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	97	50-150	03/29/15	Acceptable

Comments: _____



Volatile Organic Compounds

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003

Service Request: K1502961

**Cover Page - Organic Analysis Data Package
 Volatile Organic Compounds**

Sample Name	Lab Code	Date Collected	Date Received
FTP-1	K1502961-001	03/19/2015	03/23/2015
815-2	K1502961-005	03/19/2015	03/23/2015
MTS-1	K1502961-006	03/19/2015	03/23/2015
MTS-2	K1502961-007	03/19/2015	03/23/2015
MTS-4	K1502961-008	03/19/2015	03/23/2015
TVR-1	K1502961-009	03/19/2015	03/23/2015
TVR-3	K1502961-010	03/19/2015	03/23/2015
TVR-5	K1502961-011	03/19/2015	03/23/2015
TVR-6	K1502961-012	03/19/2015	03/23/2015
TVR-7	K1502961-013	03/19/2015	03/23/2015
TVR-7A	K1502961-014	03/19/2015	03/23/2015
PAIC	K1502961-015	03/19/2015	03/23/2015
POMONA WELL	K1502961-016	03/19/2015	03/23/2015
TRIP BLANK	K1502961-017	03/19/2015	03/23/2015
TVR-2	K1502961-018	03/19/2015	03/23/2015
FTP-1MS	KWG1502651-1	03/19/2015	03/23/2015
FTP-1DMS	KWG1502651-2	03/19/2015	03/23/2015

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: FTP-1
Lab Code: K1502961-001
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502669	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502669	
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502669	
Acetone	5.3	J	20	10	3.3	1	03/31/15	03/31/15	KWG1502669	
Carbon Disulfide	0.10	J	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502669	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	*
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502669	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502669	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Chloroform	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502669	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Benzene	4.3	J	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502669	
Trichloroethene (TCE)	0.12	J	0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502669	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502669	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502669	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502669	*
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502669	
Toluene	0.26	J	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	*
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502669	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502669	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502669	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: FTP-1
Lab Code: K1502961-001
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502669	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
Ethylbenzene	4.9	J	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502669	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
m,p-Xylenes	0.18	J	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
o-Xylene	1.2	J	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502669	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502669	*
Isopropylbenzene	4.3	J	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502669	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Propylbenzene	6.7	J	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502669	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,3,5-Trimethylbenzene	0.38	J	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
tert-Butylbenzene	0.27	J	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502669	
1,2,4-Trimethylbenzene	64	J	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
sec-Butylbenzene	2.9	J	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
4-Isopropyltoluene	4.2	J	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,4-Dichlorobenzene	0.15	J	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Butylbenzene	5.6	J	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichlorobenzene	0.84	J	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromo-3-chloropropane	0.30	J	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502669	*
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502669	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
Naphthalene	78	JD	20	3.0	0.88	10	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502669	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: FTP-1
Lab Code: K1502961-001

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	91	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	112	70-120	03/31/15	Acceptable
Toluene-d8	94	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	89	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: 815-2
Lab Code: K1502961-005
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502669	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502669	
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502669	
Acetone	ND	U	20	10	3.3	1	03/31/15	03/31/15	KWG1502669	
Carbon Disulfide	0.090	J	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502669	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	*
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502669	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502669	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Chloroform	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502669	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502669	
Trichloroethene (TCE)	0.75		0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502669	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502669	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502669	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502669	*
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502669	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	*
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502669	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502669	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502669	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: 815-2
Lab Code: K1502961-005
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502669	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502669	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502669	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502669	*
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502669	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502669	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502669	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502669	*
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502669	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502669	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: 815-2
Lab Code: K1502961-005

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	112	70-120	03/31/15	Acceptable
Toluene-d8	94	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	88	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: MTS-1
Lab Code: K1502961-006
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502669	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502669	
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502669	
Acetone	ND	U	20	10	3.3	1	03/31/15	03/31/15	KWG1502669	
Carbon Disulfide	0.10	J	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502669	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	*
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502669	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502669	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Chloroform	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502669	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502669	
Trichloroethene (TCE)	3.8		0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502669	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502669	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502669	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502669	*
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502669	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	*
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502669	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502669	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502669	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: MTS-1
Lab Code: K1502961-006
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502669	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502669	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502669	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502669	*
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502669	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502669	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502669	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502669	*
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502669	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502669	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: MTS-1
Lab Code: K1502961-006

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	93	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	109	70-120	03/31/15	Acceptable
Toluene-d8	94	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	87	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: MTS-2
Lab Code: K1502961-007
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502669	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502669	
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502669	
Acetone	ND	U	20	10	3.3	1	03/31/15	03/31/15	KWG1502669	
Carbon Disulfide	0.090	J	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502669	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	*
cis-1,2-Dichloroethene	0.20	J	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502669	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502669	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Chloroform	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502669	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502669	
Trichloroethene (TCE)	8.0		0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502669	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502669	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502669	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502669	*
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502669	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	*
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502669	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502669	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502669	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: MTS-2
Lab Code: K1502961-007
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502669	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502669	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502669	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502669	*
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502669	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502669	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502669	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502669	*
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502669	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502669	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: MTS-2
Lab Code: K1502961-007

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	112	70-120	03/31/15	Acceptable
Toluene-d8	95	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	87	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: MTS-4
Lab Code: K1502961-008
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502669	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502669	
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502669	
Acetone	ND	U	20	10	3.3	1	03/31/15	03/31/15	KWG1502669	
Carbon Disulfide	0.10	J	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502669	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	*
cis-1,2-Dichloroethene	0.25	J	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502669	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502669	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Chloroform	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502669	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502669	
Trichloroethene (TCE)	8.0		0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502669	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502669	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502669	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502669	*
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502669	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	*
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502669	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502669	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502669	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: MTS-4
Lab Code: K1502961-008
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502669	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502669	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502669	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502669	*
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502669	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502669	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502669	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502669	*
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502669	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502669	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: MTS-4
Lab Code: K1502961-008

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	112	70-120	03/31/15	Acceptable
Toluene-d8	95	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	89	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-1
Lab Code: K1502961-009
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502669	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502669	
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502669	
Acetone	ND	U	20	10	3.3	1	03/31/15	03/31/15	KWG1502669	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502669	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	*
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502669	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502669	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Chloroform	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502669	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502669	
Trichloroethene (TCE)	4.5		0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502669	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502669	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502669	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502669	*
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502669	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	*
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502669	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502669	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502669	

Comments:

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-1
Lab Code: K1502961-009
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502669	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502669	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502669	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502669	*
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502669	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502669	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502669	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502669	*
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502669	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502669	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-1
Lab Code: K1502961-009

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	112	70-120	03/31/15	Acceptable
Toluene-d8	95	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	90	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-3
Lab Code: K1502961-010
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502669	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502669	
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502669	
Acetone	ND	U	20	10	3.3	1	03/31/15	03/31/15	KWG1502669	
Carbon Disulfide	0.10	J	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502669	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	*
cis-1,2-Dichloroethene	0.17	J	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502669	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502669	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Chloroform	0.33	J	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502669	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502669	
Trichloroethene (TCE)	7.7		0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502669	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502669	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502669	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502669	*
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502669	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	*
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502669	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502669	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502669	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-3
Lab Code: K1502961-010
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502669	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502669	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502669	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502669	*
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502669	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502669	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502669	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502669	*
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502669	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502669	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-3
Lab Code: K1502961-010

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	111	70-120	03/31/15	Acceptable
Toluene-d8	94	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	86	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-5
Lab Code: K1502961-011
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502669	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502669	
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502669	
Acetone	ND	U	20	10	3.3	1	03/31/15	03/31/15	KWG1502669	
Carbon Disulfide	0.11	J	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502669	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	*
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502669	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502669	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Chloroform	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502669	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502669	
Trichloroethene (TCE)	0.80		0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502669	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502669	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502669	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502669	*
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502669	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	*
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502669	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502669	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502669	

Comments:

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-5
Lab Code: K1502961-011
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502669	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502669	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502669	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502669	*
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502669	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502669	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502669	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502669	*
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502669	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502669	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-5
Lab Code: K1502961-011

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	112	70-120	03/31/15	Acceptable
Toluene-d8	95	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	87	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-6
Lab Code: K1502961-012
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502669	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502669	
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502669	
Acetone	ND	U	20	10	3.3	1	03/31/15	03/31/15	KWG1502669	
Carbon Disulfide	0.070	J	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502669	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	*
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502669	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502669	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Chloroform	0.080	J	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502669	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502669	
Trichloroethene (TCE)	8.0		0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502669	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502669	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502669	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502669	*
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502669	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	*
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502669	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502669	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502669	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-6
Lab Code: K1502961-012
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502669	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502669	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502669	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502669	*
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502669	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502669	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502669	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502669	*
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502669	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502669	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-6
Lab Code: K1502961-012

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	97	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	113	70-120	03/31/15	Acceptable
Toluene-d8	96	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	90	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-7
Lab Code: K1502961-013
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502669	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502669	
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502669	
Acetone	ND	U	20	10	3.3	1	03/31/15	03/31/15	KWG1502669	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502669	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	*
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502669	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502669	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Chloroform	0.13	J	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502669	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502669	
Trichloroethene (TCE)	10		0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502669	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502669	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502669	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502669	*
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502669	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	*
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502669	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502669	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502669	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-7
Lab Code: K1502961-013
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502669	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502669	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502669	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502669	*
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502669	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502669	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502669	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502669	*
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502669	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502669	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-7
Lab Code: K1502961-013

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	114	70-120	03/31/15	Acceptable
Toluene-d8	95	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	88	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-7A
Lab Code: K1502961-014
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502669	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502669	
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502669	
Acetone	ND	U	20	10	3.3	1	03/31/15	03/31/15	KWG1502669	
Carbon Disulfide	0.090	J	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502669	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	*
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502669	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502669	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Chloroform	0.14	J	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502669	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502669	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502669	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502669	
Trichloroethene (TCE)	10		0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502669	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502669	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502669	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502669	*
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502669	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502669	*
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502669	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502669	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502669	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-7A
Lab Code: K1502961-014
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502669	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502669	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502669	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502669	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502669	*
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502669	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502669	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502669	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502669	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502669	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502669	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502669	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502669	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502669	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502669	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502669	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502669	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502669	*
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502669	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502669	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502669	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502669	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-7A
Lab Code: K1502961-014

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	113	70-120	03/31/15	Acceptable
Toluene-d8	94	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	87	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: PAIC
Lab Code: K1502961-015
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502651	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502651	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502651	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502651	*
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502651	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502651	
Acetone	ND	U	20	10	3.3	1	03/31/15	03/31/15	KWG1502651	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502651	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502651	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502651	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502651	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502651	*
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502651	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502651	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502651	
Chloroform	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502651	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502651	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502651	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502651	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502651	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502651	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502651	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502651	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502651	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502651	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502651	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502651	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502651	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502651	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502651	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502651	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502651	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: PAIC
Lab Code: K1502961-015
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502651	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502651	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502651	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502651	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502651	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502651	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502651	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502651	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502651	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502651	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502651	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502651	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502651	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502651	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502651	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502651	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502651	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502651	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502651	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502651	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502651	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502651	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502651	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502651	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502651	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: PAIC
Lab Code: K1502961-015

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	114	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	122	70-120	03/31/15	Outside Control Limits
Toluene-d8	110	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	114	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: POMONA WELL
Lab Code: K1502961-016
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502651	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502651	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502651	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502651	*
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502651	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502651	
Acetone	ND	U	20	10	3.3	1	03/31/15	03/31/15	KWG1502651	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502651	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502651	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502651	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502651	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502651	*
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502651	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502651	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502651	
Chloroform	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502651	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502651	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502651	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502651	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502651	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502651	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502651	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502651	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502651	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502651	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502651	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502651	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502651	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502651	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502651	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502651	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502651	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: POMONA WELL
Lab Code: K1502961-016
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502651	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502651	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502651	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502651	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502651	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502651	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502651	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502651	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502651	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502651	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502651	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502651	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502651	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502651	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502651	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502651	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502651	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502651	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502651	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502651	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502651	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502651	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502651	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502651	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502651	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: POMONA WELL
Lab Code: K1502961-016

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	113	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	121	70-120	03/31/15	Outside Control Limits
Toluene-d8	109	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	114	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TRIP BLANK
Lab Code: K1502961-017
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502651	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502651	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502651	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502651	*
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502651	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502651	
Acetone	ND	U	20	10	3.3	1	03/31/15	03/31/15	KWG1502651	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502651	
Methylene Chloride	0.19	J	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502651	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502651	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502651	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502651	*
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502651	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502651	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502651	
Chloroform	0.090	J	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502651	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502651	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502651	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502651	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502651	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502651	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502651	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502651	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502651	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502651	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502651	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502651	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502651	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502651	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502651	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502651	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502651	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TRIP BLANK
Lab Code: K1502961-017
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502651	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502651	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502651	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502651	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502651	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502651	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502651	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502651	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502651	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502651	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502651	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502651	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502651	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502651	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502651	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502651	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502651	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502651	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502651	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502651	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502651	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502651	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502651	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502651	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502651	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TRIP BLANK
Lab Code: K1502961-017

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	111	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	124	70-120	03/31/15	Outside Control Limits
Toluene-d8	111	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	113	75-120	03/31/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-2
Lab Code: K1502961-018
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	03/31/15	03/31/15	KWG1502651	
Chloromethane	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502651	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	03/31/15	03/31/15	KWG1502651	
Bromomethane	ND	U	0.50	0.30	0.10	1	03/31/15	03/31/15	KWG1502651	
Chloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502651	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	03/31/15	03/31/15	KWG1502651	
Acetone	15	J	20	10	3.3	1	03/31/15	03/31/15	KWG1502651	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	03/31/15	03/31/15	KWG1502651	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	03/31/15	03/31/15	KWG1502651	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502651	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	03/31/15	03/31/15	KWG1502651	
2,2-Dichloropropane	ND	U	0.50	0.20	0.060	1	03/31/15	03/31/15	KWG1502651	*
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	03/31/15	03/31/15	KWG1502651	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	03/31/15	03/31/15	KWG1502651	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502651	
Chloroform	ND	U	0.50	0.20	0.072	1	03/31/15	03/31/15	KWG1502651	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	03/31/15	03/31/15	KWG1502651	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	03/31/15	03/31/15	KWG1502651	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502651	
Benzene	ND	U	0.50	0.10	0.062	1	03/31/15	03/31/15	KWG1502651	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	03/31/15	03/31/15	KWG1502651	
Trichloroethene (TCE)	2.6		0.50	0.10	0.10	1	03/31/15	03/31/15	KWG1502651	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	03/31/15	03/31/15	KWG1502651	
Dibromomethane	ND	U	0.50	0.50	0.15	1	03/31/15	03/31/15	KWG1502651	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	03/31/15	03/31/15	KWG1502651	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	03/31/15	03/31/15	KWG1502651	*
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	03/31/15	03/31/15	KWG1502651	
Toluene	ND	U	0.50	0.10	0.054	1	03/31/15	03/31/15	KWG1502651	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	03/31/15	03/31/15	KWG1502651	*
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	03/31/15	03/31/15	KWG1502651	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	03/31/15	03/31/15	KWG1502651	
2-Hexanone	ND	U	20	10	2.7	1	03/31/15	03/31/15	KWG1502651	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-2
Lab Code: K1502961-018
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	03/31/15	03/31/15	KWG1502651	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	03/31/15	03/31/15	KWG1502651	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502651	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	03/31/15	03/31/15	KWG1502651	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502651	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	03/31/15	03/31/15	KWG1502651	
o-Xylene	ND	U	0.50	0.20	0.074	1	03/31/15	03/31/15	KWG1502651	
Styrene	ND	U	0.50	0.20	0.089	1	03/31/15	03/31/15	KWG1502651	
Bromoform	ND	U	0.50	0.50	0.16	1	03/31/15	03/31/15	KWG1502651	*
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	03/31/15	03/31/15	KWG1502651	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	03/31/15	03/31/15	KWG1502651	
Bromobenzene	ND	U	2.0	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	03/31/15	03/31/15	KWG1502651	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	03/31/15	03/31/15	KWG1502651	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	03/31/15	03/31/15	KWG1502651	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	03/31/15	03/31/15	KWG1502651	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	03/31/15	03/31/15	KWG1502651	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	03/31/15	03/31/15	KWG1502651	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	03/31/15	03/31/15	KWG1502651	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	03/31/15	03/31/15	KWG1502651	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	03/31/15	03/31/15	KWG1502651	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	03/31/15	03/31/15	KWG1502651	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	03/31/15	03/31/15	KWG1502651	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.20	1	03/31/15	03/31/15	KWG1502651	*
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	03/31/15	03/31/15	KWG1502651	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	03/31/15	03/31/15	KWG1502651	
Naphthalene	ND	U	2.0	0.30	0.088	1	03/31/15	03/31/15	KWG1502651	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	03/31/15	03/31/15	KWG1502651	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Volatile Organic Compounds

Sample Name: TVR-2
Lab Code: K1502961-018

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	85-115	03/31/15	Acceptable
1,2-Dichloroethane-d4	115	70-120	03/31/15	Acceptable
Toluene-d8	93	85-120	03/31/15	Acceptable
4-Bromofluorobenzene	88	75-120	03/31/15	Acceptable

Comments: _____



Semi-Volatile Organic Compounds by GC/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003

Service Request: K1502961

**Cover Page - Organic Analysis Data Package
Semi-Volatile Organic Compounds by GC/MS**

Sample Name	Lab Code	Date Collected	Date Received
FTP-1	K1502961-001	03/19/2015	03/23/2015
FTP-1MS	KWG1502460-1	03/19/2015	03/23/2015
FTP-1DMS	KWG1502460-2	03/19/2015	03/23/2015

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Semi-Volatile Organic Compounds by GC/MS

Sample Name: FTP-1
Lab Code: K1502961-001
Extraction Method: EPA 3520C
Analysis Method: 8270D

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	25	5.0	0.48	1	03/26/15	04/02/15	KWG1502460	
Bis(2-chloroethyl) Ether	ND	U	9.9	0.50	0.33	1	03/26/15	04/02/15	KWG1502460	
Phenol	ND	U	9.9	0.50	0.32	1	03/26/15	04/02/15	KWG1502460	
2-Chlorophenol	ND	U	9.9	0.50	0.31	1	03/26/15	04/02/15	KWG1502460	
1,3-Dichlorobenzene	ND	U	9.9	0.50	0.35	1	03/26/15	04/02/15	KWG1502460	
1,4-Dichlorobenzene	ND	U	9.9	0.50	0.32	1	03/26/15	04/02/15	KWG1502460	
1,2-Dichlorobenzene	0.69	J	9.9	0.50	0.43	1	03/26/15	04/02/15	KWG1502460	
Benzyl alcohol	ND	U	9.9	0.50	0.38	1	03/26/15	04/02/15	KWG1502460	
Bis(2-chloroisopropyl) Ether	ND	U	9.9	0.50	0.31	1	03/26/15	04/02/15	KWG1502460	
2-Methylphenol	ND	U	9.9	0.50	0.33	1	03/26/15	04/02/15	KWG1502460	
Hexachloroethane	ND	U	9.9	2.0	0.29	1	03/26/15	04/02/15	KWG1502460	
N-Nitrosodi-n-propylamine	ND	U	9.9	2.0	0.50	1	03/26/15	04/02/15	KWG1502460	
4-Methylphenol†	ND	U	9.9	0.50	0.48	1	03/26/15	04/02/15	KWG1502460	
Nitrobenzene	ND	U	9.9	0.57	0.57	1	03/26/15	04/02/15	KWG1502460	
Isophorone	ND	U	9.9	1.0	0.25	1	03/26/15	04/02/15	KWG1502460	
2-Nitrophenol	ND	U	9.9	0.50	0.37	1	03/26/15	04/02/15	KWG1502460	
2,4-Dimethylphenol	ND	U	9.9	2.0	0.26	1	03/26/15	04/02/15	KWG1502460	
Bis(2-chloroethoxy)methane	ND	U	9.9	0.50	0.28	1	03/26/15	04/02/15	KWG1502460	
2,4-Dichlorophenol	ND	U	9.9	0.50	0.30	1	03/26/15	04/02/15	KWG1502460	
Benzoic acid	ND	U	25	25	5.8	1	03/26/15	04/02/15	KWG1502460	
1,2,4-Trichlorobenzene	ND	U	9.9	0.50	0.36	1	03/26/15	04/02/15	KWG1502460	
Naphthalene	42		9.9	0.50	0.37	1	03/26/15	04/02/15	KWG1502460	
4-Chloroaniline	ND	U	9.9	2.0	0.38	1	03/26/15	04/02/15	KWG1502460	
Hexachlorobutadiene	ND	U	9.9	0.50	0.29	1	03/26/15	04/02/15	KWG1502460	
4-Chloro-3-methylphenol	ND	U	9.9	0.50	0.49	1	03/26/15	04/02/15	KWG1502460	
2-Methylnaphthalene	63	J	9.9	0.50	0.24	1	03/26/15	04/02/15	KWG1502460	
2,4,6-Trichlorophenol	ND	U	9.9	1.0	0.20	1	03/26/15	04/02/15	KWG1502460	
2,4,5-Trichlorophenol	ND	U	9.9	0.50	0.38	1	03/26/15	04/02/15	KWG1502460	
2-Chloronaphthalene	ND	U	9.9	0.50	0.29	1	03/26/15	04/02/15	KWG1502460	
Acenaphthene	3.5	J	9.9	0.50	0.28	1	03/26/15	04/02/15	KWG1502460	
2-Nitroaniline	ND	U	25	0.50	0.34	1	03/26/15	04/02/15	KWG1502460	
Acenaphthylene	ND	U	9.9	0.50	0.24	1	03/26/15	04/02/15	KWG1502460	
Dimethyl Phthalate	ND	U	9.9	2.0	0.25	1	03/26/15	04/02/15	KWG1502460	
2,6-Dinitrotoluene	ND	U	9.9	0.50	0.35	1	03/26/15	04/02/15	KWG1502460	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Semi-Volatile Organic Compounds by GC/MS

Sample Name: FTP-1
Lab Code: K1502961-001
Extraction Method: EPA 3520C
Analysis Method: 8270D

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
3-Nitroaniline	ND	U	25	1.0	3.3	1	03/26/15	04/02/15	KWG1502460	
2,4-Dinitrophenol	ND	U	25	25	2.2	1	03/26/15	04/02/15	KWG1502460	
Dibenzofuran	5.7	J	9.9	0.50	0.33	1	03/26/15	04/02/15	KWG1502460	
4-Nitrophenol	ND	U	25	10	1.9	1	03/26/15	04/02/15	KWG1502460	
2,4-Dinitrotoluene	ND	U	9.9	1.0	0.27	1	03/26/15	04/02/15	KWG1502460	
Fluorene	8.9	J	9.9	0.50	0.32	1	03/26/15	04/02/15	KWG1502460	
4-Chlorophenyl Phenyl Ether	ND	U	9.9	0.50	0.28	1	03/26/15	04/02/15	KWG1502460	
Diethyl Phthalate	ND	U	9.9	0.50	0.29	1	03/26/15	04/02/15	KWG1502460	
4-Nitroaniline	ND	U	25	4.0	4.0	1	03/26/15	04/02/15	KWG1502460	
2-Methyl-4,6-dinitrophenol	ND	U	25	10	2.1	1	03/26/15	04/02/15	KWG1502460	
N-Nitrosodiphenylamine	ND	U	9.9	0.50	0.48	1	03/26/15	04/02/15	KWG1502460	
1,2-Diphenylhydrazine†	ND	U	9.9	0.50	0.51	1	03/26/15	04/02/15	KWG1502460	
4-Bromophenyl Phenyl Ether	ND	U	9.9	0.50	0.27	1	03/26/15	04/02/15	KWG1502460	
Hexachlorobenzene	ND	U	9.9	0.63	0.63	1	03/26/15	04/02/15	KWG1502460	
Pentachlorophenol	ND	U	25	5.0	2.4	1	03/26/15	04/02/15	KWG1502460	
Phenanthrene	10		9.9	0.50	0.48	1	03/26/15	04/02/15	KWG1502460	
Anthracene	ND	U	9.9	0.61	0.61	1	03/26/15	04/02/15	KWG1502460	
Carbazole	5.3	J	9.9	0.50	0.36	1	03/26/15	04/02/15	KWG1502460	
Di-n-butyl Phthalate	ND	U	9.9	0.65	0.65	1	03/26/15	04/02/15	KWG1502460	
Fluoranthene	ND	U	9.9	0.65	0.65	1	03/26/15	04/02/15	KWG1502460	
Pyrene	1.7	J	9.9	0.73	0.73	1	03/26/15	04/02/15	KWG1502460	
Butyl Benzyl Phthalate	ND	U	9.9	0.50	0.47	1	03/26/15	04/02/15	KWG1502460	
3,3'-Dichlorobenzidine	ND	U	25	2.0	0.27	1	03/26/15	04/02/15	KWG1502460	
Benz(a)anthracene	ND	U	9.9	0.59	0.59	1	03/26/15	04/02/15	KWG1502460	
Chrysene	ND	U	9.9	1.0	0.79	1	03/26/15	04/02/15	KWG1502460	
Bis(2-ethylhexyl) Phthalate	4.9	J	9.9	2.0	1.9	1	03/26/15	04/02/15	KWG1502460	
Di-n-octyl Phthalate	ND	U	9.9	0.63	0.63	1	03/26/15	04/02/15	KWG1502460	
Benzo(b)fluoranthene	ND	U	9.9	0.58	0.58	1	03/26/15	04/02/15	KWG1502460	
Benzo(k)fluoranthene	ND	U	9.9	0.83	0.83	1	03/26/15	04/02/15	KWG1502460	
Benzo(a)pyrene	ND	U	9.9	0.50	0.65	1	03/26/15	04/02/15	KWG1502460	
Indeno(1,2,3-cd)pyrene	ND	U	9.9	0.68	0.68	1	03/26/15	04/02/15	KWG1502460	
Dibenz(a,h)anthracene	ND	U	9.9	1.0	0.75	1	03/26/15	04/02/15	KWG1502460	
Benzo(g,h,i)perylene	ND	U	9.9	0.81	0.81	1	03/26/15	04/02/15	KWG1502460	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: YTC/106-45760003
Sample Matrix: Water

Service Request: K1502961
Date Collected: 03/19/2015
Date Received: 03/23/2015

Semi-Volatile Organic Compounds by GC/MS

Sample Name: FTP-1
Lab Code: K1502961-001

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	75	20-110	04/02/15	Acceptable
Phenol-d6	79	10-115	04/02/15	Acceptable
Nitrobenzene-d5	77	40-110	04/02/15	Acceptable
2-Fluorobiphenyl	74	50-110	04/02/15	Acceptable
2,4,6-Tribromophenol	98	40-125	04/02/15	Acceptable
Terphenyl-d14	56	50-135	04/02/15	Acceptable

† Analyte Comments

4-Methylphenol This analyte cannot be separated from 3-Methylphenol.
 1,2-Diphenylhydrazine This compound is quantitated as Azobenzene.

