

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
 Tank Programs Division
 Underground Storage Tank (UST) Program

ADEQ use only

DOCUMENT SUBMITTAL FORM

- use form as COVER SHEET when submitting the documents listed below.
- use only for the documents listed below.
- all requested information must be provided.

UST FACILITY INFORMATION:

Thomas O. Price Service Center _____ 0-005160 _____
 Facility Name Facility ID
 4004 South Park Avenue _____ 0767.01 - 0767.05 _____
 Street Address LUST Number(s)
 Tucson 85714 _____ Pima _____
 City Zip Code County

PERSON RESPONSIBLE FOR SUBMITTING DOCUMENT:

Carlos A. De La Torre, P.E. _____
 Name
 4004 South Park Avenue, Building #1, Tucson 85714 _____
 Street Address City Zip Code
 (520) 791-3171 _____
 Telephone (daytime)

PERSON CATEGORY
 (check just one)

ADEQ ID #

- UST owner _____ 005160 _____
- UST operator _____
- UST volunteer/
Property owner _____

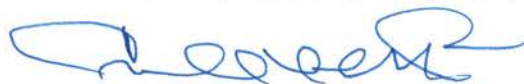
RELEASE OR CORRECTIVE ACTION DOCUMENT: (check all that are attached)

[A.A.C. = Arizona Administrative Code]

DOCUMENT	A.A.C. CITATION	DOCUMENT	A.A.C. CITATION
<input type="checkbox"/> 14 day report (suspected release)	R18-12-251(E)	<input type="checkbox"/> Site characterization report (SCR)	R18-12-262(D)
<input type="checkbox"/> 90 day report (suspected release)	R18-12-251(F)	<input checked="" type="checkbox"/> Periodic site status report	R18-12-263(G)
<input type="checkbox"/> 14 day report (confirmed release)	R18-12-260(C)	<input type="checkbox"/> Tier 2 risk evaluation	R18-12-263.01(B)(2)
<input type="checkbox"/> 90 day report (confirmed release)	R18-12-261(D)	<input type="checkbox"/> Tier 3 risk evaluation	R18-12-263.01(B)(3)
<input type="checkbox"/> LUST site classification form	R18-12-261.01(E)	<input type="checkbox"/> Corrective action plan (CAP)	R18-12-263.02(B)
<input type="checkbox"/> Free Product Report	R18-12-261.02(C)	<input type="checkbox"/> Corrective action completion report w/LUST case closure request	R18-12-263.03(D)

CERTIFICATION STATEMENT OF UST OWNER, OPERATOR OR VOLUNTEER:

"I hereby certify, under penalty of law, that this submittal and all attachments are, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations."



Signature of UST owner, operator or volunteer

April 17, 2017
 Date

Carlos A. De La Torre, P.E.

Name of UST owner, operator or volunteer (printed)

Director of Environmental and General
 Services Department
 Title

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK PROGRAM

LUST Site Classification Form

DATE FORM COMPLETED: 04/17/2017 (mm/dd/yy)

ADEQ use only

DATE RECEIVED:

FACILITY ID: 0-005160 LUST NUMBER: 0767.01-.05 OTHER LUST(S) AT FACILITY: _____

RELEASE INFORMATION: [leave blank if an initial site characterization report is attached]

<u>Component</u>	<u>Location</u>	<u>Product</u>	<u>Quantity</u>
<input checked="" type="checkbox"/> tank <input type="checkbox"/> spill	<u>Former UST and Piping</u>	<input checked="" type="checkbox"/> gasoline <input type="checkbox"/> diesel <input type="checkbox"/> used oil	<u>Unknown</u> gallons
<input checked="" type="checkbox"/> piping <input type="checkbox"/> overflow		<input type="checkbox"/> jet fuel <input type="checkbox"/> other: _____	

GEOLOGIC INFORMATION: [leave blank if an initial site characterization report is attached] [bgs = below ground surface]

Lithology: (indicate the scenario that most closely matches site conditions, attach site specific lithologic log if available)

alternating silt/sand/gravel sands alluvium overlying river run gravel alluvium overlying bedrock

Depth To Bedrock: unknown feet bgs known / estimated Bedrock type: igneous sedimentary metamorphic

HYDROLOGIC INFORMATION: [leave blank if an initial site characterization report is attached]

Groundwater Depth: 95-152 feet bgs known / estimated Aquifer type: unconfined confined perched

Groundwater Flow Direction: NNE Lower Gradient: 0.0098 known / estimated

(ex: SW, NNW, ENE)

STATUS OF CORRECTIVE ACTION ACTIVITIES:[leave blank if an initial site characterization report is attached]

	<u>on-site</u>	<u>off-site</u>	<u>extent defined</u>	<u>remediation complete</u>
Vapors:	yes <u>no</u> / unk	yes <u>no</u> / unk	yes / no / <u>NA</u>	yes / no / <u>NA</u>
Soil:	<u>yes</u> / no / unk	yes / <u>no</u> / unk	<u>yes</u> / no / NA	yes / <u>no</u> / NA
Groundwater:	<u>yes</u> / no / unk	<u>yes</u> / no / unk	<u>yes</u> / no / NA	yes / <u>no</u> / NA
Surfacewater:	yes / <u>no</u> / unk	yes / <u>no</u> / unk	yes / no / <u>NA</u>	yes / no / <u>NA</u>
Free Product:	<u>yes</u> / no / unk	<u>yes</u> / no / unk	<u>yes</u> / no / NA	yes / <u>no</u> / NA

[unk = unknown] [NA = not applicable]

RECEPTOR INFORMATION:

On-site land use: residential non-residential

Nearest public/private well: 0.5 feet / miles no threat threatened impacted unknown

Nearest surfacewater: >1 feet / miles no threat threatened impacted unknown

GROUNDWATER QUALITY:

potable naturally non-potable artificially non-potable, regional artificially non-potable, locally

SITE CLASSIFICATION: (see RBCA Site Classification Determination Worksheet)

Current: 1 2 3 4 Previous: 1 2 3 4

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK PROGRAM

Periodic Site Status Report

DATE FORM COMPLETED: 04/17/2017 (mm/dd/yy)

ADEQ use only
Date Received:

Site classification form attached? yes / no

Required attachments submitted? yes / no / NA

FACILITY ID: 0-00 5160

LUST NUMBER: 0767 (.01 - .05)

OTHER LUST(S) AT FACILITY: NA

1. Has the ADEQ approved the site characterization report for the subject release?

If you checked "yes" include date of ADEQ approval and proceed to #2 below.

If you checked "no" stop here, corrective action status information is not required at this time.

YES • NO • •
DATE: 9/14/2011

2. Has a corrective action plan (CAP) been requested?

If you checked "no" proceed to #3 below.

If you checked "yes" are you are proceeding with remedial corrective actions prior to CAP approval?

If you are proceeding, include date ADEQ was notified in accordance with A.A.C. R18-12-263.02(E)

YES • NO • •

YES • NO • •

DATE: _____

3. Type(s) of remedial corrective action technology currently being performed. For each system in use, enter the date the system became operational.

Soil	Date	Groundwater	Date
Over-excavation		Natural attenuation (monitored)	
Vapor extraction	2/13/1996	Air sparging	2nd Q 2012
Thermal desorption		Extract and treat	
Bioremediation		Free product recovery	4th Q 1999
Land farming (on site)		Bioremediation	
Other (describe below)		Other (describe below)	

If "Other" please describe (include dates the systems became operational - attach additional pages as necessary):

4. For each of the remedial corrective action technologies checked in #3 above, attach any monitoring and laboratory results collected since submittal of the last status report form. See report.

5. For the remedial corrective action technologies checked in #3 above, attach a site plan showing their locations and any monitoring and sample collection locations, if not previously submitted. See report.

6. Check the time frame that most accurately estimates when the response activities, including remediation and verification monitoring, will demonstrate that the concentration of each chemical of concern is projected to be at or below the applicable corrective action standard.

• 0 - 2 years

• 2 - 5 years

• 5 - 10 years

• greater than 10 years

7. Attach the *LUST Site Classification Form* as required and described under R18-12-261.01.

Please note that the above information is required **once every 12 months** from the date the ADEQ approves the site characterization report for the subject release **unless** otherwise stated within an ADEQ approved corrective action plan. If you have any questions regarding this form, contact the UST Help Desk at (602) 771-4303, or toll free within Arizona at 800-234-5677 extension 4303.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK PROGRAM

RBCA Site Classification Determination Worksheet

Risk based corrective action (RBCA) site classification is based on the ASTM Standard for Risk-based Corrective Actions at Petroleum Release Sites and A.A.C. R18-12-261.01

INSTRUCTIONS: Circle the applicable criteria status for each receptor/media impact criterion. The site classification is determined by the column farthest to the left for which **ANY** criterion was circled.

CRITERIA FOR RECEPTOR/MEDIA IMPACT	APPLICABLE CRITERIA STATUS			
	Yes	Potential		
Explosive vapor levels in buildings	Yes	Potential		
Explosive vapor levels in subsurface conduits	Yes	Potential		
Vapor levels causing acute health effects in building	Yes	Potential		
Vapor levels causing acute health effects outdoors	Yes	Potential		
Free product in surficial soils	Yes			
Free product in subsurface conduits	Yes			
Contaminated surficial soils		R* <500 ft	R* >500 ft	
Contaminating subsurface soils			Leachable	Leachable
Active drinking water groundwater supply well impact (well screened in same interval as plume)	Yes	<2 years**	>2 years**	
Active drinking water groundwater supply well impact (well screened in different interval as plume)		Yes	Outside of plume	
Active non-potable use groundwater supply well impact (well screened in same interval as plume)		Yes	>2 years**	No use of groundwater
Active non-potable use groundwater supply well impact (well screened in different interval as plume)			Yes	Outside of plume
Free product on surface water	Yes			
Potable use surface water impact	Yes	R* <500 ft	R* <1500 ft	
Ecological and non-potable surface water impact	Yes	R* <500 ft	R* <1500 ft	
RBCA Site Classification		1 Immediate threats	2 Short term threats	3 Long term threats

NOTES:

- * R denotes receptors, which may include, for purposes of site classification, persons, springs, surface water, agricultural and ecological habitats. Wells as receptors are treated separately.
- ** Time refers to plume migration to well. If no site specific data is available, assume a migration rate equivalent to groundwater flow velocity.

April 17, 2017

Scott D Goodwin
Arizona Department of Environmental Quality
Waste Programs Division, UST Corrective Action Section
1110 West Washington Street
Phoenix, Arizona 85007

Cardno

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Phoenix, AZ 85027

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Fax +1 602 977 8099
www.cardno.com

RE: Certification Letter
2016 Annual Remediation Status and Groundwater Monitoring Report
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona
ADEQ LUST File Nos. 0767.01-.05; ADEQ Facility ID No. 0-005160
Cardno Project No. I052000015

Dear Mr. Goodwin:

Cardno was retained by the City of Tucson Environmental Services (COT-ES) to review the technical merit of the referenced document and to provide the underlying Certification Statement.

Certification: The 2016 Annual Remediation Status and Groundwater Monitoring Report for the Thomas O. Price Service Center, located in Tucson, Arizona was prepared by COT-ES. Based on Cardno's review of the document, it is our opinion that the findings and conclusions presented have been developed in accordance with currently accepted geological and engineering standards and practices applicable to this location. Based on my inquiry of the COT-ES persons responsible for gathering the information presented in this report, the information is, to the best of my knowledge and belief, true accurate and complete to the extent practicable. I am aware that there are significant penalties for submitting false information.

Heidi L. Dieffenbach-Carle
Arizona Registered Geologist No.
Principal Geologist

If you have any questions, feel free to contact the undersigned.

Sincerely,



Heidi L. Dieffenbach-Carle, R.G.
Senior Project Geologist
Direct Line +1 707-766-2019
Email: heidi.dieffenbach-carle@cardno.com



Enclosures

ADEQ LUST Document Submittal Forms
Annual Status and Groundwater Monitoring Report 2016 (1 hardcopy & CD)

cc: Jeanne Nordstrom, SAVAHCS (Report on CD), Anthony Keffer, Hensley Beverage Company (Report on CD)
Jeff Langejans, City of Tucson, Fire Department (email), Richard Byrd, City of Tucson Environmental and
General Services Dept. (email), Justin Patton, Cardno, Inc (Report on CD)
File - Price Service Center (bound full hardcopy) & SIRE ETS

**2016 ANNUAL REMEDIATION STATUS
AND GROUNDWATER MONITORING REPORT**

APRIL 17, 2017

**THOMAS O. PRICE SERVICE CENTER
TUCSON, AZ
LUST File No. 0767.01 - 0767.05
ADEQ Facility ID No. 0-005160**

**Prepared by:
City of Tucson
Environmental Services
P.O. Box 27210
Tucson, Arizona 85726-7210**



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List of Acronyms

2-Butanone	(MEK)
Arizona Department of Environmental Quality	(ADEQ)
Arizona Department of Health Services	(ADHS)
Arizona Aquifer Water Quality Standards	(AWQS)
Below Land Surface	(BLS)
Benzene, Toluene, Ethyl-benzene, Xylene	(BTEX)
City of Tucson Environmental and General Services Dept.	(COT)
City of Tucson Environmental Services	(COT-ES)
City of Tucson Fire Station Number 10	(TFS-10)
Corrective Action Plan	(CAP)
Cubic Feet Per Minute	(CFM)
Dissolved oxygen	(DO)
Gas Chromatography/Mass Spectrometer	(GC/MS)
Leaking Underground Storage Tank	(LUST)
Light Non-Aqueous Phase Liquid	(LNAPL)
Liquid Petroleum Hydrocarbon	(LPH)
Methyl Tert-butyl Ether	(MTBE)
Monitored Natural Attenuation	(MNA)
Oxidation-Reduction Potential	(ORP)
Parts per Million by Volume	(ppmv)
Quality Control/Quality Assurance	(QA/QC)
Soil Vapor Extraction	(SVE)
Specific Conductance	(SpC)
Thomas O. Price Service Center	(PSC)
Total Petroleum Hydrocarbon	(TPH)
Total Volatile Fuel Hydrocarbons	(TVFH)
Underground Storage Tanks	(USTs)
Vacuum Enhanced Liquid Phase Hydrocarbon Remediation	(VELPHR)
Volatile Organic Analysis	(VOA)
Volatile Organic Compounds	(VOCs)

EXECUTIVE SUMMARY

This report presents the results of monitoring and remediation activities conducted by the City of Tucson Environmental and General Services Department (COT) for the period January 1, 2016 through December 31, 2016 at the Thomas O. Price Service Center (PSC) Leaking Underground Storage Tank (LUST) site in Tucson, Arizona. Investigation and remediation activities began at the site when evidence of petroleum releases was reported to the Arizona Department of Environmental Quality (ADEQ) on June 14, 1989. Since the initial discovery, the site has been investigated and remediated under ADEQ's LUST program. The PSC appears to be the source of Liquid-Phase Hydrocarbon (LPH, also referred to as free product) and dissolved petroleum hydrocarbons in the shallow groundwater zone extending northward from the PSC to the City of Tucson Fire Station Number 10 (TFS-10), located north of Ajo Way; with the exception of the product found in wells WR-220A and PCM-516A which exhibit characteristics not consistent with fuel from the PSC.

COT measured depth to water and/or free product levels in 63 shallow screened, and 13 deep screened monitor and remediation wells, and collected groundwater samples from 56 shallow and 11 deep monitor and remediation wells during the routine annual groundwater monitoring event that was conducted in March 2016. The groundwater samples were submitted to State of Arizona certified laboratories for analysis in compliance with ADEQ requirements. Measurable free product was recorded in 5 shallow groundwater zone wells, which is a decrease from 9 wells in 2015. The extent of free product has decreased over the previous five years (Table 1, Figure 8, and Appendix B). Concentrations of benzene, toluene, ethylbenzene, and xylene (BTEX) and or methyl tert-butyl ether (MTBE) in the shallow aquifer continued to be detected above the Arizona aquifer water quality standards (AWQS) (Tables 3 and 4 and Appendix G) in 29 shallow wells. Dissolved BTEX concentrations in the shallow aquifer declined in 2016, except for wells R-030A, R-031A, R-028A, and WR-215A (Appendix E and F) which may have had an increase in one or more compounds. Dissolved MTBE concentrations in the shallow aquifer declined in 2016, except in wells: R-030A, R-031A, and WR-215A (Appendix E). All these wells are in close proximity to wells containing free-product. Of the remaining VOCs detected, none exceeded their respective Tier 1 Cleanup Standards. Deep monitor well WR-227A has a

concentration of 21.3 µg/L for methyl tert butyl ether (MTBE) which is below the Tier 1 standard of 94 µg/L.

During 2016, free product recovery was accomplished by air sweep and SVE at TFS-10, and air injection and SVE at PSC. At TFS-10, approximately 16,011 pounds (equivalent of 2,668.5 gallons) of free product were removed and destroyed. Since August 2002, COT has removed a cumulative total of 111,622 gallons (or 672,811 pounds) of free-product by SVE/AS at TFS-10.

The SVE system south of Ajo Way at PSC did not operate during 2016. Due to low inlet concentrations at the SVE located at PSC, the system was shut down on July 1, 2015 and continues to remain down to evaluate site conditions for possible rebound of contaminant concentrations. Since April 1995, COT has removed a cumulative total of 119,270 gallons (or 715,618 pounds) of free-product by SVE at PSC.

Free product thicknesses measured in March 2016 indicated that the estimated aerial extent of free product has decreased approximately 47,000 square feet (33%) since 2015 (Figure 8).

A total of 10.25 gallons of free product was manually bailed from well WR-220A during 2016. Even though the free product in WR-220A originated from a source other than the PSC, COT began bailing free product in November 2013 to minimize potential impacts to the environment on a weekly basis and has removed a total of 152.5 gallons of free product from this well.

1.0 INTRODUCTION

This report summarizes monitoring and remediation activities at the Thomas O. Price Service Center (PSC) and City of Tucson Fire Station Number 10 (TFS-10); Arizona Department of Environmental Quality (ADEQ) Facility ID No. 0-005160 and Leaking Underground Storage Tank (LUST) File No. 0767.01 The monitoring period runs from January 1, 2016 through December 31, 2016. Monitoring periods are based on calendar years (January – December).

The PSC is the primary Operations and Communications Center for the City of Tucson, located at 4004 South Park Avenue, Tucson, Arizona, near the southwest corner of Park Avenue and Ajo Way (Figures 1 and 2). The PSC formerly contained 23 underground storage tanks (USTs) and associated equipment that were the sources of multiple petroleum releases. In June 1989, diesel fuel was observed seeping from concrete joints at the north end of the dispenser islands. All of the USTs were taken out of service by November 1992. Since the initial discovery, the site has been investigated and remediated under ADEQ's LUST program. The PSC appears to be the source of Liquid-Phase Hydrocarbon (LPH, also referred to as free product) and dissolved petroleum hydrocarbons in the shallow groundwater zone extending northeast from the PSC to the TFS-10, located north of Ajo Way (Figure 2).

Monitor and remediation wells at the site are either screened across the shallow or deep zone perched aquifers. The shallow zone was defined in the original CAP (HydroGeoChem, 1994) as the upper most groundwater beneath the site with depth to water approximately 90 to 115 feet below ground surface (ft bgs). The deep zone was defined as the second groundwater bearing zone encountered beneath the site with depths to water approximately 114 to 145 ft bgs. The deep zone appears to be fairly well isolated from the regional aquifer which is 40 to 50 feet below the deep zone perched aquifer.

Remedial site goals are to remove free product that is floating on the groundwater table and to remove residual hydrocarbons in the vadose zone. Currently, the free product plume is primarily beneath the TFS-10. Remedial activities include direct product recovery by hand bailing, air sparging/sweep, and Soil Vapor Extraction (SVE). Skimmer pumps were phased out and replaced with air sweep and SVE technology with no skimmer pumps remaining by June 2013. Figure 2 presents the site layout showing the locations of the PSC and TFS-10 and the location of monitoring and recovery wells located in and around the project site. Detailed views of the PSC and TFS-10 layouts are shown in Figures 3 and 4, respectively.

1.1 Annual Monitoring and Remediation Activities Requirements

The monitoring and remedial requirements for the PSC and TFS-10 are outlined in the Corrective Action Plan (CAP) Addendum (IT Corporation, 2001), the CAP Modification (SCS Engineers, 2002), and the February 22, 2006, February 10, 2010, and May 12, 2011 letters from COT to ADEQ requesting modifications to the Annual Groundwater Monitoring Analysis Matrix. Monitoring and remediation activities conducted during the annual 2016 reporting period were performed in accordance with these documents. The ADEQ approved site corrective action goals identified in the original CAP (HGC, 1994) are as follows:

Soil: Target cleanup levels in the vadose zone beneath the former underground fuel storage system are the ADEQ UST soil clean-up standards established in 1992 and are provided in the below table. However, if after extended SVE operation time these clean-up levels prove to not be realistically obtainable, the City of Tucson reserved the option to calculate risk-based, site-specific, soil remediation levels (IT Corporation, 2001).

Compound	ADEQ UST Soil Clean-up Levels (1992) (mg/kg)
TPH	100
Benzene	0.13
Toluene	200
Ethylbenzene	68
Xylenes	44

Groundwater: Target cleanup levels for groundwater are Aquifer Water Quality Standards (AWQS). The City of Tucson reserved the option to calculate risk-based, site-specific, groundwater remediation levels (IT Corporation, 2001). The table presented below indicates the site specific chemicals of concern.

Compound	AWQS (ug/L)
Benzene	5
Toluene	1,000
Ethylbenzene	700
Xylene	10,000
Naphthalene (no longer listed)	280
Ethylene dibromide (EDB)	0.05
1,2 dichloroethane	5

In addition to the above referenced AWQS standards, all detected compounds were compared to the ADEQ UST Program Tier 1 Cleanup Standards for Petroleum Products dated January 2015. The standards are included in Appendix A.

All analytical test results are produced by laboratory EPA Method 8260B for VOCs. The method's reporting limit for analyte 1,2 dibromoethane (EDB) (<1 µg/L) is higher than the respective AWQS of 0.05 µg/L. In 2013, select wells (perimeter and near source wells) were monitored for EDB at lower detection limits (<0.019 µg/L) by EPA Method 504.1; all results were non-detect including "near source" wells (COT-ES, 2014). Future analysis for VOCs will be conducted under EPA Method 8260B for all compounds. Should future results through EPA Method 8260B indicate EDB is rebounding in interior wells then COT will resume the additional analytical method to delineate this compound.

2.0 ANNUAL GROUNDWATER MONITORING EVENT

The annual groundwater monitoring event was conducted in March 2016. The following tasks were completed during the monitoring period:

- Depths to groundwater and free product (if present) were measured in 63 shallow-zone wells and 13 deep-zone wells between March 8 and 30, 2016 (Table 1).
- Specific conductance (SpC), dissolved oxygen (DO), pH and oxidation-reduction potential (ORP), were measured in 56 shallow monitoring and multipurpose wells, and 11 deep-zone monitoring wells (Table 2) after sample collection.
- Between March 18, 2016 and March 31, 2016, groundwater samples were collected from a total of 56 shallow-zone monitoring wells and 11 deep-zone monitoring wells (Table 3). Groundwater samples were not collected from wells with free product. All samples were analyzed by EPA Method 8260B for dissolved concentrations of BTEX and MTBE. Groundwater samples from seven down-gradient perimeter (WR-219A, WR-221A, WR-222A, WR-223A, WR-224A, WR-227A, and WR-233A) and two "near-source" monitor wells (WR-215A and WR-217A) were analyzed by EPA method 8260B with reporting the full list of sixty-four VOCs (full-list VOCs) available by this method. Due to free product being present in monitor well WR-220A, COT had to deviate from the approved list of wells to be sampled and analyzed for the full-list VOCs (Appendix C). Monitor

wells WR-219A and WR-223A were already listed for full VOCs analysis and will serve as replacement well for WR-220A.

- Cardno, the City's environmental consulting firm, assisted in monthly gauging of depth to water and free product, and is under contract to maintain and improve remediation efforts at the site. Quarterly reports documenting Cardno's activities are included as Appendices G and H.

2.1 Water Level Monitoring

The March 2016 groundwater level measurements were used to construct potentiometric groundwater elevation contour maps. Current site conditions are consistent with historic reports.

The groundwater flow direction in the shallow zone system is to the north-northeast with a calculated hydraulic gradient of approximately 0.0098 ft/ft across the study area in March 2016 (Figure 5). The groundwater flow direction in the deep zone is to the northwest with a gradient of 0.18 ft/ft across the study area in March 2016. (Figure 6). The flow directions and gradients in both groundwater zones are generally consistent with those of previous reporting periods.

2.2 Apparent Free Product Thickness

Free product is present at the TFS-10 property, and it extends eastward along the Ajo Way east of Park Ave. Limited free product is also present south across Ajo Way on the Price Service Center property (Figure 7). Depth to water and free product thicknesses were measured from 63 shallow-zone wells between March 8 and 30, 2016. The TFS-10 remedial system had been shut down on March 8, 2016 which was the same day that measurements were collected from remediation wells. Normally a week of resting the system given prior to measurements, but unfortunately this didn't occur for this annual event. The measurements collected were used for mapping and reporting purposes (Table 1 and Figures 7 and 8).

Table 1 and Figure 7 present the March 2016 depths to free product, free product thicknesses, and depths to groundwater. Measurable free product was recorded in 5 shallow groundwater zone wells which is a decrease from 9 shallow groundwater wells reported last year.

Shallow groundwater well WR-220A, located approximately 0.3 mile (1,500 feet) downgradient from the PSC release area had been monitored since 1993. In March of 2013 it was discovered to have 1.62 feet of product. Because the well had never contained free product before, COT characterized the free product and determined that PSC was not the source (COT-ES, 2014). In

December 2014, ADEQ concurred the gasoline present in WR-220A was in close proximity of other potential sources and was not produced by PSC (COT-ES, 2015).

The thickest free product accumulations in March 2016 measured at TFS-10 vicinity wells were: PCM-507A (1.18 ft), PCM-534A (0.16 ft), PCM-516A (0.10 ft) and R-032A (0.01 ft). The free product thickness boundaries were contoured at intervals of 0.01, 0.10, and 1.0 in feet and are presented as Figure 7. The March 2016 contours were compared to previous free product contours years 2015 thru 2011 on Figure 8. Figure 8 shows changes of free product at the site over a four year period with consistent scales (1:4,800 absolute), intervals (0.01, 0.10, and 1.0 ft), and color scheme. The previous year contours were initially provided in their respective annual monitoring reports.

Free product thicknesses measured in March 2016 indicate that the estimated aerial extent of free product has decreased by approximately 47,000 square feet; a decrease of 33% between the 2015 and 2016 measurements at both the TFS-10 and PSC areas.

In addition to the above yearly comparison with resting the systems, free product thicknesses are gauged in all wells with product monthly and charted (Appendix B). The list of wells measured monthly is adjusted based on the yearly comprehensive event. The charts are separated by remediation zones or area, and will be discussed in more details under the remediation portion of the report.

No deep-zone wells contained free product during the monitoring period, nor has free product been detected in the deep-zone aquifer at any time since monitoring began at this site.

2.3 Groundwater Sampling and Field Parameter Measurements

Groundwater samples were collected from a total of 56 shallow-zone monitoring wells and 11 deep-zone monitoring wells between March 18, 2016 and March 31, 2016. Groundwater samples were not collected from wells exhibiting free product as indicated during the March site-wide gauging event (Table 1) or if product was present at time of sample collection.

Groundwater sampling was conducted in general compliance with the State of Arizona Department of Environmental Quality Underground Storage Tank Program *Release Reporting and Corrective Action Guidance, Appendix H. Groundwater Sampling*, dated August 20, 2002. Groundwater samples were collected by a disposable single check valve bailer, as a grab method, with no well purging. Field parameters, including temperature, pH, SpC, temperature, DO, ORP,

and turbidity were measured and recorded on the field sheets after sample vials were filled. The field parameter measurements are presented in Table 2.

Field QA protocol during the sampling event consisted of:

- One trip blank per day or per each cooler was collected.
- Collection of one duplicate sample for every ten primary samples.

Each well sample was analyzed in accordance with the groundwater monitoring analysis matrix detailed in a May 12, 2011 letter from COT to ADEQ. A copy of the currently approved groundwater monitoring analysis matrix is provided in Appendix C with the field sampling sheets. Laboratory reports are provided in Appendix D.

2.3.1 Shallow-Zone Analytical Results

Dissolved BTEX concentrations in the shallow aquifer declined in 2016, except for wells R-028A, R-030A, R-031A, and WR-215A (Appendix E and F) which may have had an increase in one or more compounds. Dissolved MTBE concentrations in the shallow aquifer declined in 2016, except for in wells: R-030A, R-031A, and WR-215A (Appendix E); these wells are in close proximity to the free-product plume. Table 3 lists the 2016 results for BTEX and MTBE, and highlights each constituent above the respective AWQs (or Tier 1 Cleanup Standard). A summary of historical analytical results is provided in Appendix E. The following bullets summarize the March 2016 sampling event:

- Six shallow zone wells were above the benzene AWQS of 5 µg/L with the maximum observed concentration at PCM-517A with 6,760 µg/L (Table 3 and Figure 9). Benzene concentration time series plots are included as Appendix F and Figure 10 compares the 2016 benzene contours to previous years through 2011. The estimated aerial extent of benzene concentrations above 5 micrograms per liter (µg/L) has decreased by approximately 18,000 square feet or 3% reduction between the 2015 and 2016 measurements.
- Three shallow zone wells were above the toluene AWQS of 1,000 µg/L with the maximum observed concentration at R-030A with 3,790 µg/L (Table 3).
- Three shallow zone wells were above the ethylbenzene 700 µg/L AWQS with the maximum observed concentration at R-030A with 2,040 µg/L (Table 3).
- One shallow zone well was above the total xylenes 10,000 µg/L AWQS, observed in R-030A at 18,900 µg/L (Table 3).

- Twenty-six shallow zone wells were above the MTBE ADEQ UST Program Tier 1 Cleanup Standard of 94 µg/L. The maximum observed concentration was observed at R-037A with 19,200 µg/L.

Table 4 presents selected VOCs which were detected from the analysis of Method 8260B full-list. Compounds detected were compared to their respective AWQS or ADEQ UST Program Tier 1 Cleanup Standard. VOCs including 1,2,4 trimethylbenzene, 1,2 dichloroethane, 1,3,5 trimethylbenzene, isopropylbenzene, naphthalene, n-butylbenzene, n-propylbenzene, sec-butylbenzene, and tert-butanol were detected in several shallow-zone monitoring wells. Of these detected compounds, only 1,2 dichloroethane has a respective AWQS of 5 µg/L. All detections for 1,2 dichloroethane were below that standard.

2.3.2 Deep Zone Analytical Results

The majority of analytical results were below laboratory detection levels (Tables 3 and 4) in samples collected from the 11 deep zone monitoring wells. There were no AWQS exceedances in any of the deep zone monitor wells. BTEX compounds were not detected in any of the deep zone monitor wells. MTBE was detected in one deep zone monitor well, WR-227A, at a concentration of 21.3 µg/L. Concentrations of MTBE for WR-227A are considered to be slight decrease from the previous year (38.3 µg/L), but has overall decreased compared to previous years (maximum concentration 140 µg/L in April 2010).

2.4 QA/QC Results

Quality assurance/quality control (QA/QC) analyses for the 2016 sampling events included 7 duplicate sample analyses and 8 trip blanks. Analytical results for QA/QC samples are presented in the laboratory reports in Appendix D, and summarized in tables in Appendix E.

No analytes were detected in any of the trip blanks. Trip blanks results are provided in the laboratory reports in Appendix D.

The laboratory recovery percentages were within laboratory quality assurance objectives for accuracy, except for the data qualifiers listed in the case narratives presented in Appendix D. All were within acceptable quality and would not affect data results for the site specific chemicals of concern for this site (listed in Section 1.1 of this report). Several matrix spike and matrix spike duplicate recovery(s) were noted as out of control limits, but failure of these types of controls is

normal due to matrix interference. All other laboratory controls (surrogate recoveries, method blanks, and blank spikes) met control criteria limits.

The seven sample duplicate analyses were compared with the original sample analyses to evaluate the degree of laboratory precision; duplicate comparisons are summarized in tables included in Appendix D. The relative percent differences (RPD) between the sample and its duplicate for all detected analytes were within industry standard (below 20%). COT believes there are no quality control issues with this data set, and they can be used for its intended purpose.

3.0 REMEDIATION ACTIVITIES

Remedial activities during the monitoring period included direct recovery by hand bailing, air-sweeping, and vapor phase recovery by SVE. The remedial systems are normally shut down several days prior to the annual free-product measurement event (March) to allow the subsurface environment to stabilize and provide a check on stable site conditions. Unfortunately in 2016, the measurements collected from the TFS-10 remediation wells were the same day the system was shut-down.

3.1 TFS-10 Remediation Activities

Free product recovery activities at TFS-10 included the operation of air sweep technology in combination with the VELPHR remedial system (SVE wells) (Figure 4). As previously reported, all skimmer pumps were replaced with air sweep technology by April 2013 (COT, 2014). Air sweeping consists of pushing compressed air through or across the top of the free-product, and removing the volatized compounds with the SVE system. The system has seven zones (1-7) which represents remediation wells on the same trunk lines; the list of wells per zone is listed on Figure 4. The TFS-10 Quarterly System Performance Summary Reports by Cardno which are included as Appendix G document the activities for work performed during 2016. Overall 16,011 pounds (equivalent of 2,668.5 gallons) of total petroleum hydrocarbons were removed with mostly operating Zones 5, 6, and 7 (excluding PCM-535A). Since August 2002, COT has removed a cumulative total of 111,622 gallons (or 672,811 pounds) of free-product by SVE/AS at TFS-10. Appendix B contains apparent free product thickness charts per each TFS-10 remedial zone. These charts are based on the monthly free product measurements.

3.2 Price Service Center Remediation Activities

Remediation at Price Service Center consists of SVE. Due to low inlet concentrations, the SVE system was shut down on July 1, 2015 and has remained down during 2016 to test for rebounding conditions. The system has three zones (A-C) which represents remediation wells on the same trunk lines; the list of wells per zone is listed on Figure 3. The Zones A-C were previously known as Legs 1-3; the numbers were converted to alphas to be specific to the PSC remedial system with TFS-10 remedial system zones being numeric. When in operation, only Zone A with soil vapor extraction wells R-017A, R-018A, and R-019A and air injection wells AIR-01 through AIR-04 were open. Zone C has been off since June 2006. Zone B has been off since prior to April 2004. Since the system didn't operate during 2016, there were no Quarterly System Performance Summary Reports drafted by Cardno to include with this annual report. Since April 1995, COT has removed a cumulative total of 119,270 gallons (or 715,618 pounds) of free-product by SVE at PSC.

3.3 Free Product Recovery by Hand Bailing

Manually bailed NAPL removal is documented in the 2016 TFS-10 Annual System Performance Summary report provided in Appendix G. In 2016, Cardno manually bailed a total of 10.25 gallons of free-product from WR-220A.

COT has been voluntarily removing free product from monitor WR-220A beginning in November 2013 on a weekly basis resulting in a total of 152.5 gallons as of December 2016. Free product thickness charts are available in Appendix B. COT will continue hand bailing efforts to lower free product levels in the well.

4.0 REFERENCES

- Arizona Department of Environmental Quality, 2002, “Release Reporting and Corrective Action Guidance—Appendix H”
- City of Tucson – Environmental Services (COT-ES), 2014, 2013 Annual Remediation Status and Groundwater Monitoring Report, November 3, 2014
- City of Tucson – Environmental Services (COT-ES), 2015, Thomas O. Price Service Center (LUST File No. 0767.01-0767.05, ADEQ Facility No. 0-005160) Annual Status and Groundwater Monitoring Report (January 2013 through December 2013), January 14, 2015
- HydroGeoChem (HGC), 1994, “Corrective Action Plan”
- IT Corporation, 2001. “Corrective Action Plan Addendum”
- SCS Engineers, 2002. “Corrective Action Plan Modifications”, February 11, 2002

TABLES

Table 1
Free Product Thicknesses and Depths to Groundwater - March 2016
Thomas Price Service Center, City of Tucson

	Well ID	Measurement Date	GW Depth (feet below TOC) or Depth to GW/LPH Interface	Reference Point Correction Factor (ft)	Depth to Water ¹ (ft bls)	Depth to FP (feet below TOC)	FP Thickness (feet)	Corrected Depth to Water ² (feet below TOC)	Benchmark Elevation (ft amsl)	GW Elevation (ft amsl)
Shallow Zone Monitoring wells	PCM-506A	3/15/2016	101.48	0.86	102.34	NONE	0.00	102.34	2466.95	2364.61
	PCM-507A	3/15/2016	111.81	0.18	111.99	110.63	1.18	111.14	2477.20	2366.06
	PCM-508A	3/15/2016	104.84	0.47	105.31	NONE	0.00	105.31	2474.30	2368.99
	PCM-508B	3/18/2016	98.66	0.45	99.11	NONE	0.00	99.11	2474.30	2375.19
	PCM-509A	3/15/2016	99.31	0.48	99.79	NONE	0.00	99.79	2481.29	2381.50
	PCM-509B	3/15/2016	99.18	0.62	99.80	NONE	0.00	99.80	2481.29	2381.49
	PCM-510A	3/15/2016	99.25	0.34	99.59	NONE	0.00	99.59	2481.21	2381.62
	PCM-510B	3/29/2016	98.92	0.69	99.61	NONE	0.00	99.61	2481.21	2381.60
	PCM-511A	3/22/2016	100.00	0.41	100.41	NONE	0.00	100.41	2479.92	2379.51
	PCM-512A	3/29/2016	100.08	0.30	100.38	NONE	0.00	100.38	2480.53	2380.15
	PCM-516A	3/8/2016	113.25	0.54	113.79	113.15	0.10	113.72	2480.88	2367.16
	PCM-517A	3/15/2016	109.61	0.48	110.09	NONE	0.00	110.09	2479.28	2369.19
	PCM-534A	3/15/2016	110.96	0.31	111.27	110.80	0.16	111.15	2476.82	2365.66
	PCM-535A	3/22/2016	99.60	0.48	100.08	NONE	0.00	100.08	2475.30	2375.22
	R-012A	3/15/2016	98.61	0.72	99.33	NONE	0.00	99.33	2481.94	2382.61
	R-013A	3/15/2016	99.30	0.72	100.02	NONE	0.00	100.02	2482.28	2382.26
	R-016A	3/30/2016	98.39	0.49	98.88	NONE	0.00	98.88	2481.55	2382.67
	R-017A	3/29/2016	99.24	0.75	99.99	NONE	0.00	99.99	2482.22	2382.23
	R-018A	3/29/2016	98.90	0.65	99.55	NONE	0.00	99.55	2481.32	2381.77
	R-019A	3/31/2016	101.87	0.88	102.75	NONE	0.00	102.75	2481.35	2378.60
	R-020A	3/29/2016	98.45	0.68	99.13	NONE	0.00	99.13	2480.26	2381.13
	R-021A	3/15/2016	98.79	0.66	99.45	NONE	0.00	99.45	2482.58	2383.13
	R-022A	3/15/2016	98.40	0.88	99.28	NONE	0.00	99.28	2482.51	2383.23
	R-027A	3/21/2016	97.20	0.16	97.36	NONE	0.00	97.36	2474.92	2377.56
	R-028A	3/21/2016	96.00	0.30	96.30	NONE	0.00	96.30	2472.72	2376.42
	R-029A	3/21/2016	96.28	0.48	96.76	NONE	0.00	96.76	2472.57	2375.81
	R-030A	3/21/2016	98.31	0.70	99.01	NONE	0.00	99.01	2476.84	2377.83
	R-031A	3/21/2016	97.39	0.41	97.80	NONE	0.00	97.80	2475.04	2377.24
	R-032A	3/8/2016	97.45	0.77	98.22	97.44	0.01	98.21	2474.61	2376.40
	R-033A	3/18/2016	96.39	0.50	96.89	NONE	0.00	96.89	2472.61	2375.72
	R-034A	3/22/2016	105.90	0.54	106.44	NONE	0.00	106.44	2472.38	2365.94
	R-035A	3/18/2016	97.18	0.37	97.55	NONE	0.00	97.55	2473.79	2376.24
	R-036A	3/22/2016	98.58	0.67	99.25	NONE	0.00	99.25	2474.22	2374.97

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Shallow Zone Monitoring wells	R-037A	3/23/2016	97.09	0.89	97.98	NONE	0.00	97.98	2473.96	2375.98
	R-044A	3/15/2016	102.41	0.02	102.43	NONE	0.00	102.43	2470.75	2368.32
	R-045A	3/15/2016	96.27	0.21	96.48	NONE	0.00	96.48	2471.91	2375.43
	R-046A	3/24/2016	101.90	0.41	102.31	NONE	0.00	102.31	2479.47	2377.16
	R-047A	3/23/2016	97.89	0.64	98.53	NONE	0.00	98.53	2474.61	2376.08
	R-048A	3/21/2016	96.19	1.17	97.36	NONE	0.00	97.36	2475.34	2377.98
	R-049A	3/21/2016	96.14	0.37	96.51	NONE	0.00	96.51	2473.55	2377.04
	R-050A	3/22/2016	96.44	0.39	96.83	NONE	0.00	96.83	2473.52	2376.69
	R-051A	3/22/2016	108.55	0.42	108.97	NONE	0.00	108.97	2476.18	2367.21
	R-098A	3/22/2016	100.38	0.25	100.63	NONE	0.00	100.63	2474.68	2374.05
	R-099A	3/21/2016	95.95	0.65	96.60	NONE	0.00	96.60	2474.31	2377.71
	WR-208A	3/15/2016	96.00	-0.32	95.68	NONE	0.00	95.68	2482.04	2386.36
	WR-209A	3/15/2016	100.26	-0.29	99.97	NONE	0.00	99.97	2482.27	2382.30
	WR-210A	3/15/2016	101.51	-0.74	100.77	NONE	0.00	100.77	2483.23	2382.46
	WR-211A	3/15/2016	100.18	-0.38	99.80	NONE	0.00	99.80	2481.47	2381.67
	WR-212A	3/22/2016	97.05	0.22	97.27	NONE	0.00	97.27	2473.63	2376.36
	WR-213A	3/15/2016	96.93	-0.13	96.80	NONE	0.00	96.80	2478.38	2381.58
	WR-214A	3/15/2016	106.79	-0.57	106.22	NONE	0.00	106.22	2483.28	2377.06
	WR-215A	3/24/2016	102.55	-0.87	101.68	NONE	0.00	101.68	2479.79	2378.11
	WR-219A	3/15/2016	102.78	0.66	103.44	NONE	0.00	103.44	2469.54	2366.10
	WR-220A	3/8/2016	112.65	0.60	113.25	109.61	3.04	111.06	2476.79	2365.73
	WR-221A	3/15/2016	114.30	0.41	114.71	NONE	0.00	114.71	2482.74	2368.03
	WR-222A	3/15/2016	92.85	0.39	93.24	NONE	0.00	93.24	2472.46	2379.22
	WR-223A	3/15/2016	106.80	0.41	107.21	NONE	0.00	107.21	2475.26	2368.05
	WR-224A	3/18/2016	98.05	0.12	98.17	NONE	0.00	98.17	2471.99	2373.82
	WR-225A	3/15/2016	119.89	1.07	120.96	NONE	0.00	120.96	2489.83	2368.87
	WR-295A	3/15/2016	101.35	0.61	101.96	NONE	0.00	101.96	2479.35	2377.39
	WR-296A	3/15/2016	100.53	0.99	101.52	NONE	0.00	101.52	2479.06	2377.54
WR-297A	3/15/2016	101.77	0.41	102.18	NONE	0.00	102.18	2479.29	2377.11	
WR-298A	3/15/2016	101.52	0.39	101.91	NONE	0.00	101.91	2479.37	2377.46	

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Free Product Thicknesses and Depths to Groundwater - March 2016
Thomas Price Service Center, City of Tucson

	Well ID	Measurement Date	GW Depth (feet below TOC) or Depth to GW/LPH Interface	Reference Point Correction Factor (ft)	Depth to Water ¹ (ft bls)	Depth to FP (feet below TOC)	FP Thickness (feet)	Corrected Depth to Water ² (feet below TOC)	Benchmark Elevation (ft amsl)	GW Elevation (ft amsl)
Deep Zone Monitoring Wells	WR-216A	3/15/2016	117.79	-0.62	117.17	NONE	0.00	117.17	2481.67	2364.50
	WR-217A	3/15/2016	117.23	-0.49	116.74	NONE	0.00	116.74	2479.91	2363.17
	WR-218A	3/15/2016	118.85	-0.40	118.45	NONE	0.00	118.45	2478.03	2359.58
	WR-227A	3/15/2016	152.37	0.69	153.06	NONE	0.00	153.06	2470.98	2317.92
	WR-228A	3/15/2016	117.15	-0.49	116.66	NONE	0.00	116.66	2483.04	2366.38
	WR-229A	3/15/2016	118.81	-0.33	118.48	NONE	0.00	118.48	2472.11	2353.63
	WR-230A	3/15/2016	119.81	0.81	120.62	NONE	0.00	120.62	2489.72	2369.10
	WR-231A	3/15/2016	126.56	0.91	127.47	NONE	0.00	127.47	2476.64	2349.17
	WR-232A	3/15/2016	122.56	-0.61	121.95	NONE	0.00	121.95	2480.01	2358.06
	WR-233A	3/30/2016	145.25	0.57	145.82	NONE	0.00	145.82	2457.62	2311.80
	WR-235A	3/15/2016	145.99	0.84	146.83	NONE	0.00	146.83	2468.75	2321.92
	WR-295B	3/15/2016	115.76	0.41	116.17	NONE	0.00	116.17	2479.35	2363.18
WR-296B	3/15/2016	115.47	0.73	116.20	NONE	0.00	116.20	2479.06	2362.86	

¹ Depth to water corrected to account for reference elevation offset

² Water level corrected to account for specific gravity of gasoline (sg=0.72).

NM = not measured, ND = not detected, NS = Not sampled

FP = Free Product or Liquid Petroleum Hydrocarbon, GW - Groundwater elevation, TOC = top of casing

Table 2
PSC and TFS #10 Summary of Field Parameters - 2016
Thomas Price Service Center, City of Tucson

Well ID	Groundwater Zone	Date Sampled	DO (mg/L)	ORP (mV)	pH	SpC (mhos/cm)	Temp (C)
WR-216A	Deep	3/30/2016	6.94	170.9	7.87	775	24.67
WR-217A	Deep	3/24/2016	7.10	-24.9	7.69	1038	26.00
WR-218A	Deep	3/25/2016	5.27	130.3	7.91	792	22.51
WR-227A	Deep	3/30/2016	4.68	-80.4	7.61	1645	22.84
WR-228A	Deep	3/23/2016	5.23	89.7	8.55	377	24.17
WR-229A	Deep	3/23/2016	3.25	-11.6	10.21	368	26.56
WR-230A	Deep	3/31/2016	4.70	62.2	8.69	427	23.86
WR-231A	Deep	3/25/2016	5.04	79.6	8.97	512	23.90
WR-232A	Deep	3/31/2016	5.83	260.2	8.15	380	25.21
WR-233A	Deep	3/30/2016	5.44	4.4	9.90	292	21.45
WR-235A	Deep	3/25/2016	6.29	73.1	8.70	303	24.44
PCM-506A	Shallow	3/31/2016	7.37	178.9	7.98	733	22.59
PCM-508A	Shallow	3/18/2016	4.91	16.7	7.74	296	28.70
PCM-508B	Shallow	3/18/2016	4.45	-72.2	7.80	289	28.90
PCM-509A	Shallow	3/29/2016	17.79	689.0	1.94	20227	25.46
PCM-509B	Shallow	3/29/2016	14.57	552.8	5.28	18922	24.96
PCM-510A	Shallow	3/29/2016	14.45	658.2	3.36	5687	24.20
PCM-510B	Shallow	3/29/2016	7.62	521.1	5.41	8835	24.54
PCM-511A	Shallow	3/22/2016	6.68	250.2	8.23	26.16	26.16
PCM-512A	Shallow	3/29/2016	7.50	307.1	7.42	9829	26.08
PCM-517A	Shallow	3/23/2016	5.21	-28.2	7.74	578	25.62
PCM-535A	Shallow	3/22/2016	3.96	-18.8	7.68	968	27.08
R-012A	Shallow	3/30/2016	5.38	208.2	7.74	1083	25.94
R-013A	Shallow	3/29/2016	6.92	173.4	7.71	1460	24.95
R-016A	Shallow	3/30/2016	4.50	188.1	7.76	1423	27.06
R-017A	Shallow	3/29/2016	10.46	560.5	6.81	9018	25.64
R-018A	Shallow	3/29/2016	7.03	462.8	6.72	12980	24.12
R-019A	Shallow	3/31/2016	6.14	297.6	6.52	13223	24.11
R-020A	Shallow	3/29/2016	5.04	396.3	8.16	764	24.18
R-021A	Shallow	3/30/2016	3.36	198.6	7.38	1111	26.93
R-022A	Shallow	3/31/2016	6.58	420.1	7.07	1230	24.34
R-027A	Shallow	3/21/2016	4.20	-84.4	7.71	357	29.35
R-028A	Shallow	3/21/2016	3.21	153.8	7.60	932	26.86
R-029A	Shallow	3/21/2016	3.28	-4.9	8.08	366	26.53
R-030A	Shallow	3/21/2016	3.89	-52.8	7.42	843	28.84
R-031A	Shallow	3/21/2016	4.53	-72.2	7.40	673	29.44

Table 2
PSC and TFS #10 Summary of Field Parameters - 2016
Thomas Price Service Center, City of Tucson

Well ID	Groundwater Zone	Date Sampled	DO (mg/L)	ORP (mV)	pH	SpC (mhos/cm)	Temp (C)
R-033A	Shallow	3/18/2016	3.51	-58.6	7.25	314	25.42
R-034A	Shallow	3/22/2016	4.41	-86.0	7.66	975	29.22
R-035A	Shallow	3/18/2016	4.97	-15.9	7.77	321	27.85
R-036A	Shallow	3/22/2016	5.25	156.2	7.78	812	26.72
R-037A	Shallow	3/23/2016	4.34	-48.0	7.53	639	26.07
R-044A	Shallow	3/23/2016	6.34	161.7	7.82	775	24.99
R-045A	Shallow	3/23/2016	5.58	161.3	7.90	571	23.23
R-046A	Shallow	3/24/2016	6.20	122.0	7.76	1516	24.36
R-047A	Shallow	3/23/2016	3.49	58.6	8.03	653	27.60
R-048A	Shallow	3/21/2016	4.30	93.9	8.04	856	25.11
R-049A	Shallow	3/21/2016	4.10	72.8	7.39	1422	28.02
R-050A	Shallow	3/22/2016	4.43	-51.6	7.64	709	25.96
R-051A	Shallow	3/22/2016	5.12	-92.9	7.44	1126	25.09
R-098A	Shallow	3/22/2016	4.65	-11.4	7.60	622	27.23
R-099A	Shallow	3/21/2016	3.23	-105.7	7.42	1503	25.44
WR-208A	Shallow	3/30/2016	7.02	151.6	7.84	716	25.22
WR-209A	Shallow	3/30/2016	5.56	206.6	7.67	1676	24.10
WR-210A	Shallow	3/29/2016	8.50	519.2	1.40	11990	26.62
WR-211A	Shallow	3/31/2016	6.10	132.3	7.84	1203	23.13
WR-212A	Shallow	3/22/2016	5.12	-73.0	7.87	891	26.84
WR-213A	Shallow	3/25/2016	6.43	106.9	8.75	832	23.40
WR-214A	Shallow	3/24/2016	5.38	115.6	7.98	962	25.69
WR-215A	Shallow	3/24/2016	4.80	-84.4	6.88	6688	26.63
WR-219A	Shallow	3/31/2016	4.82	-42.5	7.55	1592	23.79
WR-221A	Shallow	3/31/2016	6.83	149.9	8.41	663	23.39
WR-222A	Shallow	3/30/2016	5.92	143.3	7.31	964	24.54
WR-223A	Shallow	3/23/2016	5.62	120.6	7.83	659	24.63
WR-224A	Shallow	3/18/2016	2.85	-196.4	7.64	575	30.30
WR-225A	Shallow	3/31/2016	5.56	24.7	8.81	1414	22.60
WR-296A	Shallow	3/24/2016	4.27	62.8	7.28	795	27.65
WR-298A	Shallow	3/24/2016	5.17	86.8	7.44	738	27.30

Table 3
Water Quality Analyses - BTEX Summary for 2016
Thomas O. Price Service Center, City of Tucson

Sample ID	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
AWQS		5	1,000	700	10,000	94 (Tier 1)*
Shallow-Zone Monitoring Wells						
PCM-506A	3/31/16	<1	<1	<1	<2	<1
PCM-508A	3/18/16	<10	<10	<10	<20	8540
PCM-508B	3/18/16	<10	<10	34.7	<20	4620
PCM-509A	3/29/16	<1	<1	<1	<2	<1
PCM-509B	3/29/16	<10	<10	<10	<20	<10
PCM-510A	3/29/16	<1	<1	<1	<2	<1
PCM-510B	3/29/16	<4	<4	<4	9.7	875
PCM-511A	3/22/16	1.3	1.5	8.1	41.7	374
PCM-512A	3/29/16	<25	<25	36.6	106	1260
PCM-517A	3/23/16	6760	<100	266	449	182
PCM-535A	3/22/16	<1	<1	<1	<2	68.9
R-012A	3/30/16	<100	<100	<100	<200	1980
R-013A	3/29/16	<1	<1	<1	<2	84.6
R-013A	3/29/16	<1	<1	<1	<2	81.1
R-016A	3/30/16	<25	<25	<25	<50	130
R-017A	3/29/16	<1	<1	<1	<2	12.8
R-018A	3/29/16	<50	<50	<50	702	190
R-019A	3/31/16	<50	<50	<50	<100	<50
R-020A	3/29/16	<1	<1	<1	<2	<1
R-021A	3/30/16	<50	<50	<50	<100	697
R-021A	3/30/16	<50	<50	<50	<100	773
R-022A	3/31/16	<1	<1	<1	<2	<1
R-027A	3/21/16	1520	3300	1030	6310	2020
R-028A	3/21/16	<25	<25	442	3990	<25
R-029A	3/21/16	<1	<1	<1	<2	<1
R-029A	3/21/16	<1	<1	<1	<2	<1
R-030A	3/21/16	883	3790	2040	18900	261
R-031A	3/21/16	847	2510	931	8220	7730
R-033A	3/18/16	<20	<20	25.8	86.3	11400
R-034A	3/22/16	<1	<1	2.1	<2	438
R-035A	3/18/16	<20	<20	106	<40	10200
R-036A	3/22/16	<1	<1	<1	2.7	230
R-037A	3/23/16	<500	<500	<500	<1000	19200

Table 3
Water Quality Analyses - BTEX Summary for 2016
Thomas O. Price Service Center, City of Tucson

Sample ID	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
AWQS		5	1,000	700	10,000	94 (Tier 1)*
R-044A	3/23/16	<1	<1	<1	<2	<1
R-045A	3/23/16	<1	<1	<1	<2	8.4
R-046A	3/24/16	<1	<1	<1	3.4	51.3
R-047A	3/23/16	3.5	<1	30.4	222	6310
R-048A	3/21/16	<1	<1	<1	<2	<1
R-049A	3/21/16	<1	<1	<1	<2	<1
R-050A	3/22/16	2.9	1.8	73.2	294	10.6
R-050A	3/22/16	2.4	1.6	61	312	9.6
R-051A	3/22/16	15.6	3.6	58.7	30	<1
R-098A	3/22/16	<10	<10	14.6	<20	978
R-099A	3/21/16	<1	<1	<1	<2	<1
WR-208A	3/30/16	<1	<1	<1	<2	<1
WR-209A	3/30/16	<1	<1	<1	<2	14.3
WR-210A	3/29/16	<1	<1	<1	<2	<1
WR-211A	3/31/16	<1	<1	<1	<2	<1
WR-212A	3/22/16	1.2	<1	<1	<2	88.5
WR-213A	3/25/16	<1	<1	<1	<2	<1
WR-214A	3/24/16	<1	<1	<1	<2	<1
WR-215A	3/24/16	58.7	<25	203	446	2520
WR-219A	3/31/16	<1	<1	<1	<2	<1
WR-221A	3/31/16	<1	<1	<1	<2	<1
WR-222A	3/30/16	<1	<1	<1	<2	<1
WR-223A	3/23/16	<1	<1	<1	<2	9.1
WR-224A	3/18/16	<1	<1	17.8	<2	<1
WR-225A	3/31/16	<1	<1	<1	<2	<1
WR-296A	3/24/16	<100	<100	<100	<200	3050
WR-298A	3/24/16	<50	<50	<50	<100	4420

Table 3
Water Quality Analyses - BTEX Summary for 2016
Thomas O. Price Service Center, City of Tucson

Sample ID	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
AWQS		5	1,000	700	10,000	94 (Tier 1)*
Deep-Zone Monitoring Wells						
WR-216A	3/30/16	<1	<1	<1	<2	<1
WR-217A	3/24/16	<1	<1	<1	<2	<1
WR-218A	3/25/16	<1	<1	<1	<2	<1
WR-227A	3/30/16	<1	<1	<1	<2	21.3
WR-228A	3/23/16	<1	<1	<1	<2	<1
WR-228A	3/23/16	<1	<1	<1	<2	<1
WR-229A	3/23/16	<1	<1	<1	<2	<1
WR-230A	3/31/16	<1	<1	<1	<2	<1
WR-231A	3/25/16	<1	<1	<1	<2	<1
WR-232A	3/31/16	<1	<1	<1	<2	<1
WR-232A	3/31/16	<1	<1	<1	<2	<1
WR-233A	3/30/16	<1	<1	<1	<2	<1
WR-235A	3/25/16	<1	<1	<1	<2	<1
WR-235A	3/25/16	<1	<1	<1	<2	<1

Notes:

µg/L = micrograms per liter, mg/L = milligrams per liter, NA = not analyzed, <0.5 = not detected above MDL

AWQS = Arizona Aquifer Water Quality Standard

Results in **bold** equal or exceed AWQS

*ADEQ UST Program Tier 1 Cleanup Standards - January 2015

Table 4
Summary of Select VOCs Analytical Results for 2016
Thomas Price Service Center, City of Tucson

Sample ID	Sample Date	1,2,4-Trimethylbenzene	1,2 Dibromoethane (EDB)	1,2-Dichloroethane	1,3,5-Trimethylbenzene	4-Methyl-2-pentanone (methyl Isobutyl ketone MIBK)	Isopropylbenzene (cumene)	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec Butylbenzene	tert-Butanol
AWQS		NA	0.05*	5	NA	NA	NA	NA	NA	NA	NA	NA
Tier 1 Clean-up**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>Shallow-Zone Monitoring Wells</i>												
WR-215A	3/24/2016	308	<25	<13	226	<250	<25	407	<50	<50	<50	264
WR-219A	3/31/2016	<2	<1	<0.5	<2	<10	<1	<5	<2	<2	<2	<10
WR-221A	3/31/2016	<2	<1	1.6	<2	<10	<1	<5	<2	<2	<2	<10
WR-222A	3/30/2016	<2	<1	<0.5	<2	<10	<1	<5	<2	<2	<2	<10
WR-223A	3/23/2016	<2	<1	0.67	<2	<10	<1	<5	<2	<2	<2	<10
WR-224A	3/18/2016	<2	<1	<0.5	<2	<10	15.3	<5	8.1	46.0	9.3	<10
<i>Deep Zone Monitoring Wells</i>												
WR-217A	3/24/2016	<2	<1	<0.5	<2	<10	<1	<5	<2	<2	<2	<10
WR-227A	3/30/2016	<2	<1	<0.5	<2	<10	<1	<5	<2	<2	<2	<10
WR-233A	3/30/2016	<2	<1	<0.5	<2	<10	<1	<5	<2	<2	<2	<10

NOTES:

All standards and results are in micrograms per liter

All analyses conducted according to EPA Method 8260B, except for sole results for 1,2 dibromoethane in September 2013 those were completed by Method 504.1.

NA = Not applicable NP - Not Provided.

<0.5 = not detected above the method detection limit (MDL)

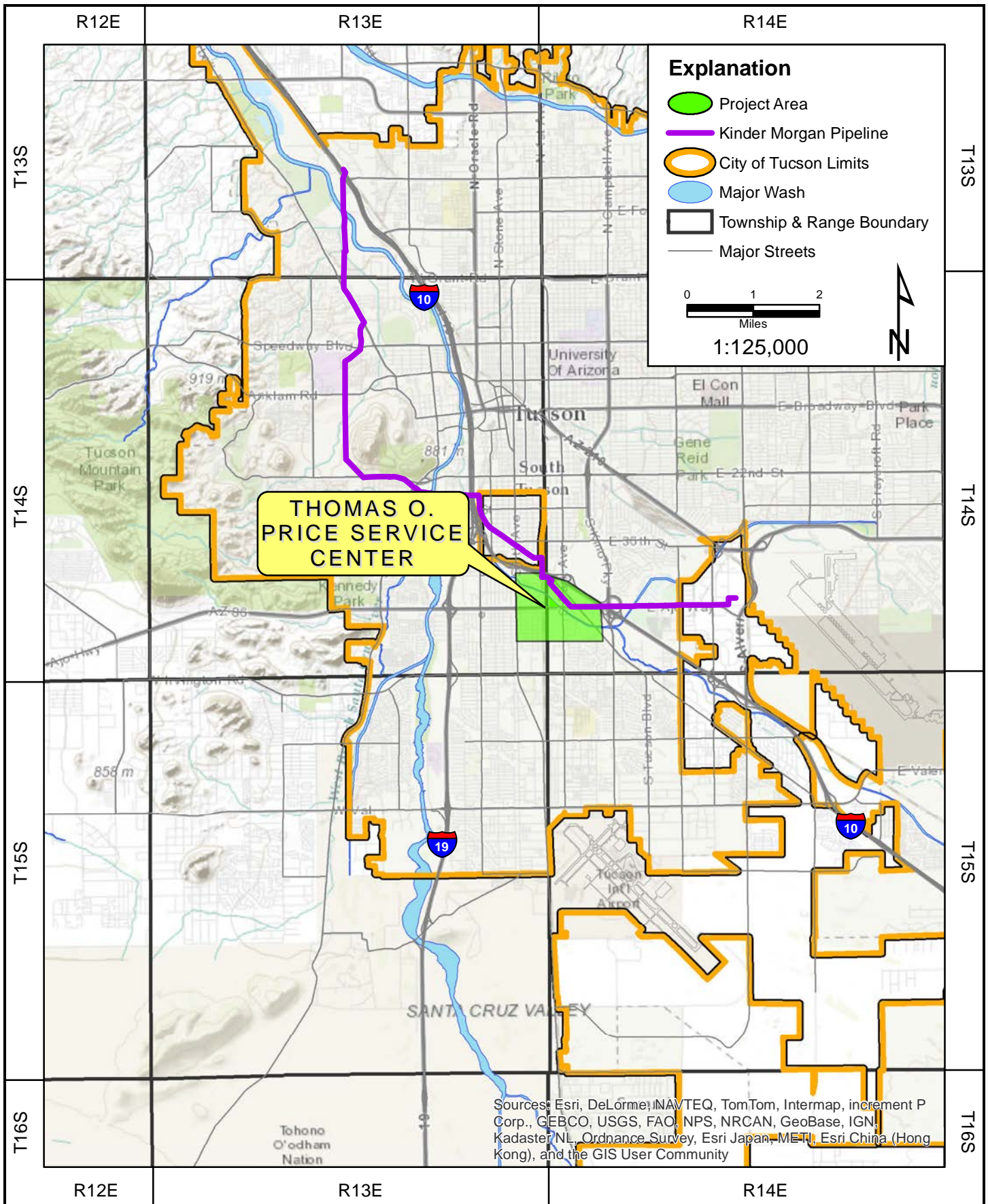
AWQS = Arizona Aquifer Water Quality Standard

Results in bold equal or exceed AWQS

*The select wells which were monitored for EDB at lower detection limits (<0.019 µg/L) by EPA Method 504.1 in 2013 were all non-detect for this compound. Should future analysis through EPA Method 8260B indicate EDB is rebounding then COT-ES will resume the additional analytical method for delineating this compound.

**ADEQ UST Program Tier 1 Cleanup Standards - January 2015

FIGURES



**THOMAS O.
PRICE SERVICE
CENTER**

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

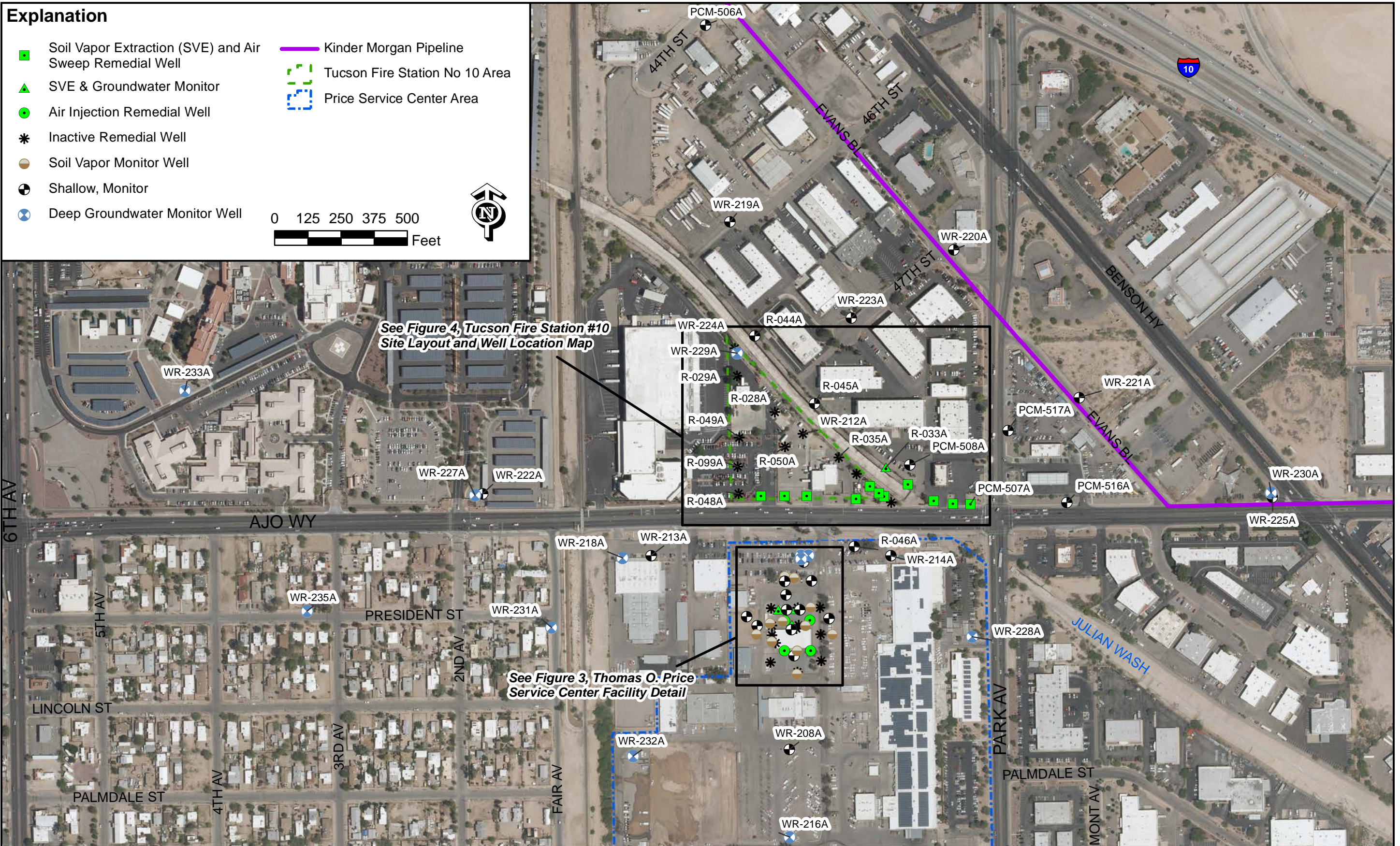
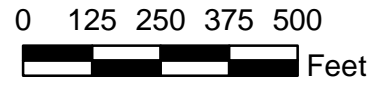


Figure 1
Location Map
Thomas O. Price Service Center

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	3/15/2017
File:	See Below
J:/GIS/PRICE/2016/LocationMap.mxd	

Explanation

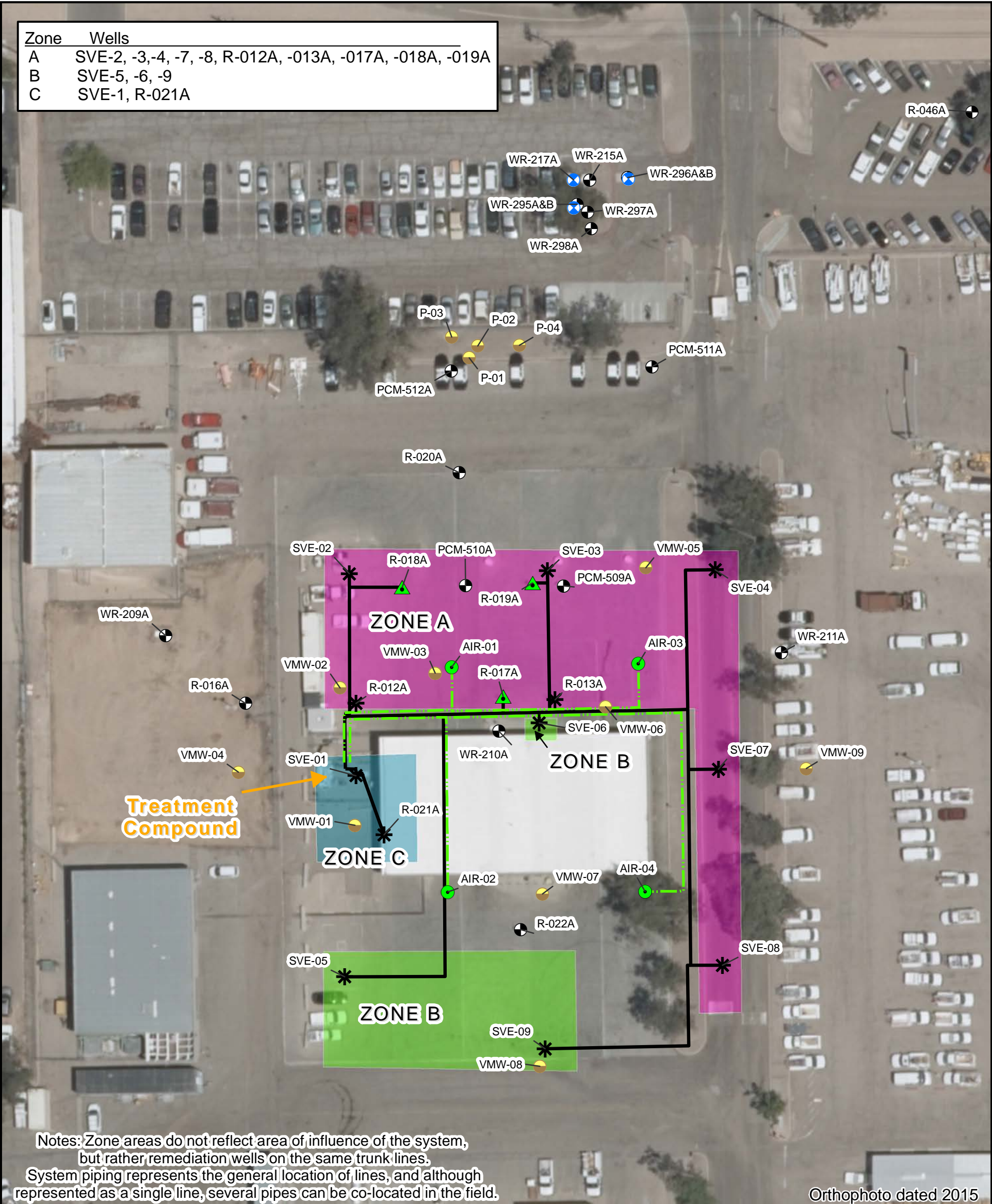
- Soil Vapor Extraction (SVE) and Air Sweep Remedial Well
- ▲ SVE & Groundwater Monitor
- Air Injection Remedial Well
- ✱ Inactive Remedial Well
- Soil Vapor Monitor Well
- ⊙ Shallow, Monitor
- ⊙ Deep Groundwater Monitor Well
- Kinder Morgan Pipeline
- Tucson Fire Station No 10 Area
- Price Service Center Area



**FIGURE 2
SITE MAP
PRICE SERVICE CENTER, TUCSON, AZ**

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	3/15/2017
File:	See Below
<small>J:\GIS\PRICE\2016\SITEMAP.MXD</small>	

Zone	Wells
A	SVE-2, -3, -4, -7, -8, R-012A, -013A, -017A, -018A, -019A
B	SVE-5, -6, -9
C	SVE-1, R-021A



Notes: Zone areas do not reflect area of influence of the system, but rather remediation wells on the same trunk lines. System piping represents the general location of lines, and although represented as a single line, several pipes can be co-located in the field.

Orthophoto dated 2015

Explanation

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> ■ Soil Vapor Extraction (SVE) and Air Sweep Remedial Well ▲ SVE and Groundwater Monitoring Well ● Air Injection Remedial Well * Inactive Remedial Well ● Soil Vapor Monitor Well ● Deep Groundwater Monitor Well ● Shallow Groundwater Monitor Well | <p>SYSTEM PIPING</p> <ul style="list-style-type: none"> --- Air Injection Line — SVE Piping | <p>SYSTEM ZONES</p> <ul style="list-style-type: none"> ■ ZONE A ■ ZONE B ■ ZONE C |
|---|--|---|

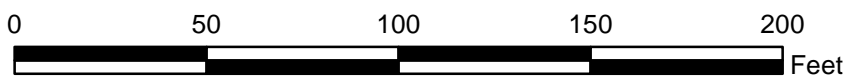


Figure 3
Thomas O. Price Service Center Facility Detail
Thomas O. Price Service Center, Tucson, AZ

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	3/15/2017
File:	See Below

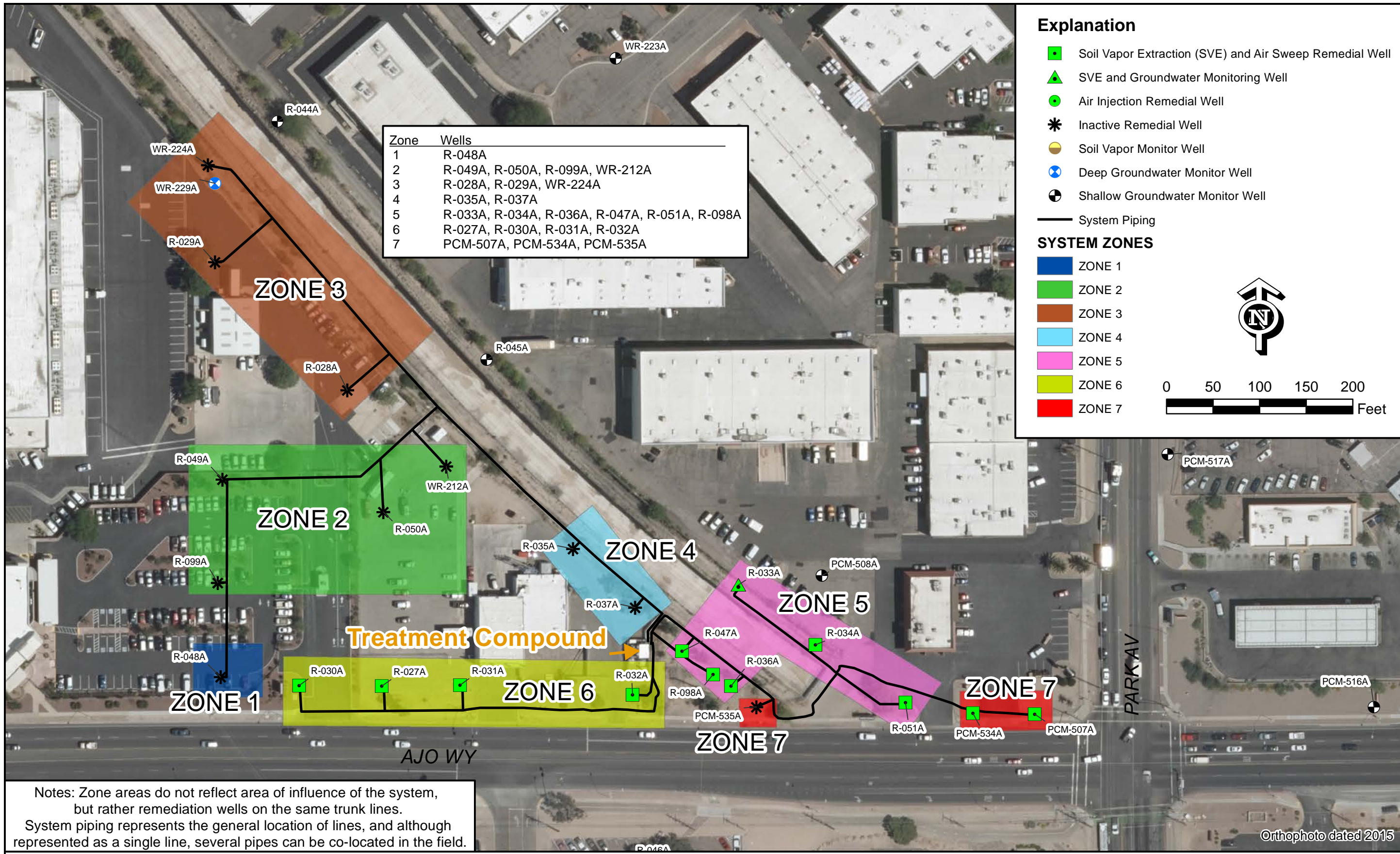
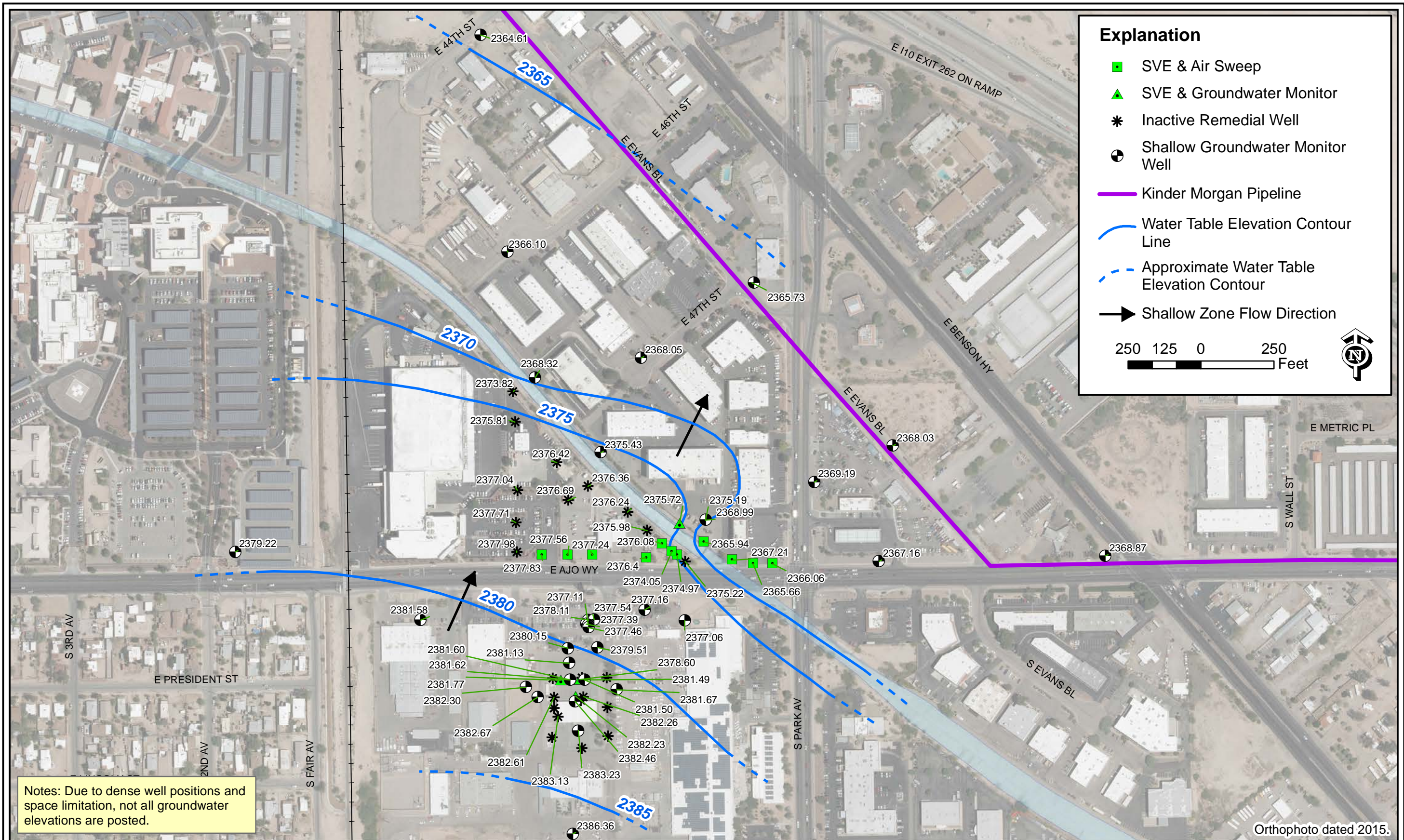


Figure 4
TFS #10 Site Layout and Well Location Map
Thomas O. Price Service Center, Tucson, AZ



Notes: Due to dense well positions and space limitation, not all groundwater elevations are posted.