Comments: _____



ALS Environmental
ALS Group SA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T : 1 360 577 7222
F : 1 360 636 1068
www.alsglobal.com

October 20, 2015

Analytical Report for Service Request No: K1510531

Keir Craigie
Tetra Tech, Inc.
19803 North Creek Parkway
Bothell, WA 98011

RE: Yakima Training Center / 106-45760003

Dear Keir,

Enclosed are the results of the sample(s) submitted to our laboratory September 23, 2015
For your reference, these analyses have been assigned our service request number **K1510531**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group SA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at gregory.salata@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Gregory Salata, Ph.D.
Client Services
Manager



ALS Environmental
ALS Group SA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T : 1 360 577 7222
F : 1 360 636 1068
www.alsglobal.com

Table of Contents

Acronyms

Qualifiers

State Certifications, Accreditations, And Licenses

Case Narrative

Chain of Custody

General Chemistry

Metals

Diesel and Residual Range Organics

Gasoline Range Organics

Volatile Organic Compounds

Semi-Volatile Organic Compounds by GCMS

Raw Data

General Chemistry

Metals

Diesel and Residual Range Organics

Gasoline Range Organics

Volatile Organic Compounds

Semi-Volatile Organic Compounds by GCMS

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.



Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS ENVIRONMENTAL

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request No.: K1510531
Date Received: 09/23/15

Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Nineteen water samples were received for analysis at ALS Environmental on 09/23/15. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

General Chemistry Parameters

Total Organic Carbon by EPA Method 9060:

The Relative Standard Difference (RSD) criterion for the replicate analysis in samples MW-4 and MW-6 were not applicable because the analyte concentration was not significantly greater than the Method Reporting Limit (MRL). Analytical values derived from measurements close to the detection limit are not subject to the same accuracy and precision criteria as results derived from measurements higher on the calibration range for the method.

No other anomalies associated with the analysis of these samples were observed.

Dissolved Metals

No anomalies associated with the analysis of these samples were observed.

Diesel Range Organics by Method NWTPH-Dx

Matrix Spike Recovery Exceptions:

The control criteria for matrix spike recovery of Residual Range Organics (RRO) for sample FTP-1 were not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

Sample Notes and Discussion:

Manual integration of one or more chromatographic peaks was required to correct the integration performed by the automated data processing program. The manual integration was performed in accordance with ALS policy, which is consistent with the National Environmental Laboratory Accreditation Program (NELAP), Department of Defense (DOD), and other certifying agencies. The analytes that required manual integrations are identified on each sample report contained in this data package.

No other anomalies associated with the analysis of these samples were observed.

Approved by Gregory Salata

Gasoline Range Organics by Method NWTPH-Gx

Sample Notes and Discussion:

Manual integration of one or more chromatographic peaks was required to correct the integration performed by the automated data processing program. The manual integration was performed in accordance with ALS policy, which is consistent with the National Environmental Laboratory Accreditation Program (NELAP), Department of Defense (DOD), and other certifying agencies. The analytes that required manual integrations are identified on each sample report contained in this data package.

No other anomalies associated with the analysis of these samples were observed.

Volatile Organic Compounds by EPA Method 8260

Calibration Verification Exceptions:

The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS27\0925F004.D: n-Propylbenzene, 4-Chlorotoluene and n-Butylbenzene. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS46\0927F002.D: Methyl tert-Butyl Ether and 2-Hexanone. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS46\0929F004.D: 2-Butanone (MEK), 2-Hexanone and 1,2-Dibromo-3-chloropropane (DBCP). In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Surrogate Exceptions:

The upper control criterion was exceeded by 4% for the surrogate Dibromofluoromethane in sample FTP-1. The error associated with elevated recovery equates to a potential slight bias. The result was flagged to indicate the issue. No further corrective action was taken.

Matrix Spike Recovery Exceptions:

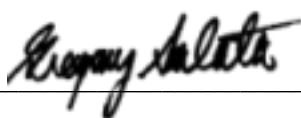
The replicate Matrix Spikes (MS/DMS) KWG1509221-1 and KWG1509221-2 recoveries of several analytes for sample FTP-1 were outside control criteria. Positive detections in the parent sample are flagged as per the DOD QAPP. No further corrective action was appropriate.

Sample Notes and Discussion:

Manual integration of one or more chromatographic peaks was required to correct the integration performed by the automated data processing program. The manual integrations were performed in accordance with ALS policy, which is consistent with the National Environmental Laboratory Accreditation Program (NELAP), Department of Defense (DOD), and other certifying agencies. The analytes that required manual integrations are identified on each sample report contained in this data package.

No other anomalies associated with the analysis of these samples were observed.

Approved by _____



Semivolatile Organic Compounds by EPA Method 8270

Matrix Spike Recovery Exceptions:

The matrix spike and/or duplicate matrix spike recovery of 4-Nitroaniline, Di-n-butyl Phthalate, Fluoranthene, and 3,3'-Dichlorobenzidine for sample FTP-1 was outside control criteria. Recovery in the replicate Laboratory Control Samples (LCS/DLCS) was acceptable, which indicated the analytical batch was in control. The matrix spike outlier suggested a potential low bias in this matrix. The analytes in question was/were not detected in the parent sample and were therefore not flagged in the parent sample as specified in DoD QSM v.4.2 to indicate the potential matrix interference. No further corrective action was appropriate.

Relative Percent Difference Exceptions:

The Relative Percent Difference (RPD) for 3-Nitroaniline, 4-Nitroaniline, Di-n-butyl Phthalate, and Fluoranthene in the replicate matrix spike analyses of sample FTP-1 was outside control criteria. All spike recoveries and the RPD for the analytes in question were within acceptance limits in the LCS/DLCS, indicating the analytical batch was in control. No further corrective action was taken.

Elevated Detection Limits:

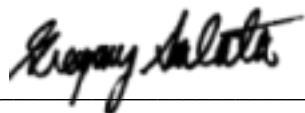
The detection limit was elevated for Acenaphthylene in sample FTP-1. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compound at the normal limit. The result was flagged to indicate the matrix interference.

Sample Notes and Discussion:

Manual integration of one or more chromatographic peaks was required to correct the integration performed by the automated data processing program. The manual integration was performed in accordance with ALS policy, which is consistent with the National Environmental Laboratory Accreditation Program (NELAP), Department of Defense (DOD), and other certifying agencies. The analytes that required manual integrations are identified on each sample report contained in this data package.

No other anomalies associated with the analysis of these samples were observed.

Approved by _____







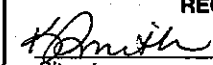
Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

PROJECT NAME: <u>Yakima Training Center</u>					NUMBER OF CONTAINERS																
PROJECT NUMBER: <u>106-45760003</u>																					
PROJECT MANAGER: <u>Mark Ingersoll</u>																					
COMPANY NAME: <u>Tetra Tech</u>																					
ADDRESS: <u>19803 North Creek Parkway</u>																					
CITY/STATE/ZIP: <u>Booth WA 98011</u>																					
E-MAIL ADDRESS: <u>Mark.Ingersoll@TetraTech.com</u>																					
PHONE #: <u>425 785 9220</u> FAX #																					
SAMPLER'S SIGNATURE: <u>Nudejgm</u>																					
SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX																REMARKS	
MTS-4	8-22-15	1200		W	3																
TUR-1	8-22-15	1120		W	3																
TUR-3	8-22-15	1055		W	3																
TUR-5	8-22-15	1140		W	3																
TUR-6	8-22-15	1105		W	3																
TUR-7	8-22-15	1040		W	3																
RIPALC Well	8-22-15	1030		W	3																
Pomona Well	8-22-15	1050		W	3																
Trip-1	8-21-15	1130		W	24																

- Semi-Volatile Organics by GC/MS: 825 8270 8270LL SIM PAH
- Volatile Organics: 624 8260 8021 BTEX
- Hydrocarbons (see below): Diesel Oil
- Oil & Grease/TRPH: 1664 HEM 1664 SGT
- PCBs: Aroclors Congeners
- Pesticides/Herbicides: 608 808 8141 8151
- Chlorophenolics - 8151M: Tri Tetra
- Metals, Total or Dissolved (See List below): PCP
- Cyanide
- (circle) pH, Cond, Cl, SO₄, PO₄, F, NO₂, NO₃, BOD, TSS, TDS, Turb.
- (circle) NH₃-N, COD, TKN, TOC, DOC, NO₂+NO₃, T-Phos
- TOX 9020 AOX 1650 506
- Alkalinity CO₃ HCO₃
- Dioxins/Furans: 1613 8290
- Dissolved Gases: RSK 175 Methane Ethane Ethene


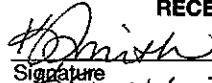
REPORT REQUIREMENTS <input type="checkbox"/> I. Routine Report: Method Blank, Surrogate, as required <input type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. CLP Like Summary (no raw data) <input type="checkbox"/> IV. Data Validation Report <input type="checkbox"/> V. EDD	INVOICE INFORMATION P.O. # <u>1100462</u> Bill To: _____ _____ TURNAROUND REQUIREMENTS <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard (15 working days) <input type="checkbox"/> Provide FAX Results Requested Report Date: _____	Circle which metals are to be analyzed: Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg *INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI (NORTHWEST) OTHER: _____ (CIRCLE ONE) SPECIAL INSTRUCTIONS/COMMENTS: <div style="text-align: right; border: 1px solid black; padding: 5px;"> Container Supply Number  63430 </div> <input type="checkbox"/> Sample Shipment contains USDA regulated soil samples (check box if applicable)
---	---	---

RELINQUISHED BY:  Signature: <u>Nudejgm</u> Printed Name: _____ Date/Time: <u>9-22-15 1345</u> Firm: _____	RECEIVED BY: <u>Fed Ex</u> Signature: _____ Printed Name: _____ Date/Time: _____ Firm: _____	RELINQUISHED BY: Signature: _____ Printed Name: _____ Date/Time: _____ Firm: _____	RECEIVED BY: <u>0940</u>  Signature: <u>Smith</u> Printed Name: _____ Date/Time: <u>9/23/14</u> Firm: <u>ALS</u>
---	--	---	--

PROJECT NAME	<u>Yakima Training Center</u>
PROJECT NUMBER	<u>106-45760003</u>
PROJECT MANAGER	<u>Mark Ingersoll</u>
COMPANY NAME	<u>Tetra Tech</u>
ADDRESS	<u>19803 North Creek Parkways-</u>
CITY/STATE/ZIP	<u>Bothell WA 98011</u>
E-MAIL ADDRESS	<u>Mark.Ingersoll@TetraTech.com</u>
PHONE #	<u>425-785-9220</u> FAX #
SAMPLER'S SIGNATURE	<u>Mark Ingersoll</u>

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	ANALYSIS METHODS															REMARKS		
						Semivolatile Organics by GC/MS 625 <input type="checkbox"/> 8270 <input type="checkbox"/> 8270L <input type="checkbox"/> SIM PAH <input type="checkbox"/>	Volatile Organics 624 <input type="checkbox"/> 8260 <input type="checkbox"/>	Hydrocarbons (*see below) Gas <input checked="" type="checkbox"/> Diesel <input checked="" type="checkbox"/> Oil <input type="checkbox"/>	Oil & Grease/TRPH 1664 HEM <input type="checkbox"/> 1664 SGT <input type="checkbox"/>	Atocloris <input type="checkbox"/>	Pesticides/Herbicides 608 <input type="checkbox"/> 8081 <input type="checkbox"/>	Chlorophenolics Tri <input type="checkbox"/> 8141 <input type="checkbox"/> 8151 <input type="checkbox"/>	Metals Total or Dissolved (See List below) Cyanide <input type="checkbox"/> Hex-Chrom <input type="checkbox"/>	(circle) pH, Cond. (NO ₃ , NH ₄ , TSS, DS, Turb., DOC, NO ₂ -N, COD, TKN, T-Phos)	TOX 9020 <input type="checkbox"/> AOX 1650 <input type="checkbox"/> 506 <input type="checkbox"/>	Alkalinity <input checked="" type="checkbox"/> CO ₃ <input type="checkbox"/> HCO ₃ <input type="checkbox"/>	Dioxins/Furans 1613 <input type="checkbox"/> 8290 <input type="checkbox"/>	Dissolved Gases RSK 175 <input type="checkbox"/> Methane <input type="checkbox"/> CO ₂ <input type="checkbox"/>	Ethane <input type="checkbox"/> Ethene <input type="checkbox"/>				
MW-4	9-22-15	0900		W	30		X					X	X	X	X							ms/msd	
MW-6	9-22-15	1000		W	10		X	X				X	X	X	X								
FTP-1	9-21-15	1235		W	30		X	X															ms/msd
FTP-14	9-24-15	1205		W	5			X															
FTP-15	9-21-15	1140		W	5			X															
FTP-16	9-21-15	1345		W	5			X															
815-2	9-22-15	1130		W	3		X																
DUP-1	7-22-15	1140		W	3		X																
MTS-1	9-22-15	1215		W	3		X																
MTS-2	9-22-15	1220		W	3		X																

REPORT REQUIREMENTS <input type="checkbox"/> I. Routine Report: Method Blank, Surrogate, as required <input type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. CLP Like Summary (no raw data) <input type="checkbox"/> IV. Data Validation Report <input type="checkbox"/> V. EDD	INVOICE INFORMATION P.O. # <u>1108462</u> Bill To: _____	Circle which metals are to be analyzed: <u>per Contract</u> Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg
	TURNAROUND REQUIREMENTS _____ 24 hr. _____ 48 hr. _____ 5 day <input checked="" type="checkbox"/> Standard (15 working days) _____ Provide FAX Results _____ Requested Report Date	*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI (NORTHWEST OTHER: _____) (CIRCLE ONE) SPECIAL INSTRUCTIONS/COMMENTS:

RELINQUISHED BY:  <u>Mark Ingersoll</u> Signature <u>9-22-15 1345</u> Date/Time <u>TTC</u> Firm	RECEIVED BY: <u>Fed Ex</u> Signature Date/Time Printed Name Firm	RELINQUISHED BY: Signature Date/Time Printed Name Firm	RECEIVED BY:  <u>Tom Smith</u> Signature <u>9/23/14 0940</u> Date/Time <u>ALS</u> Firm
--	--	---	---




CHAIN OF CUSTODY

1317 South 13th Ave., Kelso, WA 98626 | 360.577.7222 | 800.695.7222 | 360.636.1068 (fax)

SR# _____

PAGE 2 OF 2 COC# 2

PROJECT INFORMATION				NUMBER OF CONTAINERS	ANALYSIS CHECKLIST													REMARKS									
PROJECT NAME	PROJECT NUMBER	PROJECT MANAGER	COMPANY NAME		Semivolatile Organics by GC/MS	Volatile Organics	Hydrocarbons (see below)	Oil & Grease/TRPH	PCBs	Aroclors	Pesticides/Herbicides	Chlorophenolics	Tri	(Metals) Total or (See List below)	Cyanide	(Total) pH, Cond. (NO ₃)	(Circle) TSS, (DS) Turb., DOC, NO ₂ -N, CO ₂ , TKN, (COC)		TOX 9020	Alkalinity	Dioxins/Furans	1613	Dissolved Gases	RSK 175	CO ₂	Ethane	Ethene
SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	825	827, 821, 827(L)	8021	1664	1864	608	8081	8141	8151														
MW-4	9-22-15	0900	W	30	X								X	X	X	X											MS/MSD
MW-6	9-22-15	1000	W	10	X	X							X	X	X	X											
FTP-1	9-21-15	1235	W	30	X	X							X	X	X	X											MS/MSD
FTP-14	9-21-15	1205	W	5		X																					
FTP-15	9-21-15	1140	W	5		X																					
FTP-16	9-21-15	1345	W	5		X																					
BIS-2	9-22-15	1130	W	3	X																						
DUP-1	9-22-15	1140	W	3	X																						
MTS-1	9-22-15	1215	W	3	X																						
MTS-2	9-22-15	1220	W	3	X																						

REPORT REQUIREMENTS I. Routine Report: Method Blank, Surrogate, as required II. Report Dup., MS, MSD as required III. CLP Like Summary (no raw data) IV. Data Validation Report V. EDD	INVOICE INFORMATION PO. # 1108462 Bill To: _____	Circle which metals are to be analyzed: - per contract. Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg	
	TURNAROUND REQUIREMENTS ___ 24 hr. ___ 48 hr. ___ 5 day <input checked="" type="checkbox"/> Standard (15 working days) ___ Provide FAX Results Requested Report Date _____	INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI (NORTHWEST OTHER:) _____ (CIRCLE ONE)	SPECIAL INSTRUCTIONS/COMMENTS: SUC 9270 Add R. Weinger 9-22-15
	Container Supply Number  83430	<input type="checkbox"/> Sample Shipment contains USDA regulated soil samples (check box if applicable)	

RELINQUISHED BY:  Signature _____ Date/Time 9-22-15 1305 Printed Name R. Weinger Firm ALS	RECEIVED BY: Fed ex Signature _____ Date/Time _____ Printed Name _____ Firm _____	RELINQUISHED BY: Signature _____ Date/Time _____ Printed Name _____ Firm _____	RECEIVED BY:  Signature _____ Date/Time 9/23/14 0940 Printed Name R. Smith Firm ALS
--	--	---	--



PC Shay

Cooler Receipt and Preservation Form

Client / Project: Tetra Tech Service Request K1510531
 Received: 9/23/15 Opened: 9/23/15 By: AD Unloaded: 9/23/15 By: AD

- Samples were received via? Mail Fed Ex UPS DHL PDX Courier Hand Delivered
- Samples were received in: (circle) Cooler Box Envelope Other NA
- Were custody seals on coolers? NA Y N If yes, how many and where? 1, Front
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
3.6	3.5	2.4	2.3	-.1	327		7813 7892 1480		
2.6	2.6	2.1	2.1	0	355		7813 7892 1490		
-3.1	.2	1.2	1.3	+1	356		7813 7892 1505		
+1.3	.0	.7	1.0	+3	361		7813 7892 1477		
-1.1	-.9	.2	.4	+2	352		8079 7303 5371		

- Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
- Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- Did all bottles arrive in good condition (unbroken)? Indicate in the table below. NA Y N
- Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
- Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA Y N
- Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below. NA Y N
- Were VOA vials received without headspace? Indicate in the table below. NA Y N
- Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
MW-6*	2 of 3	40ml		X							
JVR-1	1 of 3	40ml			X						

Notes, Discrepancies, & Resolutions: * one had a lid that was loose and it leaked about 2/3 of the sample.
** Rec'd 1L unsp. Ambers with no analysis marked on the coc.
*** Client wrote 8/22 and 8/21 but the dates on the containers labels have 9/22. logged per containers labels dates.



Diesel and Residual Range Organics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003

Service Request: K1510531

**Cover Page - Organic Analysis Data Package
 Diesel and Residual Range Organics**

Sample Name	Lab Code	Date Collected	Date Received
FTP-1	K1510531-012	09/21/2015	09/23/2015
FTP-14	K1510531-013	09/21/2015	09/23/2015
FTP-15	K1510531-014	09/21/2015	09/23/2015
FTP-16	K1510531-015	09/21/2015	09/23/2015
FTP-1	KWG1509393-1	09/21/2015	09/23/2015
FTP-1MS	KWG1509393-2	09/21/2015	09/23/2015
FTP-1DMS	KWG1509393-3	09/21/2015	09/23/2015

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Diesel and Residual Range Organics

Sample Name: FTP-1
Lab Code: K1510531-012
Extraction Method: METHOD
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	13000	Y	99	20	11	1	09/30/15	10/01/15	KWG1509393	
Residual Range Organics (RRO)	2600	L	99	50	19	1	09/30/15	10/01/15	KWG1509393	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	90	50-150	10/01/15	Acceptable
n-Triacontane	98	50-150	10/01/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Diesel and Residual Range Organics

Sample Name: FTP-14 **Units:** ug/L
Lab Code: K1510531-013 **Basis:** NA
Extraction Method: METHOD **Level:** Low
Analysis Method: NWTPH-Dx

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	210	Y	99	20	11	1	09/30/15	10/07/15	KWG1509393	
Residual Range Organics (RRO)	110	L	99	50	19	1	09/30/15	10/07/15	KWG1509393	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	98	50-150	10/07/15	Acceptable
n-Triacontane	104	50-150	10/07/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Diesel and Residual Range Organics

Sample Name: FTP-15 **Units:** ug/L
Lab Code: K1510531-014 **Basis:** NA
Extraction Method: METHOD **Level:** Low
Analysis Method: NWTPH-Dx

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	46	J	97	20	11	1	09/30/15	10/07/15	KWG1509393	
Residual Range Organics (RRO)	80	J	97	50	19	1	09/30/15	10/07/15	KWG1509393	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	111	50-150	10/07/15	Acceptable
n-Triacontane	116	50-150	10/07/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Diesel and Residual Range Organics

Sample Name: FTP-16 **Units:** ug/L
Lab Code: K1510531-015 **Basis:** NA
Extraction Method: METHOD **Level:** Low
Analysis Method: NWTPH-Dx

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	300	Y	97	20	11	1	09/30/15	10/07/15	KWG1509393	
Residual Range Organics (RRO)	540	L	97	50	19	1	09/30/15	10/07/15	KWG1509393	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	107	50-150	10/07/15	Acceptable
n-Triacontane	120	50-150	10/07/15	Acceptable

Comments: _____



Gasoline Range Organics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003

Service Request: K1510531

**Cover Page - Organic Analysis Data Package
 Gasoline Range Organics**

Sample Name	Lab Code	Date Collected	Date Received
Trip -1	K1510531-009	09/22/2015	09/23/2015
FTP-1	K1510531-012	09/21/2015	09/23/2015
FTP-14	K1510531-013	09/21/2015	09/23/2015
FTP-15	K1510531-014	09/21/2015	09/23/2015
FTP-16	K1510531-015	09/21/2015	09/23/2015
FTP-1	KWG1509211-2	09/21/2015	09/23/2015

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Gasoline Range Organics

Sample Name: Trip -1
Lab Code: K1510531-009
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	25	13	1	09/24/15	09/24/15	KWG1509211	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	98	50-150	09/24/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Gasoline Range Organics

Sample Name: FTP-1 **Units:** ug/L
Lab Code: K1510531-012 **Basis:** NA
Extraction Method: EPA 5030B **Level:** Low
Analysis Method: NWTPH-Gx

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	1300	Y	250	25	13	1	09/24/15	09/24/15	KWG1509211	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	94	50-150	09/24/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Gasoline Range Organics

Sample Name: FTP-14
Lab Code: K1510531-013
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	46	J	250	25	13	1	09/24/15	09/24/15	KWG1509211	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	98	50-150	09/24/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Gasoline Range Organics

Sample Name: FTP-15
Lab Code: K1510531-014
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	25	13	1	09/24/15	09/24/15	KWG1509211	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	99	50-150	09/24/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Gasoline Range Organics

Sample Name: FTP-16
Lab Code: K1510531-015
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	25	13	1	09/24/15	09/24/15	KWG1509211	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	101	50-150	09/24/15	Acceptable

Comments: _____



Volatile Organic Compounds

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003

Service Request: K1510531

**Cover Page - Organic Analysis Data Package
 Volatile Organic Compounds**

Sample Name	Lab Code	Date Collected	Date Received
MTS-4	K1510531-001	09/22/2015	09/23/2015
TVR-1	K1510531-002	09/22/2015	09/23/2015
TVR-3	K1510531-003	09/22/2015	09/23/2015
TVR-5	K1510531-004	09/22/2015	09/23/2015
TVR-6	K1510531-005	09/22/2015	09/23/2015
TVR-7	K1510531-006	09/22/2015	09/23/2015
PAIC Well	K1510531-007	09/22/2015	09/23/2015
Pomona Well	K1510531-008	09/22/2015	09/23/2015
Trip -1	K1510531-009	09/22/2015	09/23/2015
MW-4	K1510531-010	09/22/2015	09/23/2015
MW-6	K1510531-011	09/22/2015	09/23/2015
FTP-1	K1510531-012	09/21/2015	09/23/2015
815-2	K1510531-016	09/22/2015	09/23/2015
DUP-1	K1510531-017	09/22/2015	09/23/2015
MTS-1	K1510531-018	09/22/2015	09/23/2015
MTS-2	K1510531-019	09/22/2015	09/23/2015
FTP-1MS	KWG1509221-1	09/21/2015	09/23/2015
FTP-1DMS	KWG1509221-2	09/21/2015	09/23/2015
MW-4MS	KWG1509266-1	09/22/2015	09/23/2015
MW-4DMS	KWG1509266-2	09/22/2015	09/23/2015

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: MTS-4
Lab Code: K1510531-001
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/25/15	09/25/15	KWG1509221	
Chloromethane	ND	U	0.50	0.20	0.068	1	09/25/15	09/25/15	KWG1509221	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/25/15	09/25/15	KWG1509221	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/25/15	09/25/15	KWG1509221	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/25/15	09/25/15	KWG1509221	
Acetone	4.4	J	20	10	3.3	1	09/25/15	09/25/15	KWG1509221	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	09/25/15	09/25/15	KWG1509221	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/25/15	09/25/15	KWG1509221	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/25/15	09/25/15	KWG1509221	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/25/15	09/25/15	KWG1509221	
cis-1,2-Dichloroethene	0.18	J	0.50	0.20	0.067	1	09/25/15	09/25/15	KWG1509221	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	09/25/15	09/25/15	KWG1509221	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Chloroform	ND	U	0.50	0.20	0.072	1	09/25/15	09/25/15	KWG1509221	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/25/15	09/25/15	KWG1509221	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
Benzene	ND	U	0.50	0.10	0.062	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/25/15	09/25/15	KWG1509221	
Trichloroethene (TCE)	5.6		0.50	0.10	0.10	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/25/15	09/25/15	KWG1509221	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/25/15	09/25/15	KWG1509221	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/25/15	09/25/15	KWG1509221	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/25/15	09/25/15	KWG1509221	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/25/15	09/25/15	KWG1509221	
Toluene	0.15	J	0.50	0.10	0.054	1	09/25/15	09/25/15	KWG1509221	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/25/15	09/25/15	KWG1509221	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/25/15	09/25/15	KWG1509221	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	09/25/15	09/25/15	KWG1509221	
2-Hexanone	ND	U	20	10	2.7	1	09/25/15	09/25/15	KWG1509221	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: MTS-4
Lab Code: K1510531-001
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/25/15	09/25/15	KWG1509221	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/25/15	09/25/15	KWG1509221	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	09/25/15	09/25/15	KWG1509221	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
o-Xylene	ND	U	0.50	0.20	0.074	1	09/25/15	09/25/15	KWG1509221	
Styrene	ND	U	0.50	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
Bromoform	ND	U	0.50	0.50	0.16	1	09/25/15	09/25/15	KWG1509221	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	09/25/15	09/25/15	KWG1509221	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	09/25/15	09/25/15	KWG1509221	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/25/15	09/25/15	KWG1509221	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/25/15	09/25/15	KWG1509221	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	09/25/15	09/25/15	KWG1509221	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	09/25/15	09/25/15	KWG1509221	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	09/25/15	09/25/15	KWG1509221	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	09/25/15	09/25/15	KWG1509221	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/25/15	09/25/15	KWG1509221	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/25/15	09/25/15	KWG1509221	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/25/15	09/25/15	KWG1509221	
Naphthalene	ND	U	2.0	0.30	0.088	1	09/25/15	09/25/15	KWG1509221	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/25/15	09/25/15	KWG1509221	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: MTS-4
Lab Code: K1510531-001