Figure 5
 Shallow Zone Groundwater Potentiometric Surface Contour Map - March 2016
 Thomas O. Price Service Center, Tucson, AZ



Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	5/9/2016
File:	See Below

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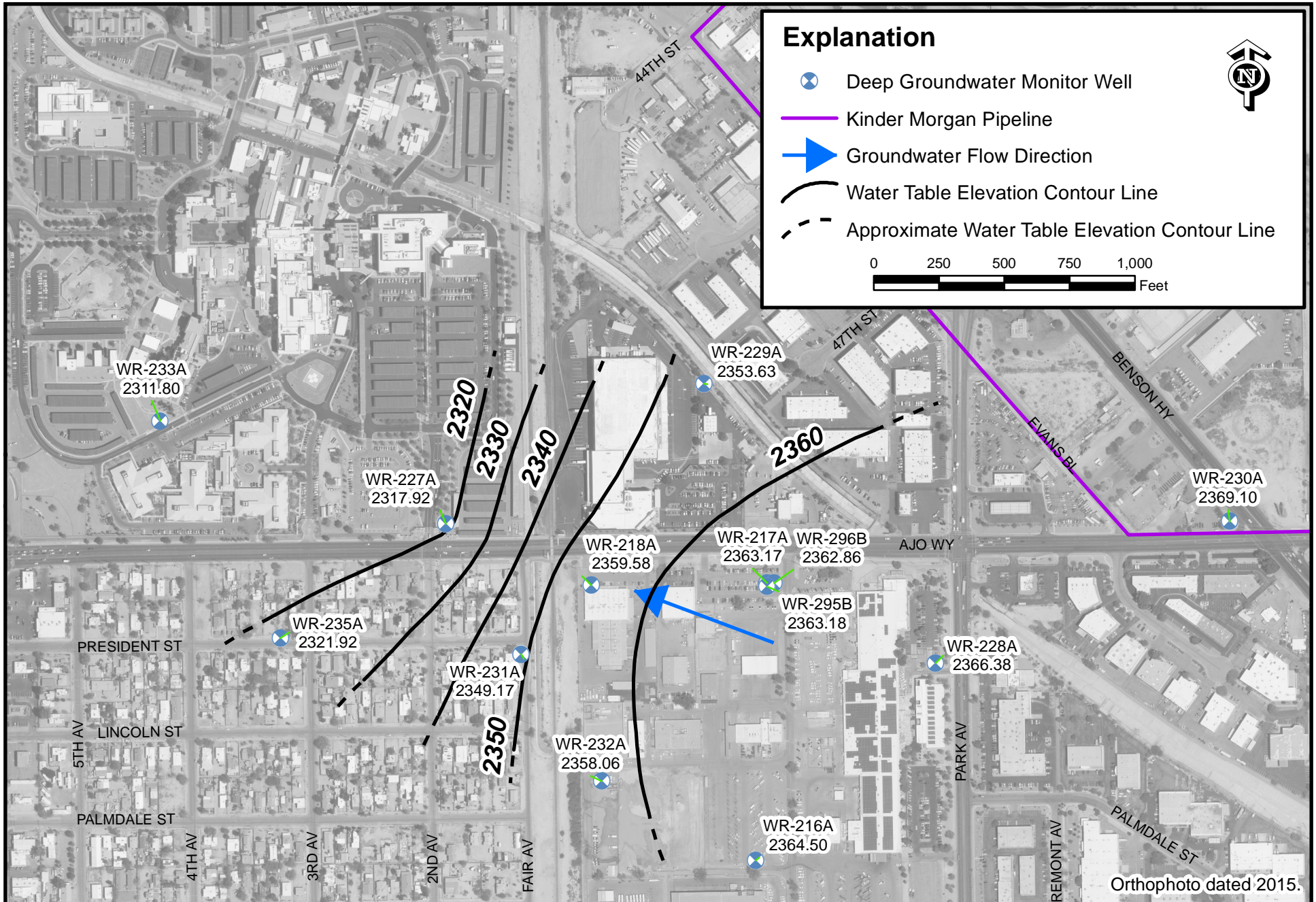
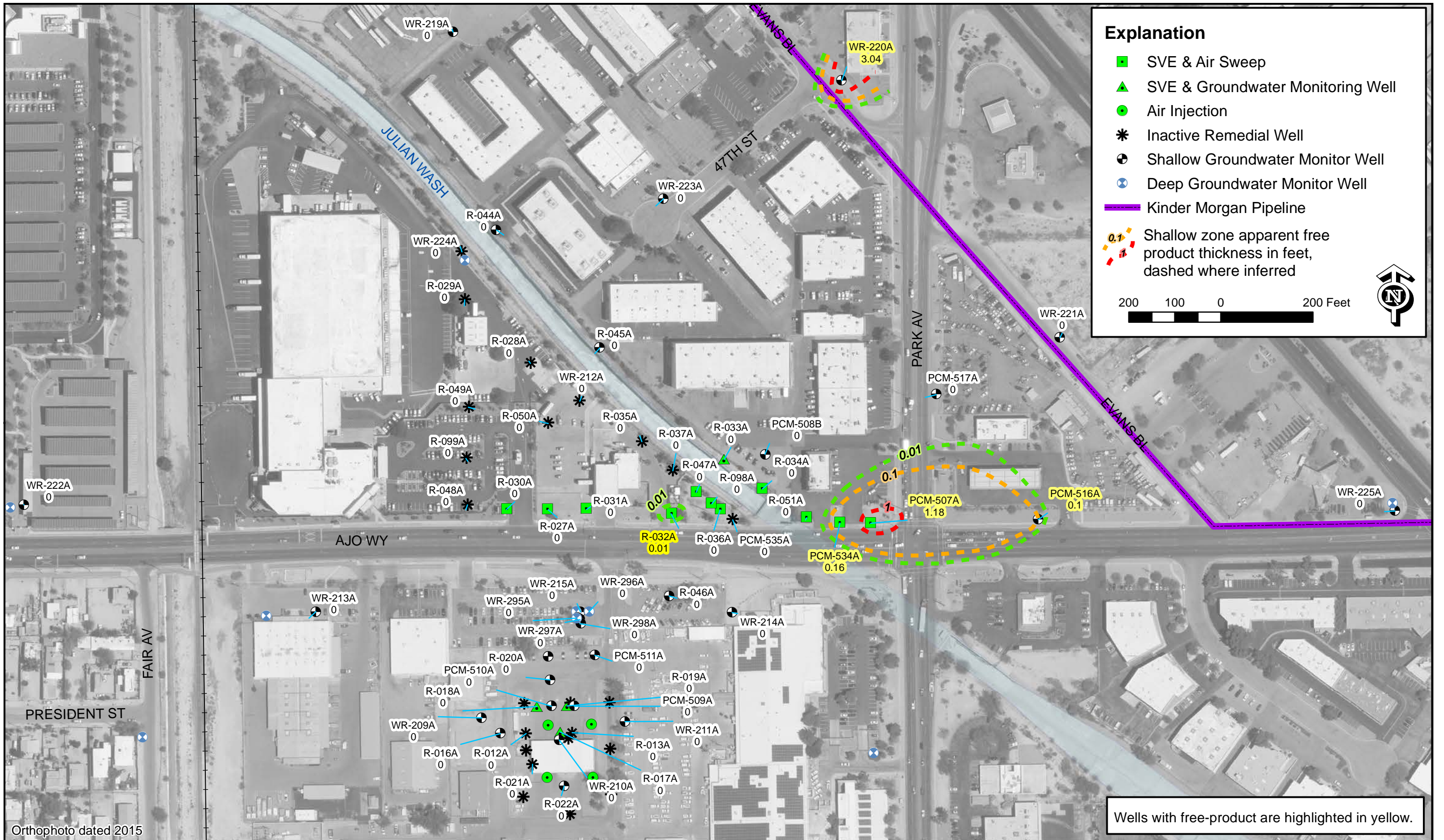


Figure 6
 Deep Zone Groundwater Potentiometric Surface Contour Map - March 2016
 Thomas O. Price Service Center, Tucson, AZ



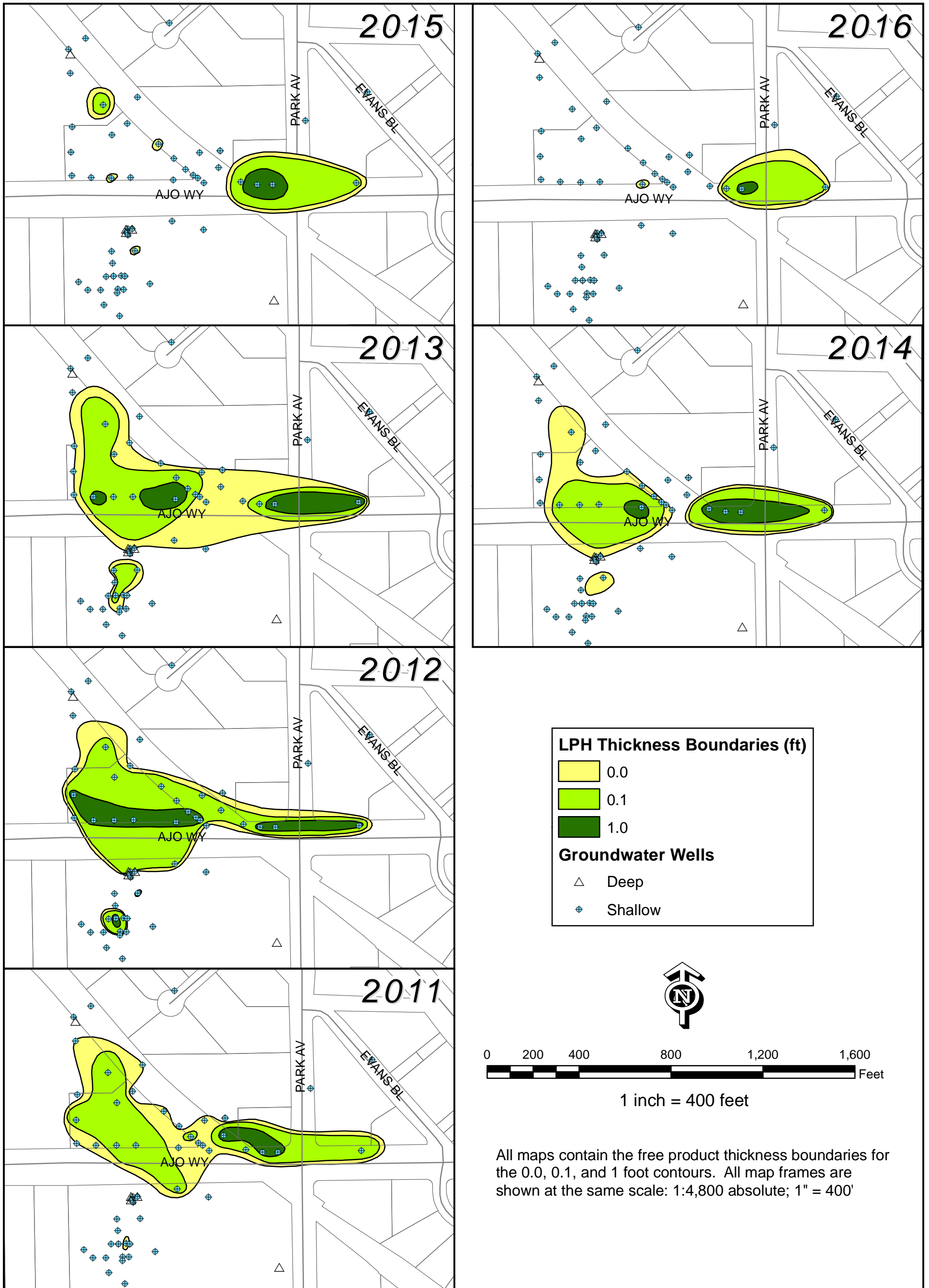
Orthophoto dated 2015



Figure 7
 Shallow Zone Free Product Thickness Map, March 2016
 Thomas O. Price Service Center, Tucson, AZ

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	5/10/2016
File:	See Below

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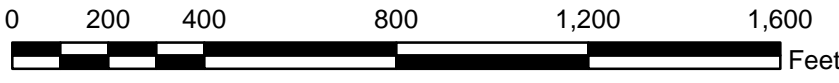


LPH Thickness Boundaries (ft)

- 0.0
- 0.1
- 1.0

Groundwater Wells

- Deep
- Shallow



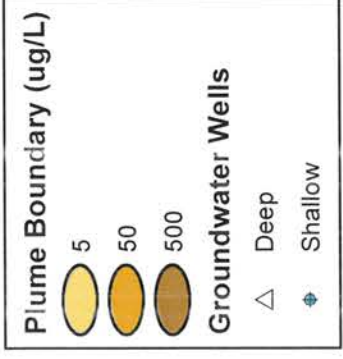
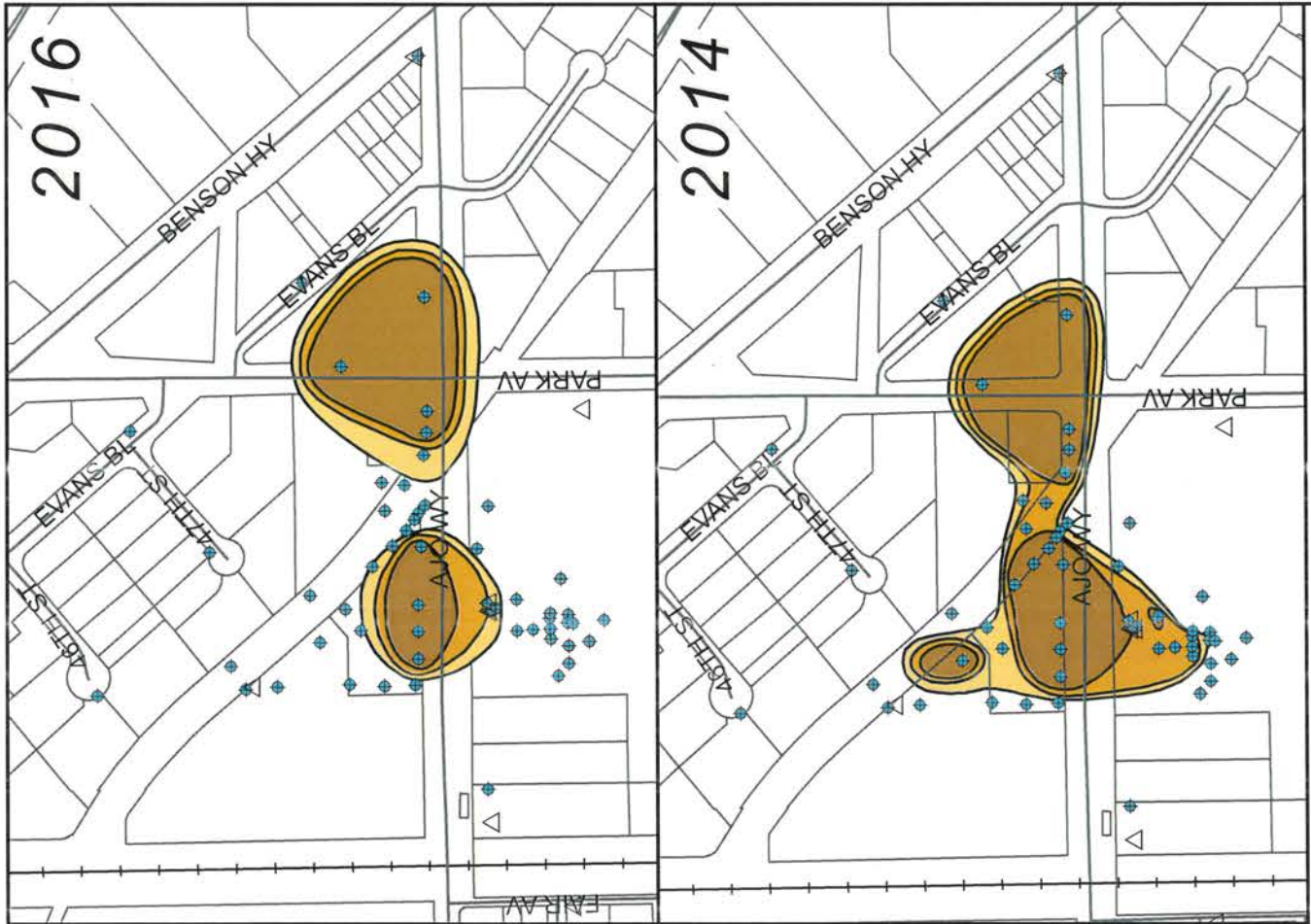
1 inch = 400 feet

All maps contain the free product thickness boundaries for the 0.0, 0.1, and 1 foot contours. All map frames are shown at the same scale: 1:4,800 absolute; 1" = 400'

Figure 8
 Free Product Thickness Maps, Years 2011 - 2016
 Thomas O. Price Service Center, Tucson AZ

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	5/11/2016
File:	See Below

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1 inch = 600 feet

All maps contain the benzene concentration boundaries for concentrations of 5, 50, and 500 ug/L. All map frames shown at the same scale:
1:7,200 absolute or 1 inch = 600 feet.

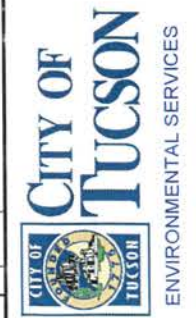


FIGURE 10
BENZENE CONCENTRATION MAP, YEARS 2011 - 2016
THOMAS O. PRICE SERVICE CENTER, TUCSON AZ

Drawn By: LE
Checked: RB
Approved: Cardno
Date: 5/11/2016
File: See Below
JGISPRICE201602_11_16.mxd

APPENDIX A

ADEQ UST Program Tier 1 Cleanup Standards

Tier 1 Cleanup Standards- Petroleum Products

January 2015

COMPOUND OF CONCERN	Aquifer Water Quality Standard (µg/L)	Residential SRLs (mg/Kg)		Non-Residential SRL(mg/Kg)	2007 spreadsheet minimum GPL (mg/Kg)
		Carcinogenic Sch90/10 ³⁻⁶	Carcinogenic Residential 10 ⁻³ non-carcinogenic		
1,3-Butadiene		0.058	0.58	1.2	
1,2-Dibromoethane (EDB)	0.05	0.029	0.29	0.63	
1,2-Dichloroethane (DCA)	5	0.28	2.8	6.0	0.23
1,2,4-Trimethylbenzene			52	170	
1,3,5-Trimethylbenzene			21	70	
Acenaphthene			3700	29000	
Anthracene			22000	24000	
Benz[a]anthracene		0.69	6.9	21	
Benzene	5	0.65		1.40	0.70
Benzo[a]pyrene	0.2	0.069	0.6	2.1	
Benzo[b]fluoranthene		0.69	6.9	21	
Benzo[k]fluoranthene		6.9	69	210	
n-Butylbenzene			240	240	
sec-Butylbenzene			220	220	
tert-Butylbenzene			220	220	
Carbon disulfide		360	360	720	
Chrysene		68	680	2000	
Cumene (isopropylbenzene)			92	92	
Cyclohexane			140	140	
Cyclohexanone		310000	310000	1,000,000	
Dibenz[a,h]anthracene		0.069	0.69	2.1	
Dicyclopentadiene			0.54	1.8	
Ethylbenzene	700		400	400	82*
Fluoranthene		2300	2300	22000	
Fluorene			2700	26000	
n-Hexane			110	110	
Indeno[1,2,3-c,d]pyrene		0.69	6.9	21	

Methyl ethyl ketone							23000	34000	
Methyl isobutyl ketone							5300	17000	
Methyl tert-butyl ether (MTBE)	94**	32			320			710	
Methylcyclohexane						230		230	
Naphthalene						56		190	
n-Propylbenzene						240		240	
Pyrene						2300		29000	
Tetraethyl lead						0.0061		0.062	
Toluene	1000					650		650	159*
Xylenes (total)	10000					270		420	31*
Other Organics									
1,1-Biphenyl						350		350	
Carbazole		27			270			860	
2-Methylphenol (a-cresol)						3100		31000	
3-Methylphenol						3100		31000	
4-Methylphenol						310		3100	
Styrene	100					1500		1500	45
TCE	5	3.0			30	17		65	0.76
PCE	5	0.51			5.1			13	0.80
Inorganics									
Antimony	6	31			31			410	35
Arsenic	50 (MCL is 10)	10			10			10	290
Beryllium	4	150			150			1900	23
Cadmium	5	39			39			510	29
Lead	50	400			400			800	290
Mercury	2	23			23			310	12
Molybdenum		390			390			5100	
Selenium	50	390			390			5100	290
Vanadium		78			78			1000	

School: specific for future school or childcare facilities or known human carcinogens

Residential: all residential uses other than a school

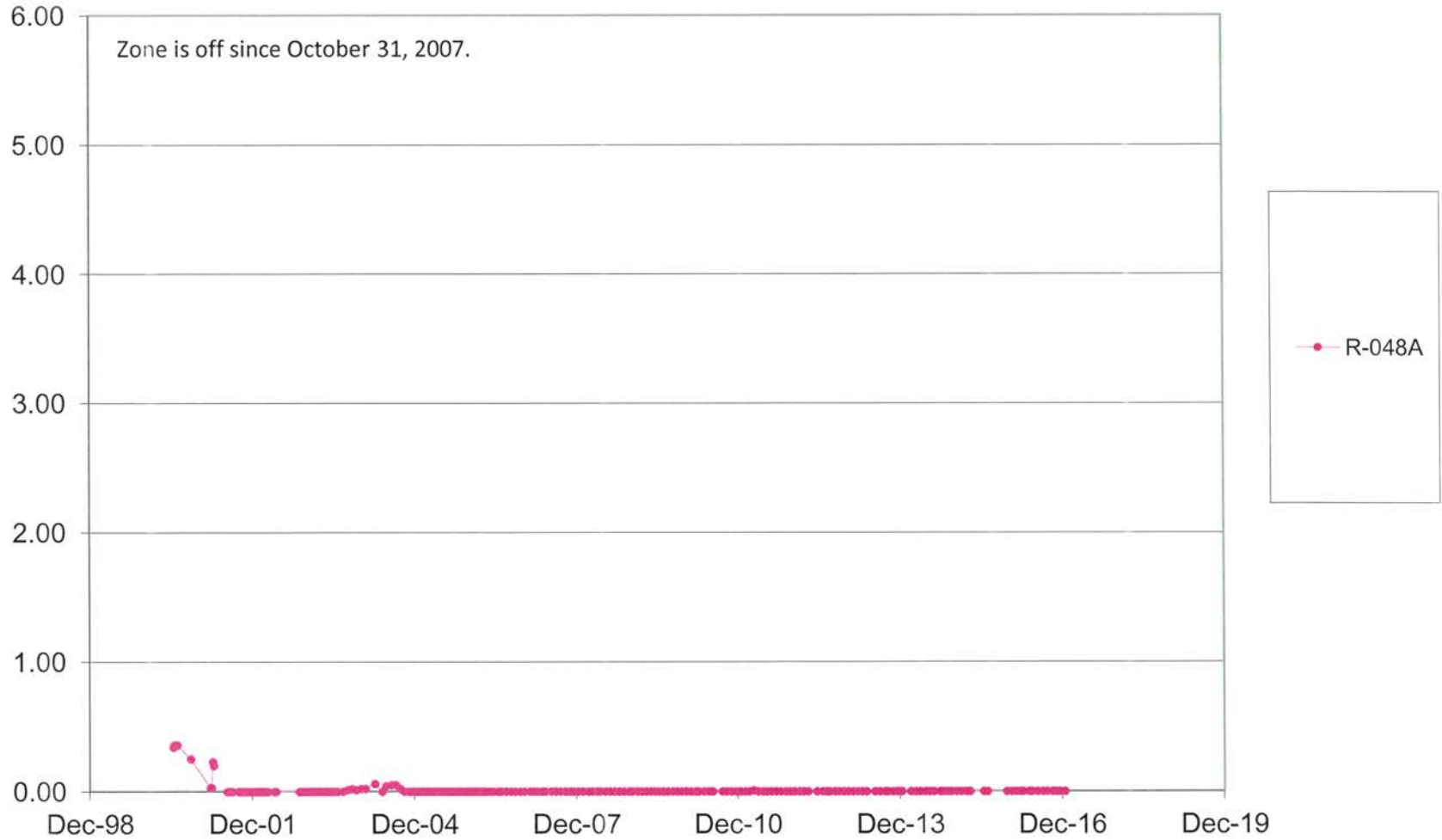
Groundwater Protection Levels; the lower of the minimum GPL or (the saturation limit**)

** MTBE- 94 ug/L is Tier 1 standard if no drinking water wells are threatened or impacted

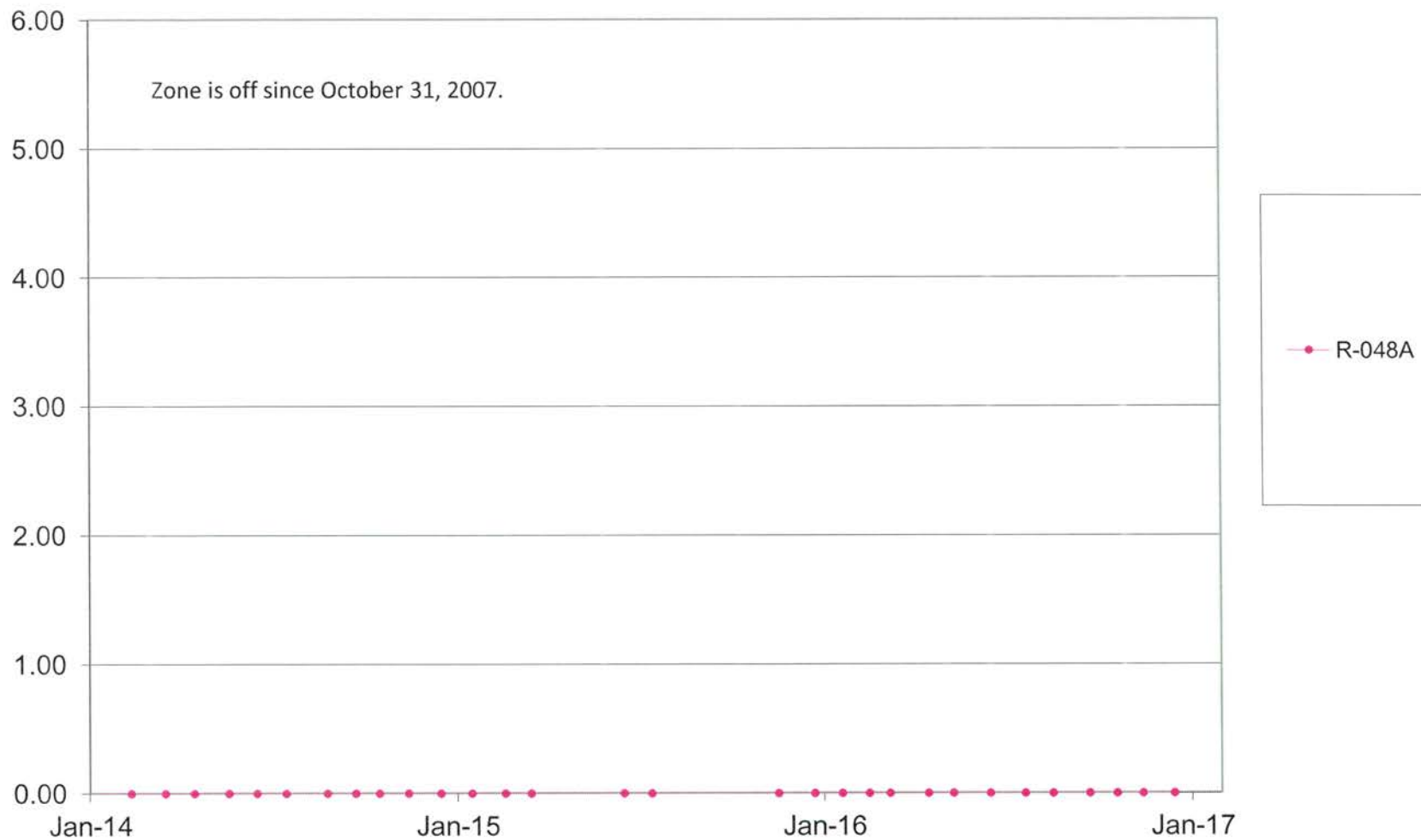
APPENDIX B

Apparent Product Thickness Charts

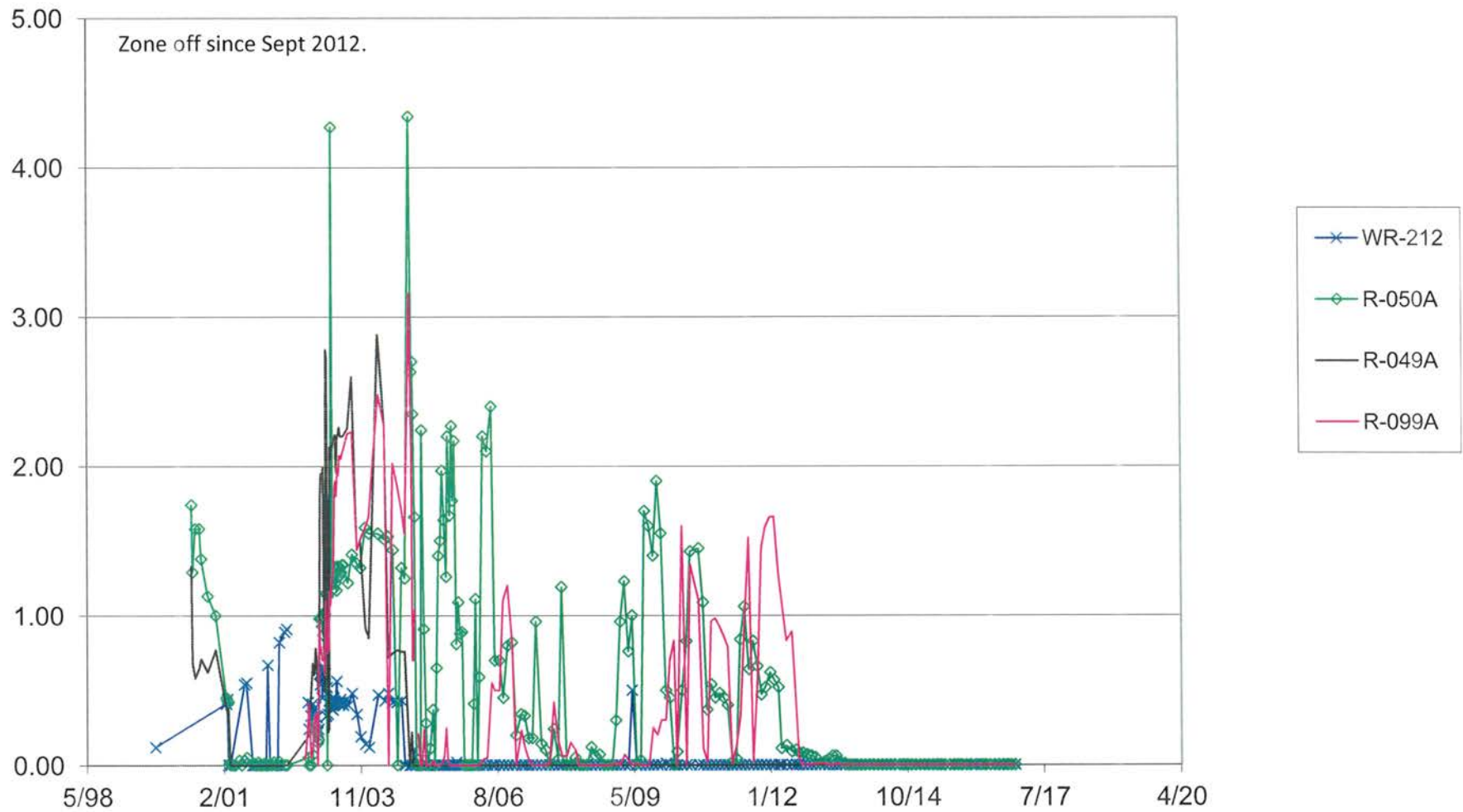
TFS Remediation Area Zone 1 Apparent Product Thickness



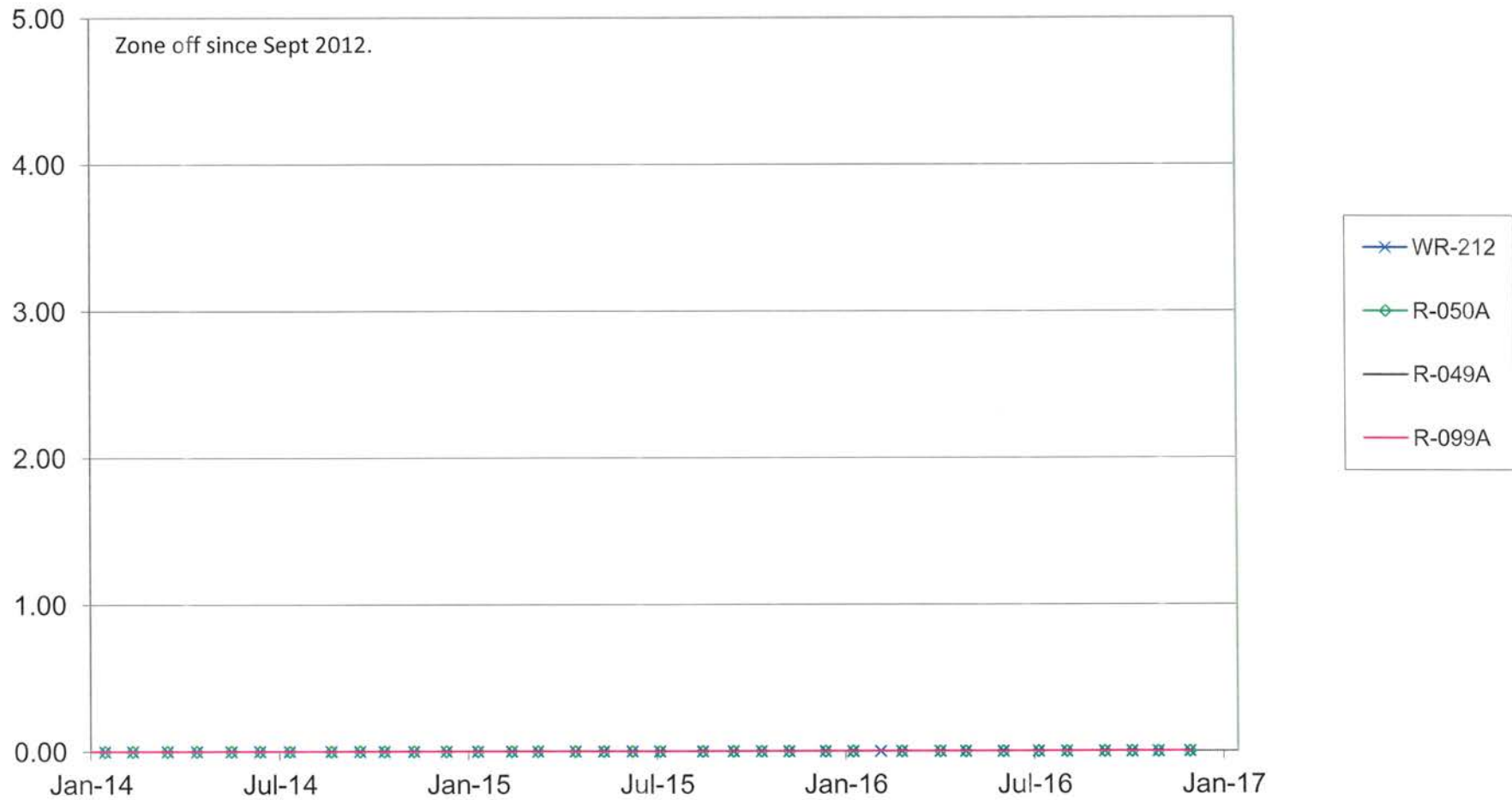
TFS Remediation Area Zone 1 Apparent Product Thickness (last 3 years)



TFS Remediation Area Zone 2 Apparent Product Thickness

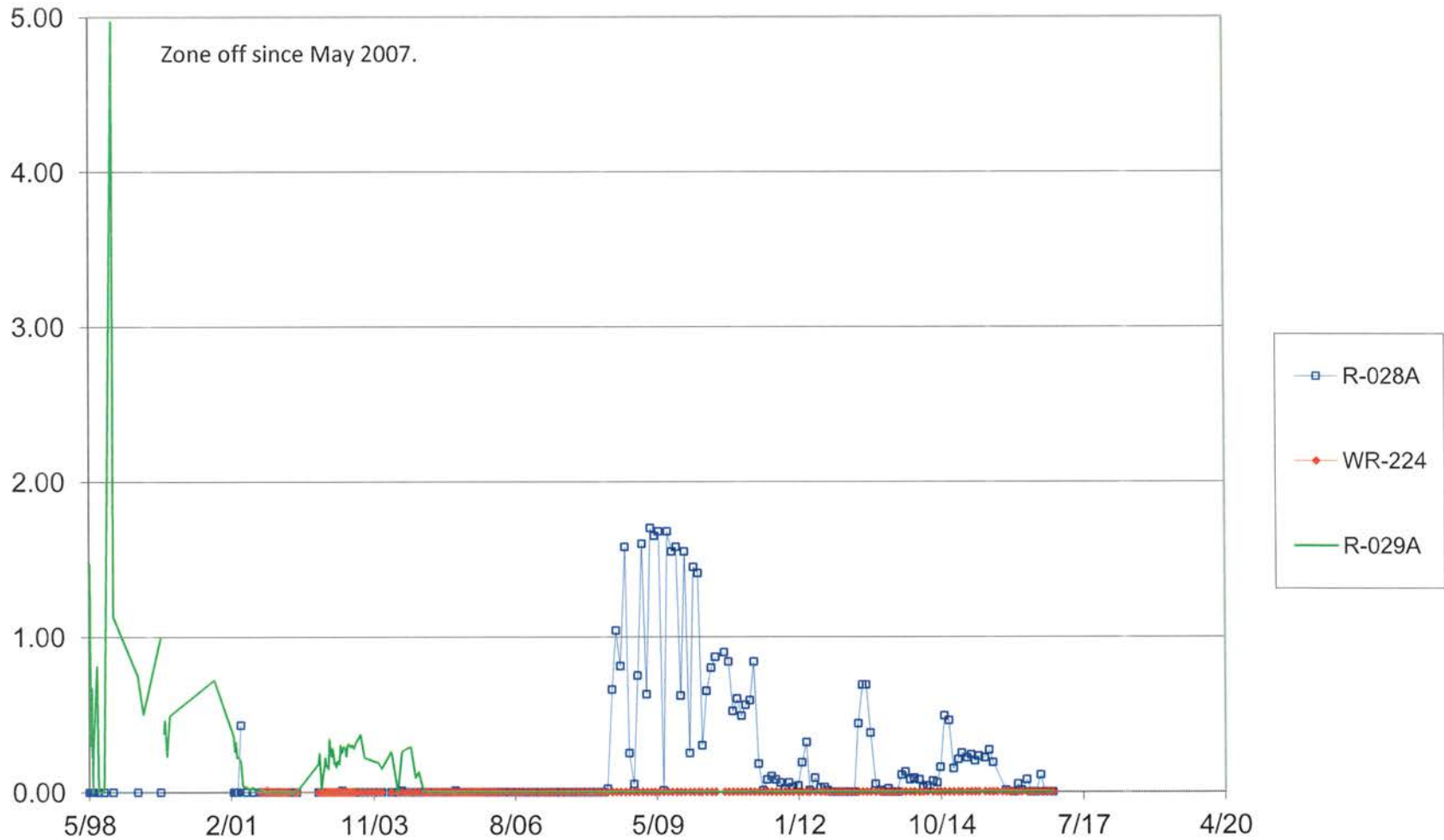


TFS Remediation Area Zone 2 Apparent Product Thickness (last 3 years)

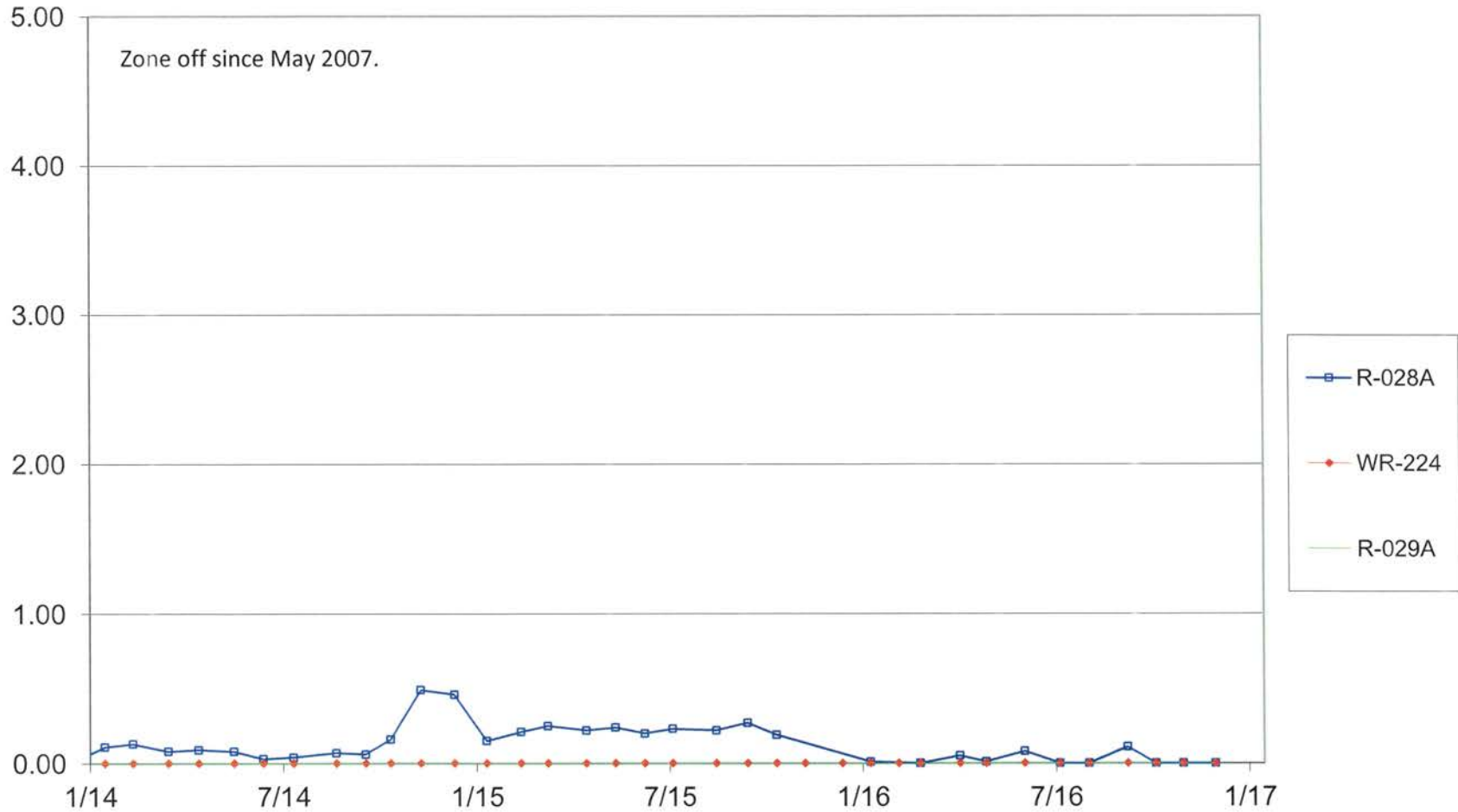


Free product has not been detected in R-049A since 2004, and in WR-212A since Dec 2009.

TFS Remediation Area Zone 3 Apparent Product Thickness

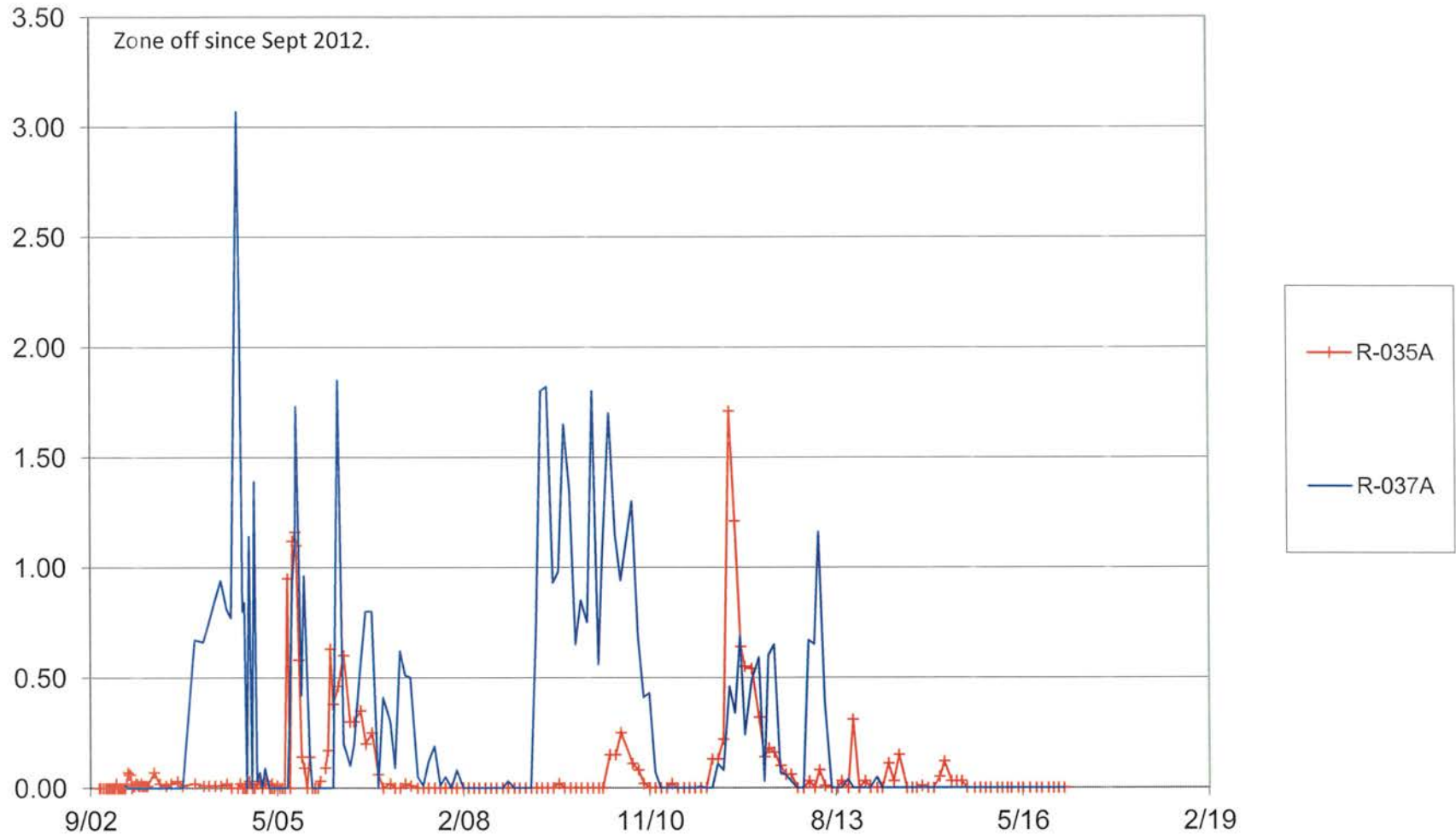


TFS Remediation Area Zone 3 Apparent Product Thickness (last 3 years)

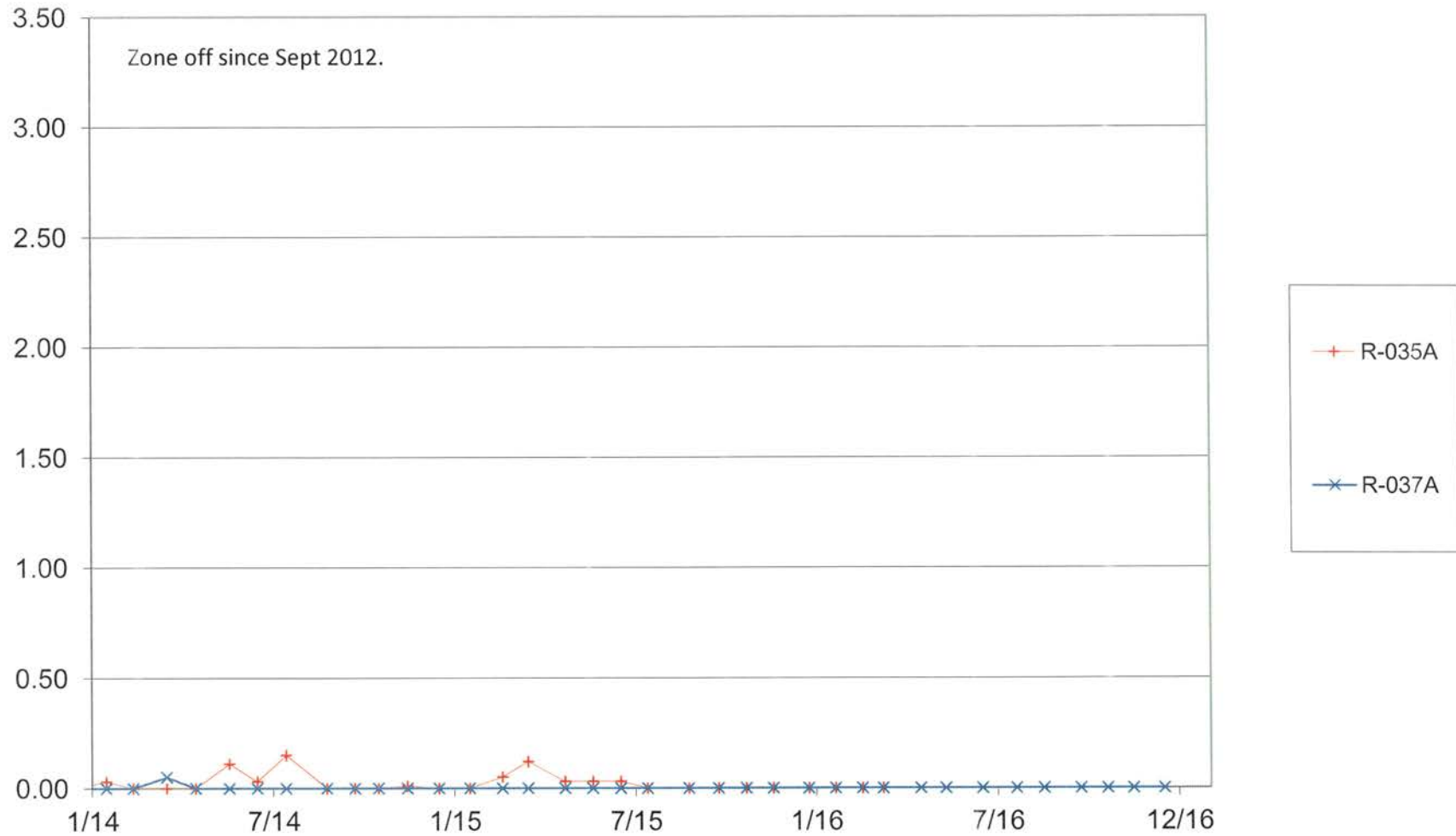


Free product has not been detected in WR-224A since 2001. Except for a minor detection of sheen in March 2011, free product has not been detected in R-029A since Sept 2004.

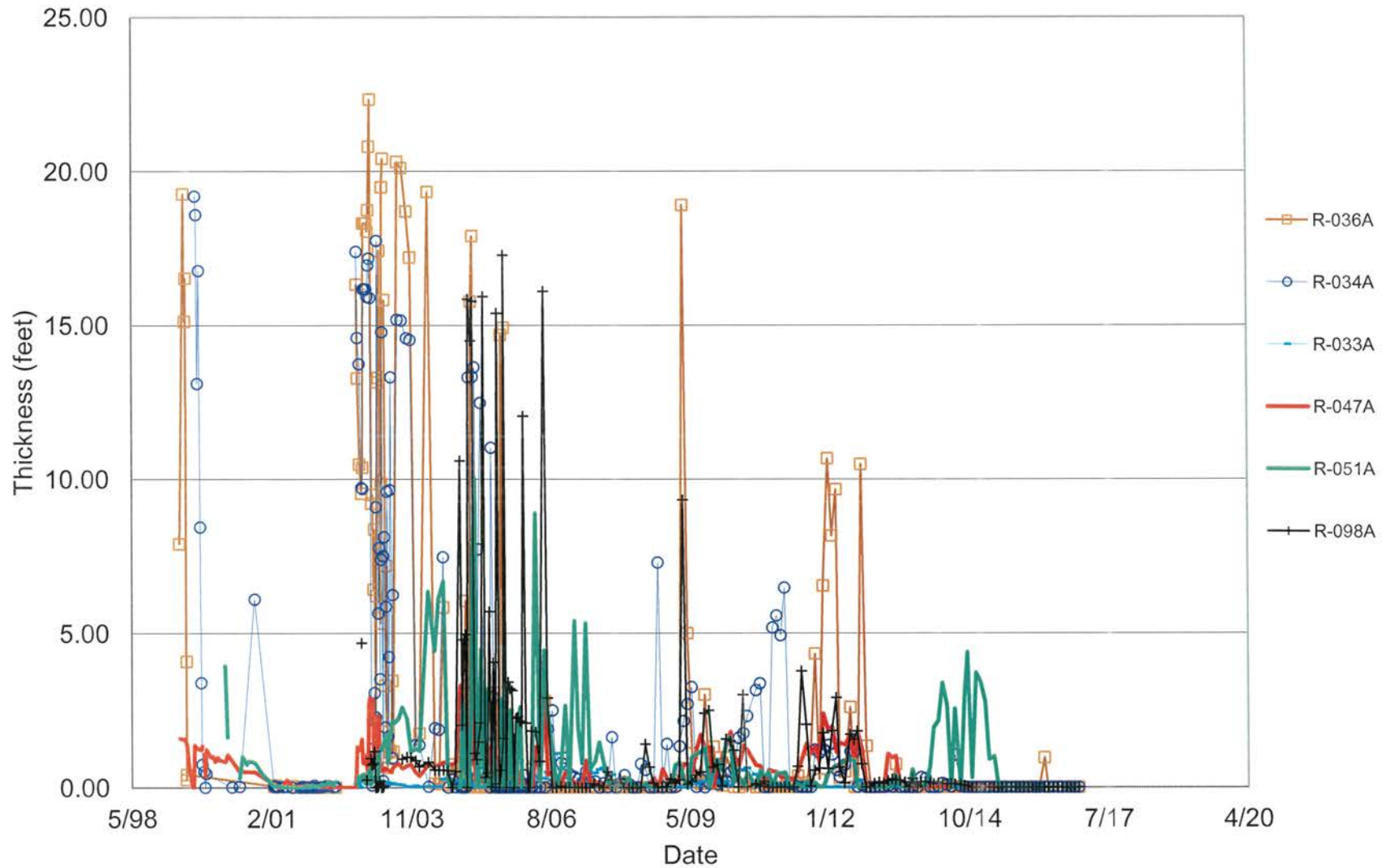
TFS Remediation Area Zone 4 Apparent Product Thickness



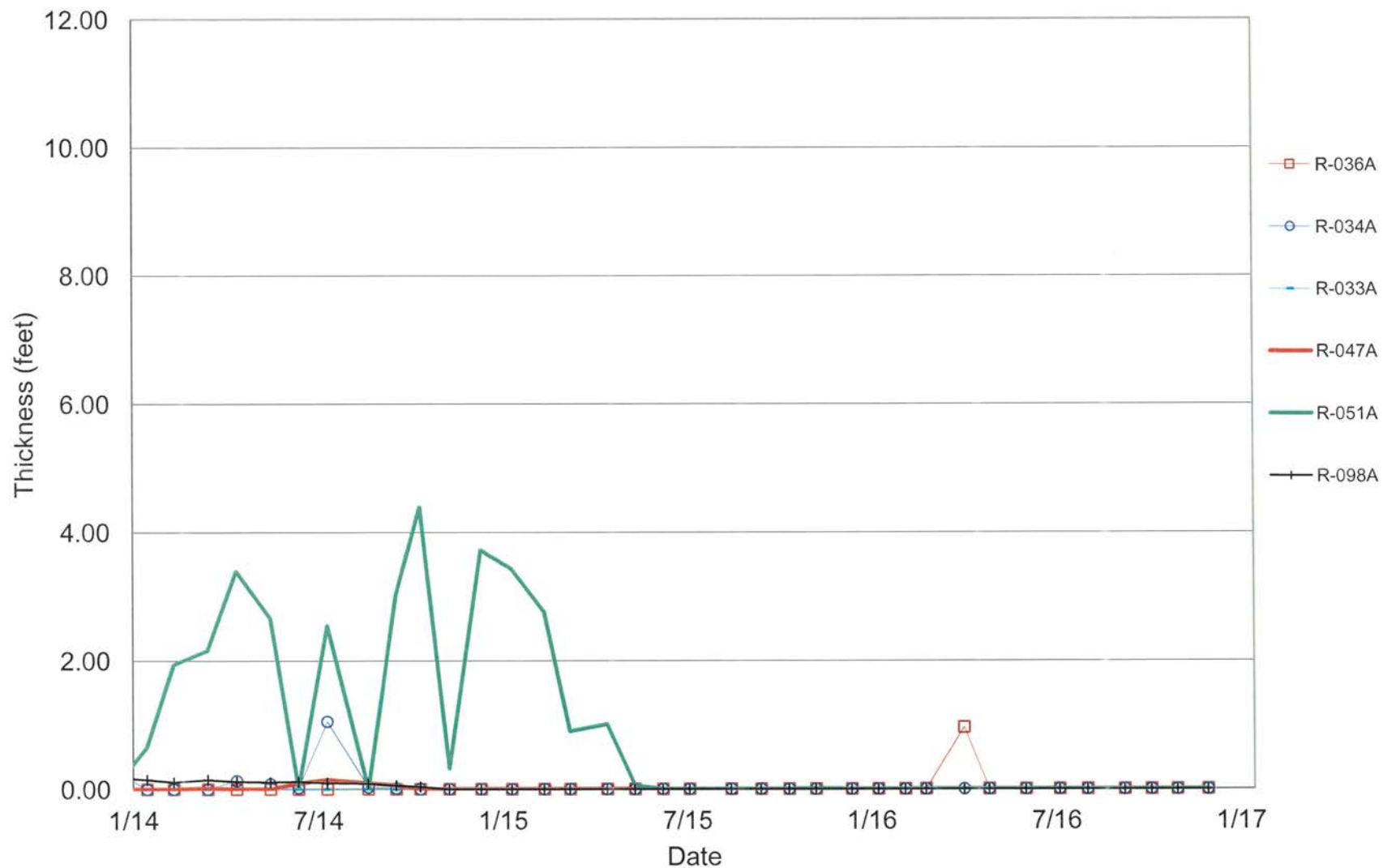
TFS Remediation Area Zone 4 Apparent Product Thickness (last 3 years)



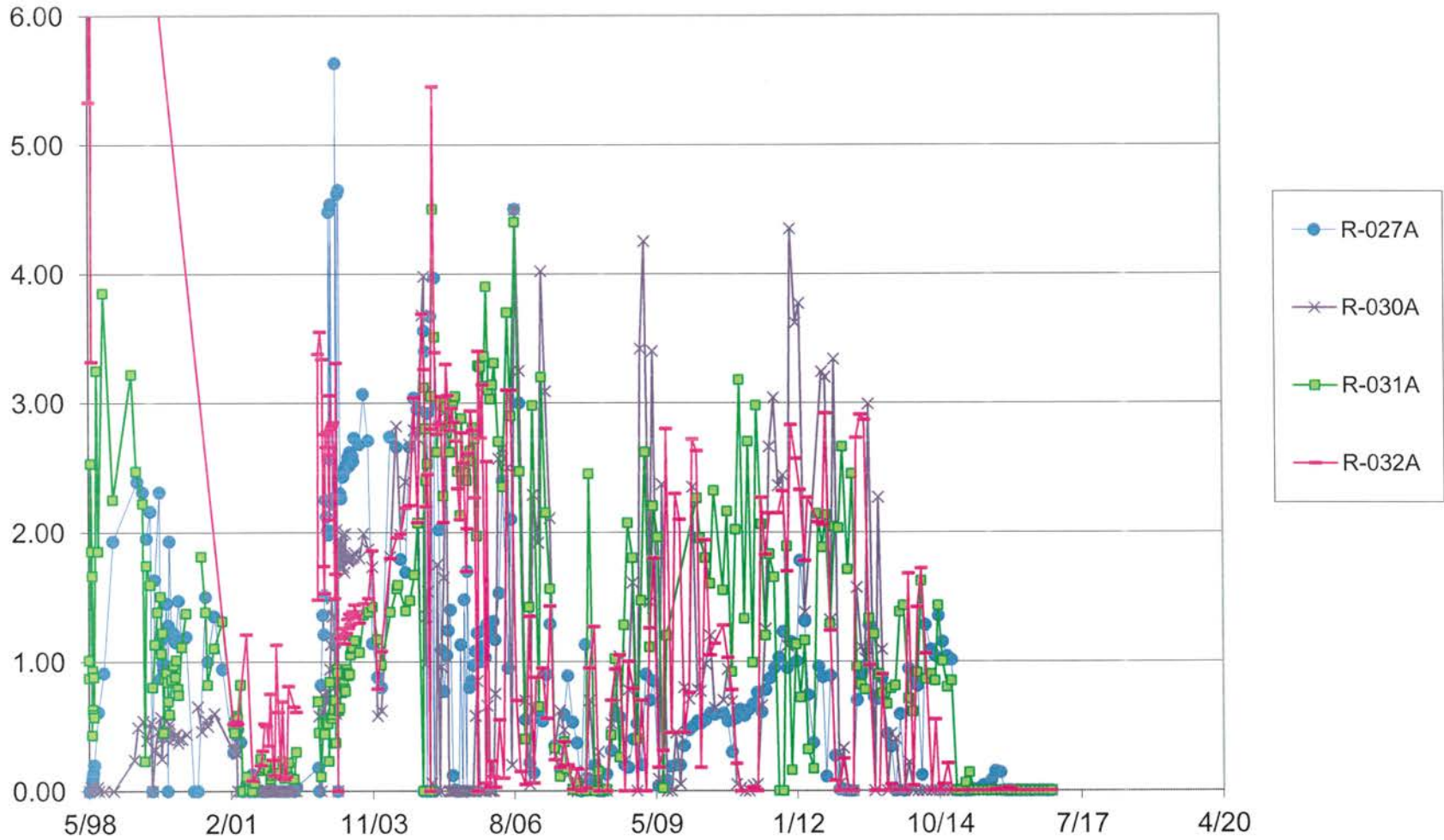
TFS Remediation Area Zone 5 Apparent Product Thickness



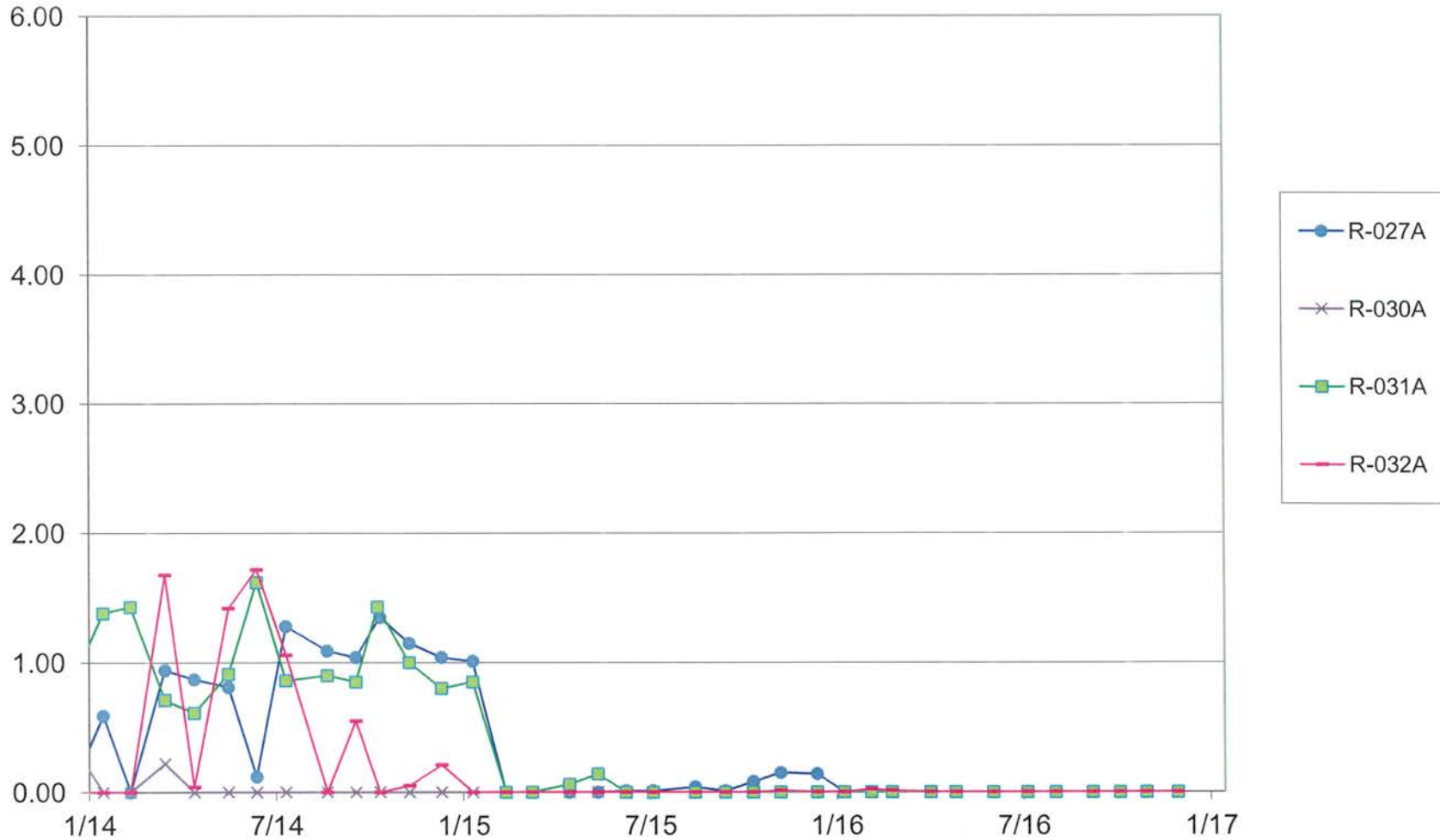
TFS Remediation Area Zone 5 Apparent Product Thickness (last 3 years)



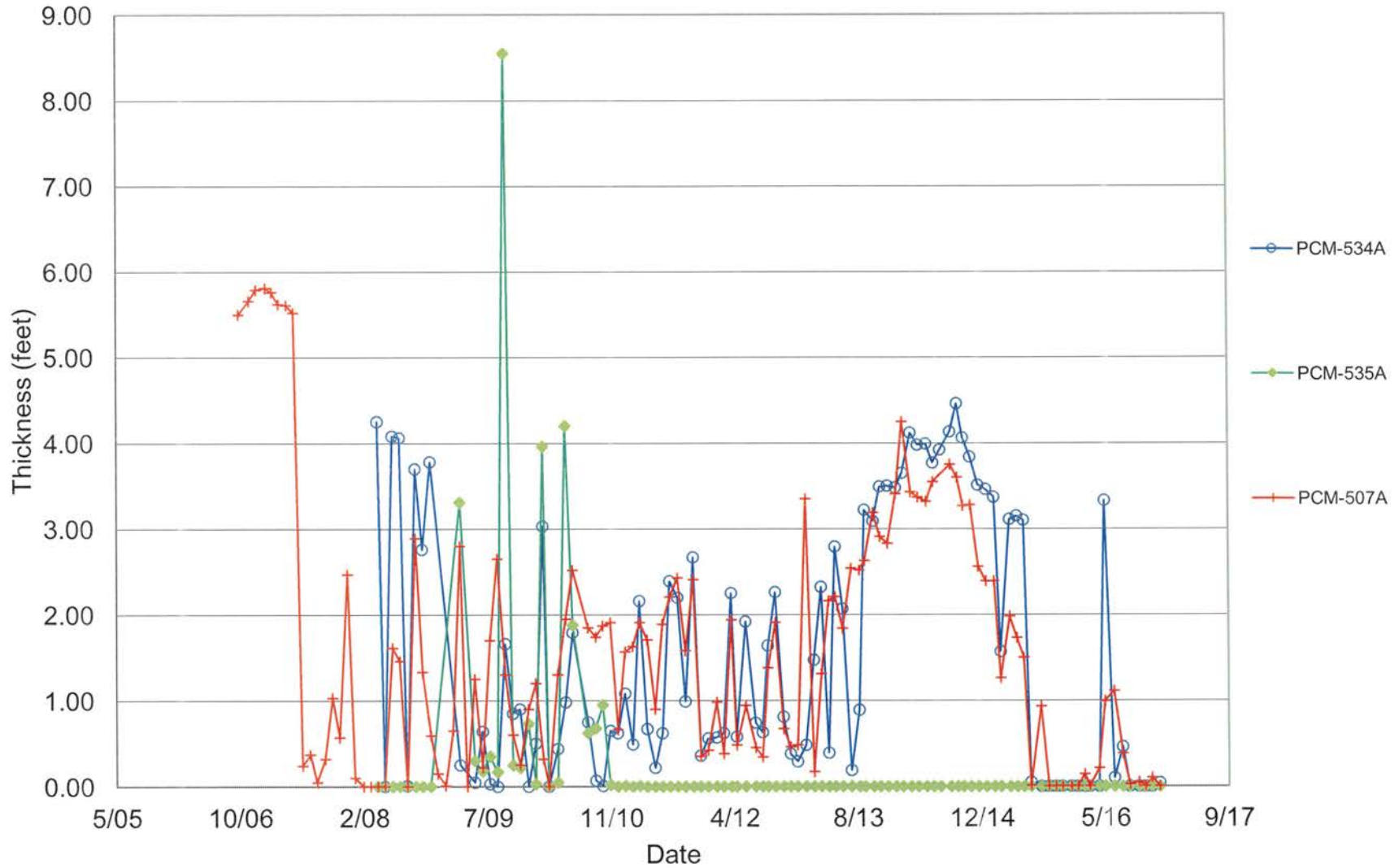
TFS Remediation Area Zone 6 Apparent Product Thickness



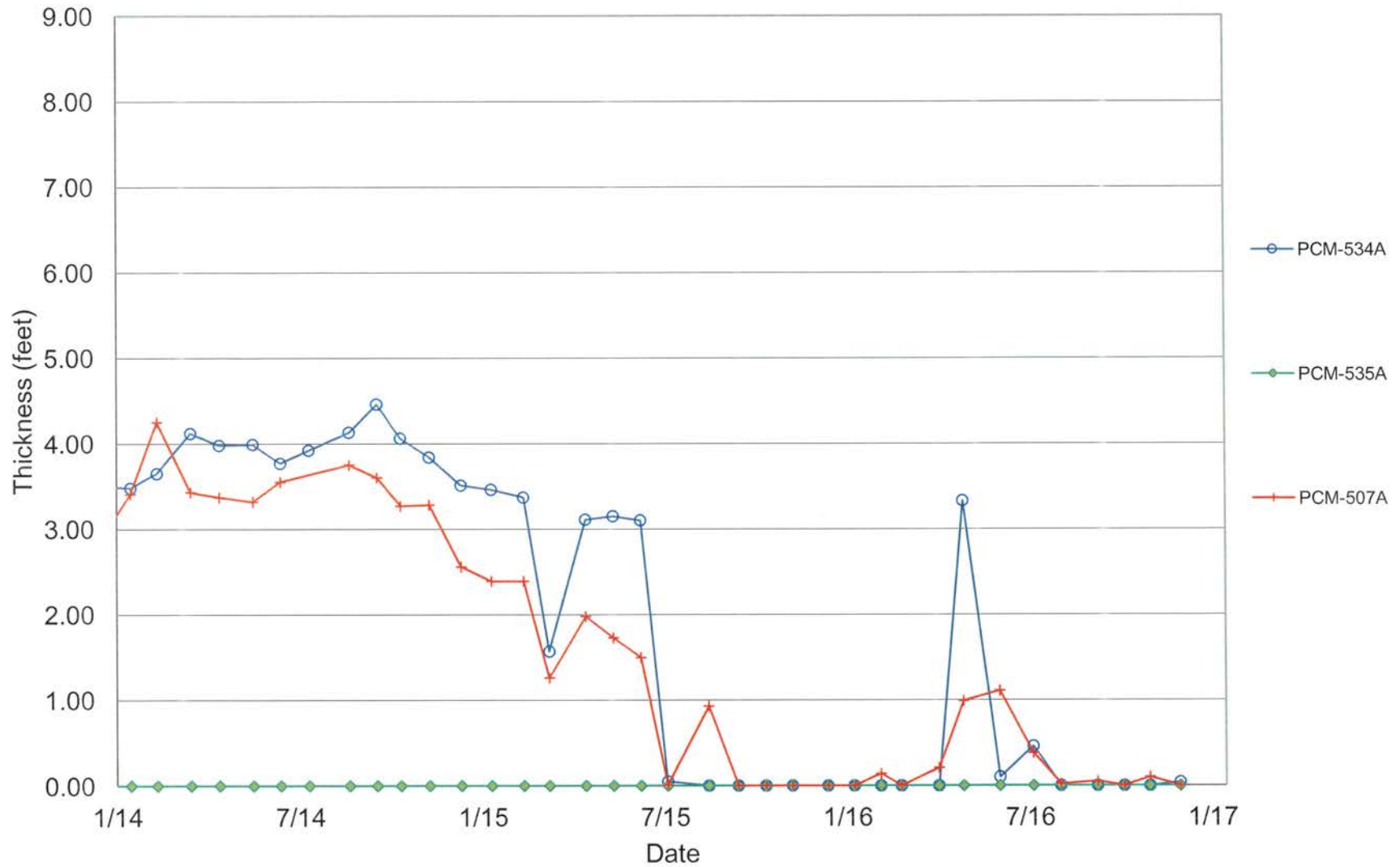
TFS Remediation Area Zone 6 Apparent Product Thickness (last 3 years)



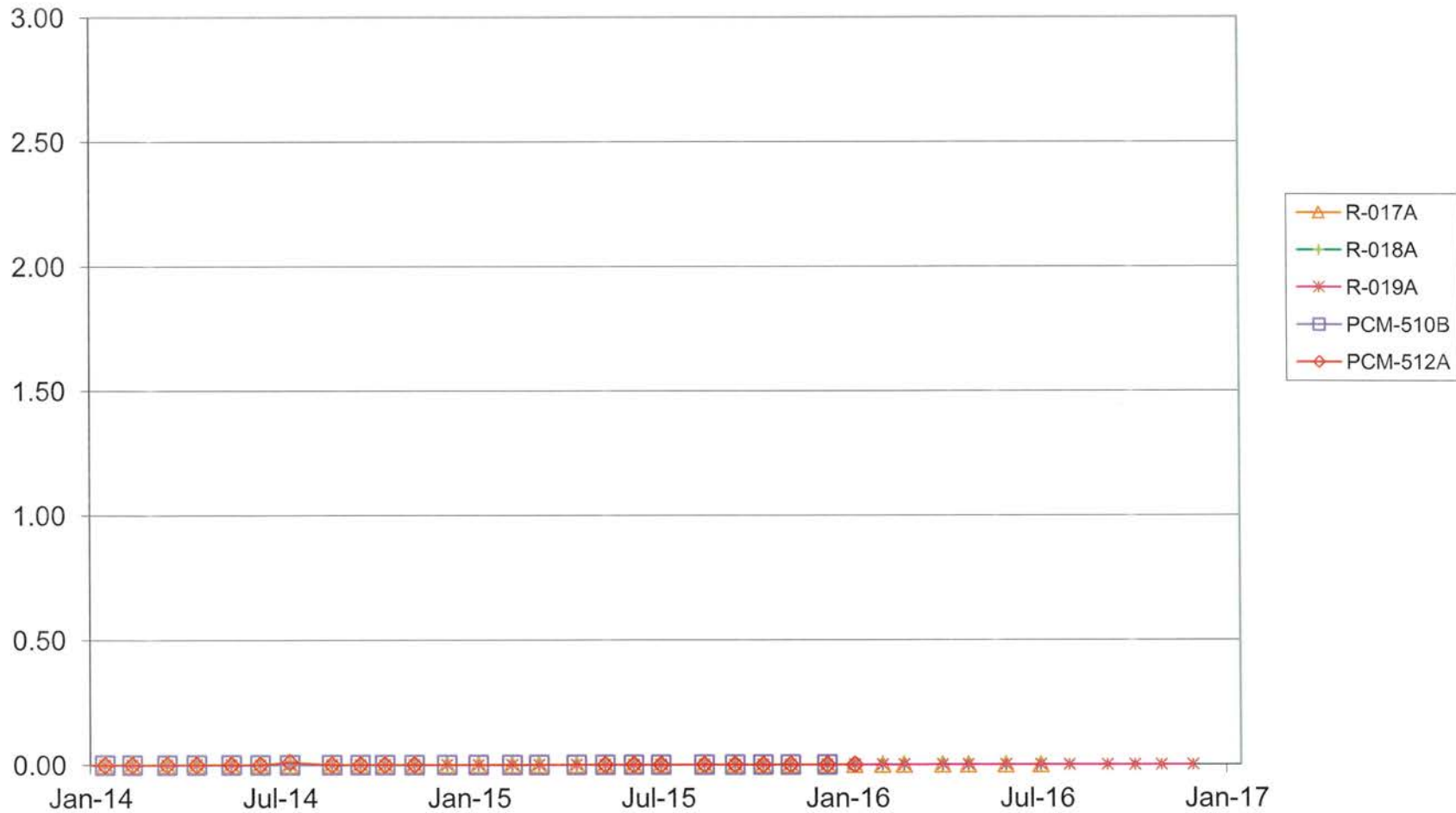
TFS Remediation Area Zone 7 Apparent Product Thickness



TFS Remediation Area Zone 7 Apparent Product Thickness (last 3 years)

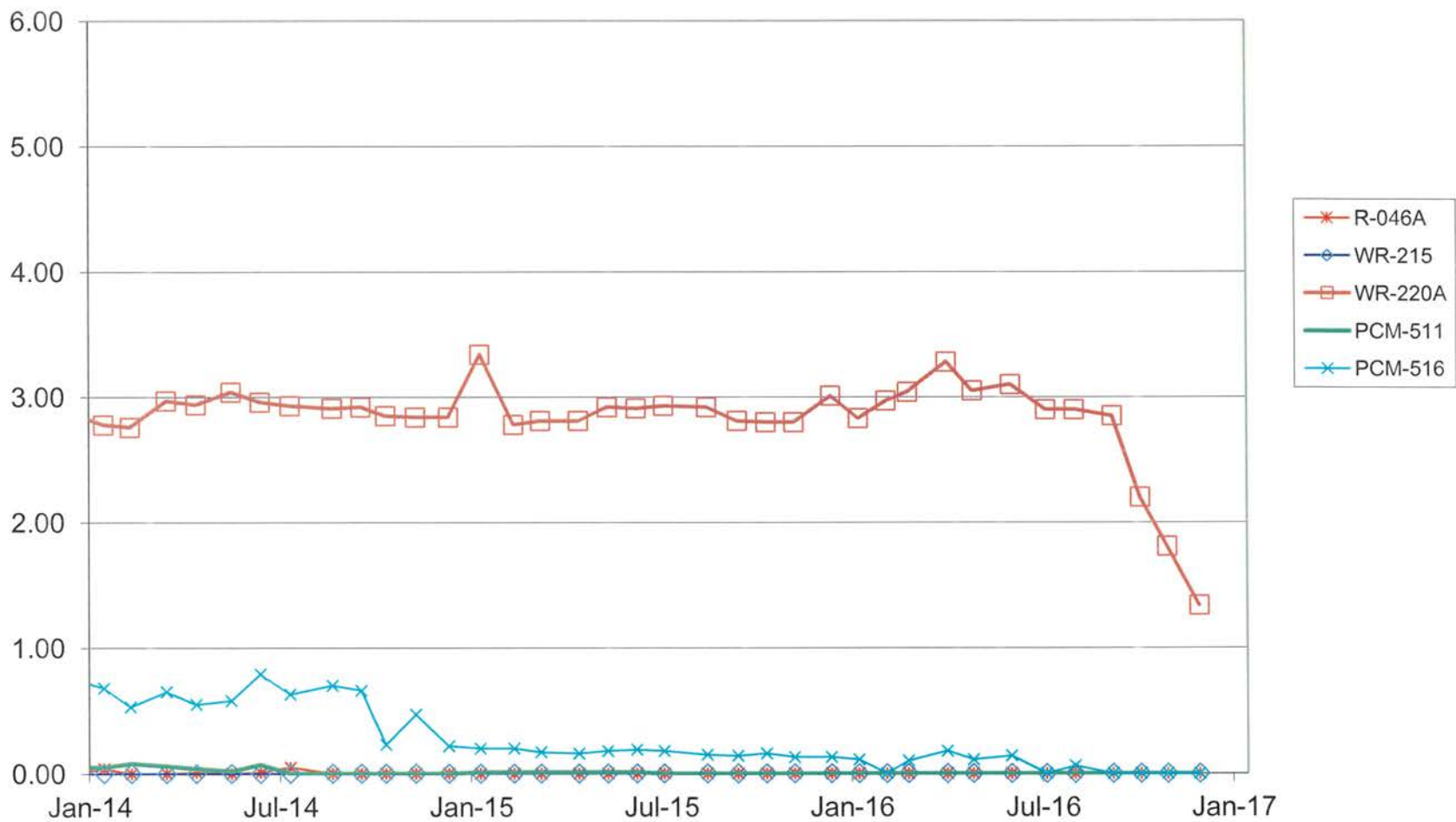


Price Service Center Remedial Area Apparent Product Thickness (last 3 years)



Note: All 'R' wells are connected to the Price Service Center Remediation System. PCM-510B and PCM-512A are monitor wells located within the vicinity of the system.

Remaining Wells With Product Apparent Product Thickness (last 3 years)



Note: These are all monitor wells currently not connected to any remediation system.

APPENDIX C

Groundwater Monitoring Analysis Matrix and
Groundwater Field Sampling Sheets

APPENDIX C
MARCH 2016 ANNUAL GROUNDWATER ANALYTE SAMPLING LIST
CITY OF TUCSON, THOMAS O. PRICE SERVICE CENTER
LUST FILE NO. 0767.01-0767.05, ADEQ FACILITY ID NO. 0-005160

Well ID	Field Parameter Measurements					Laboratory Analyses		
	DTW/ DTP	Dissolved Oxygen	ORP	Turbidity	pH	BTEX	MTBE	Full VOC List
Shallow-Zone Monitoring Wells:								
R-012A	X	X	X	X	X	X	X	NA
R-013A	X	X	X	X	X	X	X	NA
R-016A	X	X	X	X	X	X	X	NA
R-017A	X	X	X	X	X	X	X	NA
R-018A	X	X	X	X	X	X	X	NA
R-019A	X	X	X	X	X	X	X	NA
R-020A	X	X	X	X	X	X	X	NA
R-021A	X	X	X	X	X	X	X	NA
R-022A	X	X	X	X	X	X	X	NA
R-027A	X	X	X	X	X	X	X	NA
R-028A	X	X	X	X	X	X	X	NA
R-029A	X	X	X	X	X	X	X	NA
R-030A	X	X	X	X	X	X	X	NA
R-031A	X	X	X	X	X	X	X	NA
R-032A	X	X	X	X	X	X	X	NA
R-033A	X	X	X	X	X	X	X	NA
R-034A	X	X	X	X	X	X	X	NA
R-035A	X	X	X	X	X	X	X	NA
R-036A	X	X	X	X	X	X	X	NA
R-037A	X	X	X	X	X	X	X	NA
R-044A	X	X	X	X	X	X	X	NA
R-045A	X	X	X	X	X	X	X	NA
R-046A	X	X	X	X	X	X	X	NA
R-047A	X	X	X	X	X	X	X	NA
R-048A	X	X	X	X	X	X	X	NA
R-049A	X	X	X	X	X	X	X	NA
R-050A	X	X	X	X	X	X	X	NA
R-051A	X	X	X	X	X	X	X	NA
R-098A	X	X	X	X	X	X	X	NA
R-099A	X	X	X	X	X	X	X	NA
WR-208A	X	X	X	X	X	X	X	NA
WR-209A	X	X	X	X	X	X	X	NA
WR-210A	X	X	X	X	X	X	X	NA
WR-211A	X	X	X	X	X	X	X	NA
WR-212A	X	X	X	X	X	X	X	NA
WR-213A	X	X	X	X	X	X	X	NA
WR-214A	X	X	X	X	X	X	X	NA
WR-215A	X	X	X	X	X	NA	NA	X
WR-219A	X	X	X	X	X	NA	NA	X
WR-220A	X	X	X	X	X	NA	NA	X
WR-221A	X	X	X	X	X	NA	NA	X
WR-222A	X	X	X	X	X	NA	NA	X
WR-223A	X	X	X	X	X	NA	NA	X
WR-224A	X	X	X	X	X	NA	NA	X
WR-225A	X	X	X	X	X	X	X	NA
WR-296A	X	X	X	X	X	X	X	NA
WR-298A	X	X	X	X	X	X	X	NA
PCM-506A	X	X	X	X	X	X	X	NA
PCM-507A	X	X	X	X	X	X	X	NA
PCM-508A	X	X	X	X	X	X	X	NA
PCM-508B	X	X	X	X	X	X	X	NA
PCM-509A	X	X	X	X	X	X	X	NA
PCM-509B	X	X	X	X	X	X	X	NA
PCM-510A	X	X	X	X	X	X	X	NA
PCM-510B	X	X	X	X	X	X	X	NA
PCM-511A	X	X	X	X	X	X	X	NA
PCM-512A	X	X	X	X	X	X	X	NA
PCM-516A	X	X	X	X	X	X	X	NA
PCM-517A	X	X	X	X	X	X	X	NA
PCM-534A	X	X	X	X	X	X	X	NA
PCM-535A	X	X	X	X	X	X	X	NA

Deep-Zone Monitoring Wells:								
WR-216A	X	X	X	X	X	X	X	NA
WR-217A	X	X	X	X	X	NA	NA	X
WR-218A	X	X	X	X	X	X	X	NA
WR-227A	X	X	X	X	X	NA	NA	X
WR-228A	X	X	X	X	X	X	X	NA
WR-229A	X	X	X	X	X	X	X	NA
WR-230A	X	X	X	X	X	X	X	NA
WR-231A	X	X	X	X	X	X	X	NA
WR-232A	X	X	X	X	X	X	X	NA
WR-233A	X	X	X	X	X	NA	NA	X
WR-235A	X	X	X	X	X	X	X	NA
Water Level Measurements Only:								
WR-295A	X	NA	NA	NA	NA	NA	NA	NA
WR-295B	X	NA	NA	NA	NA	NA	NA	NA
WR-296B	X	NA	NA	NA	NA	NA	NA	NA
WR-297A	X	NA	NA	NA	NA	NA	NA	NA

Where measurable product, no sample will be collected for water quality analyses.

DTP/DTW= Depth to Product/Depth to Water

Notes:


ORP = Oxidation/Reduction Potential


BTEX = Benzene, Toluene, Ethylbenzene, Xylene

MTBE = Methyl tert-butyl ether

NA = Not Analyzed.

B wells =The deeper depth casing

 = **No Sample**. Measureable product as of March 2016.

 = Are system wells and can be the dirty wells. Try to sample these wells last.

Red = Well requires the full VOC list (8260). WR-221A was added in 2016 to delineate the shallow zone downgradient.



Environmental Management
 Water Level Data Form
 Project: Price Service Center

Date: 3/15/16

Field Personnel: KV/LJM

Well #	Location	Time	DTP	DTW	Total Depth	Correction Factor	Sounder ID	Well Inspection & Notes
R-022A	Price	1254		98.40	110'		INTA	
R-017A	Price				122'			
WR-208A	Price	1204		96.00	120'		INTA	
WR-214A	Price	1145		106.79	120'		INTA	
WR-216A	Price	1158		117.79	194'		INTA	
WR-232A	Price	1321		122.56	190'		INTA	
WR-228A	Price	1151		117.15	189'		INTA	
R-012A	Price	1241		98.61	120'		INTA	
WR-217A	Price	1140		117.23	190'		INTA	
WR-211A	Price	1328		100.18	120'		INTA	
R-046A	Price				120'			
PCM-509A	Price	1306		99.31	121'		INTA	
PCM-509B	Price	1311		99.18	108'		INTA	
WR-210A	Price	1248		101.57	120'		INTA	
R-021A	Price	1245		98.79	120'		INTA	
WR-209A	Price	1215		100.26	120'		INTA	
R-013A	Price	1302		99.30	120'		INTA	
PCM-510A	Price	1315		99.25	121'		INTA	
PCM-510B	Price				108'			
R-018A	Price				110'			
R-016A	Price	1225		128.34	120'		INTA	
PCM-512A	Price				121.3'			Water sampled by Cardo
R-020A	Price	1236		98.46	120'		INTA	
WR-215A	Price				120'			
R-019A	Price				112'			
PCM-511A	Price				120'			
WR-295A	Price	1129		101.35	107'		INTA	
WR-295B	Price	1131		115.76	160'		INTA	
WR-296A	Price	1125		100.53	107.55'		INTA	
WR-296B	Price	1126		115.47	160.6'		INTA	
WR-297A	Price	1133		101.77	111'		INTA	
WR-298A	Price	1135		101.52	110.6'		INTA	
R-028A	Fire				120'			
WR-229A	Fire	1036		118.81	190'		INTA	
R-029A	Fire				120'			
R-049A	Fire				125'			
WR-224A	Fire				115'			
R-048A	Fire				125'			
WR-212A	Fire				120'			
R-037A	Fire				120'			
R-050A	Fire				125'			
R-099A	Fire				121'			
R-035A	Fire				120'			
R-036A	Fire				120'			
R-047A	Fire				112'			
R-030A	Fire				112'			
R-027A	Fire				120'			
R-098A	Fire				120'			
R-031A	Fire				120'			
R-032A	Fire				120'			
WR-213A	Fire Storage	1050		96.93	120'		INTA	
WR-218A	Fire Storage	1049		118.85	194'		INTA	

CITY OF TUCSON PRICE SERVICE CENTER

DATE: 3/8/2016

Name: Norman Buxton & Nate Cordova

Well ID	Time	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Amount Removed (gal)	Wellhead Vaccum (in H ₂ O)	PID (ppm)	Comments
R-027	0952	ND	97.28	ND	0			
R-028	1140	ND	96.24	ND	0			
R-029	1034	ND	96.25	ND	0			
R-030	0949	ND	98.21	ND	0			
R-031	0954	ND	97.47	ND	0			
R-032	1019	97.44	97.45	0.01	0			
R-033	1038	ND	96.46	ND	0			
R-034	1042	ND	106.09	ND	0			
R-035	1000	ND	97.15	ND	0			
R-036	1032	ND	98.14	ND	0			
R-037	0958	ND	96.71	ND	0			
R-047	1022	ND	97.95	ND	0			
R-048	0940	ND	96.03	ND	0			
R-049	0943	ND	96.09	ND	0			
R-050	1006	ND	96.51	ND	0			
R-051	1050	ND	108.63	ND	0			
R-098	1028	ND	100.24	ND	0			
R-099	0938	ND	95.89	ND	0			
WR-212	1003	ND	97.14	ND	0			
WR-220A	1121	109.61	112.65	3.04	0			
WR-224	1010	ND	98.02	ND	0			
PCM-507	1055	ND	110.85	ND	0	110.63	111.81	
PCM-508B	1047	ND	98.64	ND	0			
PCM-516	1103	113.15	113.25	0.10	0			
PCM-534	1053	ND	110.78	ND	0	110.80	110.96	
PCM-535	1034	ND	100.64	ND	0			
R-017A	1158	ND	99.19	ND	0			
R-018A	1202	ND	98.81	ND	0			
R-019A	1156	ND	98.85	ND	0			
R-046A	1146	ND	101.93	ND	0			
PCM-510B	1200	ND	98.87	ND	0			
PCM-511A	1153	ND	99.95	ND	0			
PCM-512A	1119	ND	100.87	ND	0			
WR-215	1149	ND	102.36	ND	0			Unable to access well

System shut down 3/8/16 @ 0800 by B. Rumber

Correction Factor 0.86



HP BAIL
TD 121
D (diameter) 4
d factor 0.80

Well Name: PCM-506A

Project: Price Service Center

Date: Mar 31, 2016

Field Personnel: KV/JM

Weather: PARTLY CLOUDY

Static Water Level: 101.40

Time 8:59:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 13 1.5 19 2 26 2.5 32 3 38 3.5 45 4 51 4.5 58 5 64

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 31, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
13	0908	7.98	733	22.59	7.37	178.9	-	7.19
19								
26								
32								
38								
45								
51								
58								
64								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:05:00 Dup Sample Time: N/A Time Ended: 9:08:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 31, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
 GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.47



HP BAIL
TD 110
D (diameter) 4
d factor 0.21

Well Name: PCM-508A

Project: Price Service Center

Date: Mar 18, 2016

Field Personnel: KV/JM

Weather: SUNNY/HOT

Static Water Level: 104.75

Time 10:12:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 3 1.5 5 2 7 2.5 9 3 10 3.5 12 4 14 4.5 15 5 17

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 18, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
3	1022	7.74	296	28.70	4.91	16.7	-	6.56
5								
7								
9								
10								
12								
14								
15								
17								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:18:00 Dup Sample Time: N/A Time Ended: 10:22:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 18, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
 GAC Treatment Investigation Duplicate

Comments:

Jm
3/18/16

Correction Factor 0.45



HP BAIL
TD 110
D (diameter) 4
d factor 0.46

Well Name: PCM-508B

Project: Price Service Center

Date: Mar 18, 2016

Field Personnel: KV/JM

Weather: SUNNY/HOT

Static Water Level: 98.66

Time 10:26:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 7 1.5 11 2 15 2.5 19 3 22 3.5 26 4 30 4.5 33 5 37

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 18, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
7	1034	7.80	289	28.90	4.45	-72.2	-	56.8
11								
15								
19								
22								
26								
30								
33								
37								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:30:00 Dup Sample Time: N:/A Time Ended: 10:33:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 18, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.57



CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 121
D (diameter) 4
d factor 0.89

Well Name: PCM-509A

Project: Price Service Center

Date: Mar 29, 2016

Field Personnel: KV/JM

Weather: SUNNY/WINDY

Static Water Level: 99.20

Time 9:30:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 14 1.5 21 2 28 2.5 36 3 43 3.5 50 4 57 4.5 64 5 71

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 29, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
14	0940	1.94	20227	25.46	17.79	689.0	-	6.71
21								
28								
36								
43								
50								
57								
64								
71								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:35:00 Dup Sample Time: N/A Time Ended: 9:39:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 29, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.48



HP BAIL
TD 108.2
D (diameter) 2
d factor 0.09

Well Name: PCM-509B

Project: Price Service Center

Date: Mar 29, 2016

Field Personnel: KV/JM

Weather: WINDY/CLOUDY

Static Water Level: 99.10

Time 9:38:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 1 1.5 2 2 3 2.5 4 3 4 3.5 5 4 6 4.5 7 5 7

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 29, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
1	0950	5.28	18922	24.96	14.57	552.8	-	250
2								
3								
4								
4								
5								
6								
7								
7								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:45:00 Dup Sample Time: N/A Time Ended: 9:49:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 29, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.34



HP BAIL
TD 121
D (diameter) 2
d factor 0.22

Well Name: PCM-510A

Project: Price Service Center

Date: Mar 29, 2016

Field Personnel: KV/JM

Weather: SUNNY/WINDY

Static Water Level: 99.20

Time 9:00:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 4 1.5 5 2 7 2.5 9 3 11 3.5 12 4 14 4.5 16 5 18

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 29, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
4	0912	3.36	5687	24.20	14.45	658.2	-	1.15
5								
7								
9								
11								
12								
14								
16								
18								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:08:00 Dup Sample Time: N/A Time Ended: 9:11:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 29, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.69



HP BAIL
TD 108
D (diameter) 2
d factor 0.09

Well Name: PCM-510B

Project: Price Service Center

Date: Mar 29, 2016

Field Personnel: KV/JM

Weather: SUNNY/WINDY

Static Water Level: 98.92

Time 9:12:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 1 1.5 2 2 3 2.5 4 3 4 3.5 5 4 6 4.5 7 5 7

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 29, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
1	0920	5.41	8835	24.54	7.62	521.1	-	85.4
2								
3								
4								
4								
5								
6								
7								
7								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:16:00 Dup Sample Time: N:/A Time Ended: 9:19:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 29, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.39



HP BAIL
TD 120
D (diameter) 4
d factor 0.82

Well Name: PCM-511A

Project: Price Service Center

Date: Mar 22, 2016

Field Personnel: KV/JM

Weather: SUNNY/COOL

Static Water Level: 100.00

Time 8:34:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons): Discharge Rate(GPM):

1 13 1.5 20 2 26 2.5 33 3 39 3.5 46 4 52 4.5 59 5 65

Pump Time: Start Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 22, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
13	0844	8.23	26.16	26.16	6.68	250.2	-	10.7
20								
26								
33								
39								
46								
52								
59								
65								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 8:40:00 Dup Sample Time: N:/A Time Ended: 8:43:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.3



HP BAIL
TD 120
D (diameter) 4
d factor 0.81

Well Name: PCM-512A

Project: Price Service Center

Date: Mar 29, 2016

Field Personnel: KV/JM

Weather: SUNNY/WINDY

Static Water Level: 100.08

Time 8:00:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 13 1.5 20 2 26 2.5 33 3 39 3.5 46 4 52 4.5 59 5 65

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 29, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
13	0814	7.42	9829	26.08	7.50	307.1	-	43.6
20								
26								
33								
39								
46								
52								
59								
65								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 8:10:00 Dup Sample Time: N:/A Time Ended: 8:13:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 29, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.51



HP BAIL
TD 122.5
D (diameter) 4
d factor 0.52

Well Name: PCM-517A

Project: Price Service Center

Date: Mar 23, 2016

Field Personnel: KV/JM

Weather: SUNNY/WINDY

Static Water Level: 109.77

Time 10:06:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 8 1.5 12 2 17 2.5 21 3 25 3.5 29 4 33 4.5 37 5 42

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 23, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
8	1014	7.74	578	25.62	5.21	-28.2	-	
12								8.23
17								
21								
25								
29								
33								
37								
42								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:10:00 Dup Sample Time: N.A Time Ended: 10:13:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 23, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

JM

Correction Factor 0.31



CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 0.83

Well Name: PCM-535A

Project: Price Service Center

Date: Mar 22, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 99.60

Time 9:04:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 13 1.5 20 2 27 2.5 33 3 40 3.5 47 4 53 4.5 60 5 67

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 22, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
13	0914	7.68	968	27.08	3.96	-18.8	-	14.5
20								
27								
33								
40								
47								
53								
60								
67								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:10:00 Dup Sample Time: N/A Time Ended: 9:13:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments: Minimal gas snot, faint gas odor.

Jm

Correction Factor 0.72



HP BAIL
TD 140
D (diameter) 4
d factor 1.69

Well Name: R-012A

Project: Price Service Center

Date: Mar 30, 2016

Field Personnel: KV/KM

Weather: PARTLY CLOUDY

Static Water Level: 98.65

Time 11:31:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 27 1.5 40 2 54 2.5 67 3 81 3.5 94 4 108 4.5 121 5 135

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 30, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
27	1141	7.74	1083	25.94	5.38	208.2	-	4.7
40								
54								
67								
81								
94								
108								
121								
135								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 11:38:00 Dup Sample Time: N/A Time Ended: 11:40:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 30, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

GAC Treatment Investigation Duplicate

Comments:

[Empty box for comments]

Correction Factor 0.73



HP BAIL
TD 120
D (diameter) 4
d factor 0.84

Well Name: R-013A

Project: Price Service Center

Date: Mar 29, 2016

Field Personnel: KV/JM

Weather: SUNNY/WINDY

Static Water Level: 99.33

Time 10:45:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 13 1.5 20 2 27 2.5 34 3 40 3.5 47 4 54 4.5 61 5 67

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 YSI QS

End _____

Total (min) 0

Calibration Date: March 29, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
13	1104	7.71	1460	24.95	6.92	173.4	-	23.1
20								
27								
34								
40								
47								
54								
61								
67								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:56:00 Dup Sample Time: 11:00:00 Time Ended: 11:03:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 29, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual Annual

GAC Treatment Investigation Duplicate

Comments:

[Empty box for comments]

Correction Factor 0.49



HP BAIL
TD 120
D (diameter) 4
d factor 0.88

Well Name: R-016A

Project: Price Service Center

Date: Mar 30, 2016

Field Personnel: KV/KM

Weather: SUNNY/WARM

Static Water Level: 98.39

Time 11:14:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 14 1.5 21 2 28 2.5 35 3 42 3.5 49 4 56 4.5 63 5 71

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 30, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
14	1124	7.76	1423	27.06	4.50	188.1	-	125
21								
28								
35								
42								
49								
56								
63								
71								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 11:20:00 Dup Sample Time: N/A Time Ended: 11:23:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 30, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
 GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.75



CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 0.85

Well Name: R-017A

Project: Price Service Center

Date: Mar 29, 2016

Field Personnel: KV/JM

Weather: SUNNY/WINDY

Static Water Level: 99.24

Time 10:27:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 14 1.5 20 2 27 2.5 34 3 41 3.5 47 4 54 4.5 61 5 68

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 29, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
14	1040	6.81	9018	25.64	10.46	560.5	-	7.86
20								
27								
34								
41								
47								
54								
61								
68								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:34:00 Dup Sample Time: N:/A Time Ended: 10:39:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 29, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.64



HP BAIL
TD 110
D (diameter) 4
d factor 0.45

Well Name: R-018A

Project: Price Service Center

Date: Mar 29, 2016

Field Personnel: KV/JM

Weather: SUNNY/WINDY

Static Water Level: 98.90

Time 8:38:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 7 1.5 11 2 14 2.5 18 3 22 3.5 25 4 29 4.5 33 5 36

Pump Time: Start

Meters and Type: YS#1 YSI#2 YSI QS

End

Total (min) 0

Calibration Date: March 29, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
7	0850	6.72	12980	24.12	7.03	462.8	-	113
11								
14								
18								
22								
25								
29								
33								
36								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 8:45:00 Dup Sample Time: N:/A Time Ended: 8:49:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 29, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual Annual
 GAC Treatment Investigation Duplicate

Comments: Samples yellow in color. Faint gas odor.

Correction Factor 0.88



HP BAIL
TD 112
D (diameter) 4
d factor 0.41

Well Name: R-019A

Project: Price Service Center

Date: Mar 31, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 101.87

Time 10:07:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 7 1.5 10 2 13 2.5 17 3 20 3.5 23 4 26 4.5 30 5 33

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 31, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
7	1014	6.52	13223	24.11	6.14	297.6	-	193
10								
13								
17								
20								
23								
26								
30								
33								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:12:00 Dup Sample Time: N:/A Time Ended: 10:14:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 31, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
 GAC Treatment Investigation Duplicate

Comments: Sample water murky orange color.

Correction Factor 0.68



HP BAIL
TD 120
D (diameter) 4
d factor 0.88

Well Name: R-020A

Project: Price Service Center

Date: Mar 29, 2016

Field Personnel: KV/JM

Weather: SUNNY/WINDY

Static Water Level: 98.45

Time 8:19:00

Totalizer: End 0

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 14 1.5 21 2 28 2.5 35 3 42 3.5 49 4 56 4.5 63 5 70

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 29, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
14	0834	8.16	764	24.18	5.04	396.3	-	>1000
21								
28								
35								
42								
49								
56								
63								
70								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 8:30:00 Dup Sample Time: N/A Time Ended: 8:33:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 29, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
GAC Treatment Investigation Duplicate

Comments: Samples murky brown color.

Correction Factor 0.66



HP BAIL
TD 120
D (diameter) 4
d factor 0.87

Well Name: R-021A

Project: Price Service Center

Date: Mar 30, 2016

Field Personnel: KV/KM/JM

Weather: SUNNY/WARM

Static Water Level: 98.77

Time 11:43:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 14 1.5 21 2 28 2.5 35 3 42 3.5 49 4 55 4.5 62 5 69

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 30, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
14	1153	7.38	1111	26.93	3.63	198.6	-	2.62
21								
28								
35								
42								
49								
55								
62								
69								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 11:48:00 Dup Sample Time: 11:50:00 Time Ended: 11:52:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 30, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation X Duplicate

Comments:

Correction Factor 0.86



HP BAIL
TD 110
D (diameter) 4
d factor 0.47

Well Name: R-022A

Project: Price Service Center

Date: Mar 31, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 98.45

Time: 10:25:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 8 1.5 11 2 15 2.5 19 3 23 3.5 26 4 30 4.5 34 5 38

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 31, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
8	1040	7.07	1230	24.34	6.58	420.1	-	10.9
11								
15								
19								
23								
26								
30								
34								
38								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:34:00 Dup Sample Time: N/A Time Ended: 10:39:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 31, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
GAC Treatment Investigation Duplicate

Comments:

[Empty box for comments]

Correction Factor _____



CITY OF TUCSON
Environmental Services
Sampling Data Form

HP _____ BAIL
TD _____
D (diameter) _____
d factor _____

Well Name: R-027A

Project: Price Service Center

Date: Mar 21, 2016

Field Personnel: KV/JM

Weather: SUNNY/HOT

Static Water Level: 97.20

Time 11:05:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Pump

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 _____ 1.5 _____ 2 _____ 2.5 _____ 3 _____ 3.5 _____ 4 _____ 4.5 _____ 5 _____

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 21, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
	1113	7.71	357	29.35	4.20	-84.4	-	107

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 11:10:00 Dup Sample Time: N:/A Time Ended: 11:12:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
GAC Treatment Investigation Duplicate

Comments: SOME GAS SNOT PRESENT.

Handwritten initials

Correction Factor 0.35



CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 0.98

Well Name: R-028A

Project: Price Service Center

Date: Mar 21, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 96.00

Time 10:01:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 16 1.5 23 2 31 2.5 39 3 47 3.5 55 4 63 4.5 70 5 78

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 21, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
16	1010	7.60	932	26.86	3.21	153.8	-	34.7
23								
31								
39								
47								
55								
63								
70								
78								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:05:00 Dup Sample Time: N:/A Time Ended: 10:09:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments: STRONG GAS ODOR. GAS SNOT PRESENT.

JM

Correction Factor 0.48



HP BAIL
TD 120
D (diameter) 4
d factor 0.97

Well Name: R-029A

Project: Price Service Center

Date: Mar 21, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 96.28

Time 10:20:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Pump

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 15 1.5 23 2 31 2.5 39 3 46 3.5 54 4 62 4.5 70 5 77

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 21, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
15	1031	8.08	366	26.53	3.28	-4.9	-	22.3
23								
31								
39								
46								
54								
62								
70								
77								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:25:00 Dup Sample Time: 10:28:00 Time Ended: 10:30:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

GAC Treatment Investigation X Duplicate

Comments:

Correction Factor 0.7



CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 121.7
D (diameter) 4
d factor 0.95

Well Name: R-030A

Project: Price Service Center

Date: Mar 21, 2016

Field Personnel: KV/JM

Weather: SUNNY/HOT

Static Water Level: 98.31

Time 11:40:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 15 1.5 23 2 31 2.5 38 3 46 3.5 53 4 61 4.5 69 5 76

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 21, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
15	1154	7.42	843	28.84	3.89	-52.8	-	386
23								
31								
38								
46								
53								
61								
69								
76								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 11:50:00 Dup Sample Time: N:/A Time Ended: 11:53:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

GAC Treatment Investigation Duplicate

Comments:

JM

Correction Factor 0.41



CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 0.92

Well Name: R-031A

Project: Price Service Center

Date: Mar 21, 2016

Field Personnel: KV/JM

Weather: SUNNY/HOT

Static Water Level: 97.39

Time 11:23:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Pump

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 15 1.5 22 2 30 2.5 37 3 44 3.5 52 4 59 4.5 66 5 74

Pump Time: Start _____

Meters and Type: _____ YSI#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 21, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
15	1131	7.40	673	29.44	4.53	-72.2	-	66
22								
30								
37								
44								
52								
59								
66								
74								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 11:28:00 Dup Sample Time: N:/A Time Ended: 11:30:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

Jm

Correction Factor 0.5



CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 0.96

Well Name: R-033A

Project: Price Service Center

Date: Mar 18, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 96.39

Time 8:32:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 15 1.5 23 2 31 2.5 39 3 46 3.5 54 4 62 4.5 69 5 77

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 18, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
15	0844	7.25	314	25.42	3.51	-58.6	-	106
23								
31								
39								
46								
54								
62								
69								
77								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 8:40:00 Dup Sample Time: N/A Time Ended: 8:43:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 18, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

GAC Treatment Investigation Duplicate

Comments:

Jm

Correction Factor 0.54



HP BAIL
TD 120
D (diameter) 4
d factor 0.58

Well Name: R-034A

Project: Price Service Center

Date: Mar 22, 2016

Field Personnel: KV/JM

Weather: SUNNY/HOT

Static Water Level: 105.90

Time 10:05:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 9 1.5 14 2 18 2.5 23 3 28 3.5 32 4 37 4.5 41 5 46

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 22, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
9	1013	7.66	975	29.22	4.41	-86.0	-	14.4
14								
18								
23								
28								
32								
37								
41								
46								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:10:00 Dup Sample Time: N:/A Time Ended: 10:12:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
GAC Treatment Investigation Duplicate

Comments: Strong gas odor. Minimal gas snot.

Handwritten initials

Correction Factor 0.37



**CITY OF
TUCSON**
Environmental Services
Sampling Data Form

HP BAIL
TD _____
D (diameter) _____
d factor _____

Well Name: R-035A

Project: Price Service Center

Date: Mar 18, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 97.18

Time 9:15:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 _____ 1.5 _____ 2 _____ 2.5 _____ 3 _____ 3.5 _____ 4 _____ 4.5 _____ 5 _____

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 YSI QS

End _____

Total (min) 0

Calibration Date: March 18, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv.

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
	0924	7.77	321	27.85	4.97	-15.9	-	28.4

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:20:00 Dup Sample Time: N/A Time Ended: 9:23:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 18, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual Annual

GAC Treatment Investigation Duplicate

Comments:

Handwritten initials

Correction Factor 0.67



HP BAIL
TD 120
D (diameter) 4
d factor 0.87

Well Name: R-036A

Project: Price Service Center

Date: Mar 22, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 98.58

Time 9:24:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 14 1.5 21 2 28 2.5 35 3 42 3.5 49 4 56 4.5 63 5 70

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 22, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
14	0933	7.78	812	26.72	5.25	156.2	-	19.4
21								
28								
35								
42								
49								
56								
63								
70								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:30:00 Dup Sample Time: N/A Time Ended: 9:32:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

Jm

Correction Factor 0.87



HP BAIL
TD 120
D (diameter) 4
d factor 0.93

Well Name: R-037A

Project: Price Service Center

Date: Mar 23, 2016

Field Personnel: KV/JM

Weather: SUNNY/COOL

Static Water Level: 97.09

Time 9:12:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 15 1.5 22 2 30 2.5 37 3 45 3.5 52 4 60 4.5 67 5 75

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 23, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
15	0924	7.53	639	26.07	4.34	-48.0	-	37.1
22								
30								
37								
45								
52								
60								
67								
75								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:20:00 Dup Sample Time: N/A Time Ended: 9:24:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 23, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

GAC Treatment Investigation Duplicate

Comments:

[Empty box for comments]

Jm 22-16

Correction Factor 0.02



HP BAIL
TD 115
D (diameter) 4
d factor 0.51

Well Name: R-044A

Project: Price Service Center

Date: Mar 23, 2016

Field Personnel: KV/JM

Weather: SUNNY/WINDY

Static Water Level: 102.38

Time 11:06:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 8 1.5 12 2 16 2.5 21 3 25 3.5 29 4 33 4.5 37 5 41

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 23, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
8	1115	7.82	775	24.99	6.34	161.7	-	12.4
12								
16								
21								
25								
29								
33								
37								
41								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 11:12:00 Dup Sample Time: N/A Time Ended: 11:15:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 23, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
GAC Treatment Investigation Duplicate

Comments:

JM

Correction Factor 0.21



HP BAIL
TD 120
D (diameter) 4
d factor 0.97

Well Name: R-045A

Project: Price Service Center

Date: Mar 23, 2016

Field Personnel: KV/JM

Weather: SUNNY/WINDY

Static Water Level: 96.26

Time 11:28:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 15 1.5 23 2 31 2.5 39 3 46 3.5 54 4 62 4.5 70 5 77

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 23, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
15	1138	7.90	571	23.23	5.58	161.3	-	4.73
23								
31								
39								
46								
54								
62								
70								
77								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 11:35:00 Dup Sample Time: N:/A Time Ended: 11:38:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 23, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
GAC Treatment Investigation Duplicate

Comments:

JM

Correction Factor 0.41



HP BAIL
TD 120
D (diameter) 4
d factor 0.74

Well Name: R-046A

Project: Price Service Center

Date: Mar 24, 2016

Field Personnel: KV/JM

Weather: SUNNY/HOT

Static Water Level: 101.90

Time 11:51:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 12 1.5 18 2 24 2.5 30 3 35 3.5 41 4 47 4.5 53 5 59

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 24, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
12	1204	7.76	1516	24.36	6.20	122.0	-	32.1
18								
24								
30								
35								
41								
47								
53								
59								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 12:00:00 Dup Sample Time: N:/A Time Ended: 12:13:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 24, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

GAC Treatment Investigation Duplicate

Comments:

[Empty box for comments]

JM
3/24/16

Correction Factor 0.64



HP BAIL
TD _____
D (diameter) _____
d factor _____

Well Name: R-047A

Project: Price Service Center

Date: Mar 23, 2016

Field Personnel: KV/JM

Weather: SUNNY/COOL

Static Water Level: 97.89

Time 9:41:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 _____ 1.5 _____ 2 _____ 2.5 _____ 3 _____ 3.5 _____ 4 _____ 4.5 _____ 5 _____

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 YSI QS

End _____

Total (min) 0

Calibration Date: March 23, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
	0952	8.03	653	27.60	3.49	58.6	-	145

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:48:00 Dup Sample Time: N/A Time Ended: 9:51:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 23, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual Annual

GAC Treatment Investigation Duplicate

Comments: Strong gas odor. Gas snot present.

Jm 03/23/16

Correction Factor 1.17



**CITY OF
TUCSON**
Environmental Services
Sampling Data Form

HP BAIL
TD 125
D (diameter) 4
d factor 1.18

Well Name: R-048A

Project: Price Service Center

Date: Mar 21, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 96.19

Time 8:54:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Pump

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 19 1.5 28 2 38 2.5 47 3 56 3.5 66 4 75 4.5 85 5 94

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 21, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
19	0904	8.04	856	25.11	4.30	93.9	-	15.7
28								
38								
47								
56								
66								
75								
85								
94								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:00:00 Dup Sample Time: N/A Time Ended: 9:03:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

Jm

Correction Factor 0.37



CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 115
D (diameter) 4
d factor 0.77

Well Name: R-049A

Project: Price Service Center

Date: Mar 21, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 96.14

Time 9:38:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 12 1.5 18 2 25 2.5 31 3 37 3.5 43 4 49 4.5 55 5 62

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 YSI QS

End _____

Total (min) 0

Calibration Date: March 21, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
12	0949	7.39	1422	28.02	4.10	72.8	-	10.3
18								
25								
31								
37								
43								
49								
55								
62								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:45:00 Dup Sample Time: N/A Time Ended: 9:48:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual Annual

GAC Treatment Investigation Duplicate

Comments:

JM

Correction Factor 0.39



HP BAIL
TD 125
D (diameter) 4
d factor 1.17

Well Name: R-050A

Project: Price Service Center

Date: Mar 22, 2016

Field Personnel: KV/JM

Weather: SUNNY/HOT

Static Water Level: 96.44

Time 10:50:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 19 1.5 28 2 37 2.5 47 3 56 3.5 65 4 75 4.5 84 5 93

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 22, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
19	1104	7.64	709	25.96	4.43	-51.6	-	20.9
28								
37								
47								
56								
65								
75								
84								
93								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:55:00 Dup Sample Time: 11:00:00 Time Ended: 11:04:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation X Duplicate

Comments: Gas snot present, strong gas odor.

Correction Factor _____



HP BAIL
TD 125
D (diameter) 4
d factor 0.67

Well Name: R-051A

Project: Price Service Center

Date: Mar 22, 2016

Field Personnel: KV/JM

Weather: SUNNY/HOT

Static Water Level: 108.55

Time 10:28:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 11 1.5 16 2 21 2.5 27 3 32 3.5 38 4 43 4.5 48 5 54

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 22, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
11	1039	7.44	1126	25.09	5.12	-92.9	-	86.8
16								
21								
27								
32								
38								
43								
48								
54								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:35:00 Dup Sample Time: N/A Time Ended: 10:38:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

JM

Correction Factor _____



CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 6
d factor 1.80

Well Name: R-098A

Project: Price Service Center

Date: Mar 22, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 100.38

Time 9:39:00

Totalizer: _____ End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 29 1.5 43 2 58 2.5 72 3 86 3.5 101 4 115 4.5 130 5 144

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 22, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
29	0943	7.60	622	27.23	4.65	-11.4	-	N/A
43								
58								
72								
86								
101								
115								
130								
144								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:40:00 Dup Sample Time: N/A Time Ended: 9:43:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

GAC Treatment Investigation Duplicate

Comments: Strong gas odor. No gas snot present.

Correction Factor 0.63



HP BAIL
TD 121
D (diameter) 4
d factor 1.02

Well Name: R-099A

Project: Price Service Center

Date: Mar 21, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 95.95

Time 9:12:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 16 1.5 25 2 33 2.5 41 3 49 3.5 57 4 65 4.5 74 5 82

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 YSI QS

End _____

Total (min) 0

Calibration Date: March 21, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
16	0921	7.42	1503	25.44	3.23	-105.7	-	7.27
25								
33								
41								
49								
57								
65								
74								
82								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:18:00 Dup Sample Time: N/A Time Ended: 9:20:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual Annual

GAC Treatment Investigation Duplicate

Comments:

JM

Correction Factor -0.32



HP BAIL
TD 120
D (diameter) 4
d factor 0.98

Well Name: WR-208A

Project: Price Service Center

Date: Mar 30, 2016

Field Personnel: KV/KM

Weather: SUNNY/WARM

Static Water Level: 96.02

Time 10:00:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 16 1.5 23 2 31 2.5 39 3 47 3.5 55 4 63 4.5 70 5 78

Pump Time: Start _____

Meters and Type: YS#1 YSI#2 YSI QS

End _____

Total (min) 0

Calibration Date: March 30, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
16	1013	7.84	716	25.22	7.02	151.6	0.00	4.48
23								
31								
39								
47								
55								
63								
70								
78								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:10:00 Dup Sample Time: N:/A Time Ended: 10:12:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 30, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual Annual
GAC Treatment Investigation Duplicate

Comments:

Correction Factor -0.29



HP BAIL
TD 120
D (diameter) 4
d factor 0.81

Well Name: WR-209A

Project: Price Service Center

Date: Mar 30, 2016

Field Personnel: KV/KM

Weather: SUNNY/WARM

Static Water Level: 100.25

Time 10:47:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 13 1.5 19 2 26 2.5 32 3 39 3.5 45 4 52 4.5 58 5 64

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 30, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
13	1059	7.67	1676	24.10	5.56	206.6	-	4.71
19								
26								
32								
39								
45								
52								
58								
64								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:55:00 Dup Sample Time: N/A Time Ended: 10:58:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 30, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

Correction Factor -0.74



HP BAIL
TD 120
D (diameter) 4
d factor 0.76

Well Name: WR-210A

Project: Price Service Center

Date: Mar 29, 2016

Field Personnel: KV/JM

Weather: CLOUDY/WINDY

Static Water Level: 101.45

Time 10:05:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 12 1.5 18 2 24 2.5 30 3 36 3.5 42 4 48 4.5 54 5 61

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YS#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 29, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
12	1024	1.40	11990	26.62	8.50	519.2	-	18.9
18								
24								
30								
36								
42								
48								
54								
61								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:20:00 Dup Sample Time: N/A Time Ended: 10:23:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 29, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
GAC Treatment Investigation Duplicate

Comments:

Correction Factor -0.38



HP BAIL
TD 120
D (diameter) 4
d factor 0.81

Well Name: WR-211A

Project: Price Service Center

Date: Mar 31, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 100.07

Time 9:35:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 13 1.5 20 2 26 2.5 33 3 39 3.5 46 4 52 4.5 59 5 65

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 31, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
13	0945	7.84	1203	23.13	6.10	132.3	-	59.4
20								
26								
33								
39								
46								
52								
59								
65								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:42:00 Dup Sample Time: N:/A Time Ended: 9:45:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 31, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.22



HP BAIL
TD 120
D (diameter) 4
d factor 0.94

Well Name: WR-212A

Project: Price Service Center

Date: Mar 22, 2016

Field Personnel: KV/JM

Weather: SUNNY/HOT

Static Water Level: 97.05

Time 11:12:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons): _____ Discharge Rate(GPM): _____

1 15 1.5 22 2 30 2.5 37 3 45 3.5 52 4 60 4.5 67 5 75

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 22, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
15	1122	7.87	891	26.84	5.12	-73.0	-	6.18
22								
30								
37								
45								
52								
60								
67								
75								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 11:18:00 Dup Sample Time: N/A Time Ended: 11:22:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 22, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

GAC Treatment Investigation Duplicate

Comments:

Correction Factor -0.13



CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 0.94

Well Name: WR-213A

Project: Price Service Center

Date: Mar 25, 2016

Field Personnel: KV/JM

Weather: SUNNY/COOL

Static Water Level: 96.88

Time 8:24:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 15 1.5 23 2 30 2.5 38 3 45 3.5 53 4 60 4.5 68 5 75

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 25, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
15	0834	8.75	832	23.40	6.43	106.9	-	12.2
23								
30								
38								
45								
53								
60								
68								
75								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 8:30:00 Dup Sample Time: N:/A Time Ended: 8:34:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 25, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
 GAC Treatment Investigation Duplicate

Comments:

JM

Correction Factor -0.57



HP BAIL
TD 120
D (diameter) 4
d factor 0.54

Well Name: WR-214A

Project: Price Service Center

Date: Mar 24, 2016

Field Personnel: KV/JM

Weather: SUNNY/HOT

Static Water Level: 106.80

Time 11:35:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 9 1.5 13 2 17 2.5 22 3 26 3.5 30 4 34 4.5 39 5 43

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 24, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
9	1148	7.98	962	25.69	5.38	115.6	-	22.4
13								
17								
22								
26								
30								
34								
39								
43								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 11:45:00 Dup Sample Time: N/A Time Ended: 11:48:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 24, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

Handwritten initials and date

Correction Factor -0.57



CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 0.71

Well Name: WR-215A

Project: Price Service Center

Date: Mar 24, 2016

Field Personnel: KV/JM

Weather: SUNNY/CLEAR

Static Water Level: 102.55

Time 10:35:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 11 1.5 17 2 23 2.5 28 3 34 3.5 40 4 46 4.5 51 5 57

Pump Time: Start

Meters and Type: YS#1 YSI#2 YSI QS

End

Total (min) 0

Calibration Date: March 24, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
11	1044	6.88	6688	26.63	4.80	-84.4	-	66.8
17								
23								
28								
34								
40								
46								
51								
57								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:40:00 Dup Sample Time: N:/A Time Ended: 10:44:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 24, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual Annual

 GAC Treatment Investigation Duplicate

Comments: Strong gas odor, sample brown in color.

Correction Factor -0.63



HP BAIL
TD 194
D (diameter) 4
d factor 3.12

Well Name: WR-216A

Project: Price Service Center

Date: Mar 30, 2016

Field Personnel: KV/KM

Weather: SUNNY/WARM

Static Water Level: 117.64

Time 10:25:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 50 1.5 75 2 100 2.5 125 3 150 3.5 174 4 199 4.5 224 5 249

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 30, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
50	1034	7.87	775	24.67	6.94	170.9	-	1.77
75								
100								
125								
150								
174								
199								
224								
249								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:30:00 Dup Sample Time: N/A Time Ended: 10:33:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 30, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

GAC Treatment Investigation Duplicate

Comments:

Correction Factor -0.49



HP BAIL
TD 190
D (diameter) 4
d factor 2.98

Well Name: WR-217A

Project: Price Service Center

Date: Mar 24, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 117.05

Time 10:50:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 48 1.5 71 2 95 2.5 119 3 143 3.5 167 4 190 4.5 214 5 238

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 24, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
48	1100	7.69	1038	26.00	7.10	-24.9	-	7.98
71								
95								
119								
143								
167								
190								
214								
238								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:55:00 Dup Sample Time: N/A Time Ended: 10:59:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 24, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

JM
24/16

Correction Factor -0.4



HP BAIL
TD 194
D (diameter) 4
d factor 3.07

Well Name: WR-218A

Project: Price Service Center

Date: Mar 25, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 118.75

Time 8:37:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 49 1.5' 74 2 98 2.5 123 3 147 3.5 172 4 196 4.5 221 5 246

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 25, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
49	0849	7.91	792	22.51	5.27	130.3	-	7.75
74								
98								
123								
147								
172								
196								
221								
246								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 8:45:00 Dup Sample Time: N/A Time Ended: 8:49:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 25, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
GAC Treatment Investigation Duplicate

Comments:

KV

Correction Factor 0.66



HP BAIL
TD 122
D (diameter) 4
d factor 0.73

Well Name: WR-219A

Project: Price Service Center

Date: Mar 31, 2016

Field Personnel: KV/JM

Weather: PARTLY CLOUDY

Static Water Level: 104.14

Time 9:15:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 12 1.5 17 2 23 2.5 29 3 35 3.5 41 4 47 4.5 52 5 58

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 31, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
12	0925	7.55	1592	23.79	4.82	-42.5	-	34.9
17								
23								
29								
35								
41								
47								
52								
58								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:22:00 Dup Sample Time: N/A Time Ended: 9:24:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 31, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
 GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.41



HP BAIL
TD 120
D (diameter) 4
d factor 0.24

Well Name: WR-221A

Project: Price Service Center

Date: Mar 31, 2016

Field Personnel: KV/JM

Weather: PARTLY CLOUDY

Static Water Level: 114.14

Time 8:42:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 4 1.5 6 2 8 2.5 10 3 11 3.5 13 4 15 4.5 17 5 19

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 31, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
4	0851	8.41	663	23.39	6.83	149.9	-	1.54
6								
8								
10								
11								
13								
15								
17								
19								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 8:48:00 Dup Sample Time: N/A Time Ended: 8:50:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 31, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.39



HP BAIL
TD 111.5
D (diameter) 4
d factor 0.77

Well Name: WR-222A

Project: Price Service Center

Date: Mar 30, 2016

Field Personnel: KV/KM

Weather: SUNNY/WARM

Static Water Level: 92.67

Time 9:40:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 12 1.5 18 2 25 2.5 31 3 37 3.5 43 4 49 4.5 55 5 61

Pump Time: Start _____

Meters and Type: YS#1 YSI#2 YSI QS

End _____

Total (min) 0

Calibration Date: March 30, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
12	0945	7.31	964	24.54	5.92	143.3	-	4.79
18								
25								
31								
37								
43								
49								
55								
61								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:42:00 Dup Sample Time: N/A Time Ended: 9:45:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 30, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual Annual
GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.41



HP BAIL
TD 120
D (diameter) 4
d factor 0.54

Well Name: WR-223A

Project: Price Service Center

Date: Mar 23, 2016

Field Personnel: KV/JM

Weather: SUNY/WINDY

Static Water Level: 106.78

Time 10:32:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 9 1.5 13 2 17 2.5 22 3 26 3.5 30 4 35 4.5 39 5 43

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 YSI QS

End _____

Total (min) 0

Calibration Date: March 23, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
9	1044	7.83	659	24.63	5.62	120.6	-	6.71
13								
17								
22								
26								
30								
35								
39								
43								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:40:00 Dup Sample Time: N/A Time Ended: 10:43:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 23, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual Annual
GAC Treatment Investigation Duplicate

Comments:

Correction Factor 0.12



CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 115
D (diameter) 4
d factor 0.69

Well Name: WR-224A

Project: Price Service Center

Date: Mar 18, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 98.05

Time 9:40:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 11 1.5 17 2 22 2.5 28 3 33 3.5 39 4 44 4.5 50 5 55

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 18, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
11	0952	7.64	575	30.30	2.85	-196.4	-	7.78
17								
22								
28								
33								
39								
44								
50								
55								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:48:00 Dup Sample Time: N/A Time Ended: 9:52:00

Transferred To: Relinquished by: Relinquish Date:

Reason for Sampling: Monthly Quarterly Semi-Annual Annual

 GAC Treatment Investigation Duplicate

Comments:

JM

Correction Factor 1.07



HP BAIL
TD 125
D (diameter) 4
d factor 0.21

Well Name: WR-225A

Project: Price Service Center

Date: Mar 31, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 119.85

Time 8:15:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 3 1.5 5 2 7 2.5 8 3 10 3.5 12 4 13 4.5 15 5 17

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 31, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
3	0826	8.81	1414	22.60	5.56	24.7	-8.81	50.2
5								
7								
8								
10								
12								
13								
15								
17								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 8:23:00 Dup Sample Time: N/A Time Ended: 8:25:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 31, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments: Some gas snot present.

Correction Factor 0.69



HP BAIL
TD 191
D (diameter) 4
d factor 1.59

Well Name: WR-227A

Project: Price Service Center

Date: Mar 30, 2016

Field Personnel: KV/KM

Weather: SUNNY/WARM

Static Water Level: 152.14

Time 9:20:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 25 1.5 38 2 51 2.5 63 3 76 3.5 89 4 101 4.5 114 5 127

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 30, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
25	0934	7.61	1645	22.84	4.68	-80.4	-	15.9
38								
51								
63								
76								
89								
101								
114								
127								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:30:00 Dup Sample Time: N:/A Time Ended: 9:33:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 30, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

Correction Factor -0.49



HP BAIL
TD 189
D (diameter) 4
d factor 2.93

Well Name: WR-228A

Project: Price Service Center

Date: Mar 23, 2016

Field Personnel: KV/JM

Weather: SUNNY/WINDY

Static Water Level: 117.20

Time 11:52:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 47 1.5 70 2 94 2.5 117 3 141 3.5 164 4 187 4.5 211 5 234

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 23, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
47	1203	8.55	377	24.17	5.23	89.7	-	125
70								
94								
117								
141								
164								
187								
211								
234								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 11:58:00 Dup Sample Time: 12:00:00 Time Ended: 12:03:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 23, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation X Duplicate

Comments: SAMPLE WAS DARK BROWN IN COLOR, NO GAS SNOT.

JM 03/23/16

Correction Factor 0.33



HP BAIL
TD 190
D (diameter) 4
d factor 2.91

Well Name: WR-229A

Project: Price Service Center

Date: Mar 23, 2016

Field Personnel: KV/JM

Weather: SUNNY/COOL

Static Water Level: 118.70

Time 8:45:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 47 1.5 70 2 93 2.5 116 3 140 3.5 163 4 186 4.5 209 5 233

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 23, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
47	0855	10.21	368	26.56	3.25	-11.6	-	29.4
70								
93								
116								
140								
163								
186								
209								
233								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 8:52:00 Dup Sample Time: N:/A Time Ended: 8:54:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 23, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
GAC Treatment Investigation Duplicate

Comments:

M
3-23-16

Correction Factor 0.81



HP BAIL
TD 192
D (diameter) 4
d factor 2.94

Well Name: WR-230A

Project: Price Service Center

Date: Mar 31, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 119.87

Time 8:25:00

Totalizer: End _____

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal) _____

Well Volumes (gallons):

Discharge Rate(GPM): _____

1 47 1.5 71 2 94 2.5 118 3 141 3.5 165 4 188 4.5 212 5 235

Pump Time: Start _____

Meters and Type: _____ YS#1 _____ YSI#2 X YSI QS

End _____

Total (min) 0

Calibration Date: March 31, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
47	0833	8.69	427	23.86	4.70	62.2	-	31.8
71								
94								
118								
141								
165								
188								
212								
235								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 8:30:00 Dup Sample Time: N/A Time Ended: 8:32:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 31, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual Annual
GAC Treatment Investigation Duplicate

Comments: Strong gas odor.

Correction Factor 0.92



HP BAIL
TD 192
D (diameter) 4
d factor 2.67

Well Name: WR-231A

Project: Price Service Center

Date: Mar 25, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 126.47

Time 8:55:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 43 1.5 64 2 86 2.5 107 3 128 3.5 150 4 171 4.5 192 5 214

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 25, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
43	0910	8.97	512	23.90	5.04	79.6	-	36.7
64								
86								
107								
128								
150								
171								
192								
214								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:05:00 Dup Sample Time: N:/A Time Ended: 9:09:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 25, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
 GAC Treatment Investigation Duplicate

Comments:

M
3-25-16

Correction Factor -0.61



HP BAIL
TD 192
D (diameter) 4
d factor 2.84

Well Name: WR-232A

Project: Price Service Center

Date: Mar 31, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 122.42

Time 10:48:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 45 1.5 68 2 91 2.5 114 3 136 3.5 159 4 182 4.5 204 5 227

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 31, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
45	1105	8.15	380	25.21	5.83	260.2	-	79.4
68								
91								
114								
136								
159								
182								
204								
227								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 10:55:00 Dup Sample Time: 11:00:00 Time Ended: 11:04:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 31, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation X Duplicate

Comments: Well box must be fixed.

Correction Factor 0.57



HP BAIL
TD 191
D (diameter) 4
d factor 1.87

Well Name: WR-233A

Project: Price Service Center

Date: Mar 30, 2016

Field Personnel: KV/JM

Weather: SUNNY/COOL

Static Water Level: 145.25

Time 9:00:00

Totalizer: End

Sounder ID: HER 1

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 30 1.5 45 2 60 2.5 75 3 90 3.5 105 4 119 4.5 134 5 149

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 30, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
30	0850	9.90	292	21.45	5.44	4.4	-	10.6
45								
60								
75								
90								
105								
119								
134								
149								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 8:45:00 Dup Sample Time: N/A Time Ended: 8:49:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 30, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
 GAC Treatment Investigation Duplicate

Comments: Use regular sounder. Black tar in well which causes false water level measurements with INT A. Well needs a cap.

Correction Factor 0.84



**Environmental Services
Sampling Data Form**

HP BAIL
TD 192
D (diameter) 4
d factor 1.89

Well Name: WR-235A

Project: Price Service Center

Date: Mar 25, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 145.75

Time 9:20:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 30 1.5 45 2 60 2.5 75 3 91 3.5 106 4 121 4.5 136 5 151

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 25, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
30	0939	8.70	303	24.44	6.29	73.1	-	193
45								
60								
75								
91								
106								
121								
136								
151								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 9:32:00 Dup Sample Time: 9:35:00 Time Ended: 9:38:00

Transferred To: Accutest Relinquished by: Kayla Virgone Relinquish Date: March 25, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual
 GAC Treatment Investigation X Duplicate

Comments: Water was a copper color and dirt particles were present.

Handwritten signature and date: KV 3-25-16

Correction Factor 1.02



HP BAIL
TD 140
D (diameter) 3
d factor 0.92

Well Name: WR-296A

Project: Price Service Center

Date: Mar 24, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 99.82

Time 11:05:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 15 1.5 22 2 30 2.5 37 3 44 3.5 52 4 59 4.5 66 5 74

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 24, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
15	1115	7.28	795	27.65	4.27	62.8	-	21.2
22								
30								
37								
44								
52								
59								
66								
74								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 11:12:00 Dup Sample Time: N/A Time Ended: 11:15:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 24, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

[Empty box for comments]

JM 3/24/16

Correction Factor 0.39



HP BAIL
TD 120
D (diameter) 4
d factor 0.81

Well Name: WR-298A

Project: Price Service Center

Date: Mar 24, 2016

Field Personnel: KV/JM

Weather: SUNNY/WARM

Static Water Level: 100.20

Time 11:20:00

Totalizer: End

Sounder ID: INT A

Start 0

Sample Method: Bail

Total (gal)

Well Volumes (gallons):

Discharge Rate(GPM):

1 13 1.5 19 2 26 2.5 32 3 39 3.5 45 4 52 4.5 58 5 65

Pump Time: Start

Meters and Type: YS#1 YSI#2 X YSI QS

End

Total (min) 0

Calibration Date: March 24, 2016

Parameters (Stable within) +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (uS/cm)	Temp (C)	DO (mg/L)	ORP	PWL (feet)	Turbidity (NTU)
13	1132	7.44	738	27.30	5.17	86.8	-	2.9
19								
26								
32								
39								
45								
52								
58								
65								

Sampling:

Samples Collected By: Kayla Virgone Sample Time: 11:28:00 Dup Sample Time: N:/A Time Ended: 11:31:00

Transferred To: Accutest Relinquished by: Javier Montante Relinquish Date: March 24, 2016

Reason for Sampling: Monthly Quarterly Semi-Annual X Annual

 GAC Treatment Investigation Duplicate

Comments:

M...

APPENDIX D

Duplicate Samples Comparison for 2016

And Laboratory Reports and Chain of Custody Information

Appendix D
Duplicate Samples Comparison for 2016

Date	Compound	Prefix	Result	Well ID		Date	Compound	Prefix	Result	Well ID	RPD %
3/29/2016 10:56	Benzene	<	1	R-013A		3/29/2016 11:00	Benzene	<	1	R-013A	0%
3/29/2016 10:56	Ethylbenzene	<	1	R-013A		3/29/2016 11:00	Ethylbenzene	<	1	R-013A	0%
3/29/2016 10:56	Methyl tert-butyl ether		84.6	R-013A		3/29/2016 11:00	Methyl tert-butyl ether		81.1	R-013A	4%
3/29/2016 10:56	Toluene	<	1	R-013A		3/29/2016 11:00	Toluene	<	1	R-013A	0%
3/29/2016 10:56	Xylene	<	2	R-013A		3/29/2016 11:00	Xylene	<	2	R-013A	0%
3/30/2016 11:48	Benzene	<	50	R-021A		3/30/2016 11:50	Benzene	<	50	R-021A	0%
3/30/2016 11:48	Ethylbenzene	<	50	R-021A		3/30/2016 11:50	Ethylbenzene	<	50	R-021A	0%
3/30/2016 11:48	Methyl tert-butyl ether		697	R-021A		3/30/2016 11:50	Methyl tert-butyl ether		773	R-021A	10%
3/30/2016 11:48	Toluene	<	50	R-021A		3/30/2016 11:50	Toluene	<	50	R-021A	0%
3/30/2016 11:48	Xylene	<	100	R-021A		3/30/2016 11:50	Xylene	<	100	R-021A	0%
3/21/2016 10:25	Benzene	<	1	R-029A		3/21/2016 10:28	Benzene	<	1	R-029A	0%
3/21/2016 10:25	Ethylbenzene	<	1	R-029A		3/21/2016 10:28	Ethylbenzene	<	1	R-029A	0%
3/21/2016 10:25	Methyl tert-butyl ether	<	1	R-029A		3/21/2016 10:28	Methyl tert-butyl ether	<	1	R-029A	0%
3/21/2016 10:25	Toluene	<	1	R-029A		3/21/2016 10:28	Toluene	<	1	R-029A	0%
3/21/2016 10:25	Xylene	<	2	R-029A		3/21/2016 10:28	Xylene	<	2	R-029A	0%
3/22/2016 10:55	Benzene		2.9	R-050A		3/22/2016 11:00	Benzene		2.4	R-050A	19%
3/22/2016 10:55	Ethylbenzene		73.2	R-050A		3/22/2016 11:00	Ethylbenzene		61	R-050A	18%
3/22/2016 10:55	Methyl tert-butyl ether		10.6	R-050A		3/22/2016 11:00	Methyl tert-butyl ether		9.6	R-050A	10%
3/22/2016 10:55	Toluene		1.8	R-050A		3/22/2016 11:00	Toluene		1.6	R-050A	12%
3/22/2016 10:55	Xylene		294	R-050A		3/22/2016 11:00	Xylene		312	R-050A	6%
3/23/2016 11:58	Benzene	<	1	WR-228A		3/23/2016 12:00	Benzene	<	1	WR-228A	0%
3/23/2016 11:58	Ethylbenzene	<	1	WR-228A		3/23/2016 12:00	Ethylbenzene	<	1	WR-228A	0%
3/23/2016 11:58	Methyl tert-butyl ether	<	1	WR-228A		3/23/2016 12:00	Methyl tert-butyl ether	<	1	WR-228A	0%
3/23/2016 11:58	Toluene	<	1	WR-228A		3/23/2016 12:00	Toluene	<	1	WR-228A	0%
3/23/2016 11:58	Xylene	<	2	WR-228A		3/23/2016 12:00	Xylene	<	2	WR-228A	0%
3/31/2016 10:55	Benzene	<	1	WR-232A		3/31/2016 11:00	Benzene	<	1	WR-232A	0%
3/31/2016 10:55	Ethylbenzene	<	1	WR-232A		3/31/2016 11:00	Ethylbenzene	<	1	WR-232A	0%
3/31/2016 10:55	Methyl tert-butyl ether	<	1	WR-232A		3/31/2016 11:00	Methyl tert-butyl ether	<	1	WR-232A	0%
3/31/2016 10:55	Toluene	<	1	WR-232A		3/31/2016 11:00	Toluene	<	1	WR-232A	0%
3/31/2016 10:55	Xylene	<	2	WR-232A		3/31/2016 11:00	Xylene	<	2	WR-232A	0%
3/25/2016 9:32	Benzene	<	1	WR-235A		3/25/2016 9:35	Benzene	<	1	WR-235A	0%
3/25/2016 9:32	Ethylbenzene	<	1	WR-235A		3/25/2016 9:35	Ethylbenzene	<	1	WR-235A	0%
3/25/2016 9:32	Methyl tert-butyl ether	<	1	WR-235A		3/25/2016 9:35	Methyl tert-butyl ether	<	1	WR-235A	0%
3/25/2016 9:32	Toluene	<	1	WR-235A		3/25/2016 9:35	Toluene	<	1	WR-235A	0%
3/25/2016 9:32	Xylene	<	2	WR-235A		3/25/2016 9:35	Xylene	<	2	WR-235A	0%

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VERIFICATION, TESTING AND CERTIFICATION COMPANY.



e-Hardcopy 2.0
Automated Report

Technical Report for

City of Tucson Environmental Services

Price Service Center

P01064

SGS Accutest Job Number: C45027

Sampling Date: 03/18/16



Report to:

City of Tucson - Env.Services
4400 S. Park Ave., Bldg 1 P.O. Box 27210
Tucson, AZ 85726
Lori.Ehman@tucsonaz.gov; richard.byrd@tucsonaz.gov;
justin.patton@cardno.com; Daniel.Stanton@tucsonaz.gov
ATTN: Lori Ehman

Total number of pages in report: 34



Test results contained within this data package meet the requirements
of the National Environmental Laboratory Accreditation Program
and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Maureen Coloma 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Test results relate only to samples analyzed.



ACCUTEST

March 31, 2016

Lori Ehman
City of Tucson – Env. Services
4400 S. Park Ave., Bldg 1 P.O. Box 27210
Tucson, AZ 85726

Re: SGS Accutest Job # C45027 Reissue

Dear Ms. Ehman,

The final report for SGS Accutest Job # **C45027**, original report dated 3/29/2016, has been edited to reflect requested corrections.

The volatiles reporting list for sample C45027-3 (*WR-224A*) has been revised as per your request. Revised data pages have been incorporated into this revised report.

Please contact us at 408-588-0200 if we can be of further assistance in this matter, or if you have any questions regarding this data report.

Sincerely,

SGS Accutest Inc.

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

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Member of the SGS Group (SGS SA)

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1

2

3

4

5

6



Sample Summary

City of Tucson Environmental Services

Job No: C45027

Price Service Center
Project No: P01064

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C45027-1	03/18/16	08:40 KV	03/19/16	AQ	Ground Water	R-033A
C45027-2	03/18/16	09:20 KV	03/19/16	AQ	Ground Water	R-035A
C45027-3	03/18/16	09:48 KV	03/19/16	AQ	Ground Water	WR-224A
C45027-4	03/18/16	10:18 KV	03/19/16	AQ	Ground Water	PCM-508A
C45027-5	03/18/16	10:30 KV	03/19/16	AQ	Ground Water	PCM-508B
C45027-6	03/18/16	00:00 KV	03/19/16	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: City of Tucson Environmental Services

Job No C45027

Site: Price Service Center

Report Date 4/1/2016 2:58:27 AM

5 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/18/2016 and were received at Accutest on 03/19/2016 properly preserved, at 2.9 Deg. C and intact. These Samples received an Accutest job number of C45027. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ	Batch ID: VU1388
-------------------	-------------------------

- Sample(s) C45027-5MS, C45027-5MSD were used as the QC samples indicated.
- RPD for BSD for Bromochloromethane exceeded laboratory acceptance limit; BS/BSR recoveries met acceptance criteria.

Matrix: AQ	Batch ID: VU1389
-------------------	-------------------------

- Sample(s) C45053-2MS, C45053-2MSD were used as the QC samples indicated.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Benzene, Ethylbenzene, Xylene (total) are outside laboratory control limits. Probable cause due to matrix interference. The associated blank spike recoveries were acceptable. Additionally, the sample spiked for the MS/MSD was not one of the samples from this SDG/work order; therefore, there are no data quality issues that affect this sample set.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C45027
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/18/16

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

C45027-1 R-033A

Ethylbenzene ^a	25.8	20	ug/l	SW846 8260B
Xylene (total) ^a	86.3	40	ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a	11400	200	ug/l	SW846 8260B

C45027-2 R-035A

Ethylbenzene ^a	106	20	ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a	10200	200	ug/l	SW846 8260B

C45027-3 WR-224A

Ethylbenzene	17.8	1.0	ug/l	SW846 8260B
n-Butylbenzene	8.1	2.0	ug/l	SW846 8260B
sec-Butylbenzene	9.3	2.0	ug/l	SW846 8260B
Isopropylbenzene	15.3	1.0	ug/l	SW846 8260B
n-Propylbenzene	46.0	2.0	ug/l	SW846 8260B

C45027-4 PCM-508A

Methyl Tert Butyl Ether ^a	8540	100	ug/l	SW846 8260B
--------------------------------------	------	-----	------	-------------

C45027-5 PCM-508B

Ethylbenzene ^a	34.7	10	ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a	4620	100	ug/l	SW846 8260B

C45027-6 TRIP BLANK

No hits reported in this sample.