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	114	85-115	09/25/15	Acceptable
1,2-Dichloroethane-d4	115	70-120	09/25/15	Acceptable
Toluene-d8	108	85-120	09/25/15	Acceptable
4-Bromofluorobenzene	99	75-120	09/25/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-1
Lab Code: K1510531-002
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/25/15	09/25/15	KWG1509221	
Chloromethane	0.070	J	0.50	0.20	0.068	1	09/25/15	09/25/15	KWG1509221	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/25/15	09/25/15	KWG1509221	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/25/15	09/25/15	KWG1509221	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/25/15	09/25/15	KWG1509221	
Acetone	ND	U	20	10	3.3	1	09/25/15	09/25/15	KWG1509221	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	09/25/15	09/25/15	KWG1509221	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/25/15	09/25/15	KWG1509221	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/25/15	09/25/15	KWG1509221	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/25/15	09/25/15	KWG1509221	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	09/25/15	09/25/15	KWG1509221	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	09/25/15	09/25/15	KWG1509221	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Chloroform	ND	U	0.50	0.20	0.072	1	09/25/15	09/25/15	KWG1509221	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/25/15	09/25/15	KWG1509221	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
Benzene	ND	U	0.50	0.10	0.062	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/25/15	09/25/15	KWG1509221	
Trichloroethene (TCE)	3.8		0.50	0.10	0.10	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/25/15	09/25/15	KWG1509221	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/25/15	09/25/15	KWG1509221	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/25/15	09/25/15	KWG1509221	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/25/15	09/25/15	KWG1509221	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/25/15	09/25/15	KWG1509221	
Toluene	0.16	J	0.50	0.10	0.054	1	09/25/15	09/25/15	KWG1509221	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/25/15	09/25/15	KWG1509221	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/25/15	09/25/15	KWG1509221	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	09/25/15	09/25/15	KWG1509221	
2-Hexanone	ND	U	20	10	2.7	1	09/25/15	09/25/15	KWG1509221	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-1
Lab Code: K1510531-002
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/25/15	09/25/15	KWG1509221	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/25/15	09/25/15	KWG1509221	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	09/25/15	09/25/15	KWG1509221	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
o-Xylene	ND	U	0.50	0.20	0.074	1	09/25/15	09/25/15	KWG1509221	
Styrene	ND	U	0.50	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
Bromoform	ND	U	0.50	0.50	0.16	1	09/25/15	09/25/15	KWG1509221	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	09/25/15	09/25/15	KWG1509221	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	09/25/15	09/25/15	KWG1509221	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/25/15	09/25/15	KWG1509221	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/25/15	09/25/15	KWG1509221	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	09/25/15	09/25/15	KWG1509221	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	09/25/15	09/25/15	KWG1509221	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	09/25/15	09/25/15	KWG1509221	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	09/25/15	09/25/15	KWG1509221	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/25/15	09/25/15	KWG1509221	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/25/15	09/25/15	KWG1509221	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/25/15	09/25/15	KWG1509221	
Naphthalene	ND	U	2.0	0.30	0.088	1	09/25/15	09/25/15	KWG1509221	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/25/15	09/25/15	KWG1509221	

Comments:

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-1
Lab Code: K1510531-002

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	114	85-115	09/25/15	Acceptable
1,2-Dichloroethane-d4	114	70-120	09/25/15	Acceptable
Toluene-d8	108	85-120	09/25/15	Acceptable
4-Bromofluorobenzene	97	75-120	09/25/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-3
Lab Code: K1510531-003
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/25/15	09/25/15	KWG1509221	
Chloromethane	ND	U	0.50	0.20	0.068	1	09/25/15	09/25/15	KWG1509221	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/25/15	09/25/15	KWG1509221	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/25/15	09/25/15	KWG1509221	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/25/15	09/25/15	KWG1509221	
Acetone	ND	U	20	10	3.3	1	09/25/15	09/25/15	KWG1509221	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	09/25/15	09/25/15	KWG1509221	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/25/15	09/25/15	KWG1509221	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/25/15	09/25/15	KWG1509221	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/25/15	09/25/15	KWG1509221	
cis-1,2-Dichloroethene	0.12	J	0.50	0.20	0.067	1	09/25/15	09/25/15	KWG1509221	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	09/25/15	09/25/15	KWG1509221	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Chloroform	0.21	J	0.50	0.20	0.072	1	09/25/15	09/25/15	KWG1509221	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/25/15	09/25/15	KWG1509221	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
Benzene	ND	U	0.50	0.10	0.062	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/25/15	09/25/15	KWG1509221	
Trichloroethene (TCE)	8.4		0.50	0.10	0.10	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/25/15	09/25/15	KWG1509221	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/25/15	09/25/15	KWG1509221	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/25/15	09/25/15	KWG1509221	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/25/15	09/25/15	KWG1509221	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/25/15	09/25/15	KWG1509221	
Toluene	0.13	J	0.50	0.10	0.054	1	09/25/15	09/25/15	KWG1509221	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/25/15	09/25/15	KWG1509221	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/25/15	09/25/15	KWG1509221	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	09/25/15	09/25/15	KWG1509221	
2-Hexanone	ND	U	20	10	2.7	1	09/25/15	09/25/15	KWG1509221	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-3
Lab Code: K1510531-003
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/25/15	09/25/15	KWG1509221	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/25/15	09/25/15	KWG1509221	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	09/25/15	09/25/15	KWG1509221	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
o-Xylene	ND	U	0.50	0.20	0.074	1	09/25/15	09/25/15	KWG1509221	
Styrene	ND	U	0.50	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
Bromoform	ND	U	0.50	0.50	0.16	1	09/25/15	09/25/15	KWG1509221	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	09/25/15	09/25/15	KWG1509221	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	09/25/15	09/25/15	KWG1509221	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/25/15	09/25/15	KWG1509221	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/25/15	09/25/15	KWG1509221	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	09/25/15	09/25/15	KWG1509221	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	09/25/15	09/25/15	KWG1509221	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	09/25/15	09/25/15	KWG1509221	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	09/25/15	09/25/15	KWG1509221	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/25/15	09/25/15	KWG1509221	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/25/15	09/25/15	KWG1509221	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/25/15	09/25/15	KWG1509221	
Naphthalene	ND	U	2.0	0.30	0.088	1	09/25/15	09/25/15	KWG1509221	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/25/15	09/25/15	KWG1509221	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-3
Lab Code: K1510531-003

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	113	85-115	09/25/15	Acceptable
1,2-Dichloroethane-d4	113	70-120	09/25/15	Acceptable
Toluene-d8	107	85-120	09/25/15	Acceptable
4-Bromofluorobenzene	98	75-120	09/25/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-5
Lab Code: K1510531-004
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/25/15	09/25/15	KWG1509221	
Chloromethane	ND	U	0.50	0.20	0.068	1	09/25/15	09/25/15	KWG1509221	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/25/15	09/25/15	KWG1509221	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/25/15	09/25/15	KWG1509221	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/25/15	09/25/15	KWG1509221	
Acetone	4.0	J	20	10	3.3	1	09/25/15	09/25/15	KWG1509221	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	09/25/15	09/25/15	KWG1509221	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/25/15	09/25/15	KWG1509221	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/25/15	09/25/15	KWG1509221	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/25/15	09/25/15	KWG1509221	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	09/25/15	09/25/15	KWG1509221	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	09/25/15	09/25/15	KWG1509221	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Chloroform	ND	U	0.50	0.20	0.072	1	09/25/15	09/25/15	KWG1509221	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/25/15	09/25/15	KWG1509221	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
Benzene	ND	U	0.50	0.10	0.062	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/25/15	09/25/15	KWG1509221	
Trichloroethene (TCE)	4.4	J	0.50	0.10	0.10	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/25/15	09/25/15	KWG1509221	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/25/15	09/25/15	KWG1509221	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/25/15	09/25/15	KWG1509221	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/25/15	09/25/15	KWG1509221	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/25/15	09/25/15	KWG1509221	
Toluene	0.14	J	0.50	0.10	0.054	1	09/25/15	09/25/15	KWG1509221	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/25/15	09/25/15	KWG1509221	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/25/15	09/25/15	KWG1509221	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	09/25/15	09/25/15	KWG1509221	
2-Hexanone	ND	U	20	10	2.7	1	09/25/15	09/25/15	KWG1509221	

Comments:

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-5
Lab Code: K1510531-004
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/25/15	09/25/15	KWG1509221	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/25/15	09/25/15	KWG1509221	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	09/25/15	09/25/15	KWG1509221	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
o-Xylene	ND	U	0.50	0.20	0.074	1	09/25/15	09/25/15	KWG1509221	
Styrene	ND	U	0.50	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
Bromoform	ND	U	0.50	0.50	0.16	1	09/25/15	09/25/15	KWG1509221	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	09/25/15	09/25/15	KWG1509221	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	09/25/15	09/25/15	KWG1509221	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/25/15	09/25/15	KWG1509221	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/25/15	09/25/15	KWG1509221	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	09/25/15	09/25/15	KWG1509221	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	09/25/15	09/25/15	KWG1509221	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	09/25/15	09/25/15	KWG1509221	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	09/25/15	09/25/15	KWG1509221	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/25/15	09/25/15	KWG1509221	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/25/15	09/25/15	KWG1509221	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/25/15	09/25/15	KWG1509221	
Naphthalene	ND	U	2.0	0.30	0.088	1	09/25/15	09/25/15	KWG1509221	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/25/15	09/25/15	KWG1509221	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-5
Lab Code: K1510531-004

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	113	85-115	09/25/15	Acceptable
1,2-Dichloroethane-d4	113	70-120	09/25/15	Acceptable
Toluene-d8	108	85-120	09/25/15	Acceptable
4-Bromofluorobenzene	98	75-120	09/25/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-6
Lab Code: K1510531-005
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/25/15	09/25/15	KWG1509221	
Chloromethane	ND	U	0.50	0.20	0.068	1	09/25/15	09/25/15	KWG1509221	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/25/15	09/25/15	KWG1509221	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/25/15	09/25/15	KWG1509221	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/25/15	09/25/15	KWG1509221	
Acetone	ND	U	20	10	3.3	1	09/25/15	09/25/15	KWG1509221	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	09/25/15	09/25/15	KWG1509221	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/25/15	09/25/15	KWG1509221	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/25/15	09/25/15	KWG1509221	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/25/15	09/25/15	KWG1509221	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	09/25/15	09/25/15	KWG1509221	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	09/25/15	09/25/15	KWG1509221	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Chloroform	0.090	J	0.50	0.20	0.072	1	09/25/15	09/25/15	KWG1509221	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/25/15	09/25/15	KWG1509221	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
Benzene	ND	U	0.50	0.10	0.062	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/25/15	09/25/15	KWG1509221	
Trichloroethene (TCE)	9.9		0.50	0.10	0.10	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/25/15	09/25/15	KWG1509221	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/25/15	09/25/15	KWG1509221	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/25/15	09/25/15	KWG1509221	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/25/15	09/25/15	KWG1509221	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/25/15	09/25/15	KWG1509221	
Toluene	0.29	J	0.50	0.10	0.054	1	09/25/15	09/25/15	KWG1509221	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/25/15	09/25/15	KWG1509221	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/25/15	09/25/15	KWG1509221	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	09/25/15	09/25/15	KWG1509221	
2-Hexanone	ND	U	20	10	2.7	1	09/25/15	09/25/15	KWG1509221	

Comments:

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-6
Lab Code: K1510531-005
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/25/15	09/25/15	KWG1509221	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/25/15	09/25/15	KWG1509221	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	09/25/15	09/25/15	KWG1509221	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
o-Xylene	ND	U	0.50	0.20	0.074	1	09/25/15	09/25/15	KWG1509221	
Styrene	ND	U	0.50	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
Bromoform	ND	U	0.50	0.50	0.16	1	09/25/15	09/25/15	KWG1509221	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	09/25/15	09/25/15	KWG1509221	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	09/25/15	09/25/15	KWG1509221	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/25/15	09/25/15	KWG1509221	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/25/15	09/25/15	KWG1509221	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	09/25/15	09/25/15	KWG1509221	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	09/25/15	09/25/15	KWG1509221	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	09/25/15	09/25/15	KWG1509221	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	09/25/15	09/25/15	KWG1509221	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/25/15	09/25/15	KWG1509221	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/25/15	09/25/15	KWG1509221	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/25/15	09/25/15	KWG1509221	
Naphthalene	ND	U	2.0	0.30	0.088	1	09/25/15	09/25/15	KWG1509221	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/25/15	09/25/15	KWG1509221	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-6
Lab Code: K1510531-005

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	115	85-115	09/25/15	Acceptable
1,2-Dichloroethane-d4	116	70-120	09/25/15	Acceptable
Toluene-d8	108	85-120	09/25/15	Acceptable
4-Bromofluorobenzene	98	75-120	09/25/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-7
Lab Code: K1510531-006
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/25/15	09/25/15	KWG1509221	
Chloromethane	ND	U	0.50	0.20	0.068	1	09/25/15	09/25/15	KWG1509221	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/25/15	09/25/15	KWG1509221	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/25/15	09/25/15	KWG1509221	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/25/15	09/25/15	KWG1509221	
Acetone	ND	U	20	10	3.3	1	09/25/15	09/25/15	KWG1509221	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	09/25/15	09/25/15	KWG1509221	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/25/15	09/25/15	KWG1509221	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/25/15	09/25/15	KWG1509221	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/25/15	09/25/15	KWG1509221	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	09/25/15	09/25/15	KWG1509221	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	09/25/15	09/25/15	KWG1509221	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Chloroform	0.11	J	0.50	0.20	0.072	1	09/25/15	09/25/15	KWG1509221	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/25/15	09/25/15	KWG1509221	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/25/15	09/25/15	KWG1509221	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
Benzene	ND	U	0.50	0.10	0.062	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/25/15	09/25/15	KWG1509221	
Trichloroethene (TCE)	10		0.50	0.10	0.10	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/25/15	09/25/15	KWG1509221	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/25/15	09/25/15	KWG1509221	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/25/15	09/25/15	KWG1509221	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/25/15	09/25/15	KWG1509221	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/25/15	09/25/15	KWG1509221	
Toluene	ND	U	0.50	0.10	0.054	1	09/25/15	09/25/15	KWG1509221	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/25/15	09/25/15	KWG1509221	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/25/15	09/25/15	KWG1509221	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	09/25/15	09/25/15	KWG1509221	
2-Hexanone	ND	U	20	10	2.7	1	09/25/15	09/25/15	KWG1509221	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-7
Lab Code: K1510531-006
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/25/15	09/25/15	KWG1509221	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/25/15	09/25/15	KWG1509221	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	09/25/15	09/25/15	KWG1509221	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	09/25/15	09/25/15	KWG1509221	
o-Xylene	ND	U	0.50	0.20	0.074	1	09/25/15	09/25/15	KWG1509221	
Styrene	ND	U	0.50	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
Bromoform	ND	U	0.50	0.50	0.16	1	09/25/15	09/25/15	KWG1509221	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	09/25/15	09/25/15	KWG1509221	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/25/15	09/25/15	KWG1509221	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	09/25/15	09/25/15	KWG1509221	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/25/15	09/25/15	KWG1509221	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	09/25/15	09/25/15	KWG1509221	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/25/15	09/25/15	KWG1509221	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	09/25/15	09/25/15	KWG1509221	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	09/25/15	09/25/15	KWG1509221	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	09/25/15	09/25/15	KWG1509221	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	09/25/15	09/25/15	KWG1509221	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/25/15	09/25/15	KWG1509221	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	09/25/15	09/25/15	KWG1509221	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/25/15	09/25/15	KWG1509221	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/25/15	09/25/15	KWG1509221	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/25/15	09/25/15	KWG1509221	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/25/15	09/25/15	KWG1509221	
Naphthalene	ND	U	2.0	0.30	0.088	1	09/25/15	09/25/15	KWG1509221	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/25/15	09/25/15	KWG1509221	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: TVR-7
Lab Code: K1510531-006

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	113	85-115	09/25/15	Acceptable
1,2-Dichloroethane-d4	113	70-120	09/25/15	Acceptable
Toluene-d8	108	85-120	09/25/15	Acceptable
4-Bromofluorobenzene	98	75-120	09/25/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: PAIC Well
Lab Code: K1510531-007
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/27/15	09/27/15	KWG1509266	
Chloromethane	ND	U	0.50	0.20	0.068	1	09/27/15	09/27/15	KWG1509266	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/27/15	09/27/15	KWG1509266	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/27/15	09/27/15	KWG1509266	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/27/15	09/27/15	KWG1509266	
Acetone	ND	U	20	10	3.3	1	09/27/15	09/27/15	KWG1509266	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	09/27/15	09/27/15	KWG1509266	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/27/15	09/27/15	KWG1509266	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/27/15	09/27/15	KWG1509266	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/27/15	09/27/15	KWG1509266	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	09/27/15	09/27/15	KWG1509266	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	09/27/15	09/27/15	KWG1509266	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Chloroform	ND	U	0.50	0.20	0.072	1	09/27/15	09/27/15	KWG1509266	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/27/15	09/27/15	KWG1509266	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
Benzene	ND	U	0.50	0.10	0.062	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/27/15	09/27/15	KWG1509266	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/27/15	09/27/15	KWG1509266	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/27/15	09/27/15	KWG1509266	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/27/15	09/27/15	KWG1509266	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/27/15	09/27/15	KWG1509266	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/27/15	09/27/15	KWG1509266	
Toluene	0.12	J	0.50	0.10	0.054	1	09/27/15	09/27/15	KWG1509266	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/27/15	09/27/15	KWG1509266	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/27/15	09/27/15	KWG1509266	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	09/27/15	09/27/15	KWG1509266	
2-Hexanone	ND	U	20	10	2.7	1	09/27/15	09/27/15	KWG1509266	*

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: PAIC Well
Lab Code: K1510531-007
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/27/15	09/27/15	KWG1509266	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/27/15	09/27/15	KWG1509266	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	09/27/15	09/27/15	KWG1509266	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
o-Xylene	ND	U	0.50	0.20	0.074	1	09/27/15	09/27/15	KWG1509266	
Styrene	ND	U	0.50	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
Bromoform	ND	U	0.50	0.50	0.16	1	09/27/15	09/27/15	KWG1509266	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	09/27/15	09/27/15	KWG1509266	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	09/27/15	09/27/15	KWG1509266	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/27/15	09/27/15	KWG1509266	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/27/15	09/27/15	KWG1509266	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	09/27/15	09/27/15	KWG1509266	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	09/27/15	09/27/15	KWG1509266	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	09/27/15	09/27/15	KWG1509266	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	09/27/15	09/27/15	KWG1509266	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/27/15	09/27/15	KWG1509266	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/27/15	09/27/15	KWG1509266	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/27/15	09/27/15	KWG1509266	
Naphthalene	ND	U	2.0	0.30	0.088	1	09/27/15	09/27/15	KWG1509266	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/27/15	09/27/15	KWG1509266	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: PAIC Well
Lab Code: K1510531-007

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	85-115	09/27/15	Acceptable
1,2-Dichloroethane-d4	101	70-120	09/27/15	Acceptable
Toluene-d8	100	85-120	09/27/15	Acceptable
4-Bromofluorobenzene	99	75-120	09/27/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: Pomona Well
Lab Code: K1510531-008
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/27/15	09/27/15	KWG1509266	
Chloromethane	ND	U	0.50	0.20	0.068	1	09/27/15	09/27/15	KWG1509266	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/27/15	09/27/15	KWG1509266	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/27/15	09/27/15	KWG1509266	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/27/15	09/27/15	KWG1509266	
Acetone	ND	U	20	10	3.3	1	09/27/15	09/27/15	KWG1509266	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	09/27/15	09/27/15	KWG1509266	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/27/15	09/27/15	KWG1509266	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/27/15	09/27/15	KWG1509266	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/27/15	09/27/15	KWG1509266	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	09/27/15	09/27/15	KWG1509266	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	09/27/15	09/27/15	KWG1509266	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Chloroform	ND	U	0.50	0.20	0.072	1	09/27/15	09/27/15	KWG1509266	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/27/15	09/27/15	KWG1509266	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
Benzene	ND	U	0.50	0.10	0.062	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/27/15	09/27/15	KWG1509266	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/27/15	09/27/15	KWG1509266	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/27/15	09/27/15	KWG1509266	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/27/15	09/27/15	KWG1509266	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/27/15	09/27/15	KWG1509266	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/27/15	09/27/15	KWG1509266	
Toluene	0.18	J	0.50	0.10	0.054	1	09/27/15	09/27/15	KWG1509266	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/27/15	09/27/15	KWG1509266	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/27/15	09/27/15	KWG1509266	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	09/27/15	09/27/15	KWG1509266	
2-Hexanone	ND	U	20	10	2.7	1	09/27/15	09/27/15	KWG1509266	*

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: Pomona Well
Lab Code: K1510531-008
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/27/15	09/27/15	KWG1509266	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/27/15	09/27/15	KWG1509266	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	09/27/15	09/27/15	KWG1509266	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
o-Xylene	ND	U	0.50	0.20	0.074	1	09/27/15	09/27/15	KWG1509266	
Styrene	ND	U	0.50	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
Bromoform	ND	U	0.50	0.50	0.16	1	09/27/15	09/27/15	KWG1509266	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	09/27/15	09/27/15	KWG1509266	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	09/27/15	09/27/15	KWG1509266	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/27/15	09/27/15	KWG1509266	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/27/15	09/27/15	KWG1509266	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	09/27/15	09/27/15	KWG1509266	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	09/27/15	09/27/15	KWG1509266	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	09/27/15	09/27/15	KWG1509266	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	09/27/15	09/27/15	KWG1509266	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/27/15	09/27/15	KWG1509266	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/27/15	09/27/15	KWG1509266	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/27/15	09/27/15	KWG1509266	
Naphthalene	ND	U	2.0	0.30	0.088	1	09/27/15	09/27/15	KWG1509266	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/27/15	09/27/15	KWG1509266	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: Pomona Well
Lab Code: K1510531-008

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	111	85-115	09/27/15	Acceptable
1,2-Dichloroethane-d4	105	70-120	09/27/15	Acceptable
Toluene-d8	101	85-120	09/27/15	Acceptable
4-Bromofluorobenzene	98	75-120	09/27/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: Trip -1
Lab Code: K1510531-009
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/27/15	09/27/15	KWG1509266	
Chloromethane	ND	U	0.50	0.20	0.068	1	09/27/15	09/27/15	KWG1509266	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/27/15	09/27/15	KWG1509266	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/27/15	09/27/15	KWG1509266	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/27/15	09/27/15	KWG1509266	
Acetone	ND	U	20	10	3.3	1	09/27/15	09/27/15	KWG1509266	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	09/27/15	09/27/15	KWG1509266	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/27/15	09/27/15	KWG1509266	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/27/15	09/27/15	KWG1509266	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/27/15	09/27/15	KWG1509266	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	09/27/15	09/27/15	KWG1509266	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	09/27/15	09/27/15	KWG1509266	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Chloroform	0.10	J	0.50	0.20	0.072	1	09/27/15	09/27/15	KWG1509266	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/27/15	09/27/15	KWG1509266	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
Benzene	ND	U	0.50	0.10	0.062	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/27/15	09/27/15	KWG1509266	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/27/15	09/27/15	KWG1509266	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/27/15	09/27/15	KWG1509266	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/27/15	09/27/15	KWG1509266	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/27/15	09/27/15	KWG1509266	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/27/15	09/27/15	KWG1509266	
Toluene	0.22	J	0.50	0.10	0.054	1	09/27/15	09/27/15	KWG1509266	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/27/15	09/27/15	KWG1509266	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/27/15	09/27/15	KWG1509266	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	09/27/15	09/27/15	KWG1509266	
2-Hexanone	ND	U	20	10	2.7	1	09/27/15	09/27/15	KWG1509266	*

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: Trip -1
Lab Code: K1510531-009
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/27/15	09/27/15	KWG1509266	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/27/15	09/27/15	KWG1509266	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	09/27/15	09/27/15	KWG1509266	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
o-Xylene	ND	U	0.50	0.20	0.074	1	09/27/15	09/27/15	KWG1509266	
Styrene	ND	U	0.50	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
Bromoform	ND	U	0.50	0.50	0.16	1	09/27/15	09/27/15	KWG1509266	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	09/27/15	09/27/15	KWG1509266	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	09/27/15	09/27/15	KWG1509266	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/27/15	09/27/15	KWG1509266	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/27/15	09/27/15	KWG1509266	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	09/27/15	09/27/15	KWG1509266	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	09/27/15	09/27/15	KWG1509266	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	09/27/15	09/27/15	KWG1509266	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	09/27/15	09/27/15	KWG1509266	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/27/15	09/27/15	KWG1509266	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/27/15	09/27/15	KWG1509266	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/27/15	09/27/15	KWG1509266	
Naphthalene	ND	U	2.0	0.30	0.088	1	09/27/15	09/27/15	KWG1509266	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/27/15	09/27/15	KWG1509266	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: Trip -1
Lab Code: K1510531-009