(a) AZ:D2

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: R-033A	Date Sampled: 03/18/16
Lab Sample ID: C45027-1	Date Received: 03/19/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U33805.D	20	03/28/16	JC	n/a	n/a	VU1389
Run #2 ^a	U33787.D	200	03/26/16	JC	n/a	n/a	VU1388

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	20	ug/l	
108-88-3	Toluene	ND	20	ug/l	
100-41-4	Ethylbenzene	25.8	20	ug/l	
1330-20-7	Xylene (total)	86.3	40	ug/l	
1634-04-4	Methyl Tert Butyl Ether	11400 ^b	200	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%	105%	80-123%
2037-26-5	Toluene-D8	90%	95%	88-112%
460-00-4	4-Bromofluorobenzene	94%	89%	79-114%

(a) AZ:D2

(b) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: R-035A	
Lab Sample ID: C45027-2	Date Sampled: 03/18/16
Matrix: AQ - Ground Water	Date Received: 03/19/16
Method: SW846 8260B	Percent Solids: n/a
Project: Price Service Center	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U33806.D	20	03/28/16	JC	n/a	n/a	VU1389
Run #2 ^a	U33788.D	200	03/26/16	JC	n/a	n/a	VU1388

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	20	ug/l	
108-88-3	Toluene	ND	20	ug/l	
100-41-4	Ethylbenzene	106	20	ug/l	
1330-20-7	Xylene (total)	ND	40	ug/l	
1634-04-4	Methyl Tert Butyl Ether	10200 ^b	200	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%	107%	80-123%
2037-26-5	Toluene-D8	96%	97%	88-112%
460-00-4	4-Bromofluorobenzene	93%	86%	79-114%

(a) AZ:D2

(b) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WR-224A		Date Sampled: 03/18/16
Lab Sample ID: C45027-3		Date Received: 03/19/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U33789.D	1	03/26/16	JC	n/a	n/a	VU1388
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	17.8	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
67-64-1	Acetone	ND	20	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	8.1	2.0	ug/l	
135-98-8	sec-Butylbenzene	9.3	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WR-224A		Date Sampled: 03/18/16
Lab Sample ID: C45027-3		Date Received: 03/19/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	15.3	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	46.0	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-123%
2037-26-5	Toluene-D8	98%		88-112%
460-00-4	4-Bromofluorobenzene	95%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCM-508A		Date Sampled: 03/18/16
Lab Sample ID: C45027-4		Date Received: 03/19/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U33807.D	10	03/28/16	JC	n/a	n/a	VU1389
Run #2 ^a	U33790.D	100	03/26/16	JC	n/a	n/a	VU1388

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	10	ug/l	
108-88-3	Toluene	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	10	ug/l	
1330-20-7	Xylene (total)	ND	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	8540 ^b	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%	102%	80-123%
2037-26-5	Toluene-D8	96%	96%	88-112%
460-00-4	4-Bromofluorobenzene	93%	90%	79-114%

(a) AZ:D2

(b) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCM-508B	Date Sampled: 03/18/16
Lab Sample ID: C45027-5	Date Received: 03/19/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U33808.D	10	03/28/16	JC	n/a	n/a	VU1389
Run #2 ^a	U33791.D	100	03/26/16	JC	n/a	n/a	VU1388

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	10	ug/l	
108-88-3	Toluene	ND	10	ug/l	
100-41-4	Ethylbenzene	34.7	10	ug/l	
1330-20-7	Xylene (total)	ND	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4620 ^b	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%	101%	80-123%
2037-26-5	Toluene-D8	96%	97%	88-112%
460-00-4	4-Bromofluorobenzene	93%	89%	79-114%

(a) AZ:D2

(b) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

Client Sample ID: TRIP BLANK	Date Sampled: 03/18/16
Lab Sample ID: C45027-6	Date Received: 03/19/16
Matrix: AQ - Trip Blank Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	U33778.D	1	03/26/16	JC	n/a	n/a	VU1388

Run #1	Purge Volume
Run #2	10.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

4.6
4

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	03/18/16
Lab Sample ID:	C45027-6	Date Received:	03/19/16
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-123%
2037-26-5	Toluene-D8	93%		88-112%
460-00-4	4-Bromofluorobenzene	86%		79-114%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D2	Sample required dilution due to high concentration of target analyte.
M1	Matrix spike recovery was high; the associated blank spike recovery was acceptable.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

5.1
5



CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
 (408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 7759 1441 8803 Bottle Order Control #
 Accutest Quote # C45027 Accutest NC Job #: C

Client / Reporting Information		Project Information		Requested Analysis										Matrix Codes			
Company Name: <u>City of Tucson</u>		Project Name: <u>Price Service Ctr.</u>												WW- Wastewater GW- Ground Water SW- Surface Water SO- Soil OI- Oil WP- Wipe LIQ- Non-aqueous Liquid AIR DW- Drinking Water (Perchlorate Only)			
Address: <u>P.O. Box 27210</u>		Street:												LAB USE ONLY			
City: <u>TULSON</u> State: <u>AZ</u> Zip: <u>85726</u>	City:		State:														
Project Contact: <u>Lori Ehrman</u>		Project #: <u>PO 1064</u>															
Phone #: <u>520 791 3175</u>		EMAIL:															
Sampler's Name: <u>Kayla Virgone</u>		Client Purchase Order #:															
Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection			Number of preserved Bottles												
		Date	Time	Sampled by	Matrix	# of bottles	W	GW	SW	SO	OI	WP	LIQ	AIR	DW		
1	R-033A	3/18/16	0840	KV		3											
2	R-035A	3/18/16	0920	KV		3											
3	WR-224A	3/18/16	0948	KV		3											
4	PCM-508A	3/18/16	1018	KV		3											
5	PCM-508B	3/18/16	1030	KV		3											
6	TRIP BLANK					2											
Turnaround Time (Business days)		Approved By / Date:		Data Deliverable Information										Comments / Remarks			
<input type="checkbox"/> 10 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day <input type="checkbox"/> Same Day				<input type="checkbox"/> Commercial "A" - Results only <input type="checkbox"/> Commercial "B" - Results with GC summaries <input type="checkbox"/> Commercial "B+" - Results, QC, and chromatograms <input type="checkbox"/> FULL1 - Level 4 data package <input type="checkbox"/> EDF for Geotricher <input type="checkbox"/> EDD Format Provide EDF Global ID: Provide EDF Logcode:													
Emergency TIA data available VIA Lablink													Sample Custody must be documented below each time samples change possession, including courier delivery.				
Relinquished by Sampler:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:	Date Time:	Received By:	Date Time:	Received By:	Date Time:	Received By:					
1 <u>Kayla Virgone</u>	3/18/16 1250	<u>[Signature]</u>	3/18/16 1700	<u>[Signature]</u>	3/18/16 0948	<u>[Signature]</u>	3/18/16 1700	<u>[Signature]</u>	3/18/16 1700	<u>[Signature]</u>	3/18/16 1700	<u>[Signature]</u>					
3 <u>FOX</u>	3/19/16 0948	<u>[Signature]</u>		<u>[Signature]</u>													
5																	
Custody Seal #		Appropriate Bottle / Pres. Y / N		Headspace Y / N		On Ice Y / N		Cooler Temp.		Labels match Coc? Y / N		Separate Receiving Check List used: Y / N					
<u>16062</u>								<u>27/29</u>									

BTEX / MTBE
 8260
 XXXXX
 X

57

5.2
5

C45027: Chain of Custody

Page 1 of 2

SGS Accutest Sample Receipt Summary

Job Number: C45027

Client: CITY OF TUCSON

Project: PRICE SERVICE CTR

Date / Time Received: 3/19/2016 9:15:00 AM

Delivery Method: FedEx

Airbill #s: 77591441883

Cooler Temps (Initial/Adjusted): #1: (2.7/2.9)

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|----------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Therm ID: | IR1; | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

Y or N N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

C45027: Chain of Custody

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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1388-MB	U33773.D	1	03/26/16	JC	n/a	n/a	VU1388

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-3, C45027-4, C45027-5, C45027-6

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1388-MB	U33773.D	1	03/26/16	JC	n/a	n/a	VU1388

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-3, C45027-4, C45027-5, C45027-6

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	91%	80-123%
2037-26-5	Toluene-D8	98%	88-112%

Method Blank Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1388-MB	U33773.D	1	03/26/16	JC	n/a	n/a	VU1388

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-3, C45027-4, C45027-5, C45027-6

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	89% 79-114%

Method Blank Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1389-MB	U33804.D	1	03/28/16	JC	n/a	n/a	VU1389

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-4, C45027-5

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	90%	80-123%
2037-26-5	Toluene-D8	98%	88-112%
460-00-4	4-Bromofluorobenzene	88%	79-114%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1388-BS	U33770.D	1	03/26/16	JC	n/a	n/a	VU1388
VU1388-BSD	U33771.D	1	03/26/16	JC	n/a	n/a	VU1388

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-3, C45027-4, C45027-5, C45027-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	68.3	85	64.2	80	6	55-147/17
71-43-2	Benzene	20	20.3	102	19.0	95	7	76-120/10
108-86-1	Bromobenzene	20	18.3	92	17.1	86	7	80-123/10
74-97-5	Bromochloromethane	20	20.9	105	18.7	94	11* a	79-124/10
75-27-4	Bromodichloromethane	20	19.5	98	18.3	92	6	75-121/10
75-25-2	Bromoform	20	18.4	92	17.9	90	3	62-127/10
104-51-8	n-Butylbenzene	20	17.8	89	17.4	87	2	74-129/10
135-98-8	sec-Butylbenzene	20	17.4	87	17.1	86	2	75-128/11
98-06-6	tert-Butylbenzene	20	17.3	87	16.8	84	3	74-127/11
108-90-7	Chlorobenzene	20	19.7	99	19.0	95	4	79-119/10
75-00-3	Chloroethane	20	17.7	89	17.4	87	2	60-115/14
67-66-3	Chloroform	20	20.3	102	18.5	93	9	75-122/10
95-49-8	o-Chlorotoluene	20	21.3	107	19.9	100	7	76-125/12
106-43-4	p-Chlorotoluene	20	20.2	101	19.6	98	3	76-126/11
75-15-0	Carbon disulfide	20	14.3	72	13.5	68	6	51-130/13
56-23-5	Carbon tetrachloride	20	20.3	102	19.8	99	2	72-128/13
75-34-3	1,1-Dichloroethane	20	20.4	102	18.7	94	9	70-121/10
75-35-4	1,1-Dichloroethylene	20	18.4	92	17.4	87	6	62-125/13
563-58-6	1,1-Dichloropropene	20	19.3	97	18.8	94	3	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	20	16.3	82	16.0	80	2	64-129/11
106-93-4	1,2-Dibromoethane	20	19.8	99	19.2	96	3	81-124/10
107-06-2	1,2-Dichloroethane	20	20.9	105	19.5	98	7	74-122/10
78-87-5	1,2-Dichloropropane	20	20.6	103	19.3	97	7	75-123/10
142-28-9	1,3-Dichloropropane	20	20.8	104	20.1	101	3	81-127/11
594-20-7	2,2-Dichloropropane	20	18.8	94	17.9	90	5	66-130/12
124-48-1	Dibromochloromethane	20	18.8	94	18.2	91	3	76-124/10
75-71-8	Dichlorodifluoromethane	20	13.5	68	13.1	66	3	26-163/26
156-59-2	cis-1,2-Dichloroethylene	20	20.8	104	18.9	95	10	75-128/10
10061-01-5	cis-1,3-Dichloropropene	20	20.1	101	19.0	95	6	76-131/10
541-73-1	m-Dichlorobenzene	20	17.9	90	17.1	86	5	79-121/10
95-50-1	o-Dichlorobenzene	20	18.2	91	17.2	86	6	79-120/10
106-46-7	p-Dichlorobenzene	20	18.1	91	17.3	87	5	79-120/10
156-60-5	trans-1,2-Dichloroethylene	20	17.7	89	16.5	83	7	67-116/11
10061-02-6	trans-1,3-Dichloropropene	20	19.4	97	18.5	93	5	73-125/10
100-41-4	Ethylbenzene	20	19.6	98	19.1	96	3	78-123/10
637-92-3	Ethyl Tert Butyl Ether	20	19.4	97	17.8	89	9	75-126/11

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1388-BS	U33770.D	1	03/26/16	JC	n/a	n/a	VU1388
VU1388-BSD	U33771.D	1	03/26/16	JC	n/a	n/a	VU1388

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-3, C45027-4, C45027-5, C45027-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	74.1	93	73.3	92	1	71-145/12
87-68-3	Hexachlorobutadiene	20	17.8	89	17.6	88	1	70-130/12
98-82-8	Isopropylbenzene	20	19.2	96	18.9	95	2	77-125/10
99-87-6	p-Isopropyltoluene	20	17.4	87	17.0	85	2	76-126/10
108-10-1	4-Methyl-2-pentanone	80	73.9	92	70.8	89	4	70-142/11
74-83-9	Methyl bromide	20	17.4	87	16.4	82	6	65-124/13
74-87-3	Methyl chloride	20	19.7	99	18.2	91	8	47-143/20
74-95-3	Methylene bromide	20	21.4	107	20.0	100	7	80-125/10
75-09-2	Methylene chloride	20	19.9	100	18.0	90	10	65-124/15
78-93-3	Methyl ethyl ketone	80	70.1	88	66.6	83	5	66-145/12
1634-04-4	Methyl Tert Butyl Ether	20	18.1	91	16.7	84	8	73-120/10
91-20-3	Naphthalene	20	17.9	90	18.8	94	5	66-120/12
103-65-1	n-Propylbenzene	20	17.3	87	16.8	84	3	75-125/10
100-42-5	Styrene	20	19.4	97	18.5	93	5	73-126/10
75-65-0	Tert-Butyl Alcohol	100	92.3	92	87.2	87	6	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	20	19.9	100	19.0	95	5	79-126/10
71-55-6	1,1,1-Trichloroethane	20	19.8	99	18.7	94	6	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	20	18.9	95	18.2	91	4	78-127/10
79-00-5	1,1,2-Trichloroethane	20	20.7	104	20.0	100	3	79-122/10
87-61-6	1,2,3-Trichlorobenzene	20	18.8	94	19.3	97	3	70-128/12
96-18-4	1,2,3-Trichloropropane	20	16.5	83	16.1	81	2	66-127/10
120-82-1	1,2,4-Trichlorobenzene	20	18.4	92	18.0	90	2	72-125/11
95-63-6	1,2,4-Trimethylbenzene	20	17.6	88	16.9	85	4	76-124/10
108-67-8	1,3,5-Trimethylbenzene	20	17.5	88	16.9	85	3	79-130/10
127-18-4	Tetrachloroethylene	20	19.1	96	19.0	95	1	72-124/13
108-88-3	Toluene	20	19.3	97	18.7	94	3	78-121/10
79-01-6	Trichloroethylene	20	19.9	100	19.1	96	4	75-119/10
75-69-4	Trichlorofluoromethane	20	18.4	92	18.7	94	2	68-130/19
75-01-4	Vinyl chloride	20	19.5	98	18.8	94	4	57-137/18
1330-20-7	Xylene (total)	60	58.2	97	56.4	94	3	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	98%	92%	80-123%
2037-26-5	Toluene-D8	95%	95%	88-112%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1388-BS	U33770.D	1	03/26/16	JC	n/a	n/a	VU1388
VU1388-BSD	U33771.D	1	03/26/16	JC	n/a	n/a	VU1388

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-3, C45027-4, C45027-5, C45027-6

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	97%	95%	79-114%

(a) RPD exceeded laboratory acceptance limit; BS/BSD recoveries met acceptance criteria. AZ:R7

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1389-BS	U33801.D	1	03/28/16	JC	n/a	n/a	VU1389
VU1389-BSD	U33802.D	1	03/28/16	JC	n/a	n/a	VU1389

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-4, C45027-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	19.3	97	18.9	95	2	76-120/10
100-41-4	Ethylbenzene	20	18.8	94	18.5	93	2	78-123/10
108-88-3	Toluene	20	18.6	93	18.4	92	1	78-121/10
1330-20-7	Xylene (total)	60	55.5	93	55.0	92	1	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	94%	93%	80-123%
2037-26-5	Toluene-D8	93%	94%	88-112%
460-00-4	4-Bromofluorobenzene	94%	95%	79-114%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1388-LCS	U33772.D	1	03/26/16	JC	n/a	n/a	VU1388

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-3, C45027-4, C45027-5, C45027-6

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
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CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	98%	88-112%
460-00-4	4-Bromofluorobenzene	91%	79-114%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1389-LCS	U33803.D	1	03/28/16	JC	n/a	n/a	VU1389

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-4, C45027-5

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
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CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	91%	80-123%
2037-26-5	Toluene-D8	96%	88-112%
460-00-4	4-Bromofluorobenzene	90%	79-114%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45027-5MS	U33793.D	100	03/26/16	JC	n/a	n/a	VU1388
C45027-5MSD	U33794.D	100	03/26/16	JC	n/a	n/a	VU1388
C45027-5 ^a	U33791.D	100	03/26/16	JC	n/a	n/a	VU1388

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-3, C45027-4, C45027-5, C45027-6

CAS No.	Compound	C45027-5		MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
		ug/l	Q								
67-64-1	Acetone	ND		8000	6930	87	8000	6900	86	0	55-147/17
71-43-2	Benzene	ND		2000	1970	99	2000	1990	100	1	76-120/10
108-86-1	Bromobenzene	ND		2000	1820	91	2000	1810	91	1	80-123/10
74-97-5	Bromochloromethane	ND		2000	2110	106	2000	2030	102	4	79-124/10
75-27-4	Bromodichloromethane	ND		2000	1880	94	2000	1890	95	1	75-121/10
75-25-2	Bromoform	ND		2000	1650	83	2000	1730	87	5	62-127/10
104-51-8	n-Butylbenzene	ND		2000	1660	83	2000	1710	86	3	74-129/10
135-98-8	sec-Butylbenzene	ND		2000	1640	82	2000	1690	85	3	75-128/11
98-06-6	tert-Butylbenzene	ND		2000	1640	82	2000	1710	86	4	74-127/11
108-90-7	Chlorobenzene	ND		2000	1960	98	2000	1950	98	1	79-119/10
75-00-3	Chloroethane	ND		2000	1780	89	2000	1700	85	5	60-115/14
67-66-3	Chloroform	ND		2000	1980	99	2000	1950	98	2	75-122/10
95-49-8	o-Chlorotoluene	ND		2000	1930	97	2000	1960	98	2	76-125/12
106-43-4	p-Chlorotoluene	ND		2000	1960	98	2000	1990	100	2	76-126/11
75-15-0	Carbon disulfide	ND		2000	1310	66	2000	1360	68	4	51-130/13
56-23-5	Carbon tetrachloride	ND		2000	1890	95	2000	1960	98	4	72-128/13
75-34-3	1,1-Dichloroethane	ND		2000	1980	99	2000	1970	99	1	70-121/10
75-35-4	1,1-Dichloroethylene	ND		2000	1760	88	2000	1780	89	1	62-125/13
563-58-6	1,1-Dichloropropene	ND		2000	1810	91	2000	1870	94	3	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	ND		2000	1660	83	2000	1640	82	1	64-129/11
106-93-4	1,2-Dibromoethane	ND		2000	2030	102	2000	1980	99	2	81-124/10
107-06-2	1,2-Dichloroethane	ND		2000	2040	102	2000	2030	102	0	74-122/10
78-87-5	1,2-Dichloropropane	ND		2000	2010	101	2000	2010	101	0	75-123/10
142-28-9	1,3-Dichloropropane	ND		2000	2110	106	2000	2070	104	2	81-127/11
594-20-7	2,2-Dichloropropane	ND		2000	1530	77	2000	1540	77	1	66-130/12
124-48-1	Dibromochloromethane	ND		2000	1810	91	2000	1840	92	2	76-124/10
75-71-8	Dichlorodifluoromethane	ND		2000	1390	70	2000	1160	58	18	26-163/26
156-59-2	cis-1,2-Dichloroethylene	ND		2000	2030	102	2000	2030	102	0	75-128/10
10061-01-5	cis-1,3-Dichloropropene	ND		2000	1890	95	2000	1890	95	0	76-131/10
541-73-1	m-Dichlorobenzene	ND		2000	1750	88	2000	1760	88	1	79-121/10
95-50-1	o-Dichlorobenzene	ND		2000	1810	91	2000	1810	91	0	79-120/10
106-46-7	p-Dichlorobenzene	ND		2000	1790	90	2000	1800	90	1	79-120/10
156-60-5	trans-1,2-Dichloroethylene	ND		2000	1710	86	2000	1740	87	2	67-116/11
10061-02-6	trans-1,3-Dichloropropene	ND		2000	1830	92	2000	1810	91	1	73-125/10
100-41-4	Ethylbenzene	27.7		2000	1970	97	2000	1950	96	1	78-123/10
637-92-3	Ethyl Tert Butyl Ether	ND		2000	1900	95	2000	1880	94	1	75-126/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45027-5MS	U33793.D	100	03/26/16	JC	n/a	n/a	VU1388
C45027-5MSD	U33794.D	100	03/26/16	JC	n/a	n/a	VU1388
C45027-5 ^a	U33791.D	100	03/26/16	JC	n/a	n/a	VU1388

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-3, C45027-4, C45027-5, C45027-6

CAS No.	Compound	C45027-5		MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
		ug/l	Q							
591-78-6	2-Hexanone	ND		8000	96	8000	7500	94	3	71-145/12
87-68-3	Hexachlorobutadiene	ND		2000	80	2000	1670	84	4	70-130/12
98-82-8	Isopropylbenzene	ND		2000	95	2000	1910	96	1	77-125/10
99-87-6	p-Isopropyltoluene	ND		2000	82	2000	1690	85	3	76-126/10
108-10-1	4-Methyl-2-pentanone	ND		8000	94	8000	7350	92	2	70-142/11
74-83-9	Methyl bromide	ND		2000	86	2000	1640	82	5	65-124/13
74-87-3	Methyl chloride	ND		2000	99	2000	1830	92	7	47-143/20
74-95-3	Methylene bromide	ND		2000	108	2000	2110	106	2	80-125/10
75-09-2	Methylene chloride	ND		2000	97	2000	1920	96	1	65-124/15
78-93-3	Methyl ethyl ketone	ND		8000	90	8000	6960	87	4	66-145/12
1634-04-4	Methyl Tert Butyl Ether	4620		2000	96	2000	6410	90	2	73-120/10
91-20-3	Naphthalene	ND		2000	94	2000	1970	99	5	66-120/12
103-65-1	n-Propylbenzene	61.8		2000	82	2000	1750	84	2	75-125/10
100-42-5	Styrene	ND		2000	96	2000	1910	96	1	73-126/10
75-65-0	Tert-Butyl Alcohol	ND		10000	99	10000	9620	96	3	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	ND		2000	100	2000	1970	99	1	79-126/10
71-55-6	1,1,1-Trichloroethane	ND		2000	95	2000	1900	95	1	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		2000	97	2000	1900	95	2	78-127/10
79-00-5	1,1,2-Trichloroethane	ND		2000	107	2000	2070	104	3	79-122/10
87-61-6	1,2,3-Trichlorobenzene	ND		2000	92	2000	1940	97	6	70-128/12
96-18-4	1,2,3-Trichloropropane	ND		2000	78	2000	1520	76	3	66-127/10
120-82-1	1,2,4-Trichlorobenzene	ND		2000	89	2000	1820	91	3	72-125/11
95-63-6	1,2,4-Trimethylbenzene	48.8		2000	86	2000	1800	88	2	76-124/10
108-67-8	1,3,5-Trimethylbenzene	25.1		2000	87	2000	1810	89	2	79-130/10
127-18-4	Tetrachloroethylene	ND		2000	93	2000	1870	94	1	72-124/13
108-88-3	Toluene	ND		2000	95	2000	1910	96	1	78-121/10
79-01-6	Trichloroethylene	ND		2000	96	2000	1960	98	2	75-119/10
75-69-4	Trichlorofluoromethane	ND		2000	95	2000	1690	85	11	68-130/19
75-01-4	Vinyl chloride	ND		2000	102	2000	1830	92	11	57-137/18
1330-20-7	Xylene (total)	ND		6000	96	6000	5720	95	0	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45027-5	Limits
1868-53-7	Dibromofluoromethane	99%	96%	101%	80-123%
2037-26-5	Toluene-D8	96%	94%	97%	88-112%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45027-5MS	U33793.D	100	03/26/16	JC	n/a	n/a	VU1388
C45027-5MSD	U33794.D	100	03/26/16	JC	n/a	n/a	VU1388
C45027-5 ^a	U33791.D	100	03/26/16	JC	n/a	n/a	VU1388

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-3, C45027-4, C45027-5, C45027-6

CAS No.	Surrogate Recoveries	MS	MSD	C45027-5	Limits
460-00-4	4-Bromofluorobenzene	95%	93%	89%	79-114%

(a) AZ:D2

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45027
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45053-2MS	U33849.D	50	03/29/16	JC	n/a	n/a	VU1389
C45053-2MSD	U33850.D	50	03/29/16	JC	n/a	n/a	VU1389
C45053-2	U33812.D	50	03/28/16	JC	n/a	n/a	VU1389

The QC reported here applies to the following samples:

Method: SW846 8260B

C45027-1, C45027-2, C45027-4, C45027-5

CAS No.	Compound	C45053-2 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1850	1000	3290	144* a	1000	3220	137* a	2	76-120/10
100-41-4	Ethylbenzene	1680	1000	3040	136* a	1000	3010	133* a	1	78-123/10
108-88-3	Toluene	474	1000	1530	106	1000	1550	108	1	78-121/10
1330-20-7	Xylene (total)	5530	3000	10000	149* a	3000	9760	141* a	2	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45053-2	Limits
1868-53-7	Dibromofluoromethane	100%	100%	91%	80-123%
2037-26-5	Toluene-D8	95%	96%	97%	88-112%
460-00-4	4-Bromofluorobenzene	100%	97%	92%	79-114%

(a) Outside laboratory control limits. AZ:M1

* = Outside of Control Limits.

Technical Report for

City of Tucson Environmental Services

Price Service Center

P01064

SGS Accutest Job Number: C45078

Sampling Date: 03/21/16

Report to:

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Total number of pages in report: **36**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Maureen Coloma 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Test results relate only to samples analyzed.

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Sample Summary

City of Tucson Environmental Services

Job No: C45078

Price Service Center
Project No: P01064

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C45078-1	03/21/16	09:00 KV	03/23/16	AQ	Ground Water	R-048A
C45078-2	03/21/16	09:18 KV	03/23/16	AQ	Ground Water	R-099A
C45078-3	03/21/16	09:45 KV	03/23/16	AQ	Ground Water	R-049A
C45078-4	03/21/16	10:05 KV	03/23/16	AQ	Ground Water	R-028A
C45078-5	03/21/16	10:25 KV	03/23/16	AQ	Ground Water	R-029A
C45078-6	03/21/16	10:28 KV	03/23/16	AQ	Ground Water	R-029A
C45078-7	03/21/16	11:10 KV	03/23/16	AQ	Ground Water	R-027A
C45078-8	03/21/16	11:28 KV	03/23/16	AQ	Ground Water	R-031A
C45078-9	03/21/16	11:50 KV	03/23/16	AQ	Ground Water	R-030A
C45078-10	03/21/16	00:00 KV	03/23/16	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: City of Tucson Environmental Services

Job No C45078

Site: Price Service Center

Report Date 4/5/2016 10:10:36 PM

9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/21/2016 and were received at Accutest on 03/23/2016 properly preserved, at 3.2 Deg. C and intact. These Samples received an Accutest job number of C45078. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ	Batch ID: VR1486
-------------------	-------------------------

- Sample(s) C45078-8MS, C45078-8MSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery(s) for Methyl Tert Butyl Ether is outside control limits due to high level in sample relative to spike amount. The associated blank spike recoveries were acceptable.

Matrix: AQ	Batch ID: VR1487
-------------------	-------------------------

- Sample(s) C45078-9MS, C45078-9MSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery(s) for 1,2,4-Trimethylbenzene are outside laboratory control limits. Probable cause due to matrix interference. The associated blank spike recoveries were acceptable.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C45078
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/21/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

C45078-1 R-048A

No hits reported in this sample.

C45078-2 R-099A

No hits reported in this sample.

C45078-3 R-049A

No hits reported in this sample.

C45078-4 R-028A

Ethylbenzene ^a	442	25		ug/l	SW846 8260B
Xylene (total) ^a	3990	50		ug/l	SW846 8260B

C45078-5 R-029A

No hits reported in this sample.

C45078-6 R-029A

No hits reported in this sample.

C45078-7 R-027A

Benzene ^a	1520	100		ug/l	SW846 8260B
Toluene ^a	3300	100		ug/l	SW846 8260B
Ethylbenzene ^a	1030	100		ug/l	SW846 8260B
Xylene (total) ^a	6310	200		ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a	2020	100		ug/l	SW846 8260B

C45078-8 R-031A

Benzene ^a	847	100		ug/l	SW846 8260B
Toluene ^a	2510	100		ug/l	SW846 8260B
Ethylbenzene ^a	931	100		ug/l	SW846 8260B
Xylene (total) ^a	8220	200		ug/l	SW846 8260B
Methyl Tert Butyl Ether ^b	7730	100		ug/l	SW846 8260B

C45078-9 R-030A

Benzene ^a	883	50		ug/l	SW846 8260B
Toluene ^a	3790	50		ug/l	SW846 8260B

Summary of Hits

Job Number: C45078
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/21/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Ethylbenzene ^a		2040	50		ug/l	SW846 8260B
Xylene (total) ^a		18900	400		ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a		261	50		ug/l	SW846 8260B

C45078-10 TRIP BLANK

No hits reported in this sample.

- (a) AZ:D2
- (b) AZ:D2 AZ:M3

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: R-048A	Date Sampled: 03/21/16
Lab Sample ID: C45078-1	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39068.D	1	04/01/16	CV	n/a	n/a	VR1486
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-123%
2037-26-5	Toluene-D8	97%		88-112%
460-00-4	4-Bromofluorobenzene	94%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: R-099A	Date Sampled: 03/21/16
Lab Sample ID: C45078-2	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39069.D	1	04/01/16	CV	n/a	n/a	VR1486
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-123%
2037-26-5	Toluene-D8	96%		88-112%
460-00-4	4-Bromofluorobenzene	96%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.2
4

Report of Analysis

Client Sample ID: R-049A	Date Sampled: 03/21/16
Lab Sample ID: C45078-3	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39070.D	1	04/01/16	CV	n/a	n/a	VR1486
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-123%
2037-26-5	Toluene-D8	94%		88-112%
460-00-4	4-Bromofluorobenzene	95%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: R-028A	Date Sampled: 03/21/16
Lab Sample ID: C45078-4	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	R39071.D	25	04/01/16	CV	n/a	n/a	VR1486
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	25	ug/l	
108-88-3	Toluene	ND	25	ug/l	
100-41-4	Ethylbenzene	442	25	ug/l	
1330-20-7	Xylene (total)	3990	50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		80-123%
2037-26-5	Toluene-D8	96%		88-112%
460-00-4	4-Bromofluorobenzene	95%		79-114%

(a) AZ:D2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.4
4

Report of Analysis

Client Sample ID: R-029A	Date Sampled: 03/21/16
Lab Sample ID: C45078-5	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39072.D	1	04/01/16	CV	n/a	n/a	VR1486
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		80-123%
2037-26-5	Toluene-D8	95%		88-112%
460-00-4	4-Bromofluorobenzene	96%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

Client Sample ID: R-029A	Date Sampled: 03/21/16
Lab Sample ID: C45078-6	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39073.D	1	04/01/16	CV	n/a	n/a	VR1486
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		80-123%
2037-26-5	Toluene-D8	95%		88-112%
460-00-4	4-Bromofluorobenzene	94%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.6
4

Report of Analysis

Client Sample ID: R-027A	Date Sampled: 03/21/16
Lab Sample ID: C45078-7	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	R39074.D	100	04/01/16	CV	n/a	n/a	VR1486
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	1520	100	ug/l	
108-88-3	Toluene	3300	100	ug/l	
100-41-4	Ethylbenzene	1030	100	ug/l	
1330-20-7	Xylene (total)	6310	200	ug/l	
1634-04-4	Methyl Tert Butyl Ether	2020	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		80-123%
2037-26-5	Toluene-D8	96%		88-112%
460-00-4	4-Bromofluorobenzene	95%		79-114%

(a) AZ:D2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID: R-031A		Date Sampled: 03/21/16
Lab Sample ID: C45078-8		Date Received: 03/23/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	R39075.D	100	04/01/16	CV	n/a	n/a	VR1486
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	847	100	ug/l	
108-88-3	Toluene	2510	100	ug/l	
100-41-4	Ethylbenzene	931	100	ug/l	
1330-20-7	Xylene (total)	8220	200	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^b	7730	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-123%
2037-26-5	Toluene-D8	95%		88-112%
460-00-4	4-Bromofluorobenzene	95%		79-114%

(a) AZ:D2

(b) AZ:M3

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.8
4

Report of Analysis

Client Sample ID: R-030A	Date Sampled: 03/21/16
Lab Sample ID: C45078-9	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	R39076.D	50	04/01/16	CV	n/a	n/a	VR1486
Run #2 ^a	R39107.D	200	04/04/16	CV	n/a	n/a	VR1487

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	883	50	ug/l	
108-88-3	Toluene	3790	50	ug/l	
100-41-4	Ethylbenzene	2040	50	ug/l	
1330-20-7	Xylene (total)	18900 ^b	400	ug/l	
1634-04-4	Methyl Tert Butyl Ether	261	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%	96%	80-123%
2037-26-5	Toluene-D8	96%	96%	88-112%
460-00-4	4-Bromofluorobenzene	95%	94%	79-114%

(a) AZ:D2

(b) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.9
4

Report of Analysis

Client Sample ID: TRIP BLANK		Date Sampled: 03/21/16
Lab Sample ID: C45078-10		Date Received: 03/23/16
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39100.D	1	04/04/16	CV	n/a	n/a	VR1487
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	03/21/16
Lab Sample ID:	C45078-10	Date Received:	03/23/16
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-123%
2037-26-5	Toluene-D8	95%		88-112%
460-00-4	4-Bromofluorobenzene	92%		79-114%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D2	Sample required dilution due to high concentration of target analyte.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.

5.1
5



CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

1151

FED-EX Tracking # 7159 3800 6416
Accutest Quote #
Bottle Order Control #
Accutest NC Job #: C **CU5078**

Client / Reporting Information			Project Information										Requested Analysis										Matrix Codes			
Company Name: City of Tucson			Project Name: PRICE SERVICE CENTER																				WW- Wastewater GW- Ground Water SW- Surface Water SO- Soil OF- Oil WP- Waste LIQ - Non-aqueous Liquid AIR DW- Drinking Water (Perchlorate Only)			
Address: P.O. BOX 27210			Street:																				LAB USE ONLY			
City: TUCSON State: AZ Zip: 85726			City: _____ State: _____																							
Project Contact: LORI EHMAN			Project #: PO 1064																							
Phone #: 520 791 3175			EMAIL: _____																							
Sampler's Name: Kayla Virgone			Client Purchase Order #: _____																							
Accutest Sample ID	Sample ID / Field Point / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles																			
							Q	Q2	INQD	INQD2	RECQD	RECQD2	DOQ	DOQ2	NUMQ	NUMQ2	DMSQ									
1	R-048A	3/21/16	0900	KV	GW	3																				
2	R-099A	3/21/16	0918	KV	GW	3																				
3	R-049A	3/21/16	0945	KV	GW	3																				
4	R-028A	3/21/16	1005	KV	GW	3																				
5	R-029A	3/21/16	1025	KV	GW	3																				
6	R-029A	3/21/16	1028	KV	GW	3																				
7	R-027A	3/21/16	1110	KV	GW	3																				
8	R-031A	3/21/16	1128	KV	GW	3																				
9	R-030A	3/21/16	1150	KV	GW	3																				
10	TRIP BLANK																									

BTEX/MTBE
9260

Turnaround Time (Business days):
 10 Day
 5 Day
 3 Day
 2 Day
 1 Day
 Same Day
Standard

Approved By / Date: _____

Data Deliverables Information:
 Commercial "A" - Results only
 Commercial "B" - Results with QC summaries
 Commercial "B+" - Results, QC, and chromatograms
 FULLT - Level 4 data package
 EDF for Geotracker EDD Format
 Provide EDF Global ID: _____
 Provide EDF Logcode: _____

Comments / Remarks:

Emergency TIA data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished By	Date Time	Received By	Relinquished By	Date Time	Received By	Relinquished By	Date Time	Received By
1	3/22/16 12:53	<i>[Signature]</i>	2	3-22-16 1:00	<i>[Signature]</i>	3	3-22-16 9:40	<i>[Signature]</i>
Relinquished by: <i>Kayla Virgone</i>		Received By: <i>[Signature]</i>	Relinquished by: <i>[Signature]</i>		Received By: <i>[Signature]</i>	Relinquished by: <i>Fedex</i>		Received By: <i>[Signature]</i>
3	3/23/16 9:40	<i>[Signature]</i>	4		<i>[Signature]</i>	5		<i>[Signature]</i>
Relinquished by: <i>Fedex</i>		Received By: <i>[Signature]</i>	Relinquished by: <i>[Signature]</i>		Received By: <i>[Signature]</i>	Relinquished by: <i>[Signature]</i>		Received By: <i>[Signature]</i>

Custody Seal # *Intact* Appropriate Bottle / Pres. Y/N
 Labels match Coc? Y / N Headspace Y/N On Ice Y/N Separate Receiving Check List used: Y / N

5.2 5

SGS Accutest Sample Receipt Summary

Job Number: C45078

Client: CITY OF TUCSON

Project: PRICE SERVICE CENTER

Date / Time Received: 3/23/2016 9:40:00 AM

Delivery Method: FedEx

Airbill #s: 775938006416

Cooler Temps (Initial/Adjusted): #1: (3/3.2):

<u>Cooler Security</u>	<u>Y</u>	<u>or</u>	<u>N</u>		<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. SmpI Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Cooler Temperature</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Therm ID:	IR1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
2. Trip Blank listed on COC:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
4. VOCs headspace free:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

<u>Sample Integrity - Documentation</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Sample Integrity - Condition</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	Intact		

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

5.2
5

C45078: Chain of Custody

Page 2 of 2

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1486-MB	R39059.D	1	04/01/16	CV	n/a	n/a	VR1486

The QC reported here applies to the following samples:

Method: SW846 8260B

C45078-1, C45078-2, C45078-3, C45078-4, C45078-5, C45078-6, C45078-7, C45078-8, C45078-9

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Results	Limits
1868-53-7	Dibromofluoromethane	96%	80-123%
2037-26-5	Toluene-D8	94%	88-112%
460-00-4	4-Bromofluorobenzene	94%	79-114%

6.1.1

6

Method Blank Summary

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1487-MB	R39089.D	1	04/04/16	CV	n/a	n/a	VR1487

The QC reported here applies to the following samples:

Method: SW846 8260B

C45078-9, C45078-10

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1487-MB	R39089.D	1	04/04/16	CV	n/a	n/a	VR1487

The QC reported here applies to the following samples:

Method: SW846 8260B

C45078-9, C45078-10

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	94%	80-123%
2037-26-5	Toluene-D8	95%	88-112%

Method Blank Summary

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1487-MB	R39089.D	1	04/04/16	CV	n/a	n/a	VR1487

The QC reported here applies to the following samples:

Method: SW846 8260B

C45078-9, C45078-10

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	94% 79-114%

6.1.2

6

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1486-BS	R39056.D	1	04/01/16	CV	n/a	n/a	VR1486
VR1486-BSD	R39057.D	1	04/01/16	CV	n/a	n/a	VR1486

The QC reported here applies to the following samples:

Method: SW846 8260B

C45078-1, C45078-2, C45078-3, C45078-4, C45078-5, C45078-6, C45078-7, C45078-8, C45078-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.7	94	18.4	92	2	76-120/10
100-41-4	Ethylbenzene	20	19.0	95	18.7	94	2	78-123/10
1634-04-4	Methyl Tert Butyl Ether	20	18.0	90	18.3	92	2	73-120/10
108-88-3	Toluene	20	18.5	93	18.2	91	2	78-121/10
1330-20-7	Xylene (total)	60	56.8	95	56.1	94	1	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	94%	95%	80-123%
2037-26-5	Toluene-D8	94%	95%	88-112%
460-00-4	4-Bromofluorobenzene	97%	98%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1487-BS	R39086.D	1	04/04/16	CV	n/a	n/a	VR1487
VR1487-BSD	R39087.D	1	04/04/16	CV	n/a	n/a	VR1487

The QC reported here applies to the following samples:

Method: SW846 8260B

C45078-9, C45078-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	80.5	101	75.4	94	7	55-147/17
71-43-2	Benzene	20	18.2	91	18.1	91	1	76-120/10
108-86-1	Bromobenzene	20	19.0	95	18.9	95	1	80-123/10
74-97-5	Bromochloromethane	20	18.0	90	18.1	91	1	79-124/10
75-27-4	Bromodichloromethane	20	17.8	89	17.8	89	0	75-121/10
75-25-2	Bromoform	20	16.4	82	16.2	81	1	62-127/10
104-51-8	n-Butylbenzene	20	19.0	95	18.6	93	2	74-129/10
135-98-8	sec-Butylbenzene	20	19.0	95	18.5	93	3	75-128/11
98-06-6	tert-Butylbenzene	20	17.7	89	17.5	88	1	74-127/11
108-90-7	Chlorobenzene	20	18.0	90	18.0	90	0	79-119/10
75-00-3	Chloroethane	20	17.2	86	17.0	85	1	60-115/14
67-66-3	Chloroform	20	17.1	86	17.0	85	1	75-122/10
95-49-8	o-Chlorotoluene	20	18.2	91	18.1	91	1	76-125/12
106-43-4	p-Chlorotoluene	20	18.5	93	18.3	92	1	76-126/11
75-15-0	Carbon disulfide	20	15.7	79	15.3	77	3	51-130/13
56-23-5	Carbon tetrachloride	20	19.4	97	18.9	95	3	72-128/13
75-34-3	1,1-Dichloroethane	20	16.9	85	16.9	85	0	70-121/10
75-35-4	1,1-Dichloroethylene	20	16.8	84	16.3	82	3	62-125/13
563-58-6	1,1-Dichloropropene	20	18.0	90	17.5	88	3	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	20	18.9	95	18.5	93	2	64-129/11
106-93-4	1,2-Dibromoethane	20	18.8	94	18.7	94	1	81-124/10
107-06-2	1,2-Dichloroethane	20	17.5	88	17.4	87	1	74-122/10
78-87-5	1,2-Dichloropropane	20	18.3	92	18.3	92	0	75-123/10
142-28-9	1,3-Dichloropropane	20	18.7	94	18.6	93	1	81-127/11
594-20-7	2,2-Dichloropropane	20	17.8	89	17.5	88	2	66-130/12
124-48-1	Dibromochloromethane	20	16.7	84	16.6	83	1	76-124/10
75-71-8	Dichlorodifluoromethane	20	13.3	67	12.7	64	5	26-163/26
156-59-2	cis-1,2-Dichloroethylene	20	17.6	88	17.7	89	1	75-128/10
10061-01-5	cis-1,3-Dichloropropene	20	17.7	89	17.6	88	1	76-131/10
541-73-1	m-Dichlorobenzene	20	18.3	92	18.4	92	1	79-121/10
95-50-1	o-Dichlorobenzene	20	18.4	92	18.4	92	0	79-120/10
106-46-7	p-Dichlorobenzene	20	18.1	91	18.2	91	1	79-120/10
156-60-5	trans-1,2-Dichloroethylene	20	15.9	80	15.7	79	1	67-116/11
10061-02-6	trans-1,3-Dichloropropene	20	16.4	82	16.4	82	0	73-125/10
100-41-4	Ethylbenzene	20	18.7	94	18.4	92	2	78-123/10
637-92-3	Ethyl Tert Butyl Ether	20	17.6	88	17.8	89	1	75-126/11

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1487-BS	R39086.D	1	04/04/16	CV	n/a	n/a	VR1487
VR1487-BSD	R39087.D	1	04/04/16	CV	n/a	n/a	VR1487

The QC reported here applies to the following samples:

Method: SW846 8260B

C45078-9, C45078-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	83.3	104	80.3	100	4	71-145/12
87-68-3	Hexachlorobutadiene	20	19.9	100	19.6	98	2	70-130/12
98-82-8	Isopropylbenzene	20	18.8	94	18.5	93	2	77-125/10
99-87-6	p-Isopropyltoluene	20	19.5	98	19.1	96	2	76-126/10
108-10-1	4-Methyl-2-pentanone	80	80.3	100	78.3	98	3	70-142/11
74-83-9	Methyl bromide	20	15.6	78	15.5	78	1	65-124/13
74-87-3	Methyl chloride	20	16.4	82	15.5	78	6	47-143/20
74-95-3	Methylene bromide	20	18.4	92	18.4	92	0	80-125/10
75-09-2	Methylene chloride	20	17.3	87	17.3	87	0	65-124/15
78-93-3	Methyl ethyl ketone	80	80.0	100	77.6	97	3	66-145/12
1634-04-4	Methyl Tert Butyl Ether	20	17.2	86	17.2	86	0	73-120/10
91-20-3	Naphthalene	20	20.0	100	20.0	100	0	66-120/12
103-65-1	n-Propylbenzene	20	18.4	92	18.1	91	2	75-125/10
100-42-5	Styrene	20	16.9	85	16.8	84	1	73-126/10
75-65-0	Tert-Butyl Alcohol	100	95.7	96	93.3	93	3	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	20	18.9	95	18.7	94	1	79-126/10
71-55-6	1,1,1-Trichloroethane	20	18.3	92	17.9	90	2	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	20	18.7	94	18.3	92	2	78-127/10
79-00-5	1,1,2-Trichloroethane	20	18.0	90	17.9	90	1	79-122/10
87-61-6	1,2,3-Trichlorobenzene	20	19.4	97	19.5	98	1	70-128/12
96-18-4	1,2,3-Trichloropropane	20	18.7	94	18.4	92	2	66-127/10
120-82-1	1,2,4-Trichlorobenzene	20	17.6	88	17.6	88	0	72-125/11
95-63-6	1,2,4-Trimethylbenzene	20	18.7	94	18.6	93	1	76-124/10
108-67-8	1,3,5-Trimethylbenzene	20	19.3	97	19.0	95	2	79-130/10
127-18-4	Tetrachloroethylene	20	19.8	99	19.2	96	3	72-124/13
108-88-3	Toluene	20	18.0	90	17.9	90	1	78-121/10
79-01-6	Trichloroethylene	20	18.7	94	18.4	92	2	75-119/10
75-69-4	Trichlorofluoromethane	20	17.7	89	17.3	87	2	68-130/19
75-01-4	Vinyl chloride	20	16.4	82	16.3	82	1	57-137/18
1330-20-7	Xylene (total)	60	55.7	93	55.1	92	1	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	91%	91%	80-123%
2037-26-5	Toluene-D8	95%	95%	88-112%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1487-BS	R39086.D	1	04/04/16	CV	n/a	n/a	VR1487
VR1487-BSD	R39087.D	1	04/04/16	CV	n/a	n/a	VR1487

The QC reported here applies to the following samples:

Method: SW846 8260B

C45078-9, C45078-10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	96%	96%	79-114%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1486-LCS	R39058.D	1	04/01/16	CV	n/a	n/a	VR1486

The QC reported here applies to the following samples: **Method:** SW846 8260B

C45078-1, C45078-2, C45078-3, C45078-4, C45078-5, C45078-6, C45078-7, C45078-8, C45078-9

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
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CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	80-123%
2037-26-5	Toluene-D8	97%	88-112%
460-00-4	4-Bromofluorobenzene	95%	79-114%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45078-8MS	R39079.D	100	04/01/16	CV	n/a	n/a	VR1486
C45078-8MSD	R39080.D	100	04/01/16	CV	n/a	n/a	VR1486
C45078-8 ^a	R39075.D	100	04/01/16	CV	n/a	n/a	VR1486

The QC reported here applies to the following samples:

Method: SW846 8260B

C45078-1, C45078-2, C45078-3, C45078-4, C45078-5, C45078-6, C45078-7, C45078-8, C45078-9

CAS No.	Compound	C45078-8 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	847	2000	2750	95	2000	2610	88	5	76-120/10
100-41-4	Ethylbenzene	931	2000	2860	96	2000	2740	90	4	78-123/10
1634-04-4	Methyl Tert Butyl Ether	7730	2000	9490	88	2000	9120	70* ^b	4	73-120/10
108-88-3	Toluene	2510	2000	4420	96	2000	4190	84	5	78-121/10
1330-20-7	Xylene (total)	8220	6000	14400	103	6000	13500	88	6	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45078-8	Limits
1868-53-7	Dibromofluoromethane	92%	92%	91%	80-123%
2037-26-5	Toluene-D8	94%	95%	95%	88-112%
460-00-4	4-Bromofluorobenzene	97%	96%	95%	79-114%

(a) AZ:D2

(b) Outside control limits due to high level in sample relative to spike amount. AZ:M3

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45078-9MS	R39108.D	200	04/04/16	CV	n/a	n/a	VR1487
C45078-9MSD	R39109.D	200	04/04/16	CV	n/a	n/a	VR1487
C45078-9 ^a	R39107.D	200	04/04/16	CV	n/a	n/a	VR1487

The QC reported here applies to the following samples:

Method: SW846 8260B

C45078-9, C45078-10

CAS No.	Compound	C45078-9 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	16000	15100	94	16000	15100	94	0	55-147/17
71-43-2	Benzene	833	4000	4420	90	4000	4470	91	1	76-120/10
108-86-1	Bromobenzene	ND	4000	3640	91	4000	3710	93	2	80-123/10
74-97-5	Bromochloromethane	ND	4000	3520	88	4000	3620	91	3	79-124/10
75-27-4	Bromodichloromethane	ND	4000	3470	87	4000	3590	90	3	75-121/10
75-25-2	Bromoform	ND	4000	2840	71	4000	3130	78	10	62-127/10
104-51-8	n-Butylbenzene	280	4000	4360	102	4000	4260	100	2	74-129/10
135-98-8	sec-Butylbenzene	110	4000	3730	91	4000	3680	89	1	75-128/11
98-06-6	tert-Butylbenzene	ND	4000	4900	123	4000	4850	121	1	74-127/11
108-90-7	Chlorobenzene	ND	4000	3520	88	4000	3560	89	1	79-119/10
75-00-3	Chloroethane	ND	4000	3390	85	4000	3480	87	3	60-115/14
67-66-3	Chloroform	ND	4000	3380	85	4000	3460	87	2	75-122/10
95-49-8	o-Chlorotoluene	ND	4000	3730	93	4000	3340	84	11	76-125/12
106-43-4	p-Chlorotoluene	ND	4000	3570	89	4000	3590	90	1	76-126/11
75-15-0	Carbon disulfide	ND	4000	2980	75	4000	3010	75	1	51-130/13
56-23-5	Carbon tetrachloride	ND	4000	3710	93	4000	3700	93	0	72-128/13
75-34-3	1,1-Dichloroethane	ND	4000	3420	86	4000	3430	86	0	70-121/10
75-35-4	1,1-Dichloroethylene	ND	4000	3270	82	4000	3220	81	2	62-125/13
563-58-6	1,1-Dichloropropene	ND	4000	3510	88	4000	3470	87	1	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	ND	4000	3960	99	4000	4030	101	2	64-129/11
106-93-4	1,2-Dibromoethane	ND	4000	3630	91	4000	3700	93	2	81-124/10
107-06-2	1,2-Dichloroethane	ND	4000	3540	89	4000	3570	89	1	74-122/10
78-87-5	1,2-Dichloropropane	ND	4000	3620	91	4000	3720	93	3	75-123/10
142-28-9	1,3-Dichloropropane	ND	4000	3650	91	4000	3700	93	1	81-127/11
594-20-7	2,2-Dichloropropane	ND	4000	3310	83	4000	3340	84	1	66-130/12
124-48-1	Dibromochloromethane	ND	4000	3020	76	4000	3230	81	7	76-124/10
75-71-8	Dichlorodifluoromethane	ND	4000	2680	67	4000	2680	67	0	26-163/26
156-59-2	cis-1,2-Dichloroethylene	ND	4000	3470	87	4000	3550	89	2	75-128/10
10061-01-5	cis-1,3-Dichloropropene	ND	4000	3420	86	4000	3530	88	3	76-131/10
541-73-1	m-Dichlorobenzene	ND	4000	3540	89	4000	3570	89	1	79-121/10
95-50-1	o-Dichlorobenzene	ND	4000	3570	89	4000	3610	90	1	79-120/10
106-46-7	p-Dichlorobenzene	ND	4000	3500	88	4000	3550	89	1	79-120/10
156-60-5	trans-1,2-Dichloroethylene	ND	4000	3090	77	4000	3120	78	1	67-116/11
10061-02-6	trans-1,3-Dichloropropene	ND	4000	3130	78	4000	3200	80	2	73-125/10
100-41-4	Ethylbenzene	1500	4000	5130	91	4000	5080	90	1	78-123/10
637-92-3	Ethyl Tert Butyl Ether	ND	4000	3520	88	4000	3610	90	3	75-126/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45078-9MS	R39108.D	200	04/04/16	CV	n/a	n/a	VR1487
C45078-9MSD	R39109.D	200	04/04/16	CV	n/a	n/a	VR1487
C45078-9 ^a	R39107.D	200	04/04/16	CV	n/a	n/a	VR1487

The QC reported here applies to the following samples:

Method: SW846 8260B

C45078-9, C45078-10

CAS No.	Compound	C45078-9 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND	16000	16700	104	16000	16700	104	0	71-145/12
87-68-3	Hexachlorobutadiene	ND	4000	3690	92	4000	3640	91	1	70-130/12
98-82-8	Isopropylbenzene	142	4000	3780	91	4000	3780	91	0	77-125/10
99-87-6	p-Isopropyltoluene	59.2	4000	3770	93	4000	3740	92	1	76-126/10
108-10-1	4-Methyl-2-pentanone	ND	16000	16700	104	16000	16800	105	1	70-142/11
74-83-9	Methyl bromide	ND	4000	3030	76	4000	3120	78	3	65-124/13
74-87-3	Methyl chloride	ND	4000	3220	81	4000	3240	81	1	47-143/20
74-95-3	Methylene bromide	ND	4000	3660	92	4000	3730	93	2	80-125/10
75-09-2	Methylene chloride	ND	4000	3410	85	4000	3480	87	2	65-124/15
78-93-3	Methyl ethyl ketone	ND	16000	15300	96	16000	15900	99	4	66-145/12
1634-04-4	Methyl Tert Butyl Ether	247	4000	3630	85	4000	3750	88	3	73-120/10
91-20-3	Naphthalene	1940	4000	5900	99	4000	5920	100	0	66-120/12
103-65-1	n-Propylbenzene	470	4000	4000	88	4000	3940	87	2	75-125/10
100-42-5	Styrene	ND	4000	3520	88	4000	3560	89	1	73-126/10
75-65-0	Tert-Butyl Alcohol	ND	20000	19100	96	20000	19500	98	2	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	ND	4000	3660	92	4000	3720	93	2	79-126/10
71-55-6	1,1,1-Trichloroethane	ND	4000	3560	89	4000	3560	89	0	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	4000	3590	90	4000	3670	92	2	78-127/10
79-00-5	1,1,2-Trichloroethane	ND	4000	3580	90	4000	3610	90	1	79-122/10
87-61-6	1,2,3-Trichlorobenzene	ND	4000	3790	95	4000	3890	97	3	70-128/12
96-18-4	1,2,3-Trichloropropane	ND	4000	3600	90	4000	3680	92	2	66-127/10
120-82-1	1,2,4-Trichlorobenzene	ND	4000	3460	87	4000	3530	88	2	72-125/11
95-63-6	1,2,4-Trimethylbenzene	6530	4000	9790	82	4000	9480	74* b	3	76-124/10
108-67-8	1,3,5-Trimethylbenzene	2330	4000	6000	92	4000	5880	89	2	79-130/10
127-18-4	Tetrachloroethylene	ND	4000	3540	89	4000	3520	88	1	72-124/13
108-88-3	Toluene	3150	4000	6580	86	4000	6570	86	0	78-121/10
79-01-6	Trichloroethylene	ND	4000	3630	91	4000	3660	92	1	75-119/10
75-69-4	Trichlorofluoromethane	ND	4000	3460	87	4000	3580	90	3	68-130/19
75-01-4	Vinyl chloride	ND	4000	3360	84	4000	3410	85	1	57-137/18
1330-20-7	Xylene (total)	18900	12000	29300	87	12000	28600	81	2	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45078-9	Limits
1868-53-7	Dibromofluoromethane	92%	92%	96%	80-123%
2037-26-5	Toluene-D8	95%	94%	96%	88-112%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45078
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45078-9MS	R39108.D	200	04/04/16	CV	n/a	n/a	VR1487
C45078-9MSD	R39109.D	200	04/04/16	CV	n/a	n/a	VR1487
C45078-9 ^a	R39107.D	200	04/04/16	CV	n/a	n/a	VR1487

The QC reported here applies to the following samples:

Method: SW846 8260B

C45078-9, C45078-10

CAS No.	Surrogate Recoveries	MS	MSD	C45078-9	Limits
460-00-4	4-Bromofluorobenzene	96%	98%	94%	79-114%

- (a) AZ:D2
- (b) Outside laboratory control limits. AZ:M2

* = Outside of Control Limits.

Technical Report for

City of Tucson Environmental Services

Price Service Center

P01064

SGS Accutest Job Number: C45079

Sampling Date: 03/22/16



Report to:

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Total number of pages in report: **36**



Test results contained within this data package meet the requirements
of the National Environmental Laboratory Accreditation Program
and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Maureen Coloma 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Test results relate only to samples analyzed.

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Sample Summary

City of Tucson Environmental Services

Job No: C45079

Price Service Center
Project No: P01064

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C45079-1	03/22/16	08:40 KV	03/23/16	AQ	Ground Water	PCM-511A
C45079-2	03/22/16	09:10 KV	03/23/16	AQ	Ground Water	PCM-535A
C45079-3	03/22/16	09:30 KV	03/23/16	AQ	Ground Water	R-036A
C45079-4	03/22/16	09:40 KV	03/23/16	AQ	Ground Water	R-098A
C45079-5	03/22/16	10:10 KV	03/23/16	AQ	Ground Water	R-034A
C45079-6	03/22/16	10:35 KV	03/23/16	AQ	Ground Water	R-051A
C45079-7	03/22/16	10:55 KV	03/23/16	AQ	Ground Water	R-050A
C45079-8	03/22/16	11:00 KV	03/23/16	AQ	Ground Water	R-050A
C45079-9	03/22/16	11:18 KV	03/23/16	AQ	Ground Water	WR-212A
C45079-10	03/22/16	00:00 KV	03/23/16	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: City of Tucson Environmental Services

Job No C45079

Site: Price Service Center

Report Date 4/6/2016 6:01:56 PM

9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/22/2016 and were received at Accutest on 03/23/2016 properly preserved, at 3.2 Deg. C and intact. These Samples received an Accutest job number of C45079. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ	Batch ID: VU1394
-------------------	-------------------------

- Sample(s) C45099-7MS, C45099-7MSD were used as the QC samples indicated.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Benzene, Naphthalene are outside control limits due to high level in sample relative to spike amount. The associated blank spike recoveries were acceptable. Additionally, the sample spiked for the MS/MSD was not one of the samples from this SDG/work order; therefore, there are no data quality issues that affect this sample set.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for 1,1-Dichloroethylene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Benzene, Carbon disulfide, n-Propylbenzene, Naphthalene, p-Isopropyltoluene, sec-Butylbenzene, trans-1,2-Dichloroethylene are outside laboratory control limits. Probable cause due to matrix interference.
- VU1394-MB for 1,2,3-Trichlorobenzene: Target analyte detected in method blank at or above the method detection limit. Concentration present in blank is less than 1/2 RL; meeting method criteria.

Matrix: AQ	Batch ID: VU1395
-------------------	-------------------------

- Sample(s) C45079-4MS, C45079-4MSD were used as the QC samples indicated.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C45079
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/22/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C45079-1	PCM-511A					
Benzene		1.3	1.0		ug/l	SW846 8260B
Toluene		1.5	1.0		ug/l	SW846 8260B
Ethylbenzene		8.1	1.0		ug/l	SW846 8260B
Xylene (total)		41.7	2.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a		374	10		ug/l	SW846 8260B
C45079-2	PCM-535A					
Methyl Tert Butyl Ether		68.9	1.0		ug/l	SW846 8260B
C45079-3	R-036A					
Xylene (total)		2.7	2.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a		230	10		ug/l	SW846 8260B
C45079-4	R-098A					
Ethylbenzene ^a		14.6	10		ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a		978	25		ug/l	SW846 8260B
C45079-5	R-034A					
Ethylbenzene		2.1	1.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a		438	10		ug/l	SW846 8260B
C45079-6	R-051A					
Benzene		15.6	1.0		ug/l	SW846 8260B
Toluene		3.6	1.0		ug/l	SW846 8260B
Ethylbenzene		58.7	1.0		ug/l	SW846 8260B
Xylene (total)		30.0	2.0		ug/l	SW846 8260B
C45079-7	R-050A					
Benzene		2.9	1.0		ug/l	SW846 8260B
Toluene		1.8	1.0		ug/l	SW846 8260B
Ethylbenzene		73.2	1.0		ug/l	SW846 8260B
Xylene (total) ^a		294	20		ug/l	SW846 8260B
Methyl Tert Butyl Ether		10.6	1.0		ug/l	SW846 8260B
C45079-8	R-050A					
Benzene		2.4	1.0		ug/l	SW846 8260B

Summary of Hits

Job Number: C45079
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/22/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

Toluene		1.6	1.0		ug/l	SW846 8260B
Ethylbenzene		61.0	1.0		ug/l	SW846 8260B
Xylene (total) ^a		312	20		ug/l	SW846 8260B
Methyl Tert Butyl Ether		9.6	1.0		ug/l	SW846 8260B

C45079-9 WR-212A

Benzene		1.2	1.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether		88.5	1.0		ug/l	SW846 8260B

C45079-10 TRIP BLANK

No hits reported in this sample.

(a) AZ:D2

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: PCM-511A	Date Sampled: 03/22/16
Lab Sample ID: C45079-1	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U33974.D	1	04/05/16	MV	n/a	n/a	VU1395
Run #2 ^a	U33955.D	10	04/04/16	MV	n/a	n/a	VU1394

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	1.3	1.0	ug/l	
108-88-3	Toluene	1.5	1.0	ug/l	
100-41-4	Ethylbenzene	8.1	1.0	ug/l	
1330-20-7	Xylene (total)	41.7	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	374 ^b	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%	95%	80-123%
2037-26-5	Toluene-D8	92%	89%	88-112%
460-00-4	4-Bromofluorobenzene	97%	91%	79-114%

(a) AZ:D2

(b) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: PCM-535A	Date Sampled: 03/22/16
Lab Sample ID: C45079-2	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U33975.D	1	04/05/16	MV	n/a	n/a	VU1395
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	68.9	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		80-123%
2037-26-5	Toluene-D8	93%		88-112%
460-00-4	4-Bromofluorobenzene	90%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.2
4

Report of Analysis

Client Sample ID: R-036A		Date Sampled: 03/22/16
Lab Sample ID: C45079-3		Date Received: 03/23/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U33976.D	1	04/05/16	MV	n/a	n/a	VU1395
Run #2 ^a	U33957.D	10	04/04/16	MV	n/a	n/a	VU1394

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	2.7	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	230 ^b	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%	93%	80-123%
2037-26-5	Toluene-D8	93%	94%	88-112%
460-00-4	4-Bromofluorobenzene	89%	89%	79-114%

(a) AZ:D2

(b) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: R-098A	Date Sampled: 03/22/16
Lab Sample ID: C45079-4	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U33958.D	10	04/04/16	MV	n/a	n/a	VU1394
Run #2 ^a	U33977.D	25	04/05/16	MV	n/a	n/a	VU1395

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	10	ug/l	
108-88-3	Toluene	ND	10	ug/l	
100-41-4	Ethylbenzene	14.6	10	ug/l	
1330-20-7	Xylene (total)	ND	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	978 ^b	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	87%	80-123%
2037-26-5	Toluene-D8	92%	92%	88-112%
460-00-4	4-Bromofluorobenzene	89%	89%	79-114%

(a) AZ:D2

(b) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.4
4

Report of Analysis

Client Sample ID: R-034A		Date Sampled: 03/22/16
Lab Sample ID: C45079-5		Date Received: 03/23/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U33978.D	1	04/05/16	MV	n/a	n/a	VU1395
Run #2 ^a	U33959.D	10	04/04/16	MV	n/a	n/a	VU1394

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	2.1	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	438 ^b	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%	88%	80-123%
2037-26-5	Toluene-D8	94%	93%	88-112%
460-00-4	4-Bromofluorobenzene	89%	88%	79-114%

(a) AZ:D2

(b) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

Client Sample ID: R-051A	Date Sampled: 03/22/16
Lab Sample ID: C45079-6	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U33979.D	1	04/05/16	MV	n/a	n/a	VU1395
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	15.6	1.0	ug/l	
108-88-3	Toluene	3.6	1.0	ug/l	
100-41-4	Ethylbenzene	58.7	1.0	ug/l	
1330-20-7	Xylene (total)	30.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		80-123%
2037-26-5	Toluene-D8	95%		88-112%
460-00-4	4-Bromofluorobenzene	89%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.6
4

Report of Analysis

Client Sample ID: R-050A	Date Sampled: 03/22/16
Lab Sample ID: C45079-7	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U33980.D	1	04/05/16	MV	n/a	n/a	VU1395
Run #2 ^a	U33961.D	10	04/04/16	MV	n/a	n/a	VU1394

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	2.9	1.0	ug/l	
108-88-3	Toluene	1.8	1.0	ug/l	
100-41-4	Ethylbenzene	73.2	1.0	ug/l	
1330-20-7	Xylene (total)	294 ^b	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	10.6	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%	88%	80-123%
2037-26-5	Toluene-D8	95%	93%	88-112%
460-00-4	4-Bromofluorobenzene	92%	89%	79-114%

(a) AZ:D2

(b) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID: R-050A	Date Sampled: 03/22/16
Lab Sample ID: C45079-8	Date Received: 03/23/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U33981.D	1	04/05/16	MV	n/a	n/a	VU1395
Run #2 ^a	U33962.D	10	04/04/16	MV	n/a	n/a	VU1394

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	2.4	1.0	ug/l	
108-88-3	Toluene	1.6	1.0	ug/l	
100-41-4	Ethylbenzene	61.0	1.0	ug/l	
1330-20-7	Xylene (total)	312 ^b	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	9.6	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%	88%	80-123%
2037-26-5	Toluene-D8	94%	93%	88-112%
460-00-4	4-Bromofluorobenzene	92%	90%	79-114%

(a) AZ:D2

(b) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.8
4

Report of Analysis

Client Sample ID: WR-212A		Date Sampled: 03/22/16
Lab Sample ID: C45079-9		Date Received: 03/23/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U33982.D	1	04/05/16	MV	n/a	n/a	VU1395
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	1.2	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	88.5	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		80-123%
2037-26-5	Toluene-D8	94%		88-112%
460-00-4	4-Bromofluorobenzene	93%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.9
4

Report of Analysis

Client Sample ID: TRIP BLANK	Date Sampled: 03/22/16
Lab Sample ID: C45079-10	Date Received: 03/23/16
Matrix: AQ - Trip Blank Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U33954.D	1	04/04/16	MV	n/a	n/a	VU1394
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TRIP BLANK		Date Sampled: 03/22/16
Lab Sample ID: C45079-10		Date Received: 03/23/16
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

4.10
4

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		80-123%
2037-26-5	Toluene-D8	90%		88-112%
460-00-4	4-Bromofluorobenzene	85%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D2	Sample required dilution due to high concentration of target analyte.
M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.

5.1
5



PHOENIX

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131 (408) 588-0200 FAX: (408) 588-0201

1001

FED-EX Tracking # 7759 3880 6416
Accutest Quote #
Matrix Order Control #
Accutest NC Job #: C C45079

Client / Reporting Information
Project Information
Requested Analysis
Matrix Codes

Table with columns: Sample ID, Sample ID / Field Point / Point of Collection, Date, Time, Sampled by, Matrix, # of bottles, and various analytical parameters.

Turnaround Time (Business days)
Data Deliverable Information
Comments / Remarks

Emergency T/A data available VIA Lablink
Sample Custody must be documented below each time samples change possession, including courier delivery.

5.2 5

SGS Accutest Sample Receipt Summary

Job Number: C45079

Client: CITY OF TUCSON

Project: PRICE SERVICE CENTER

Date / Time Received: 3/23/2016 9:40:00 AM

Delivery Method: FedEx

Airbill #s: 775938006416

Cooler Temps (Initial/Adjusted): #1: (3/3.2):

<u>Cooler Security</u>	<u>Y</u>	<u>or</u>	<u>N</u>		<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. SmpI Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Cooler Temperature</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Therm ID:	IR1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
2. Trip Blank listed on COC:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
4. VOCs headspace free:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

<u>Sample Integrity - Documentation</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Sample Integrity - Condition</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	Intact		

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

C45079: Chain of Custody

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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1394-MB	U33946.D	1	04/04/16	MV	n/a	n/a	VU1394

The QC reported here applies to the following samples:

Method: SW846 8260B

C45079-1, C45079-3, C45079-4, C45079-5, C45079-7, C45079-8, C45079-10

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1394-MB	U33946.D	1	04/04/16	MV	n/a	n/a	VU1394

The QC reported here applies to the following samples:

Method: SW846 8260B

C45079-1, C45079-3, C45079-4, C45079-5, C45079-7, C45079-8, C45079-10

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene ^a	0.26	2.0	ug/l	J
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	94% 80-123%
2037-26-5	Toluene-D8	92% 88-112%

Method Blank Summary

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1394-MB	U33946.D	1	04/04/16	MV	n/a	n/a	VU1394

The QC reported here applies to the following samples:

Method: SW846 8260B

C45079-1, C45079-3, C45079-4, C45079-5, C45079-7, C45079-8, C45079-10

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	87% 79-114%

(a) Target analyte detected in method blank at or above the method detection limit. Concentration present in blank is less than 1/2 RL; meeting method criteria.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1394-BS	U33943.D	1	04/04/16	MV	n/a	n/a	VU1394
VU1394-BSD	U33944.D	1	04/04/16	MV	n/a	n/a	VU1394

The QC reported here applies to the following samples:

Method: SW846 8260B

C45079-1, C45079-3, C45079-4, C45079-5, C45079-7, C45079-8, C45079-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	78.8	99	82.0	103	4	55-147/17
71-43-2	Benzene	20	21.2	106	20.7	104	2	76-120/10
108-86-1	Bromobenzene	20	19.6	98	18.6	93	5	80-123/10
74-97-5	Bromochloromethane	20	22.3	112	21.3	107	5	79-124/10
75-27-4	Bromodichloromethane	20	20.6	103	20.0	100	3	75-121/10
75-25-2	Bromoform	20	21.7	109	21.3	107	2	62-127/10
104-51-8	n-Butylbenzene	20	18.5	93	17.8	89	4	74-129/10
135-98-8	sec-Butylbenzene	20	18.1	91	17.5	88	3	75-128/11
98-06-6	tert-Butylbenzene	20	17.9	90	17.4	87	3	74-127/11
108-90-7	Chlorobenzene	20	21.1	106	20.2	101	4	79-119/10
75-00-3	Chloroethane	20	18.5	93	18.3	92	1	60-115/14
67-66-3	Chloroform	20	20.8	104	20.0	100	4	75-122/10
95-49-8	o-Chlorotoluene	20	20.9	105	21.5	108	3	76-125/12
106-43-4	p-Chlorotoluene	20	21.3	107	20.4	102	4	76-126/11
75-15-0	Carbon disulfide	20	17.3	87	16.9	85	2	51-130/13
56-23-5	Carbon tetrachloride	20	21.0	105	20.7	104	1	72-128/13
75-34-3	1,1-Dichloroethane	20	20.7	104	20.0	100	3	70-121/10
75-35-4	1,1-Dichloroethylene	20	18.7	94	18.1	91	3	62-125/13
563-58-6	1,1-Dichloropropene	20	19.8	99	19.5	98	2	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	20	17.2	86	16.9	85	2	64-129/11
106-93-4	1,2-Dibromoethane	20	21.5	108	20.8	104	3	81-124/10
107-06-2	1,2-Dichloroethane	20	21.6	108	21.0	105	3	74-122/10
78-87-5	1,2-Dichloropropane	20	21.5	108	20.9	105	3	75-123/10
142-28-9	1,3-Dichloropropane	20	22.1	111	21.3	107	4	81-127/11
594-20-7	2,2-Dichloropropane	20	19.4	97	18.5	93	5	66-130/12
124-48-1	Dibromochloromethane	20	20.9	105	20.2	101	3	76-124/10
75-71-8	Dichlorodifluoromethane	20	10.1	51	10.1	51	0	26-163/26
156-59-2	cis-1,2-Dichloroethylene	20	21.7	109	20.9	105	4	75-128/10
10061-01-5	cis-1,3-Dichloropropene	20	22.0	110	21.2	106	4	76-131/10
541-73-1	m-Dichlorobenzene	20	19.3	97	18.4	92	5	79-121/10
95-50-1	o-Dichlorobenzene	20	19.3	97	18.4	92	5	79-120/10
106-46-7	p-Dichlorobenzene	20	19.3	97	18.6	93	4	79-120/10
156-60-5	trans-1,2-Dichloroethylene	20	18.5	93	18.0	90	3	67-116/11
10061-02-6	trans-1,3-Dichloropropene	20	20.9	105	20.2	101	3	73-125/10
100-41-4	Ethylbenzene	20	20.6	103	20.1	101	2	78-123/10
637-92-3	Ethyl Tert Butyl Ether	20	20.8	104	20.0	100	4	75-126/11

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1394-BS	U33943.D	1	04/04/16	MV	n/a	n/a	VU1394
VU1394-BSD	U33944.D	1	04/04/16	MV	n/a	n/a	VU1394

The QC reported here applies to the following samples:

Method: SW846 8260B

C45079-1, C45079-3, C45079-4, C45079-5, C45079-7, C45079-8, C45079-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	92.9	116	91.8	115	1	71-145/12
87-68-3	Hexachlorobutadiene	20	18.8	94	18.1	91	4	70-130/12
98-82-8	Isopropylbenzene	20	20.4	102	19.8	99	3	77-125/10
99-87-6	p-Isopropyltoluene	20	18.3	92	17.6	88	4	76-126/10
108-10-1	4-Methyl-2-pentanone	80	92.8	116	91.5	114	1	70-142/11
74-83-9	Methyl bromide	20	18.1	91	18.0	90	1	65-124/13
74-87-3	Methyl chloride	20	18.1	91	17.6	88	3	47-143/20
74-95-3	Methylene bromide	20	22.8	114	22.1	111	3	80-125/10
75-09-2	Methylene chloride	20	20.8	104	19.7	99	5	65-124/15
78-93-3	Methyl ethyl ketone	80	89.7	112	87.7	110	2	66-145/12
1634-04-4	Methyl Tert Butyl Ether	20	19.7	99	19.0	95	4	73-120/10
91-20-3	Naphthalene	20	19.2	96	20.0	100	4	66-120/12
103-65-1	n-Propylbenzene	20	18.1	91	17.5	88	3	75-125/10
100-42-5	Styrene	20	20.7	104	19.7	99	5	73-126/10
75-65-0	Tert-Butyl Alcohol	100	99.4	99	99.3	99	0	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	20	21.2	106	20.5	103	3	79-126/10
71-55-6	1,1,1-Trichloroethane	20	20.2	101	19.8	99	2	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	20	20.0	100	19.4	97	3	78-127/10
79-00-5	1,1,2-Trichloroethane	20	22.4	112	21.7	109	3	79-122/10
87-61-6	1,2,3-Trichlorobenzene	20	20.1	101	20.3	102	1	70-128/12
96-18-4	1,2,3-Trichloropropane	20	19.9	100	19.4	97	3	66-127/10
120-82-1	1,2,4-Trichlorobenzene	20	19.4	97	19.0	95	2	72-125/11
95-63-6	1,2,4-Trimethylbenzene	20	18.6	93	17.8	89	4	76-124/10
108-67-8	1,3,5-Trimethylbenzene	20	18.6	93	17.8	89	4	79-130/10
127-18-4	Tetrachloroethylene	20	20.7	104	20.5	103	1	72-124/13
108-88-3	Toluene	20	20.6	103	20.0	100	3	78-121/10
79-01-6	Trichloroethylene	20	21.0	105	20.5	103	2	75-119/10
75-69-4	Trichlorofluoromethane	20	18.3	92	19.2	96	5	68-130/19
75-01-4	Vinyl chloride	20	19.0	95	18.8	94	1	57-137/18
1330-20-7	Xylene (total)	60	61.9	103	59.9	100	3	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	94%	94%	80-123%
2037-26-5	Toluene-D8	93%	93%	88-112%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1394-BS	U33943.D	1	04/04/16	MV	n/a	n/a	VU1394
VU1394-BSD	U33944.D	1	04/04/16	MV	n/a	n/a	VU1394

The QC reported here applies to the following samples:

Method: SW846 8260B

C45079-1, C45079-3, C45079-4, C45079-5, C45079-7, C45079-8, C45079-10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	94%	95%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1395-BS	U33970.D	1	04/05/16	MV	n/a	n/a	VU1395
VU1395-BSD	U33971.D	1	04/05/16	MV	n/a	n/a	VU1395

The QC reported here applies to the following samples:

Method: SW846 8260B

C45079-1, C45079-2, C45079-3, C45079-4, C45079-5, C45079-6, C45079-7, C45079-8, C45079-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	19.4	97	19.3	97	1	76-120/10
100-41-4	Ethylbenzene	20	19.3	97	19.2	96	1	78-123/10
1634-04-4	Methyl Tert Butyl Ether	20	18.0	90	17.8	89	1	73-120/10
108-88-3	Toluene	20	19.1	96	19.0	95	1	78-121/10
1330-20-7	Xylene (total)	60	57.8	96	57.2	95	1	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	92%	91%	80-123%
2037-26-5	Toluene-D8	92%	92%	88-112%
460-00-4	4-Bromofluorobenzene	93%	92%	79-114%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1394-LCS	U33945.D	1	04/04/16	MV	n/a	n/a	VU1394

The QC reported here applies to the following samples:

Method: SW846 8260B

C45079-1, C45079-3, C45079-4, C45079-5, C45079-7, C45079-8, C45079-10

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
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CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	92%	80-123%
2037-26-5	Toluene-D8	94%	88-112%
460-00-4	4-Bromofluorobenzene	89%	79-114%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1395-LCS	U33972.D	1	04/05/16	MV	n/a	n/a	VU1395

The QC reported here applies to the following samples: **Method:** SW846 8260B

C45079-1, C45079-2, C45079-3, C45079-4, C45079-5, C45079-6, C45079-7, C45079-8, C45079-9

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
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CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	89%	80-123%
2037-26-5	Toluene-D8	93%	88-112%
460-00-4	4-Bromofluorobenzene	87%	79-114%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45099-7MS	U33964.D	5	04/04/16	MV	n/a	n/a	VU1394
C45099-7MSD	U33965.D	5	04/04/16	MV	n/a	n/a	VU1394
C45099-7	U33953.D	5	04/04/16	MV	n/a	n/a	VU1394

The QC reported here applies to the following samples:

Method: SW846 8260B

C45079-1, C45079-3, C45079-4, C45079-5, C45079-7, C45079-8, C45079-10

CAS No.	Compound	C45099-7 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	400	303	76	400	306	77	1	55-147/17
71-43-2	Benzene	218	100	259	41* a	100	250	32* a	4	76-120/10
108-86-1	Bromobenzene	ND	100	81.2	81	100	79.8	80	2	80-123/10
74-97-5	Bromochloromethane	ND	100	83.8	84	100	84.7	85	1	79-124/10
75-27-4	Bromodichloromethane	ND	100	81.8	82	100	81.2	81	1	75-121/10
75-25-2	Bromoform	ND	100	69.5	70	100	70.2	70	1	62-127/10
104-51-8	n-Butylbenzene	4.2	100	80.0	76	100	78.5	74	2	74-129/10
135-98-8	sec-Butylbenzene	1.7	100	78.0	76	100	75.9	74* b	3	75-128/11
98-06-6	tert-Butylbenzene	ND	100	76.0	76	100	74.4	74	2	74-127/11
108-90-7	Chlorobenzene	ND	100	86.9	87	100	86.7	87	0	79-119/10
75-00-3	Chloroethane	ND	100	80.0	80	100	79.7	80	0	60-115/14
67-66-3	Chloroform	ND	100	81.9	82	100	81.9	82	0	75-122/10
95-49-8	o-Chlorotoluene	ND	100	76.5	77	100	86.0	86	12	76-125/12
106-43-4	p-Chlorotoluene	ND	100	87.7	88	100	86.7	87	1	76-126/11
75-15-0	Carbon disulfide	ND	100	19.8	20* b	100	19.2	19* b	3	51-130/13
56-23-5	Carbon tetrachloride	ND	100	79.9	80	100	77.6	78	3	72-128/13
75-34-3	1,1-Dichloroethane	ND	100	75.0	75	100	74.5	75	1	70-121/10
75-35-4	1,1-Dichloroethylene	ND	100	45.9	46* b	100	44.5	45* b	3	62-125/13
563-58-6	1,1-Dichloropropene	ND	100	73.8	74	100	72.4	72	2	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	ND	100	76.7	77	100	77.7	78	1	64-129/11
106-93-4	1,2-Dibromoethane	ND	100	88.5	89	100	87.6	88	1	81-124/10
107-06-2	1,2-Dichloroethane	ND	100	85.7	86	100	85.1	85	1	74-122/10
78-87-5	1,2-Dichloropropane	ND	100	87.4	87	100	86.6	87	1	75-123/10
142-28-9	1,3-Dichloropropane	ND	100	92.2	92	100	91.4	91	1	81-127/11
594-20-7	2,2-Dichloropropane	ND	100	69.6	70	100	66.4	66	5	66-130/12
124-48-1	Dibromochloromethane	ND	100	76.6	77	100	76.2	76	1	76-124/10
75-71-8	Dichlorodifluoromethane	ND	100	47.2	47	100	43.7	44	8	26-163/26
156-59-2	cis-1,2-Dichloroethylene	ND	100	83.2	83	100	82.3	82	1	75-128/10
10061-01-5	cis-1,3-Dichloropropene	ND	100	83.0	83	100	83.6	84	1	76-131/10
541-73-1	m-Dichlorobenzene	ND	100	79.2	79	100	78.7	79	1	79-121/10
95-50-1	o-Dichlorobenzene	ND	100	81.9	82	100	80.2	80	2	79-120/10
106-46-7	p-Dichlorobenzene	ND	100	80.7	81	100	80.2	80	1	79-120/10
156-60-5	trans-1,2-Dichloroethylene	ND	100	60.0	60* b	100	59.7	60* b	1	67-116/11
10061-02-6	trans-1,3-Dichloropropene	ND	100	80.9	81	100	81.2	81	0	73-125/10
100-41-4	Ethylbenzene	5.5	100	88.7	83	100	87.8	82	1	78-123/10
637-92-3	Ethyl Tert Butyl Ether	ND	100	80.4	80	100	79.8	80	1	75-126/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45099-7MS	U33964.D	5	04/04/16	MV	n/a	n/a	VU1394
C45099-7MSD	U33965.D	5	04/04/16	MV	n/a	n/a	VU1394
C45099-7	U33953.D	5	04/04/16	MV	n/a	n/a	VU1394

The QC reported here applies to the following samples:

Method: SW846 8260B

C45079-1, C45079-3, C45079-4, C45079-5, C45079-7, C45079-8, C45079-10

CAS No.	Compound	C45099-7 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND	400	339	85	400	339	85	0	71-145/12
87-68-3	Hexachlorobutadiene	ND	100	76.5	77	100	75.5	76	1	70-130/12
98-82-8	Isopropylbenzene	14.4	100	98.1	84	100	95.7	81	2	77-125/10
99-87-6	p-Isopropyltoluene	ND	100	75.5	76	100	74.1	74* b	2	76-126/10
108-10-1	4-Methyl-2-pentanone	ND	400	326	82	400	327	82	0	70-142/11
74-83-9	Methyl bromide	ND	100	76.7	77	100	75.3	75	2	65-124/13
74-87-3	Methyl chloride	ND	100	75.8	76	100	74.6	75	2	47-143/20
74-95-3	Methylene bromide	ND	100	92.3	92	100	91.0	91	1	80-125/10
75-09-2	Methylene chloride	ND	100	73.2	73	100	72.1	72	2	65-124/15
78-93-3	Methyl ethyl ketone	ND	400	306	77	400	313	78	2	66-145/12
1634-04-4	Methyl Tert Butyl Ether	ND	100	75.9	76	100	75.1	75	1	73-120/10
91-20-3	Naphthalene	297	100	336	39* a	100	354	57* a	5	66-120/12
103-65-1	n-Propylbenzene	42.1	100	110	68* b	100	108	66* b	2	75-125/10
100-42-5	Styrene	ND	100	83.1	83	100	82.0	82	1	73-126/10
75-65-0	Tert-Butyl Alcohol	23.1	500	459	87	500	483	92	5	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	ND	100	88.9	89	100	87.8	88	1	79-126/10
71-55-6	1,1,1-Trichloroethane	ND	100	77.0	77	100	75.7	76	2	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	86.8	87	100	86.2	86	1	78-127/10
79-00-5	1,1,2-Trichloroethane	ND	100	95.1	95	100	94.0	94	1	79-122/10
87-61-6	1,2,3-Trichlorobenzene	ND	100	84.0	84	100	88.1	88	5	70-128/12
96-18-4	1,2,3-Trichloropropane	ND	100	74.3	74	100	74.1	74	0	66-127/10
120-82-1	1,2,4-Trichlorobenzene	ND	100	82.2	82	100	81.9	82	0	72-125/11
95-63-6	1,2,4-Trimethylbenzene	ND	100	76.8	77	100	75.2	75* b	2	76-124/10
108-67-8	1,3,5-Trimethylbenzene	ND	100	78.2	78* b	100	76.8	77* b	2	79-130/10
127-18-4	Tetrachloroethylene	ND	100	81.1	81	100	80.5	81	1	72-124/13
108-88-3	Toluene	6.0	100	88.2	82	100	87.5	82	1	78-121/10
79-01-6	Trichloroethylene	ND	100	83.5	84	100	82.8	83	1	75-119/10
75-69-4	Trichlorofluoromethane	ND	100	86.2	86	100	84.8	85	2	68-130/19
75-01-4	Vinyl chloride	ND	100	85.8	86	100	82.7	83	4	57-137/18
1330-20-7	Xylene (total)	9.6	300	263	84	300	257	82	2	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45099-7	Limits
1868-53-7	Dibromofluoromethane	89%	90%	89%	80-123%
2037-26-5	Toluene-D8	92%	93%	94%	88-112%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45099-7MS	U33964.D	5	04/04/16	MV	n/a	n/a	VU1394
C45099-7MSD	U33965.D	5	04/04/16	MV	n/a	n/a	VU1394
C45099-7	U33953.D	5	04/04/16	MV	n/a	n/a	VU1394

The QC reported here applies to the following samples:

Method: SW846 8260B

C45079-1, C45079-3, C45079-4, C45079-5, C45079-7, C45079-8, C45079-10

CAS No.	Surrogate Recoveries	MS	MSD	C45099-7	Limits
460-00-4	4-Bromofluorobenzene	92%	91%	90%	79-114%

- (a) Outside control limits due to high level in sample relative to spike amount. AZ:M3
- (b) Outside laboratory control limits. AZ:M2

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45079
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45079-4MS	U33990.D	25	04/05/16	MV	n/a	n/a	VU1395
C45079-4MSD	U33991.D	25	04/05/16	MV	n/a	n/a	VU1395
C45079-4 ^a	U33977.D	25	04/05/16	MV	n/a	n/a	VU1395

The QC reported here applies to the following samples:

Method: SW846 8260B

C45079-1, C45079-2, C45079-3, C45079-4, C45079-5, C45079-6, C45079-7, C45079-8, C45079-9

CAS No.	Compound	C45079-4 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	500	465	93	500	497	99	7	76-120/10
100-41-4	Ethylbenzene	12.4	500	477	93	500	508	99	6	78-123/10
1634-04-4	Methyl Tert Butyl Ether	978	500	1440	92	500	1490	102	3	73-120/10
108-88-3	Toluene	ND	500	460	92	500	489	98	6	78-121/10
1330-20-7	Xylene (total)	ND	1500	1380	92	1500	1480	99	7	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45079-4	Limits
1868-53-7	Dibromofluoromethane	88%	91%	87%	80-123%
2037-26-5	Toluene-D8	93%	92%	92%	88-112%
460-00-4	4-Bromofluorobenzene	92%	93%	89%	79-114%

(a) AZ:D2

* = Outside of Control Limits.

Technical Report for

City of Tucson Environmental Services

Price Service Center

PO1064

SGS Accutest Job Number: C45103

Sampling Date: 03/23/16



Report to:

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Total number of pages in report: **44**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

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Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Sample Summary

City of Tucson Environmental Services

Job No: C45103

Price Service Center
Project No: PO1064

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C45103-1	03/23/16	08:52 KV	03/24/16	AQ	Ground Water	WR-229A
C45103-2	03/23/16	09:20 KV	03/24/16	AQ	Ground Water	R-037A
C45103-3	03/23/16	09:48 KV	03/24/16	AQ	Ground Water	R-047A
C45103-4	03/23/16	10:10 KV	03/24/16	AQ	Ground Water	PCM-517A
C45103-5	03/23/16	10:40 KV	03/24/16	AQ	Ground Water	WR-223A
C45103-6	03/23/16	11:12 KV	03/24/16	AQ	Ground Water	R-044A
C45103-7	03/23/16	11:35 KV	03/24/16	AQ	Ground Water	R-045A
C45103-8	03/23/16	11:58 KV	03/24/16	AQ	Ground Water	WR-228A
C45103-9	03/23/16	12:00 KV	03/24/16	AQ	Ground Water	WR-228A
C45103-10	03/23/16	00:00 KV	03/24/16	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: City of Tucson Environmental Services

Job No C45103

Site: Price Service Center

Report Date 4/6/2016 7:08:06 PM

9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/23/2016 and were received at Accutest on 03/24/2016 properly preserved, at 3.1 Deg. C and intact. These Samples received an Accutest job number of C45103. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ	Batch ID: VV1352
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- Sample(s) C45136-2MS, C45136-2MSD were used as the QC samples indicated.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Tetrachloroethylene are outside laboratory control limits. Probable cause due to matrix interference. The associated blank spike recoveries were acceptable.
- RPD(s) for MSD for 1,2,3-Trichloropropane exceeded laboratory acceptance limit; MS/MSD recoveries met acceptance criteria.
- C45103-8, C45103-9: Sample vials contained more than 0.5cm of sediment.

Matrix: AQ	Batch ID: VV1353
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- Sample(s) C45118-3MS, C45118-3MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Methyl Tert Butyl Ether are outside laboratory control limits. Probable cause due to matrix interference. The associated blank spike recoveries were acceptable.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C45103
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/23/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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C45103-1 WR-229A

No hits reported in this sample.

C45103-2 R-037A

Methyl Tert Butyl Ether ^a	19200	500		ug/l	SW846 8260B
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C45103-3 R-047A

Benzene	3.5	1.0		ug/l	SW846 8260B
Ethylbenzene	30.4	1.0		ug/l	SW846 8260B
Xylene (total) ^a	222	200		ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a	6310	100		ug/l	SW846 8260B

C45103-4 PCM-517A

Benzene ^a	6760	100		ug/l	SW846 8260B
Ethylbenzene ^a	266	100		ug/l	SW846 8260B
Xylene (total) ^a	449	200		ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a	182	100		ug/l	SW846 8260B

C45103-5 WR-223A

1,2-Dichloroethane	0.67	0.50		ug/l	SW846 8260B
Methyl Tert Butyl Ether	9.1	1.0		ug/l	SW846 8260B

C45103-6 R-044A

No hits reported in this sample.

C45103-7 R-045A

Methyl Tert Butyl Ether	8.4	1.0		ug/l	SW846 8260B
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C45103-8 WR-228A

No hits reported in this sample.

C45103-9 WR-228A

No hits reported in this sample.

Summary of Hits

Job Number: C45103
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/23/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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C45103-10 **TRIP BLANK**

No hits reported in this sample.

(a) AZ:D2

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: WR-229A	Date Sampled: 03/23/16
Lab Sample ID: C45103-1	Date Received: 03/24/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V32745.D	1	04/04/16	KZ	n/a	n/a	VV1352
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-123%
2037-26-5	Toluene-D8	98%		88-112%
460-00-4	4-Bromofluorobenzene	100%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: R-037A	Date Sampled: 03/23/16
Lab Sample ID: C45103-2	Date Received: 03/24/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	V32746.D	500	04/04/16	KZ	n/a	n/a	VV1352
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	500	ug/l	
108-88-3	Toluene	ND	500	ug/l	
100-41-4	Ethylbenzene	ND	500	ug/l	
1330-20-7	Xylene (total)	ND	1000	ug/l	
1634-04-4	Methyl Tert Butyl Ether	19200	500	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		80-123%
2037-26-5	Toluene-D8	100%		88-112%
460-00-4	4-Bromofluorobenzene	101%		79-114%

(a) AZ:D2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.2
4

Report of Analysis

Client Sample ID: R-047A	Date Sampled: 03/23/16
Lab Sample ID: C45103-3	Date Received: 03/24/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V32771.D	1	04/05/16	KZ	n/a	n/a	VV1353
Run #2 ^a	V32798.D	100	04/06/16	KZ	n/a	n/a	VV1354

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	3.5	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	30.4	1.0	ug/l	
1330-20-7	Xylene (total)	222 ^b	200	ug/l	
1634-04-4	Methyl Tert Butyl Ether	6310 ^b	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%	97%	80-123%
2037-26-5	Toluene-D8	103%	107%	88-112%
460-00-4	4-Bromofluorobenzene	94%	102%	79-114%

(a) AZ:D2

(b) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: PCM-517A	Date Sampled: 03/23/16
Lab Sample ID: C45103-4	Date Received: 03/24/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	V32747.D	100	04/04/16	KZ	n/a	n/a	VV1352
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	6760	100	ug/l	
108-88-3	Toluene	ND	100	ug/l	
100-41-4	Ethylbenzene	266	100	ug/l	
1330-20-7	Xylene (total)	449	200	ug/l	
1634-04-4	Methyl Tert Butyl Ether	182	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		80-123%
2037-26-5	Toluene-D8	97%		88-112%
460-00-4	4-Bromofluorobenzene	97%		79-114%

(a) AZ:D2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.4
4

Report of Analysis

Client Sample ID: WR-223A		Date Sampled: 03/23/16
Lab Sample ID: C45103-5		Date Received: 03/24/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V32769.D	1	04/05/16	KZ	n/a	n/a	VV1353
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	0.67	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WR-223A	Date Sampled: 03/23/16
Lab Sample ID: C45103-5	Date Received: 03/24/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	9.1	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		80-123%
2037-26-5	Toluene-D8	110%		88-112%
460-00-4	4-Bromofluorobenzene	104%		79-114%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: R-044A	Date Sampled: 03/23/16
Lab Sample ID: C45103-6	Date Received: 03/24/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V32749.D	1	04/04/16	KZ	n/a	n/a	VV1352
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-123%
2037-26-5	Toluene-D8	99%		88-112%
460-00-4	4-Bromofluorobenzene	101%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.6
4

Report of Analysis

Client Sample ID: R-045A	Date Sampled: 03/23/16
Lab Sample ID: C45103-7	Date Received: 03/24/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V32750.D	1	04/04/16	KZ	n/a	n/a	VV1352
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	8.4	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-123%
2037-26-5	Toluene-D8	99%		88-112%
460-00-4	4-Bromofluorobenzene	100%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID: WR-228A	Date Sampled: 03/23/16
Lab Sample ID: C45103-8	Date Received: 03/24/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	V32751.D	1	04/04/16	KZ	n/a	n/a	VV1352
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-123%
2037-26-5	Toluene-D8	100%		88-112%
460-00-4	4-Bromofluorobenzene	102%		79-114%

(a) Sample vial contained more than 0.5cm of sediment.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.8
4

Report of Analysis

Client Sample ID: WR-228A	Date Sampled: 03/23/16
Lab Sample ID: C45103-9	Date Received: 03/24/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	V32752.D	1	04/04/16	KZ	n/a	n/a	VV1352
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-123%
2037-26-5	Toluene-D8	101%		88-112%
460-00-4	4-Bromofluorobenzene	102%		79-114%

(a) Sample vial contained more than 0.5cm of sediment.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.9
4

Report of Analysis

Client Sample ID: TRIP BLANK		Date Sampled: 03/23/16
Lab Sample ID: C45103-10		Date Received: 03/24/16
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V32737.D	1	04/04/16	KZ	n/a	n/a	VV1352
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

4.10
4

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	03/23/16
Lab Sample ID:	C45103-10	Date Received:	03/24/16
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-123%
2037-26-5	Toluene-D8	98%		88-112%
460-00-4	4-Bromofluorobenzene	100%		79-114%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D2	Sample required dilution due to high concentration of target analyte.
M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

5.1
5

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FedEx Tracking # 7326 6240 0060 Bottle Order Control #
Accutest Quote # _____ Accutest NC Job #: C45103

Client / Reporting Information | **Project Information**

Company Name: CITY OF TUCSON | Project Name: PRICE SERVICE CENTER
Address: P.O. Box 27210 | Street:
City: TUCSON | State: AZ | Zip: 85726 | City: | State: |
Project Contact: LORI EHMAN | Project # PO 1064
Phone #: 520 791 3175 | EMAIL:
Sampler's Name: KAYLA VIRGONE | Client Purchase Order #

Requested Analysis | **Matrix Codes**

Matrix Codes:
 WW - Wastewater
 GW - Ground Water
 SW - Surface Water
 SO - Soil
 OL - Oil
 WP - Wp
 LIQ - Non-aqueous Liquid
 AIR
 DW - Drinking Water (Perchlorate Only)

LAB USE ONLY

Vertical labels: BTEX / MTBE, 8260

Accutest Sample ID | **Sample ID / Field Point / Point of Collection** | **Date** | **Time** | **Sampled by** | **Matrix** | **# of bottles** | **ID** | **NO3** | **NO2** | **NO** | **CO** | **SO4** | **AMMONIA** | **PHOSPHORUS** | **CHLORIDE** | **CYANIDE** | **SILICATE** | **PERCHLORATE**

1	WR-229A	3/23/16	0852	KV	GW	3													
2	R-037A	3/23/16	0920	KV	GW	3													
3	R-047A	3/23/16	0948	KV	GW	3													
4	PCM-517A	3/23/16	1010	KV	GW	3													
5	WR-223A	3/23/16	1040	KV	GW	3													
6	R-044A	3/23/16	1112	KV	GW	3													
7	^{KV} 3/23/16 R-03 R-045A	3/23/16	1135	KV	GW	3													
8	WR-228A	3/23/16	1158	KV	GW	3													
9	WR-228A	3/23/16	1200	KV	GW	3													
10	TRIP BLANK																		

Turnaround Time (Business days) | **Data Deliverable Information** | **Comments / Remarks**

10 Day
5 Day
3 Day
2 Day
1 Day
Same Day

Approved By / Date: _____

Commercial "A" - Results only
 Commercial "B" - Results with QC summaries
 Commercial "B+" - Results, QC, and chromatograms
 FULL11 - Level 4 data package
 EDF for Geobacter EDF Format _____
 Provide EDF Global ID: _____
 Provide EDF Logcode: _____

Emergency TIA data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: <u>Kayla Virgone</u>	Date/Time: 3/23/16 1221	Relinquished By: <u>[Signature]</u>	Relinquished By: <u>[Signature]</u>	Date/Time: 3/23/16 1252	Received By: <u>[Signature]</u>
Relinquished by: <u>[Signature]</u>	Date/Time: 3/23/16 1330	Received By: <u>FedEx</u>	Relinquished By: <u>[Signature]</u>	Date/Time: 3/24/16 0930	Received By: <u>[Signature]</u>
Relinquished by: <u>[Signature]</u>	Date/Time:	Received By:	Custody Seal # <u>INTACT</u>	Appropriate Bottle / Pres. Y/N Labels match Coc? <u>Y / N</u>	Headspace Y/N On Ice <u>[initials]</u> Cooler Temp. <u>29/31</u>

C45103: Chain of Custody

Page 1 of 2

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SGS Accutest Sample Receipt Summary

Job Number: C45103

Client: CITY OF TUCSON

Project: PRICE SERVICE CENTER

Date / Time Received: 3/24/2016 9:30:00 AM

Delivery Method: FedEx

Airbill #s: 782662400060

Cooler Temps (Initial/Adjusted): #1: (2.9/3.1):

<u>Cooler Security</u>	<u>Y</u>	<u>or</u>	<u>N</u>		<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. SmpI Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Cooler Temperature</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Therm ID:	IR1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
2. Trip Blank listed on COC:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
4. VOCs headspace free:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

<u>Sample Integrity - Documentation</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Sample Integrity - Condition</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	Intact		

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

5.2
5

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1352-MB	V32736.D	1	04/04/16	KZ	n/a	n/a	VV1352

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-1, C45103-2, C45103-4, C45103-6, C45103-7, C45103-8, C45103-9, C45103-10

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1352-MB	V32736.D	1	04/04/16	KZ	n/a	n/a	VV1352

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-1, C45103-2, C45103-4, C45103-6, C45103-7, C45103-8, C45103-9, C45103-10

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	90%	80-123%
2037-26-5	Toluene-D8	97%	88-112%

Method Blank Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1352-MB	V32736.D	1	04/04/16	KZ	n/a	n/a	VV1352

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-1, C45103-2, C45103-4, C45103-6, C45103-7, C45103-8, C45103-9, C45103-10

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	101% 79-114%

Method Blank Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1353-MB	V32765.D	1	04/05/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-3, C45103-5

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1353-MB	V32765.D	1	04/05/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-3, C45103-5

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	95%	80-123%
2037-26-5	Toluene-D8	108%	88-112%

Method Blank Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1353-MB	V32765.D	1	04/05/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-3, C45103-5

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	105% 79-114%

Method Blank Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1354-MB	V32793.D	1	04/06/16	KZ	n/a	n/a	VV1354

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-3

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	95%	80-123%
2037-26-5	Toluene-D8	109%	88-112%
460-00-4	4-Bromofluorobenzene	107%	79-114%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1352-BS	V32733.D	1	04/04/16	KZ	n/a	n/a	VV1352
VV1352-BSD	V32734.D	1	04/04/16	KZ	n/a	n/a	VV1352

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-1, C45103-2, C45103-4, C45103-6, C45103-7, C45103-8, C45103-9, C45103-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	90.6	113	89.3	112	1	55-147/17
71-43-2	Benzene	20	18.7	94	18.4	92	2	76-120/10
108-86-1	Bromobenzene	20	18.8	94	18.9	95	1	80-123/10
74-97-5	Bromochloromethane	20	19.5	98	19.3	97	1	79-124/10
75-27-4	Bromodichloromethane	20	18.1	91	18.0	90	1	75-121/10
75-25-2	Bromoform	20	16.3	82	16.0	80	2	62-127/10
104-51-8	n-Butylbenzene	20	18.0	90	17.9	90	1	74-129/10
135-98-8	sec-Butylbenzene	20	18.1	91	17.8	89	2	75-128/11
98-06-6	tert-Butylbenzene	20	17.9	90	18.2	91	2	74-127/11
108-90-7	Chlorobenzene	20	18.0	90	18.1	91	1	79-119/10
75-00-3	Chloroethane	20	19.2	96	18.8	94	2	60-115/14
67-66-3	Chloroform	20	17.7	89	17.6	88	1	75-122/10
95-49-8	o-Chlorotoluene	20	17.3	87	17.6	88	2	76-125/12
106-43-4	p-Chlorotoluene	20	18.7	94	18.8	94	1	76-126/11
75-15-0	Carbon disulfide	20	16.9	85	16.5	83	2	51-130/13
56-23-5	Carbon tetrachloride	20	18.3	92	17.8	89	3	72-128/13
75-34-3	1,1-Dichloroethane	20	18.4	92	18.3	92	1	70-121/10
75-35-4	1,1-Dichloroethylene	20	18.0	90	17.7	89	2	62-125/13
563-58-6	1,1-Dichloropropene	20	18.1	91	17.9	90	1	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	20	16.1	81	15.4	77	4	64-129/11
106-93-4	1,2-Dibromoethane	20	19.1	96	18.9	95	1	81-124/10
107-06-2	1,2-Dichloroethane	20	18.1	91	17.4	87	4	74-122/10
78-87-5	1,2-Dichloropropane	20	19.0	95	18.8	94	1	75-123/10
142-28-9	1,3-Dichloropropane	20	19.1	96	19.2	96	1	81-127/11
594-20-7	2,2-Dichloropropane	20	18.7	94	18.2	91	3	66-130/12
124-48-1	Dibromochloromethane	20	17.1	86	17.2	86	1	76-124/10
75-71-8	Dichlorodifluoromethane	20	17.1	86	16.4	82	4	26-163/26
156-59-2	cis-1,2-Dichloroethylene	20	18.7	94	18.7	94	0	75-128/10
10061-01-5	cis-1,3-Dichloropropene	20	19.2	96	19.3	97	1	76-131/10
541-73-1	m-Dichlorobenzene	20	18.5	93	18.5	93	0	79-121/10
95-50-1	o-Dichlorobenzene	20	18.1	91	18.1	91	0	79-120/10
106-46-7	p-Dichlorobenzene	20	18.6	93	18.7	94	1	79-120/10
156-60-5	trans-1,2-Dichloroethylene	20	17.0	85	17.0	85	0	67-116/11
10061-02-6	trans-1,3-Dichloropropene	20	17.6	88	17.5	88	1	73-125/10
100-41-4	Ethylbenzene	20	18.4	92	18.3	92	1	78-123/10
637-92-3	Ethyl Tert Butyl Ether	20	18.8	94	18.6	93	1	75-126/11

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1352-BS	V32733.D	1	04/04/16	KZ	n/a	n/a	VV1352
VV1352-BSD	V32734.D	1	04/04/16	KZ	n/a	n/a	VV1352

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-1, C45103-2, C45103-4, C45103-6, C45103-7, C45103-8, C45103-9, C45103-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	86.9	109	86.3	108	1	71-145/12
87-68-3	Hexachlorobutadiene	20	18.8	94	18.2	91	3	70-130/12
98-82-8	Isopropylbenzene	20	17.8	89	17.6	88	1	77-125/10
99-87-6	p-Isopropyltoluene	20	18.2	91	18.4	92	1	76-126/10
108-10-1	4-Methyl-2-pentanone	80	86.5	108	84.4	106	2	70-142/11
74-83-9	Methyl bromide	20	18.0	90	17.8	89	1	65-124/13
74-87-3	Methyl chloride	20	21.1	106	20.3	102	4	47-143/20
74-95-3	Methylene bromide	20	19.3	97	18.9	95	2	80-125/10
75-09-2	Methylene chloride	20	18.7	94	18.6	93	1	65-124/15
78-93-3	Methyl ethyl ketone	80	81.8	102	78.6	98	4	66-145/12
1634-04-4	Methyl Tert Butyl Ether	20	17.5	88	17.1	86	2	73-120/10
91-20-3	Naphthalene	20	18.7	94	18.4	92	2	66-120/12
103-65-1	n-Propylbenzene	20	17.8	89	18.0	90	1	75-125/10
100-42-5	Styrene	20	18.9	95	19.0	95	1	73-126/10
75-65-0	Tert-Butyl Alcohol	100	104	104	99.5	100	4	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	20	17.6	88	17.6	88	0	79-126/10
71-55-6	1,1,1-Trichloroethane	20	18.4	92	17.9	90	3	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	20	18.7	94	18.5	93	1	78-127/10
79-00-5	1,1,2-Trichloroethane	20	18.5	93	18.4	92	1	79-122/10
87-61-6	1,2,3-Trichlorobenzene	20	19.5	98	19.5	98	0	70-128/12
96-18-4	1,2,3-Trichloropropane	20	15.1	76	16.0	80	6	66-127/10
120-82-1	1,2,4-Trichlorobenzene	20	18.8	94	18.7	94	1	72-125/11
95-63-6	1,2,4-Trimethylbenzene	20	17.9	90	18.1	91	1	76-124/10
108-67-8	1,3,5-Trimethylbenzene	20	18.0	90	18.2	91	1	79-130/10
127-18-4	Tetrachloroethylene	20	18.2	91	18.5	93	2	72-124/13
108-88-3	Toluene	20	18.3	92	18.3	92	0	78-121/10
79-01-6	Trichloroethylene	20	19.2	96	19.1	96	1	75-119/10
75-69-4	Trichlorofluoromethane	20	18.6	93	18.3	92	2	68-130/19
75-01-4	Vinyl chloride	20	20.1	101	19.4	97	4	57-137/18
1330-20-7	Xylene (total)	60	55.1	92	55.3	92	0	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	92%	92%	80-123%
2037-26-5	Toluene-D8	90%	90%	88-112%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1352-BS	V32733.D	1	04/04/16	KZ	n/a	n/a	VV1352
VV1352-BSD	V32734.D	1	04/04/16	KZ	n/a	n/a	VV1352

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-1, C45103-2, C45103-4, C45103-6, C45103-7, C45103-8, C45103-9, C45103-10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	91%	91%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1353-BS	V32762.D	1	04/05/16	KZ	n/a	n/a	VV1353
VV1353-BSD	V32763.D	1	04/05/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-3, C45103-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	85.7	107	82.4	103	4	55-147/17
71-43-2	Benzene	20	17.5	88	17.6	88	1	76-120/10
108-86-1	Bromobenzene	20	18.7	94	18.6	93	1	80-123/10
74-97-5	Bromochloromethane	20	18.1	91	18.0	90	1	79-124/10
75-27-4	Bromodichloromethane	20	17.0	85	16.9	85	1	75-121/10
75-25-2	Bromoform	20	15.8	79	15.8	79	0	62-127/10
104-51-8	n-Butylbenzene	20	17.9	90	17.8	89	1	74-129/10
135-98-8	sec-Butylbenzene	20	17.7	89	17.7	89	0	75-128/11
98-06-6	tert-Butylbenzene	20	17.7	89	17.6	88	1	74-127/11
108-90-7	Chlorobenzene	20	17.7	89	17.9	90	1	79-119/10
75-00-3	Chloroethane	20	17.4	87	17.9	90	3	60-115/14
67-66-3	Chloroform	20	16.4	82	16.6	83	1	75-122/10
95-49-8	o-Chlorotoluene	20	17.2	86	17.0	85	1	76-125/12
106-43-4	p-Chlorotoluene	20	18.6	93	18.3	92	2	76-126/11
75-15-0	Carbon disulfide	20	15.6	78	15.6	78	0	51-130/13
56-23-5	Carbon tetrachloride	20	17.1	86	17.2	86	1	72-128/13
75-34-3	1,1-Dichloroethane	20	17.1	86	17.1	86	0	70-121/10
75-35-4	1,1-Dichloroethylene	20	16.8	84	16.8	84	0	62-125/13
563-58-6	1,1-Dichloropropene	20	17.1	86	17.2	86	1	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	20	15.6	78	14.9	75	5	64-129/11
106-93-4	1,2-Dibromoethane	20	18.7	94	18.6	93	1	81-124/10
107-06-2	1,2-Dichloroethane	20	16.4	82	16.4	82	0	74-122/10
78-87-5	1,2-Dichloropropane	20	17.6	88	17.7	89	1	75-123/10
142-28-9	1,3-Dichloropropane	20	18.6	93	18.6	93	0	81-127/11
594-20-7	2,2-Dichloropropane	20	17.2	86	17.4	87	1	66-130/12
124-48-1	Dibromochloromethane	20	16.8	84	16.8	84	0	76-124/10
75-71-8	Dichlorodifluoromethane	20	15.5	78	16.2	81	4	26-163/26
156-59-2	cis-1,2-Dichloroethylene	20	17.4	87	17.7	89	2	75-128/10
10061-01-5	cis-1,3-Dichloropropene	20	18.1	91	18.1	91	0	76-131/10
541-73-1	m-Dichlorobenzene	20	18.3	92	18.2	91	1	79-121/10
95-50-1	o-Dichlorobenzene	20	17.9	90	17.8	89	1	79-120/10
106-46-7	p-Dichlorobenzene	20	18.4	92	18.1	91	2	79-120/10
156-60-5	trans-1,2-Dichloroethylene	20	16.0	80	15.9	80	1	67-116/11
10061-02-6	trans-1,3-Dichloropropene	20	17.4	87	17.4	87	0	73-125/10
100-41-4	Ethylbenzene	20	17.9	90	18.1	91	1	78-123/10
637-92-3	Ethyl Tert Butyl Ether	20	17.4	87	17.3	87	1	75-126/11

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1353-BS	V32762.D	1	04/05/16	KZ	n/a	n/a	VV1353
VV1353-BSD	V32763.D	1	04/05/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-3, C45103-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	86.0	108	82.2	103	5	71-145/12
87-68-3	Hexachlorobutadiene	20	18.1	91	18.0	90	1	70-130/12
98-82-8	Isopropylbenzene	20	17.4	87	17.5	88	1	77-125/10
99-87-6	p-Isopropyltoluene	20	17.7	89	18.0	90	2	76-126/10
108-10-1	4-Methyl-2-pentanone	80	80.7	101	78.6	98	3	70-142/11
74-83-9	Methyl bromide	20	17.6	88	17.0	85	3	65-124/13
74-87-3	Methyl chloride	20	20.4	102	20.4	102	0	47-143/20
74-95-3	Methylene bromide	20	17.8	89	17.8	89	0	80-125/10
75-09-2	Methylene chloride	20	17.4	87	17.7	89	2	65-124/15
78-93-3	Methyl ethyl ketone	80	75.8	95	71.7	90	6	66-145/12
1634-04-4	Methyl Tert Butyl Ether	20	16.4	82	16.1	81	2	73-120/10
91-20-3	Naphthalene	20	18.0	90	17.8	89	1	66-120/12
103-65-1	n-Propylbenzene	20	17.5	88	17.4	87	1	75-125/10
100-42-5	Styrene	20	18.7	94	18.6	93	1	73-126/10
75-65-0	Tert-Butyl Alcohol	100	98.5	99	86.2	86	13	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	20	17.3	87	17.5	88	1	79-126/10
71-55-6	1,1,1-Trichloroethane	20	17.1	86	17.0	85	1	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	20	18.3	92	18.1	91	1	78-127/10
79-00-5	1,1,2-Trichloroethane	20	18.1	91	18.1	91	0	79-122/10
87-61-6	1,2,3-Trichlorobenzene	20	19.1	96	19.1	96	0	70-128/12
96-18-4	1,2,3-Trichloropropane	20	15.1	76	16.4	82	8	66-127/10
120-82-1	1,2,4-Trichlorobenzene	20	18.3	92	18.5	93	1	72-125/11
95-63-6	1,2,4-Trimethylbenzene	20	17.7	89	17.7	89	0	76-124/10
108-67-8	1,3,5-Trimethylbenzene	20	17.7	89	17.7	89	0	79-130/10
127-18-4	Tetrachloroethylene	20	18.0	90	18.2	91	1	72-124/13
108-88-3	Toluene	20	18.0	90	18.1	91	1	78-121/10
79-01-6	Trichloroethylene	20	17.9	90	18.1	91	1	75-119/10
75-69-4	Trichlorofluoromethane	20	16.7	84	17.3	87	4	68-130/19
75-01-4	Vinyl chloride	20	18.4	92	18.8	94	2	57-137/18
1330-20-7	Xylene (total)	60	53.7	90	54.2	90	1	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	97%	97%	80-123%
2037-26-5	Toluene-D8	100%	101%	88-112%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1353-BS	V32762.D	1	04/05/16	KZ	n/a	n/a	VV1353
VV1353-BSD	V32763.D	1	04/05/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-3, C45103-5

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	96%	96%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1354-BS	V32790.D	1	04/06/16	KZ	n/a	n/a	VV1354
VV1354-BSD	V32791.D	1	04/06/16	KZ	n/a	n/a	VV1354

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	20	15.5	78	16.0	80	3	73-120/10
1330-20-7	Xylene (total)	60	52.5	88	52.3	87	0	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	97%	99%	80-123%
2037-26-5	Toluene-D8	101%	100%	88-112%
460-00-4	4-Bromofluorobenzene	96%	95%	79-114%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45136-2MS	V32755.D	50	04/04/16	KZ	n/a	n/a	VV1352
C45136-2MSD	V32756.D	50	04/04/16	KZ	n/a	n/a	VV1352
C45136-2 ^a	V32753.D	50	04/04/16	KZ	n/a	n/a	VV1352

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-1, C45103-2, C45103-4, C45103-6, C45103-7, C45103-8, C45103-9, C45103-10

CAS No.	Compound	C45136-2		MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
		ug/l	Q								
67-64-1	Acetone	ND		4000	4690	117	4000	4620	116	2	55-147/17
71-43-2	Benzene	ND		1000	928	93	1000	951	95	2	76-120/10
108-86-1	Bromobenzene	ND		1000	950	95	1000	937	94	1	80-123/10
74-97-5	Bromochloromethane	ND		1000	975	98	1000	988	99	1	79-124/10
75-27-4	Bromodichloromethane	ND		1000	885	89	1000	898	90	1	75-121/10
75-25-2	Bromoform	ND		1000	725	73	1000	732	73	1	62-127/10
104-51-8	n-Butylbenzene	ND		1000	860	86	1000	874	87	2	74-129/10
135-98-8	sec-Butylbenzene	ND		1000	875	88	1000	885	89	1	75-128/11
98-06-6	tert-Butylbenzene	ND		1000	879	88	1000	897	90	2	74-127/11
108-90-7	Chlorobenzene	ND		1000	895	90	1000	905	91	1	79-119/10
75-00-3	Chloroethane	ND		1000	945	95	1000	984	98	4	60-115/14
67-66-3	Chloroform	ND		1000	883	88	1000	908	91	3	75-122/10
95-49-8	o-Chlorotoluene	ND		1000	856	86	1000	877	88	2	76-125/12
106-43-4	p-Chlorotoluene	ND		1000	919	92	1000	926	93	1	76-126/11
75-15-0	Carbon disulfide	ND		1000	804	80	1000	848	85	5	51-130/13
56-23-5	Carbon tetrachloride	ND		1000	851	85	1000	886	89	4	72-128/13
75-34-3	1,1-Dichloroethane	ND		1000	907	91	1000	941	94	4	70-121/10
75-35-4	1,1-Dichloroethylene	ND		1000	861	86	1000	923	92	7	62-125/13
563-58-6	1,1-Dichloropropene	ND		1000	868	87	1000	901	90	4	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	ND		1000	779	78	1000	744	74	5	64-129/11
106-93-4	1,2-Dibromoethane	ND		1000	951	95	1000	933	93	2	81-124/10
107-06-2	1,2-Dichloroethane	ND		1000	883	88	1000	871	87	1	74-122/10
78-87-5	1,2-Dichloropropane	ND		1000	947	95	1000	955	96	1	75-123/10
142-28-9	1,3-Dichloropropane	ND		1000	957	96	1000	956	96	0	81-127/11
594-20-7	2,2-Dichloropropane	ND		1000	789	79	1000	811	81	3	66-130/12
124-48-1	Dibromochloromethane	ND		1000	819	82	1000	820	82	0	76-124/10
75-71-8	Dichlorodifluoromethane	ND		1000	846	85	1000	842	84	0	26-163/26
156-59-2	cis-1,2-Dichloroethylene	28.7		1000	970	94	1000	987	96	2	75-128/10
10061-01-5	cis-1,3-Dichloropropene	ND		1000	913	91	1000	924	92	1	76-131/10
541-73-1	m-Dichlorobenzene	ND		1000	918	92	1000	915	92	0	79-121/10
95-50-1	o-Dichlorobenzene	ND		1000	906	91	1000	898	90	1	79-120/10
106-46-7	p-Dichlorobenzene	ND		1000	927	93	1000	910	91	2	79-120/10
156-60-5	trans-1,2-Dichloroethylene	ND		1000	823	82	1000	862	86	5	67-116/11
10061-02-6	trans-1,3-Dichloropropene	ND		1000	816	82	1000	815	82	0	73-125/10
100-41-4	Ethylbenzene	ND		1000	902	90	1000	912	91	1	78-123/10
637-92-3	Ethyl Tert Butyl Ether	ND		1000	947	95	1000	953	95	1	75-126/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45136-2MS	V32755.D	50	04/04/16	KZ	n/a	n/a	VV1352
C45136-2MSD	V32756.D	50	04/04/16	KZ	n/a	n/a	VV1352
C45136-2 ^a	V32753.D	50	04/04/16	KZ	n/a	n/a	VV1352

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-1, C45103-2, C45103-4, C45103-6, C45103-7, C45103-8, C45103-9, C45103-10

CAS No.	Compound	C45136-2 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND	4000	4580	115	4000	4230	106	8	71-145/12
87-68-3	Hexachlorobutadiene	ND	1000	841	84	1000	880	88	5	70-130/12
98-82-8	Isopropylbenzene	ND	1000	868	87	1000	882	88	2	77-125/10
99-87-6	p-Isopropyltoluene	ND	1000	885	89	1000	880	88	1	76-126/10
108-10-1	4-Methyl-2-pentanone	ND	4000	4430	111	4000	4300	108	3	70-142/11
74-83-9	Methyl bromide	ND	1000	901	90	1000	941	94	4	65-124/13
74-87-3	Methyl chloride	ND	1000	1110	111	1000	1120	112	1	47-143/20
74-95-3	Methylene bromide	ND	1000	951	95	1000	949	95	0	80-125/10
75-09-2	Methylene chloride	ND	1000	934	93	1000	948	95	1	65-124/15
78-93-3	Methyl ethyl ketone	ND	4000	4140	104	4000	3950	99	5	66-145/12
1634-04-4	Methyl Tert Butyl Ether	ND	1000	882	88	1000	882	88	0	73-120/10
91-20-3	Naphthalene	ND	1000	916	92	1000	904	90	1	66-120/12
103-65-1	n-Propylbenzene	ND	1000	870	87	1000	884	88	2	75-125/10
100-42-5	Styrene	ND	1000	940	94	1000	950	95	1	73-126/10
75-65-0	Tert-Butyl Alcohol	ND	5000	5280	106	5000	4920	98	7	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	ND	1000	876	88	1000	883	88	1	79-126/10
71-55-6	1,1,1-Trichloroethane	ND	1000	884	88	1000	914	91	3	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	1000	940	94	1000	910	91	3	78-127/10
79-00-5	1,1,2-Trichloroethane	ND	1000	934	93	1000	923	92	1	79-122/10
87-61-6	1,2,3-Trichlorobenzene	ND	1000	942	94	1000	947	95	1	70-128/12
96-18-4	1,2,3-Trichloropropane	ND	1000	790	79	1000	711	71	11* ^b	66-127/10
120-82-1	1,2,4-Trichlorobenzene	ND	1000	904	90	1000	916	92	1	72-125/11
95-63-6	1,2,4-Trimethylbenzene	ND	1000	887	89	1000	896	90	1	76-124/10
108-67-8	1,3,5-Trimethylbenzene	ND	1000	890	89	1000	897	90	1	79-130/10
127-18-4	Tetrachloroethylene	1800	1000	2420	62* ^c	1000	2400	60* ^c	1	72-124/13
108-88-3	Toluene	ND	1000	896	90	1000	911	91	2	78-121/10
79-01-6	Trichloroethylene	69.4	1000	1010	94	1000	1030	96	2	75-119/10
75-69-4	Trichlorofluoromethane	ND	1000	907	91	1000	912	91	1	68-130/19
75-01-4	Vinyl chloride	ND	1000	994	99	1000	1020	102	3	57-137/18
1330-20-7	Xylene (total)	ND	3000	2710	90	3000	2750	92	1	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45136-2	Limits
1868-53-7	Dibromofluoromethane	93%	93%	92%	80-123%
2037-26-5	Toluene-D8	90%	90%	100%	88-112%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45136-2MS	V32755.D	50	04/04/16	KZ	n/a	n/a	VV1352
C45136-2MSD	V32756.D	50	04/04/16	KZ	n/a	n/a	VV1352
C45136-2 ^a	V32753.D	50	04/04/16	KZ	n/a	n/a	VV1352

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-1, C45103-2, C45103-4, C45103-6, C45103-7, C45103-8, C45103-9, C45103-10

CAS No.	Surrogate Recoveries	MS	MSD	C45136-2	Limits
460-00-4	4-Bromofluorobenzene	91%	90%	103%	79-114%

- (a) Sample vial contained more than 0.5cm of sediment.
- (b) RPD exceeded laboratory acceptance limit; MS/MSD recoveries met acceptance criteria. AZ:R5
- (c) Outside laboratory control limits. AZ:M2

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45118-3MS	V32784.D	100	04/06/16	KZ	n/a	n/a	VV1353
C45118-3MSD	V32785.D	100	04/06/16	KZ	n/a	n/a	VV1353
C45118-3	V32781.D	100	04/06/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-3, C45103-5

CAS No.	Compound	C45118-3 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	8000	8340	104	8000	8340	104	0	55-147/17
71-43-2	Benzene	ND	2000	1720	86	2000	1790	90	4	76-120/10
108-86-1	Bromobenzene	ND	2000	1890	95	2000	1890	95	0	80-123/10
74-97-5	Bromochloromethane	ND	2000	1770	89	2000	1800	90	2	79-124/10
75-27-4	Bromodichloromethane	ND	2000	1680	84	2000	1720	86	2	75-121/10
75-25-2	Bromoform	ND	2000	1630	82	2000	1640	82	1	62-127/10
104-51-8	n-Butylbenzene	ND	2000	1730	87	2000	1760	88	2	74-129/10
135-98-8	sec-Butylbenzene	ND	2000	1780	89	2000	1790	90	1	75-128/11
98-06-6	tert-Butylbenzene	ND	2000	1780	89	2000	1800	90	1	74-127/11
108-90-7	Chlorobenzene	ND	2000	1770	89	2000	1810	91	2	79-119/10
75-00-3	Chloroethane	ND	2000	1740	87	2000	1750	88	1	60-115/14
67-66-3	Chloroform	ND	2000	1620	81	2000	1660	83	2	75-122/10
95-49-8	o-Chlorotoluene	ND	2000	1740	87	2000	1750	88	1	76-125/12
106-43-4	p-Chlorotoluene	ND	2000	1860	93	2000	1760	88	6	76-126/11
75-15-0	Carbon disulfide	ND	2000	1520	76	2000	1570	79	3	51-130/13
56-23-5	Carbon tetrachloride	ND	2000	1660	83	2000	1710	86	3	72-128/13
75-34-3	1,1-Dichloroethane	ND	2000	1670	84	2000	1720	86	3	70-121/10
75-35-4	1,1-Dichloroethylene	ND	2000	1630	82	2000	1680	84	3	62-125/13
563-58-6	1,1-Dichloropropene	ND	2000	1660	83	2000	1710	86	3	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	ND	2000	1530	77	2000	1520	76	1	64-129/11
106-93-4	1,2-Dibromoethane	ND	2000	1850	93	2000	1870	94	1	81-124/10
107-06-2	1,2-Dichloroethane	ND	2000	1620	81	2000	1710	86	5	74-122/10
78-87-5	1,2-Dichloropropane	ND	2000	1750	88	2000	1800	90	3	75-123/10
142-28-9	1,3-Dichloropropane	ND	2000	1870	94	2000	1870	94	0	81-127/11
594-20-7	2,2-Dichloropropane	ND	2000	1360	68	2000	1390	70	2	66-130/12
124-48-1	Dibromochloromethane	ND	2000	1700	85	2000	1710	86	1	76-124/10
75-71-8	Dichlorodifluoromethane	ND	2000	1630	82	2000	1540	77	6	26-163/26
156-59-2	cis-1,2-Dichloroethylene	ND	2000	1710	86	2000	1770	89	3	75-128/10
10061-01-5	cis-1,3-Dichloropropene	ND	2000	1720	86	2000	1770	89	3	76-131/10
541-73-1	m-Dichlorobenzene	ND	2000	1820	91	2000	1830	92	1	79-121/10
95-50-1	o-Dichlorobenzene	ND	2000	1810	91	2000	1810	91	0	79-120/10
106-46-7	p-Dichlorobenzene	ND	2000	1840	92	2000	1850	93	1	79-120/10
156-60-5	trans-1,2-Dichloroethylene	ND	2000	1530	77	2000	1580	79	3	67-116/11
10061-02-6	trans-1,3-Dichloropropene	ND	2000	1620	81	2000	1680	84	4	73-125/10
100-41-4	Ethylbenzene	ND	2000	1800	90	2000	1840	92	2	78-123/10
637-92-3	Ethyl Tert Butyl Ether	ND	2000	1720	86	2000	1750	88	2	75-126/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45118-3MS	V32784.D	100	04/06/16	KZ	n/a	n/a	VV1353
C45118-3MSD	V32785.D	100	04/06/16	KZ	n/a	n/a	VV1353
C45118-3	V32781.D	100	04/06/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-3, C45103-5

CAS No.	Compound	C45118-3 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND	8000	8360	105	8000	8420	105	1	71-145/12
87-68-3	Hexachlorobutadiene	ND	2000	1660	83	2000	1710	86	3	70-130/12
98-82-8	Isopropylbenzene	ND	2000	1740	87	2000	1780	89	2	77-125/10
99-87-6	p-Isopropyltoluene	ND	2000	1780	89	2000	1810	91	2	76-126/10
108-10-1	4-Methyl-2-pentanone	ND	8000	7870	98	8000	8030	100	2	70-142/11
74-83-9	Methyl bromide	ND	2000	1670	84	2000	1680	84	1	65-124/13
74-87-3	Methyl chloride	ND	2000	2130	107	2000	2150	108	1	47-143/20
74-95-3	Methylene bromide	ND	2000	1740	87	2000	1790	90	3	80-125/10
75-09-2	Methylene chloride	ND	2000	1700	85	2000	1740	87	2	65-124/15
78-93-3	Methyl ethyl ketone	ND	8000	7250	91	8000	7260	91	0	66-145/12
1634-04-4	Methyl Tert Butyl Ether	3050	2000	4470	71* a	2000	4590	77	3	73-120/10
91-20-3	Naphthalene	ND	2000	1720	86	2000	1760	88	2	66-120/12
103-65-1	n-Propylbenzene	ND	2000	1750	88	2000	1770	89	1	75-125/10
100-42-5	Styrene	ND	2000	1870	94	2000	1900	95	2	73-126/10
75-65-0	Tert-Butyl Alcohol	ND	10000	9660	97	10000	9120	91	6	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	ND	2000	1760	88	2000	1770	89	1	79-126/10
71-55-6	1,1,1-Trichloroethane	ND	2000	1640	82	2000	1710	86	4	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	2000	1820	91	2000	1790	90	2	78-127/10
79-00-5	1,1,2-Trichloroethane	ND	2000	1800	90	2000	1810	91	1	79-122/10
87-61-6	1,2,3-Trichlorobenzene	ND	2000	1850	93	2000	1890	95	2	70-128/12
96-18-4	1,2,3-Trichloropropane	ND	2000	1590	80	2000	1630	82	2	66-127/10
120-82-1	1,2,4-Trichlorobenzene	ND	2000	1780	89	2000	1790	90	1	72-125/11
95-63-6	1,2,4-Trimethylbenzene	ND	2000	1780	89	2000	1800	90	1	76-124/10
108-67-8	1,3,5-Trimethylbenzene	ND	2000	1800	90	2000	1810	91	1	79-130/10
127-18-4	Tetrachloroethylene	ND	2000	1720	86	2000	1760	88	2	72-124/13
108-88-3	Toluene	ND	2000	1780	89	2000	1820	91	2	78-121/10
79-01-6	Trichloroethylene	ND	2000	1740	87	2000	1800	90	3	75-119/10
75-69-4	Trichlorofluoromethane	ND	2000	1670	84	2000	1610	81	4	68-130/19
75-01-4	Vinyl chloride	ND	2000	1840	92	2000	1820	91	1	57-137/18
1330-20-7	Xylene (total)	ND	6000	5370	90	6000	5490	92	2	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45118-3	Limits
1868-53-7	Dibromofluoromethane	97%	98%	97%	80-123%
2037-26-5	Toluene-D8	100%	100%	112%	88-112%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45103
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45118-3MS	V32784.D	100	04/06/16	KZ	n/a	n/a	VV1353
C45118-3MSD	V32785.D	100	04/06/16	KZ	n/a	n/a	VV1353
C45118-3	V32781.D	100	04/06/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45103-3, C45103-5

CAS No.	Surrogate Recoveries	MS	MSD	C45118-3	Limits
460-00-4	4-Bromofluorobenzene	97%	98%	107%	79-114%

(a) Outside laboratory control limits. AZ:M2

* = Outside of Control Limits.

Technical Report for

City of Tucson Environmental Services

Price Service Center

PO1064

SGS Accutest Job Number: C45118

Sampling Date: 03/24/16

Report to:

City of Tucson - Env. Services
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Total number of pages in report: **44**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Maureen Coloma 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Test results relate only to samples analyzed.

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Sample Summary

City of Tucson Environmental Services

Job No: C45118

Price Service Center
Project No: PO1064

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C45118-1	03/24/16	10:40 KV	03/25/16	AQ	Ground Water	WR-215A
C45118-2	03/24/16	10:55 KV	03/25/16	AQ	Ground Water	WR-217A
C45118-3	03/24/16	11:12 KV	03/25/16	AQ	Ground Water	WR-296A
C45118-4	03/24/16	11:28 KV	03/25/16	AQ	Ground Water	WR-298A
C45118-5	03/24/16	11:45 KV	03/25/16	AQ	Ground Water	WR-214A
C45118-6	03/24/16	12:00 KV	03/25/16	AQ	Ground Water	R-046A
C45118-7	03/24/16	00:00 KV	03/25/16	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: City of Tucson Environmental Services

Job No C45118

Site: Price Service Center

Report Date 4/11/2016 5:27:50 PM

6 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/24/2016 and were received at Accutest on 03/25/2016 properly preserved, at 3.9 Deg. C and intact. These Samples received an Accutest job number of C45118. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ	Batch ID: VU1397
-------------------	-------------------------

- Sample(s) C45219-1MS, C45219-1MSD were used as the QC samples indicated.
- VU1397-MB for 1,2,3-Trichlorobenzene: Target analyte detected in method blank at or above the method detection limit. Concentration present in blank is less than 1/2 RL; meeting method criteria.

Matrix: AQ	Batch ID: VV1353
-------------------	-------------------------

- Sample(s) C45118-3MS, C45118-3MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Methyl Tert Butyl Ether are outside laboratory control limits. Probable cause due to matrix interference. The associated blank spike recoveries were acceptable.

Matrix: AQ	Batch ID: VV1354
-------------------	-------------------------

- Sample(s) C45103-3MS, C45103-3MSD were used as the QC samples indicated.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C45118
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/24/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

C45118-1 WR-215A

Benzene ^a	58.7	25			ug/l	SW846 8260B
Ethylbenzene ^a	203	25			ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a	2520	50			ug/l	SW846 8260B
Naphthalene ^a	407	130			ug/l	SW846 8260B
Tert-Butyl Alcohol ^a	264	250			ug/l	SW846 8260B
1,2,4-Trimethylbenzene ^a	308	50			ug/l	SW846 8260B
1,3,5-Trimethylbenzene ^a	226	50			ug/l	SW846 8260B
Xylene (total) ^a	446	50			ug/l	SW846 8260B

C45118-2 WR-217A

No hits reported in this sample.

C45118-3 WR-296A

Methyl Tert Butyl Ether ^b	3050	100			ug/l	SW846 8260B
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C45118-4 WR-298A

Methyl Tert Butyl Ether ^a	4420	50			ug/l	SW846 8260B
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C45118-5 WR-214A

No hits reported in this sample.

C45118-6 R-046A

Xylene (total)	3.4	2.0			ug/l	SW846 8260B
Methyl Tert Butyl Ether	51.3	1.0			ug/l	SW846 8260B

C45118-7 TRIP BLANK

No hits reported in this sample.

(a) AZ:D2

(b) AZ:D2 AZ:M2

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: WR-215A		Date Sampled: 03/24/16
Lab Sample ID: C45118-1		Date Received: 03/25/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	V32779.D	25	04/05/16	KZ	n/a	n/a	VV1353
Run #2 ^a	V32799.D	50	04/06/16	KZ	n/a	n/a	VV1354

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	500	ug/l	
71-43-2	Benzene	58.7	25	ug/l	
108-86-1	Bromobenzene	ND	25	ug/l	
74-97-5	Bromochloromethane	ND	25	ug/l	
75-27-4	Bromodichloromethane	ND	13	ug/l	
75-25-2	Bromoform	ND	13	ug/l	
104-51-8	n-Butylbenzene	ND	50	ug/l	
135-98-8	sec-Butylbenzene	ND	50	ug/l	
98-06-6	tert-Butylbenzene	ND	50	ug/l	
108-90-7	Chlorobenzene	ND	13	ug/l	
75-00-3	Chloroethane	ND	13	ug/l	
67-66-3	Chloroform	ND	13	ug/l	
95-49-8	o-Chlorotoluene	ND	50	ug/l	
106-43-4	p-Chlorotoluene	ND	50	ug/l	
75-15-0	Carbon disulfide	ND	25	ug/l	
56-23-5	Carbon tetrachloride	ND	13	ug/l	
75-34-3	1,1-Dichloroethane	ND	13	ug/l	
75-35-4	1,1-Dichloroethylene	ND	13	ug/l	
563-58-6	1,1-Dichloropropene	ND	25	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	ug/l	
106-93-4	1,2-Dibromoethane	ND	25	ug/l	
107-06-2	1,2-Dichloroethane	ND	13	ug/l	
78-87-5	1,2-Dichloropropane	ND	13	ug/l	
142-28-9	1,3-Dichloropropane	ND	25	ug/l	
594-20-7	2,2-Dichloropropane	ND	25	ug/l	
124-48-1	Dibromochloromethane	ND	13	ug/l	
75-71-8	Dichlorodifluoromethane	ND	13	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	13	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	13	ug/l	
541-73-1	m-Dichlorobenzene	ND	13	ug/l	
95-50-1	o-Dichlorobenzene	ND	13	ug/l	
106-46-7	p-Dichlorobenzene	ND	13	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-215A	Date Sampled:	03/24/16
Lab Sample ID:	C45118-1	Date Received:	03/25/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	13	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	13	ug/l	
100-41-4	Ethylbenzene	203	25	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	50	ug/l	
591-78-6	2-Hexanone	ND	250	ug/l	
87-68-3	Hexachlorobutadiene	ND	50	ug/l	
98-82-8	Isopropylbenzene	ND	25	ug/l	
99-87-6	p-Isopropyltoluene	ND	50	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	250	ug/l	
74-83-9	Methyl bromide	ND	50	ug/l	
74-87-3	Methyl chloride	ND	25	ug/l	
74-95-3	Methylene bromide	ND	25	ug/l	
75-09-2	Methylene chloride	ND	130	ug/l	
78-93-3	Methyl ethyl ketone	ND	250	ug/l	
1634-04-4	Methyl Tert Butyl Ether	2520 ^b	50	ug/l	
91-20-3	Naphthalene	407	130	ug/l	
103-65-1	n-Propylbenzene	ND	50	ug/l	
100-42-5	Styrene	ND	25	ug/l	
75-65-0	Tert-Butyl Alcohol	264	250	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	13	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	13	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	13	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	308	50	ug/l	
108-67-8	1,3,5-Trimethylbenzene	226	50	ug/l	
127-18-4	Tetrachloroethylene	ND	13	ug/l	
108-88-3	Toluene	ND	25	ug/l	
79-01-6	Trichloroethylene	ND	13	ug/l	
75-69-4	Trichlorofluoromethane	ND	13	ug/l	
75-01-4	Vinyl chloride	ND	13	ug/l	
1330-20-7	Xylene (total)	446	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	97%	80-123%
2037-26-5	Toluene-D8	103%	104%	88-112%
460-00-4	4-Bromofluorobenzene	99%	100%	79-114%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WR-215A	Date Sampled: 03/24/16
Lab Sample ID: C45118-1	Date Received: 03/25/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

4.1
4

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
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- (a) AZ:D2
- (b) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WR-217A	Date Sampled: 03/24/16
Lab Sample ID: C45118-2	Date Received: 03/25/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V32780.D	1	04/06/16	KZ	n/a	n/a	VV1353
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WR-217A	Date Sampled: 03/24/16
Lab Sample ID: C45118-2	Date Received: 03/25/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-123%
2037-26-5	Toluene-D8	112%		88-112%
460-00-4	4-Bromofluorobenzene	108%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.2
4

Report of Analysis

Client Sample ID: WR-296A	Date Sampled: 03/24/16
Lab Sample ID: C45118-3	Date Received: 03/25/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	V32781.D	100	04/06/16	KZ	n/a	n/a	VV1353
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	100	ug/l	
108-88-3	Toluene	ND	100	ug/l	
100-41-4	Ethylbenzene	ND	100	ug/l	
1330-20-7	Xylene (total)	ND	200	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^b	3050	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		80-123%
2037-26-5	Toluene-D8	112%		88-112%
460-00-4	4-Bromofluorobenzene	107%		79-114%

(a) AZ:D2

(b) AZ:M2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: WR-298A	Date Sampled: 03/24/16
Lab Sample ID: C45118-4	Date Received: 03/25/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	V32782.D	50	04/06/16	KZ	n/a	n/a	VV1353
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	50	ug/l	
108-88-3	Toluene	ND	50	ug/l	
100-41-4	Ethylbenzene	ND	50	ug/l	
1330-20-7	Xylene (total)	ND	100	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4420	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-123%
2037-26-5	Toluene-D8	111%		88-112%
460-00-4	4-Bromofluorobenzene	107%		79-114%

(a) AZ:D2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.4
4

Report of Analysis

Client Sample ID: WR-214A	Date Sampled: 03/24/16
Lab Sample ID: C45118-5	Date Received: 03/25/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V32783.D	1	04/06/16	KZ	n/a	n/a	VV1353
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-123%
2037-26-5	Toluene-D8	110%		88-112%
460-00-4	4-Bromofluorobenzene	107%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

Client Sample ID: R-046A	Date Sampled: 03/24/16
Lab Sample ID: C45118-6	Date Received: 03/25/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U34043.D	1	04/07/16	MV	n/a	n/a	VU1397
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	3.4	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	51.3	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		80-123%
2037-26-5	Toluene-D8	94%		88-112%
460-00-4	4-Bromofluorobenzene	90%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.6
4

Report of Analysis

Client Sample ID: TRIP BLANK	Date Sampled: 03/24/16
Lab Sample ID: C45118-7	Date Received: 03/25/16
Matrix: AQ - Trip Blank Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U34029.D	1	04/07/16	MV	n/a	n/a	VU1397
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TRIP BLANK		Date Sampled: 03/24/16
Lab Sample ID: C45118-7		Date Received: 03/25/16
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		80-123%
2037-26-5	Toluene-D8	93%		88-112%
460-00-4	4-Bromofluorobenzene	86%		79-114%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D2	Sample required dilution due to high concentration of target analyte.
M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable.

5.1
5

SGS Accutest Sample Receipt Summary

Job Number: C45118

Client: CITY OF TUCSON

Project: PRICE SERVICE CENTER

Date / Time Received: 3/25/2016 9:40:00 AM

Delivery Method: FedEx

Airbill #s: 782671966750

Cooler Temps (Initial/Adjusted): #1: (3.7/3.9)

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|----------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Therm ID: | IR1; | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

Y or N N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

5.2
5

C45118: Chain of Custody

Page 2 of 2

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1353-MB	V32765.D	1	04/05/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-1, C45118-2, C45118-3, C45118-4, C45118-5

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1353-MB	V32765.D	1	04/05/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-1, C45118-2, C45118-3, C45118-4, C45118-5

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	95%	80-123%
2037-26-5	Toluene-D8	108%	88-112%

Method Blank Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1353-MB	V32765.D	1	04/05/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-1, C45118-2, C45118-3, C45118-4, C45118-5

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	105% 79-114%

Method Blank Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1354-MB	V32793.D	1	04/06/16	KZ	n/a	n/a	VV1354

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-1

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	95%	80-123%
2037-26-5	Toluene-D8	109%	88-112%
460-00-4	4-Bromofluorobenzene	107%	79-114%

Method Blank Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1397-MB	U34028.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-6, C45118-7

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1397-MB	U34028.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-6, C45118-7

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene ^a	0.23	2.0	ug/l	J
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	85%	80-123%
2037-26-5	Toluene-D8	90%	88-112%

Method Blank Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1397-MB	U34028.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-6, C45118-7

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	85% 79-114%

(a) Target analyte detected in method blank at or above the method detection limit. Concentration present in blank is less than 1/2 RL; meeting method criteria.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1353-BS	V32762.D	1	04/05/16	KZ	n/a	n/a	VV1353
VV1353-BSD	V32763.D	1	04/05/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-1, C45118-2, C45118-3, C45118-4, C45118-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	85.7	107	82.4	103	4	55-147/17
71-43-2	Benzene	20	17.5	88	17.6	88	1	76-120/10
108-86-1	Bromobenzene	20	18.7	94	18.6	93	1	80-123/10
74-97-5	Bromochloromethane	20	18.1	91	18.0	90	1	79-124/10
75-27-4	Bromodichloromethane	20	17.0	85	16.9	85	1	75-121/10
75-25-2	Bromoform	20	15.8	79	15.8	79	0	62-127/10
104-51-8	n-Butylbenzene	20	17.9	90	17.8	89	1	74-129/10
135-98-8	sec-Butylbenzene	20	17.7	89	17.7	89	0	75-128/11
98-06-6	tert-Butylbenzene	20	17.7	89	17.6	88	1	74-127/11
108-90-7	Chlorobenzene	20	17.7	89	17.9	90	1	79-119/10
75-00-3	Chloroethane	20	17.4	87	17.9	90	3	60-115/14
67-66-3	Chloroform	20	16.4	82	16.6	83	1	75-122/10
95-49-8	o-Chlorotoluene	20	17.2	86	17.0	85	1	76-125/12
106-43-4	p-Chlorotoluene	20	18.6	93	18.3	92	2	76-126/11
75-15-0	Carbon disulfide	20	15.6	78	15.6	78	0	51-130/13
56-23-5	Carbon tetrachloride	20	17.1	86	17.2	86	1	72-128/13
75-34-3	1,1-Dichloroethane	20	17.1	86	17.1	86	0	70-121/10
75-35-4	1,1-Dichloroethylene	20	16.8	84	16.8	84	0	62-125/13
563-58-6	1,1-Dichloropropene	20	17.1	86	17.2	86	1	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	20	15.6	78	14.9	75	5	64-129/11
106-93-4	1,2-Dibromoethane	20	18.7	94	18.6	93	1	81-124/10
107-06-2	1,2-Dichloroethane	20	16.4	82	16.4	82	0	74-122/10
78-87-5	1,2-Dichloropropane	20	17.6	88	17.7	89	1	75-123/10
142-28-9	1,3-Dichloropropane	20	18.6	93	18.6	93	0	81-127/11
594-20-7	2,2-Dichloropropane	20	17.2	86	17.4	87	1	66-130/12
124-48-1	Dibromochloromethane	20	16.8	84	16.8	84	0	76-124/10
75-71-8	Dichlorodifluoromethane	20	15.5	78	16.2	81	4	26-163/26
156-59-2	cis-1,2-Dichloroethylene	20	17.4	87	17.7	89	2	75-128/10
10061-01-5	cis-1,3-Dichloropropene	20	18.1	91	18.1	91	0	76-131/10
541-73-1	m-Dichlorobenzene	20	18.3	92	18.2	91	1	79-121/10
95-50-1	o-Dichlorobenzene	20	17.9	90	17.8	89	1	79-120/10
106-46-7	p-Dichlorobenzene	20	18.4	92	18.1	91	2	79-120/10
156-60-5	trans-1,2-Dichloroethylene	20	16.0	80	15.9	80	1	67-116/11
10061-02-6	trans-1,3-Dichloropropene	20	17.4	87	17.4	87	0	73-125/10
100-41-4	Ethylbenzene	20	17.9	90	18.1	91	1	78-123/10
637-92-3	Ethyl Tert Butyl Ether	20	17.4	87	17.3	87	1	75-126/11

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1353-BS	V32762.D	1	04/05/16	KZ	n/a	n/a	VV1353
VV1353-BSD	V32763.D	1	04/05/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-1, C45118-2, C45118-3, C45118-4, C45118-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	86.0	108	82.2	103	5	71-145/12
87-68-3	Hexachlorobutadiene	20	18.1	91	18.0	90	1	70-130/12
98-82-8	Isopropylbenzene	20	17.4	87	17.5	88	1	77-125/10
99-87-6	p-Isopropyltoluene	20	17.7	89	18.0	90	2	76-126/10
108-10-1	4-Methyl-2-pentanone	80	80.7	101	78.6	98	3	70-142/11
74-83-9	Methyl bromide	20	17.6	88	17.0	85	3	65-124/13
74-87-3	Methyl chloride	20	20.4	102	20.4	102	0	47-143/20
74-95-3	Methylene bromide	20	17.8	89	17.8	89	0	80-125/10
75-09-2	Methylene chloride	20	17.4	87	17.7	89	2	65-124/15
78-93-3	Methyl ethyl ketone	80	75.8	95	71.7	90	6	66-145/12
1634-04-4	Methyl Tert Butyl Ether	20	16.4	82	16.1	81	2	73-120/10
91-20-3	Naphthalene	20	18.0	90	17.8	89	1	66-120/12
103-65-1	n-Propylbenzene	20	17.5	88	17.4	87	1	75-125/10
100-42-5	Styrene	20	18.7	94	18.6	93	1	73-126/10
75-65-0	Tert-Butyl Alcohol	100	98.5	99	86.2	86	13	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	20	17.3	87	17.5	88	1	79-126/10
71-55-6	1,1,1-Trichloroethane	20	17.1	86	17.0	85	1	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	20	18.3	92	18.1	91	1	78-127/10
79-00-5	1,1,2-Trichloroethane	20	18.1	91	18.1	91	0	79-122/10
87-61-6	1,2,3-Trichlorobenzene	20	19.1	96	19.1	96	0	70-128/12
96-18-4	1,2,3-Trichloropropane	20	15.1	76	16.4	82	8	66-127/10
120-82-1	1,2,4-Trichlorobenzene	20	18.3	92	18.5	93	1	72-125/11
95-63-6	1,2,4-Trimethylbenzene	20	17.7	89	17.7	89	0	76-124/10
108-67-8	1,3,5-Trimethylbenzene	20	17.7	89	17.7	89	0	79-130/10
127-18-4	Tetrachloroethylene	20	18.0	90	18.2	91	1	72-124/13
108-88-3	Toluene	20	18.0	90	18.1	91	1	78-121/10
79-01-6	Trichloroethylene	20	17.9	90	18.1	91	1	75-119/10
75-69-4	Trichlorofluoromethane	20	16.7	84	17.3	87	4	68-130/19
75-01-4	Vinyl chloride	20	18.4	92	18.8	94	2	57-137/18
1330-20-7	Xylene (total)	60	53.7	90	54.2	90	1	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	97%	97%	80-123%
2037-26-5	Toluene-D8	100%	101%	88-112%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1353-BS	V32762.D	1	04/05/16	KZ	n/a	n/a	VV1353
VV1353-BSD	V32763.D	1	04/05/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-1, C45118-2, C45118-3, C45118-4, C45118-5

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	96%	96%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1354-BS	V32790.D	1	04/06/16	KZ	n/a	n/a	VV1354
VV1354-BSD	V32791.D	1	04/06/16	KZ	n/a	n/a	VV1354

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	20	15.5	78	16.0	80	3	73-120/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	97%	99%	80-123%
2037-26-5	Toluene-D8	101%	100%	88-112%
460-00-4	4-Bromofluorobenzene	96%	95%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1397-BS	U34025.D	1	04/07/16	MV	n/a	n/a	VU1397
VU1397-BSD	U34026.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-6, C45118-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	86.7	108	86.6	108	0	55-147/17
71-43-2	Benzene	20	21.2	106	21.4	107	1	76-120/10
108-86-1	Bromobenzene	20	19.9	100	19.7	99	1	80-123/10
74-97-5	Bromochloromethane	20	22.3	112	22.3	112	0	79-124/10
75-27-4	Bromodichloromethane	20	21.0	105	21.1	106	0	75-121/10
75-25-2	Bromoform	20	21.8	109	22.0	110	1	62-127/10
104-51-8	n-Butylbenzene	20	18.8	94	18.9	95	1	74-129/10
135-98-8	sec-Butylbenzene	20	18.4	92	18.6	93	1	75-128/11
98-06-6	tert-Butylbenzene	20	18.2	91	18.6	93	2	74-127/11
108-90-7	Chlorobenzene	20	21.2	106	21.4	107	1	79-119/10
75-00-3	Chloroethane	20	20.6	103	20.9	105	1	60-115/14
67-66-3	Chloroform	20	21.2	106	21.2	106	0	75-122/10
95-49-8	o-Chlorotoluene	20	21.3	107	21.4	107	0	76-125/12
106-43-4	p-Chlorotoluene	20	21.7	109	21.6	108	0	76-126/11
75-15-0	Carbon disulfide	20	17.2	86	17.3	87	1	51-130/13
56-23-5	Carbon tetrachloride	20	21.1	106	21.6	108	2	72-128/13
75-34-3	1,1-Dichloroethane	20	20.8	104	21.0	105	1	70-121/10
75-35-4	1,1-Dichloroethylene	20	18.9	95	19.1	96	1	62-125/13
563-58-6	1,1-Dichloropropene	20	20.0	100	20.5	103	2	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	20	18.3	92	18.2	91	1	64-129/11
106-93-4	1,2-Dibromoethane	20	22.1	111	22.0	110	0	81-124/10
107-06-2	1,2-Dichloroethane	20	22.0	110	22.0	110	0	74-122/10
78-87-5	1,2-Dichloropropane	20	21.7	109	22.1	111	2	75-123/10
142-28-9	1,3-Dichloropropane	20	22.6	113	22.6	113	0	81-127/11
594-20-7	2,2-Dichloropropane	20	19.3	97	19.3	97	0	66-130/12
124-48-1	Dibromochloromethane	20	21.5	108	21.3	107	1	76-124/10
75-71-8	Dichlorodifluoromethane	20	19.5	98	19.7	99	1	26-163/26
156-59-2	cis-1,2-Dichloroethylene	20	21.8	109	21.9	110	0	75-128/10
10061-01-5	cis-1,3-Dichloropropene	20	22.1	111	22.2	111	0	76-131/10
541-73-1	m-Dichlorobenzene	20	19.6	98	19.5	98	1	79-121/10
95-50-1	o-Dichlorobenzene	20	19.8	99	19.6	98	1	79-120/10
106-46-7	p-Dichlorobenzene	20	19.7	99	19.6	98	1	79-120/10
156-60-5	trans-1,2-Dichloroethylene	20	18.8	94	18.8	94	0	67-116/11
10061-02-6	trans-1,3-Dichloropropene	20	21.1	106	21.2	106	0	73-125/10
100-41-4	Ethylbenzene	20	21.0	105	21.2	106	1	78-123/10
637-92-3	Ethyl Tert Butyl Ether	20	21.1	106	21.0	105	0	75-126/11

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1397-BS	U34025.D	1	04/07/16	MV	n/a	n/a	VU1397
VU1397-BSD	U34026.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-6, C45118-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	96.6	121	96.0	120	1	71-145/12
87-68-3	Hexachlorobutadiene	20	18.8	94	19.1	96	2	70-130/12
98-82-8	Isopropylbenzene	20	20.7	104	20.9	105	1	77-125/10
99-87-6	p-Isopropyltoluene	20	18.5	93	18.5	93	0	76-126/10
108-10-1	4-Methyl-2-pentanone	80	96.1	120	95.0	119	1	70-142/11
74-83-9	Methyl bromide	20	20.5	103	21.1	106	3	65-124/13
74-87-3	Methyl chloride	20	23.6	118	23.0	115	3	47-143/20
74-95-3	Methylene bromide	20	23.3	117	23.2	116	0	80-125/10
75-09-2	Methylene chloride	20	20.9	105	20.9	105	0	65-124/15
78-93-3	Methyl ethyl ketone	80	91.5	114	89.6	112	2	66-145/12
1634-04-4	Methyl Tert Butyl Ether	20	20.1	101	19.9	100	1	73-120/10
91-20-3	Naphthalene	20	20.0	100	21.0	105	5	66-120/12
103-65-1	n-Propylbenzene	20	18.5	93	18.6	93	1	75-125/10
100-42-5	Styrene	20	21.0	105	21.2	106	1	73-126/10
75-65-0	Tert-Butyl Alcohol	100	107	107	105	105	2	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	20	21.5	108	21.7	109	1	79-126/10
71-55-6	1,1,1-Trichloroethane	20	20.5	103	20.7	104	1	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	20	20.8	104	20.6	103	1	78-127/10
79-00-5	1,1,2-Trichloroethane	20	22.8	114	22.8	114	0	79-122/10
87-61-6	1,2,3-Trichlorobenzene	20	20.5	103	21.3	107	4	70-128/12
96-18-4	1,2,3-Trichloropropane	20	19.2	96	19.4	97	1	66-127/10
120-82-1	1,2,4-Trichlorobenzene	20	19.9	100	20.1	101	1	72-125/11
95-63-6	1,2,4-Trimethylbenzene	20	19.0	95	18.9	95	1	76-124/10
108-67-8	1,3,5-Trimethylbenzene	20	18.8	94	18.9	95	1	79-130/10
127-18-4	Tetrachloroethylene	20	21.0	105	21.8	109	4	72-124/13
108-88-3	Toluene	20	20.7	104	21.0	105	1	78-121/10
79-01-6	Trichloroethylene	20	21.2	106	21.4	107	1	75-119/10
75-69-4	Trichlorofluoromethane	20	21.5	108	22.3	112	4	68-130/19
75-01-4	Vinyl chloride	20	23.6	118	23.8	119	1	57-137/18
1330-20-7	Xylene (total)	60	62.5	104	63.3	106	1	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	93%	92%	80-123%
2037-26-5	Toluene-D8	92%	91%	88-112%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1397-BS	U34025.D	1	04/07/16	MV	n/a	n/a	VU1397
VU1397-BSD	U34026.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-6, C45118-7

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	93%	93%	79-114%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1397-LCS	U34027.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-6, C45118-7

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
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CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	88%	80-123%
2037-26-5	Toluene-D8	94%	88-112%
460-00-4	4-Bromofluorobenzene	89%	79-114%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45118-3MS	V32784.D	100	04/06/16	KZ	n/a	n/a	VV1353
C45118-3MSD	V32785.D	100	04/06/16	KZ	n/a	n/a	VV1353
C45118-3 ^a	V32781.D	100	04/06/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-1, C45118-2, C45118-3, C45118-4, C45118-5

CAS No.	Compound	C45118-3		MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
		ug/l	Q								
67-64-1	Acetone	ND		8000	8340	104	8000	8340	104	0	55-147/17
71-43-2	Benzene	ND		2000	1720	86	2000	1790	90	4	76-120/10
108-86-1	Bromobenzene	ND		2000	1890	95	2000	1890	95	0	80-123/10
74-97-5	Bromochloromethane	ND		2000	1770	89	2000	1800	90	2	79-124/10
75-27-4	Bromodichloromethane	ND		2000	1680	84	2000	1720	86	2	75-121/10
75-25-2	Bromoform	ND		2000	1630	82	2000	1640	82	1	62-127/10
104-51-8	n-Butylbenzene	ND		2000	1730	87	2000	1760	88	2	74-129/10
135-98-8	sec-Butylbenzene	ND		2000	1780	89	2000	1790	90	1	75-128/11
98-06-6	tert-Butylbenzene	ND		2000	1780	89	2000	1800	90	1	74-127/11
108-90-7	Chlorobenzene	ND		2000	1770	89	2000	1810	91	2	79-119/10
75-00-3	Chloroethane	ND		2000	1740	87	2000	1750	88	1	60-115/14
67-66-3	Chloroform	ND		2000	1620	81	2000	1660	83	2	75-122/10
95-49-8	o-Chlorotoluene	ND		2000	1740	87	2000	1750	88	1	76-125/12
106-43-4	p-Chlorotoluene	ND		2000	1860	93	2000	1760	88	6	76-126/11
75-15-0	Carbon disulfide	ND		2000	1520	76	2000	1570	79	3	51-130/13
56-23-5	Carbon tetrachloride	ND		2000	1660	83	2000	1710	86	3	72-128/13
75-34-3	1,1-Dichloroethane	ND		2000	1670	84	2000	1720	86	3	70-121/10
75-35-4	1,1-Dichloroethylene	ND		2000	1630	82	2000	1680	84	3	62-125/13
563-58-6	1,1-Dichloropropene	ND		2000	1660	83	2000	1710	86	3	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	ND		2000	1530	77	2000	1520	76	1	64-129/11
106-93-4	1,2-Dibromoethane	ND		2000	1850	93	2000	1870	94	1	81-124/10
107-06-2	1,2-Dichloroethane	ND		2000	1620	81	2000	1710	86	5	74-122/10
78-87-5	1,2-Dichloropropane	ND		2000	1750	88	2000	1800	90	3	75-123/10
142-28-9	1,3-Dichloropropane	ND		2000	1870	94	2000	1870	94	0	81-127/11
594-20-7	2,2-Dichloropropane	ND		2000	1360	68	2000	1390	70	2	66-130/12
124-48-1	Dibromochloromethane	ND		2000	1700	85	2000	1710	86	1	76-124/10
75-71-8	Dichlorodifluoromethane	ND		2000	1630	82	2000	1540	77	6	26-163/26
156-59-2	cis-1,2-Dichloroethylene	ND		2000	1710	86	2000	1770	89	3	75-128/10
10061-01-5	cis-1,3-Dichloropropene	ND		2000	1720	86	2000	1770	89	3	76-131/10
541-73-1	m-Dichlorobenzene	ND		2000	1820	91	2000	1830	92	1	79-121/10
95-50-1	o-Dichlorobenzene	ND		2000	1810	91	2000	1810	91	0	79-120/10
106-46-7	p-Dichlorobenzene	ND		2000	1840	92	2000	1850	93	1	79-120/10
156-60-5	trans-1,2-Dichloroethylene	ND		2000	1530	77	2000	1580	79	3	67-116/11
10061-02-6	trans-1,3-Dichloropropene	ND		2000	1620	81	2000	1680	84	4	73-125/10
100-41-4	Ethylbenzene	ND		2000	1800	90	2000	1840	92	2	78-123/10
637-92-3	Ethyl Tert Butyl Ether	ND		2000	1720	86	2000	1750	88	2	75-126/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45118-3MS	V32784.D	100	04/06/16	KZ	n/a	n/a	VV1353
C45118-3MSD	V32785.D	100	04/06/16	KZ	n/a	n/a	VV1353
C45118-3 ^a	V32781.D	100	04/06/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-1, C45118-2, C45118-3, C45118-4, C45118-5

CAS No.	Compound	C45118-3		MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
		ug/l	Q								
591-78-6	2-Hexanone	ND		8000	8360	105	8000	8420	105	1	71-145/12
87-68-3	Hexachlorobutadiene	ND		2000	1660	83	2000	1710	86	3	70-130/12
98-82-8	Isopropylbenzene	ND		2000	1740	87	2000	1780	89	2	77-125/10
99-87-6	p-Isopropyltoluene	ND		2000	1780	89	2000	1810	91	2	76-126/10
108-10-1	4-Methyl-2-pentanone	ND		8000	7870	98	8000	8030	100	2	70-142/11
74-83-9	Methyl bromide	ND		2000	1670	84	2000	1680	84	1	65-124/13
74-87-3	Methyl chloride	ND		2000	2130	107	2000	2150	108	1	47-143/20
74-95-3	Methylene bromide	ND		2000	1740	87	2000	1790	90	3	80-125/10
75-09-2	Methylene chloride	ND		2000	1700	85	2000	1740	87	2	65-124/15
78-93-3	Methyl ethyl ketone	ND		8000	7250	91	8000	7260	91	0	66-145/12
1634-04-4	Methyl Tert Butyl Ether	3050		2000	4470	71* b	2000	4590	77	3	73-120/10
91-20-3	Naphthalene	ND		2000	1720	86	2000	1760	88	2	66-120/12
103-65-1	n-Propylbenzene	ND		2000	1750	88	2000	1770	89	1	75-125/10
100-42-5	Styrene	ND		2000	1870	94	2000	1900	95	2	73-126/10
75-65-0	Tert-Butyl Alcohol	ND		10000	9660	97	10000	9120	91	6	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	ND		2000	1760	88	2000	1770	89	1	79-126/10
71-55-6	1,1,1-Trichloroethane	ND		2000	1640	82	2000	1710	86	4	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		2000	1820	91	2000	1790	90	2	78-127/10
79-00-5	1,1,2-Trichloroethane	ND		2000	1800	90	2000	1810	91	1	79-122/10
87-61-6	1,2,3-Trichlorobenzene	ND		2000	1850	93	2000	1890	95	2	70-128/12
96-18-4	1,2,3-Trichloropropane	ND		2000	1590	80	2000	1630	82	2	66-127/10
120-82-1	1,2,4-Trichlorobenzene	ND		2000	1780	89	2000	1790	90	1	72-125/11
95-63-6	1,2,4-Trimethylbenzene	ND		2000	1780	89	2000	1800	90	1	76-124/10
108-67-8	1,3,5-Trimethylbenzene	ND		2000	1800	90	2000	1810	91	1	79-130/10
127-18-4	Tetrachloroethylene	ND		2000	1720	86	2000	1760	88	2	72-124/13
108-88-3	Toluene	ND		2000	1780	89	2000	1820	91	2	78-121/10
79-01-6	Trichloroethylene	ND		2000	1740	87	2000	1800	90	3	75-119/10
75-69-4	Trichlorofluoromethane	ND		2000	1670	84	2000	1610	81	4	68-130/19
75-01-4	Vinyl chloride	ND		2000	1840	92	2000	1820	91	1	57-137/18
1330-20-7	Xylene (total)	ND		6000	5370	90	6000	5490	92	2	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45118-3	Limits
1868-53-7	Dibromofluoromethane	97%	98%	97%	80-123%
2037-26-5	Toluene-D8	100%	100%	112%	88-112%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45118-3MS	V32784.D	100	04/06/16	KZ	n/a	n/a	VV1353
C45118-3MSD	V32785.D	100	04/06/16	KZ	n/a	n/a	VV1353
C45118-3 ^a	V32781.D	100	04/06/16	KZ	n/a	n/a	VV1353

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-1, C45118-2, C45118-3, C45118-4, C45118-5

CAS No.	Surrogate Recoveries	MS	MSD	C45118-3	Limits
460-00-4	4-Bromofluorobenzene	97%	98%	107%	79-114%

(a) AZ:D2

(b) Outside laboratory control limits. AZ:M2

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45103-3MS	V32812.D	100	04/06/16	KZ	n/a	n/a	VV1354
C45103-3MSD	V32813.D	100	04/06/16	KZ	n/a	n/a	VV1354
C45103-3 ^a	V32798.D	100	04/06/16	KZ	n/a	n/a	VV1354

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-1

CAS No.	Compound	C45103-3 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	6310	2000	7990	84	2000	7980	84	0	73-120/10

CAS No.	Surrogate Recoveries	MS	MSD	C45103-3	Limits
1868-53-7	Dibromofluoromethane	98%	99%	97%	80-123%
2037-26-5	Toluene-D8	99%	100%	107%	88-112%
460-00-4	4-Bromofluorobenzene	95%	97%	102%	79-114%

(a) AZ:D2

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45219-1MS	U34047.D	1	04/07/16	MV	n/a	n/a	VU1397
C45219-1MSD	U34060.D	1	04/08/16	MV	n/a	n/a	VU1397
C45219-1	U34030.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-6, C45118-7

CAS No.	Compound	C45219-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	20 U	80	79.3	99	80	76.3	95	4	55-147/17
71-43-2	Benzene	1.0 U	20	19.2	96	20	18.9	95	2	76-120/10
108-86-1	Bromobenzene	1.0 U	20	18.0	90	20	17.5	88	3	80-123/10
74-97-5	Bromochloromethane	1.0 U	20	18.6	93	20	18.6	93	0	79-124/10
75-27-4	Bromodichloromethane	1.0 U	20	18.2	91	20	18.1	91	1	75-121/10
75-25-2	Bromoform	1.0 U	20	18.4	92	20	19.0	95	3	62-127/10
104-51-8	n-Butylbenzene	2.0 U	20	18.5	93	20	17.8	89	4	74-129/10
135-98-8	sec-Butylbenzene	2.0 U	20	18.4	92	20	17.4	87	6	75-128/11
98-06-6	tert-Butylbenzene	2.0 U	20	18.0	90	20	17.2	86	5	74-127/11
108-90-7	Chlorobenzene	1.0 U	20	19.3	97	20	18.7	94	3	79-119/10
75-00-3	Chloroethane	1.0 U	20	17.0	85	20	17.5	88	3	60-115/14
67-66-3	Chloroform	1.0 U	20	18.5	93	20	18.0	90	3	75-122/10
95-49-8	o-Chlorotoluene	2.0 U	20	21.2	106	20	20.6	103	3	76-125/12
106-43-4	p-Chlorotoluene	2.0 U	20	20.3	102	20	19.5	98	4	76-126/11
75-15-0	Carbon disulfide	1.0 U	20	16.1	81	20	15.7	79	3	51-130/13
56-23-5	Carbon tetrachloride	1.0 U	20	20.7	104	20	20.0	100	3	72-128/13
75-34-3	1,1-Dichloroethane	1.0 U	20	18.2	91	20	18.0	90	1	70-121/10
75-35-4	1,1-Dichloroethylene	1.0 U	20	17.9	90	20	17.0	85	5	62-125/13
563-58-6	1,1-Dichloropropene	1.0 U	20	19.4	97	20	18.8	94	3	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	20	15.4	77	20	15.3	77	1	64-129/11
106-93-4	1,2-Dibromoethane	1.0 U	20	19.5	98	20	18.7	94	4	81-124/10
107-06-2	1,2-Dichloroethane	1.0 U	20	18.7	94	20	18.6	93	1	74-122/10
78-87-5	1,2-Dichloropropane	1.0 U	20	19.3	97	20	18.9	95	2	75-123/10
142-28-9	1,3-Dichloropropane	1.0 U	20	19.6	98	20	19.3	97	2	81-127/11
594-20-7	2,2-Dichloropropane	1.0 U	20	16.8	84	20	17.1	86	2	66-130/12
124-48-1	Dibromochloromethane	1.0 U	20	18.5	93	20	18.5	93	0	76-124/10
75-71-8	Dichlorodifluoromethane	1.0 U	20	18.2	91	20	17.9	90	2	26-163/26
156-59-2	cis-1,2-Dichloroethylene	1.0 U	20	19.0	95	20	18.5	93	3	75-128/10
10061-01-5	cis-1,3-Dichloropropene	1.0 U	20	19.1	96	20	19.0	95	1	76-131/10
541-73-1	m-Dichlorobenzene	1.0 U	20	18.0	90	20	17.5	88	3	79-121/10
95-50-1	o-Dichlorobenzene	1.0 U	20	17.8	89	20	17.3	87	3	79-120/10
106-46-7	p-Dichlorobenzene	1.0 U	20	18.0	90	20	17.5	88	3	79-120/10
156-60-5	trans-1,2-Dichloroethylene	1.0 U	20	16.8	84	20	16.4	82	2	67-116/11
10061-02-6	trans-1,3-Dichloropropene	1.0 U	20	18.4	92	20	18.3	92	1	73-125/10
100-41-4	Ethylbenzene	1.0 U	20	19.9	100	20	19.1	96	4	78-123/10
637-92-3	Ethyl Tert Butyl Ether	2.0 U	20	17.4	87	20	17.0	85	2	75-126/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45219-1MS	U34047.D	1	04/07/16	MV	n/a	n/a	VU1397
C45219-1MSD	U34060.D	1	04/08/16	MV	n/a	n/a	VU1397
C45219-1	U34030.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-6, C45118-7

CAS No.	Compound	C45219-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	10 U	80	82.9	104	80	82.2	103	1	71-145/12
87-68-3	Hexachlorobutadiene	2.0 U	20	18.0	90	20	17.9	90	1	70-130/12
98-82-8	Isopropylbenzene	1.0 U	20	19.7	99	20	19.0	95	4	77-125/10
99-87-6	p-Isopropyltoluene	2.0 U	20	18.0	90	20	17.4	87	3	76-126/10
108-10-1	4-Methyl-2-pentanone	10 U	80	79.6	100	80	79.1	99	1	70-142/11
74-83-9	Methyl bromide	2.0 U	20	16.5	83	20	16.9	85	2	65-124/13
74-87-3	Methyl chloride	1.0 U	20	19.1	96	20	20.4	102	7	47-143/20
74-95-3	Methylene bromide	1.0 U	20	20.0	100	20	19.7	99	2	80-125/10
75-09-2	Methylene chloride	10 U	20	17.6	88	20	17.4	87	1	65-124/15
78-93-3	Methyl ethyl ketone	10 U	80	74.8	94	80	73.9	92	1	66-145/12
1634-04-4	Methyl Tert Butyl Ether	1.0 U	20	16.4	82	20	15.9	80	3	73-120/10
91-20-3	Naphthalene	5.0 U	20	17.8	89	20	16.8	84	6	66-120/12
103-65-1	n-Propylbenzene	2.0 U	20	18.0	90	20	17.2	86	5	75-125/10
100-42-5	Styrene	1.0 U	20	19.3	97	20	18.6	93	4	73-126/10
75-65-0	Tert-Butyl Alcohol	10 U	100	91.6	92	100	87.9	88	4	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	1.0 U	20	19.2	96	20	19.0	95	1	79-126/10
71-55-6	1,1,1-Trichloroethane	1.0 U	20	19.0	95	20	18.4	92	3	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U	20	17.9	90	20	17.4	87	3	78-127/10
79-00-5	1,1,2-Trichloroethane	1.0 U	20	19.8	99	20	19.5	98	2	79-122/10
87-61-6	1,2,3-Trichlorobenzene	2.0 U	20	18.3	92	20	17.8	89	3	70-128/12
96-18-4	1,2,3-Trichloropropane	2.0 U	20	16.7	84	20	16.7	84	0	66-127/10
120-82-1	1,2,4-Trichlorobenzene	2.0 U	20	18.0	90	20	17.6	88	2	72-125/11
95-63-6	1,2,4-Trimethylbenzene	2.0 U	20	17.7	89	20	17.2	86	3	76-124/10
108-67-8	1,3,5-Trimethylbenzene	2.0 U	20	17.9	90	20	17.2	86	4	79-130/10
127-18-4	Tetrachloroethylene	1.0 U	20	23.4	117	20	22.0	110	6	72-124/13
108-88-3	Toluene	1.0 U	20	19.3	97	20	18.7	94	3	78-121/10
79-01-6	Trichloroethylene	1.0 U	20	20.3	102	20	19.7	99	3	75-119/10
75-69-4	Trichlorofluoromethane	1.0 U	20	19.5	98	20	18.8	94	4	68-130/19
75-01-4	Vinyl chloride	1.0 U	20	20.8	104	20	21.2	106	2	57-137/18
1330-20-7	Xylene (total)	2.0 U	60	58.4	97	60	56.6	94	3	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45219-1	Limits
1868-53-7	Dibromofluoromethane	95%	95%	85%	80-123%
2037-26-5	Toluene-D8	102%	102%	94%	88-112%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45118
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45219-1MS	U34047.D	1	04/07/16	MV	n/a	n/a	VU1397
C45219-1MSD	U34060.D	1	04/08/16	MV	n/a	n/a	VU1397
C45219-1	U34030.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45118-6, C45118-7

CAS No.	Surrogate Recoveries	MS	MSD	C45219-1	Limits
460-00-4	4-Bromofluorobenzene	101%	100%	85%	79-114%

* = Outside of Control Limits.