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	108	85-115	09/27/15	Acceptable
1,2-Dichloroethane-d4	105	70-120	09/27/15	Acceptable
Toluene-d8	100	85-120	09/27/15	Acceptable
4-Bromofluorobenzene	98	75-120	09/27/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: FTP-1
Lab Code: K1510531-012
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/29/15	09/29/15	KWG1509337	
Chloromethane	ND	U	0.50	0.20	0.068	1	09/29/15	09/29/15	KWG1509337	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/29/15	09/29/15	KWG1509337	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/29/15	09/29/15	KWG1509337	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/29/15	09/29/15	KWG1509337	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/29/15	09/29/15	KWG1509337	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/29/15	09/29/15	KWG1509337	
Acetone	13	J	20	10	3.3	1	09/29/15	09/29/15	KWG1509337	
Carbon Disulfide	0.080	J	0.50	0.20	0.069	1	09/29/15	09/29/15	KWG1509337	
Methylene Chloride	0.12	J	2.0	0.20	0.10	1	09/29/15	09/29/15	KWG1509337	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/29/15	09/29/15	KWG1509337	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/29/15	09/29/15	KWG1509337	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/29/15	09/29/15	KWG1509337	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/29/15	09/29/15	KWG1509337	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	09/29/15	09/29/15	KWG1509337	
2-Butanone (MEK)	3.0	J	20	4.0	1.9	1	09/29/15	09/29/15	KWG1509337	*
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/29/15	09/29/15	KWG1509337	
Chloroform	ND	U	0.50	0.20	0.072	1	09/29/15	09/29/15	KWG1509337	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/29/15	09/29/15	KWG1509337	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/29/15	09/29/15	KWG1509337	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/29/15	09/29/15	KWG1509337	
Benzene	6.0	J	0.50	0.10	0.062	1	09/29/15	09/29/15	KWG1509337	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/29/15	09/29/15	KWG1509337	
Trichloroethene (TCE)	0.17	J	0.50	0.10	0.10	1	09/29/15	09/29/15	KWG1509337	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/29/15	09/29/15	KWG1509337	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/29/15	09/29/15	KWG1509337	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/29/15	09/29/15	KWG1509337	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/29/15	09/29/15	KWG1509337	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/29/15	09/29/15	KWG1509337	
Toluene	0.41	J	0.50	0.10	0.054	1	09/29/15	09/29/15	KWG1509337	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/29/15	09/29/15	KWG1509337	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/29/15	09/29/15	KWG1509337	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	09/29/15	09/29/15	KWG1509337	
2-Hexanone	ND	U	20	10	2.7	1	09/29/15	09/29/15	KWG1509337	*

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: FTP-1
Lab Code: K1510531-012
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/29/15	09/29/15	KWG1509337	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/29/15	09/29/15	KWG1509337	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/29/15	09/29/15	KWG1509337	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/29/15	09/29/15	KWG1509337	
Ethylbenzene	6.0		0.50	0.10	0.050	1	09/29/15	09/29/15	KWG1509337	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/29/15	09/29/15	KWG1509337	
m,p-Xylenes	0.21	J	0.50	0.20	0.11	1	09/29/15	09/29/15	KWG1509337	
o-Xylene	1.3		0.50	0.20	0.074	1	09/29/15	09/29/15	KWG1509337	
Styrene	ND	U	0.50	0.20	0.089	1	09/29/15	09/29/15	KWG1509337	
Bromoform	ND	U	0.50	0.50	0.16	1	09/29/15	09/29/15	KWG1509337	
Isopropylbenzene	5.7		2.0	0.20	0.051	1	09/29/15	09/29/15	KWG1509337	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/29/15	09/29/15	KWG1509337	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/29/15	09/29/15	KWG1509337	
n-Propylbenzene	8.3		2.0	0.20	0.054	1	09/29/15	09/29/15	KWG1509337	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/29/15	09/29/15	KWG1509337	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/29/15	09/29/15	KWG1509337	
1,3,5-Trimethylbenzene	0.41	J	2.0	0.20	0.089	1	09/29/15	09/29/15	KWG1509337	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/29/15	09/29/15	KWG1509337	
tert-Butylbenzene	0.29	J	2.0	0.20	0.059	1	09/29/15	09/29/15	KWG1509337	
1,2,4-Trimethylbenzene	62	J	2.0	0.20	0.069	1	09/29/15	09/29/15	KWG1509337	
sec-Butylbenzene	3.3		2.0	0.10	0.062	1	09/29/15	09/29/15	KWG1509337	
4-Isopropyltoluene	4.0		2.0	0.20	0.060	1	09/29/15	09/29/15	KWG1509337	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/29/15	09/29/15	KWG1509337	
1,4-Dichlorobenzene	0.16	J	0.50	0.20	0.12	1	09/29/15	09/29/15	KWG1509337	
n-Butylbenzene	5.3	J	2.0	0.10	0.054	1	09/29/15	09/29/15	KWG1509337	
1,2-Dichlorobenzene	0.99		0.50	0.20	0.12	1	09/29/15	09/29/15	KWG1509337	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/29/15	09/29/15	KWG1509337	*
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/29/15	09/29/15	KWG1509337	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/29/15	09/29/15	KWG1509337	
Naphthalene	93	JD	10	1.5	0.44	5	09/29/15	09/29/15	KWG1509337	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/29/15	09/29/15	KWG1509337	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: FTP-1
Lab Code: K1510531-012

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	119	85-115	09/29/15	Outside Control Limits
1,2-Dichloroethane-d4	119	70-120	09/29/15	Acceptable
Toluene-d8	105	85-120	09/29/15	Acceptable
4-Bromofluorobenzene	95	75-120	09/29/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: 815-2
Lab Code: K1510531-016
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/30/15	09/30/15	KWG1509424	
Chloromethane	ND	U	0.50	0.20	0.068	1	09/30/15	09/30/15	KWG1509424	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/30/15	09/30/15	KWG1509424	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/30/15	09/30/15	KWG1509424	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/30/15	09/30/15	KWG1509424	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/30/15	09/30/15	KWG1509424	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/30/15	09/30/15	KWG1509424	
Acetone	3.4	J	20	10	3.3	1	09/30/15	09/30/15	KWG1509424	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	09/30/15	09/30/15	KWG1509424	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	09/30/15	09/30/15	KWG1509424	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/30/15	09/30/15	KWG1509424	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/30/15	09/30/15	KWG1509424	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/30/15	09/30/15	KWG1509424	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/30/15	09/30/15	KWG1509424	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	09/30/15	09/30/15	KWG1509424	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	09/30/15	09/30/15	KWG1509424	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/30/15	09/30/15	KWG1509424	
Chloroform	ND	U	0.50	0.20	0.072	1	09/30/15	09/30/15	KWG1509424	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/30/15	09/30/15	KWG1509424	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/30/15	09/30/15	KWG1509424	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/30/15	09/30/15	KWG1509424	
Benzene	ND	U	0.50	0.10	0.062	1	09/30/15	09/30/15	KWG1509424	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/30/15	09/30/15	KWG1509424	
Trichloroethene (TCE)	1.1		0.50	0.10	0.10	1	09/30/15	09/30/15	KWG1509424	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/30/15	09/30/15	KWG1509424	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/30/15	09/30/15	KWG1509424	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/30/15	09/30/15	KWG1509424	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/30/15	09/30/15	KWG1509424	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/30/15	09/30/15	KWG1509424	
Toluene	0.33	J	0.50	0.10	0.054	1	09/30/15	09/30/15	KWG1509424	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/30/15	09/30/15	KWG1509424	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/30/15	09/30/15	KWG1509424	
Tetrachloroethene (PCE)	0.16	J	0.50	0.20	0.099	1	09/30/15	09/30/15	KWG1509424	
2-Hexanone	ND	U	20	10	2.7	1	09/30/15	09/30/15	KWG1509424	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: 815-2
Lab Code: K1510531-016
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/30/15	09/30/15	KWG1509424	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/30/15	09/30/15	KWG1509424	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/30/15	09/30/15	KWG1509424	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/30/15	09/30/15	KWG1509424	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	09/30/15	09/30/15	KWG1509424	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/30/15	09/30/15	KWG1509424	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	09/30/15	09/30/15	KWG1509424	
o-Xylene	ND	U	0.50	0.20	0.074	1	09/30/15	09/30/15	KWG1509424	
Styrene	ND	U	0.50	0.20	0.089	1	09/30/15	09/30/15	KWG1509424	
Bromoform	ND	U	0.50	0.50	0.16	1	09/30/15	09/30/15	KWG1509424	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	09/30/15	09/30/15	KWG1509424	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/30/15	09/30/15	KWG1509424	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/30/15	09/30/15	KWG1509424	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	09/30/15	09/30/15	KWG1509424	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/30/15	09/30/15	KWG1509424	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/30/15	09/30/15	KWG1509424	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	09/30/15	09/30/15	KWG1509424	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/30/15	09/30/15	KWG1509424	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	09/30/15	09/30/15	KWG1509424	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	09/30/15	09/30/15	KWG1509424	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	09/30/15	09/30/15	KWG1509424	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	09/30/15	09/30/15	KWG1509424	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/30/15	09/30/15	KWG1509424	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/30/15	09/30/15	KWG1509424	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	09/30/15	09/30/15	KWG1509424	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/30/15	09/30/15	KWG1509424	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/30/15	09/30/15	KWG1509424	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/30/15	09/30/15	KWG1509424	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/30/15	09/30/15	KWG1509424	
Naphthalene	ND	U	2.0	0.30	0.088	1	09/30/15	09/30/15	KWG1509424	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/30/15	09/30/15	KWG1509424	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: 815-2
Lab Code: K1510531-016

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	114	85-115	09/30/15	Acceptable
1,2-Dichloroethane-d4	111	70-120	09/30/15	Acceptable
Toluene-d8	106	85-120	09/30/15	Acceptable
4-Bromofluorobenzene	98	75-120	09/30/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: DUP-1
Lab Code: K1510531-017
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/27/15	09/27/15	KWG1509266	
Chloromethane	ND	U	0.50	0.20	0.068	1	09/27/15	09/27/15	KWG1509266	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/27/15	09/27/15	KWG1509266	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/27/15	09/27/15	KWG1509266	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/27/15	09/27/15	KWG1509266	
Acetone	5.1	J	20	10	3.3	1	09/27/15	09/27/15	KWG1509266	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	09/27/15	09/27/15	KWG1509266	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/27/15	09/27/15	KWG1509266	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/27/15	09/27/15	KWG1509266	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/27/15	09/27/15	KWG1509266	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	09/27/15	09/27/15	KWG1509266	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	09/27/15	09/27/15	KWG1509266	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Chloroform	0.080	J	0.50	0.20	0.072	1	09/27/15	09/27/15	KWG1509266	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/27/15	09/27/15	KWG1509266	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
Benzene	ND	U	0.50	0.10	0.062	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/27/15	09/27/15	KWG1509266	
Trichloroethene (TCE)	4.6		0.50	0.10	0.10	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/27/15	09/27/15	KWG1509266	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/27/15	09/27/15	KWG1509266	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/27/15	09/27/15	KWG1509266	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/27/15	09/27/15	KWG1509266	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/27/15	09/27/15	KWG1509266	
Toluene	0.28	J	0.50	0.10	0.054	1	09/27/15	09/27/15	KWG1509266	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/27/15	09/27/15	KWG1509266	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/27/15	09/27/15	KWG1509266	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	09/27/15	09/27/15	KWG1509266	
2-Hexanone	ND	U	20	10	2.7	1	09/27/15	09/27/15	KWG1509266	*

Comments:

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: DUP-1
Lab Code: K1510531-017
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/27/15	09/27/15	KWG1509266	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/27/15	09/27/15	KWG1509266	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	09/27/15	09/27/15	KWG1509266	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
o-Xylene	ND	U	0.50	0.20	0.074	1	09/27/15	09/27/15	KWG1509266	
Styrene	ND	U	0.50	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
Bromoform	ND	U	0.50	0.50	0.16	1	09/27/15	09/27/15	KWG1509266	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	09/27/15	09/27/15	KWG1509266	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	09/27/15	09/27/15	KWG1509266	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/27/15	09/27/15	KWG1509266	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/27/15	09/27/15	KWG1509266	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	09/27/15	09/27/15	KWG1509266	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	09/27/15	09/27/15	KWG1509266	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	09/27/15	09/27/15	KWG1509266	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	09/27/15	09/27/15	KWG1509266	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/27/15	09/27/15	KWG1509266	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/27/15	09/27/15	KWG1509266	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/27/15	09/27/15	KWG1509266	
Naphthalene	ND	U	2.0	0.30	0.088	1	09/27/15	09/27/15	KWG1509266	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/27/15	09/27/15	KWG1509266	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: DUP-1
Lab Code: K1510531-017

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	110	85-115	09/27/15	Acceptable
1,2-Dichloroethane-d4	105	70-120	09/27/15	Acceptable
Toluene-d8	100	85-120	09/27/15	Acceptable
4-Bromofluorobenzene	97	75-120	09/27/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: MTS-1
Lab Code: K1510531-018
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/27/15	09/27/15	KWG1509266	
Chloromethane	ND	U	0.50	0.20	0.068	1	09/27/15	09/27/15	KWG1509266	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/27/15	09/27/15	KWG1509266	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/27/15	09/27/15	KWG1509266	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/27/15	09/27/15	KWG1509266	
Acetone	5.6	J	20	10	3.3	1	09/27/15	09/27/15	KWG1509266	
Carbon Disulfide	ND	U	0.50	0.20	0.069	1	09/27/15	09/27/15	KWG1509266	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/27/15	09/27/15	KWG1509266	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/27/15	09/27/15	KWG1509266	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/27/15	09/27/15	KWG1509266	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	09/27/15	09/27/15	KWG1509266	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	09/27/15	09/27/15	KWG1509266	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Chloroform	ND	U	0.50	0.20	0.072	1	09/27/15	09/27/15	KWG1509266	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/27/15	09/27/15	KWG1509266	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
Benzene	ND	U	0.50	0.10	0.062	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/27/15	09/27/15	KWG1509266	
Trichloroethene (TCE)	4.0		0.50	0.10	0.10	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/27/15	09/27/15	KWG1509266	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/27/15	09/27/15	KWG1509266	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/27/15	09/27/15	KWG1509266	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/27/15	09/27/15	KWG1509266	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/27/15	09/27/15	KWG1509266	
Toluene	0.10	J	0.50	0.10	0.054	1	09/27/15	09/27/15	KWG1509266	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/27/15	09/27/15	KWG1509266	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/27/15	09/27/15	KWG1509266	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	09/27/15	09/27/15	KWG1509266	
2-Hexanone	ND	U	20	10	2.7	1	09/27/15	09/27/15	KWG1509266	*

Comments:

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: MTS-1
Lab Code: K1510531-018
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/27/15	09/27/15	KWG1509266	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/27/15	09/27/15	KWG1509266	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	09/27/15	09/27/15	KWG1509266	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
o-Xylene	ND	U	0.50	0.20	0.074	1	09/27/15	09/27/15	KWG1509266	
Styrene	ND	U	0.50	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
Bromoform	ND	U	0.50	0.50	0.16	1	09/27/15	09/27/15	KWG1509266	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	09/27/15	09/27/15	KWG1509266	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	09/27/15	09/27/15	KWG1509266	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/27/15	09/27/15	KWG1509266	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/27/15	09/27/15	KWG1509266	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	09/27/15	09/27/15	KWG1509266	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	09/27/15	09/27/15	KWG1509266	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	09/27/15	09/27/15	KWG1509266	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	09/27/15	09/27/15	KWG1509266	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/27/15	09/27/15	KWG1509266	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/27/15	09/27/15	KWG1509266	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/27/15	09/27/15	KWG1509266	
Naphthalene	ND	U	2.0	0.30	0.088	1	09/27/15	09/27/15	KWG1509266	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/27/15	09/27/15	KWG1509266	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: MTS-1
Lab Code: K1510531-018

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	110	85-115	09/27/15	Acceptable
1,2-Dichloroethane-d4	106	70-120	09/27/15	Acceptable
Toluene-d8	100	85-120	09/27/15	Acceptable
4-Bromofluorobenzene	97	75-120	09/27/15	Acceptable

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: MTS-2
Lab Code: K1510531-019
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.20	0.13	1	09/27/15	09/27/15	KWG1509266	
Chloromethane	ND	U	0.50	0.20	0.068	1	09/27/15	09/27/15	KWG1509266	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	09/27/15	09/27/15	KWG1509266	
Bromomethane	ND	U	0.50	0.30	0.16	1	09/27/15	09/27/15	KWG1509266	
Chloroethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Trichlorofluoromethane	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	09/27/15	09/27/15	KWG1509266	
Acetone	4.1	J	20	10	3.3	1	09/27/15	09/27/15	KWG1509266	
Carbon Disulfide	0.080	J	0.50	0.20	0.069	1	09/27/15	09/27/15	KWG1509266	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	09/27/15	09/27/15	KWG1509266	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	09/27/15	09/27/15	KWG1509266	
2,2-Dichloropropane	ND	U	0.50	0.20	0.065	1	09/27/15	09/27/15	KWG1509266	
cis-1,2-Dichloroethene	0.22	J	0.50	0.20	0.067	1	09/27/15	09/27/15	KWG1509266	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	09/27/15	09/27/15	KWG1509266	
Bromochloromethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Chloroform	ND	U	0.50	0.20	0.072	1	09/27/15	09/27/15	KWG1509266	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	09/27/15	09/27/15	KWG1509266	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	09/27/15	09/27/15	KWG1509266	
1,1-Dichloropropene	ND	U	0.50	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
Benzene	ND	U	0.50	0.10	0.062	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.15	0.080	1	09/27/15	09/27/15	KWG1509266	
Trichloroethene (TCE)	11		0.50	0.10	0.10	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	09/27/15	09/27/15	KWG1509266	
Dibromomethane	ND	U	0.50	0.50	0.15	1	09/27/15	09/27/15	KWG1509266	
Bromodichloromethane	ND	U	0.50	0.30	0.091	1	09/27/15	09/27/15	KWG1509266	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	09/27/15	09/27/15	KWG1509266	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	09/27/15	09/27/15	KWG1509266	
Toluene	0.20	J	0.50	0.10	0.054	1	09/27/15	09/27/15	KWG1509266	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	09/27/15	09/27/15	KWG1509266	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	09/27/15	09/27/15	KWG1509266	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	09/27/15	09/27/15	KWG1509266	
2-Hexanone	ND	U	20	10	2.7	1	09/27/15	09/27/15	KWG1509266	*

Comments:

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: MTS-2
Lab Code: K1510531-019
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,3-Dichloropropane	ND	U	0.50	0.30	0.14	1	09/27/15	09/27/15	KWG1509266	
Dibromochloromethane	ND	U	0.50	0.50	0.14	1	09/27/15	09/27/15	KWG1509266	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	09/27/15	09/27/15	KWG1509266	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	09/27/15	09/27/15	KWG1509266	
o-Xylene	ND	U	0.50	0.20	0.074	1	09/27/15	09/27/15	KWG1509266	
Styrene	ND	U	0.50	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
Bromoform	ND	U	0.50	0.50	0.16	1	09/27/15	09/27/15	KWG1509266	
Isopropylbenzene	ND	U	2.0	0.20	0.051	1	09/27/15	09/27/15	KWG1509266	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.20	0.16	1	09/27/15	09/27/15	KWG1509266	
Bromobenzene	ND	U	2.0	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
n-Propylbenzene	ND	U	2.0	0.20	0.054	1	09/27/15	09/27/15	KWG1509266	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	09/27/15	09/27/15	KWG1509266	
2-Chlorotoluene	ND	U	2.0	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
1,3,5-Trimethylbenzene	ND	U	2.0	0.20	0.089	1	09/27/15	09/27/15	KWG1509266	
4-Chlorotoluene	ND	U	2.0	0.20	0.13	1	09/27/15	09/27/15	KWG1509266	
tert-Butylbenzene	ND	U	2.0	0.20	0.059	1	09/27/15	09/27/15	KWG1509266	
1,2,4-Trimethylbenzene	ND	U	2.0	0.20	0.069	1	09/27/15	09/27/15	KWG1509266	
sec-Butylbenzene	ND	U	2.0	0.10	0.062	1	09/27/15	09/27/15	KWG1509266	
4-Isopropyltoluene	ND	U	2.0	0.20	0.060	1	09/27/15	09/27/15	KWG1509266	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	09/27/15	09/27/15	KWG1509266	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
n-Butylbenzene	ND	U	2.0	0.10	0.054	1	09/27/15	09/27/15	KWG1509266	
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	09/27/15	09/27/15	KWG1509266	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	09/27/15	09/27/15	KWG1509266	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	09/27/15	09/27/15	KWG1509266	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	09/27/15	09/27/15	KWG1509266	
Naphthalene	ND	U	2.0	0.30	0.088	1	09/27/15	09/27/15	KWG1509266	
1,2,3-Trichlorobenzene	ND	U	2.0	0.40	0.11	1	09/27/15	09/27/15	KWG1509266	

* See Case Narrative

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/22/2015
Date Received: 09/23/2015

Volatile Organic Compounds

Sample Name: MTS-2
Lab Code: K1510531-019

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	111	85-115	09/27/15	Acceptable
1,2-Dichloroethane-d4	107	70-120	09/27/15	Acceptable
Toluene-d8	101	85-120	09/27/15	Acceptable
4-Bromofluorobenzene	98	75-120	09/27/15	Acceptable

Comments: _____



Semi-Volatile Organic Compounds by GC/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003

Service Request: K1510531

**Cover Page - Organic Analysis Data Package
Semi-Volatile Organic Compounds by GC/MS**

Sample Name	Lab Code	Date Collected	Date Received
FTP-1	K1510531-012	09/21/2015	09/23/2015
FTP-1MS	KWG1509145-4	09/21/2015	09/23/2015
FTP-1DMS	KWG1509145-5	09/21/2015	09/23/2015

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Semi-Volatile Organic Compounds by GC/MS

Sample Name: FTP-1
Lab Code: K1510531-012
Extraction Method: EPA 3520C
Analysis Method: 8270D

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	25	5.0	0.48	1	09/24/15	10/01/15	KWG1509145	
Bis(2-chloroethyl) Ether	ND	U	10	0.50	0.33	1	09/24/15	10/01/15	KWG1509145	
Phenol	ND	U	10	0.50	0.32	1	09/24/15	10/01/15	KWG1509145	
2-Chlorophenol	ND	U	10	0.50	0.31	1	09/24/15	10/01/15	KWG1509145	
1,3-Dichlorobenzene	ND	U	10	0.50	0.35	1	09/24/15	10/01/15	KWG1509145	
1,4-Dichlorobenzene	ND	U	10	0.50	0.32	1	09/24/15	10/01/15	KWG1509145	
1,2-Dichlorobenzene	0.71	J	10	0.50	0.43	1	09/24/15	10/01/15	KWG1509145	
Benzyl alcohol	ND	U	10	0.50	0.38	1	09/24/15	10/01/15	KWG1509145	
Bis(2-chloroisopropyl) Ether	ND	U	10	0.50	0.31	1	09/24/15	10/01/15	KWG1509145	
2-Methylphenol	ND	U	10	0.50	0.33	1	09/24/15	10/01/15	KWG1509145	
Hexachloroethane	ND	U	10	2.0	0.29	1	09/24/15	10/01/15	KWG1509145	
N-Nitrosodi-n-propylamine	ND	U	10	2.0	0.50	1	09/24/15	10/01/15	KWG1509145	
4-Methylphenol†	ND	U	10	0.50	0.48	1	09/24/15	10/01/15	KWG1509145	
Nitrobenzene	ND	U	10	0.57	0.57	1	09/24/15	10/01/15	KWG1509145	
Isophorone	ND	U	10	1.0	0.25	1	09/24/15	10/01/15	KWG1509145	
2-Nitrophenol	ND	U	10	0.50	0.37	1	09/24/15	10/01/15	KWG1509145	
2,4-Dimethylphenol	ND	U	10	2.0	0.26	1	09/24/15	10/01/15	KWG1509145	
Bis(2-chloroethoxy)methane	ND	U	10	0.50	0.28	1	09/24/15	10/01/15	KWG1509145	
2,4-Dichlorophenol	ND	U	10	0.50	0.30	1	09/24/15	10/01/15	KWG1509145	
Benzoic acid	ND	U	25	25	5.8	1	09/24/15	10/01/15	KWG1509145	
1,2,4-Trichlorobenzene	ND	U	10	0.50	0.36	1	09/24/15	10/01/15	KWG1509145	
Naphthalene	68		10	0.50	0.37	1	09/24/15	10/01/15	KWG1509145	
4-Chloroaniline	ND	U	10	2.0	0.38	1	09/24/15	10/01/15	KWG1509145	
Hexachlorobutadiene	ND	U	10	0.50	0.29	1	09/24/15	10/01/15	KWG1509145	
4-Chloro-3-methylphenol	ND	U	10	0.50	0.49	1	09/24/15	10/01/15	KWG1509145	
2-Methylnaphthalene	150		10	0.50	0.24	1	09/24/15	10/01/15	KWG1509145	
2,4,6-Trichlorophenol	ND	U	10	1.0	0.20	1	09/24/15	10/01/15	KWG1509145	
2,4,5-Trichlorophenol	ND	U	10	0.50	0.38	1	09/24/15	10/01/15	KWG1509145	
2-Chloronaphthalene	ND	U	10	0.50	0.29	1	09/24/15	10/01/15	KWG1509145	
Acenaphthene	2.6	J	10	0.50	0.28	1	09/24/15	10/01/15	KWG1509145	
2-Nitroaniline	ND	U	25	0.50	0.34	1	09/24/15	10/01/15	KWG1509145	
Acenaphthylene	ND	Ui	10	0.50	0.24	1	09/24/15	10/01/15	KWG1509145	
Dimethyl Phthalate	ND	U	10	2.0	0.25	1	09/24/15	10/01/15	KWG1509145	
2,6-Dinitrotoluene	ND	U	10	0.50	0.35	1	09/24/15	10/01/15	KWG1509145	

Comments: _____

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Semi-Volatile Organic Compounds by GC/MS

Sample Name: FTP-1
Lab Code: K1510531-012
Extraction Method: EPA 3520C
Analysis Method: 8270D