Technical Report for

City of Tucson Environmental Services

Price Service Center

PO 1064

SGS Accutest Job Number: C45134

Sampling Date: 03/25/16

Report to:

City of Tucson - Env. Services
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Total number of pages in report: **35**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Maureen Coloma 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Test results relate only to samples analyzed.

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Sample Summary

City of Tucson Environmental Services

Job No: C45134

Price Service Center
 Project No: PO 1064

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C45134-1	03/25/16	08:30 KV	03/26/16	AQ	Ground Water	WR-213A
C45134-2	03/25/16	08:45 KV	03/26/16	AQ	Ground Water	WR-218A
C45134-3	03/25/16	09:05 KV	03/26/16	AQ	Ground Water	WR-231A
C45134-4	03/25/16	09:32 KV	03/26/16	AQ	Ground Water	WR-235A
C45134-5	03/25/16	09:35 KV	03/26/16	AQ	Ground Water	WR-235A
C45134-6	03/25/16	00:00 KV	03/26/16	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: City of Tucson Environmental Services

Job No C45134

Site: Price Service Center

Report Date 4/11/2016 6:49:05 PM

5 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/25/2016 and were received at Accutest on 03/26/2016 properly preserved, at 4.9 Deg. C and intact. These Samples received an Accutest job number of C45134. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ	Batch ID: VR1492
-------------------	-------------------------

- Sample(s) C45198-2MS, C45198-2MSD were used as the QC samples indicated.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Bromoform, Dibromochloromethane are outside laboratory control limits. Probable cause due to matrix interference. The associated blank spike recoveries were acceptable. Additionally, the sample spiked for the MS/MSD was not one of the samples from this SDG/work order; therefore, there are no data quality issues that affect this sample set.
- RPD(s) for MSD for Bromoform are outside laboratory control limits for sample C45198-2MSD.

Matrix: AQ	Batch ID: VU1396
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- Sample(s) C45118-6MS, C45118-6MSD were used as the QC samples indicated.

Matrix: AQ	Batch ID: VU1397
-------------------	-------------------------

- Sample(s) C45219-1MS, C45219-1MSD were used as the QC samples indicated.
- Sample(s) C45134-4, C45134-5 have surrogate (Toluene-D8) outside control limits due to matrix interference. Confirmed by reanalysis.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C45134
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/25/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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C45134-1 **WR-213A**

No hits reported in this sample.

C45134-2 **WR-218A**

No hits reported in this sample.

C45134-3 **WR-231A**

No hits reported in this sample.

C45134-4 **WR-235A**

No hits reported in this sample.

C45134-5 **WR-235A**

No hits reported in this sample.

C45134-6 **TRIP BLANK**

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: WR-213A	Date Sampled: 03/25/16
Lab Sample ID: C45134-1	Date Received: 03/26/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U34013.D	1	04/06/16	MV	n/a	n/a	VU1396
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		80-123%
2037-26-5	Toluene-D8	94%		88-112%
460-00-4	4-Bromofluorobenzene	87%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
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Report of Analysis

Client Sample ID: WR-218A	Date Sampled: 03/25/16
Lab Sample ID: C45134-2	Date Received: 03/26/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U34014.D	1	04/06/16	MV	n/a	n/a	VU1396
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		80-123%
2037-26-5	Toluene-D8	94%		88-112%
460-00-4	4-Bromofluorobenzene	87%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.2
4

Report of Analysis

Client Sample ID: WR-231A		Date Sampled: 03/25/16
Lab Sample ID: C45134-3		Date Received: 03/26/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U34015.D	1	04/06/16	MV	n/a	n/a	VU1396
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		80-123%
2037-26-5	Toluene-D8	94%		88-112%
460-00-4	4-Bromofluorobenzene	85%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WR-235A	Date Sampled: 03/25/16
Lab Sample ID: C45134-4	Date Received: 03/26/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U34037.D	1	04/07/16	MV	n/a	n/a	VU1397
Run #2 ^a	U34016.D	1	04/06/16	MV	n/a	n/a	VU1396

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%	86%	80-123%
2037-26-5	Toluene-D8	84% ^b	84% ^b	88-112%
460-00-4	4-Bromofluorobenzene	86%	85%	79-114%

(a) Confirmation run for surrogate recoveries.

(b) Outside control limits due to matrix interference. Confirmed by reanalysis. AZ:S12

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.4
4

Report of Analysis

Client Sample ID: WR-235A	Date Sampled: 03/25/16
Lab Sample ID: C45134-5	Date Received: 03/26/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U34041.D	1	04/07/16	MV	n/a	n/a	VU1397
Run #2 ^a	U34017.D	1	04/06/16	MV	n/a	n/a	VU1396

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%	86%	80-123%
2037-26-5	Toluene-D8	86% ^b	85% ^b	88-112%
460-00-4	4-Bromofluorobenzene	84%	85%	79-114%

(a) Confirmation run for surrogate recoveries.

(b) Outside control limits due to matrix interference. Confirmed by reanalysis. AZ:S12

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

Client Sample ID: TRIP BLANK	Date Sampled: 03/25/16
Lab Sample ID: C45134-6	Date Received: 03/26/16
Matrix: AQ - Trip Blank Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39187.D	1	04/07/16	CV	n/a	n/a	VR1492
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TRIP BLANK		Date Sampled: 03/25/16
Lab Sample ID: C45134-6		Date Received: 03/26/16
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		80-123%
2037-26-5	Toluene-D8	93%		88-112%
460-00-4	4-Bromofluorobenzene	87%		79-114%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable.
R9	Sample RPD exceeded the laboratory acceptance limit.
S12	Surrogate recovery was low. Data reported per ADEQ policy 0154.000.

5.1
5



PHOENIX

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 7820 7886 0560
Accutest Quote #
Bottle Order Control # C45134
Accutest NR Job #: C

Client / Reporting Information: City of Tucson, P.O. Box 27210, Tucson AZ. Project Information: PRICE SERVICE CENTER, Street, City, State, Project # PO 1064. Samplers Name: KAYLA VIRGONE, Client Purchase Order #.

Table with columns: Sample ID, Sample ID / Field Point / Point of Collection, Date, Time, Sampled by, Matrix, # of bottles, and various analysis codes. Rows include WR-213A, WR-218A, WR-231A, WR-235A, and TRIP BLANK.

Turnaround Time (Business days) and Data Deliverable Information. Includes checkboxes for Commercial 'A', 'B', 'B+', and 'Full' data packages, and options for EDF and EDD formats.

Chain of custody table with columns: Relinquished by, Date Time, Received by, Date Time, Relinquished by, Date Time, Received by, Date Time. Includes handwritten signatures and dates for sample handoffs.

5.2 5

SGS Accutest Sample Receipt Summary

Job Number: C45134

Client: CITY OF TUCSON

Project: PRICE SERVICE CTR

Date / Time Received: 3/26/2016 9:20:00 AM

Delivery Method: FedEx

Airbill #s: 782678860560

Cooler Temps (Initial/Adjusted): #1: (4.7/4.9):

<u>Cooler Security</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. SmpI Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<u>Cooler Temperature</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Therm ID:	IR1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
2. Trip Blank listed on COC:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
4. VOCs headspace free:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

<u>Sample Integrity - Documentation</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Sample Integrity - Condition</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	Intact		

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

C45134: Chain of Custody

Page 2 of 2

5.2
5

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1396-MB	U33999.D	1	04/06/16	MV	n/a	n/a	VU1396

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-1, C45134-2, C45134-3

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	88%	80-123%
2037-26-5	Toluene-D8	93%	88-112%
460-00-4	4-Bromofluorobenzene	86%	79-114%

6.1.1
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Method Blank Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1397-MB	U34028.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-4, C45134-5

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Results	Limits
1868-53-7	Dibromofluoromethane	85%	80-123%
2037-26-5	Toluene-D8	90%	88-112%
460-00-4	4-Bromofluorobenzene	85%	79-114%

6.1.2

6

Method Blank Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1492-MB	R39183.D	1	04/07/16	CV	n/a	n/a	VR1492

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-6

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1492-MB	R39183.D	1	04/07/16	CV	n/a	n/a	VR1492

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-6

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	94%	80-123%
2037-26-5	Toluene-D8	96%	88-112%

Method Blank Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1492-MB	R39183.D	1	04/07/16	CV	n/a	n/a	VR1492

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-6

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	90% 79-114%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1396-BS	U33996.D	1	04/06/16	MV	n/a	n/a	VU1396
VU1396-BSD	U33997.D	1	04/06/16	MV	n/a	n/a	VU1396

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-1, C45134-2, C45134-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	19.8	99	20.2	101	2	76-120/10
100-41-4	Ethylbenzene	20	19.6	98	20.2	101	3	78-123/10
1634-04-4	Methyl Tert Butyl Ether	20	18.6	93	18.8	94	1	73-120/10
108-88-3	Toluene	20	19.4	97	20.1	101	4	78-121/10
1330-20-7	Xylene (total)	60	58.3	97	59.8	100	3	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	91%	88%	80-123%
2037-26-5	Toluene-D8	92%	92%	88-112%
460-00-4	4-Bromofluorobenzene	92%	93%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1397-BS	U34025.D	1	04/07/16	MV	n/a	n/a	VU1397
VU1397-BSD	U34026.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-4, C45134-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	21.2	106	21.4	107	1	76-120/10
100-41-4	Ethylbenzene	20	21.0	105	21.2	106	1	78-123/10
1634-04-4	Methyl Tert Butyl Ether	20	20.1	101	19.9	100	1	73-120/10
108-88-3	Toluene	20	20.7	104	21.0	105	1	78-121/10
1330-20-7	Xylene (total)	60	62.5	104	63.3	106	1	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	93%	92%	80-123%
2037-26-5	Toluene-D8	92%	91%	88-112%
460-00-4	4-Bromofluorobenzene	93%	93%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1492-BS	R39180.D	1	04/07/16	CV	n/a	n/a	VR1492
VR1492-BSD	R39181.D	1	04/07/16	CV	n/a	n/a	VR1492

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	75.5	94	71.1	89	6	55-147/17
71-43-2	Benzene	20	19.0	95	17.7	89	7	76-120/10
108-86-1	Bromobenzene	20	18.8	94	18.3	92	3	80-123/10
74-97-5	Bromochloromethane	20	18.5	93	16.8	84	10	79-124/10
75-27-4	Bromodichloromethane	20	18.3	92	17.2	86	6	75-121/10
75-25-2	Bromoform	20	16.7	84	16.2	81	3	62-127/10
104-51-8	n-Butylbenzene	20	19.3	97	18.7	94	3	74-129/10
135-98-8	sec-Butylbenzene	20	19.1	96	18.5	93	3	75-128/11
98-06-6	tert-Butylbenzene	20	17.9	90	17.4	87	3	74-127/11
108-90-7	Chlorobenzene	20	18.4	92	17.6	88	4	79-119/10
75-00-3	Chloroethane	20	17.0	85	16.3	82	4	60-115/14
67-66-3	Chloroform	20	18.0	90	16.3	82	10	75-122/10
95-49-8	o-Chlorotoluene	20	18.4	92	17.8	89	3	76-125/12
106-43-4	p-Chlorotoluene	20	18.3	92	17.8	89	3	76-126/11
75-15-0	Carbon disulfide	20	16.2	81	14.6	73	10	51-130/13
56-23-5	Carbon tetrachloride	20	19.4	97	18.2	91	6	72-128/13
75-34-3	1,1-Dichloroethane	20	18.3	92	16.5	83	10	70-121/10
75-35-4	1,1-Dichloroethylene	20	17.0	85	15.4	77	10	62-125/13
563-58-6	1,1-Dichloropropene	20	18.5	93	17.4	87	6	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	20	17.8	89	17.8	89	0	64-129/11
106-93-4	1,2-Dibromoethane	20	18.6	93	18.1	91	3	81-124/10
107-06-2	1,2-Dichloroethane	20	18.5	93	17.3	87	7	74-122/10
78-87-5	1,2-Dichloropropane	20	19.1	96	18.0	90	6	75-123/10
142-28-9	1,3-Dichloropropane	20	19.2	96	18.6	93	3	81-127/11
594-20-7	2,2-Dichloropropane	20	18.4	92	16.7	84	10	66-130/12
124-48-1	Dibromochloromethane	20	16.6	83	16.1	81	3	76-124/10
75-71-8	Dichlorodifluoromethane	20	12.9	65	13.0	65	1	26-163/26
156-59-2	cis-1,2-Dichloroethylene	20	18.5	93	16.7	84	10	75-128/10
10061-01-5	cis-1,3-Dichloropropene	20	18.1	91	17.1	86	6	76-131/10
541-73-1	m-Dichlorobenzene	20	18.6	93	17.9	90	4	79-121/10
95-50-1	o-Dichlorobenzene	20	18.5	93	17.9	90	3	79-120/10
106-46-7	p-Dichlorobenzene	20	18.3	92	17.7	89	3	79-120/10
156-60-5	trans-1,2-Dichloroethylene	20	16.3	82	14.8	74	10	67-116/11
10061-02-6	trans-1,3-Dichloropropene	20	16.9	85	16.3	82	4	73-125/10
100-41-4	Ethylbenzene	20	19.1	96	18.5	93	3	78-123/10
637-92-3	Ethyl Tert Butyl Ether	20	18.3	92	16.8	84	9	75-126/11

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1492-BS	R39180.D	1	04/07/16	CV	n/a	n/a	VR1492
VR1492-BSD	R39181.D	1	04/07/16	CV	n/a	n/a	VR1492

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	87.1	109	86.0	108	1	71-145/12
87-68-3	Hexachlorobutadiene	20	19.2	96	18.7	94	3	70-130/12
98-82-8	Isopropylbenzene	20	19.2	96	18.5	93	4	77-125/10
99-87-6	p-Isopropyltoluene	20	19.4	97	18.7	94	4	76-126/10
108-10-1	4-Methyl-2-pentanone	80	84.9	106	80.7	101	5	70-142/11
74-83-9	Methyl bromide	20	15.7	79	14.5	73	8	65-124/13
74-87-3	Methyl chloride	20	17.8	89	16.3	82	9	47-143/20
74-95-3	Methylene bromide	20	18.9	95	17.8	89	6	80-125/10
75-09-2	Methylene chloride	20	18.1	91	16.2	81	11	65-124/15
78-93-3	Methyl ethyl ketone	80	79.0	99	74.0	93	7	66-145/12
1634-04-4	Methyl Tert Butyl Ether	20	17.0	85	15.8	79	7	73-120/10
91-20-3	Naphthalene	20	19.6	98	19.5	98	1	66-120/12
103-65-1	n-Propylbenzene	20	18.4	92	17.9	90	3	75-125/10
100-42-5	Styrene	20	17.1	86	16.5	83	4	73-126/10
75-65-0	Tert-Butyl Alcohol	100	89.0	89	85.5	86	4	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	20	18.9	95	18.3	92	3	79-126/10
71-55-6	1,1,1-Trichloroethane	20	18.7	94	17.0	85	10	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	20	18.3	92	18.1	91	1	78-127/10
79-00-5	1,1,2-Trichloroethane	20	18.7	94	18.1	91	3	79-122/10
87-61-6	1,2,3-Trichlorobenzene	20	19.0	95	18.9	95	1	70-128/12
96-18-4	1,2,3-Trichloropropane	20	18.5	93	18.0	90	3	66-127/10
120-82-1	1,2,4-Trichlorobenzene	20	17.3	87	17.0	85	2	72-125/11
95-63-6	1,2,4-Trimethylbenzene	20	18.7	94	18.0	90	4	76-124/10
108-67-8	1,3,5-Trimethylbenzene	20	19.1	96	18.6	93	3	79-130/10
127-18-4	Tetrachloroethylene	20	20.1	101	20.1	101	0	72-124/13
108-88-3	Toluene	20	18.3	92	17.7	89	3	78-121/10
79-01-6	Trichloroethylene	20	19.1	96	17.9	90	6	75-119/10
75-69-4	Trichlorofluoromethane	20	16.0	80	16.4	82	2	68-130/19
75-01-4	Vinyl chloride	20	17.2	86	17.0	85	1	57-137/18
1330-20-7	Xylene (total)	60	57.0	95	54.7	91	4	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	94%	89%	80-123%
2037-26-5	Toluene-D8	95%	98%	88-112%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1492-BS	R39180.D	1	04/07/16	CV	n/a	n/a	VR1492
VR1492-BSD	R39181.D	1	04/07/16	CV	n/a	n/a	VR1492

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-6

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	97%	96%	79-114%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1396-LCS	U33998.D	1	04/06/16	MV	n/a	n/a	VU1396

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-1, C45134-2, C45134-3

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
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CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	89%	80-123%
2037-26-5	Toluene-D8	94%	88-112%
460-00-4	4-Bromofluorobenzene	90%	79-114%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1397-LCS	U34027.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-4, C45134-5

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
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CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	88%	80-123%
2037-26-5	Toluene-D8	94%	88-112%
460-00-4	4-Bromofluorobenzene	89%	79-114%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45118-6MS	U34019.D	10	04/06/16	MV	n/a	n/a	VU1396
C45118-6MSD	U34020.D	10	04/06/16	MV	n/a	n/a	VU1396
C45118-6 ^a	U34018.D	10	04/06/16	MV	n/a	n/a	VU1396

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-1, C45134-2, C45134-3

CAS No.	Compound	C45118-6 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	200	216	108	200	203	102	6	76-120/10
100-41-4	Ethylbenzene	ND	200	216	108	200	202	101	7	78-123/10
1634-04-4	Methyl Tert Butyl Ether	45.4	200	243	99	200	241	98	1	73-120/10
108-88-3	Toluene	ND	200	212	106	200	199	100	6	78-121/10
1330-20-7	Xylene (total)	ND	600	644	107	600	600	100	7	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45118-6	Limits
1868-53-7	Dibromofluoromethane	90%	94%		80-123%
2037-26-5	Toluene-D8	92%	92%		88-112%
460-00-4	4-Bromofluorobenzene	93%	92%		79-114%

(a) Sample used for QC purposes only.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45198-2MS	R39203.D	25	04/07/16	CV	n/a	n/a	VR1492
C45198-2MSD	R39204.D	25	04/07/16	CV	n/a	n/a	VR1492
C45198-2 ^a	R39194.D	25	04/07/16	CV	n/a	n/a	VR1492

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-6

CAS No.	Compound	C45198-2 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	2000	1930	97	2000	1860	93	4	55-147/17
71-43-2	Benzene	ND	500	482	96	500	463	93	4	76-120/10
108-86-1	Bromobenzene	ND	500	471	94	500	489	98	4	80-123/10
74-97-5	Bromochloromethane	ND	500	463	93	500	435	87	6	79-124/10
75-27-4	Bromodichloromethane	ND	500	432	86	500	430	86	0	75-121/10
75-25-2	Bromoform	ND	500	290	58* ^b	500	343	69	17* ^c	62-127/10
104-51-8	n-Butylbenzene	ND	500	475	95	500	488	98	3	74-129/10
135-98-8	sec-Butylbenzene	ND	500	468	94	500	486	97	4	75-128/11
98-06-6	tert-Butylbenzene	ND	500	431	86	500	453	91	5	74-127/11
108-90-7	Chlorobenzene	ND	500	458	92	500	456	91	0	79-119/10
75-00-3	Chloroethane	ND	500	438	88	500	428	86	2	60-115/14
67-66-3	Chloroform	ND	500	452	90	500	427	85	6	75-122/10
95-49-8	o-Chlorotoluene	ND	500	456	91	500	472	94	3	76-125/12
106-43-4	p-Chlorotoluene	ND	500	461	92	500	478	96	4	76-126/11
75-15-0	Carbon disulfide	ND	500	318	64	500	332	66	4	51-130/13
56-23-5	Carbon tetrachloride	ND	500	472	94	500	471	94	0	72-128/13
75-34-3	1,1-Dichloroethane	ND	500	454	91	500	429	86	6	70-121/10
75-35-4	1,1-Dichloroethylene	ND	500	403	81	500	398	80	1	62-125/13
563-58-6	1,1-Dichloropropene	ND	500	459	92	500	452	90	2	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	ND	500	434	87	500	438	88	1	64-129/11
106-93-4	1,2-Dibromoethane	ND	500	459	92	500	461	92	0	81-124/10
107-06-2	1,2-Dichloroethane	ND	500	472	94	500	451	90	5	74-122/10
78-87-5	1,2-Dichloropropane	ND	500	491	98	500	472	94	4	75-123/10
142-28-9	1,3-Dichloropropane	ND	500	481	96	500	476	95	1	81-127/11
594-20-7	2,2-Dichloropropane	ND	500	413	83	500	400	80	3	66-130/12
124-48-1	Dibromochloromethane	ND	500	339	68* ^b	500	373	75* ^b	10	76-124/10
75-71-8	Dichlorodifluoromethane	ND	500	356	71	500	360	72	1	26-163/26
156-59-2	cis-1,2-Dichloroethylene	ND	500	457	91	500	435	87	5	75-128/10
10061-01-5	cis-1,3-Dichloropropene	ND	500	440	88	500	427	85	3	76-131/10
541-73-1	m-Dichlorobenzene	ND	500	465	93	500	478	96	3	79-121/10
95-50-1	o-Dichlorobenzene	ND	500	463	93	500	475	95	3	79-120/10
106-46-7	p-Dichlorobenzene	ND	500	459	92	500	471	94	3	79-120/10
156-60-5	trans-1,2-Dichloroethylene	ND	500	393	79	500	383	77	3	67-116/11
10061-02-6	trans-1,3-Dichloropropene	ND	500	401	80	500	403	81	0	73-125/10
100-41-4	Ethylbenzene	ND	500	473	95	500	474	95	0	78-123/10
637-92-3	Ethyl Tert Butyl Ether	ND	500	447	89	500	431	86	4	75-126/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45198-2MS	R39203.D	25	04/07/16	CV	n/a	n/a	VR1492
C45198-2MSD	R39204.D	25	04/07/16	CV	n/a	n/a	VR1492
C45198-2 ^a	R39194.D	25	04/07/16	CV	n/a	n/a	VR1492

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-6

CAS No.	Compound	C45198-2 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND	2000	2230	112	2000	2170	109	3	71-145/12
87-68-3	Hexachlorobutadiene	ND	500	444	89	500	463	93	4	70-130/12
98-82-8	Isopropylbenzene	ND	500	475	95	500	476	95	0	77-125/10
99-87-6	p-Isopropyltoluene	ND	500	476	95	500	492	98	3	76-126/10
108-10-1	4-Methyl-2-pentanone	ND	2000	2190	110	2000	2060	103	6	70-142/11
74-83-9	Methyl bromide	ND	500	393	79	500	382	76	3	65-124/13
74-87-3	Methyl chloride	ND	500	430	86	500	459	92	7	47-143/20
74-95-3	Methylene bromide	ND	500	486	97	500	464	93	5	80-125/10
75-09-2	Methylene chloride	ND	500	448	90	500	425	85	5	65-124/15
78-93-3	Methyl ethyl ketone	ND	2000	2010	101	2000	1890	95	6	66-145/12
1634-04-4	Methyl Tert Butyl Ether	7.7	J 500	419	82	500	409	80	2	73-120/10
91-20-3	Naphthalene	ND	500	483	97	500	500	100	3	66-120/12
103-65-1	n-Propylbenzene	ND	500	454	91	500	477	95	5	75-125/10
100-42-5	Styrene	ND	500	418	84	500	419	84	0	73-126/10
75-65-0	Tert-Butyl Alcohol	ND	2500	2160	86	2500	2090	84	3	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	ND	500	465	93	500	465	93	0	79-126/10
71-55-6	1,1,1-Trichloroethane	ND	500	451	90	500	437	87	3	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	470	94	500	483	97	3	78-127/10
79-00-5	1,1,2-Trichloroethane	ND	500	481	96	500	470	94	2	79-122/10
87-61-6	1,2,3-Trichlorobenzene	ND	500	457	91	500	482	96	5	70-128/12
96-18-4	1,2,3-Trichloropropane	ND	500	475	95	500	461	92	3	66-127/10
120-82-1	1,2,4-Trichlorobenzene	ND	500	414	83	500	430	86	4	72-125/11
95-63-6	1,2,4-Trimethylbenzene	ND	500	466	93	500	482	96	3	76-124/10
108-67-8	1,3,5-Trimethylbenzene	ND	500	470	94	500	490	98	4	79-130/10
127-18-4	Tetrachloroethylene	ND	500	458	92	500	462	92	1	72-124/13
108-88-3	Toluene	ND	500	452	90	500	455	91	1	78-121/10
79-01-6	Trichloroethylene	ND	500	473	95	500	461	92	3	75-119/10
75-69-4	Trichlorofluoromethane	ND	500	412	82	500	425	85	3	68-130/19
75-01-4	Vinyl chloride	ND	500	455	91	500	453	91	0	57-137/18
1330-20-7	Xylene (total)	ND	1500	1420	95	1500	1410	94	1	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45198-2	Limits
1868-53-7	Dibromofluoromethane	94%	91%		80-123%
2037-26-5	Toluene-D8	95%	97%		88-112%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45198-2MS	R39203.D	25	04/07/16	CV	n/a	n/a	VR1492
C45198-2MSD	R39204.D	25	04/07/16	CV	n/a	n/a	VR1492
C45198-2 ^a	R39194.D	25	04/07/16	CV	n/a	n/a	VR1492

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-6

CAS No.	Surrogate Recoveries	MS	MSD	C45198-2	Limits
460-00-4	4-Bromofluorobenzene	95%	94%		79-114%

- (a) Sample used for QC purposes only.
- (b) Outside laboratory control limits. AZ:M2
- (c) Outside laboratory control limits. AZ:R9

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45134
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45219-1MS	U34047.D	1	04/07/16	MV	n/a	n/a	VU1397
C45219-1MSD	U34060.D	1	04/08/16	MV	n/a	n/a	VU1397
C45219-1	U34030.D	1	04/07/16	MV	n/a	n/a	VU1397

The QC reported here applies to the following samples:

Method: SW846 8260B

C45134-4, C45134-5

CAS No.	Compound	C45219-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U	20	19.2	96	20	18.9	95	2	76-120/10
100-41-4	Ethylbenzene	1.0 U	20	19.9	100	20	19.1	96	4	78-123/10
1634-04-4	Methyl Tert Butyl Ether	1.0 U	20	16.4	82	20	15.9	80	3	73-120/10
108-88-3	Toluene	1.0 U	20	19.3	97	20	18.7	94	3	78-121/10
1330-20-7	Xylene (total)	2.0 U	60	58.4	97	60	56.6	94	3	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45219-1	Limits
1868-53-7	Dibromofluoromethane	95%	95%	85%	80-123%
2037-26-5	Toluene-D8	102%	102%	94%	88-112%
460-00-4	4-Bromofluorobenzene	101%	100%	85%	79-114%

* = Outside of Control Limits.

Technical Report for

City of Tucson Environmental Services

Price Service Center

PO1064

SGS Accutest Job Number: C45179

Sampling Date: 03/29/16

Report to:

City of Tucson - Env. Services
4400 S. Park Ave., Bldg 1 P.O. Box 27210
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Total number of pages in report: **40**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Maureen Coloma 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Test results relate only to samples analyzed.

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Sample Summary

City of Tucson Environmental Services

Job No: C45179

Price Service Center
Project No: PO1064

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C45179-1	03/29/16	08:10 KV	03/30/16	AQ	Ground Water	PCM-512A
C45179-2	03/29/16	08:30 KV	03/30/16	AQ	Ground Water	R-020A
C45179-3	03/29/16	08:45 KV	03/30/16	AQ	Ground Water	R-018A
C45179-4	03/29/16	09:08 KV	03/30/16	AQ	Ground Water	PCM-510A
C45179-5	03/29/16	09:16 KV	03/30/16	AQ	Ground Water	PCM-510B
C45179-6	03/29/16	09:35 KV	03/30/16	AQ	Ground Water	PCM-509A
C45179-7	03/29/16	09:45 KV	03/30/16	AQ	Ground Water	PCM-509B
C45179-8	03/29/16	10:20 KV	03/30/16	AQ	Ground Water	WR-210A
C45179-9	03/29/16	10:34 KV	03/30/16	AQ	Ground Water	R-017A
C45179-10	03/29/16	10:56 KV	03/30/16	AQ	Ground Water	R-013A
C45179-11	03/29/16	11:00 KV	03/30/16	AQ	Ground Water	R-013A
C45179-12	03/29/16	00:00 KV	03/30/16	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: City of Tucson Environmental Services

Job No C45179

Site: Price Service Center

Report Date 4/26/2016 11:46:31 P

11 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/29/2016 and were received at Accutest on 03/30/2016 properly preserved, at 1.9 Deg. C and intact. These Samples received an Accutest job number of C45179. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ	Batch ID: VR1500
-------------------	-------------------------

- Sample(s) C45194-7MS, C45194-7MSD were used as the QC samples indicated.
- Sample(s) C45179-4, C45179-5, C45179-6, C45179-7, C45179-8 have surrogate (Toluene-D8) outside control limits due to matrix interference; confirmed by reanalysis.
- C45179-7: Dilution required due to matrix interference.

Matrix: AQ	Batch ID: VV1356
-------------------	-------------------------

- Sample(s) C45179-1MS, C45179-1MSD were used as the QC samples indicated.
- Sample C45179-12 has for Dichlorodifluoromethane, Methyl chloride a CCV outside of control limits (biased high); not detected in sample.
- Matrix Spike Duplicate Recovery for Acetone is outside laboratory control limits. Probable cause due to matrix interference. The associated blank spike recoveries were acceptable.
- C45179-1, C45179-3: Dilution required due to sample foaming.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C45179
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/29/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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C45179-1 PCM-512A

Ethylbenzene ^a	36.6	25		ug/l	SW846 8260B
Xylene (total) ^a	106	50		ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a	1260	25		ug/l	SW846 8260B

C45179-2 R-020A

No hits reported in this sample.

C45179-3 R-018A

Xylene (total) ^a	702	100		ug/l	SW846 8260B
Methyl Tert Butyl Ether ^a	190	50		ug/l	SW846 8260B

C45179-4 PCM-510A

No hits reported in this sample.

C45179-5 PCM-510B

Xylene (total) ^b	9.7	8.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether ^b	875	20		ug/l	SW846 8260B

C45179-6 PCM-509A

No hits reported in this sample.

C45179-7 PCM-509B

No hits reported in this sample.

C45179-8 WR-210A

No hits reported in this sample.

C45179-9 R-017A

Methyl Tert Butyl Ether	12.8	1.0		ug/l	SW846 8260B
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C45179-10 R-013A

Methyl Tert Butyl Ether	84.6	1.0		ug/l	SW846 8260B
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Summary of Hits

Job Number: C45179
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/29/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

C45179-11 **R-013A**

Methyl Tert Butyl Ether	81.1	1.0			ug/l	SW846 8260B
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C45179-12 **TRIP BLANK**

No hits reported in this sample.

- (a) Dilution required due to sample foaming. AZ:D1
- (b) AZ:D2

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: PCM-512A		Date Sampled: 03/29/16
Lab Sample ID: C45179-1		Date Received: 03/30/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	V32854.D	25	04/11/16	KZ	n/a	n/a	VV1356
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	25	ug/l	
108-88-3	Toluene	ND	25	ug/l	
100-41-4	Ethylbenzene	36.6	25	ug/l	
1330-20-7	Xylene (total)	106	50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1260	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		80-123%
2037-26-5	Toluene-D8	102%		88-112%
460-00-4	4-Bromofluorobenzene	97%		79-114%

(a) Dilution required due to sample foaming. AZ:D1

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: R-020A	Date Sampled: 03/29/16
Lab Sample ID: C45179-2	Date Received: 03/30/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39349.D	1	04/12/16	CV	n/a	n/a	VR1500
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-123%
2037-26-5	Toluene-D8	93%		88-112%
460-00-4	4-Bromofluorobenzene	89%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.2
4

Report of Analysis

Client Sample ID: R-018A	Date Sampled: 03/29/16
Lab Sample ID: C45179-3	Date Received: 03/30/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	V32856.D	50	04/11/16	KZ	n/a	n/a	VV1356
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	50	ug/l	
108-88-3	Toluene	ND	50	ug/l	
100-41-4	Ethylbenzene	ND	50	ug/l	
1330-20-7	Xylene (total)	702	100	ug/l	
1634-04-4	Methyl Tert Butyl Ether	190	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-123%
2037-26-5	Toluene-D8	102%		88-112%
460-00-4	4-Bromofluorobenzene	98%		79-114%

(a) Dilution required due to sample foaming. AZ:D1

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: PCM-510A	Date Sampled: 03/29/16
Lab Sample ID: C45179-4	Date Received: 03/30/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39350.D	1	04/12/16	CV	n/a	n/a	VR1500
Run #2 ^a	V32857.D	1	04/11/16	KZ	n/a	n/a	VV1356

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%	96%	80-123%
2037-26-5	Toluene-D8	35% ^b	68% ^b	88-112%
460-00-4	4-Bromofluorobenzene	81%	102%	79-114%

(a) Confirmation run for surrogate recoveries.

(b) Outside control limits due to matrix interference. AZ:S12

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.4
4

Report of Analysis

Client Sample ID: PCM-510B	Date Sampled: 03/29/16
Lab Sample ID: C45179-5	Date Received: 03/30/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	R39365.D	4	04/12/16	CV	n/a	n/a	VR1500
Run #2 ^a	R39353.D	20	04/12/16	CV	n/a	n/a	VR1500

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	4.0	ug/l	
108-88-3	Toluene	ND	4.0	ug/l	
100-41-4	Ethylbenzene	ND	4.0	ug/l	
1330-20-7	Xylene (total)	9.7	8.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	875 ^b	20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%	88%	80-123%
2037-26-5	Toluene-D8	72% ^c	93%	88-112%
460-00-4	4-Bromofluorobenzene	89%	88%	79-114%

(a) AZ:D2

(b) Result is from Run# 2

(c) Outside control limits due to matrix interference. AZ:S12

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

Client Sample ID: PCM-509A	Date Sampled: 03/29/16
Lab Sample ID: C45179-6	Date Received: 03/30/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39354.D	1	04/12/16	CV	n/a	n/a	VR1500
Run #2 ^a	V32859.D	1	04/11/16	KZ	n/a	n/a	VV1356

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	98%	80-123%
2037-26-5	Toluene-D8	27% ^b	34% ^b	88-112%
460-00-4	4-Bromofluorobenzene	79%	97%	79-114%

(a) Confirmation run for surrogate recoveries.

(b) Outside control limits due to matrix interference. AZ:S12

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.6
4

Report of Analysis

Client Sample ID: PCM-509B	Date Sampled: 03/29/16
Lab Sample ID: C45179-7	Date Received: 03/30/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	V32860.D	10	04/11/16	KZ	n/a	n/a	VV1356
Run #2 ^b	R39355.D	10	04/12/16	CV	n/a	n/a	VR1500

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	10	ug/l	
108-88-3	Toluene	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	10	ug/l	
1330-20-7	Xylene (total)	ND	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%	89%	80-123%
2037-26-5	Toluene-D8	86% ^c	69% ^c	88-112%
460-00-4	4-Bromofluorobenzene	99%	79%	79-114%

- (a) Dilution required due to matrix interference. AZ:D1
- (b) Confirmation run for surrogate recoveries. AZ:D1
- (c) Outside control limits due to matrix interference. AZ:S12

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID: WR-210A	Date Sampled: 03/29/16
Lab Sample ID: C45179-8	Date Received: 03/30/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39356.D	1	04/12/16	CV	n/a	n/a	VR1500
Run #2 ^a	V32861.D	1	04/11/16	KZ	n/a	n/a	VV1356

Run #	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%	98%	80-123%
2037-26-5	Toluene-D8	67% ^b	76% ^b	88-112%
460-00-4	4-Bromofluorobenzene	89%	94%	79-114%

(a) Confirmation run for surrogate recoveries.

(b) Outside control limits due to matrix interference. AZ:S12

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.8
4

Report of Analysis

Client Sample ID: R-017A	Date Sampled: 03/29/16
Lab Sample ID: C45179-9	Date Received: 03/30/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V32862.D	1	04/11/16	KZ	n/a	n/a	VV1356
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	12.8	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-123%
2037-26-5	Toluene-D8	98%		88-112%
460-00-4	4-Bromofluorobenzene	106%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.9
4

Report of Analysis

Client Sample ID: R-013A		Date Sampled: 03/29/16
Lab Sample ID: C45179-10		Date Received: 03/30/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39357.D	1	04/12/16	CV	n/a	n/a	VR1500
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	84.6	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		80-123%
2037-26-5	Toluene-D8	96%		88-112%
460-00-4	4-Bromofluorobenzene	89%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.10
 4

Report of Analysis

Client Sample ID: R-013A	Date Sampled: 03/29/16
Lab Sample ID: C45179-11	Date Received: 03/30/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39358.D	1	04/12/16	CV	n/a	n/a	VR1500
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	81.1	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		80-123%
2037-26-5	Toluene-D8	96%		88-112%
460-00-4	4-Bromofluorobenzene	89%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.11
4

Report of Analysis

Client Sample ID: TRIP BLANK	Date Sampled: 03/29/16
Lab Sample ID: C45179-12	Date Received: 03/30/16
Matrix: AQ - Trip Blank Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V32853.D	1	04/11/16	KZ	n/a	n/a	VV1356
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane ^a	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TRIP BLANK		Date Sampled: 03/29/16
Lab Sample ID: C45179-12		Date Received: 03/30/16
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

4.12
4

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride ^a	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		80-123%
2037-26-5	Toluene-D8	109%		88-112%
460-00-4	4-Bromofluorobenzene	106%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TRIP BLANK	Date Sampled: 03/29/16
Lab Sample ID: C45179-12	Date Received: 03/30/16
Matrix: AQ - Trip Blank Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

4.12
4

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
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(a) CCV outside of control limits (biased high); not detected in sample. AZ:V1

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of target analyte.
S12	Surrogate recovery was low. Data reported per ADEQ policy 0154.000.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

5.1
5

1052



CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking #	7827 0311 3732	Bottle Order Control #	
Accutest Quote #		Accutest NC Job #: C	045179

Client / Reporting Information			Project Information													Requested Analysis				Matrix Codes						
Company Name: City of Tucson			Project Name: PRICE SERVICE CENTER																	WW- Wastewater GW- Ground Water SW- Surface Water SO- Soil GDI WP- Wipe LIQ- Non-aqueous Liquid AIR DW- Drinking Water (Perchlorate Only)						
Address: P.O. Box 27210			Street:																	LAB USE ONLY						
City: Tucson AZ 85726			City: State:																							
Project Contact: Lori E HMAN			Project #: PO 1064																							
Phone #: 520 791 3175			EMAIL:																							
Sampler's Name: KAYLA VIRGONE			Client Purchase Order #:																							
Accutest Sample ID	Sample ID / Field Point / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved bottles													LAB USE ONLY						
							HC	BOD	INDI	PCOA	NO3	NO2	NO	AMMONIA	PHOSPHORUS	CHLORIDE	SILICA	PHENOL	PERCHLORATE							
1	PCM-512A	3/29/16	0810	KV	GW	3																				
2	R-020A	3/29/16	0830	KV	GW	3																				
3	R-018A	3/29/16	0845	KV	GW	3																				
4	PCM-510A	3/29/16	0908	KV	GW	3																				
5	PCM-510B	3/29/16	0916	KV	GW	3																				
6	PCM-509A	3/29/16	0935	KV	GW	3																				
7	PCM-509B	3/29/16	0945	KV	GW	3																				
8	WR-210A	3/29/16	1020	KV	GW	3																				
9	R-017A	3/29/16	1034	KV	GW	3																				
10	R-013A	3/29/16	1056	KV	GW	3																				
Turnaround Time (Business days)			Approved By / Date:			Data Deliverable Information													Comments / Remarks							
<input type="checkbox"/> 10 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day <input type="checkbox"/> Same Day						<input type="checkbox"/> Commercial "A" - Results only <input type="checkbox"/> Commercial "B" - Results with QC summaries <input type="checkbox"/> Commercial "B+" - Results, QC, and chromatograms <input type="checkbox"/> FHRT+ - Level 4 data package <input type="checkbox"/> EDF for Geotracker <input type="checkbox"/> EDD Format Provide EDF Global ID Provide EDF Logcode:																				
Emergency TIA data available VIA Lablink			Sample Custody must be documented below each time samples change possession, including courier delivery.																							
Relinquished by Sampler: Kayla Virgone		Date Time: 3/29/16 1330		Received By: Ali Zeighami		Date Time: 3/29/16 1730		Relinquished By: Fedex		Date Time:		Received By:		Date Time:		Received By:		Date Time:		Received By:		Date Time:		Received By:		
Relinquished by:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:		Date Time:		Received By:		Date Time:		Received By:		Date Time:		Received By:		
						Appropriate Bottle / Pres. Y/N			Headspace Y/N			On Ice <input checked="" type="checkbox"/>			Cooler Temp. 1.7/1.9 °C											
						Labels match Coc? Y / N			Separate Receiving Check List used. Y / N																	

5.2 5

5

2052

FED-EX Tracking #
 Accutest Quote #
 Bottle Order Control #
 Accutest NC Job #: C **045179**

Client / Reporting Information
 Company Name: **City of Tucson**
 Address: **PO Box 27210**
 City: **Tucson** State: **AZ** Zip: **85726**
 Project Contact: **LORI EHMANN**
 Phone #: **520 791 3175**
 Samplers Name: **KAYLA VIRGONE**

Project Information
 Project Name:
 Street:
 City: State:
 Project #:
 EMAIL:
 Client Purchase Order #:

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles														
							Q	WASH	INOC	PCOA	DOE	WASH	WASH	WASH	WASH	ENRICH					
11	R-013A	3/29/16	1100	KV	GW	3															
12	TRIP BLANK	3/29/16				2															

Requested Analysis										Matrix Codes
										WW- Wastewater GW- Ground Water SW- Surface Water SO- Soil DI- Oil WP- Wipe LIQ- Non-aqueous Liquid AIR DW- Drinking Water (Perchlorate Only)
LAB USE ONLY										

Turnaround Time (Business days):
 10 Day
 5 Day
 3 Day
 2 Day
 1 Day
 Same Day

Approved By / Date: _____

Data Deliverable Information:
 Commercial "A" - Results only
 Commercial "B" - Results with QC summaries
 Commercial "B+" - Results, QC, and chromatograms
 FULL1 - Level 4 data package
 EDF for Geobacter EDD Format _____
 Provide EDF Global ID: _____
 Provide EDF Logcode: _____

Comments / Remarks:

Emergency TIA data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.

1	Relinquished by: Kayla Virgone	Date Time: 3/29/16 1330	Received By: Gulso Gul	Date Time: 3/29/16 1730	Received By: Fedex
2	Relinquished by: Fedex	Date Time: 3/29/16 09:35	Received By: Ali Zeyhani		
3	Relinquished by:	Date Time:	Received By:		
4	Custody Seal: Y		Appropriate Bottle / Pres. Y/N	Headspace Y/N	On Ice Y/N
5			Labels match Coc? Y / N	Separate Receiving Check List used: Y / N	Collet Temp. 1.7/1.9 °C

5.2
5

SGS Accutest Sample Receipt Summary

Job Number: C45179

Client: CITY OF TUCSON

Project: PRICE SERVICE CENTER

Date / Time Received: 3/30/2016 9:35:00 AM

Delivery Method: FedEx

Airbill #s: 782703113732

Cooler Temps (Initial/Adjusted): #1: (1.7/1.9):

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|----------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Therm ID: | IR1; | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

Y or N N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

5.2
5

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1356-MB	V32852.D	1	04/11/16	KZ	n/a	n/a	VV1356

The QC reported here applies to the following samples:

Method: SW846 8260B

C45179-1, C45179-3, C45179-7, C45179-9, C45179-12

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1356-MB	V32852.D	1	04/11/16	KZ	n/a	n/a	VV1356

The QC reported here applies to the following samples:

Method: SW846 8260B

C45179-1, C45179-3, C45179-7, C45179-9, C45179-12

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	96%	80-123%
2037-26-5	Toluene-D8	110%	88-112%

Method Blank Summary

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1356-MB	V32852.D	1	04/11/16	KZ	n/a	n/a	VV1356

The QC reported here applies to the following samples:

Method: SW846 8260B

C45179-1, C45179-3, C45179-7, C45179-9, C45179-12

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	107% 79-114%

Method Blank Summary

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1500-MB	R39348.D	1	04/12/16	CV	n/a	n/a	VR1500

The QC reported here applies to the following samples:

Method: SW846 8260B

C45179-2, C45179-4, C45179-5, C45179-6, C45179-8, C45179-10, C45179-11

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	88%	80-123%
2037-26-5	Toluene-D8	96%	88-112%
460-00-4	4-Bromofluorobenzene	89%	79-114%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1356-BS	V32849.D	1	04/11/16	KZ	n/a	n/a	VV1356
VV1356-BSD	V32850.D	1	04/11/16	KZ	n/a	n/a	VV1356

The QC reported here applies to the following samples:

Method: SW846 8260B

C45179-1, C45179-3, C45179-7, C45179-9, C45179-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	92.6	116	92.4	116	0	55-147/17
71-43-2	Benzene	20	19.6	98	19.9	100	2	76-120/10
108-86-1	Bromobenzene	20	20.9	105	21.5	108	3	80-123/10
74-97-5	Bromochloromethane	20	20.4	102	20.7	104	1	79-124/10
75-27-4	Bromodichloromethane	20	19.5	98	19.5	98	0	75-121/10
75-25-2	Bromoform	20	18.0	90	17.7	89	2	62-127/10
104-51-8	n-Butylbenzene	20	19.7	99	20.1	101	2	74-129/10
135-98-8	sec-Butylbenzene	20	19.6	98	20.0	100	2	75-128/11
98-06-6	tert-Butylbenzene	20	19.6	98	20.1	101	3	74-127/11
108-90-7	Chlorobenzene	20	19.7	99	19.9	100	1	79-119/10
75-00-3	Chloroethane	20	19.9	100	20.5	103	3	60-115/14
67-66-3	Chloroform	20	18.2	91	18.9	95	4	75-122/10
95-49-8	o-Chlorotoluene	20	18.9	95	19.5	98	3	76-125/12
106-43-4	p-Chlorotoluene	20	20.8	104	21.4	107	3	76-126/11
75-15-0	Carbon disulfide	20	17.3	87	17.9	90	3	51-130/13
56-23-5	Carbon tetrachloride	20	19.0	95	19.0	95	0	72-128/13
75-34-3	1,1-Dichloroethane	20	19.0	95	19.4	97	2	70-121/10
75-35-4	1,1-Dichloroethylene	20	19.0	95	19.6	98	3	62-125/13
563-58-6	1,1-Dichloropropene	20	19.2	96	19.3	97	1	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	20	18.4	92	18.4	92	0	64-129/11
106-93-4	1,2-Dibromoethane	20	21.8	109	21.2	106	3	81-124/10
107-06-2	1,2-Dichloroethane	20	19.1	96	19.1	96	0	74-122/10
78-87-5	1,2-Dichloropropane	20	20.1	101	20.2	101	0	75-123/10
142-28-9	1,3-Dichloropropane	20	21.8	109	21.5	108	1	81-127/11
594-20-7	2,2-Dichloropropane	20	18.7	94	19.2	96	3	66-130/12
124-48-1	Dibromochloromethane	20	19.2	96	19.0	95	1	76-124/10
75-71-8	Dichlorodifluoromethane	20	28.0	140	28.0	140	0	26-163/26
156-59-2	cis-1,2-Dichloroethylene	20	19.4	97	19.8	99	2	75-128/10
10061-01-5	cis-1,3-Dichloropropene	20	21.1	106	21.1	106	0	76-131/10
541-73-1	m-Dichlorobenzene	20	20.3	102	20.6	103	1	79-121/10
95-50-1	o-Dichlorobenzene	20	19.4	97	20.2	101	4	79-120/10
106-46-7	p-Dichlorobenzene	20	20.3	102	20.5	103	1	79-120/10
156-60-5	trans-1,2-Dichloroethylene	20	17.5	88	18.1	91	3	67-116/11
10061-02-6	trans-1,3-Dichloropropene	20	20.2	101	20.2	101	0	73-125/10
100-41-4	Ethylbenzene	20	19.8	99	20.2	101	2	78-123/10
637-92-3	Ethyl Tert Butyl Ether	20	18.6	93	18.9	95	2	75-126/11

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1356-BS	V32849.D	1	04/11/16	KZ	n/a	n/a	VV1356
VV1356-BSD	V32850.D	1	04/11/16	KZ	n/a	n/a	VV1356

The QC reported here applies to the following samples:

Method: SW846 8260B

C45179-1, C45179-3, C45179-7, C45179-9, C45179-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	96.2	120	94.1	118	2	71-145/12
87-68-3	Hexachlorobutadiene	20	19.3	97	20.0	100	4	70-130/12
98-82-8	Isopropylbenzene	20	19.3	97	19.2	96	1	77-125/10
99-87-6	p-Isopropyltoluene	20	20.0	100	20.3	102	1	76-126/10
108-10-1	4-Methyl-2-pentanone	80	91.2	114	88.0	110	4	70-142/11
74-83-9	Methyl bromide	20	19.5	98	20.0	100	3	65-124/13
74-87-3	Methyl chloride	20	28.1	141	28.3	142	1	47-143/20
74-95-3	Methylene bromide	20	20.9	105	20.8	104	0	80-125/10
75-09-2	Methylene chloride	20	19.0	95	19.8	99	4	65-124/15
78-93-3	Methyl ethyl ketone	80	84.7	106	83.1	104	2	66-145/12
1634-04-4	Methyl Tert Butyl Ether	20	17.7	89	17.8	89	1	73-120/10
91-20-3	Naphthalene	20	20.7	104	20.9	105	1	66-120/12
103-65-1	n-Propylbenzene	20	19.6	98	20.0	100	2	75-125/10
100-42-5	Styrene	20	20.8	104	20.8	104	0	73-126/10
75-65-0	Tert-Butyl Alcohol	100	109	109	97.7	98	11	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	20	19.2	96	19.2	96	0	79-126/10
71-55-6	1,1,1-Trichloroethane	20	18.6	93	19.2	96	3	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	20	21.0	105	21.0	105	0	78-127/10
79-00-5	1,1,2-Trichloroethane	20	21.1	106	20.8	104	1	79-122/10
87-61-6	1,2,3-Trichlorobenzene	20	21.4	107	21.7	109	1	70-128/12
96-18-4	1,2,3-Trichloropropane	20	17.9	90	17.1	86	5	66-127/10
120-82-1	1,2,4-Trichlorobenzene	20	20.2	101	20.6	103	2	72-125/11
95-63-6	1,2,4-Trimethylbenzene	20	19.6	98	20.1	101	3	76-124/10
108-67-8	1,3,5-Trimethylbenzene	20	19.6	98	20.3	102	4	79-130/10
127-18-4	Tetrachloroethylene	20	19.6	98	19.9	100	2	72-124/13
108-88-3	Toluene	20	19.7	99	19.8	99	1	78-121/10
79-01-6	Trichloroethylene	20	20.1	101	20.5	103	2	75-119/10
75-69-4	Trichlorofluoromethane	20	19.7	99	20.0	100	2	68-130/19
75-01-4	Vinyl chloride	20	22.5	113	23.4	117	4	57-137/18
1330-20-7	Xylene (total)	60	59.7	100	59.8	100	0	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	97%	98%	80-123%
2037-26-5	Toluene-D8	99%	97%	88-112%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1356-BS	V32849.D	1	04/11/16	KZ	n/a	n/a	VV1356
VV1356-BSD	V32850.D	1	04/11/16	KZ	n/a	n/a	VV1356

The QC reported here applies to the following samples:

Method: SW846 8260B

C45179-1, C45179-3, C45179-7, C45179-9, C45179-12

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	97%	96%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1500-BS	R39345.D	1	04/12/16	CV	n/a	n/a	VR1500
VR1500-BSD	R39346.D	1	04/12/16	CV	n/a	n/a	VR1500

The QC reported here applies to the following samples:

Method: SW846 8260B

C45179-2, C45179-4, C45179-5, C45179-6, C45179-8, C45179-10, C45179-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	17.5	88	17.0	85	3	76-120/10
100-41-4	Ethylbenzene	20	17.8	89	17.3	87	3	78-123/10
1634-04-4	Methyl Tert Butyl Ether	20	16.9	85	16.7	84	1	73-120/10
108-88-3	Toluene	20	17.1	86	16.7	84	2	78-121/10
1330-20-7	Xylene (total)	60	52.8	88	51.5	86	2	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	93%	92%	80-123%
2037-26-5	Toluene-D8	94%	94%	88-112%
460-00-4	4-Bromofluorobenzene	94%	94%	79-114%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1356-LCS	V32851.D	1	04/11/16	KZ	n/a	n/a	VV1356

The QC reported here applies to the following samples:

Method: SW846 8260B

C45179-1, C45179-3, C45179-7, C45179-9, C45179-12

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
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CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	80-123%
2037-26-5	Toluene-D8	103%	88-112%
460-00-4	4-Bromofluorobenzene	100%	79-114%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45194-7MS	R39367.D	25	04/12/16	CV	n/a	n/a	VR1500
C45194-7MSD	R39368.D	25	04/12/16	CV	n/a	n/a	VR1500
C45194-7	R39361.D	25	04/12/16	CV	n/a	n/a	VR1500

The QC reported here applies to the following samples:

Method: SW846 8260B

C45179-2, C45179-4, C45179-5, C45179-6, C45179-8, C45179-10, C45179-11

CAS No.	Compound	C45194-7 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	500	448	90	500	431	86	4	76-120/10
100-41-4	Ethylbenzene	531	500	1010	96	500	965	87	5	78-123/10
1634-04-4	Methyl Tert Butyl Ether	ND	500	404	81	500	410	82	1	73-120/10
108-88-3	Toluene	636	500	1080	89	500	1030	79	5	78-121/10
1330-20-7	Xylene (total)	2040	1500	3460	95	1500	3360	88	3	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45194-7	Limits
1868-53-7	Dibromofluoromethane	91%	91%	91%	80-123%
2037-26-5	Toluene-D8	93%	94%	95%	88-112%
460-00-4	4-Bromofluorobenzene	94%	94%	91%	79-114%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45179-1MS	V32893.D	25	04/12/16	KZ	n/a	n/a	VV1356
C45179-1MSD	V32894.D	25	04/12/16	KZ	n/a	n/a	VV1356
C45179-1 ^a	V32854.D	25	04/11/16	KZ	n/a	n/a	VV1356

The QC reported here applies to the following samples:

Method: SW846 8260B

C45179-1, C45179-3, C45179-7, C45179-9, C45179-12

CAS No.	Compound	C45179-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	1470	2000	4390	146	2000	4480	151* b	2	55-147/17
71-43-2	Benzene	12.9	500	496	97	500	502	98	1	76-120/10
108-86-1	Bromobenzene	ND	500	524	105	500	527	105	1	80-123/10
74-97-5	Bromochloromethane	ND	500	522	104	500	519	104	1	79-124/10
75-27-4	Bromodichloromethane	ND	500	474	95	500	482	96	2	75-121/10
75-25-2	Bromoform	ND	500	402	80	500	429	86	6	62-127/10
104-51-8	n-Butylbenzene	11.6	500	483	94	500	467	91	3	74-129/10
135-98-8	sec-Butylbenzene	7.6	500	488	96	500	463	91	5	75-128/11
98-06-6	tert-Butylbenzene	ND	500	492	98	500	476	95	3	74-127/11
108-90-7	Chlorobenzene	ND	500	492	98	500	498	100	1	79-119/10
75-00-3	Chloroethane	ND	500	524	105	500	528	106	1	60-115/14
67-66-3	Chloroform	ND	500	466	93	500	470	94	1	75-122/10
95-49-8	o-Chlorotoluene	ND	500	451	90	500	453	91	0	76-125/12
106-43-4	p-Chlorotoluene	ND	500	496	99	500	501	100	1	76-126/11
75-15-0	Carbon disulfide	ND	500	446	89	500	425	85	5	51-130/13
56-23-5	Carbon tetrachloride	ND	500	470	94	500	421	84	11	72-128/13
75-34-3	1,1-Dichloroethane	ND	500	484	97	500	487	97	1	70-121/10
75-35-4	1,1-Dichloroethylene	ND	500	477	95	500	445	89	7	62-125/13
563-58-6	1,1-Dichloropropene	ND	500	468	94	500	431	86	8	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	ND	500	475	95	500	478	96	1	64-129/11
106-93-4	1,2-Dibromoethane	ND	500	539	108	500	539	108	0	81-124/10
107-06-2	1,2-Dichloroethane	ND	500	473	95	500	476	95	1	74-122/10
78-87-5	1,2-Dichloropropane	ND	500	503	101	500	505	101	0	75-123/10
142-28-9	1,3-Dichloropropane	ND	500	537	107	500	548	110	2	81-127/11
594-20-7	2,2-Dichloropropane	ND	500	434	87	500	396	79	9	66-130/12
124-48-1	Dibromochloromethane	ND	500	443	89	500	462	92	4	76-124/10
75-71-8	Dichlorodifluoromethane	ND	500	656	131	500	612	122	7	26-163/26
156-59-2	cis-1,2-Dichloroethylene	ND	500	494	99	500	497	99	1	75-128/10
10061-01-5	cis-1,3-Dichloropropene	ND	500	516	103	500	518	104	0	76-131/10
541-73-1	m-Dichlorobenzene	ND	500	508	102	500	513	103	1	79-121/10
95-50-1	o-Dichlorobenzene	ND	500	499	100	500	505	101	1	79-120/10
106-46-7	p-Dichlorobenzene	ND	500	502	100	500	513	103	2	79-120/10
156-60-5	trans-1,2-Dichloroethylene	ND	500	450	90	500	441	88	2	67-116/11
10061-02-6	trans-1,3-Dichloropropene	ND	500	484	97	500	493	99	2	73-125/10
100-41-4	Ethylbenzene	36.6	500	517	96	500	518	96	0	78-123/10
637-92-3	Ethyl Tert Butyl Ether	ND	500	460	92	500	467	93	2	75-126/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45179-1MS	V32893.D	25	04/12/16	KZ	n/a	n/a	VV1356
C45179-1MSD	V32894.D	25	04/12/16	KZ	n/a	n/a	VV1356
C45179-1 ^a	V32854.D	25	04/11/16	KZ	n/a	n/a	VV1356

The QC reported here applies to the following samples:

Method: SW846 8260B

C45179-1, C45179-3, C45179-7, C45179-9, C45179-12

CAS No.	Compound	C45179-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND	2000	2420	121	2000	2480	124	2	71-145/12
87-68-3	Hexachlorobutadiene	ND	500	499	100	500	465	93	7	70-130/12
98-82-8	Isopropylbenzene	10.6	500	481	94	500	469	92	3	77-125/10
99-87-6	p-Isopropyltoluene	ND	500	479	96	500	456	91	5	76-126/10
108-10-1	4-Methyl-2-pentanone	ND	2000	2330	117	2000	2350	118	1	70-142/11
74-83-9	Methyl bromide	ND	500	507	101	500	509	102	0	65-124/13
74-87-3	Methyl chloride	24.6	500	736	142	500	740	143	1	47-143/20
74-95-3	Methylene bromide	ND	500	521	104	500	525	105	1	80-125/10
75-09-2	Methylene chloride	ND	500	495	99	500	502	100	1	65-124/15
78-93-3	Methyl ethyl ketone	ND	2000	2420	121	2000	2410	121	0	66-145/12
1634-04-4	Methyl Tert Butyl Ether	1260	500	1670	82	500	1710	90	2	73-120/10
91-20-3	Naphthalene	95.5	500	584	98	500	597	100	2	66-120/12
103-65-1	n-Propylbenzene	36.6	500	509	94	500	494	91	3	75-125/10
100-42-5	Styrene	ND	500	403	81	500	421	84	4	73-126/10
75-65-0	Tert-Butyl Alcohol	1830	2500	5090	130	2500	5130	132	1	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	ND	500	482	96	500	492	98	2	79-126/10
71-55-6	1,1,1-Trichloroethane	ND	500	469	94	500	445	89	5	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	542	108	500	549	110	1	78-127/10
79-00-5	1,1,2-Trichloroethane	ND	500	519	104	500	534	107	3	79-122/10
87-61-6	1,2,3-Trichlorobenzene	ND	500	540	108	500	548	110	1	70-128/12
96-18-4	1,2,3-Trichloropropane	ND	500	461	92	500	475	95	3	66-127/10
120-82-1	1,2,4-Trichlorobenzene	ND	500	509	102	500	510	102	0	72-125/11
95-63-6	1,2,4-Trimethylbenzene	81.4	500	516	87	500	522	88	1	76-124/10
108-67-8	1,3,5-Trimethylbenzene	ND	500	436	87	500	438	88	0	79-130/10
127-18-4	Tetrachloroethylene	ND	500	482	96	500	454	91	6	72-124/13
108-88-3	Toluene	ND	500	475	95	500	482	96	1	78-121/10
79-01-6	Trichloroethylene	ND	500	497	99	500	490	98	1	75-119/10
75-69-4	Trichlorofluoromethane	ND	500	497	99	500	470	94	6	68-130/19
75-01-4	Vinyl chloride	ND	500	581	116	500	564	113	3	57-137/18
1330-20-7	Xylene (total)	106	1500	1480	92	1500	1510	94	2	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45179-1	Limits
1868-53-7	Dibromofluoromethane	98%	98%	97%	80-123%
2037-26-5	Toluene-D8	97%	98%	102%	88-112%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45179
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45179-1MS	V32893.D	25	04/12/16	KZ	n/a	n/a	VV1356
C45179-1MSD	V32894.D	25	04/12/16	KZ	n/a	n/a	VV1356
C45179-1 ^a	V32854.D	25	04/11/16	KZ	n/a	n/a	VV1356

The QC reported here applies to the following samples:

Method: SW846 8260B

C45179-1, C45179-3, C45179-7, C45179-9, C45179-12

CAS No.	Surrogate Recoveries	MS	MSD	C45179-1	Limits
460-00-4	4-Bromofluorobenzene	96%	98%	97%	79-114%

- (a) Dilution required due to sample foaming. AZ:D1
- (b) Outside laboratory control limits. AZ:M1

* = Outside of Control Limits.

Technical Report for

City of Tucson Environmental Services

Price Service Center

PO 1064

SGS Accutest Job Number: C45192

Sampling Date: 03/30/16

Report to:

City of Tucson - Env. Services
4400 S. Park Ave., Bldg 1 P.O. Box 27210
Tucson, AZ 85726
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ATTN: Lori Ehman

Total number of pages in report: **54**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Maureen Coloma 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Test results relate only to samples analyzed.

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Sample Summary

City of Tucson Environmental Services

Job No: C45192

Price Service Center
Project No: PO 1064

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C45192-1	03/30/16	08:45 KV	03/31/16	AQ	Ground Water	WR-233A
C45192-2	03/30/16	09:30 KV	03/31/16	AQ	Ground Water	WR-227A
C45192-3	03/30/16	09:42 KV	03/31/16	AQ	Ground Water	WR-222A
C45192-4	03/30/16	10:10 KV	03/31/16	AQ	Ground Water	WR-208A
C45192-5	03/30/16	10:30 KV	03/31/16	AQ	Ground Water	WR-216A
C45192-6	03/30/16	10:55 KV	03/31/16	AQ	Ground Water	WR-209A
C45192-7	03/30/16	11:20 KV	03/31/16	AQ	Ground Water	R-016A
C45192-8	03/30/16	11:38 KV	03/31/16	AQ	Ground Water	R-012A
C45192-9	03/30/16	11:48 KV	03/31/16	AQ	Ground Water	R-021A
C45192-10	03/30/16	11:50 KV	03/31/16	AQ	Ground Water	R-021A
C45192-11	03/30/16	00:00 KV	03/31/16	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: City of Tucson Environmental Services

Job No C45192

Site: Price Service Center

Report Date 4/26/2016 4:55:03 PM

10 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/30/2016 and were received at Accutest on 03/31/2016 properly preserved, at 2.3 Deg. C and intact. These Samples received an Accutest job number of C45192. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ	Batch ID: VR1500
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- Sample(s) C45194-7MS, C45194-7MSD were used as the QC samples indicated.

Matrix: AQ	Batch ID: VR1501
-------------------	-------------------------

- Sample(s) C45192-10MS, C45192-10MSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery and RPD for MSD for Methyl Tert Butyl Ether are outside laboratory control limits; MS recovery within control limits. Probable cause due to matrix interference. The associated blank spike recoveries were acceptable.

Matrix: AQ	Batch ID: VU1405
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- Sample(s) C45324-2MS, C45324-2MSD were used as the QC samples indicated.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Acetone, Xylene (total), Naphthalene are outside laboratory control limits. Probable cause due to matrix interference. The associated blank spike recoveries were acceptable. Additionally, the sample spiked for the MS/MSD was not one of the samples from this SDG/work order; therefore, there are no data quality issues that affect this sample set.
- RPD(s) for MSD for 1,1,1-Trichloroethane, 1,1-Dichloroethane, Acetone, Bromochloromethane, Chloroethane, cis-1,2-Dichloroethylene, Ethyl Tert Butyl Ether, Methyl bromide, Methyl ethyl ketone, Methyl Tert Butyl Ether, Naphthalene are outside laboratory control limits for sample C45324-2MSD.

Matrix: AQ	Batch ID: VV1358
-------------------	-------------------------

- Sample(s) C45253-4MS, C45253-4MSD were used as the QC samples indicated.
- Sample C45192-11 has for Dichlorodifluoromethane, Methyl chloride a CCV outside of control limits (biased high); not detected in sample.
- Matrix Spike Recovery for Methyl chloride is outside laboratory control limits (high bias); not detected in associated samples.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C45192
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/30/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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C45192-1 WR-233A

No hits reported in this sample.

C45192-2 WR-227A

Methyl Tert Butyl Ether	21.3	1.0		ug/l	SW846 8260B
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C45192-3 WR-222A

No hits reported in this sample.

C45192-4 WR-208A

No hits reported in this sample.

C45192-5 WR-216A

No hits reported in this sample.

C45192-6 WR-209A

Methyl Tert Butyl Ether	14.3	1.0		ug/l	SW846 8260B
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C45192-7 R-016A

Methyl Tert Butyl Ether ^a	130	25		ug/l	SW846 8260B
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C45192-8 R-012A

Methyl Tert Butyl Ether ^a	1980	100		ug/l	SW846 8260B
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C45192-9 R-021A

Methyl Tert Butyl Ether ^a	697	50		ug/l	SW846 8260B
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C45192-10 R-021A

Methyl Tert Butyl Ether ^a	773	50		ug/l	SW846 8260B
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C45192-11 TRIP BLANK

No hits reported in this sample.