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
3-Nitroaniline	ND	U	25	1.0	3.3	1	09/24/15	10/01/15	KWG1509145	
2,4-Dinitrophenol	ND	U	25	25	2.2	1	09/24/15	10/01/15	KWG1509145	
Dibenzofuran	6.1	J	10	0.50	0.33	1	09/24/15	10/01/15	KWG1509145	
4-Nitrophenol	ND	U	25	10	1.9	1	09/24/15	10/01/15	KWG1509145	
2,4-Dinitrotoluene	ND	U	10	1.0	0.27	1	09/24/15	10/01/15	KWG1509145	
Fluorene	9.4	J	10	0.50	0.32	1	09/24/15	10/01/15	KWG1509145	
4-Chlorophenyl Phenyl Ether	ND	U	10	0.50	0.28	1	09/24/15	10/01/15	KWG1509145	
Diethyl Phthalate	ND	U	10	0.50	0.29	1	09/24/15	10/01/15	KWG1509145	
4-Nitroaniline	ND	U	25	4.0	4.0	1	09/24/15	10/01/15	KWG1509145	
2-Methyl-4,6-dinitrophenol	ND	U	25	10	2.1	1	09/24/15	10/01/15	KWG1509145	
N-Nitrosodiphenylamine	ND	U	10	0.50	0.48	1	09/24/15	10/01/15	KWG1509145	
1,2-Diphenylhydrazine†	ND	U	10	0.50	0.51	1	09/24/15	10/01/15	KWG1509145	
4-Bromophenyl Phenyl Ether	ND	U	10	0.50	0.27	1	09/24/15	10/01/15	KWG1509145	
Hexachlorobenzene	ND	U	10	0.63	0.63	1	09/24/15	10/01/15	KWG1509145	
Pentachlorophenol	ND	U	25	5.0	2.4	1	09/24/15	10/01/15	KWG1509145	
Phenanthrene	8.2	J	10	0.50	0.48	1	09/24/15	10/01/15	KWG1509145	
Anthracene	ND	U	10	0.61	0.61	1	09/24/15	10/01/15	KWG1509145	
Carbazole	6.7	J	10	0.50	0.36	1	09/24/15	10/01/15	KWG1509145	
Di-n-butyl Phthalate	ND	U	10	0.65	0.65	1	09/24/15	10/01/15	KWG1509145	
Fluoranthene	ND	U	10	0.65	0.65	1	09/24/15	10/01/15	KWG1509145	
Pyrene	ND	U	10	0.73	0.73	1	09/24/15	10/01/15	KWG1509145	
Butyl Benzyl Phthalate	ND	U	10	0.50	0.47	1	09/24/15	10/01/15	KWG1509145	
3,3'-Dichlorobenzidine	ND	U	25	2.0	0.27	1	09/24/15	10/01/15	KWG1509145	
Benz(a)anthracene	ND	U	10	0.59	0.59	1	09/24/15	10/01/15	KWG1509145	
Chrysene	ND	U	10	1.0	0.79	1	09/24/15	10/01/15	KWG1509145	
Bis(2-ethylhexyl) Phthalate	ND	U	10	2.0	1.9	1	09/24/15	10/01/15	KWG1509145	
Di-n-octyl Phthalate	ND	U	10	0.63	0.63	1	09/24/15	10/01/15	KWG1509145	
Benzo(b)fluoranthene	ND	U	10	0.58	0.58	1	09/24/15	10/01/15	KWG1509145	
Benzo(k)fluoranthene	ND	U	10	0.83	0.83	1	09/24/15	10/01/15	KWG1509145	
Benzo(a)pyrene	ND	U	10	0.50	0.65	1	09/24/15	10/01/15	KWG1509145	
Indeno(1,2,3-cd)pyrene	ND	U	10	0.68	0.68	1	09/24/15	10/01/15	KWG1509145	
Dibenz(a,h)anthracene	ND	U	10	1.0	0.75	1	09/24/15	10/01/15	KWG1509145	
Benzo(g,h,i)perylene	ND	U	10	0.81	0.81	1	09/24/15	10/01/15	KWG1509145	

Comments:

Analytical Results

Client: Tetra Tech, Incorporated
Project: Yakima Training Center/106-45760003
Sample Matrix: Water

Service Request: K1510531
Date Collected: 09/21/2015
Date Received: 09/23/2015

Semi-Volatile Organic Compounds by GC/MS

Sample Name: FTP-1
Lab Code: K1510531-012

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	67	20-110	10/01/15	Acceptable
Phenol-d6	71	10-115	10/01/15	Acceptable
Nitrobenzene-d5	73	40-110	10/01/15	Acceptable
2-Fluorobiphenyl	68	50-110	10/01/15	Acceptable
2,4,6-Tribromophenol	88	40-125	10/01/15	Acceptable
Terphenyl-d14	57	50-135	10/01/15	Acceptable

† Analyte Comments

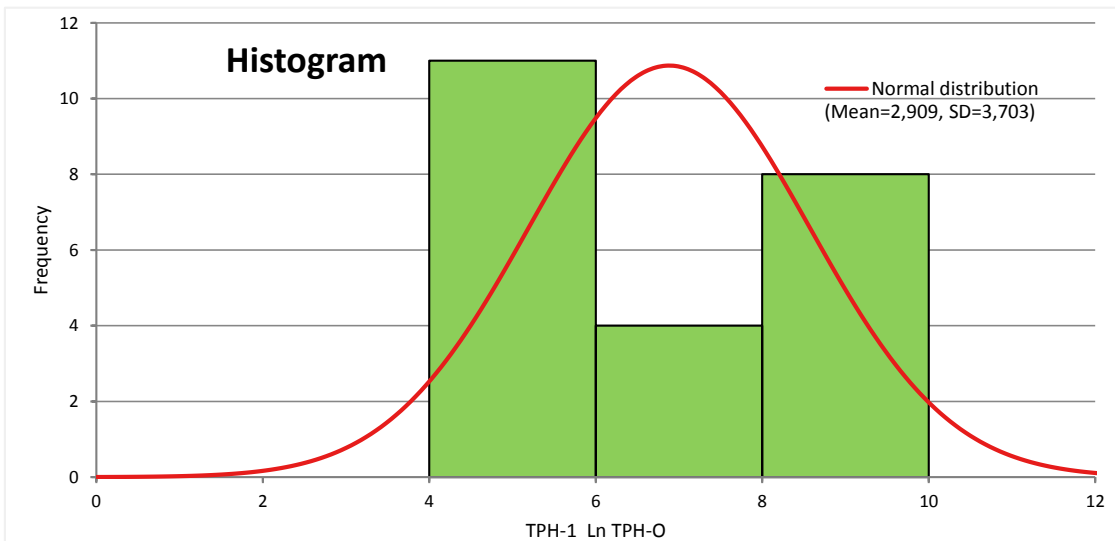
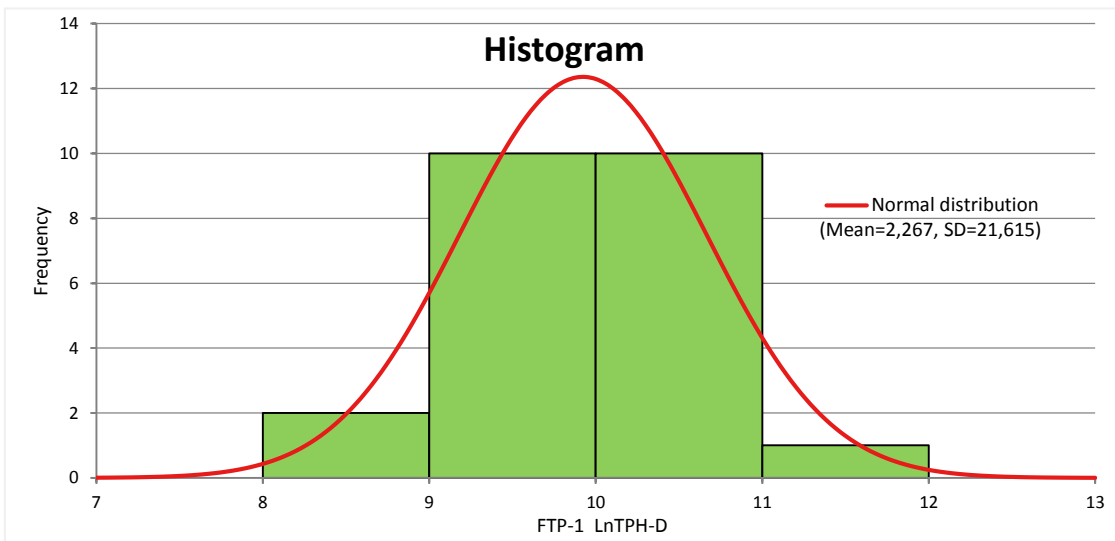
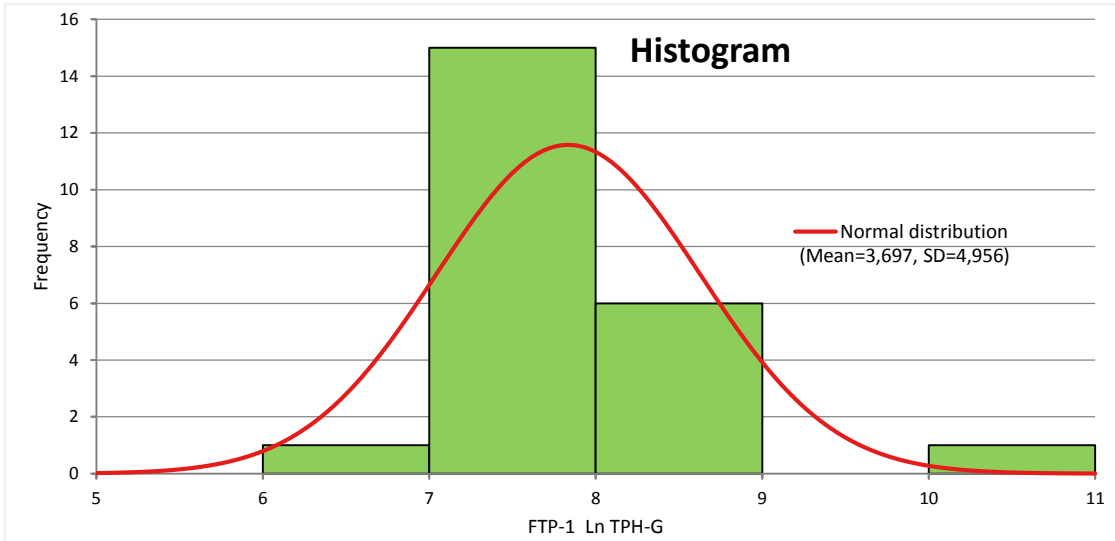
4-Methylphenol This analyte cannot be separated from 3-Methylphenol.
 1,2-Diphenylhydrazine This compound is quantitated as Azobenzene.

Comments: _____

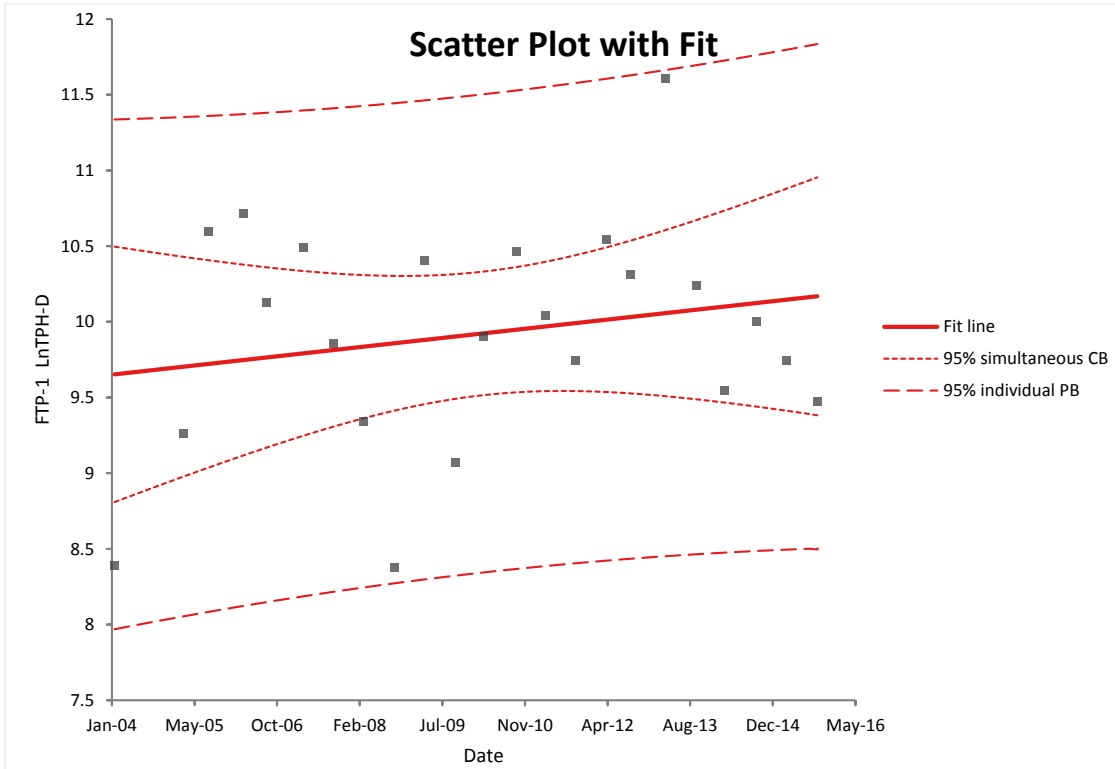
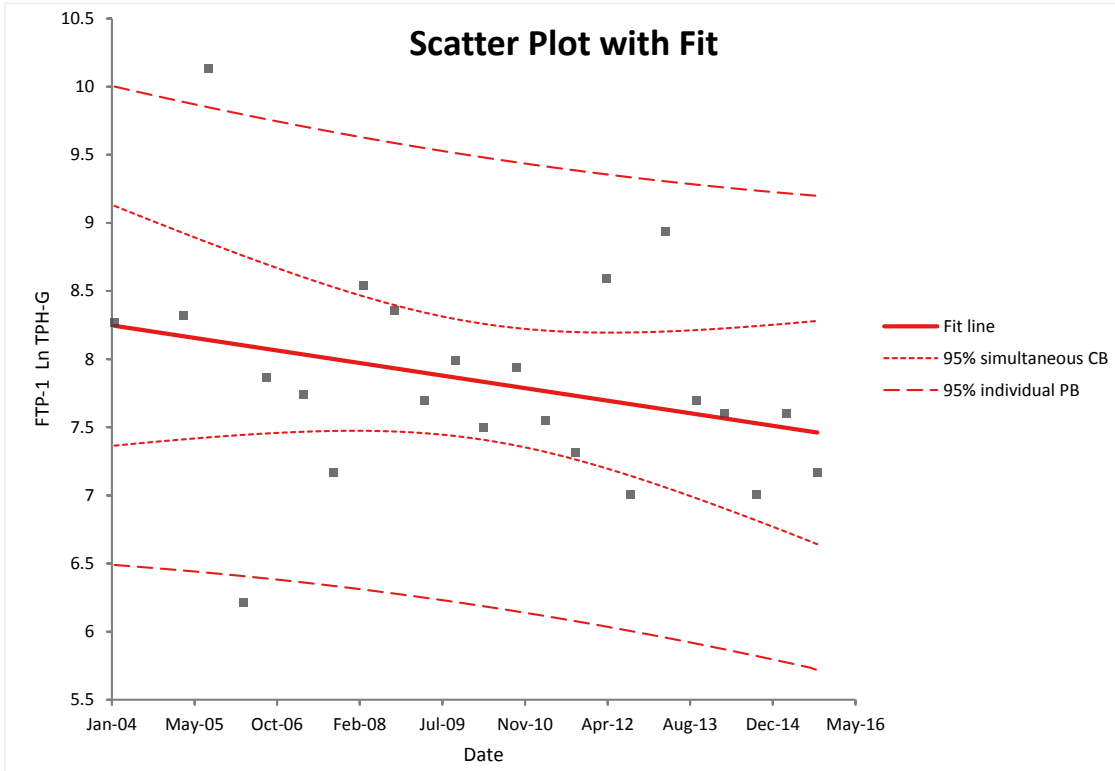
APPENDIX C
FTP-1 AND TVR/OLD MATES STATISTICS AND LINEAR GRAPHS

This page intentionally left blank.

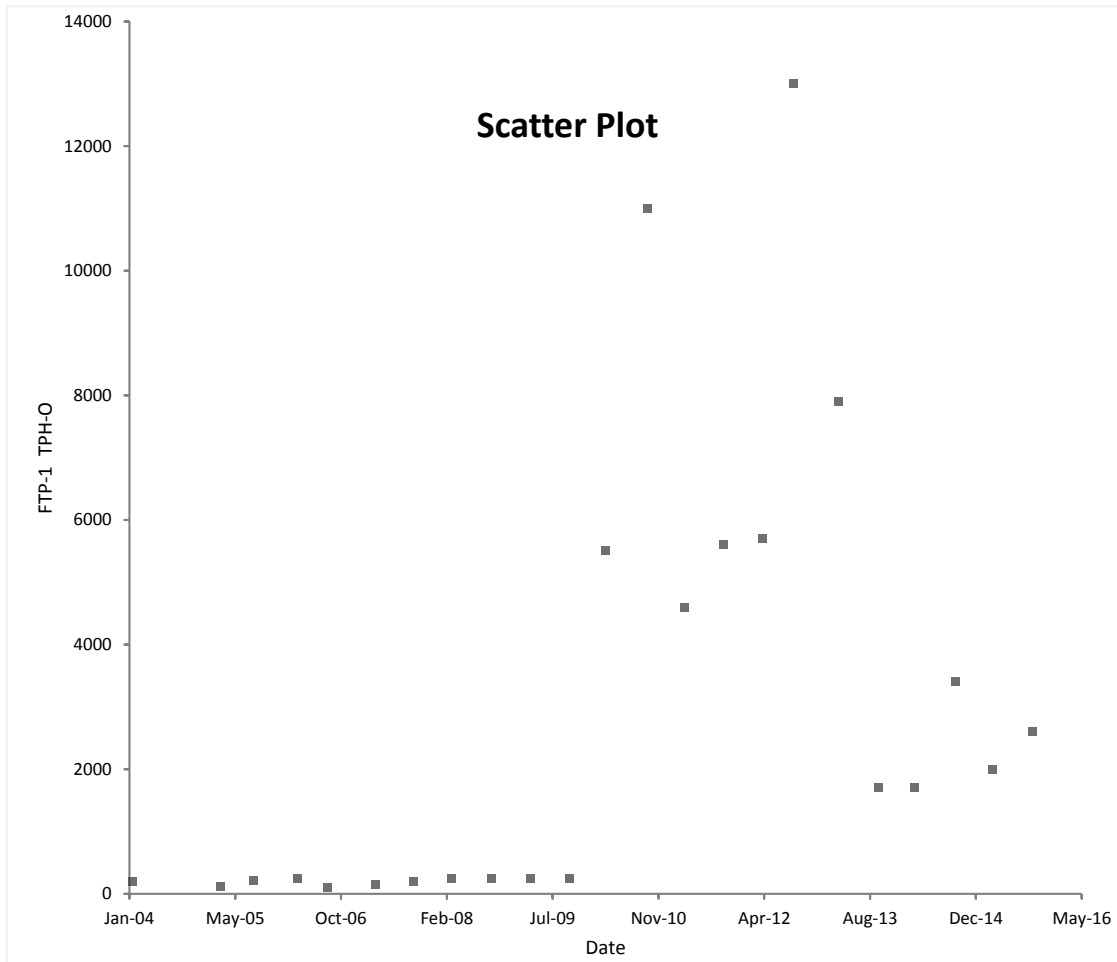
APPENDIX C
FTP-1 AND TVR OLD MATES STATISTICS GRAPHS
FIRE TRAINING PIT (FTP-1)
YAKIMA TRAIING CENTER, WASHINGTON



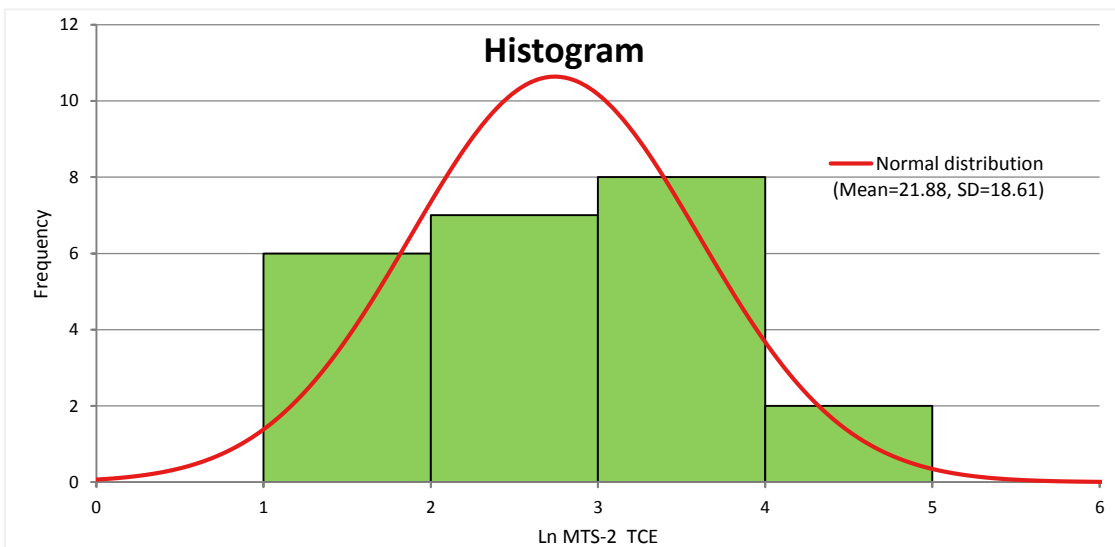
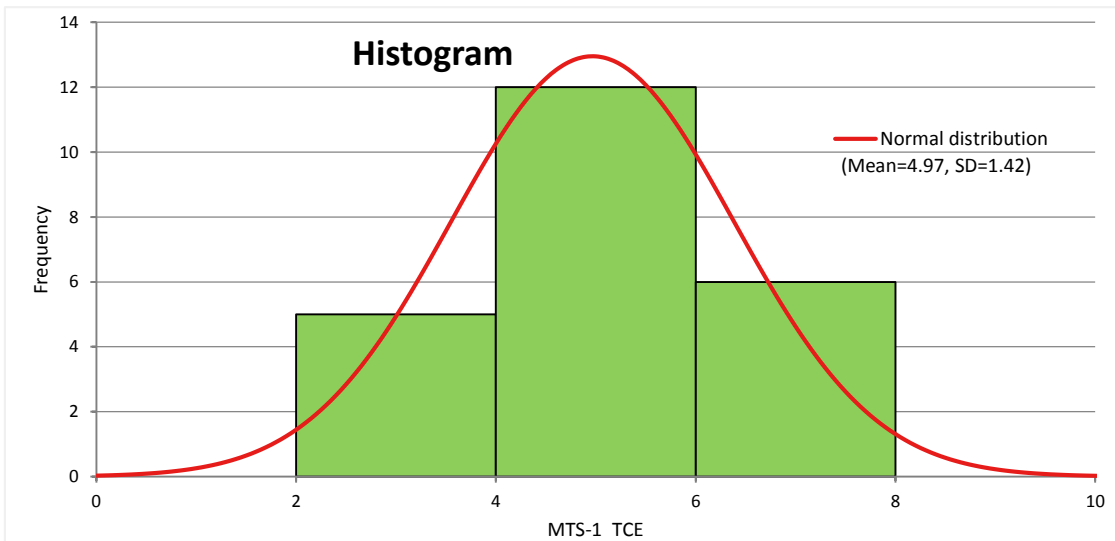
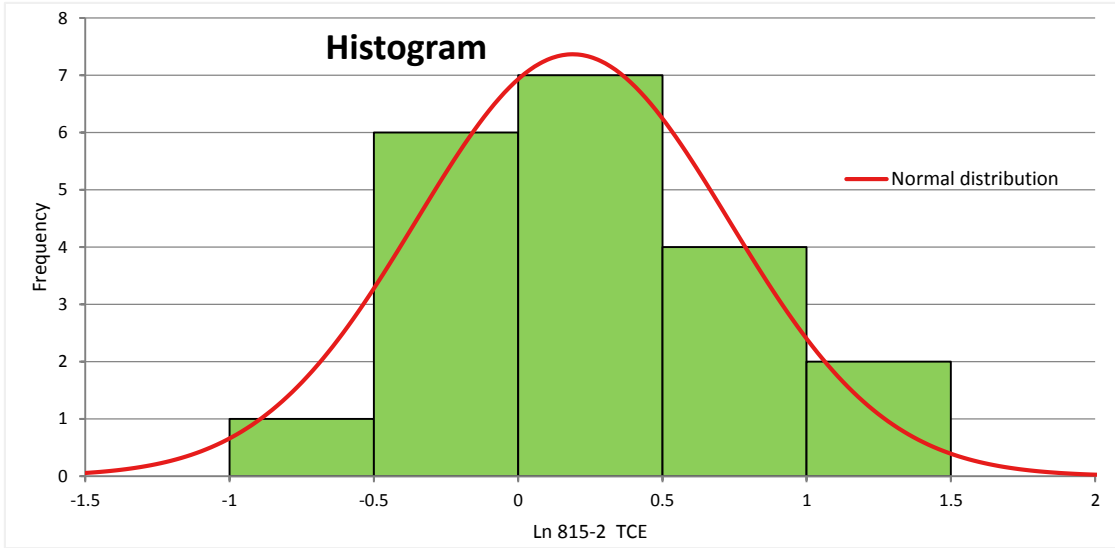
APPENDIX C
FTP-1 AND TVR OLD MATES STATISTICS GRAPHS
FIRE TRAINING PIT (FTP-1)
YAKIMA TRAINING CENTER, WASHINGTON



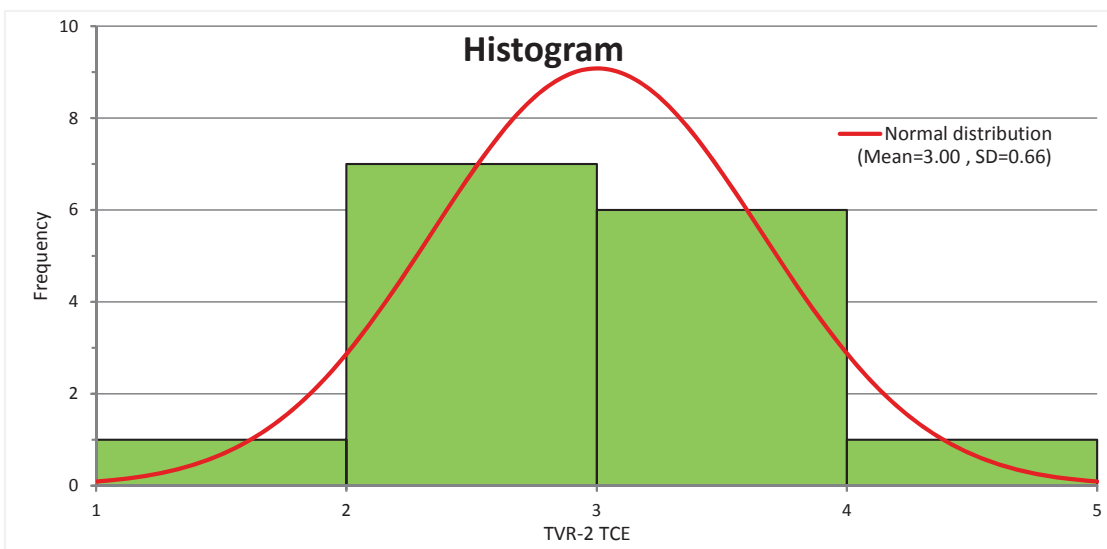
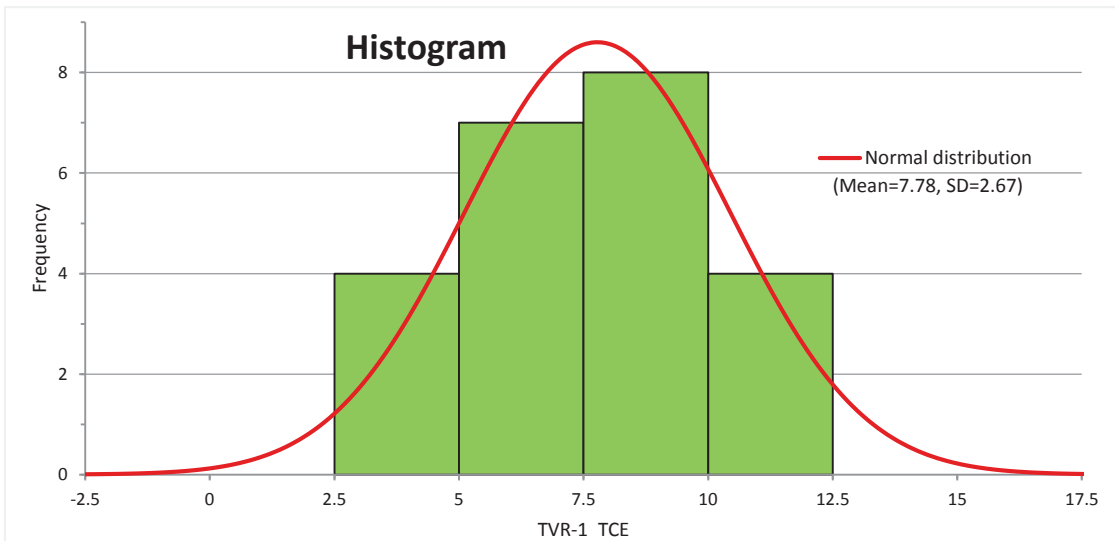
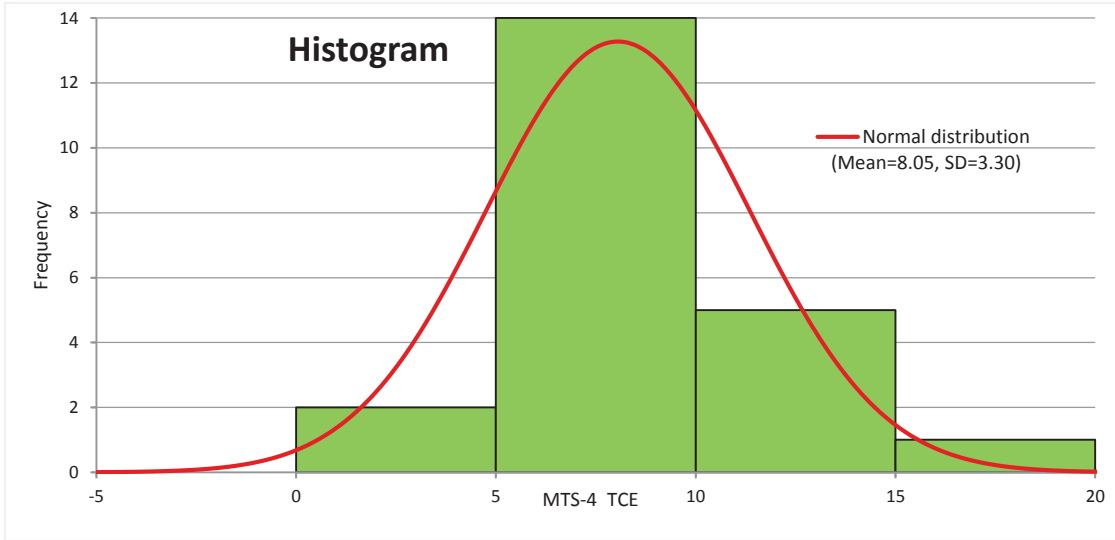
APPENDIX C
FTP-1 AND TVR OLD MATES STATISTICS GRAPHS
FIRE TRAINING PIT (FTP-1)
YAKIMA TRAINING CENTER, WASHINGTON



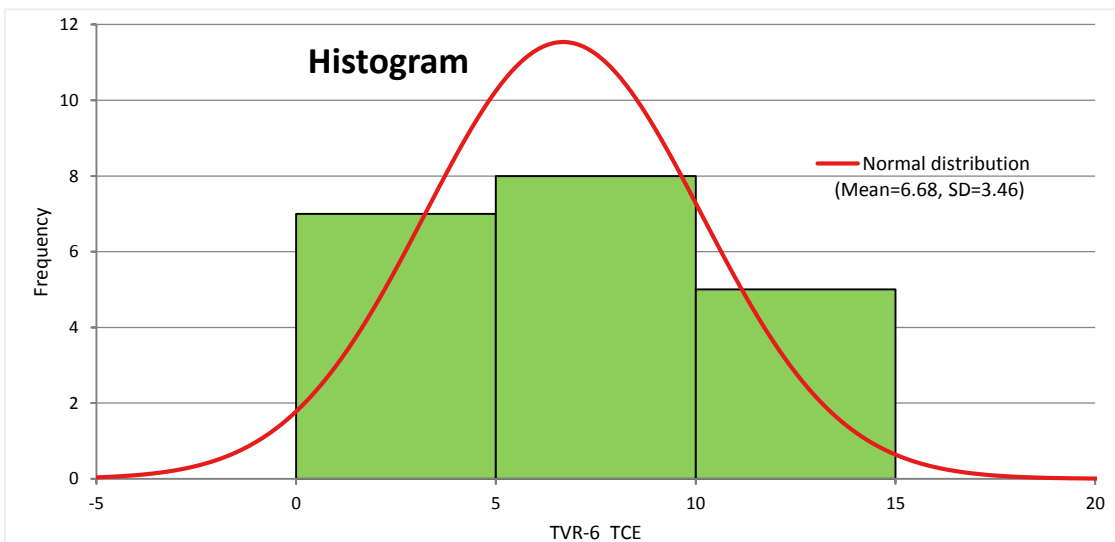
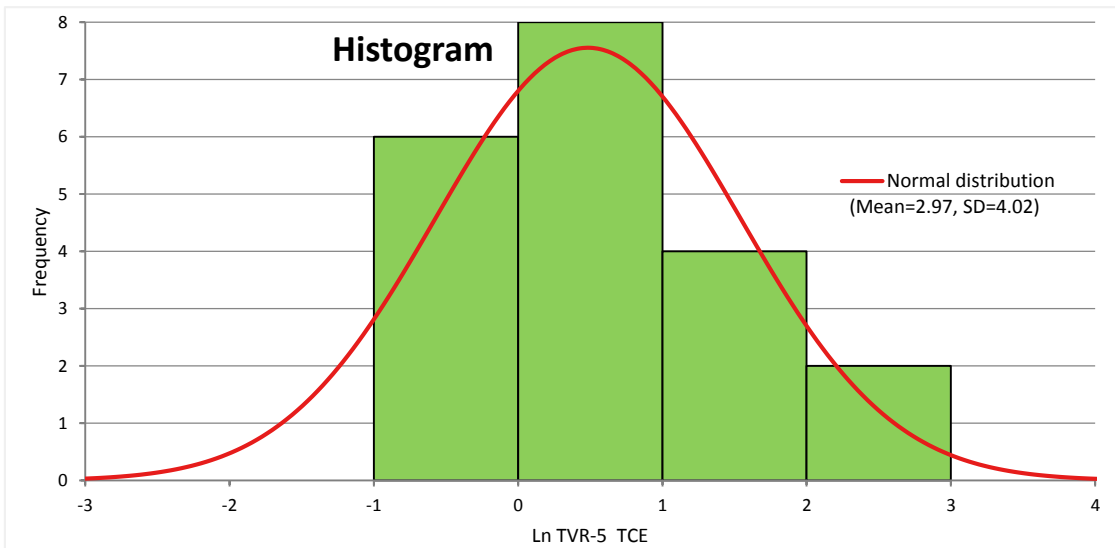
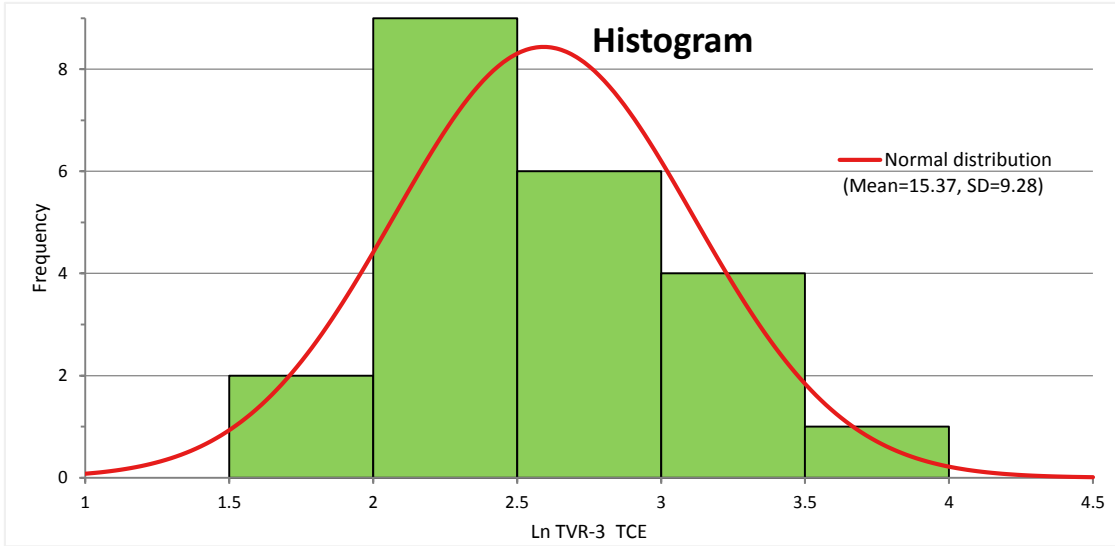
APPENDIX C
FTP-1 AND TVR/OLD MATES STATISTICS GRAPHS
TVR/OLD MATES
YAKIMA TRAINING CENTER, WASHINGTON



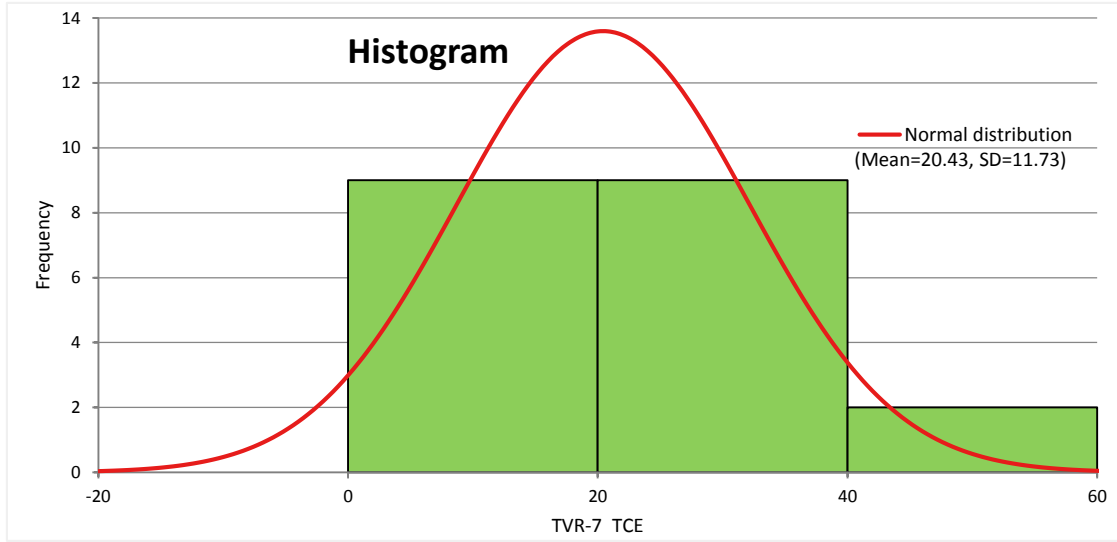
APPENDIX C
FTP-1 AND TVR/OLD MATES STATISTICS GRAPHS
TVR/OLD MATES
YAKIMA TRAINING CENTER, WASHINGTON



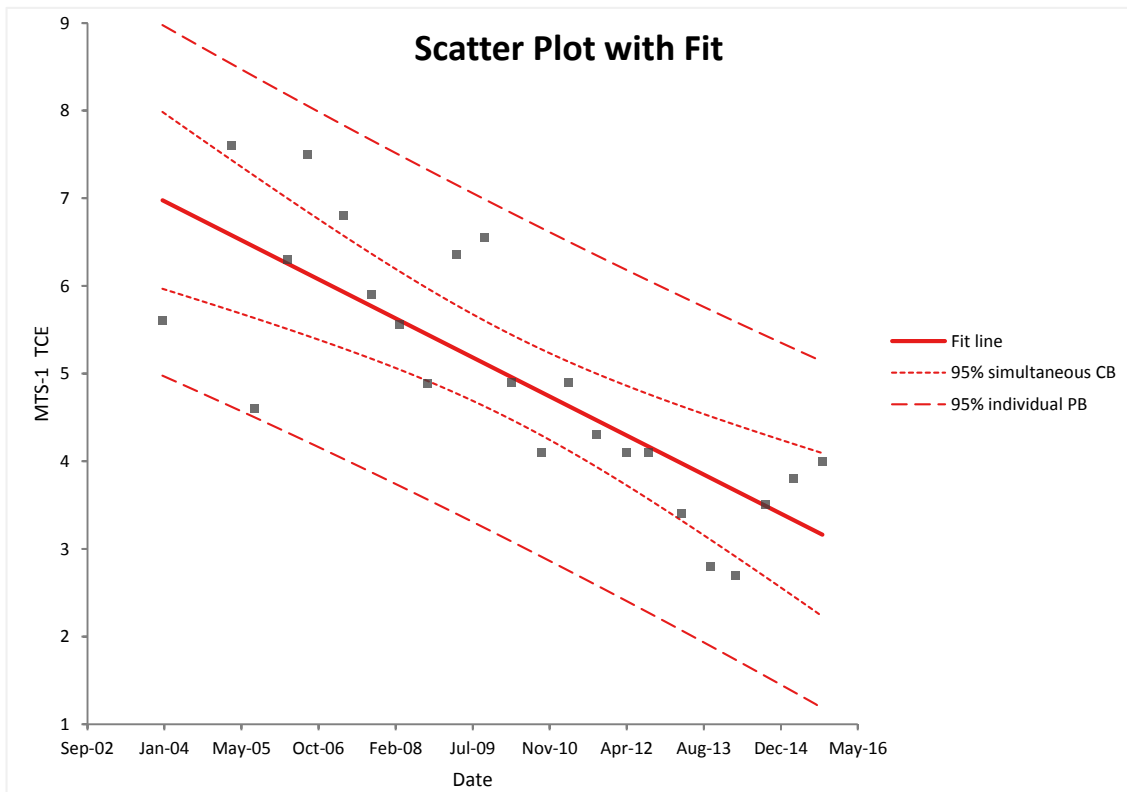
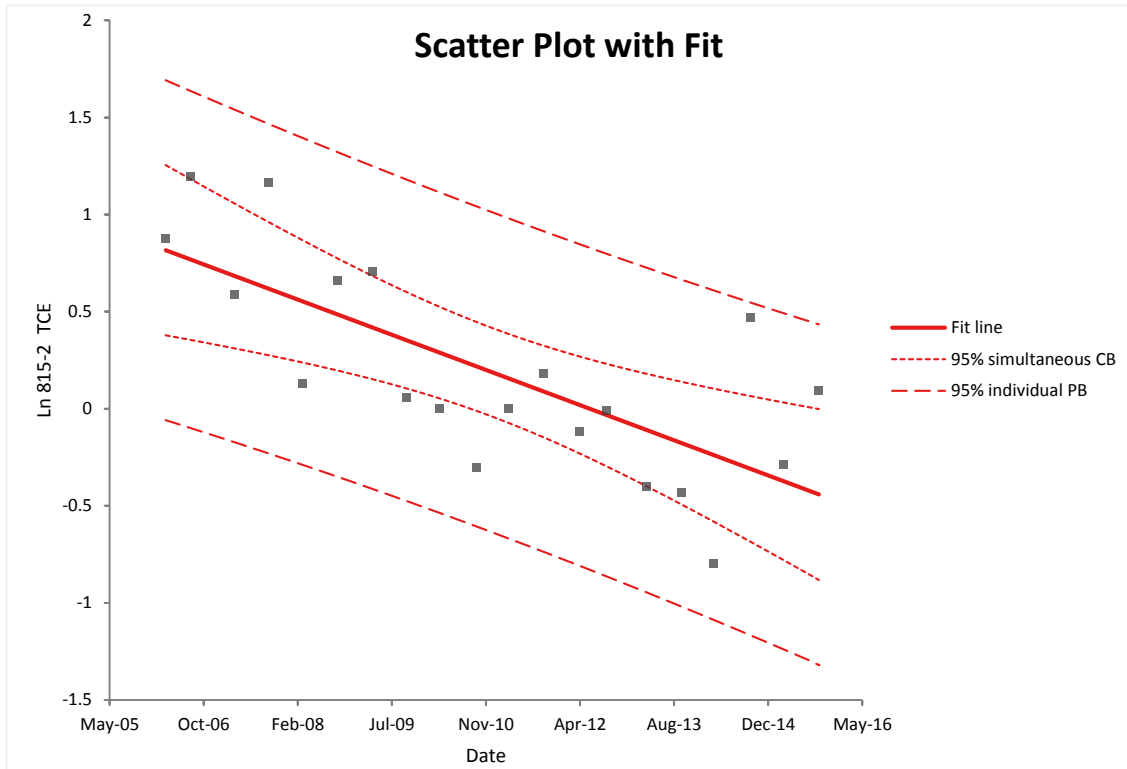
APPENDIX C
FTP-1 AND TVR/OLD MATES STATISTICS GRAPHS
TVR/OLD MATES
YAKIMA TRAINING CENTER, WASHINGTON



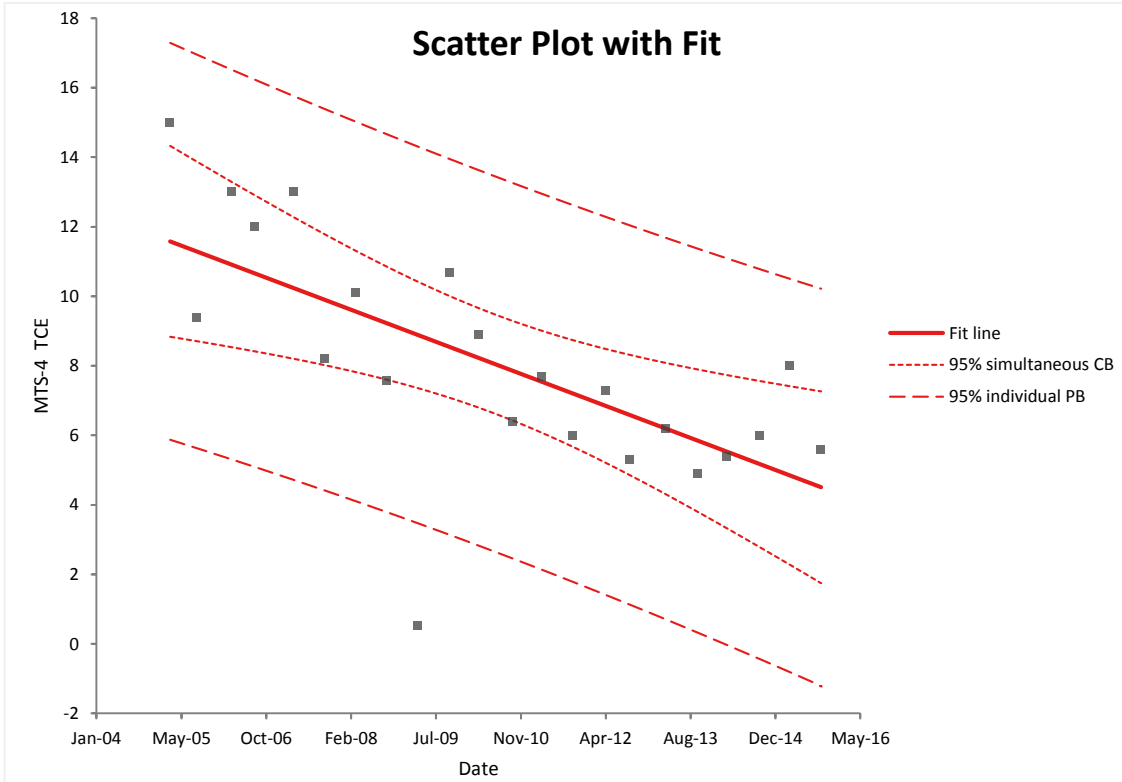
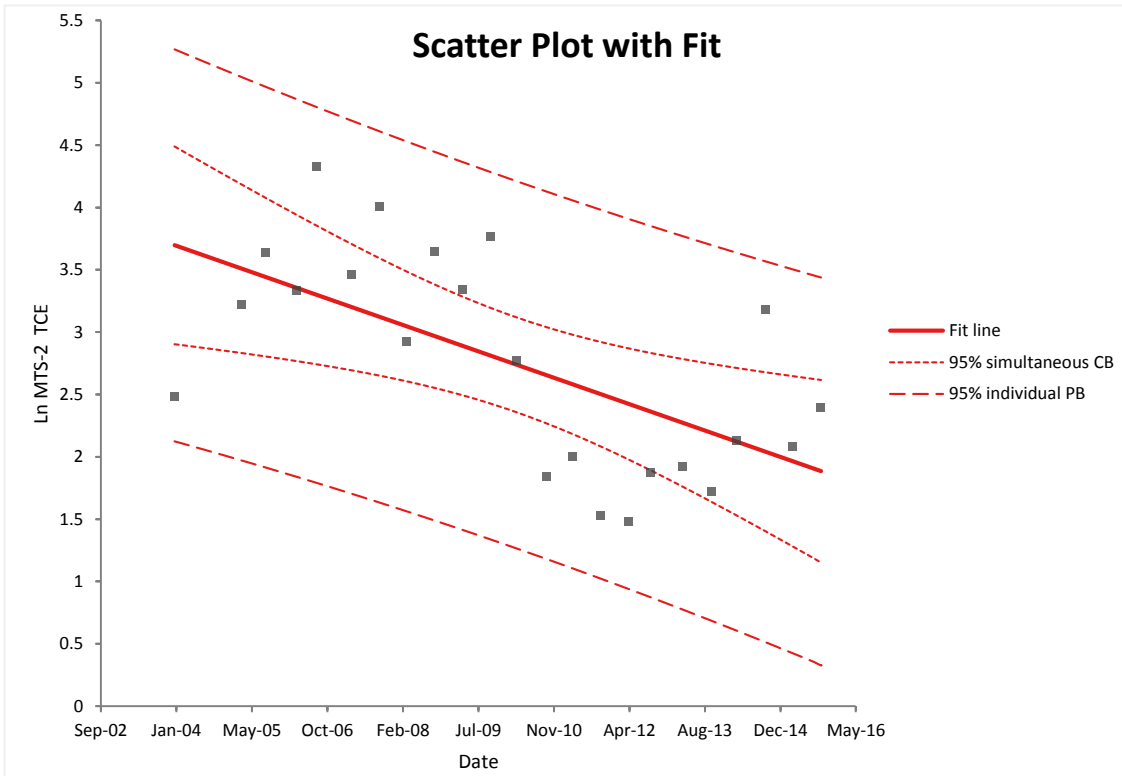
APPENDIX C
FTP-1 AND TVR/OLD MATES STATISTICS GRAPHS
TVR/OLD MATES
YAKIMA TRAINING CENTER, WASHINGTON



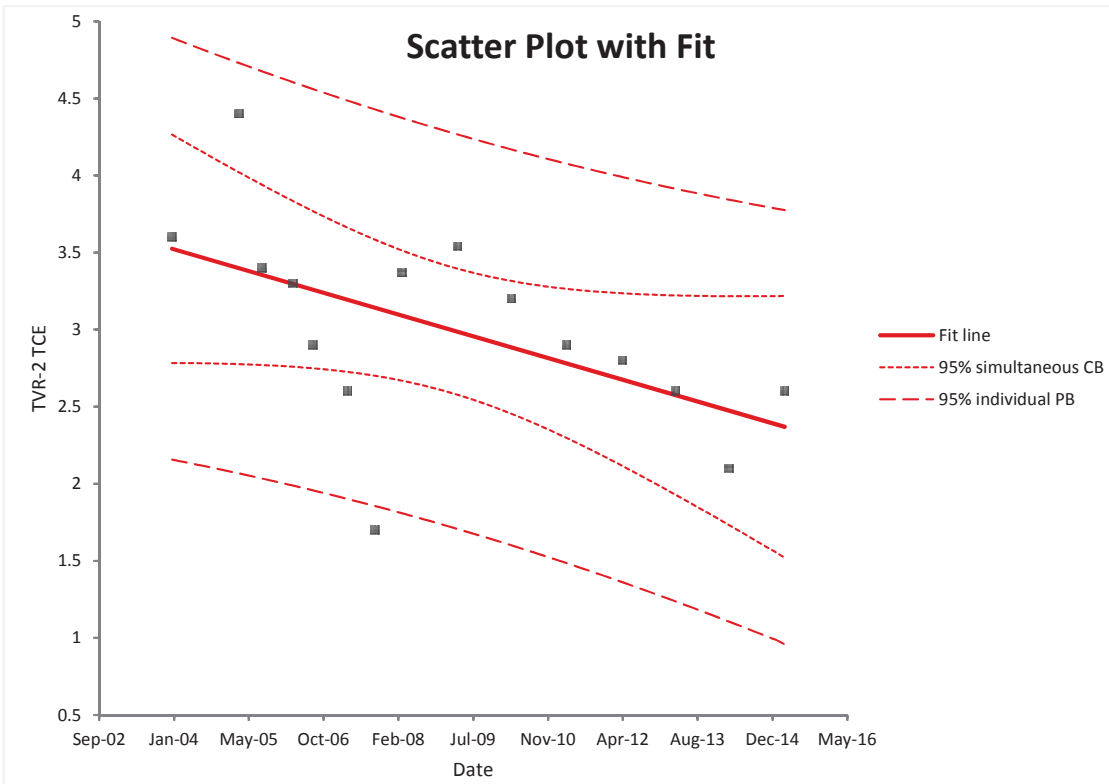
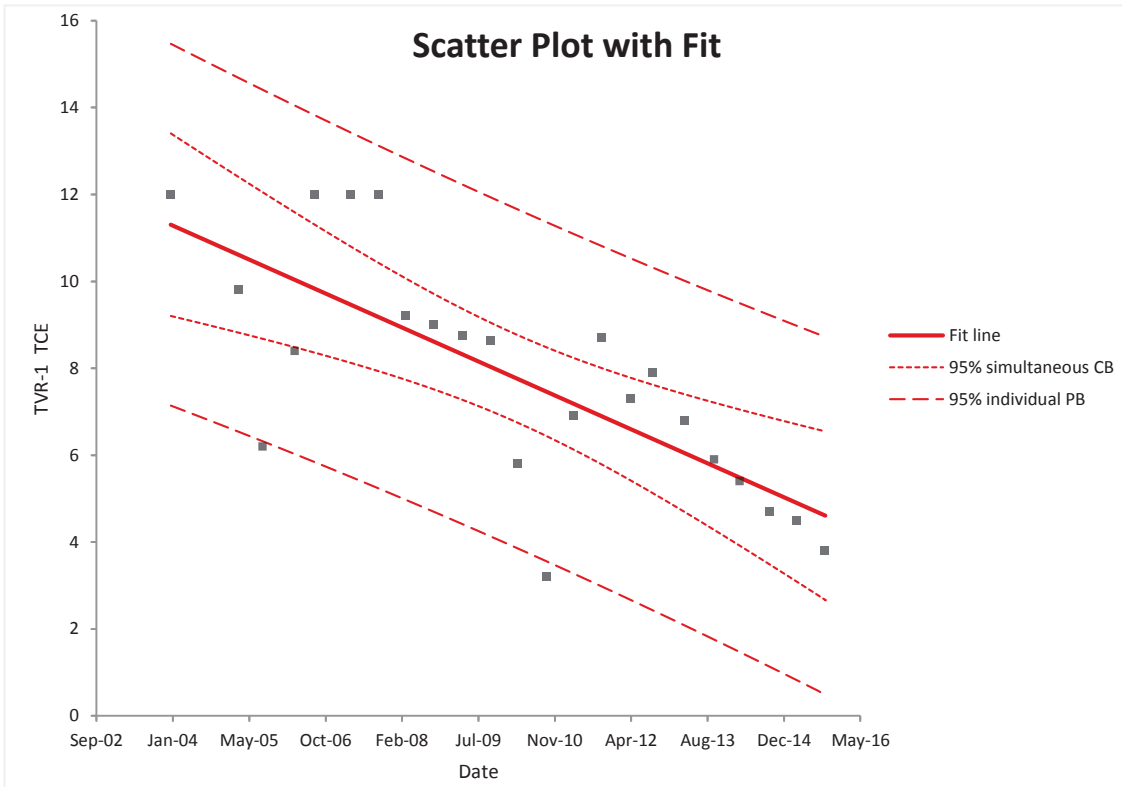
APPENDIX C
FTP-1 AND TVR/OLD MATES STATISTICS GRAPHS
TVR/OLD MATES
YAKIMA TRAINING CENTER, WASHINGTON