(a) AZ:D2 AZ:D2

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: WR-233A	Date Sampled: 03/30/16
Lab Sample ID: C45192-1	Date Received: 03/31/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U34200.D	1	04/12/16	JC	n/a	n/a	VU1405
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WR-233A	Date Sampled: 03/30/16
Lab Sample ID: C45192-1	Date Received: 03/31/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-123%
2037-26-5	Toluene-D8	102%		88-112%
460-00-4	4-Bromofluorobenzene	91%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
 4

Report of Analysis

Client Sample ID: WR-227A	Date Sampled: 03/30/16
Lab Sample ID: C45192-2	Date Received: 03/31/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U34201.D	1	04/12/16	JC	n/a	n/a	VU1405
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

4.2
4

Report of Analysis

Client Sample ID:	WR-227A	Date Sampled:	03/30/16
Lab Sample ID:	C45192-2	Date Received:	03/31/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	21.3	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-123%
2037-26-5	Toluene-D8	103%		88-112%
460-00-4	4-Bromofluorobenzene	93%		79-114%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WR-222A	Date Sampled: 03/30/16
Lab Sample ID: C45192-3	Date Received: 03/31/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U34202.D	1	04/12/16	JC	n/a	n/a	VU1405
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-222A	Date Sampled:	03/30/16
Lab Sample ID:	C45192-3	Date Received:	03/31/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-123%
2037-26-5	Toluene-D8	103%		88-112%
460-00-4	4-Bromofluorobenzene	91%		79-114%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WR-208A	Date Sampled: 03/30/16
Lab Sample ID: C45192-4	Date Received: 03/31/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39362.D	1	04/12/16	CV	n/a	n/a	VR1500
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		80-123%
2037-26-5	Toluene-D8	95%		88-112%
460-00-4	4-Bromofluorobenzene	89%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.4
4

Report of Analysis

Client Sample ID: WR-216A Lab Sample ID: C45192-5 Matrix: AQ - Ground Water Method: SW846 8260B Project: Price Service Center	Date Sampled: 03/30/16 Date Received: 03/31/16 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39363.D	1	04/12/16	CV	n/a	n/a	VR1500
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-123%
2037-26-5	Toluene-D8	95%		88-112%
460-00-4	4-Bromofluorobenzene	88%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

Client Sample ID: WR-209A	Date Sampled: 03/30/16
Lab Sample ID: C45192-6	Date Received: 03/31/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39364.D	1	04/12/16	CV	n/a	n/a	VR1500
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	14.3	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		80-123%
2037-26-5	Toluene-D8	95%		88-112%
460-00-4	4-Bromofluorobenzene	87%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.6
4

Report of Analysis

Client Sample ID: R-016A	Date Sampled: 03/30/16
Lab Sample ID: C45192-7	Date Received: 03/31/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	R39392.D	25	04/13/16	CV	n/a	n/a	VR1501
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene ^a	ND	25	ug/l	
108-88-3	Toluene ^a	ND	25	ug/l	
100-41-4	Ethylbenzene ^a	ND	25	ug/l	
1330-20-7	Xylene (total) ^a	ND	50	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^a	130	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	80%		80-123%
2037-26-5	Toluene-D8	98%		88-112%
460-00-4	4-Bromofluorobenzene	91%		79-114%

(a) AZ:D2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID: R-012A	Date Sampled: 03/30/16
Lab Sample ID: C45192-8	Date Received: 03/31/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	R39393.D	100	04/13/16	CV	n/a	n/a	VR1501
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene ^a	ND	100	ug/l	
108-88-3	Toluene ^a	ND	100	ug/l	
100-41-4	Ethylbenzene ^a	ND	100	ug/l	
1330-20-7	Xylene (total) ^a	ND	200	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^a	1980	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		80-123%
2037-26-5	Toluene-D8	98%		88-112%
460-00-4	4-Bromofluorobenzene	90%		79-114%

(a) AZ:D2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.8
4

Report of Analysis

Client Sample ID: R-021A		Date Sampled: 03/30/16
Lab Sample ID: C45192-9		Date Received: 03/31/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	R39394.D	50	04/13/16	CV	n/a	n/a	VR1501
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene ^a	ND	50	ug/l	
108-88-3	Toluene ^a	ND	50	ug/l	
100-41-4	Ethylbenzene ^a	ND	50	ug/l	
1330-20-7	Xylene (total) ^a	ND	100	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^a	697	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		80-123%
2037-26-5	Toluene-D8	98%		88-112%
460-00-4	4-Bromofluorobenzene	90%		79-114%

(a) AZ:D2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.9
4

Report of Analysis

Client Sample ID: R-021A		Date Sampled: 03/30/16
Lab Sample ID: C45192-10		Date Received: 03/31/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	R39395.D	50	04/13/16	CV	n/a	n/a	VR1501
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene ^a	ND	50	ug/l	
108-88-3	Toluene ^a	ND	50	ug/l	
100-41-4	Ethylbenzene ^a	ND	50	ug/l	
1330-20-7	Xylene (total) ^a	ND	100	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^a	773	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-123%
2037-26-5	Toluene-D8	97%		88-112%
460-00-4	4-Bromofluorobenzene	90%		79-114%

(a) AZ:D2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TRIP BLANK	Date Sampled: 03/30/16
Lab Sample ID: C45192-11	Date Received: 03/31/16
Matrix: AQ - Trip Blank Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V32909.D	1	04/13/16	KZ	n/a	n/a	VV1358
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane ^a	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	03/30/16
Lab Sample ID:	C45192-11	Date Received:	03/31/16
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride ^a	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-123%
2037-26-5	Toluene-D8	112%		88-112%
460-00-4	4-Bromofluorobenzene	104%		79-114%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TRIP BLANK		Date Sampled: 03/30/16
Lab Sample ID: C45192-11		Date Received: 03/31/16
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

4.11
4

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
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(a) CCV outside of control limits (biased high); not detected in sample. AZ:V1

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D2	Sample required dilution due to high concentration of target analyte.
M1	Matrix spike recovery was high; the associated blank spike recovery was acceptable.
R9	Sample RPD exceeded the laboratory acceptance limit.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

5.1
5



CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

EDF Tracking # 1827 1162 1136
Accutest Quote #
Bottle Order Control #
Accutest NC Job #: C 045192

Client / Reporting Information: City of Tucson, PO Box 27210, Tucson AZ 85726
Project Information: Project Name: PRICE SERVICE CENTER, Project #: PO 1064
Sampler's Name: KAYLA VIRGONE, Client Purchase Order #

Table with columns: Accutest Sample ID, Sample ID / Field Point / Point of Collection, Date, Time, Sampled by, Matrix, # of bottles, and various analysis methods (MET, MERC, PHOS, etc.). Rows 1-10 list samples WR-233A through R-021A.

Turnaround Time (Business days) selection: 10 Day, 5 Day, 3 Day, 2 Day, 1 Day, Same Day.
Approved By / Date: _____
Data Deliverable Information: Commercial "A" - Results only, Commercial "B" - Results with QC summaries, Commercial "B+" - Results, QC, and chromatograms, FULL1 - Level 4 data package, EDF for Geotracker, EDD Format, Provide EDF Global ID, Provide EDF Logcode.

Emergency TIA data available VIA Lablink
Sample Custody must be documented below each time sample change possession, including courier delivery.
Relinquished by: Kayla Virgone, Date/Time: 3/30/16 1330, Received By: [Signature], Date/Time: 3/30/16 1600, Received By: FedEx
Relinquished by: FedEx, Date/Time: 3/31/16 1030, Received By: [Signature]

INTACT

5.2 5



CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest NC Job #: C 045192

Client / Reporting Information				Project Information								Requested Analysis							Matrix Codes					
Company Name: City of Tucson				Project Name: PRIME SERVICE CENTER															WW- Wastewater GW- Ground Water SW- Surface Water SO- Soil OI- Oil WP- Wipe LIQ - Non-aqueous Liquid AIR DW- Drinking Water (Perchlorate Only)					
Address: PO Box 27210				Street:															LAB USE ONLY					
City: Tucson State: AZ Zip: 85726				City: State:																				
Project Contact: Lori Ehman				Project #: PO 1064																				
Phone #: 520 791 3175				EMAIL:																				
Sampler's Name: Kayla Virgone				Client Purchase Order #:																				
Accutest Sample ID	Collection			Number of preserved Bottles																				
	Sample ID / Field Point / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	U	WASH	PHOS	PCDA	NONE	MURICA	PICPH	EMCORE										
11	TRIP BLANK	3/30/16				2									X									
Turnaround Time (Business days)				Data Deliverable Information								Comments / Remarks												

Emergency TIA data available VIA Lablink

<input type="checkbox"/> 10 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day <input type="checkbox"/> Same Day	Approved By / Date: _____	<input type="checkbox"/> Commercial "A" - Results only <input type="checkbox"/> Commercial "B" - Results with QC summaries <input type="checkbox"/> Commercial "B+" - Results, QC, and chromatograms <input type="checkbox"/> FULLT - Level 4 data package <input type="checkbox"/> EDF for Geotracker <input type="checkbox"/> EDD Format Provide EDF Global ID _____ Provide EDF Logcode: _____	Comments / Remarks
--	---------------------------	---	--------------------

Sample Custody must be documented below each time sample's change possession, including courier delivery.

Relinquished by Sampler: Kayla Virgone Date Time: 3/30/16 1330 Relinquished by: Fedex	Received By: [Signature] Date Time: 3/30/16 1600 Relinquished By: [Signature]	Received By: Fedex Date Time: _____ Relinquished By: _____
Relinquished by: _____ Date Time: _____ Received By: _____	Relinquished by: _____ Date Time: _____ Received By: _____	Relinquished by: _____ Date Time: _____ Received By: _____

Custody Seal # **Y**
 Appropriate Bottle / Pres. Y/N
 Headspace Y/N
 OnIce Y/N
 Cooler Temp. _____ °C
 Labels match Coo? **Y / N**
 Separate Receiving Check List used: **Y / N**

5.2
5

SGS Accutest Sample Receipt Summary

Job Number: C45192

Client: CITY OF TUCSON

Project: PRICE SERVICE CTR

Date / Time Received: 3/31/2016 10:30:00 AM

Delivery Method: FedEx

Airbill #s: 782711621136

Cooler Temps (Initial/Adjusted): #1: (2.1/2.3):

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. SmpI Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|----------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Therm ID: | IR1; | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

Y or N N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

C45192: Chain of Custody

Page 3 of 3

5.2
5

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1405-MB	U34193.D	1	04/12/16	JC	n/a	n/a	VU1405

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-1, C45192-2, C45192-3

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1405-MB	U34193.D	1	04/12/16	JC	n/a	n/a	VU1405

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-1, C45192-2, C45192-3

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	97%	80-123%
2037-26-5	Toluene-D8	104%	88-112%

Method Blank Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1405-MB	U34193.D	1	04/12/16	JC	n/a	n/a	VU1405

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-1, C45192-2, C45192-3

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	92% 79-114%

Method Blank Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1500-MB	R39348.D	1	04/12/16	CV	n/a	n/a	VR1500

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-4, C45192-5, C45192-6

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	88%	80-123%
2037-26-5	Toluene-D8	96%	88-112%
460-00-4	4-Bromofluorobenzene	89%	79-114%

6.1.2
6

Method Blank Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1358-MB	V32906.D	1	04/13/16	KZ	n/a	n/a	VV1358

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-11

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1358-MB	V32906.D	1	04/13/16	KZ	n/a	n/a	VV1358

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-11

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	98%	80-123%
2037-26-5	Toluene-D8	109%	88-112%

Method Blank Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1358-MB	V32906.D	1	04/13/16	KZ	n/a	n/a	VV1358

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-11

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	108% 79-114%

Method Blank Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1501-MB	R39377.D	1	04/13/16	CV	n/a	n/a	VR1501

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-7, C45192-8, C45192-9, C45192-10

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Results	Limits
1868-53-7	Dibromofluoromethane	85%	80-123%
2037-26-5	Toluene-D8	95%	88-112%
460-00-4	4-Bromofluorobenzene	88%	79-114%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1405-BS	U34188.D	1	04/12/16	JC	n/a	n/a	VU1405
VU1405-BSD	U34189.D	1	04/12/16	JC	n/a	n/a	VU1405

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-1, C45192-2, C45192-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	73.5	92	74.4	93	1	55-147/17
71-43-2	Benzene	20	18.4	92	18.4	92	0	76-120/10
108-86-1	Bromobenzene	20	17.1	86	17.4	87	2	80-123/10
74-97-5	Bromochloromethane	20	19.6	98	19.1	96	3	79-124/10
75-27-4	Bromodichloromethane	20	18.3	92	18.2	91	1	75-121/10
75-25-2	Bromoform	20	18.8	94	19.1	96	2	62-127/10
104-51-8	n-Butylbenzene	20	16.2	81	17.0	85	5	74-129/10
135-98-8	sec-Butylbenzene	20	15.9	80	16.5	83	4	75-128/11
98-06-6	tert-Butylbenzene	20	15.8	79	16.2	81	2	74-127/11
108-90-7	Chlorobenzene	20	18.4	92	18.8	94	2	79-119/10
75-00-3	Chloroethane	20	17.8	89	16.9	85	5	60-115/14
67-66-3	Chloroform	20	18.6	93	18.4	92	1	75-122/10
95-49-8	o-Chlorotoluene	20	19.6	98	20.1	101	3	76-125/12
106-43-4	p-Chlorotoluene	20	18.9	95	19.3	97	2	76-126/11
75-15-0	Carbon disulfide	20	13.6	68	13.6	68	0	51-130/13
56-23-5	Carbon tetrachloride	20	18.2	91	18.8	94	3	72-128/13
75-34-3	1,1-Dichloroethane	20	18.3	92	18.2	91	1	70-121/10
75-35-4	1,1-Dichloroethylene	20	15.8	79	15.9	80	1	62-125/13
563-58-6	1,1-Dichloropropene	20	17.2	86	17.8	89	3	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	20	15.3	77	15.8	79	3	64-129/11
106-93-4	1,2-Dibromoethane	20	19.0	95	19.2	96	1	81-124/10
107-06-2	1,2-Dichloroethane	20	19.2	96	19.0	95	1	74-122/10
78-87-5	1,2-Dichloropropane	20	19.0	95	18.9	95	1	75-123/10
142-28-9	1,3-Dichloropropane	20	19.5	98	19.7	99	1	81-127/11
594-20-7	2,2-Dichloropropane	20	16.6	83	16.8	84	1	66-130/12
124-48-1	Dibromochloromethane	20	18.4	92	18.7	94	2	76-124/10
75-71-8	Dichlorodifluoromethane	20	15.7	79	14.3	72	9	26-163/26
156-59-2	cis-1,2-Dichloroethylene	20	19.3	97	19.0	95	2	75-128/10
10061-01-5	cis-1,3-Dichloropropene	20	19.0	95	19.0	95	0	76-131/10
541-73-1	m-Dichlorobenzene	20	17.0	85	17.1	86	1	79-121/10
95-50-1	o-Dichlorobenzene	20	17.0	85	17.3	87	2	79-120/10
106-46-7	p-Dichlorobenzene	20	17.2	86	17.3	87	1	79-120/10
156-60-5	trans-1,2-Dichloroethylene	20	16.1	81	16.1	81	0	67-116/11
10061-02-6	trans-1,3-Dichloropropene	20	18.2	91	18.5	93	2	73-125/10
100-41-4	Ethylbenzene	20	18.2	91	18.8	94	3	78-123/10
637-92-3	Ethyl Tert Butyl Ether	20	18.3	92	18.0	90	2	75-126/11

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1405-BS	U34188.D	1	04/12/16	JC	n/a	n/a	VU1405
VU1405-BSD	U34189.D	1	04/12/16	JC	n/a	n/a	VU1405

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-1, C45192-2, C45192-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	82.9	104	85.2	107	3	71-145/12
87-68-3	Hexachlorobutadiene	20	15.9	80	16.9	85	6	70-130/12
98-82-8	Isopropylbenzene	20	17.8	89	18.4	92	3	77-125/10
99-87-6	p-Isopropyltoluene	20	15.9	80	16.5	83	4	76-126/10
108-10-1	4-Methyl-2-pentanone	80	82.4	103	82.4	103	0	70-142/11
74-83-9	Methyl bromide	20	17.6	88	17.0	85	3	65-124/13
74-87-3	Methyl chloride	20	21.4	107	20.3	102	5	47-143/20
74-95-3	Methylene bromide	20	20.2	101	20.3	102	0	80-125/10
75-09-2	Methylene chloride	20	18.2	91	17.9	90	2	65-124/15
78-93-3	Methyl ethyl ketone	80	78.8	99	77.8	97	1	66-145/12
1634-04-4	Methyl Tert Butyl Ether	20	17.2	86	17.0	85	1	73-120/10
91-20-3	Naphthalene	20	17.0	85	18.5	93	8	66-120/12
103-65-1	n-Propylbenzene	20	16.0	80	16.7	84	4	75-125/10
100-42-5	Styrene	20	18.1	91	18.3	92	1	73-126/10
75-65-0	Tert-Butyl Alcohol	100	88.8	89	90.2	90	2	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	20	18.8	94	19.1	96	2	79-126/10
71-55-6	1,1,1-Trichloroethane	20	17.9	90	18.1	91	1	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	20	18.1	91	18.4	92	2	78-127/10
79-00-5	1,1,2-Trichloroethane	20	20.0	100	20.1	101	0	79-122/10
87-61-6	1,2,3-Trichlorobenzene	20	17.5	88	18.7	94	7	70-128/12
96-18-4	1,2,3-Trichloropropane	20	17.0	85	17.2	86	1	66-127/10
120-82-1	1,2,4-Trichlorobenzene	20	17.0	85	17.7	89	4	72-125/11
95-63-6	1,2,4-Trimethylbenzene	20	16.2	81	16.6	83	2	76-124/10
108-67-8	1,3,5-Trimethylbenzene	20	16.2	81	16.7	84	3	79-130/10
127-18-4	Tetrachloroethylene	20	17.9	90	18.9	95	5	72-124/13
108-88-3	Toluene	20	17.9	90	18.4	92	3	78-121/10
79-01-6	Trichloroethylene	20	18.2	91	18.7	94	3	75-119/10
75-69-4	Trichlorofluoromethane	20	19.0	95	18.0	90	5	68-130/19
75-01-4	Vinyl chloride	20	20.6	103	20.0	100	3	57-137/18
1330-20-7	Xylene (total)	60	53.9	90	55.5	93	3	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	105%	101%	80-123%
2037-26-5	Toluene-D8	101%	102%	88-112%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1405-BS	U34188.D	1	04/12/16	JC	n/a	n/a	VU1405
VU1405-BSD	U34189.D	1	04/12/16	JC	n/a	n/a	VU1405

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-1, C45192-2, C45192-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	100%	101%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1500-BS	R39345.D	1	04/12/16	CV	n/a	n/a	VR1500
VR1500-BSD	R39346.D	1	04/12/16	CV	n/a	n/a	VR1500

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-4, C45192-5, C45192-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	17.5	88	17.0	85	3	76-120/10
100-41-4	Ethylbenzene	20	17.8	89	17.3	87	3	78-123/10
1634-04-4	Methyl Tert Butyl Ether	20	16.9	85	16.7	84	1	73-120/10
108-88-3	Toluene	20	17.1	86	16.7	84	2	78-121/10
1330-20-7	Xylene (total)	60	52.8	88	51.5	86	2	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	93%	92%	80-123%
2037-26-5	Toluene-D8	94%	94%	88-112%
460-00-4	4-Bromofluorobenzene	94%	94%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1358-BS	V32903.D	1	04/13/16	KZ	n/a	n/a	VV1358
VV1358-BSD	V32904.D	1	04/13/16	KZ	n/a	n/a	VV1358

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	96.0	120	94.0	118	2	55-147/17
71-43-2	Benzene	20	19.7	99	19.7	99	0	76-120/10
108-86-1	Bromobenzene	20	20.9	105	21.4	107	2	80-123/10
74-97-5	Bromochloromethane	20	20.7	104	20.9	105	1	79-124/10
75-27-4	Bromodichloromethane	20	19.2	96	19.1	96	1	75-121/10
75-25-2	Bromoform	20	18.3	92	18.3	92	0	62-127/10
104-51-8	n-Butylbenzene	20	19.9	100	20.2	101	1	74-129/10
135-98-8	sec-Butylbenzene	20	19.6	98	20.1	101	3	75-128/11
98-06-6	tert-Butylbenzene	20	19.9	100	20.1	101	1	74-127/11
108-90-7	Chlorobenzene	20	19.7	99	19.8	99	1	79-119/10
75-00-3	Chloroethane	20	20.6	103	20.7	104	0	60-115/14
67-66-3	Chloroform	20	18.5	93	18.7	94	1	75-122/10
95-49-8	o-Chlorotoluene	20	19.5	98	19.7	99	1	76-125/12
106-43-4	p-Chlorotoluene	20	20.5	103	21.0	105	2	76-126/11
75-15-0	Carbon disulfide	20	17.8	89	17.8	89	0	51-130/13
56-23-5	Carbon tetrachloride	20	19.0	95	18.9	95	1	72-128/13
75-34-3	1,1-Dichloroethane	20	19.3	97	19.6	98	2	70-121/10
75-35-4	1,1-Dichloroethylene	20	19.6	98	19.7	99	1	62-125/13
563-58-6	1,1-Dichloropropene	20	19.5	98	19.1	96	2	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	20	17.8	89	17.8	89	0	64-129/11
106-93-4	1,2-Dibromoethane	20	21.3	107	21.1	106	1	81-124/10
107-06-2	1,2-Dichloroethane	20	19.1	96	18.6	93	3	74-122/10
78-87-5	1,2-Dichloropropane	20	20.2	101	20.3	102	0	75-123/10
142-28-9	1,3-Dichloropropane	20	21.4	107	21.1	106	1	81-127/11
594-20-7	2,2-Dichloropropane	20	19.0	95	19.0	95	0	66-130/12
124-48-1	Dibromochloromethane	20	19.0	95	19.1	96	1	76-124/10
75-71-8	Dichlorodifluoromethane	20	27.1	136	26.4	132	3	26-163/26
156-59-2	cis-1,2-Dichloroethylene	20	19.6	98	19.7	99	1	75-128/10
10061-01-5	cis-1,3-Dichloropropene	20	21.4	107	21.0	105	2	76-131/10
541-73-1	m-Dichlorobenzene	20	20.2	101	20.8	104	3	79-121/10
95-50-1	o-Dichlorobenzene	20	19.8	99	20.3	102	2	79-120/10
106-46-7	p-Dichlorobenzene	20	20.1	101	20.6	103	2	79-120/10
156-60-5	trans-1,2-Dichloroethylene	20	17.9	90	18.0	90	1	67-116/11
10061-02-6	trans-1,3-Dichloropropene	20	20.1	101	20.0	100	0	73-125/10
100-41-4	Ethylbenzene	20	19.9	100	20.0	100	1	78-123/10
637-92-3	Ethyl Tert Butyl Ether	20	18.6	93	18.8	94	1	75-126/11

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1358-BS	V32903.D	1	04/13/16	KZ	n/a	n/a	VV1358
VV1358-BSD	V32904.D	1	04/13/16	KZ	n/a	n/a	VV1358

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	92.0	115	92.1	115	0	71-145/12
87-68-3	Hexachlorobutadiene	20	19.6	98	20.0	100	2	70-130/12
98-82-8	Isopropylbenzene	20	19.0	95	19.4	97	2	77-125/10
99-87-6	p-Isopropyltoluene	20	20.1	101	20.4	102	1	76-126/10
108-10-1	4-Methyl-2-pentanone	80	89.2	112	87.2	109	2	70-142/11
74-83-9	Methyl bromide	20	19.7	99	19.7	99	0	65-124/13
74-87-3	Methyl chloride	20	27.1	136	27.5	138	1	47-143/20
74-95-3	Methylene bromide	20	20.8	104	20.4	102	2	80-125/10
75-09-2	Methylene chloride	20	19.7	99	19.8	99	1	65-124/15
78-93-3	Methyl ethyl ketone	80	86.3	108	83.0	104	4	66-145/12
1634-04-4	Methyl Tert Butyl Ether	20	17.5	88	17.6	88	1	73-120/10
91-20-3	Naphthalene	20	20.1	101	20.8	104	3	66-120/12
103-65-1	n-Propylbenzene	20	19.7	99	20.0	100	2	75-125/10
100-42-5	Styrene	20	20.4	102	20.9	105	2	73-126/10
75-65-0	Tert-Butyl Alcohol	100	110	110	103	103	7	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	20	19.1	96	19.5	98	2	79-126/10
71-55-6	1,1,1-Trichloroethane	20	18.7	94	19.0	95	2	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	20	21.2	106	21.0	105	1	78-127/10
79-00-5	1,1,2-Trichloroethane	20	20.4	102	20.3	102	0	79-122/10
87-61-6	1,2,3-Trichlorobenzene	20	20.9	105	21.8	109	4	70-128/12
96-18-4	1,2,3-Trichloropropane	20	17.8	89	17.6	88	1	66-127/10
120-82-1	1,2,4-Trichlorobenzene	20	19.9	100	20.8	104	4	72-125/11
95-63-6	1,2,4-Trimethylbenzene	20	19.8	99	20.1	101	2	76-124/10
108-67-8	1,3,5-Trimethylbenzene	20	20.0	100	20.3	102	1	79-130/10
127-18-4	Tetrachloroethylene	20	19.7	99	19.7	99	0	72-124/13
108-88-3	Toluene	20	19.6	98	20.0	100	2	78-121/10
79-01-6	Trichloroethylene	20	20.2	101	20.0	100	1	75-119/10
75-69-4	Trichlorofluoromethane	20	19.8	99	19.9	100	1	68-130/19
75-01-4	Vinyl chloride	20	23.1	116	22.8	114	1	57-137/18
1330-20-7	Xylene (total)	60	59.3	99	59.8	100	1	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	99%	98%	80-123%
2037-26-5	Toluene-D8	98%	99%	88-112%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1358-BS	V32903.D	1	04/13/16	KZ	n/a	n/a	VV1358
VV1358-BSD	V32904.D	1	04/13/16	KZ	n/a	n/a	VV1358

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-11

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	97%	97%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1501-BS	R39373.D	1	04/13/16	CV	n/a	n/a	VR1501
VR1501-BSD	R39374.D	1	04/13/16	CV	n/a	n/a	VR1501

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-7, C45192-8, C45192-9, C45192-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.6	93	17.6	88	6	76-120/10
100-41-4	Ethylbenzene	20	19.0	95	18.7	94	2	78-123/10
1634-04-4	Methyl Tert Butyl Ether	20	16.3	82	14.7	74	10	73-120/10
108-88-3	Toluene	20	18.3	92	18.0	90	2	78-121/10
1330-20-7	Xylene (total)	60	56.9	95	55.5	93	2	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	89%	83%	80-123%
2037-26-5	Toluene-D8	95%	97%	88-112%
460-00-4	4-Bromofluorobenzene	95%	94%	79-114%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1405-LCS	U34190.D	1	04/12/16	JC	n/a	n/a	VU1405

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-1, C45192-2, C45192-3

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
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CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	80-123%
2037-26-5	Toluene-D8	105%	88-112%
460-00-4	4-Bromofluorobenzene	96%	79-114%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1358-LCS	V32905.D	1	04/13/16	KZ	n/a	n/a	VV1358

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-11

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
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CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	80-123%
2037-26-5	Toluene-D8	103%	88-112%
460-00-4	4-Bromofluorobenzene	103%	79-114%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45324-2MS	U34211.D	100	04/12/16	JC	n/a	n/a	VU1405
C45324-2MSD	U34212.D	100	04/12/16	JC	n/a	n/a	VU1405
C45324-2 ^a	U34199.D	100	04/12/16	JC	n/a	n/a	VU1405

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-1, C45192-2, C45192-3

CAS No.	Compound	C45324-2 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
67-64-1	Acetone	ND		8000	13600	170* ^b	8000	9950	124	31* ^c	55-147/17
71-43-2	Benzene	354		2000	2500	107	2000	2730	119	9	76-120/10
108-86-1	Bromobenzene	ND		2000	1860	93	2000	1960	98	5	80-123/10
74-97-5	Bromochloromethane	ND		2000	2140	107	2000	2400	120	11* ^c	79-124/10
75-27-4	Bromodichloromethane	ND		2000	2050	103	2000	2230	112	8	75-121/10
75-25-2	Bromoform	ND		2000	2050	103	2000	2220	111	8	62-127/10
104-51-8	n-Butylbenzene	ND		2000	1930	97	2000	2030	102	5	74-129/10
135-98-8	sec-Butylbenzene	41.0	J	2000	1840	90	2000	1950	95	6	75-128/11
98-06-6	tert-Butylbenzene	ND		2000	1960	98	2000	2080	104	6	74-127/11
108-90-7	Chlorobenzene	ND		2000	2020	101	2000	2190	110	8	79-119/10
75-00-3	Chloroethane	ND		2000	1860	93	2000	2240	112	19* ^c	60-115/14
67-66-3	Chloroform	ND		2000	2090	105	2000	2320	116	10	75-122/10
95-49-8	o-Chlorotoluene	ND		2000	1540	77	2000	1640	82	6	76-125/12
106-43-4	p-Chlorotoluene	ND		2000	2040	102	2000	2160	108	6	76-126/11
75-15-0	Carbon disulfide	ND		2000	1510	76	2000	1690	85	11	51-130/13
56-23-5	Carbon tetrachloride	ND		2000	2150	108	2000	2340	117	8	72-128/13
75-34-3	1,1-Dichloroethane	ND		2000	2020	101	2000	2280	114	12* ^c	70-121/10
75-35-4	1,1-Dichloroethylene	ND		2000	1740	87	2000	1990	100	13	62-125/13
563-58-6	1,1-Dichloropropene	ND		2000	1980	99	2000	2180	109	10	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	ND		2000	1790	90	2000	1910	96	6	64-129/11
106-93-4	1,2-Dibromoethane	ND		2000	2050	103	2000	2240	112	9	81-124/10
107-06-2	1,2-Dichloroethane	ND		2000	2150	108	2000	2340	117	8	74-122/10
78-87-5	1,2-Dichloropropane	ND		2000	2130	107	2000	2340	117	9	75-123/10
142-28-9	1,3-Dichloropropane	ND		2000	2100	105	2000	2300	115	9	81-127/11
594-20-7	2,2-Dichloropropane	ND		2000	1760	88	2000	1990	100	12	66-130/12
124-48-1	Dibromochloromethane	ND		2000	2020	101	2000	2190	110	8	76-124/10
75-71-8	Dichlorodifluoromethane	ND		2000	1750	88	2000	1960	98	11	26-163/26
156-59-2	cis-1,2-Dichloroethylene	ND		2000	2100	105	2000	2370	119	12* ^c	75-128/10
10061-01-5	cis-1,3-Dichloropropene	ND		2000	2090	105	2000	2310	116	10	76-131/10
541-73-1	m-Dichlorobenzene	ND		2000	1820	91	2000	1920	96	5	79-121/10
95-50-1	o-Dichlorobenzene	ND		2000	1870	94	2000	1970	99	5	79-120/10
106-46-7	p-Dichlorobenzene	ND		2000	1870	94	2000	1970	99	5	79-120/10
156-60-5	trans-1,2-Dichloroethylene	ND		2000	1770	89	2000	1980	99	11	67-116/11
10061-02-6	trans-1,3-Dichloropropene	ND		2000	1940	97	2000	2090	105	7	73-125/10
100-41-4	Ethylbenzene	212		2000	2300	104	2000	2480	113	8	78-123/10
637-92-3	Ethyl Tert Butyl Ether	ND		2000	1950	98	2000	2240	112	14* ^c	75-126/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45324-2MS	U34211.D	100	04/12/16	JC	n/a	n/a	VU1405
C45324-2MSD	U34212.D	100	04/12/16	JC	n/a	n/a	VU1405
C45324-2 ^a	U34199.D	100	04/12/16	JC	n/a	n/a	VU1405

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-1, C45192-2, C45192-3

CAS No.	Compound	C45324-2 ug/l	Spike Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND		8000	9600	120	8000	10600	133	10	71-145/12
87-68-3	Hexachlorobutadiene	ND		2000	1720	86	2000	1830	92	6	70-130/12
98-82-8	Isopropylbenzene	73.3	J	2000	2100	101	2000	2260	109	7	77-125/10
99-87-6	p-Isopropyltoluene	64.8	J	2000	1850	89	2000	1950	94	5	76-126/10
108-10-1	4-Methyl-2-pentanone	ND		8000	9470	118	8000	10500	131	10	70-142/11
74-83-9	Methyl bromide	ND		2000	1860	93	2000	2210	111	17* c	65-124/13
74-87-3	Methyl chloride	ND		2000	2370	119	2000	2650	133	11	47-143/20
74-95-3	Methylene bromide	ND		2000	2290	115	2000	2480	124	8	80-125/10
75-09-2	Methylene chloride	ND		2000	1990	100	2000	2230	112	11	65-124/15
78-93-3	Methyl ethyl ketone	ND		8000	8490	106	8000	9820	123	15* c	66-145/12
1634-04-4	Methyl Tert Butyl Ether	ND		2000	1830	92	2000	2100	105	14* c	73-120/10
91-20-3	Naphthalene	454	J	2000	2520	103	2000	2880	121* b	13* c	66-120/12
103-65-1	n-Propylbenzene	105	J	2000	1900	90	2000	2020	96	6	75-125/10
100-42-5	Styrene	ND		2000	2130	107	2000	2280	114	7	73-126/10
75-65-0	Tert-Butyl Alcohol	ND		10000	9940	99	10000	11800	118	17	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	ND		2000	2030	102	2000	2190	110	8	79-126/10
71-55-6	1,1,1-Trichloroethane	ND		2000	2030	102	2000	2300	115	12* c	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		2000	1940	97	2000	2050	103	6	78-127/10
79-00-5	1,1,2-Trichloroethane	ND		2000	2300	115	2000	2400	120	4	79-122/10
87-61-6	1,2,3-Trichlorobenzene	ND		2000	1930	97	2000	2140	107	10	70-128/12
96-18-4	1,2,3-Trichloropropane	ND		2000	1930	97	2000	2050	103	6	66-127/10
120-82-1	1,2,4-Trichlorobenzene	ND		2000	1890	95	2000	2030	102	7	72-125/11
95-63-6	1,2,4-Trimethylbenzene	948		2000	3050	105	2000	3220	114	5	76-124/10
108-67-8	1,3,5-Trimethylbenzene	281		2000	2200	96	2000	2330	102	6	79-130/10
127-18-4	Tetrachloroethylene	43.9	J	2000	2040	100	2000	2240	110	9	72-124/13
108-88-3	Toluene	876		2000	3000	106	2000	3240	118	8	78-121/10
79-01-6	Trichloroethylene	ND		2000	2090	105	2000	2310	116	10	75-119/10
75-69-4	Trichlorofluoromethane	ND		2000	2080	104	2000	2440	122	16	68-130/19
75-01-4	Vinyl chloride	ND		2000	2260	113	2000	2670	134	17	57-137/18
1330-20-7	Xylene (total)	4410		6000	11700	122	6000	12500	135* b	7	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45324-2	Limits
1868-53-7	Dibromofluoromethane	106%	109%	104%	80-123%
2037-26-5	Toluene-D8	100%	99%	102%	88-112%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45324-2MS	U34211.D	100	04/12/16	JC	n/a	n/a	VU1405
C45324-2MSD	U34212.D	100	04/12/16	JC	n/a	n/a	VU1405
C45324-2 ^a	U34199.D	100	04/12/16	JC	n/a	n/a	VU1405

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-1, C45192-2, C45192-3

CAS No.	Surrogate Recoveries	MS	MSD	C45324-2	Limits
460-00-4	4-Bromofluorobenzene	103%	104%	101%	79-114%

- (a) Dilution required due to nature of sample matrix.
- (b) Outside control limits due to potential matrix interference. AZ:M1
- (c) Outside control limits due to potential matrix interference. AZ:R9

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45194-7MS	R39367.D	25	04/12/16	CV	n/a	n/a	VR1500
C45194-7MSD	R39368.D	25	04/12/16	CV	n/a	n/a	VR1500
C45194-7	R39361.D	25	04/12/16	CV	n/a	n/a	VR1500

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-4, C45192-5, C45192-6

CAS No.	Compound	C45194-7		MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
		ug/l	Q								
71-43-2	Benzene	ND		500	448	90	500	431	86	4	76-120/10
100-41-4	Ethylbenzene	531		500	1010	96	500	965	87	5	78-123/10
1634-04-4	Methyl Tert Butyl Ether	ND		500	404	81	500	410	82	1	73-120/10
108-88-3	Toluene	636		500	1080	89	500	1030	79	5	78-121/10
1330-20-7	Xylene (total)	2040		1500	3460	95	1500	3360	88	3	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45194-7	Limits
1868-53-7	Dibromofluoromethane	91%	91%	91%	80-123%
2037-26-5	Toluene-D8	93%	94%	95%	88-112%
460-00-4	4-Bromofluorobenzene	94%	94%	91%	79-114%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45253-4MS	V32922.D	1	04/13/16	KZ	n/a	n/a	VV1358
C45253-4MSD	V32923.D	1	04/13/16	KZ	n/a	n/a	VV1358
C45253-4	V32910.D	1	04/13/16	KZ	n/a	n/a	VV1358

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-11

CAS No.	Compound	C45253-4 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
67-64-1	Acetone	ND		80	102	128	80	96.5	121	6	55-147/17
71-43-2	Benzene	ND		20	20.8	104	20	20.2	101	3	76-120/10
108-86-1	Bromobenzene	ND		20	22.1	111	20	21.5	108	3	80-123/10
74-97-5	Bromochloromethane	ND		20	21.6	108	20	20.7	104	4	79-124/10
75-27-4	Bromodichloromethane	ND		20	20.1	101	20	19.3	97	4	75-121/10
75-25-2	Bromoform	ND		20	19.0	95	20	18.4	92	3	62-127/10
104-51-8	n-Butylbenzene	ND		20	21.3	107	20	20.6	103	3	74-129/10
135-98-8	sec-Butylbenzene	ND		20	21.3	107	20	20.6	103	3	75-128/11
98-06-6	tert-Butylbenzene	ND		20	21.1	106	20	20.6	103	2	74-127/11
108-90-7	Chlorobenzene	ND		20	20.7	104	20	20.2	101	2	79-119/10
75-00-3	Chloroethane	ND		20	22.7	114	20	21.9	110	4	60-115/14
67-66-3	Chloroform	0.39	J	20	20.1	99	20	19.2	94	5	75-122/10
95-49-8	o-Chlorotoluene	ND		20	20.5	103	20	20.0	100	2	76-125/12
106-43-4	p-Chlorotoluene	ND		20	20.7	104	20	20.1	101	3	76-126/11
75-15-0	Carbon disulfide	ND		20	19.5	98	20	18.3	92	6	51-130/13
56-23-5	Carbon tetrachloride	ND		20	20.6	103	20	20.0	100	3	72-128/13
75-34-3	1,1-Dichloroethane	ND		20	20.7	104	20	19.7	99	5	70-121/10
75-35-4	1,1-Dichloroethylene	ND		20	21.7	109	20	20.5	103	6	62-125/13
563-58-6	1,1-Dichloropropene	ND		20	21.0	105	20	20.4	102	3	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	ND		20	17.8	89	20	18.0	90	1	64-129/11
106-93-4	1,2-Dibromoethane	ND		20	21.9	110	20	21.3	107	3	81-124/10
107-06-2	1,2-Dichloroethane	ND		20	19.3	97	20	18.9	95	2	74-122/10
78-87-5	1,2-Dichloropropane	ND		20	21.2	106	20	20.5	103	3	75-123/10
142-28-9	1,3-Dichloropropane	ND		20	22.3	112	20	21.1	106	6	81-127/11
594-20-7	2,2-Dichloropropane	ND		20	19.2	96	20	18.2	91	5	66-130/12
124-48-1	Dibromochloromethane	ND		20	19.6	98	20	18.9	95	4	76-124/10
75-71-8	Dichlorodifluoromethane	ND		20	30.5	153	20	28.3	142	7	26-163/26
156-59-2	cis-1,2-Dichloroethylene	ND		20	20.8	104	20	20.0	100	4	75-128/10
10061-01-5	cis-1,3-Dichloropropene	ND		20	21.8	109	20	20.8	104	5	76-131/10
541-73-1	m-Dichlorobenzene	ND		20	21.4	107	20	20.6	103	4	79-121/10
95-50-1	o-Dichlorobenzene	ND		20	21.0	105	20	20.3	102	3	79-120/10
106-46-7	p-Dichlorobenzene	ND		20	21.5	108	20	20.8	104	3	79-120/10
156-60-5	trans-1,2-Dichloroethylene	ND		20	19.3	97	20	18.4	92	5	67-116/11
10061-02-6	trans-1,3-Dichloropropene	ND		20	20.2	101	20	19.5	98	4	73-125/10
100-41-4	Ethylbenzene	ND		20	21.3	107	20	20.6	103	3	78-123/10
637-92-3	Ethyl Tert Butyl Ether	ND		20	19.4	97	20	18.6	93	4	75-126/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45253-4MS	V32922.D	1	04/13/16	KZ	n/a	n/a	VV1358
C45253-4MSD	V32923.D	1	04/13/16	KZ	n/a	n/a	VV1358
C45253-4	V32910.D	1	04/13/16	KZ	n/a	n/a	VV1358

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-11

CAS No.	Compound	C45253-4 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND	80	94.7	118	80	94.1	118	1	71-145/12
87-68-3	Hexachlorobutadiene	ND	20	20.6	103	20	20.3	102	1	70-130/12
98-82-8	Isopropylbenzene	ND	20	20.7	104	20	20.1	101	3	77-125/10
99-87-6	p-Isopropyltoluene	ND	20	21.2	106	20	20.8	104	2	76-126/10
108-10-1	4-Methyl-2-pentanone	ND	80	91.1	114	80	89.1	111	2	70-142/11
74-83-9	Methyl bromide	ND	20	21.7	109	20	20.7	104	5	65-124/13
74-87-3	Methyl chloride	ND	20	29.3	147* a	20	27.8	139	5	47-143/20
74-95-3	Methylene bromide	ND	20	21.2	106	20	20.5	103	3	80-125/10
75-09-2	Methylene chloride	ND	20	20.7	104	20	19.8	99	4	65-124/15
78-93-3	Methyl ethyl ketone	ND	80	88.2	110	80	84.7	106	4	66-145/12
1634-04-4	Methyl Tert Butyl Ether	ND	20	18.0	90	20	17.3	87	4	73-120/10
91-20-3	Naphthalene	ND	20	20.9	105	20	20.7	104	1	66-120/12
103-65-1	n-Propylbenzene	ND	20	21.1	106	20	20.5	103	3	75-125/10
100-42-5	Styrene	ND	20	21.4	107	20	20.5	103	4	73-126/10
75-65-0	Tert-Butyl Alcohol	ND	100	116	116	100	113	113	3	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	ND	20	20.0	100	20	19.4	97	3	79-126/10
71-55-6	1,1,1-Trichloroethane	ND	20	20.7	104	20	19.7	99	5	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	20	21.5	108	20	21.1	106	2	78-127/10
79-00-5	1,1,2-Trichloroethane	ND	20	21.0	105	20	20.7	104	1	79-122/10
87-61-6	1,2,3-Trichlorobenzene	ND	20	21.7	109	20	21.7	109	0	70-128/12
96-18-4	1,2,3-Trichloropropane	ND	20	18.5	93	20	18.3	92	1	66-127/10
120-82-1	1,2,4-Trichlorobenzene	ND	20	20.9	105	20	20.4	102	2	72-125/11
95-63-6	1,2,4-Trimethylbenzene	ND	20	20.9	105	20	20.2	101	3	76-124/10
108-67-8	1,3,5-Trimethylbenzene	ND	20	21.2	106	20	20.5	103	3	79-130/10
127-18-4	Tetrachloroethylene	ND	20	20.9	105	20	20.3	102	3	72-124/13
108-88-3	Toluene	ND	20	21.0	105	20	20.3	102	3	78-121/10
79-01-6	Trichloroethylene	1.8	20	23.2	107	20	22.6	104	3	75-119/10
75-69-4	Trichlorofluoromethane	ND	20	22.4	112	20	21.6	108	4	68-130/19
75-01-4	Vinyl chloride	ND	20	25.3	127	20	24.7	124	2	57-137/18
1330-20-7	Xylene (total)	ND	60	63.4	106	60	61.2	102	4	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45253-4	Limits
1868-53-7	Dibromofluoromethane	98%	97%	97%	80-123%
2037-26-5	Toluene-D8	97%	98%	110%	88-112%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45253-4MS	V32922.D	1	04/13/16	KZ	n/a	n/a	VV1358
C45253-4MSD	V32923.D	1	04/13/16	KZ	n/a	n/a	VV1358
C45253-4	V32910.D	1	04/13/16	KZ	n/a	n/a	VV1358

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-11

CAS No.	Surrogate Recoveries	MS	MSD	C45253-4	Limits
460-00-4	4-Bromofluorobenzene	97%	98%	107%	79-114%

(a) Outside laboratory control limits (high bias); not detected in associated samples. AZ:M1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45192
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45192-10MS ^a	R39396.D	50	04/13/16	CV	n/a	n/a	VR1501
C45192-10MSD ^a	R39397.D	50	04/13/16	CV	n/a	n/a	VR1501
C45192-10 ^a	R39395.D	50	04/13/16	CV	n/a	n/a	VR1501

The QC reported here applies to the following samples:

Method: SW846 8260B

C45192-7, C45192-8, C45192-9, C45192-10

CAS No.	Compound	C45192-10 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	1000	936	94	1000	853	85	9	76-120/10
100-41-4	Ethylbenzene	ND	1000	951	95	1000	898	90	6	78-123/10
1634-04-4	Methyl Tert Butyl Ether	773	1000	1650	88	1000	1390	62* ^b	17* ^c	73-120/10
108-88-3	Toluene	ND	1000	914	91	1000	870	87	5	78-121/10
1330-20-7	Xylene (total)	ND	3000	2840	95	3000	2680	89	6	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45192-10	Limits
1868-53-7	Dibromofluoromethane	91%	83%	91%	80-123%
2037-26-5	Toluene-D8	94%	97%	97%	88-112%
460-00-4	4-Bromofluorobenzene	95%	94%	90%	79-114%

- (a) AZ:D2
- (b) Outside laboratory control limits. AZ:M2
- (c) Outside laboratory control limits. AZ:R9

* = Outside of Control Limits.

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VERIFICATION, TESTING AND CERTIFICATION COMPANY.



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Automated Report

Technical Report for

City of Tucson Environmental Services

Price Service Center

P01064

SGS Accutest Job Number: C45211

Sampling Date: 03/31/16

Report to:

City of Tucson - Env. Services
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ATTN: Lori Ehman

Total number of pages in report: **46**



Test results contained within this data package meet the requirements
of the National Environmental Laboratory Accreditation Program
and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Maureen Coloma 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Test results relate only to samples analyzed.



ACCUTEST

May 9, 2016

Lori Ehman
City of Tucson – Env. Services
4400 S. Park Ave., Bldg 1 P.O. Box 27210
Tucson, AZ 85726

Re: SGS Accutest Job # C45211 Reissue

Dear Ms. Ehman,

The final report for SGS Accutest Job # **C45211**, original report dated 4/16/2016, has been edited to reflect requested corrections.

The volatiles reporting list for sample C45211-3 (*WR-22IA*) has been revised as per your request. Revised data pages have been incorporated into this revised report.

Please contact us at 408-588-0200 if we can be of further assistance in this matter, or if you have any questions regarding this data report.

Sincerely,

SGS Accutest Inc.

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

SGS Accutest Northern California 2105 Lundy Avenue San Jose, CA 95131, USA t +1 (0)408 588 0200 www.sgs.com

Member of the SGS Group (SGS SA)

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Sample Summary

City of Tucson Environmental Services

Job No: C45211

Price Service Center
Project No: P01064

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C45211-1	03/31/16	08:23 KV	04/01/16	AQ	Ground Water	WR-225A
C45211-2	03/31/16	08:30 KV	04/01/16	AQ	Ground Water	WR-230A
C45211-3	03/31/16	08:48 KV	04/01/16	AQ	Ground Water	WR-221A
C45211-4	03/31/16	09:05 KV	04/01/16	AQ	Ground Water	PCM-506A
C45211-5	03/31/16	09:22 KV	04/01/16	AQ	Ground Water	WR-219A
C45211-6	03/31/16	09:42 KV	04/01/16	AQ	Ground Water	WR-211A
C45211-7	03/31/16	10:12 KV	04/01/16	AQ	Ground Water	R-019A
C45211-8	03/31/16	10:34 KV	04/01/16	AQ	Ground Water	R-022A
C45211-9	03/31/16	10:55 KV	04/01/16	AQ	Ground Water	WR-232A
C45211-10	03/31/16	11:00 KV	04/01/16	AQ	Ground Water	WR-232A
C45211-11	03/31/16	00:00 KV	04/01/16	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: City of Tucson Environmental Services

Job No C45211

Site: Price Service Center

Report Date 5/9/2016 9:23:09 PM

10 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/31/2016 and were received at Accutest on 04/01/2016 properly preserved, at 3 Deg. C and intact. These Samples received an Accutest job number of C45211. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ	Batch ID: VN1462
-------------------	-------------------------

- RPD for BSD for p-Chlorotoluene exceeded laboratory acceptance limit; BS/BSD recoveries met acceptance criteria.

Matrix: AQ	Batch ID: VR1501
-------------------	-------------------------

- Sample(s) C45192-10MS, C45192-10MSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery and RPD for MSD for Methyl Tert Butyl Ether are outside laboratory control limits; MS recovery within control limits. Probable cause due to matrix interference. The associated blank spike recoveries were acceptable.
- C45211-7: Dilution required due to sample foaming.

Matrix: AQ	Batch ID: VR1502
-------------------	-------------------------

- Sample(s) C45259-3MS, C45259-3MSD were used as the QC samples indicated.
- Sample C45211-3 has for Bromoform, cis-1,2-Dichloroethylene, Dichlorodifluoromethane a CCV outside of control limits; results may be biased low. Compounds retrieved as per client request.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for 1,2,4-Trimethylbenzene, Bromodichloromethane, Bromoform, Carbon disulfide, cis-1,3-Dichloropropene, Dibromochloromethane, tert-Butylbenzene, trans-1,3-Dichloropropene are outside control limits. Probable cause due to matrix interference and/or high level in sample relative to spike amount. The associated blank spike recoveries were acceptable. Additionally, the sample spiked for the MS/MSD was not one of the samples from this SDG/work order; therefore, there are no data quality issues that affect this sample set.
- RPD for MSD for tert-Butylbenzene is outside laboratory control limits for sample C45259-3MSD.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C45211
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/31/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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C45211-1 **WR-225A**

No hits reported in this sample.

C45211-2 **WR-230A**

No hits reported in this sample.

C45211-3 **WR-221A**

1,2-Dichloroethane	1.6	0.50		ug/l	SW846 8260B
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C45211-4 **PCM-506A**

No hits reported in this sample.

C45211-5 **WR-219A**

No hits reported in this sample.

C45211-6 **WR-211A**

No hits reported in this sample.

C45211-7 **R-019A**

No hits reported in this sample.

C45211-8 **R-022A**

No hits reported in this sample.

C45211-9 **WR-232A**

No hits reported in this sample.

C45211-10 **WR-232A**

No hits reported in this sample.

C45211-11 **TRIP BLANK**

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: WR-225A		Date Sampled: 03/31/16
Lab Sample ID: C45211-1		Date Received: 04/01/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39385.D	1	04/13/16	CV	n/a	n/a	VR1501
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-123%
2037-26-5	Toluene-D8	92%		88-112%
460-00-4	4-Bromofluorobenzene	87%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: WR-230A	Date Sampled: 03/31/16
Lab Sample ID: C45211-2	Date Received: 04/01/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39386.D	1	04/13/16	CV	n/a	n/a	VR1501
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		80-123%
2037-26-5	Toluene-D8	92%		88-112%
460-00-4	4-Bromofluorobenzene	86%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.2
4

Report of Analysis

Client Sample ID: WR-221A	Date Sampled: 03/31/16
Lab Sample ID: C45211-3	Date Received: 04/01/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39411.D	1	04/14/16	CV	n/a	n/a	VR1502
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
67-64-1	Acetone	ND	20	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform ^a	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	1.6	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane ^a	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene ^a	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WR-221A		Date Sampled: 03/31/16
Lab Sample ID: C45211-3		Date Received: 04/01/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-123%
2037-26-5	Toluene-D8	94%		88-112%
460-00-4	4-Bromofluorobenzene	90%		79-114%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WR-221A		Date Sampled: 03/31/16
Lab Sample ID: C45211-3		Date Received: 04/01/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

4.3
4

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
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(a) CCV outside of control limits; result may be biased low. Compound retrieved as per client request.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCM-506A	Date Sampled: 03/31/16
Lab Sample ID: C45211-4	Date Received: 04/01/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39379.D	1	04/13/16	CV	n/a	n/a	VR1501
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		80-123%
2037-26-5	Toluene-D8	96%		88-112%
460-00-4	4-Bromofluorobenzene	87%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.4
4

Report of Analysis

Client Sample ID: WR-219A	Date Sampled: 03/31/16
Lab Sample ID: C45211-5	Date Received: 04/01/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N55372.D	1	04/14/16	JC	n/a	n/a	VN1462
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

Client Sample ID: WR-219A	Date Sampled: 03/31/16
Lab Sample ID: C45211-5	Date Received: 04/01/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		80-123%
2037-26-5	Toluene-D8	109%		88-112%
460-00-4	4-Bromofluorobenzene	92%		79-114%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WR-211A	Date Sampled: 03/31/16
Lab Sample ID: C45211-6	Date Received: 04/01/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39380.D	1	04/13/16	CV	n/a	n/a	VR1501
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		80-123%
2037-26-5	Toluene-D8	94%		88-112%
460-00-4	4-Bromofluorobenzene	87%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.6
4

Report of Analysis

Client Sample ID: R-019A	Date Sampled: 03/31/16
Lab Sample ID: C45211-7	Date Received: 04/01/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	R39381.D	50	04/13/16	CV	n/a	n/a	VR1501
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	50	ug/l	
108-88-3	Toluene	ND	50	ug/l	
100-41-4	Ethylbenzene	ND	50	ug/l	
1330-20-7	Xylene (total)	ND	100	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		80-123%
2037-26-5	Toluene-D8	95%		88-112%
460-00-4	4-Bromofluorobenzene	87%		79-114%

(a) Dilution required due to sample foaming. AZ:D1

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID: R-022A	Date Sampled: 03/31/16
Lab Sample ID: C45211-8	Date Received: 04/01/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39382.D	1	04/13/16	CV	n/a	n/a	VR1501
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		80-123%
2037-26-5	Toluene-D8	96%		88-112%
460-00-4	4-Bromofluorobenzene	87%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.8
4

Report of Analysis

Client Sample ID: WR-232A	Date Sampled: 03/31/16
Lab Sample ID: C45211-9	Date Received: 04/01/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39383.D	1	04/13/16	CV	n/a	n/a	VR1501
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-123%
2037-26-5	Toluene-D8	90%		88-112%
460-00-4	4-Bromofluorobenzene	87%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.9
4

Report of Analysis

Client Sample ID: WR-232A		Date Sampled: 03/31/16
Lab Sample ID: C45211-10		Date Received: 04/01/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R39384.D	1	04/13/16	CV	n/a	n/a	VR1501
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-123%
2037-26-5	Toluene-D8	90%		88-112%
460-00-4	4-Bromofluorobenzene	87%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TRIP BLANK	Date Sampled: 03/31/16
Lab Sample ID: C45211-11	Date Received: 04/01/16
Matrix: AQ - Trip Blank Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Price Service Center	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N55368.D	1	04/14/16	JC	n/a	n/a	VN1462
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TRIP BLANK		Date Sampled: 03/31/16
Lab Sample ID: C45211-11		Date Received: 04/01/16
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		80-123%
2037-26-5	Toluene-D8	109%		88-112%
460-00-4	4-Bromofluorobenzene	91%		79-114%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.11
4

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of target analyte.
M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R9	Sample RPD exceeded the laboratory acceptance limit.

5.1
5



CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 78 27 2110 2241	Bottle Order Control #
Accutest Quote #	Accutest NC Job #: C45211

Client / Reporting Information		Project Information		Requested Analysis		Matrix Codes	
Company Name City of Tucson	Project Name PRICE SERVICE CENTER					WW- Wastewater GW- Ground Water SW- Surface Water SO- Soil OI-OI WF-Wipe LIQ - Non-aqueous Liquid AIR DW- Drinking Water (Perchlorate Only)	
Address PO Box 27210	Street						
City Tucson State AZ Zip 95726	City						
Project Contact LORI Ehman	Project # PO 1064						
Phone # 520 791 3175	EMAIL:						
Sampler's Name KAYLA VIRGONE	Client Purchase Order #						

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection		Matrix	# of bottles	Number of preserved Bottles																	
		Date	Time			Sampled by	SI	VI	NO3	NO2	HCHO	NO2	NO3	NO3/NO2	METH	ENDUR							
1	WR-225A	3/31/16	0823	KV GW	3																		
2	WR-230A	3/31/16	0830	KV GW	3																		
3	WR-221A	3/31/16	0848	KV GW	3																		
4	PCM-506A	3/31/16	0905	KV GW	3																		
5	WR-219A	3/31/16	0922	KV GW	3																		
6	WR-211A	3/31/16	0942	KV GW	3																		
7	R-019A	3/31/16	1012	KV GW	3																		
8	R-022A	3/31/16	1034	KV GW	3																		
9	WR-232A	3/31/16	1055	KV GW	3																		
10	WR-232A	3/31/16	1100	KV GW	3																		

BTEX / MTBE
8260

XXXXXXXXXX

Turnaround Time (Business days)	Approved By / Date:	Data Deliverable Information	Comments / Remarks
<input type="checkbox"/> 10 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day <input type="checkbox"/> Same Day		<input type="checkbox"/> Commercial "A" - Results only <input type="checkbox"/> Commercial "B" - Results with QC summaries <input type="checkbox"/> Commercial "B*" - Results, QC, and chromatograms <input type="checkbox"/> FULT1 - Level 4 data package <input type="checkbox"/> EDF for Geotracker <input type="checkbox"/> EDD Format Provide EDF Global ID _____ Provide EDF Logcode: _____	

Emergency TIA data available VIA Lablink							
Sample Custody must be documented below each time samples change possession, including courier delivery.							
Relinquished by Sampler: <i>Kayla Virgone</i>	Date Time: 3/31/16 1110	Received By: <i>[Signature]</i>	Relinquished By: <i>[Signature]</i>	Date Time: 3-31-16 1139	Received By: <i>[Signature]</i>		
Relinquished by: <i>Julio Virgone</i>	Date Time: 3/31/16 1600	Received By: <i>Fedex</i>	Relinquished By: <i>Fedex</i>	Date Time: 4/1/16 09:45	Received By: <i>Ali Zeigham</i>		
Relinquished by:	Date Time:	Received By:	Custody Seal # Y	Appropriate Bottle / Pres. Y / N	Headspace Y / N	On Ice Y / N	Cooler Temp. 2.8/3.0 °C
			Labels match Coc? Y / N	Separate Receiving Check List used: Y / N			

5.2
5

SGS Accutest Sample Receipt Summary

Job Number: C45211

Client: CITY OF TUCSON

Project: PRICE SERVICE CTR

Date / Time Received: 4/1/2016 9:45:00 AM

Delivery Method: FedEx

Airbill #s: 782721102241

Cooler Temps (Initial/Adjusted): #1: (2.8/3):

<u>Cooler Security</u>		<u>Y or N</u>		<u>Y or N</u>	
1. Custody Seals Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. SmpI Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<u>Cooler Temperature</u>		<u>Y or N</u>	
1. Temp criteria achieved:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Therm ID:	IR1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

<u>Quality Control Preservation</u>			
	<u>Y</u>	<u>or</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Trip Blank listed on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. VOCs headspace free:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<u>Sample Integrity - Documentation</u>		<u>Y or N</u>	
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

<u>Sample Integrity - Condition</u>		<u>Y or N</u>	
1. Sample recvd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Condition of sample:	Intact		

<u>Sample Integrity - Instructions</u>			
	<u>Y</u>	<u>or</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

5.2
5

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1501-MB	R39377.D	1	04/13/16	CV	n/a	n/a	VR1501

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-1, C45211-2, C45211-4, C45211-6, C45211-7, C45211-8, C45211-9, C45211-10

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	85%	80-123%
2037-26-5	Toluene-D8	95%	88-112%
460-00-4	4-Bromofluorobenzene	88%	79-114%

Method Blank Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1502-MB	R39406.D	1	04/14/16	CV	n/a	n/a	VR1502

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-3

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1502-MB	R39406.D	1	04/14/16	CV	n/a	n/a	VR1502

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-3

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	95%	80-123%
2037-26-5	Toluene-D8	90%	88-112%

Method Blank Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1502-MB	R39406.D	1	04/14/16	CV	n/a	n/a	VR1502

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-3

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	90% 79-114%

6.1.2

6

Method Blank Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1462-MB	N55367.D	1	04/14/16	JC	n/a	n/a	VN1462

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-5, C45211-11

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	8.4	20	ug/l	J
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1462-MB	N55367.D	1	04/14/16	JC	n/a	n/a	VN1462

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-5, C45211-11

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	92%	80-123%
2037-26-5	Toluene-D8	109%	88-112%

Method Blank Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1462-MB	N55367.D	1	04/14/16	JC	n/a	n/a	VN1462

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-5, C45211-11

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	91% 79-114%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1501-BS	R39373.D	1	04/13/16	CV	n/a	n/a	VR1501
VR1501-BSD	R39374.D	1	04/13/16	CV	n/a	n/a	VR1501

The QC reported here applies to the following samples: **Method:** SW846 8260B

C45211-1, C45211-2, C45211-4, C45211-6, C45211-7, C45211-8, C45211-9, C45211-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.6	93	17.6	88	6	76-120/10
100-41-4	Ethylbenzene	20	19.0	95	18.7	94	2	78-123/10
1634-04-4	Methyl Tert Butyl Ether	20	16.3	82	14.7	74	10	73-120/10
108-88-3	Toluene	20	18.3	92	18.0	90	2	78-121/10
1330-20-7	Xylene (total)	60	56.9	95	55.5	93	2	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	89%	83%	80-123%
2037-26-5	Toluene-D8	95%	97%	88-112%
460-00-4	4-Bromofluorobenzene	95%	94%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1502-BS	R39403.D	1	04/14/16	CV	n/a	n/a	VR1502
VR1502-BSD	R39404.D	1	04/14/16	CV	n/a	n/a	VR1502

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	84.7	106	83.7	105	1	55-147/17
71-43-2	Benzene	20	18.3	92	18.4	92	1	76-120/10
108-86-1	Bromobenzene	20	19.3	97	19.3	97	0	80-123/10
74-97-5	Bromochloromethane	20	19.2	96	19.5	98	2	79-124/10
75-27-4	Bromodichloromethane	20	18.1	91	18.3	92	1	75-121/10
75-25-2	Bromoform	20	16.0	80	15.9	80	1	62-127/10
104-51-8	n-Butylbenzene	20	18.6	93	18.4	92	1	74-129/10
135-98-8	sec-Butylbenzene	20	18.3	92	18.0	90	2	75-128/11
98-06-6	tert-Butylbenzene	20	17.3	87	17.2	86	1	74-127/11
108-90-7	Chlorobenzene	20	18.1	91	18.3	92	1	79-119/10
75-00-3	Chloroethane	20	17.2	86	17.5	88	2	60-115/14
67-66-3	Chloroform	20	18.1	91	18.1	91	0	75-122/10
95-49-8	o-Chlorotoluene	20	18.5	93	18.6	93	1	76-125/12
106-43-4	p-Chlorotoluene	20	18.5	93	18.2	91	2	76-126/11
75-15-0	Carbon disulfide	20	16.0	80	15.7	79	2	51-130/13
56-23-5	Carbon tetrachloride	20	18.4	92	17.8	89	3	72-128/13
75-34-3	1,1-Dichloroethane	20	18.0	90	18.1	91	1	70-121/10
75-35-4	1,1-Dichloroethylene	20	17.3	87	16.8	84	3	62-125/13
563-58-6	1,1-Dichloropropene	20	17.3	87	16.9	85	2	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	20	19.7	99	19.6	98	1	64-129/11
106-93-4	1,2-Dibromoethane	20	19.3	97	19.3	97	0	81-124/10
107-06-2	1,2-Dichloroethane	20	18.2	91	18.2	91	0	74-122/10
78-87-5	1,2-Dichloropropane	20	18.7	94	18.9	95	1	75-123/10
142-28-9	1,3-Dichloropropane	20	19.3	97	19.3	97	0	81-127/11
594-20-7	2,2-Dichloropropane	20	18.8	94	18.4	92	2	66-130/12
124-48-1	Dibromochloromethane	20	16.7	84	16.8	84	1	76-124/10
75-71-8	Dichlorodifluoromethane	20	12.3	62	11.9	60	3	26-163/26
156-59-2	cis-1,2-Dichloroethylene	20	18.7	94	18.9	95	1	75-128/10
10061-01-5	cis-1,3-Dichloropropene	20	17.9	90	17.9	90	0	76-131/10
541-73-1	m-Dichlorobenzene	20	18.8	94	18.7	94	1	79-121/10
95-50-1	o-Dichlorobenzene	20	19.1	96	19.0	95	1	79-120/10
106-46-7	p-Dichlorobenzene	20	18.6	93	18.6	93	0	79-120/10
156-60-5	trans-1,2-Dichloroethylene	20	16.6	83	16.4	82	1	67-116/11
10061-02-6	trans-1,3-Dichloropropene	20	16.6	83	16.5	83	1	73-125/10
100-41-4	Ethylbenzene	20	18.6	93	18.4	92	1	78-123/10
637-92-3	Ethyl Tert Butyl Ether	20	18.2	91	18.5	93	2	75-126/11

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1502-BS	R39403.D	1	04/14/16	CV	n/a	n/a	VR1502
VR1502-BSD	R39404.D	1	04/14/16	CV	n/a	n/a	VR1502

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	86.4	108	84.7	106	2	71-145/12
87-68-3	Hexachlorobutadiene	20	20.1	101	19.9	100	1	70-130/12
98-82-8	Isopropylbenzene	20	18.4	92	18.2	91	1	77-125/10
99-87-6	p-Isopropyltoluene	20	19.0	95	18.7	94	2	76-126/10
108-10-1	4-Methyl-2-pentanone	80	83.3	104	82.5	103	1	70-142/11
74-83-9	Methyl bromide	20	15.6	78	15.8	79	1	65-124/13
74-87-3	Methyl chloride	20	17.6	88	17.4	87	1	47-143/20
74-95-3	Methylene bromide	20	19.2	96	19.2	96	0	80-125/10
75-09-2	Methylene chloride	20	18.7	94	19.0	95	2	65-124/15
78-93-3	Methyl ethyl ketone	80	85.1	106	83.7	105	2	66-145/12
1634-04-4	Methyl Tert Butyl Ether	20	17.9	90	18.0	90	1	73-120/10
91-20-3	Naphthalene	20	21.8	109	21.7	109	0	66-120/12
103-65-1	n-Propylbenzene	20	18.1	91	17.7	89	2	75-125/10
100-42-5	Styrene	20	17.0	85	17.1	86	1	73-126/10
75-65-0	Tert-Butyl Alcohol	100	99.2	99	99.2	99	0	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	20	19.1	96	19.3	97	1	79-126/10
71-55-6	1,1,1-Trichloroethane	20	18.6	93	18.2	91	2	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	20	20.0	100	19.8	99	1	78-127/10
79-00-5	1,1,2-Trichloroethane	20	18.8	94	18.7	94	1	79-122/10
87-61-6	1,2,3-Trichlorobenzene	20	21.1	106	21.3	107	1	70-128/12
96-18-4	1,2,3-Trichloropropane	20	19.7	99	19.5	98	1	66-127/10
120-82-1	1,2,4-Trichlorobenzene	20	18.7	94	18.9	95	1	72-125/11
95-63-6	1,2,4-Trimethylbenzene	20	18.9	95	18.8	94	1	76-124/10
108-67-8	1,3,5-Trimethylbenzene	20	19.2	96	19.0	95	1	79-130/10
127-18-4	Tetrachloroethylene	20	18.0	90	17.7	89	2	72-124/13
108-88-3	Toluene	20	17.9	90	17.9	90	0	78-121/10
79-01-6	Trichloroethylene	20	18.4	92	18.3	92	1	75-119/10
75-69-4	Trichlorofluoromethane	20	17.0	85	17.1	86	1	68-130/19
75-01-4	Vinyl chloride	20	17.4	87	17.4	87	0	57-137/18
1330-20-7	Xylene (total)	60	55.5	93	55.3	92	0	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	94%	95%	80-123%
2037-26-5	Toluene-D8	93%	94%	88-112%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1502-BS	R39403.D	1	04/14/16	CV	n/a	n/a	VR1502
VR1502-BSD	R39404.D	1	04/14/16	CV	n/a	n/a	VR1502

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	95%	96%	79-114%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1462-BS	N55364.D	1	04/14/16	JC	n/a	n/a	VN1462
VN1462-BSD	N55365.D	1	04/14/16	JC	n/a	n/a	VN1462

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-5, C45211-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	77.3	97	72.1	90	7	55-147/17
71-43-2	Benzene	20	20.9	105	19.4	97	7	76-120/10
108-86-1	Bromobenzene	20	21.7	109	20.2	101	7	80-123/10
74-97-5	Bromochloromethane	20	20.3	102	18.9	95	7	79-124/10
75-27-4	Bromodichloromethane	20	18.9	95	17.5	88	8	75-121/10
75-25-2	Bromoform	20	18.0	90	16.6	83	8	62-127/10
104-51-8	n-Butylbenzene	20	22.2	111	20.7	104	7	74-129/10
135-98-8	sec-Butylbenzene	20	21.9	110	20.4	102	7	75-128/11
98-06-6	tert-Butylbenzene	20	21.6	108	20.3	102	6	74-127/11
108-90-7	Chlorobenzene	20	20.2	101	18.5	93	9	79-119/10
75-00-3	Chloroethane	20	21.3	107	19.0	95	11	60-115/14
67-66-3	Chloroform	20	18.3	92	17.0	85	7	75-122/10
95-49-8	o-Chlorotoluene	20	20.4	102	20.4	102	0	76-125/12
106-43-4	p-Chlorotoluene	20	22.4	112	19.5	98	14* a	76-126/11
75-15-0	Carbon disulfide	20	17.6	88	16.2	81	8	51-130/13
56-23-5	Carbon tetrachloride	20	19.8	99	18.4	92	7	72-128/13
75-34-3	1,1-Dichloroethane	20	18.7	94	17.4	87	7	70-121/10
75-35-4	1,1-Dichloroethylene	20	19.0	95	17.8	89	7	62-125/13
563-58-6	1,1-Dichloropropene	20	20.2	101	18.6	93	8	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	20	20.8	104	19.6	98	6	64-129/11
106-93-4	1,2-Dibromoethane	20	20.8	104	19.2	96	8	81-124/10
107-06-2	1,2-Dichloroethane	20	19.8	99	18.4	92	7	74-122/10
78-87-5	1,2-Dichloropropane	20	20.6	103	19.1	96	8	75-123/10
142-28-9	1,3-Dichloropropane	20	20.8	104	19.2	96	8	81-127/11
594-20-7	2,2-Dichloropropane	20	20.5	103	18.9	95	8	66-130/12
124-48-1	Dibromochloromethane	20	21.1	106	19.4	97	8	76-124/10
75-71-8	Dichlorodifluoromethane	20	18.7	94	16.4	82	13	26-163/26
156-59-2	cis-1,2-Dichloroethylene	20	21.2	106	19.8	99	7	75-128/10
10061-01-5	cis-1,3-Dichloropropene	20	19.4	97	18.0	90	7	76-131/10
541-73-1	m-Dichlorobenzene	20	21.3	107	19.8	99	7	79-121/10
95-50-1	o-Dichlorobenzene	20	21.3	107	19.9	100	7	79-120/10
106-46-7	p-Dichlorobenzene	20	21.2	106	19.7	99	7	79-120/10
156-60-5	trans-1,2-Dichloroethylene	20	17.9	90	16.7	84	7	67-116/11
10061-02-6	trans-1,3-Dichloropropene	20	20.5	103	18.9	95	8	73-125/10
100-41-4	Ethylbenzene	20	20.7	104	18.9	95	9	78-123/10
637-92-3	Ethyl Tert Butyl Ether	20	17.9	90	16.7	84	7	75-126/11

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1462-BS	N55364.D	1	04/14/16	JC	n/a	n/a	VN1462
VN1462-BSD	N55365.D	1	04/14/16	JC	n/a	n/a	VN1462

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-5, C45211-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	85.1	106	78.3	98	8	71-145/12
87-68-3	Hexachlorobutadiene	20	21.9	110	20.4	102	7	70-130/12
98-82-8	Isopropylbenzene	20	20.6	103	19.0	95	8	77-125/10
99-87-6	p-Isopropyltoluene	20	22.3	112	20.7	104	7	76-126/10
108-10-1	4-Methyl-2-pentanone	80	77.8	97	72.1	90	8	70-142/11
74-83-9	Methyl bromide	20	19.6	98	17.5	88	11	65-124/13
74-87-3	Methyl chloride	20	19.4	97	16.8	84	14	47-143/20
74-95-3	Methylene bromide	20	19.9	100	18.5	93	7	80-125/10
75-09-2	Methylene chloride	20	18.6	93	17.3	87	7	65-124/15
78-93-3	Methyl ethyl ketone	80	79.8	100	74.4	93	7	66-145/12
1634-04-4	Methyl Tert Butyl Ether	20	17.1	86	16.0	80	7	73-120/10
91-20-3	Naphthalene	20	21.1	106	19.7	99	7	66-120/12
103-65-1	n-Propylbenzene	20	21.5	108	20.0	100	7	75-125/10
100-42-5	Styrene	20	21.9	110	20.2	101	8	73-126/10
75-65-0	Tert-Butyl Alcohol	100	92.9	93	86.4	86	7	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	20	20.7	104	19.0	95	9	79-126/10
71-55-6	1,1,1-Trichloroethane	20	20.7	104	19.4	97	6	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	20	22.2	111	20.7	104	7	78-127/10
79-00-5	1,1,2-Trichloroethane	20	20.2	101	18.7	94	8	79-122/10
87-61-6	1,2,3-Trichlorobenzene	20	22.3	112	20.9	105	6	70-128/12
96-18-4	1,2,3-Trichloropropane	20	20.8	104	19.0	95	9	66-127/10
120-82-1	1,2,4-Trichlorobenzene	20	22.1	111	20.6	103	7	72-125/11
95-63-6	1,2,4-Trimethylbenzene	20	21.7	109	20.2	101	7	76-124/10
108-67-8	1,3,5-Trimethylbenzene	20	22.2	111	20.6	103	7	79-130/10
127-18-4	Tetrachloroethylene	20	20.6	103	19.1	96	8	72-124/13
108-88-3	Toluene	20	20.5	103	18.8	94	9	78-121/10
79-01-6	Trichloroethylene	20	20.4	102	19.0	95	7	75-119/10
75-69-4	Trichlorofluoromethane	20	20.6	103	18.6	93	10	68-130/19
75-01-4	Vinyl chloride	20	20.7	104	18.4	92	12	57-137/18
1330-20-7	Xylene (total)	60	61.7	103	56.7	95	8	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	96%	96%	80-123%
2037-26-5	Toluene-D8	108%	107%	88-112%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1462-BS	N55364.D	1	04/14/16	JC	n/a	n/a	VN1462
VN1462-BSD	N55365.D	1	04/14/16	JC	n/a	n/a	VN1462

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-5, C45211-11

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	95%	94%	79-114%

(a) RPD exceeded laboratory acceptance limit; BS/BSD recoveries met acceptance criteria. AZ:R7

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45192-10MS ^a	R39396.D	50	04/13/16	CV	n/a	n/a	VR1501
C45192-10MSD ^a	R39397.D	50	04/13/16	CV	n/a	n/a	VR1501
C45192-10 ^a	R39395.D	50	04/13/16	CV	n/a	n/a	VR1501

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-1, C45211-2, C45211-4, C45211-6, C45211-7, C45211-8, C45211-9, C45211-10

CAS No.	Compound	C45192-10 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	1000	936	94	1000	853	85	9	76-120/10
100-41-4	Ethylbenzene	ND	1000	951	95	1000	898	90	6	78-123/10
1634-04-4	Methyl Tert Butyl Ether	773	1000	1650	88	1000	1390	62* ^b	17* ^c	73-120/10
108-88-3	Toluene	ND	1000	914	91	1000	870	87	5	78-121/10
1330-20-7	Xylene (total)	ND	3000	2840	95	3000	2680	89	6	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45192-10	Limits
1868-53-7	Dibromofluoromethane	91%	83%	91%	80-123%
2037-26-5	Toluene-D8	94%	97%	97%	88-112%
460-00-4	4-Bromofluorobenzene	95%	94%	90%	79-114%

(a) AZ:D2

(b) Outside laboratory control limits. AZ:M2

(c) Outside laboratory control limits. AZ:R9

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45259-3MS	R39423.D	10	04/14/16	CV	n/a	n/a	VR1502
C45259-3MSD	R39424.D	10	04/14/16	CV	n/a	n/a	VR1502
C45259-3	R39416.D	10	04/14/16	CV	n/a	n/a	VR1502

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-3

CAS No.	Compound	C45259-3 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		800	846	106	800	833	2	55-147/17
71-43-2	Benzene	206		200	370	82	200	378	2	76-120/10
108-86-1	Bromobenzene	ND		200	176	88	200	177	1	80-123/10
74-97-5	Bromochloromethane	ND		200	176	88	200	181	3	79-124/10
75-27-4	Bromodichloromethane	ND		200	144	72* a	200	145	1	75-121/10
75-25-2	Bromoform	ND		200	76.2	38* a	200	77.7	2	62-127/10
104-51-8	n-Butylbenzene	4.6	J	200	179	87	200	186	4	74-129/10
135-98-8	sec-Butylbenzene	3.2	J	200	164	80	200	172	5	75-128/11
98-06-6	tert-Butylbenzene	ND		200	143	72* a	200	164	14* b	74-127/11
108-90-7	Chlorobenzene	ND		200	170	85	200	174	2	79-119/10
75-00-3	Chloroethane	3.6	J	200	169	83	200	169	0	60-115/14
67-66-3	Chloroform	ND		200	165	83	200	172	4	75-122/10
95-49-8	o-Chlorotoluene	ND		200	187	94	200	193	3	76-125/12
106-43-4	p-Chlorotoluene	ND		200	167	84	200	169	1	76-126/11
75-15-0	Carbon disulfide	ND		200	96.5	48* a	200	104	7	51-130/13
56-23-5	Carbon tetrachloride	ND		200	144	72	200	157	9	72-128/13
75-34-3	1,1-Dichloroethane	ND		200	162	81	200	169	4	70-121/10
75-35-4	1,1-Dichloroethylene	ND		200	136	68	200	146	7	62-125/13
563-58-6	1,1-Dichloropropene	ND		200	147	74	200	158	7	68-116/11
96-12-8	1,2-Dibromo-3-chloropropane	ND		200	185	93	200	180	3	64-129/11
106-93-4	1,2-Dibromoethane	ND		200	181	91	200	183	1	81-124/10
107-06-2	1,2-Dichloroethane	24.3		200	198	87	200	197	1	74-122/10
78-87-5	1,2-Dichloropropane	ND		200	179	90	200	181	1	75-123/10
142-28-9	1,3-Dichloropropane	ND		200	181	91	200	183	1	81-127/11
594-20-7	2,2-Dichloropropane	ND		200	146	73	200	159	9	66-130/12
124-48-1	Dibromochloromethane	ND		200	105	53* a	200	108	3	76-124/10
75-71-8	Dichlorodifluoromethane	ND		200	124	62	200	111	11	26-163/26
156-59-2	cis-1,2-Dichloroethylene	ND		200	169	85	200	176	4	75-128/10
10061-01-5	cis-1,3-Dichloropropene	ND		200	149	75* a	200	153	3	76-131/10
541-73-1	m-Dichlorobenzene	ND		200	170	85	200	172	1	79-121/10
95-50-1	o-Dichlorobenzene	ND		200	174	87	200	175	1	79-120/10
106-46-7	p-Dichlorobenzene	ND		200	170	85	200	172	1	79-120/10
156-60-5	trans-1,2-Dichloroethylene	ND		200	140	70	200	148	6	67-116/11
10061-02-6	trans-1,3-Dichloropropene	ND		200	136	68* a	200	140	3	73-125/10
100-41-4	Ethylbenzene	543		200	718	88	200	747	4	78-123/10
637-92-3	Ethyl Tert Butyl Ether	ND		200	175	88	200	181	3	75-126/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45259-3MS	R39423.D	10	04/14/16	CV	n/a	n/a	VR1502
C45259-3MSD	R39424.D	10	04/14/16	CV	n/a	n/a	VR1502
C45259-3	R39416.D	10	04/14/16	CV	n/a	n/a	VR1502

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-3

CAS No.	Compound	C45259-3 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND	800	864	108	800	845	106	2	71-145/12
87-68-3	Hexachlorobutadiene	ND	200	173	87	200	183	92	6	70-130/12
98-82-8	Isopropylbenzene	26.7	200	191	82	200	204	89	7	77-125/10
99-87-6	p-Isopropyltoluene	4.1	J 200	169	82	200	178	87	5	76-126/10
108-10-1	4-Methyl-2-pentanone	ND	800	829	104	800	809	101	2	70-142/11
74-83-9	Methyl bromide	ND	200	150	75	200	151	76	1	65-124/13
74-87-3	Methyl chloride	ND	200	177	89	200	168	84	5	47-143/20
74-95-3	Methylene bromide	ND	200	182	91	200	183	92	1	80-125/10
75-09-2	Methylene chloride	ND	200	173	87	200	178	89	3	65-124/15
78-93-3	Methyl ethyl ketone	ND	800	825	103	800	826	103	0	66-145/12
1634-04-4	Methyl Tert Butyl Ether	ND	200	170	85	200	176	88	3	73-120/10
91-20-3	Naphthalene	103	200	312	105	200	311	104	0	66-120/12
103-65-1	n-Propylbenzene	73.7	200	237	82	200	247	87	4	75-125/10
100-42-5	Styrene	ND	200	154	77	200	158	79	3	73-126/10
75-65-0	Tert-Butyl Alcohol	ND	1000	985	99	1000	990	99	1	52-148/18
630-20-6	1,1,1,2-Tetrachloroethane	ND	200	177	89	200	182	91	3	79-126/10
71-55-6	1,1,1-Trichloroethane	ND	200	156	78	200	171	86	9	73-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	200	181	91	200	179	90	1	78-127/10
79-00-5	1,1,2-Trichloroethane	ND	200	178	89	200	180	90	1	79-122/10
87-61-6	1,2,3-Trichlorobenzene	ND	200	188	94	200	190	95	1	70-128/12
96-18-4	1,2,3-Trichloropropane	ND	200	181	91	200	182	91	1	66-127/10
120-82-1	1,2,4-Trichlorobenzene	ND	200	169	85	200	171	86	1	72-125/11
95-63-6	1,2,4-Trimethylbenzene	515	200	829	157* c	200	848	167* c	2	76-124/10
108-67-8	1,3,5-Trimethylbenzene	148	200	370	111	200	381	117	3	79-130/10
127-18-4	Tetrachloroethylene	ND	200	153	77	200	166	83	8	72-124/13
108-88-3	Toluene	560	200	727	84	200	755	98	4	78-121/10
79-01-6	Trichloroethylene	ND	200	168	84	200	175	88	4	75-119/10
75-69-4	Trichlorofluoromethane	ND	200	164	82	200	160	80	2	68-130/19
75-01-4	Vinyl chloride	ND	200	169	85	200	164	82	3	57-137/18
1330-20-7	Xylene (total)	1930	600	2540	102	600	2620	115	3	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C45259-3	Limits
1868-53-7	Dibromofluoromethane	90%	93%	96%	80-123%
2037-26-5	Toluene-D8	93%	94%	91%	88-112%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C45211
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C45259-3MS	R39423.D	10	04/14/16	CV	n/a	n/a	VR1502
C45259-3MSD	R39424.D	10	04/14/16	CV	n/a	n/a	VR1502
C45259-3	R39416.D	10	04/14/16	CV	n/a	n/a	VR1502

The QC reported here applies to the following samples:

Method: SW846 8260B

C45211-3

CAS No.	Surrogate Recoveries	MS	MSD	C45259-3	Limits
460-00-4	4-Bromofluorobenzene	95%	95%	91%	79-114%

- (a) Outside laboratory control limits. AZ:M2
- (b) Outside laboratory control limits. AZ:R9
- (c) Outside control limits due to high level in sample relative to spike amount. AZ:M3

* = Outside of Control Limits.