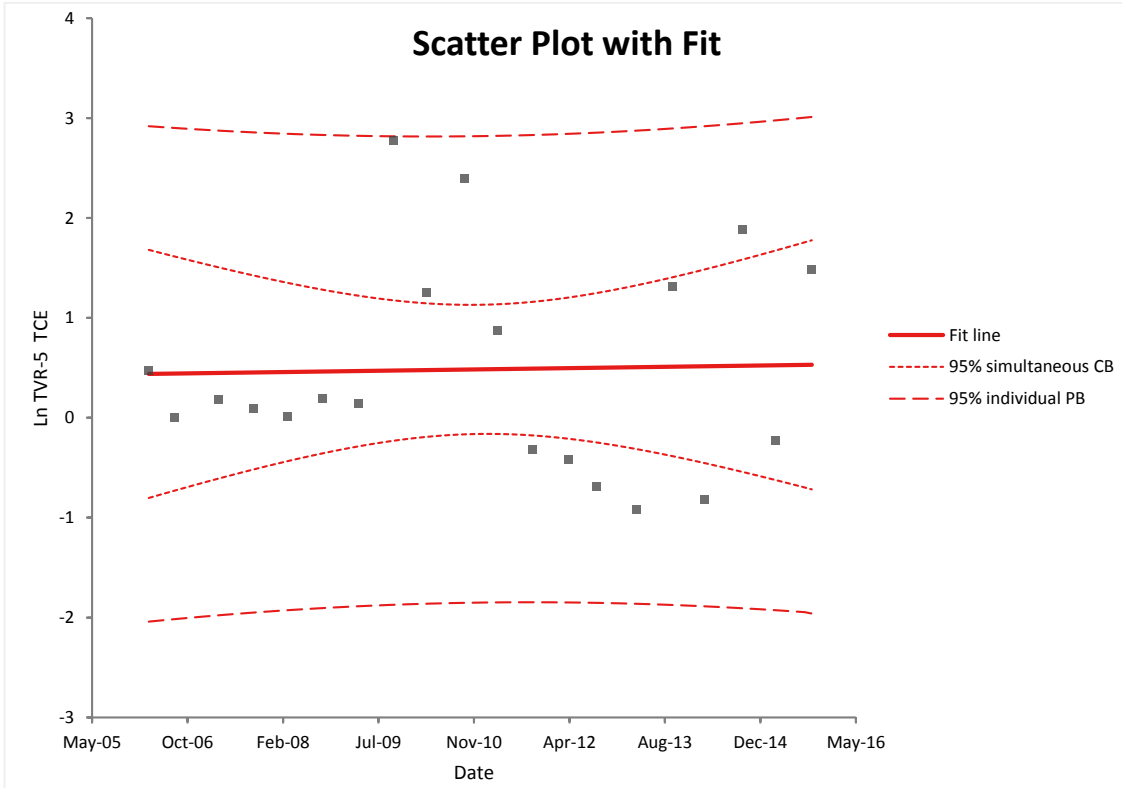
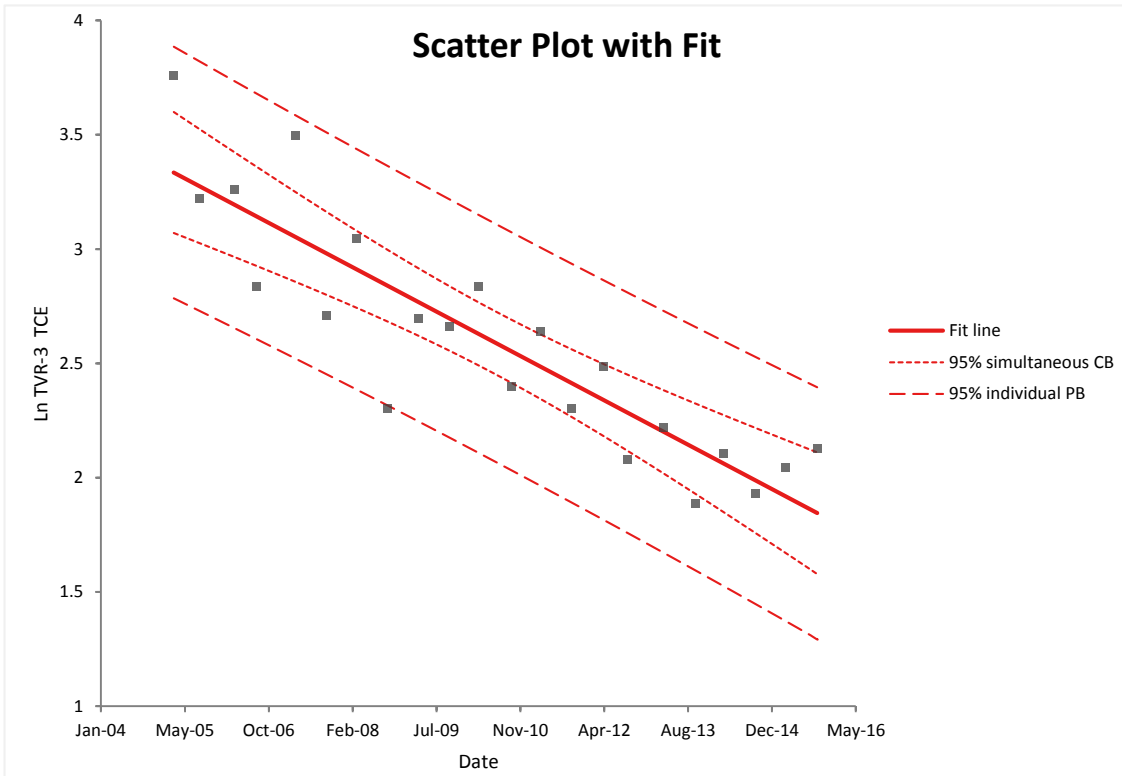
APPENDIX C
FTP-1 AND TVR/OLD MATES STATISTICS GRAPHS
TVR/OLD MATES
YAKIMA TRAINING CENTER, WASHINGTON



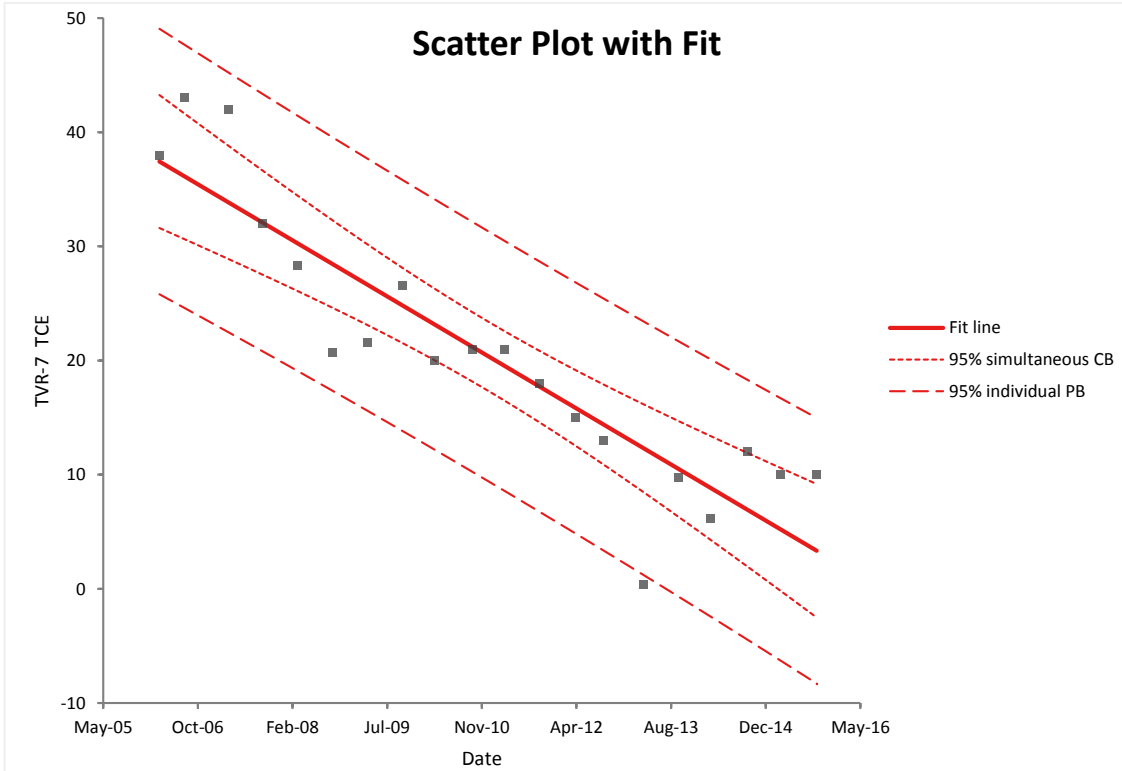
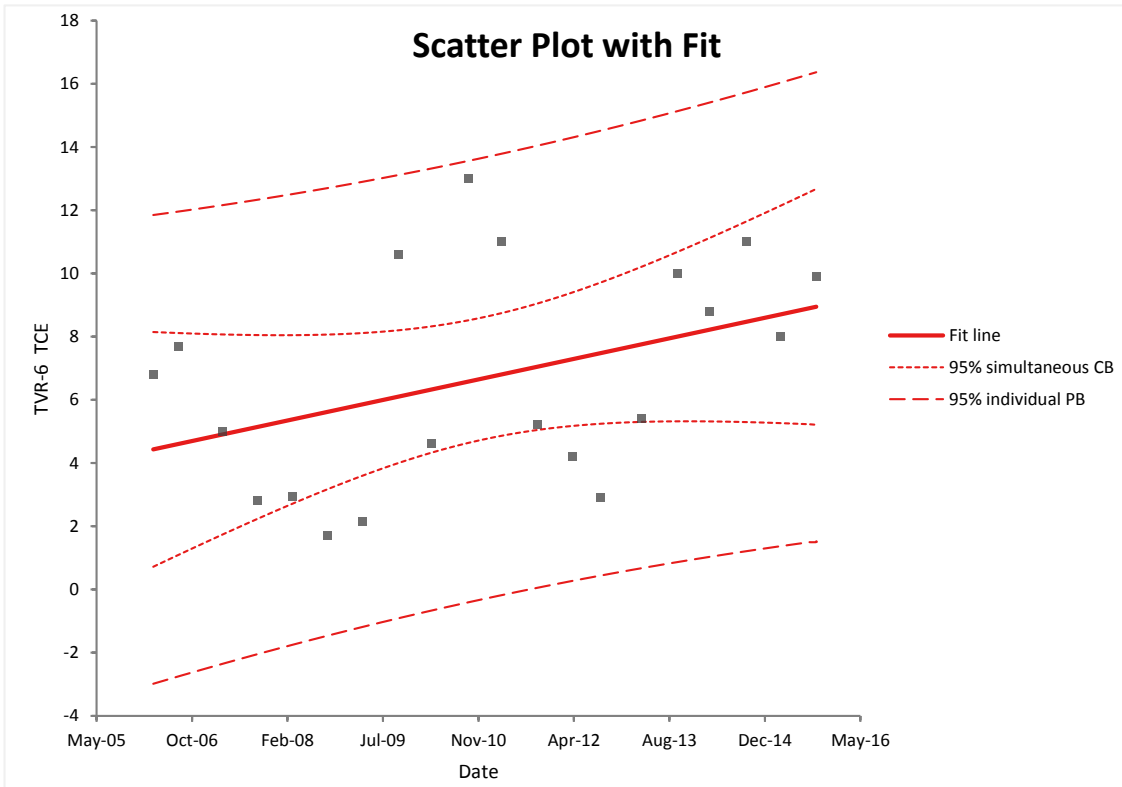
APPENDIX C
FTP-1 AND TVR/OLD MATES STATISTICS GRAPHS
TVR/OLD MATES
YAKIMA TRAINING CENTER, WASHINGTON



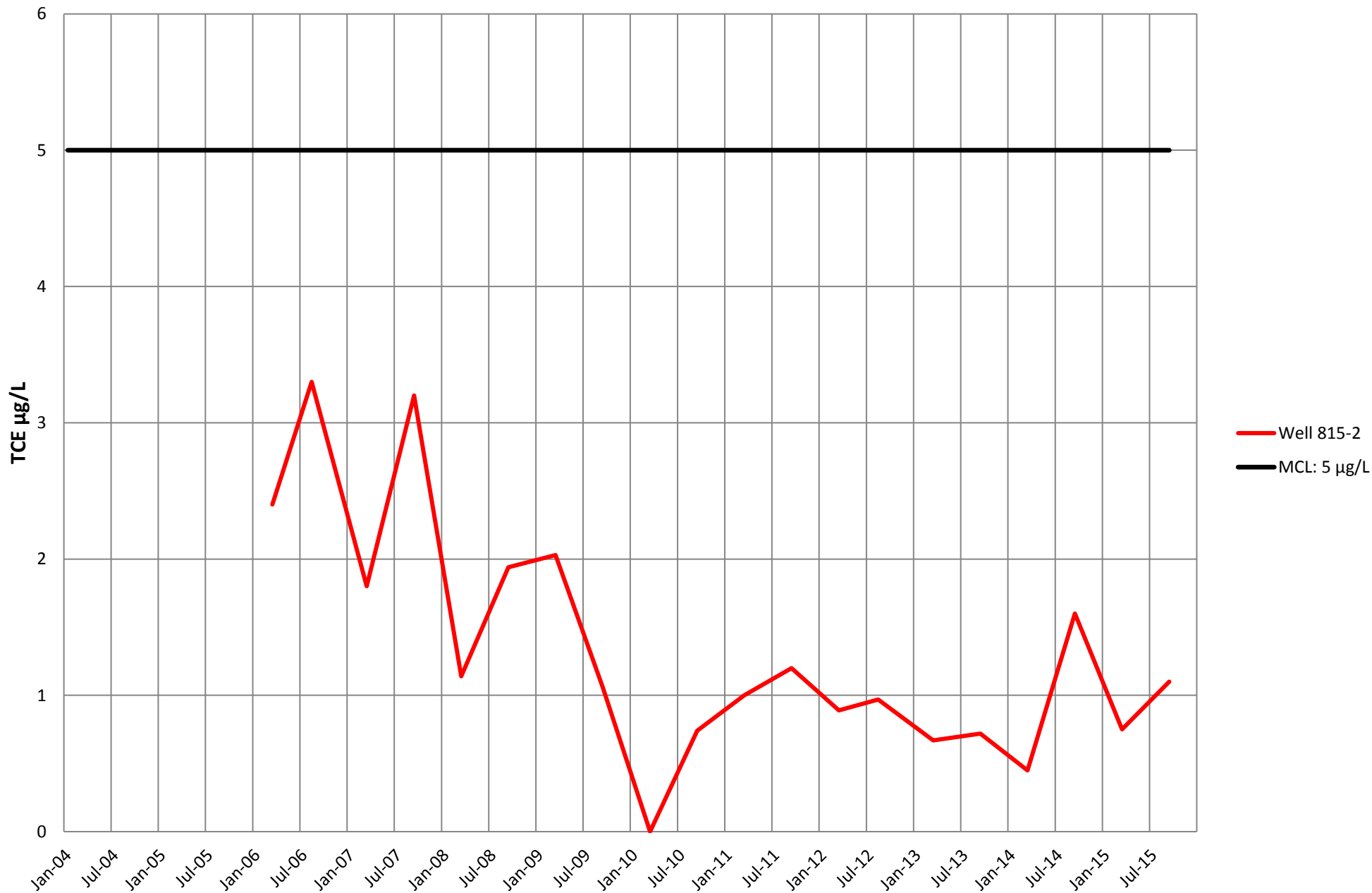
APPENDIX C
FTP-1 AND TVR/OLD MATES STATISTICS GRAPHS
TVR/OLD MATES
YAKIMA TRAINING CENTER, WASHINGTON



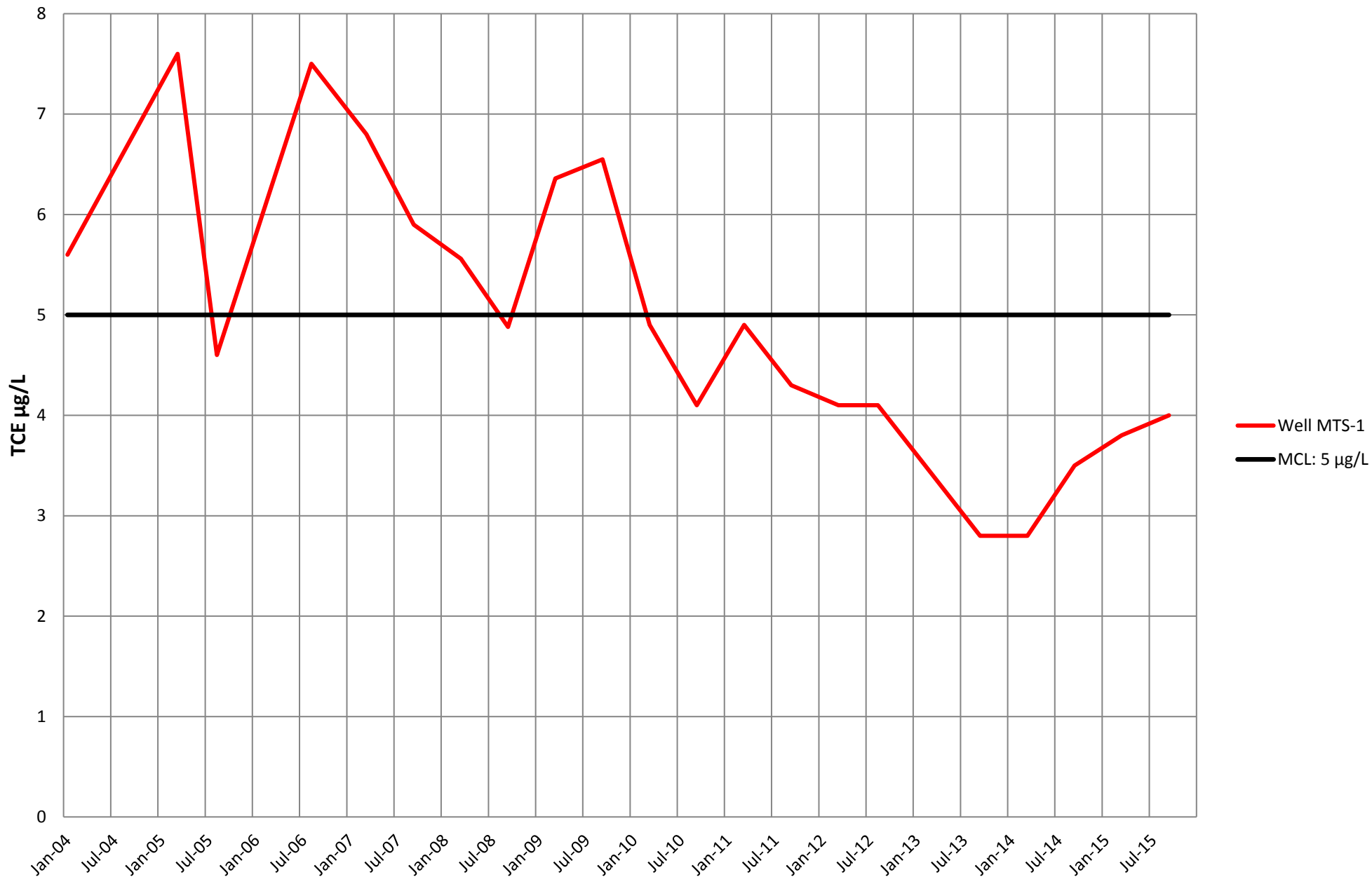
APPENDIX C
FTP-1 AND TVR/OLD MATES STATISTICS GRAPHS
TVR/OLD MATES
YAKIMA TRAINING CENTER, WASHINGTON



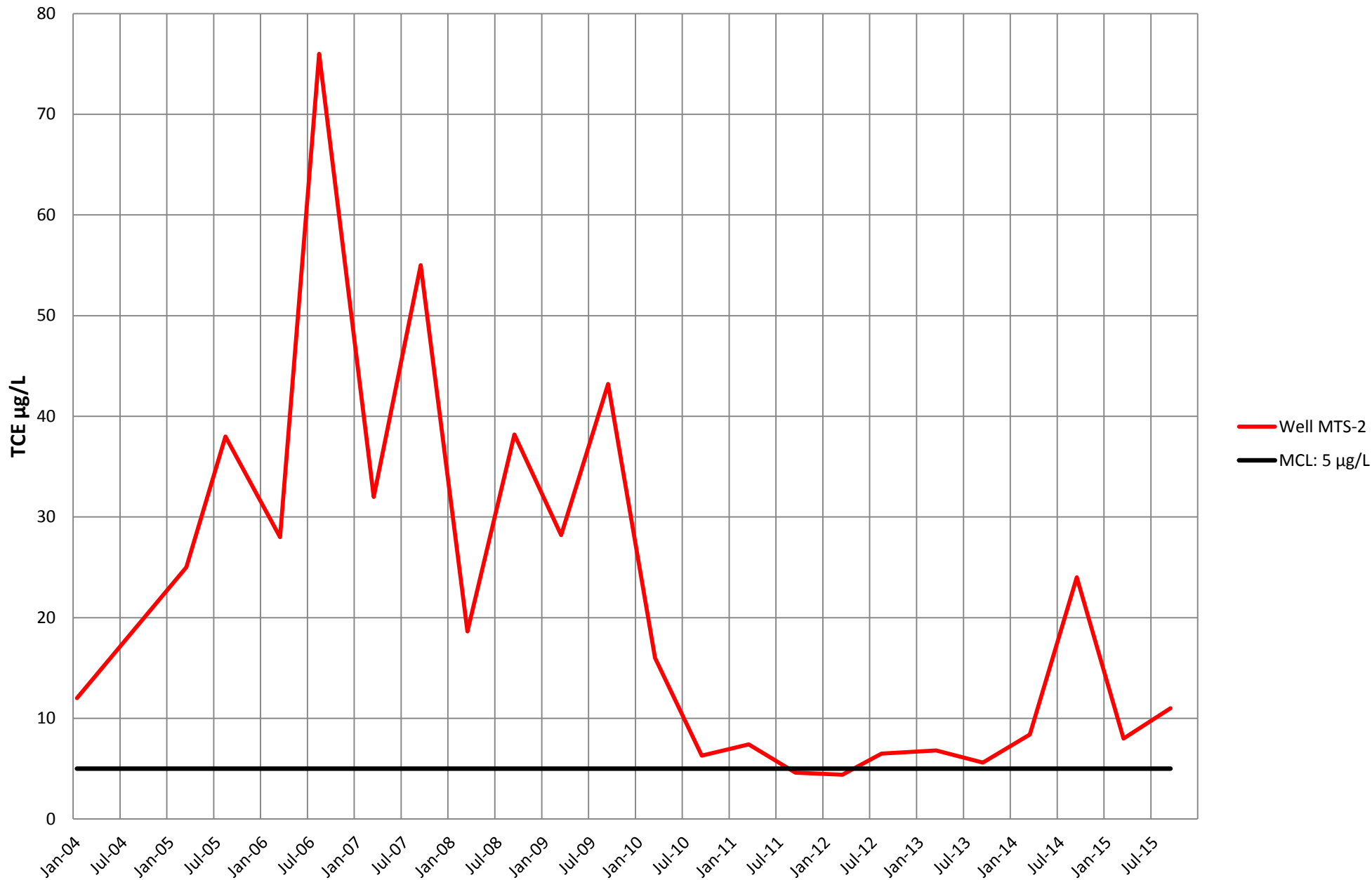
Well 815-2



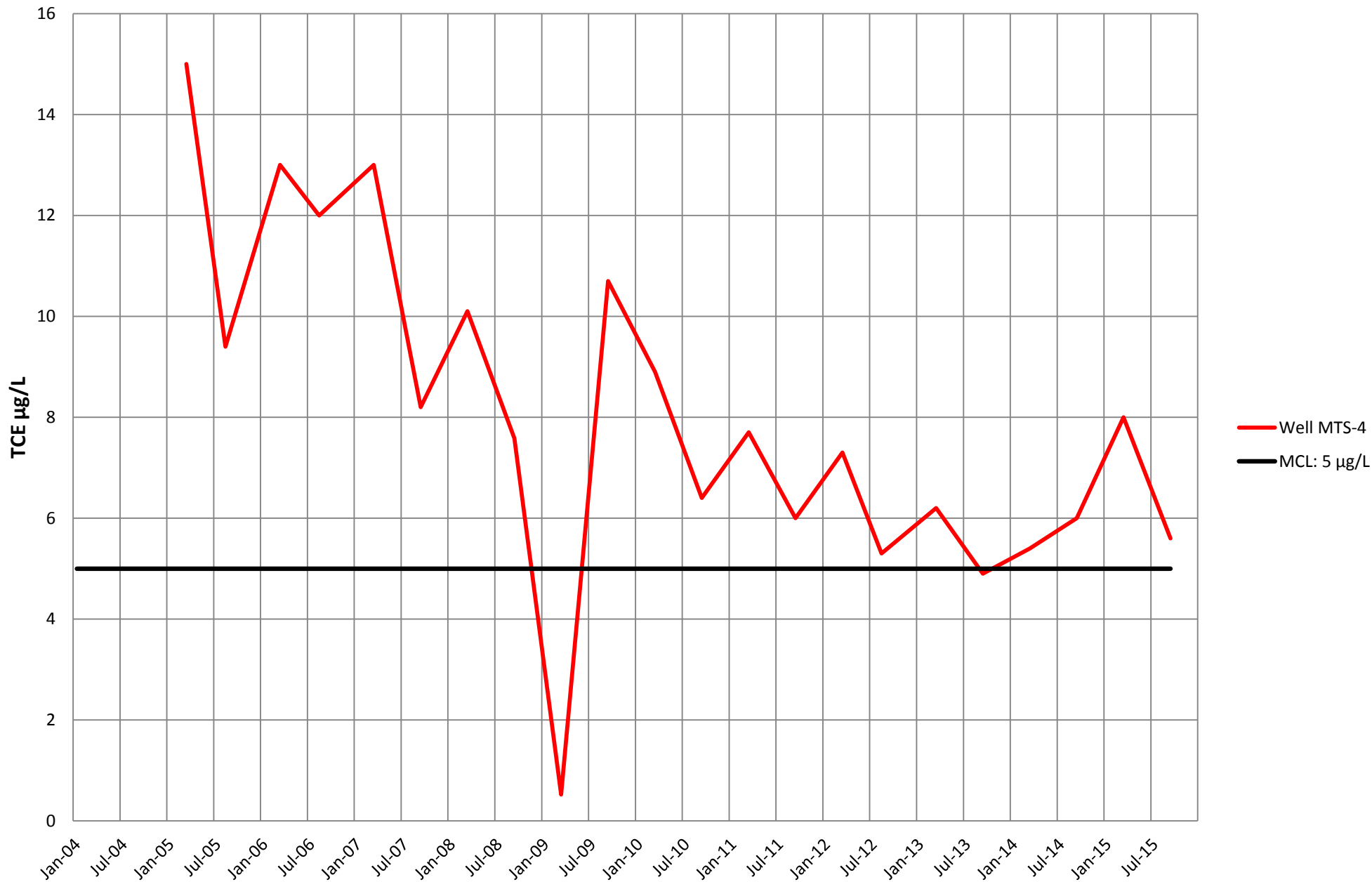
Well MTS-1



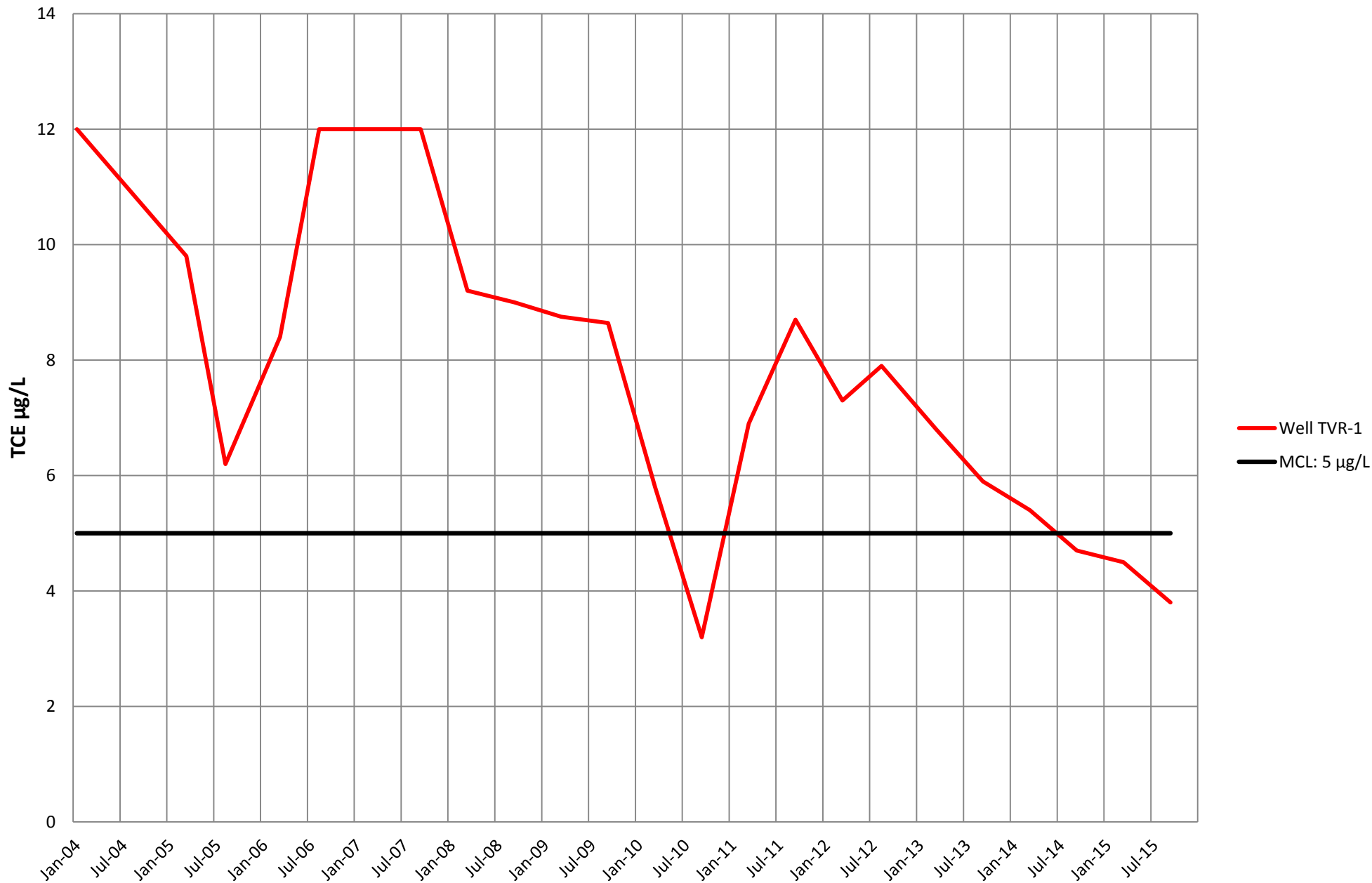
Well MTS-2



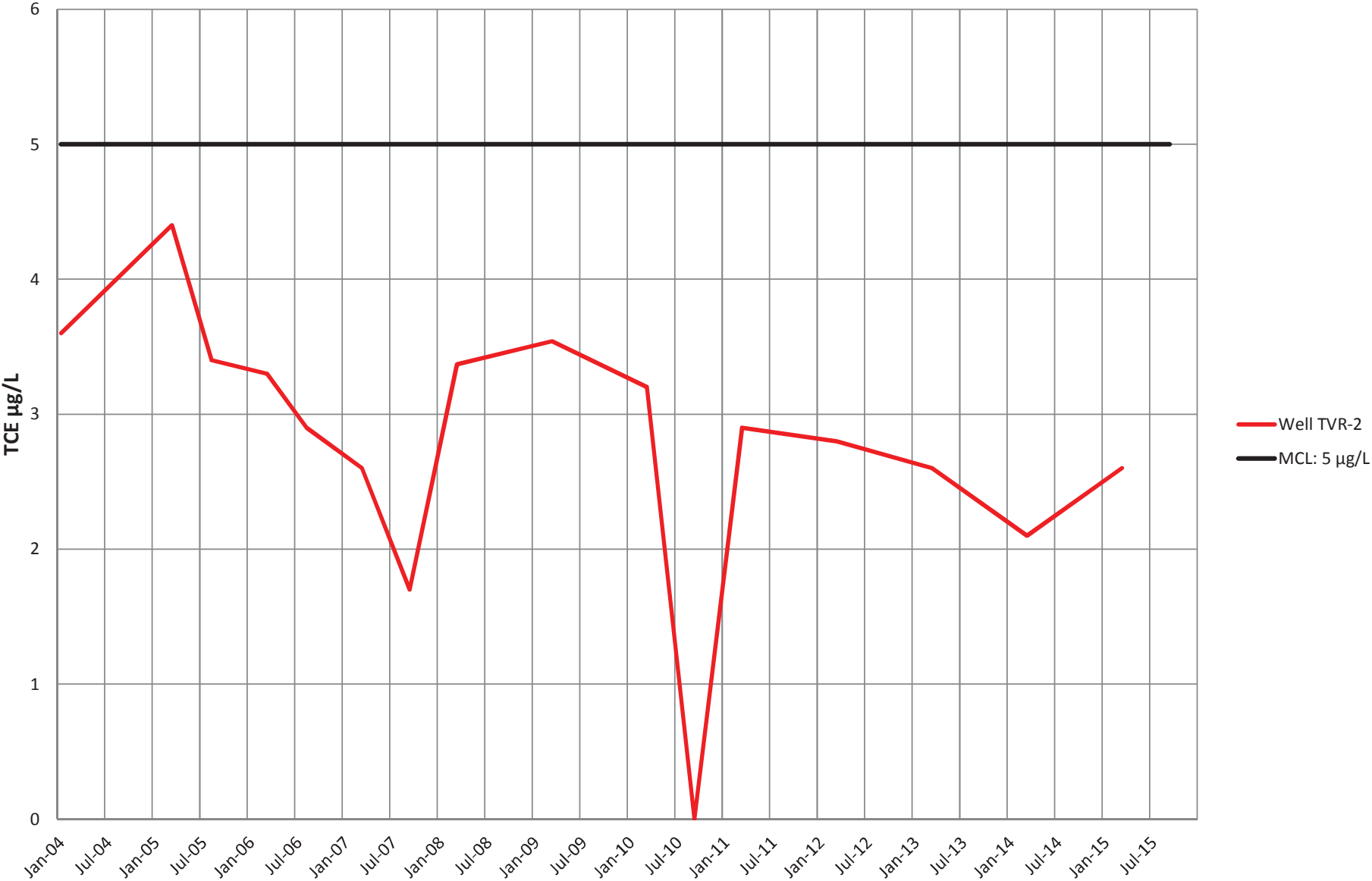
Well MTS-4



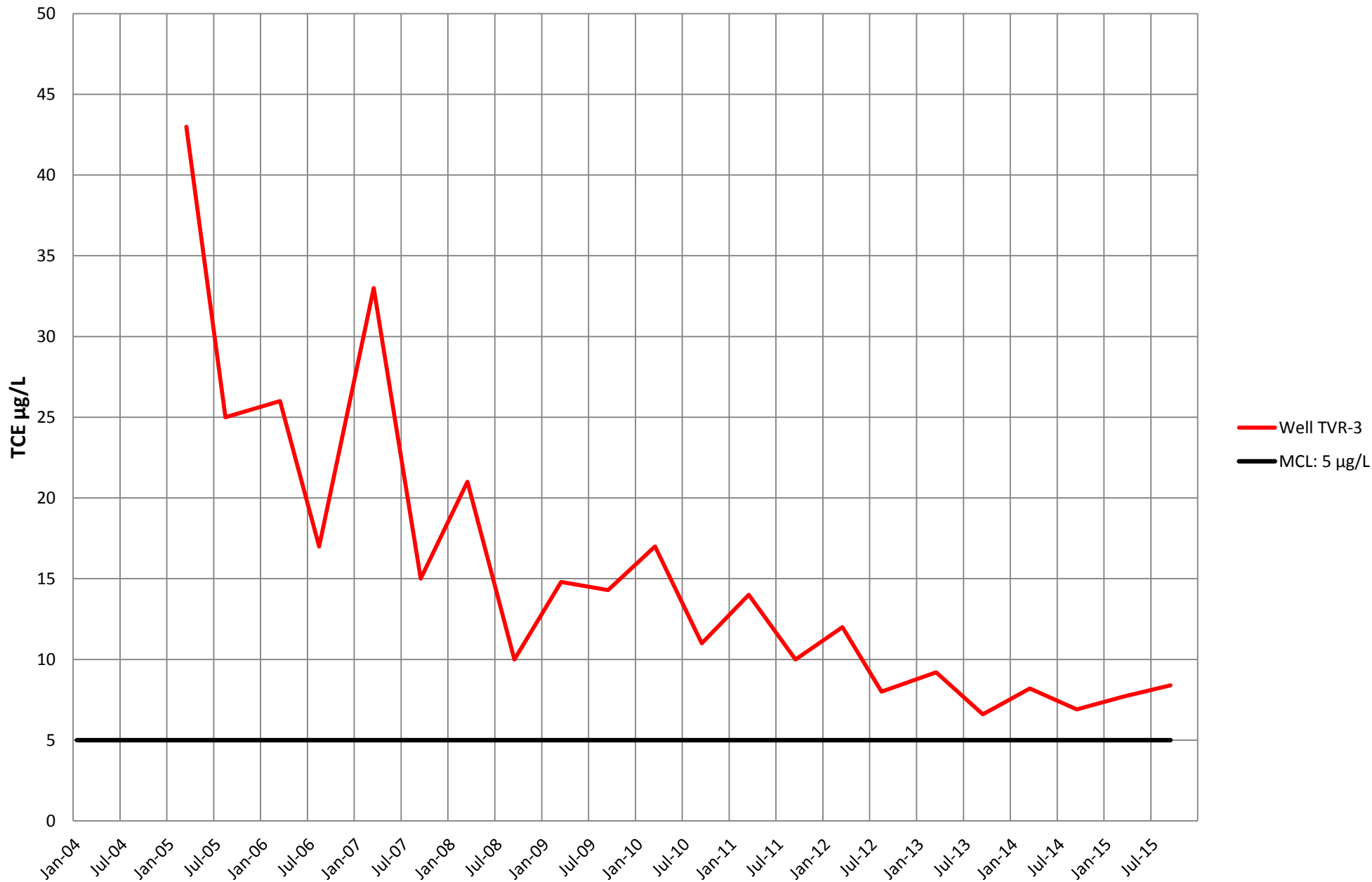
Well TVR-1



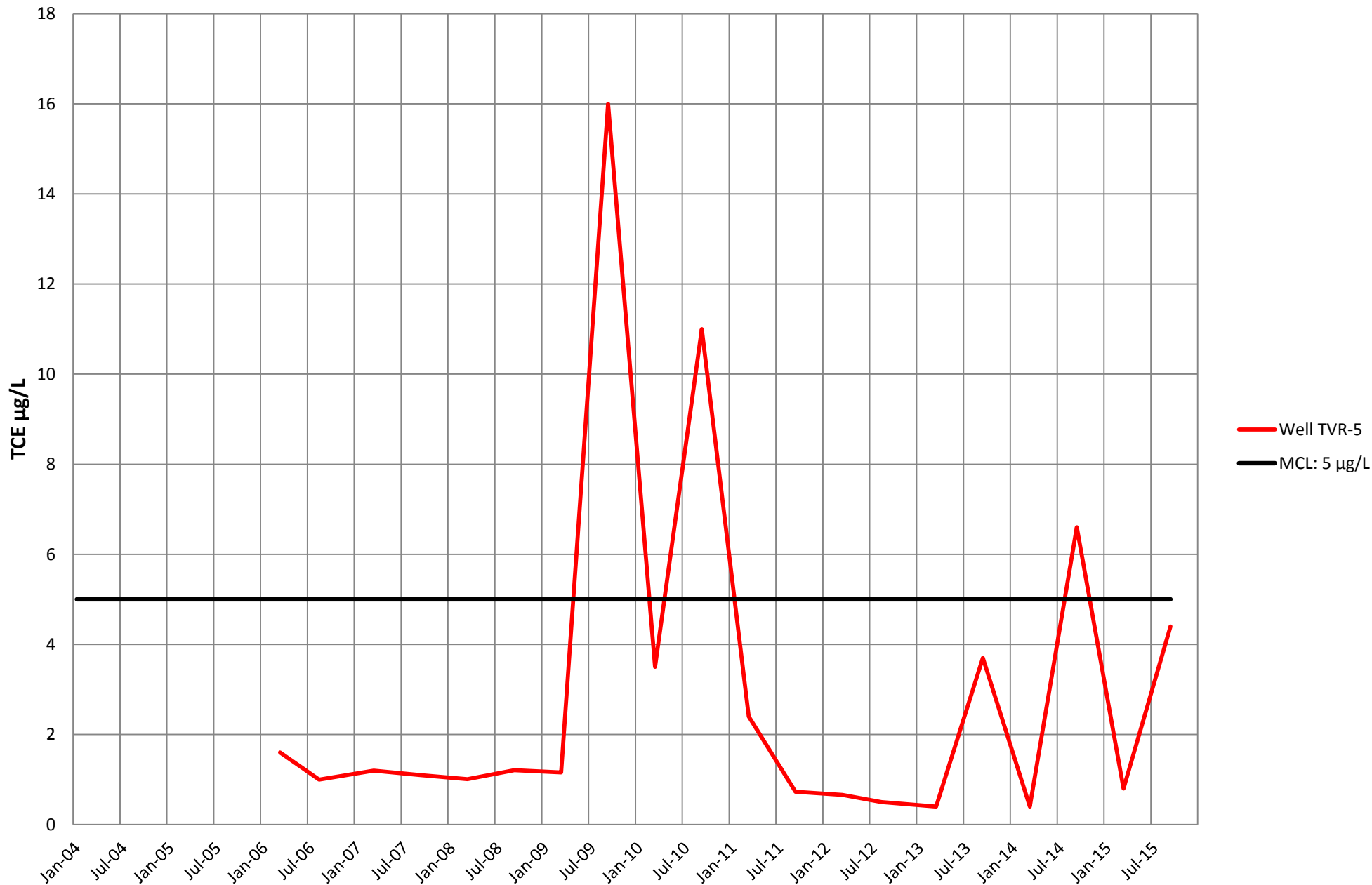
Well TVR-2



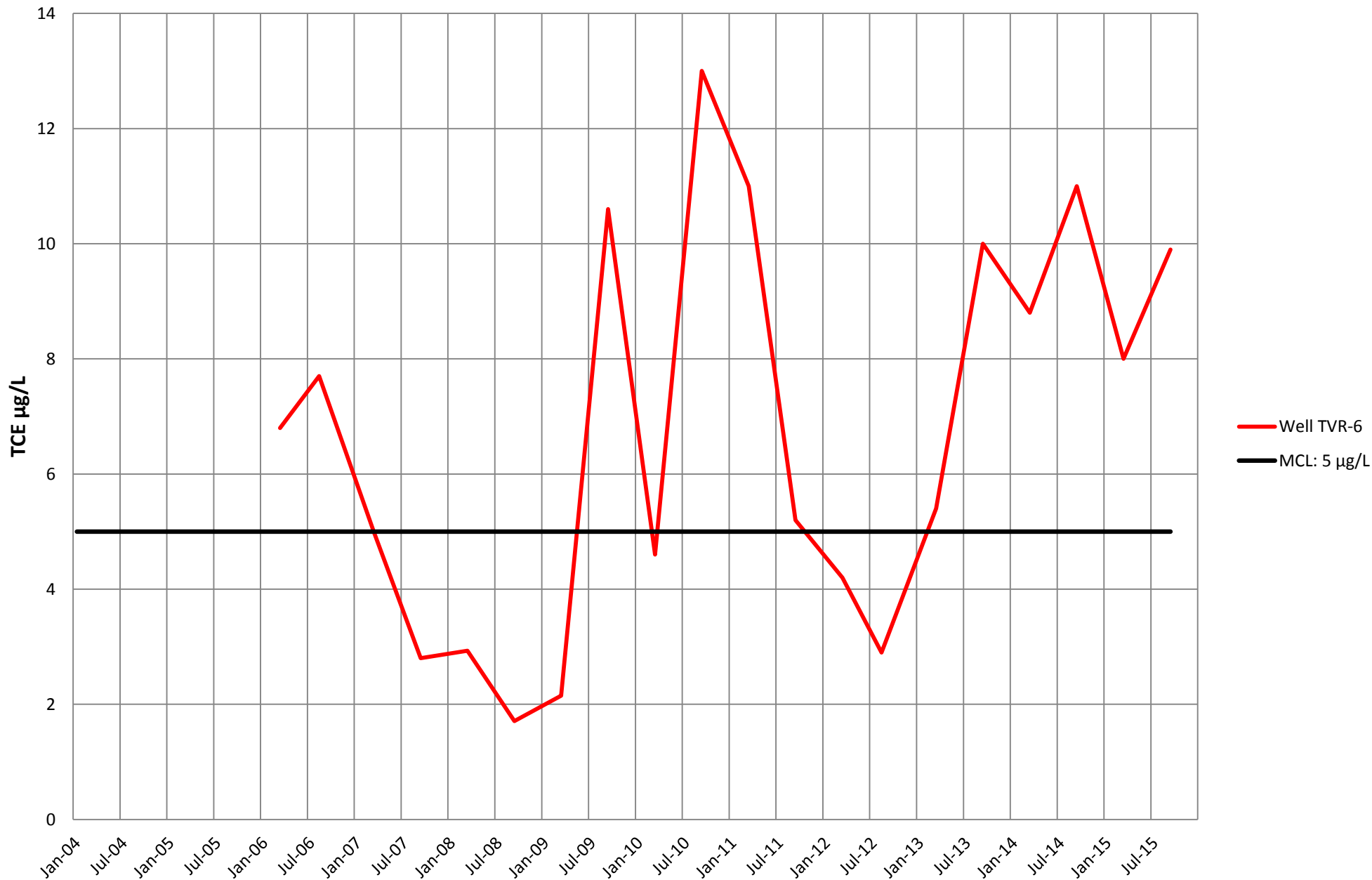
Well TVR-3



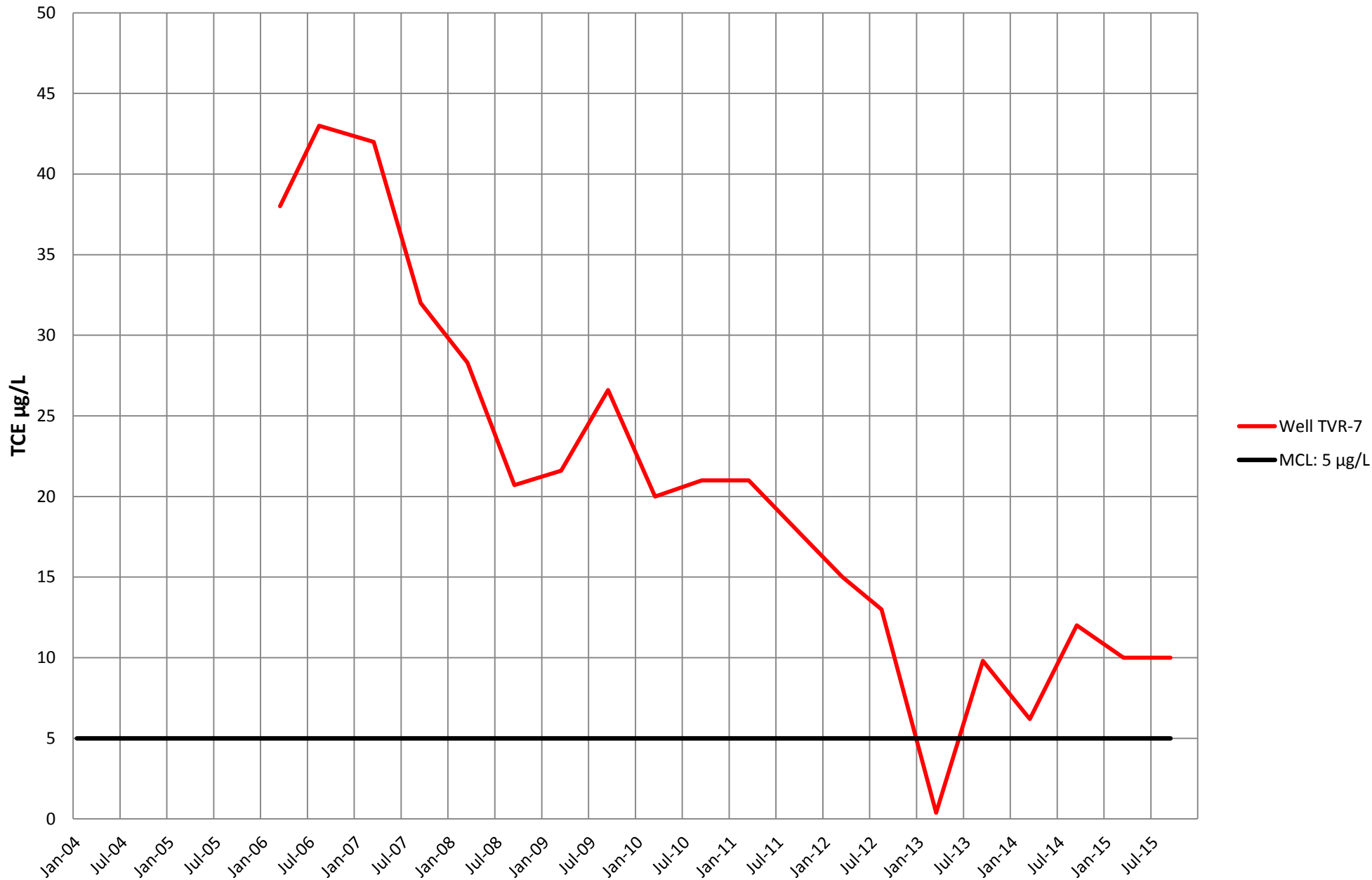
Well TVR-5



Well TVR-6



Well TVR-7



Appendix C. FTP 1 and TVR / Old MATES
TVR Old / MATES, Yakima Training Center, Washington

TCE Concentration Trends - TVR/Old Mates Wells