APPENDIX E

Historical Analytical Results Summary Table

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
WR-208A	3/30/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-208A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-208A	3/25/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-208A	3/27/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3
WR-208A	3/22/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-208A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-208A	3/23/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-208A	3/23/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-208A	3/24/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-208A	3/14/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A	3/21/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A DUP	3/21/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A	4/11/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A DUP	4/11/05	<0.5	0.3	3.4	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A	3/25/04	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A DUP	3/25/04	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A	4/11/03	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-208A	3/21/02	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-208A	4/18/01	1.4	1.4	<2.0	<2.0	3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-208A	12/6/94	<0.5	0.3	<0.5	<0.5	1.2	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	1.2a	<0.5	<1.0	NA
WR-208A	10/6/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	NA	NA
WR-208A	6/22/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	3/25/94	<0.5	0.3	0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-208A DUP	3/25/94	<0.5	0.3	0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-208A	2/23/94	0.8	0.8	0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	1/25/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A DUP	1/25/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	12/28/93	<0.5	0.3	0.6	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	12/1/93	<0.5	0.3	0.8	<0.5	1.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	10/27/93	<0.5	0.3	<0.5	<0.5	1.2	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	9/30/93	3.7	3.7	8	2.9	11	<0.5	<0.5	NA	0.7	<0.5	1.9	<0.5	<0.5	<0.5	0.8	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-208A	6/17/93	0.5	0.5	0.7	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	3/30/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-208A	11/7/92	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-209A	3/30/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14.3
WR-209A	3/19/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.6
WR-209A	3/25/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.5
WR-209A	3/27/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	87
WR-209A	3/27/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80
WR-209A	3/22/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	182
WR-209A	3/22/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	178
WR-209A	3/21/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	308
WR-209A	4/7/10	<0.5	0.3	<0.2	<0.2	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	290
WR-209A	4/6/09	<0.5	0.3	<0.2	<0.2	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	670
WR-209A	4/7/08	<0.5	0.3	<0.5	2.7	3.7	<1	1	<1	1.2	<1	2.8	<1	<1	<1	<1	NA	<0.5	<0.5	<2	<0.5	<0.5	700
WR-209A (DUP)	4/7/08	<0.5	0.3	<0.5	2.7	3.5	<1	1	<1	1.2	<1	2.8	<1	<1	<1	<1	NA	<0.5	<0.5	<2	<0.5	<0.5	710
WR-209A	3/30/06	1.5	1.5	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	480
WR-209A	5/2/05	3.7	3.7	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1600
WR-209A	12/28/04	11	11	<3.0	3.4	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1200
WR-209A	3/31/04	1.9	1.9	14	<2.0	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	560
WR-209A	4/14/03	52	52	<2.0	22	35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-209A	3/21/02	510	510	<2.0	37	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-209A DUP	3/21/02	440	440	<20	38	32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-209A	4/17/01	2100	2100	<20	66	31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-209A	7/27/99	540	540	<40	<40	<80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-209A	1/29/99	940	940	5.4	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	11	<2	<2	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2 Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
WR-209A	10/13/98	830	830	55	60	<75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-209A	1/30/98	1700	1700	<125	<125	<125	<125	<125	NA	<125	<125	<125	<125	<125	<125	<125	<125*	<125*	NA	<125*	<125*	<125	NA
WR-209A	7/31/97	2100	2100	110	160	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	190	<0.5	<0.5	NA
WR-209A	5/1/97	2000	2000	160	260	160	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-209A	1/16/97	2100	2100	<5.0	240	<100	<50	<50	NA	<50	<50	<50	<50	<50	<50	<50	<50*	<50*	NA	NA	<50	<50	NA
WR-209A	10/31/96	3600	3600	410	480	149	<50	<50	NA	<50	<50	<50	<50	<50	<50	65	<50*	<50*	NA	110	<50	<50	NA
WR-209A	8/1/96	3900	3900	420	220	<200	<100	<100	NA	<100	<100	<100	<100	<100	<100	<100	<100*	<100*	NA	<200*	<200*	<100	NA
WR-209A	4/25/96	3600	3600	580	480	250	<50	<50	NA	<50	<50	72	<50	<50	<50	100	<50*	<50*	NA	<100*	<50	<50	NA
WR-209A	3/4/96	3800	3800	370	420	192	<25	40	NA	<25	<25	57	<25	<25	<25	110	<25*	<25*	NA	90	<25	<25	NA
WR-209A	12/18/95	1600	1600	240	180	110	<50	<50	NA	<50	<50	<50	<50	<50	<50	<50	<50*	<50*	NA	<50*	<50	<50	NA
WR-209A	9/14/95	3500	3500	460	460	130	<50	<50	NA	<50	<50	6.4	<50	<50	<50	9.9	<50*	<50*	NA	<50*	<50	<50	NA
WR-209A	6/20/95	6500	6500	740	840	250	<100	<100	NA	<100	<100	130	<100	<100	<100	140	<100*	<100*	NA	<100*	<100*	<100	NA
WR-209A	3/17/95	2800	2800	380	360	260	<50	<50	NA	<50	<50	86	<50	<50	<50	70	<100*	<50*	NA	<50*	<50	<100	NA
WR-209A	12/13/94	2600	2600	360	430	180	<50	60	NA	<50	<50	95	<50	<50	<50	84	<100*	<50*	NA	<100*	<50	<100	NA
WR-209A	10/5/94	2500	2500	150	290	76	26	<25	NA	<25	<25	<25	<25	<25	<25	33	NA	NA	NA	NA	<25	NA	NA
WR-209A	6/28/94	2500	2500	55	310	<25	<25	25	NA	<25	<25	<25	<25	<25	<25	18	0.02	NA	NA	NA	<25	NA	NA
WR-209A	3/30/94	2400	2400	81	330	45	26	27	NA	<5	<5	25	<5	<5	6.5	27	<10*	<5	NA	<20*	<10	<10	NA
WR-209A	1/5/94	1700	1700	130	200	64	6.5	17	NA	<5	<5	14	<5	<5	<5	18	NA	NA	NA	NA	<10	NA	NA
WR-209A	9/30/93	1400	1400	73	170	65	<10	15	NA	<10	<10	19	<10	<10	<10	<10	<20*	<10*	NA	<40*	<20	<20	NA
WR-209A	6/18/93	1800	1800	150	190	<100	<50	<50	NA	<50	<50	120	<50	<50	<50	<50	NA	NA	NA	NA	<100*	NA	NA
WR-209A	3/30/93	1500	1500	210	140	180	6.1	16	NA	44	<0.5	72	0.7	<0.5	15	27	<1.0*	1.5	NA	<2.0	<1.0	<1.0	NA
WR-209A DUP	3/30/93	760	760	93	60	83	1.6	3.9	NA	14	<0.5	33	<0.5	<0.5	4.5	7.3	<1.0*	0.9	NA	8.4	<1.0	<1.0	NA
WR-209A	11/13/92	1800	1800	1200	200	870	<100	<100	NA	<100	<100	120	<100	<100	<100	<100	<200*	<10*	NA	<400*	<200*	200	NA
WR-210A	3/29/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-210A	3/20/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25.4
WR-210A	3/26/14	3.8	3.8	<1	67.5	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	72.2
WR-210A	3/26/13	1.5	1.5	<2	3.9	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	89
WR-210A	3/26/13	<1	0.5	<2	6.1	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90
WR-210A	3/21/12	104	104	4.16	108	29.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	286
WR-210A	12/6/11	161	161	3.79	112	10.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	360
WR-210A	9/14/11	274	274	9.02	202	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	507
WR-210A	3/21/11	376	376	<20	174	22.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1700
WR-210A	4/7/10	12	12	<2	5.4	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250
WR-210A	4/2/09	62	62	<20	43	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	N	NA	NA	NA	NA	NA	NA	770
WR-210A	4/7/08	3.6	3.6	0.51	13	14	<1	3	<1	3.9	<1	9.1	<1	<1	<1	2.4	NA	<0.5	<0.5	<2	<0.5	<0.5	130
WR-210A	4/3/07	2.5	2.5	<3.0	5	7.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	N	NA	NA	NA	NA	NA	NA	200
WR-210A	4/3/06	14	14	26	390	94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	390
WR-210A DUP	4/3/06	13	13	13	24	86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	350
WR-210A	5/3/05	72	72	10	24	52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	640
WR-210A	12/28/04	740	740	250	580	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2400
WR-210A	4/11/03	550	550	32	66	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-210A	3/18/02	570	570	26	35	76	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-210A	4/17/01	440	440	440	580	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-210A	7/22/99	100	100	630	130	670	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-210A	1/29/99	44	44	96	70	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.8	NA	<10*	<2	<2	NA
WR-210A	12/18/95	1000	1000	3500	800	2500	<62.5	120	NA	220	<62.5	890	<62.5	<62.5	<62.5	200	<62.5*	<62.5*	NA	<62.5*	<62.5	<62.5	NA
WR-210A	9/14/95	3000	3000	4500	1000	2400	<50	130	NA	160	<50	690	<50	<50	<50	180	<50*	<50*	NA	<50*	<50	<50	NA
WR-210A	6/20/95	3400	3400	4100	1200	1800	<100	130	NA	120	<100	550	<100	<100	<100	170	<100*	<100*	NA	<100*	<100*	<100	NA
WR-210A	3/17/95	2400	2400	3300	1200	1800	51	100	NA	100	<50	550	<50	<50	72	170	<100*	<50*	NA	<50*	<50	<100	NA
WR-210A	10/4/94	2000	2000	3600	1100	2000	<50	130	NA	180	<50	680	<50	<50	<50	140	NA	NA	NA	NA	<50	NA	NA
WR-210A DUP	10/4/94	1800	1800	3100	930	1800	<50	95	NA	110	<50	440	<50	<50	<50	110	NA	NA	NA	NA	<50	NA	NA
WR-210A	6/28/94	4100	4100	5900	1200	3400	40	150	NA	230	<25	860	<25	<25	120	250	7.6	NA	NA	NA	<25	NA	NA
WR-210A	3/31/94	3700	3700	3500	860	2400	40	130	NA	210	<5.0	820	<5.0	<5.0	200	270	<10*	<5.0	NA	<20*	<10	<10	NA
WR-210A	1/5/94	3200	3200	1900	720	1500	20	78	NA	150	<5.0	550	<5.0	<5.0	53	180	NA	NA	NA	NA	<10	NA	NA
WR-210A	10/1/93	3200	3200	2100	690	2100	25	86	NA	210	<10	650	<10	<10	89	140	<20*	<10*	NA	<40*	<20	<20	NA
WR-210A	6/18/93	2900	2900	2700	710	2700	<500	<500	NA	<500	<500	510	<500	<500	<500	<500	NA	NA	NA	NA	<1,000*	NA	NA
WR-210A	3/31/93	2500	2500	1300	350	1000	14	40	NA	92	<0.5	170	1.5	0.7	30	77	2	23	NA	<2.0	<1.0	<1.0	NA

**APPENDIX E
HISTORICAL ANALYTICAL RESULTS**
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
WR-212A	3/27/13	<1.2	0.6	<2.8	71	8.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	58
WR-212A	3/29/12	5	5	<20	87.7	5800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.6
WR-212A	3/28/11	4.89	4.89	3.22	149	313	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	140
WR-212A	4/6/10	8.4	8.4	<2	35	46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	280
WR-212A	4/6/09	230	230	46	150	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	430
WR-212A	4/8/08	980	980	250	350	1400	17	44	<5	150	<5	470	5.3	17	6.2	110	NA	<2.5	<2.5	<10	<2.5	<2.5	470
WR-212A	4/4/07	640	640	310	210	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	910
WR-212A	4/11/06	1,100	1100	740	290	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	670
WR-212A	5/9/05	4400	4400	9000	880	6300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	650
WR-212A	5/2/97	10000	10000	360	1700	<1.0	<0.5	<0.5	NA	540	<0.5	950	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-212A	1/16/97	8300	8300	320	2900	<500	<250	<250	NA	<310	750	<250	<250	<250	<250	<250	<250*	<250*	NA	NA	<250*	<250	NA
WR-212A	10/31/96	12000	12000	870	3100	930	<250	<250	NA	450	<250	1200	<250	<250	<250	320	<250*	<250*	NA	<500*	<250*	<250	NA
WR-212A	8/1/96	15000	15000	1600	1800	<1,000	<500	<500	NA	<500	<500	<500	<500	<500	<500	<500	<500*	<500*	NA	<1,000*	<1,000*	<500	NA
WR-212A	4/26/96	14000	14000	3000	3200	<1,550	<250	270	NA	470	<250	1200	<250	<250	<250	600	<250*	<250*	NA	<500*	<250*	<250	NA
WR-212A	3/4/96	16000	16000	3200	3200	1960	<250	250	NA	460	<250	1300	<250	<250	<250	680	<250*	<250*	NA	910	<250*	<250	NA
WR-212A	12/13/95	15000	15000	3200	3300	1940	<250	<250	NA	450	<250	1900	<250	<250	<250	670	<250*	<250*	NA	<250*	<250*	<250	NA
WR-212A	9/14/95	15000	15000	2400	3300	1400	<250	270	NA	460	<250	1800	<250	<250	<250	560	<250*	<250*	NA	<250*	<250*	<250	NA
WR-212A	6/19/95	15000	15000	2800	3000	1600	<250	<250	NA	340	<250	1400	<250	<250	<250	540	<250*	<250*	NA	<250*	<250*	<250	NA
WR-212A	3/15/95	14000	14000	2300	2400	1700	<250	<250	NA	450	<250	1100	<250	<250	<250	490	<500*	<250*	NA	<250*	<250*	<500	NA
WR-212A	12/13/94	13000	13000	3500	2700	2700	<250	420	NA	710	<250	1400	<250	<250	<250	480	<500*	<250*	NA	<250*	<250*	<500	NA
WR-212A	10/5/94	16000	16000	4300	2700	2900	<125	170	NA	280	<125	1300	<125	<125	<125	370	NA	NA	NA	NA	<125*	NA	NA
WR-212A DUP	10/5/94	16000	16000	4200	2700	2900	<125	170	NA	280	<125	1300	<125	<125	<125	420	NA	NA	NA	NA	<125*	NA	NA
WR-212A	6/29/94	14000	14000	7200	2500	970	<100	170	NA	370	<100	1200	<100	<100	160	400	15	NA	NA	NA	<100*	NA	NA
WR-212A	3/31/94	14000	14000	7300	2100	4500	180	170	NA	350	<10	1200	<10	<10	330	450	<20*	38	NA	<40*	<20	<20	NA
WR-212A	1/5/94	18000	18000	14000	2600	8300	45	160	NA	320	<5.0	1100	<5.0	<5.0	110	440	NA	NA	NA	NA	<10	NA	NA
WR-212A	9/30/93	15000	15000	14000	2300	9500	40	130	NA	330	<25	1000	<25	<25	89	340	<50*	36	NA	<100*	<50	<50	NA
WR-212A	6/18/93	17000	17000	1500	2800	13000	<50	160	NA	380	<50	1300	<50	<50	110	380	NA	NA	NA	NA	100	NA	NA
WR-212A	4/1/93	15000	15000	9400	1400	5600	34	100	NA	240	<5.0	680	<5.0	<5.0	59	240	17	62	NA	<20*	<10	<10	NA
WR-212A	11/13/92	16000	16000	10000	1500	7000	4.8	<0.5	NA	220	1100	<0.5	3.5	<0.5	75	270	32	55	NA	<2.0	<1.0	<1.0	NA
WR-212A was not sampled between years 1997 - 2005 due to free product.																							
WR-213A	3/25/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-213A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-213A	3/24/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-213A	3/21/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-213A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-213A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-213A	3/16/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-213A DUP	3/16/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-213A	4/14/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-213A	3/18/08	<0.5	0.3	<3	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-213A	3/19/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-213A	3/21/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-213A	4/13/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-213A DUP	4/13/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-213A	3/25/04	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-213A	4/10/03	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-213A	3/21/02	1.3	1.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-213A	7/20/99	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-213A	1/28/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-213A	1/28/98	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-213A	7/29/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-213A	4/30/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-213A	1/15/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-213A	10/29/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-213A	7/30/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<1.0	<0.5	NA
WR-213A	4/22/96	<0.5	0.3	1.8	1	7.1	<0.5	<0.5	NA	1.8	<0.5	2.1	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-213A	2/26/96	<0.5	0.3	0.7	<0.5	1.4	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA

**APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)**

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
WR-213A	12/12/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-213A	9/13/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-213A	6/16/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-213A	3/15/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-213A	12/9/94	1.2	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-213A	10/8/94	2.6	2.6	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	NA	NA
WR-213A	6/22/94	3.2	3.2	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-213A DUP	6/22/94	3.4	3.4	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-213A	3/25/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-213A	12/31/93	0.6	0.6	0.9	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-213A	9/29/93	6	6	6.5	1.1	3	<0.5	<0.5	NA	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-213A	6/18/93	23	23	66	11	63	<0.5	1.1	NA	2.6	<0.5	7.9	<0.5	<0.5	0.9	0.7	NA	NA	NA	NA	<1.0	NA	NA
WR-213A	4/1/93	120	120	160	39	160	1.5	2.7	NA	8.3	<0.5	24	<0.5	<0.5	1.6	9.8	<1.0*	0.6	NA	<2.0	<1.0	<1.0	NA
WR-213A	11/13/92	13	13	20	5.4	27	<1.0	<1.0	NA	<1.0	<1.0	2.7	<1.0	<1.0	<1.0	<1.0	<2.0*	<1.0	NA	<4.0	<1.0	<2.0	NA
WR-214A	3/24/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-214A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-214A	3/20/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-214A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-214A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-214A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-214A	3/23/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-214A	4/14/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.5
WR-214A	3/18/08	<0.5	0.3	<3	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-214A "DUP"	3/18/08	<0.5	0.3	<3	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-214A	3/14/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-214A	3/29/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-214A	5/2/05	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1
WR-214A	3/26/04	5.7	5.7	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2
WR-214A	4/10/03	3.8	3.8	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-214A	3/21/02	28	28	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-214A	4/18/01	180	180	<2.0	20	5.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-214A	7/22/99	16	16	3.2	1.9	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-214A	1/28/99	11	11	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-214A	1/29/98	38	38	3.5	<2	<4	<2	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2*	<2	NA	<2	<2	<2	NA
WR-214A	7/31/97	55	55	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-214A	4/30/97	33	33	2.5	4.7	<5.0	2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<2.5	<2.5	<2.5	NA
WR-214A DUP	4/30/97	41	41	<0.5	4.9	<5.0	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<2.5	<2.5	<2.5	NA
WR-214A	1/15/97	47	47	<2.5	<2.5	<5.0	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<5.0	<2.5	<2.5	NA
WR-214A	1/15/97	53	53	<2.5	<2.5	<5.0	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<5.0	<2.5	<2.5	NA
WR-214A	10/30/96	120	120	25	1.4	16.8	0.6	<0.5	NA	1.2	<0.5	0.8	<0.5	<0.5	<0.5	0.6	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-214A	7/31/96	120	120	17	<5.0	<10	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0*	<5.0	NA	<10*	<5.0	<5.0	NA
WR-214A	4/24/96	230	230	140	16	78	<2.5	<2.5	NA	8	<2.5	9.5	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<5.0	<2.5	<2.5	NA
WR-214A	2/29/96	110	110	43	6	24	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0*	<5.0	NA	24	<5.0	<5.0	NA
WR-214A	12/13/95	180	180	61	8.3	23	<5.0	<5.0	NA	<5.0	<5.0	5.1	<5.0	<5.0	<5.0	<5.0	<5.0*	<5.0	NA	<5.0	<5.0	<5.0	NA
WR-214A	9/13/95	310	310	190	31	86	<5.0	5.1	NA	6.2	<5.0	18	<5.0	<5.0	<5.0	<5.0	<5.0*	<5.0	NA	<5.0	<5.0	<5.0	NA
WR-214A	6/16/95	370	370	210	90	92	<10	10	NA	<10	<10	15	<10	<10	<10	<10	<10*	<10*	NA	<10*	<10	<10	NA
WR-214A	3/15/95	420	420	260	86	100	<5.0	8.6	NA	7.8	<5.0	11	<5.0	<5.0	<5.0	<5.0	<10*	<5.0	NA	<5.0	<5.0	<10	NA
WR-214A	12/9/94	370	370	36	110	33	5.6	24	NA	7.5	<5.0	11	<5.0	<5.0	<5.0	<5.0	<10*	<5.0	NA	9	<5.0	<10	NA
WR-214A	10/3/94	240	240	170	61	54	<5.0	5.6	NA	<5.0	<5.0	8.4	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<5.0	NA	NA
WR-214A	6/28/94	250	250	55	86	43	<5.0	9.6	NA	6.6	<5.0	13	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<5.0	NA	NA
WR-214A DUP	6/28/94	250	250	54	83	41	<5.0	9	NA	6.9	<5.0	12	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<5.0	NA	NA
WR-214A	3/30/94	440	440	87	85	68	<5.0	8.2	NA	6.9	<5.0	14	<5.0	<5.0	<5.0	<5.0	<10*	<5.0	NA	<20*	<10	<10	NA
WR-214A	1/5/94	350	350	19	76	41	<5.0	7.7	NA	<5.0	<5.0	7.4	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<10	NA	NA
WR-214A	9/30/93	1000	1000	460	170	360	5.1	9.9	NA	17	<5.0	40	<5.0	<5.0	6.1	17	<10*	<5.0	NA	<20*	<10	<10	NA
WR-214A	6/18/93	930	930	210	110	230	<5.0	7.6	NA	16	<5.0	31	<5.0	<5.0	5.4	5.1	NA	NA	NA	NA	<10	NA	NA
WR-214A	4/1/93	1000	1000	510	120	310	<5.0	6.8	NA	22	<5.0	47	<5.0	<5.0	<5.0	11	1.6	<5.0	NA	<20*	<10	<10	NA
WR-214A	11/13/92	1100	1100	690	<100	350	<5.0	<100	NA	<100	<100	<100	<100	<100	<100	<100	<200*	<100*	NA	<100*	<200*	<200	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
WR-215A	3/24/16	58.7	58.7	<25	203	446	<25	<50	<50	226	264	308	<50	<50	<50	407	<25	<13	<13	<130	<13	<25	2520
WR-215A	3/24/15	72.3	72.3	<20	334	358	21.9	70.7	<40	108	<40	509	<40	<40	<40	262	<20	<10	<10	<100	<10	<20	1750
WR-215A	3/24/15	68.4	68.4	<20	335	352	24.8	81.8	<40	111	<40	543	<40	<40	<40	263	<20	<10	<10	<100	<10	<20	1650
WR-215A	3/20/14	151	151	67.4	768	3000	33.1	96.3	<40	332	<40	962	<40	33.1	<40	406	<20	<10	<10	<100	<10	<20	1780
WR-215A	3/23/11	288	288	<10	20.3	62	<12.5	<10	<25	<7.5	<12.5	15.6	<7.5	NA	<12.5	<25	<2.5	<7.5	NA	<15	<7.5	<2.5	1170
WR-215A	4/8/10	560	560	140	340	480	23	54	<5	72	<2.5	210	4	NA	<2.5	140	<0.5	<1.5	NA	<3	<1.5	<0.5	1800
WR-215A	4/13/09	1300	1300	1200	720	2600	40	96	<5	220	<2.5	820	8.8	NA	<2.5	350	<0.5	<1.5	<0.5	<3	<1.5	<0.5	1500
WR-215A	12/28/04	1900	1900	8900	1200	11000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	900
WR-215A	3/30/04	560	560	290	150	1700	27	59	<5.0	290	NA	860	NA	NA	NA	200	<5.0	<1.5	NA	NA	<1.5	<0.50	1700
WR-215A	4/9/03	62	62	<15	64	150	17	47	<25	88	<13	180	11	<7.5	<13	44	NA	66	<2.5	<15	<7.5	<2.5	1700
WR-215A	3/20/02	170	170	240	160	630	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-215A DUP	3/20/02	170	170	240	160	630	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-215A	4/18/01	260	260	<100	<100	340	NA	NA	NA	NA	NA	250	NA	NA	NA	NA	NA	190	1800	NA	NA	NA	NA
WR-215A	3/29/00	800	800	100	<20	520	NA	18	40	130	390	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-215A	8/2/99	0.9	0.9	0.96	0.14	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-215A	4/5/99	1862	1862	1100	179	1432	<100	<100	NA	174	<100	505	<100	<100	<100	132	<100	229	NA	<100	<100	<100	NA
WR-215A	1/27/99	2500	2500	820	42	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	110	NA	<10*	<2	<2	NA
WR-215A	10/14/98	1100	1100	<50	<50	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-215A	7/29/98	2500	2500	540	<125	980	<125	<125	NA	<125	<125	<125	<125	<125	<125	<125	6	136	NA	<125*	<125*	<125	NA
WR-215A	5/1/98	1800	1800	230	130	650	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170	NA	<5	<0.5	<0.5	NA
WR-215A DUP	5/1/98	1600	1600	180	100	520	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<25*	NA	<250*	<25	<25	NA
WR-215A	5/2/97	1700	1700	130	130	520	65	<0.5	NA	180	<0.5	460	<0.5	<0.5	<0.5	290	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-215A	1/17/97	2700	2700	90	180	610	270	<5.0	NA	160	<5.0	460	9.9	<5.0	28	98	<5.0*	260	NA	<10*	<5.0	<5.0	NA
WR-215A	11/1/96	2500	2500	120	210	420	<50	75	NA	240	<50	430	<50	<50	<50	140	<50*	380	NA	<100*	<50	<50	NA
WR-215A	8/1/96	2900	2900	330	170	<200	<100	<100	NA	<100	<100	<100	<100	<100	<100	110	<100*	<200*	NA	<200*	<100*	<100*	NA
WR-215A	4/25/96	2400	2400	170	550	270	<100	130	NA	170	<100	440	<100	<100	<100	190	<100*	<100*	NA	<200*	<100*	<100*	NA
WR-215A	3/1/96	5200	5200	120	830	340	<100	130	NA	260	<100	500	<100	<100	<100	270	<100*	450	NA	460	<100*	<100	NA
WR-215A	12/18/95	7200	7200	210	1000	250	<100	120	NA	130	<100	530	<100	<100	<100	210	<125*	330	NA	<100*	<100*	<100	NA
WR-215A	9/13/95	7000	7000	160	1000	230	<125	<125	NA	<125	<125	530	<125	<125	<125	220	<125*	350	NA	<125*	<125*	<125	NA
WR-215A	6/16/95	8000	8000	<200	940	280	<200	<200	NA	<200	<200	550	<200	<200	<200	<200	<200*	360	NA	<200*	<200*	<200	NA
WR-215A	3/14/95	9500	9500	630	960	620	<50	86	NA	210	<50	570	<50	<50	50	140	<100*	260	NA	<50*	<50	<100	NA
WR-215A	12/13/94	11,000 c	11,000	650	890	1200	<50	230	NA	440	<50	880	<50	<50	150	280	<100*	240	NA	<50*	<50	<100	NA
WR-215A	10/5/94	4600	4600	290	420	240	<25	<25	NA	<25	<25	N140	<25	<25	<25	56	NA	NA	NA	NA	<25	NA	NA
WR-215A	6/29/94	9500	9500	580	560	970	<100	<100	NA	180	<100	590	<100	<100	<100	170	20	NA	NA	NA	<100*	NA	NA
WR-215A	3/31/94	12000	12000	640	590	1100	<100	100	NA	160	<100	580	<100	<100	120	260	<200*	300	NA	<400*	<200*	<200	NA
WR-215A	1/6/94	7700	7700	820	440	1200	14	51	NA	140	<5.0	460	<5.0	<5.0	77	130	NA	NA	NA	NA	<10	NA	NA
WR-215A	10/1/93	4700	4700	460	510	2800	31	100	NA	300	<25	990	<25	<25	<25	<25	<50*	<25*	NA	<100*	<50	<50	NA
WR-215A	6/18/93	12000	12000	8600	1500	8100	<50	110	NA	290	<50	1100	<50	<50	120	290	NA	NA	NA	NA	<100*	NA	NA
WR-215A	3/31/93	7200	7200	3200	590	2500	13	34	NA	100	<5.0	290	<5.0	<5.0	47	110	32	280	NA	<20*	<10	<10	NA
WR-215A	11/13/92	30000	30000	35000	2900	15000	<500	1100	NA	<500	2700	<500	<500	<500	<500	560	<1,000*	<500*	NA	<2,000*	<1,000*	<1,000	NA
<i>WR-215A was not sampled between 2012 - 2013 due to free product.</i>																							
WR-216A	3/30/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-216A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-216A	3/25/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-216A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-216A	3/22/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-216A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-216A	3/24/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-216A	3/24/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-216A	3/26/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-216A	3/15/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-216A	5/11/05	<0.50	0.3	<3.0	<2.0	3.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-217A	3/24/16	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-217A	3/24/15	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-217A	3/20/14	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1

APPENDIX E HISTORICAL ANALYTICAL RESULTS

(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-217A	9/12/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-217A	3/21/13	<1	0.5	<1	<1	<2	<1	<1	<2	<1	<1	<1	<1	NA	<1	<5	<1	<1	<1	<2	<1	<1	<1
WR-217A	3/21/13	<1	0.5	<1	<1	<2	<1	<1	<2	<1	<1	<1	<1	NA	<1	<5	<1	<1	<1	<2	<1	<1	<1
WR-217A	3/26/12	<0.5	0.3	<2.0	<2.0	<1.0	<2.5	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-217A	3/23/11	<0.5	0.3	<2.0	<2.0	<1.0	<2.5	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-217A	3/29/10	<0.5	0.3	<2.0	<2.0	<3.0	<2.5	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-217A	3/30/09	<0.5	0.3	<2.0	<2.0	<3.0	<2.5	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-217A	3/30/09	<0.5	0.3	<2.0	<2.0	<3.0	<2.5	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-217A	4/2/08	<0.5	0.3	<3	2.3	3.5	<2.5	<2	<5	<1.5	<2.5	2.5	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-217A	3/29/07	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	NA	<1.5	N	<2.0	<1.5	NA	<2.5	<5.0	NA	NA	NA	NA	NA	NA	<2.0
WR-217A	4/11/05	<0.5	0.3	4.6	<2.0	<3.0	<2.5	<2.0	NA	<1.5	NA	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.5	NA	<3.0	<1.5	<0.5	<2.0
WR-217A	3/25/04	<0.5	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	NA	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.50	<1.5	NA	<3.0	<1.5	<0.5	<2.0
WR-217A	4/9/03	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-217A	3/19/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-217A	4/16/01	<1	0.5	<1	<1	<2	NA	NA	NA	<1	NA	250	NA	NA	NA	NA	NA	<0.5	<0.5	NA	NA	NA	NA
WR-217A	3/29/00	<10*	0.5	<10	<10	<20	NA	18	40	130	390	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-217A	7/2/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-217A	4/5/99	1.5	1.5	1.3	<0.5	3.4	<100	<100	NA	174	N100	505	<100	N100	N100	132	N100*	229	NA	N100*	N100*	N100	NA
WR-217A	1/29/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	110	NA	<10*	<2	<2	NA
WR-217A	10/14/98	1.2	1.2	3.3	<0.5	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-217A	7/28/98	<0.5	0.3	<0.5	<0.5	<0.5	<125	<125	NA	<125	<125	<125	<125	<125	<125	<125	6	136	NA	<125*	<125*	<125	NA
WR-218A	3/25/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-218A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-218A	3/24/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-218A	3/21/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-218A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-218A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.25
WR-218A	4/5/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	42
WR-218A	4/2/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	48
WR-218A	4/3/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	41
WR-218A	4/2/07	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46
WR-218A	4/14/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	56
WR-218A	3/25/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	57
WR-219A	3/31/16	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-219A	3/24/15	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-219A	3/21/14	<2	1	<2	<2	<4	<2	<4	<4	<4	<4	<4	<4	<4	<4	<10	<2	<1	<1	<10	<1	<2	<2
WR-219A	9/11/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-219A	3/25/13	<1	0.5	<1	2.2	<2	1.4	3.1	<2	7.9	<1	8.9	3.2	NA	<1	<5	<1	<1	<1	<2	<1	<1	<1
WR-219A	3/28/12	0.51	0.51	5.68	129	49	25.8	40.9	<5	5.66	<2.5	18.5	10.3	NA	6.26	185	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-219A	3/22/11	0.96	0.96	18.5	439	151	47.5	97.6	<5	20.1	<2.5	74.9	11.4	NA	12.8	215	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-219A	3/17/10	<0.5	0.3	3.5	67	35	20	52	<5	29	<2.5	57	22	NA	38	140	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-219A	4/15/09	1.3	1.3	5.2	49	28	16	24	<5	4.1	<2.5	11	9.1	NA	3.6	87	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-219A	3/19/08	3.8	3.8	4.7	430	50	70	130	<5	13	<2.5	31	15	70	7.7	230	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-219A	3/27/07	7.1	7.1	14	1100	53	49	120	NA	26	NA	52	8.4	NA	6.6	210	NA	NA	NA	NA	NA	NA	<4.0
WR-219A	4/3/06	23	23	97	1500	280	81	190	NA	99	NA	140	15	NA	19	310	NA	NA	NA	NA	NA	NA	<2.0
WR-219A	5/2/05	73	73	800	1800	2700	NA	280	<5.0	570	<2.5	2100	17	<1.5	32	440	<0.5	<1.5	<0.5	<3.0	<1.5	<0.5	<2.0
WR-219A	3/25/04	25	25	470	170	1100	13	46	<5.0	100	NA	330	NA	NA	NA	19	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2.0
WR-219A	4/8/03	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-219A	3/19/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-219A DUP	3/19/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-219A	3/27/00	<1.0	0.5	<1.0	<1.0	<2.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5*	<0.5	NA	<1.0	<1.0	<1.0	<1.0
WR-219A	7/20/99	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-219A DUP	4/5/99	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	1/26/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-219A	10/15/98	<0.5	0.3	<1.0	<1.0	<1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-219A	7/28/98	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<5	<0.5	<0.5	NA

**APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)**

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
WR-219A	4/30/98	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	<5	<0.5	<0.5	NA
WR-219A	1/27/98	<0.5	0.3	<0.5	<0.5	<1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	10/21/97	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.01	NA	NA	NA	<0.5	NA	NA
WR-219A	7/29/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	4/30/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	1/15/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-219A	10/29/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-219A	7/30/96	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	4/22/96	<0.5	0.3	3.6	1.9	12.5	<0.5	0.8	NA	3.2	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-219A	2/26/96	<0.5	0.3	1.5	<0.5	2.3	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-219A	12/13/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	9/11/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	6/19/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	3/15/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-219A	12/6/94	<0.5	0.3	<0.5	<0.5	0.8	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	0.8	<0.5	<1.0	NA
WR-219A	9/28/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	NA	NA
WR-219A	6/22/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	NA	NA	NA	<1.0	NA	NA
WR-219A	3/25/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-219A	2/23/94	0.8	0.8	1.2	0.5	1.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-219A DUP	2/23/94	0.8	0.8	1.2	0.5	1.8	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-219A	1/24/94	0.6	0.6	0.7	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-219A	12/27/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-219A	12/1/93	<0.5	0.3	0.8	<0.5	1.6	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-219A	10/27/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-219A	9/28/93	2.3	2.3	4.1	1.1	5.6	<0.5	<0.5	NA	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-220A	3/27/12	0.64	0.64	<2	<2	<1	3.2	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2
WR-220A	12/6/11	<0.5	0.3	<2	<2	<1	6.81	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5.0	<1	<1.5	NA	<5.0	<1.5	<1	<2
WR-220A	9/14/11	<0.5	0.3	<2	<2	<1	9.37	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5.0	<1	<1.5	NA	<5.0	<1.5	<1	<2
WR-220A	5/4/11	13.7	13.7	<2	<2	<1	25.9	<2	<5	<1.5	<2.5	<2.0	4.25	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2
WR-220A	3/22/11	<0.5	0.3	<2	<2	<1	<2.5	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2
WR-220A DUP	3/31/10	43	43	<2	<2	<3	17	<2	<5	<1.5	<2.5	<2.0	2.6	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2
WR-220A	3/31/10	41	41	<2	<2	<3	17	<2	<5	<1.5	<2.5	<2.0	2.6	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2
WR-220A	3/31/09	48	48	<2	<2	<3	32	<2	<5	<1.5	<2.5	<2.0	5.9	NA	2.9	<5.0	<0.5	<1.5	<0.5	<3.0	<1.5	<0.5	<2
WR-220A	3/31/08	2.4	2.4	<0.5	<0.5	9.7	11	<1	<1	<1	<1	8.7	1.5	11	<1	<1	<1	<0.5	<0.5	<2	<0.5	<0.5	3.4
WR-220A	3/27/07	2.8	2.8	<3.0	<2.0	15	18	<2.0	NA	<1.5	NA	2.8	4.4	NA	<2.5	<5.0	NA	NA	NA	NA	NA	NA	<2.0
WR-220A	4/4/06	4.0	4	<3.0	<2.0	<3.0	15	6.4	<5.0	<1.5	<2.5	<2.0	3.6	<1.5	<2.5	<5.0	<0.50	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-220A	4/28/05	4.6	4.6	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-220A	3/25/04	<0.5	0.3	<3.0	<2.0	24	<2.5	<2.0	<5.0	4.2	NA	8.9	NA	NA	NA	<5.0	<0.50	<1.5	NA	<3.0	<1.5	<0.5	<2.0
WR-220A	4/8/03	<0.5	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-220A DUP	4/8/03	<0.5	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-220A	3/19/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-220A	4/19/01	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	<0.5	<0.5	NA	NA	NA	NA
WR-220A	3/27/00	<1.0	0.5	<1.0	<1.0	<2.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5*	<0.5	NA	<1.0	<1.0	<1.0	<1.0
WR-220A	7/20/99	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-220A	4/27/99	<0.5	0.3	<0.5	<0.5	<1	<2.0	<2.0	NA	<2	<2	<2	<2	<2	<2	<2	<5*	<2	NA	<5	<2	<2	NA
WR-220A	1/28/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-220A	10/15/98	8.1	8.1	<1.0	<1.0	<1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-220A	7/28/98	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<5	<0.5	<0.5	NA
WR-220A	4/30/98	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	<5	<0.5	<0.5	NA
WR-220A	1/27/98	<0.5	0.3	<0.5	<0.5	<1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-220A	10/21/97	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA
WR-220A	7/29/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-220A	4/30/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-220A	1/14/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-220A	10/29/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<									

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
WR-220A	2/27/96	<0.5	0.3	1.4	<0.5	1.9	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-220A	12/13/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-220A	9/11/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-220A	6/19/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-220A	3/15/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-220A	12/7/94	<0.5	0.3	<0.5	<0.5	0.8	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	0.6	<0.5	<1.0	NA
WR-220A	9/28/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	NA	NA
WR-220A	6/23/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-220A	3/24/94	1.2	1.2	1.6	0.7	1.3	<0.5	<0.5	NA	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-220A	2/24/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-220A DUP	2/24/94	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-220A	1/24/94	3.6	3.6	4.1	1.9	5	<0.5	<0.5	NA	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-220A DUP	1/24/94	3.7	3.7	4.1	1.9	5	<0.5	<0.5	NA	<0.5	<0.5	1.2	<0.5	<0.5	<0.5	0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-220A	12/27/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-220A	12/11/93	<0.5	0.3	0.6	<0.5	1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-220A	10/27/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-220A	9/28/93	1.7	1.7	2.5	0.7	3.5	<0.5	<0.5	NA	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-220A	8/17/93	0.8	0.8	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
	WR-220A was not sampled after 2012 due to free product.																						
WR-221A	3/31/16	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<10	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-221A	3/25/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-221A	3/21/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-221A	3/21/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-221A	9/12/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-221A	3/25/13	<1	0.5	<2	<2	<3	<1	<1	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<2	<1	<1	<5
WR-221A	3/27/12	<0.5	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-221A	3/22/11	<0.5	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-221A	3/30/10	<0.5	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-221A	3/23/09	1.7	1.7	<2.0	<2.0	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-221A DUP	3/23/09	1.7	1.7	<2.0	<2.0	42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-221A	3/24/08	4.9	4.9	<3	<2	60	3.5	<2	<5	5.2	<2.5	58	<1.5	3.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-221A	3/19/07	1.1	1.1	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-221A	3/23/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-221A	4/28/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-221A DUP	4/28/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-221A	7/20/99	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-221A	1/26/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10	<2	<2	NA
WR-221A	1/27/98	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-221A	7/29/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-221A	4/29/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.8	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-221A	1/14/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-221A	10/29/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-221A	7/30/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-221A	4/23/96	<0.5	0.3	0.9	0.5	3.4	<0.5	<0.5	NA	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-221A	2/27/96	<0.5	0.3	2.3	0.7	3.8	<0.5	<0.5	NA	0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-221A	9/11/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-221A	6/19/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-221A	3/15/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-221A	12/7/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	0.7	<0.5	<1.0	NA
WR-221A	9/28/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	NA	NA
WR-221A	6/23/94	0.9	0.9	1.6	0.8	2.8	<0.5	<0.5	NA	<0.5	<0.5	1	<0.5	<0.5	<0.5	0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-221A	3/24/94	0.6	0.6	1.1	0.6	2	<0.5	<0.5	NA	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-221A	2/23/94	0.5	0.5	0.7	<0.5	1.1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-221A	1/24/94	1	1	1.3	0.6	1.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-221A	12/27/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-221A	12/1/93	<0.5	0.3	0.8	<0.5	1.6	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-221A	10/28/93	<0.5	0.3	0.7	<0.5	1.1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
WR-221A	10/27/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-221A	9/29/93	0.7	0.7	3.3	0.9	4.7	<0.5	<0.5	NA	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-221A	8/18/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	3/30/16	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-222A	3/25/15	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-222A	3/24/14	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-222A	3/24/14	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-222A	9/11/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-222A	3/21/13	<1	0.5	<1	<1	<2	<1	<1	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<2	<1	<1	<1
WR-222A	3/27/12	<0.5	0.3	<2.0	<2.0	<1.0	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-222A	3/22/11	<0.5	0.3	<2.0	<2.0	<1.0	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-222A	3/16/10	<0.5	0.3	<2.0	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-222A	4/14/09	<0.5	0.3	<2.0	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-222A	3/19/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-222A	3/21/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-222A	3/27/06	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<0.5	<0.5	<0.5	<5.0	<0.5	<1.5	<0.5	<3.0	<1.5	<0.5	<2.0
WR-222A	4/13/05	<0.5	0.3	<3.0	<2.0	<3.0	13	9.9	<5.0	<1.5	NA	<2.0	1.6	<1.5	<2.5	<5.0	<0.5	<1.5	<0.5	<3.0	<1.5	<0.5	<2.0
WR-222A	3/29/04	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2.0
WR-222A DUP	3/29/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-222A	4/10/03	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-222A DUP	4/10/03	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-222A	3/19/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-222A	4/18/01	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	<0.5	<0.5	NA	NA	NA	NA
WR-222A	3/27/00	<1.0	0.5	<1.0	<1.0	<2.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5*	<0.5	NA	<1.0	<1.0	<1.0	<1.0
WR-222A	7/19/99	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-222A	4/7/99	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<5	<0.5	<0.5	NA
WR-222A	1/27/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-222A	10/16/98	<0.5	0.3	<1.0	<1.0	<1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-222A	7/28/98	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<5	<0.5	<0.5	NA
WR-222A	4/30/98	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	1/28/98	<0.5	0.3	<0.5	<0.5	<0.5	<1	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	10/21/97	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA
WR-222A	7/30/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	4/29/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	1/15/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-222A	10/29/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-222A	7/31/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-222A	4/23/96	<0.5	0.3	<0.5	<0.5	<1.3	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-222A	2/27/96	<0.5	0.3	0.8	<0.5	1.4	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-222A	12/14/95	0.6	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	9/11/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	6/15/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	3/15/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-222A	12/8/94	<0.5	0.3	<0.5	<0.5	0.7	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-222A	9/29/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA
WR-222A	6/23/94	0.5	0.5	0.6	<0.5	1.6	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A DUP	6/23/94	0.6	0.6	0.6	<0.5	1.3	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	3/23/94	0.6	0.6	1	<0.5	1.4	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-222A DUP	3/23/94	0.6	0.6	0.9	<0.5	1.3	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-222A DUP	2/24/94	<0.5	0.3	0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	1/24/94	2.3	2.3	2.5	1.7	4.7	<0.5	<0.5	NA	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	12/28/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	11/30/93	0.9	0.9	1	<0.5	1.4	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	10/25/93	1.2	1.2	0.9	<0.5	1.1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A DUP	10/25/93	1.2	1.2	1.2	<0.5	1.2	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	9/27/93																						

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
WR-223A	3/23/16	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	9.1
WR-223A	3/24/15	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	121
WR-223A	3/21/14	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	61.9
WR-223A	9/11/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-223A	3/25/13	<1	0.5	<1	<1	<2	<1	<1	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<2	<1	<1	<1
WR-223A	3/28/12	<0.50	0.3	<2	<2.0	<1.0	<2.5	<2.0	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-223A	3/22/11	<0.50	0.3	<2	<2.0	<1.0	<2.5	<2.0	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-223A	4/5/10	<0.50	0.3	<2	<2.0	<3.0	<2.5	<2.0	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	22
WR-223A	4/1/09	<0.50	0.3	<2	<2.0	<3.0	<2.5	<2.0	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	6.8
WR-223A	4/2/08	1.1	1.1	<3	6.6	12	<2.5	2.1	<5	2	<2.5	5	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	4.9
WR-223A	3/29/07	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	NA	<1.5	NA	<2.0	<1.5	NA	<2.5	<5.0	NA	NA	NA	NA	NA	NA	3
WR-223A	4/13/06	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<0.5	<0.5	<0.5	<5.0	<0.5	<1.5	<0.5	<3.0	<1.5	<0.5	2.9
WR-223A DUP	4/13/06	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<0.5	<0.5	<0.5	<5.0	<0.5	<1.5	<0.5	<3.0	<1.5	<0.5	3.1
WR-223A	4/28/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3
WR-223A	7/20/99	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-223A	1/28/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-223A DUP	1/28/99	<2	1	<2	<2	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-223A	1/28/98	<2.5	1.5	<2.5	3.9	<5	2.7	<2.5	NA	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5*	3.3	NA	<2.5	<2.5	<2.5	NA
WR-223A	7/30/97	<0.5	0.3	<0.5	140	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	46	<0.5	<0.5	NA
WR-223A	4/30/97	<0.5	0.3	<0.5	<0.5	<1.0	8.9	19	NA	3.3	<0.5	3.2	1.4	<0.5	1.4	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-223A	1/14/97	<2.5	1.5	<2.5	100	<5.0	3.1	<2.5	NA	5	<2.5	2.8	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<5.0	<2.5	<2.5	NA
WR-223A	10/29/96	<0.5	0.3	<0.5	120	91	6	14	NA	4.2	<0.5	3	0.8	<0.5	<0.5	<0.5	<0.5*	2.6	NA	<1.0	<0.5	<0.5	NA
WR-223A	7/31/96	<2.5	1.5	<2.5	84	<5.0	<2.5	3.8	NA	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<2.5	<5.0	<2.5	NA
WR-223A	4/25/96	2.8	2.8	<1.0	40	10.9	1.9	3.9	NA	1.5	<1.0	1.9	<1.0	<1.0	<1.0	3.8	<1.0*	<1.0	NA	<120*	<1.0	<1.0	NA
WR-223A	2/29/96	21	21	1.2	66	15.5	3.4	7.1	NA	2.8	<1.0	2.5	<1.0	<1.0	<1.0	6.1	<1.0*	2.4	NA	4.4	<1.0	<1.0	NA
WR-223A	12/15/95	210	210	<1.25	110	59	4.9	11	NA	7.6	<1.25	7.7	<1.25	<1.25	<1.25	4.6	<1.25*	<1.25	NA	<1.25	<1.25	<1.25	NA
WR-223A	9/15/95	80	80	4.2	21	7.3	<2.5	<2.5	NA	<2.5	<2.5	6.6	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<2.5	<2.5	<2.5	NA
WR-223A DUP	9/15/95	84	84	5.7	23	10	<2.5	<2.5	NA	2.7	<2.5	8.8	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<2.5	<2.5	<2.5	NA
WR-223A	6/19/95	340	340	<10	71	36	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	NA	<10*	NA	<10*	<10	<10	NA
WR-223A	3/16/95	92	92	<0.5	10	<0.5	0.6	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-223A	12/12/94	390	390	<10	67	99	<10	13	NA	16	<10	24	<10	<10	<10	17	<20*	<10*	NA	<10*	<10	<20	NA
WR-223A	10/3/94	380	380	6	45	94	<5.0	<5.0	NA	9.5	<5.0	10	<5.0	<5.0	<5.0	6.7	NA	NA	NA	NA	<5.0	NA	NA
WR-223A	6/27/94	250	250	3.2	27	80	1.5	2.9	NA	8.1	<5.0	8.8	<5.0	<5.0	2.7	6.3	NA	NA	NA	NA	<10	NA	NA
WR-223A	3/30/94	290	290	<2.5	69	120	<2.5	5.2	NA	13	<2.5	10	<2.5	<2.5	7.4	6.8	<5.0*	<2.5	NA	<10.0*	<5.0	<5.0	NA
WR-223A	3/30/94	290	290	<2.5	69	120	<2.5	5.2	NA	13	NA	10	NA	NA	7.4	6.8	NA	NA	NA	NA	NA	NA	NA
WR-223A	12/31/93	260	260	<5.0	60	120	1.4	4.4	NA	9.6	<5.0	10	<5.0	<5.0	3.2	6.6	NA	NA	NA	NA	<10	NA	NA
WR-223A	9/28/93	130	130	8.3	44	90	1.2	3.3	NA	7.8	<0.5	8.4	<0.5	<0.5	2.8	6.8	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-223A	8/19/93	140	140	<5.0	27	67	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<10	NA	NA
WR-224A	3/18/16	<1	0.5	<1	17.8	<2	15.3	46	<2	<2	<2	<2	9.3	<2	8.1	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-224A	3/18/15	<1	0.5	<1	11.2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-224A	3/19/14	<2	1	<2	18.2	4.8	5.4	19.8	<4	8.3	<4	12.7	8.4	<4	12.5	<10	<2	<1	<1	<10	<1	<2	<2
WR-224A	9/11/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-224A	3/28/13	<1	0.5	<1	28	7.6	5.3	16	<2	5.8	<1	<1	9.3	<1	<1	7.6	<1	<1	<1	<2	<1	<1	<1
WR-224A	4/2/12	<0.5	0.3	<2	34.5	8.06	8.8	22.7	<5	3.4	<2.5	6.22	15.2	NA	6.83	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-224A	3/28/11	<0.5	0.3	<2	84.2	19.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-224A	3/25/10	1.9	1.9	2.2	440	760	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-224A	3/25/09	<25	13	<100	1400	3800	190	710	<250	1200	<130	3000	130	NA	290	350	<25	<75	<25	<150	<75	<25	<100
WR-224A	4/2/08	53	53	15	120	190	12	25	<5	20	<2.5	52	2.5	12	<2.5	21	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-224A	3/28/07	530	530	190	1400	6000	93	260	NA	600	NA	1700	30	NA	53	430	NA	NA	NA	NA	NA	NA	<2.0
WR-224A	4/13/06	800	800	4800	1100	7800	66	<5.0	<5.0	590	<5.0	2200	16	<5.0	34	260	<5.0	<5.0	<0.5	<2.0	<10	<1.0	<10
WR-224A	4/12/05	560	560	480	620	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20
WR-224A	3/26/04	<0.50	0.3	<3.0	170	32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-224A	4/8/03	14	14	<20	250	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-224A DUP	4/8/03	14	14	<20	260	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-224A	3/14/02	46	46	<20	490	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-224A	4/19/01	21	21	13	1000	1200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-224A	1/28/99	<200	100	2200	2700	8900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<200*	NA	<5,000*	<200*	<200	NA
WR-224A	7/30/97	44000	44000	<0.5	48000	51000	15000	56000	NA	100000	<0.5	11000	<0.5	2700	<0.5	39000	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-224A	5/1/97	6.6	6.6	<0.5	14	<1.0	20	30	NA	11	<0.5	22	6.6	<0.5	<0.5	61	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-224A	1/16/97	83	83	<5.0	27	<10	120	<5.0	NA	130	<5.0	320	7.7	<5.0	5.1	110	<5.0*	<5.0	NA	<10*	<5.0	<5.0	NA
WR-224A	10/31/96	260	260	<25	<25	<50	<25	43	NA	74	<25	130	<25	<25	<25	130	<25*	<25*	NA	56	<25	<25	NA
WR-224A	8/2/96	380	380	<13	<13	<26	15	24	NA	15	<13	49	<13	<13	<13	300	<13*	<13*	NA	<25*	<13	<13	NA
WR-224A	4/24/96	720	720	<12	18	390	43	51	NA	130	<12	190	<12	<12	<12	280	<12*	<12*	NA	<25*	<12	<12	NA
WR-224A	2/29/96	570	570	15	<12	420	40	49	NA	110	<12	170	<12	<12	<12	270	<12*	<12*	NA	57	<12	<12	NA
WR-224A	12/12/95	400	400	33	<10	960	41	61	NA	180	<10	380	<10	<10	<10	330	<10*	<10*	NA	<10*	<10	<10	NA
WR-224A	9/13/95	290	290	30	33	740	49	77	NA	180	<10	450	<10	<10	<10	310	<10*	<10*	NA	<10*	<10	<10	NA
WR-224A	6/19/95	310	310	75	130	1200	41	93	NA	200	<125	630	<125	<125	<125	280	<125*	<125*	NA	<125*	<125*	<125	NA
WR-224A	3/17/95	490	490	270	140	1500	44	65	NA	150	<10	480	<10	<10	74	210	<20*	<10*	NA	<10*	<10	<20	NA
WR-224A	12/12/94	560	560	31	22	620	19	29	NA	48	<10	160	<10	<10	34	140	<20*	<10*	NA	<10*	<10	<20	NA
WR-224A	10/4/94	550	550	52	44	1000	15	25	NA	99	<5.0	250	<5.0	<5.0	38	110	NA	NA	NA	NA	NA	NA	NA
WR-224A	6/28/94	320	320	94	140	840	21	41	NA	120	<0.5	290	4.3	1.5	51	150	NA	NA	NA	NA	<0.5	NA	NA
WR-224A	3/30/94	440	440	96	480	1600	<25.0	42	NA	100	<25.0	300	<25.0	<25.0	62	120	<50.0*	<25.0*	NA	<100.0*	<50.0	<50.0	NA
WR-224A DUP	3/30/94	430	430	89	480	1700	<25.0	47	NA	110	<25.0	260	<25.0	<25.0	62	130	<50.0*	<25.0*	NA	<100.0*	<50.0	<50.0	NA
WR-224A	1/4/94	320	320	230	330	1100	12	30	NA	73	<0.5	180	1.2	2.6	27	93	NA	NA	NA	NA	<1.0	NA	NA
WR-224A DUP	1/4/94	290	290	210	290	990	11	32	NA	77	<0.5	160	1.3	0.6	28	97	NA	NA	NA	NA	<1.0	NA	NA
WR-224A	9/28/93	210	210	480	510	2000	24	83	NA	170	<1.0	360	4.5	2	97	83	<2.0*	<1.0	NA	<4.0	<2.0	<2.0	NA
WR-224A	8/19/93	110	110	97	320	1100	<10.0	23	NA	61	<10.0	210	<10.0	<10.0	41	39	NA	NA	NA	NA	<20	NA	NA
WR-225A	3/31/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-225A	3/24/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-225A	3/21/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-225A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-225A	3/27/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-225A	3/22/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-225A	3/24/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-225A	3/25/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-225A	3/26/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-225A	3/22/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-225A	3/28/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-225A	4/14/05	<0.5	0.3	8.3	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-225A	12/7/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	0.7 a	<0.5	<1.0	NA
WR-225A	9/27/94	<0.5	0.3	<0.5	<0.5	0.6	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	NA	NA
WR-225A	6/23/94	1.3	1.3	1.9	1	3.8	<0.5	<0.5	NA	<0.5	<0.5	1.2	<0.5	<0.5	<0.5	0.6	NA	NA	NA	NA	<1.0	NA	NA
WR-225A	3/24/94	0.8	0.8	1.3	0.5	1.7	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-225A DUP	3/24/94	0.8	0.8	1.4	<0.5	1.6	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-225A	2/25/94	<0.5	0.3	0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-225A DUP	2/25/94	<0.5	0.3	0.6	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-225A	1/27/94	8.3	8.3	7.3	2.8	7.4	<0.5	<0.5	NA	0.5	<0.5	1.4	<0.5	<0.5	<0.5	0.8	NA	NA	NA	NA	<1.0	NA	NA
WR-225A	12/27/93	0.9	0.9	2	0.7	4.4	<0.5	<0.5	NA	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	0.6	NA	NA	NA	NA	<1.0	NA	NA
WR-225A DUP	12/27/93	0.6	0.6	2.1	0.8	4.7	<0.5	<0.5	NA	<0.5	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-225A	12/1/93	5.5	5.5	4.8	1.1	5.5	<0.5	<0.5	NA	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	0.7	NA	NA	NA	NA	<1.0	NA	NA
WR-225A DUP	12/1/93	4.7	4.7	4.1	0.9	4.9	<0.5	<0.5	NA	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-225A	10/27/93	1.7	1.7	2.6	1	4.3	<0.5	<0.5	NA	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-225A DUP	10/27/93	2.4	2.4	3.6	1.4	6	<0.5	<0.5	NA	<0.5	<0.5	1	<0.5	<0.5	<0.5	0.6	NA	NA	NA	NA	<1.0	NA	NA
WR-225A	9/29/93	2.8	2.8	12	5.9	28	<0.5	0.5	NA	1.4	<0.5	3.5	<0.5	<0.5	<0.5	1	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-225A	8/18/93	<0.5	0.3	<0.5	<0.5	1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-227A	3/30/16	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	21.3
WR-227A	3/25/15	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	38.3
WR-227A	3/24/14	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	38.5
WR-227A	9/12/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	NA
WR-227A	3/21/13	<1	0.5	<1	<1	<2	<1	<1	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<2	<1	<1	41
WR-227A	3/27/12	<0.50	0.3	<2.0	<2.0	<1	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	37.6
WR-227A	3/22/11	<0.50	0.3	<3.0	<2.0	<1	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	69.2



APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
WR-227A	4/15/10	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	140
WR-227A	4/16/09	<0.50	0.3	<2.0	4	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130
WR-227A	4/3/07	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	NA	<1.5	NA	<2.0	NA	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	140
WR-227A	5/2/05	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	110
WR-227A DUP	5/2/05	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	120
WR-227A	3/25/04	1.8	1.8	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	110
WR-227A DUP	3/25/04	1.7	1.7	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	98
WR-227A	4/10/03	<0.5	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	82
WR-227A	3/20/02	0.58	0.58	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-228A	3/23/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-228A	3/23/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-228A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-228A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-228A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-228A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-228A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-228A	3/17/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-228A	4/14/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-228A	3/18/08	<0.5	0.3	<3	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-228A	3/20/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-228A	4/14/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-228A	3/26/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-229A	3/23/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-229A	3/26/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-229A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-229A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-229A	3/28/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-229A	4/2/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-229A	3/28/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-229A	3/17/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-229A	4/13/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-229A	3/25/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-229A	3/21/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-229A	4/14/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-229A	3/26/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-230A	3/31/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-230A	3/24/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-230A	3/21/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-230A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-230A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-230A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-230A	3/22/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-230A	3/29/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-230A	4/8/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-231A	3/25/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-231A	3/25/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-231A	3/24/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-231A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-231A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-231A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-231A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-231A	3/23/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-231A DUP	3/23/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-231A	3/24/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
WR-231A	3/26/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-231A	3/22/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-231A	5/12/05	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-232A	3/31/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-232A	3/31/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-232A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-232A	3/25/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-232A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-232A	3/22/12	<0.50	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-232A	3/28/11	<0.50	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-232A	3/25/10	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-232A	3/26/09	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-232A	4/1/08	<0.5	0.3	<0.5	<0.5	<1.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<2	<0.5	<0.5	<2
WR-232A	3/15/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-232A	5/13/05	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-232A DUP	5/13/05	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-233A	3/30/16	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-233A	3/25/15	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-233A	3/24/14	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-233A	9/12/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-233A	3/28/13	<1	0.5	<1	<1	<2	<1	<1	<2	<1	<1	<2	<1	<1	<1	<5	<1	<1	<1	<2	<1	<1	<1
WR-233A	3/27/12	<0.5	0.3	<2.0	<2	<1	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-233A	3/22/11	<0.5	0.3	<2.0	<2	<1	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-233A	3/16/10	<0.5	0.3	<2.0	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-233A	4/15/09	<0.5	0.3	<2.0	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-233A DUP	4/15/09	<0.5	0.3	<2.0	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-233A	3/19/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-233A	3/22/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-233A	4/13/05	<0.5	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	NA	<2.0
WR-233A	3/25/04	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2.0
WR-233A	4/8/03	<0.5	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-233A	3/20/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-233A DUP	3/20/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-235A	3/25/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-235A	3/25/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-235A	3/25/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-235A	3/24/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-235A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-235A	3/29/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-235A	3/29/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-235A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-235A	3/25/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-235A	3/27/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-235A	3/26/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-295A INJ-1S	7/21/99	2700	2700	<10	81	1200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-295A INJ-1S	4/14/99	1219	1219	54.8	<0.5	645	27	15.4	NA	273	N 0.5	200	13.6	7.6	46.9	42.2	1.2	N 0.5	NA	N 0.5	N 0.5	5.5	NA
WR-295A INJ-1S	4/8/99	2188	2188	149	<0.5	1070	36.5	33.8	NA	263	N 0.5	523	17.8	9.6	65.8	173	2	N 0.5	NA	N 0.5	N 0.5	3.1	NA
WR-295A INJ-1S	1/27/99	1600	1600	77	<2	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40	NA	<10*	<2	<2	NA
WR-295A INJ-1S	10/14/98	890	890	110	<50	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-295A INJ-1S	1/29/98	1600	1600	600	890	1080	<125	<125	NA	150	<125	550	<125	<125	<125	<125	<125*	280	NA	<125*	<125*	<125	NA
WR-295A INJ-1S	4/26/96	11000	11000	4400	1700	3300	<250	<250	NA	<250	<250	670	<250	<250	<250	460	<250*	<250*	NA	<250*	<250*	NA	NA
WR-296A	3/24/16	<100	50	<100	<100	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3050
WR-296A	3/24/15	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4350



APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
WR-296A	3/20/14	<50	25	<50	<50	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3810
WR-296A	3/27/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3000
WR-296A INJ-2S	7/21/99	1300	1300	<10	75	1400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-296A INJ-2S	5/24/99	1100	1100	240	<0.5	2090	64	100	NA	520	N 20	1500	23	N 20	N 20	260	N 20*	N 20*	NA	N 50*	N 20	N 20	NA
WR-296A INJ-2S	4/14/99	317	317	39.8	<0.5	1375	90	136	NA	579	N 0.5	1087	52	16.2	134	198	0.6	N 0.5	NA	N 0.5	N 0.5	N 0.5	NA
WR-296A INJ-2S	1/26/99	1900	1900	100	3.9	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	96	NA	<10*	<2	<2	NA
WR-296A INJ-2S	10/14/98	740	740	580	<50	3700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-296A INJ-2S	1/29/98	5400	5400	2500	1100	2860	<250	<250	NA	270	<250	810	<250	<250	<250	<250	<250*	<250*	NA	<250*	<250*	<250	NA
WR-296A INJ-2S	4/26/96	14000	14000	6400	2000	3000	<250	<250	NA	300	<250	940	<250	<250	<250	600	<250*	<250*	NA	<250*	<250*	NA	NA
WR-297A	3/29/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7860
WR-297A INJ-3	7/19/99	170	170	<2	14	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-297A INJ-3	4/14/99	2.2	2.2	<0.5	<0.5	4.4	<0.5	<0.5	NA	7.2	N 0.5	2	<0.5	<0.5	4.2	5	<0.5*	35.6	NA	N 0.5	N 0.5	N 0.5	NA
WR-297A INJ-3	1/27/99	33	33	<2	<2	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17	NA	<10*	<2	<2	NA
WR-297A INJ-3	10/14/98	97	97	26	<5	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-297A INJ-3	1/29/98	340	340	1000	500	2950	<125	200	NA	510	<125	1900	<125	<125	<125	480	<125*	<125*	NA	180	<125*	<125	NA
WR-297A INJ-3	7/31/97	3600	3600	2200	430	2300	<0.5	<0.5	NA	450	<0.5	640	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-297A INJ-3	5/2/97	4200	4200	5600	810	5300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	230	NA	NA
WR-297A INJ-3	1/17/97	4400	4400	3900	520	3100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-297A INJ-3	10/30/96	4400	4400	3700	350	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-297A INJ-3	8/2/96	6700	6700	6800	460	4100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-297A INJ-3	4/26/96	6000	6000	1600	2600	13000	480	640	NA	1100	<120	2900	<120	<120	<120	3100	<120*	<120*	NA	<120*	<120*	NA	NA
WR-298A	3/24/16	<50	25	<50	<50	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4420
WR-298A	3/24/15	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4900
WR-298A	3/20/14	<50	25	<50	<50	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4590
WR-298A	3/21/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7100
WR-298A INJ-4	7/20/99	420	420	7.6	10	57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-298A INJ-4	5/24/99	790	790	15	N 5	<105	N 20	N 20	NA	22	N 20	73	N 20	N 20	N 20	76	N 20*	N 20*	NA	N 50*	N 20	N 20	NA
WR-298A INJ-4 DUP	5/24/99	800	800	15	N 5	<105	N 20	N 20	NA	22	N 20	72	N 20	N 20	N 20	71	N 20*	N 20*	NA	51	N 20	N 20	NA
WR-298A INJ-4	1/27/99	370	370	9.4	<2	94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	<10*	<2	<2	NA
WR-298A INJ-4	10/14/98	140	140	18	<2.5	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-298A INJ-4	1/29/98	2400	2400	<125	<125	640	<125	<125	NA	<125	<125	130	<125	<125	<125	<125	<125*	<125*	NA	300	<125*	<125	NA
WR-298A INJ-4	10/22/97	11000	11000	5700	320	4300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<50	NA	NA
WR-298A INJ-4	7/31/97	20000	20000	19000	1400	5700	<0.5	<0.5	NA	920	<0.5	1200	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-298A INJ-4	5/2/97	18000	18000	16000	790	4900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA
WR-298A INJ-4	1/17/97	15000	15000	15000	1200	6500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-298A INJ-4	10/30/96	13000	13000	15000	1300	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-298A INJ-4	8/2/96	5700	5700	6000	530	2700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-298A INJ-4	4/26/96	6500	6500	4100	16200	13000	270	600	NA	1000	<120	2700	<120	<120	<120	1900	<120*	<120*	NA	<120*	<120*	NA	NA
R-012A	3/30/16	<100	50	<100	<100	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1980
R-012A	3/19/15	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5890
R-012A	3/26/14	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7390
R-012A	3/26/14	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7090
R-012A	4/23/13	<2	1	<2	<2	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8600
R-012A	3/21/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11800
R-012A	3/21/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12200
R-012A	3/21/11	<25	12.5	<100	<100	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14700
R-012A	4/14/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12000
R-012A	4/1/08	<100	50	<100	<100	<300	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<100	<100	<400	<100	<100	14000
R-012A	3/27/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17000
R-012A	4/4/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-012A	12/28/04	<0.5	0.25	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7500
R-012A	5/18/04	<50	25	<300	<200	<300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19000
R-012A	4/18/01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-012A	7/20/99	120	120	8.5	26	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-012A	1/27/99	49	49	53	<2	49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
R-012A	10/14/98	93	93	22	<2.5	86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-012A	1/29/98	680	680	190	290	360	<63	<63	NA	<63	<63	90	<63	<63	<63	<63	<63*	<63*	NA	<63*	<63	<63	NA
<i>R-012A was not sampled 2009 due to free product.</i>																							
R-013A	3/29/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.1
R-013A	3/29/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	84.6
R-013A	3/20/15	2.4	2.4	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	217
R-013A	3/20/15	2.3	2.3	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	202
R-013A	3/26/14	3.4	3.4	<1	<1	8.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	132
R-013A	4/23/13	25	25	<20	20	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1400
R-013A	4/23/13	28	28	<20	23	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1500
R-013A	3/21/11	249	249	<20	40.5	159	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2650
R-013A	4/13/10	420	420	120	60	2600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5800
R-013A	4/8/09	450	450	3	43	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4700
R-013A	4/5/07	1500	1500	25	320	3400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4900
R-013A	4/11/06	240	240	<3.0	<2.0	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	900
R-013A - 0858	5/4/05	980	**	<3.0	24	510	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2600
R-013A - 1306	5/4/05	280	280	<30	62	210	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300
R-013A DUP	5/4/05	850	**	<30	22	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300
R-013A DUP	5/4/05	280	280	<30	90	920	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2400
R-013A	7/20/99	640	640	160	1200	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-013A	1/27/99	390	390	110	8	290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16	NA	<10*	<2	<2	NA
R-013A	10/14/98	570	570	30	<0.5	570	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-013A	1/29/98	2500	2500	2800	520	1920	<200	<200	NA	<200	<200	680	<200	<200	<200	<200	<200*	<200*	NA	<200*	<200*	<200	NA
<i>R-013A was not sampled in 2008 and 2012 due to free product.</i>																							
R-016A	3/20/16	<25	12.5	<25	<25	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130
R-016A	3/19/15	<2.5	1.25	<2.5	<2.5	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	799
R-016A	3/24/14	<25	12.5	<25	<25	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1610
R-016A	3/26/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2600
R-016A	3/22/12	<0.5	0.25	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5770
R-016A	3/21/11	<25	12.5	<100	<100	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7830
R-016A	4/12/10	2.5	2.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8100
R-016A	4/8/09	1.2	1.2	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11000
R-016A	4/10/08	9.6	9.6	17	29	140	<2.5	5	<5	12	<2.5	42	<1.5	<2.5	<2.5	12	<0.5	<1.5	<0.5	<3	<1.5	<0.5	8600
R-016A	4/5/07	2	2	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8300
R-016A	4/5/06	18	18	<30	<20	<30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9500
R-016A	5/4/05	350	350	<150	<100	<150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8000
R-016A	12/28/04	270	270	160	88	2400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12000
R-016A	3/31/04	1100	1100	5.5	<2.0	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13000
R-016A	4/15/03	1400	1400	<20	<20	<30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-016A	3/21/02	700	700	<2.0	3.4	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-016A	4/17/01	730	730	2.8	<2.0	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-016A	7/20/99	91	91	8.8	9.2	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-016A	1/26/99	100	100	11	<2	57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
R-016A	10/13/98	140	140	21	<10	89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-016A	1/29/98	260	260	560	230	760	<50	54	NA	88	<50	300	<50	<50	<50	<50	<50*	<50*	NA	<50*	<50	<50	NA
R-017A	3/29/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.8
R-017A	3/20/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	53.7
R-017A	3/26/14	<5	2.5	<5	<5	386	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	153
R-017A	3/21/11	324	324	53.5	250	4750	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8330
R-017A	4/14/10	290	290	260	260	4500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6200
R-017A	7/20/99	450	450	34	110	310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-017A	1/27/99	140	140	180	16	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
R-017A	10/13/98	760	760	98	14	470	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-017A	1/29/98	980	980	320	95	227	<63	<63	NA	<63	<63	66	<63	<63	<63	<63	<63*	<63*	NA	<63*	<63	<63	NA
<i>R-017A was not sampled between years 1999 - 2010, and after 2011 due to free product.</i>																							

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
R-018A	3/29/16	<50	25	<50	<50	702	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	190
R-018A	3/20/15	139	139	30.5	475	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8320
R-018A	3/27/14	438	438	1190	935	11700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11800
R-018A	4/24/13	1700	1700	2600	1600	14000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13000
R-018A	3/28/11	2330	2330	1320	1790	12800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9550
R-018A	4/11/06	1,000	1000	2300	630	6800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5000
R-018A	5/3/05	2400	2400	4800	1200	13000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6000
R-018A	7/20/99	480	480	32	810	7300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-018A	1/28/99	900	900	2100	<200	8700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<200*	NA	<1,000*	<200*	<200	NA
R-018A	10/15/98	3500	3500	7800	1600	13000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>R-018A was not sampled between years 1999 - 2005 and between 2006 - 2011, and after 2011 due to free product.</i>																							
R-019A	3/31/16	<50	25	<50	<50	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<50
R-019A	3/20/15	18.5	18.5	3.5	293	93.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1030
R-019A	3/26/14	122	122	77.2	603	2070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	777
R-019A	1/28/99	2100	2100	11000	9000	9300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1,000*	NA	<5,000*	<4,000*	<4000	NA
R-019A	10/13/98	4700	4700	22000	6700	32000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>R-019A was not sampled between years 1999 -2014 due to free product.</i>																							
R-020A	3/29/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-020A	3/20/15	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2490
R-020A	3/26/14	33.4	33.4	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6140
R-020A	9/12/13	82.3	82.3	<100	<100	<200	<100	<200	<200	<200	<200	<200	<200	<200	<200	<500	<100	<50	<50	<500	<50	<100	7270
R-020A	9/11/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
R-020A	3/26/13	72	72	<4	18	<6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7000
R-020A	3/21/12	1940	1940	<100	529	736	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10000
R-020A	3/21/11	644	644	<40	163	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6500
R-020A	4/8/10	740	740	59	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6700
R-020A	4/9/09	1400	1400	48	110	410	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7600
R-020A - 1008	5/4/05	7.1	**	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77
R-020A - 1327	5/4/05	45	45	6.2	<2.0	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1100
R-020A	12/28/04	370	370	<30	<20	<30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2200
R-020A	3/29/04	1000	1000	37	7.2	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.8	NA	NA	NA	NA	NA	12000
R-020A	4/14/03	4300	4300	28	<10	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.7	NA	NA	NA	NA	NA	10000
R-020A	3/20/02	4300	4300	460	33	1400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5800	NA	NA	NA	NA	NA	8000
R-020A	4/17/01	3400	3400	100	<20	980	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-020A	2/23/00	2800	2800	490	23	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20	NA	NA	NA	NA	NA	11000
R-020A	7/20/99	1600	1600	46	810	1500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-020A	1/26/99	370	370	280	9.3	870	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.7	NA	<10*	<2	<2	NA
R-020A	10/14/98	440	440	500	38	1300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-020A	1/29/98	3800	3800	6400	1000	3900	<625	<625	NA	<625	<625	700	<625	<625	<625	<625	<625*	<625*	NA	<625*	<625*	<625	NA
<i>R-020A was not sampled between years 2005 - 2009 due to free product.</i>																							
R-021A	3/30/16	<50	25	<50	<50	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	697
R-021A	3/30/16	<50	25	<50	<50	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	773
R-021A	3/19/15	<5	2.5	<5	<5	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2230
R-021A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3460
R-021A	3/26/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1400
R-021A	12/17/12	3.6	3.6	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7400
R-021A	3/22/12	<50	25	<200	<200	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10200
R-021A	12/6/11	<50	25	<200	<200	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5400
R-021A	9/14/11	<2.5	1.3	<10	<10	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1420
R-021A DUP	9/14/11	<2.5	1.3	<10	<10	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2330
R-021A	3/29/11	28.9	28.9	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7670
R-021A	4/6/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	430
R-021A DUP	4/6/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	410
R-021A	4/6/09	0.5	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	410

**APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)**

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2-Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
R-021A DUP	4/6/09	0.5	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	410
R-021A	4/7/08	0.77	0.77	<0.5	4.3	4.4	1.3	3.7	<1	2.2	<1	5	<1	1.3	<1	1.2	<1	<0.5	<0.5	<2	<0.5	<0.5	290
R-021A	4/3/07	0.69	0.69	<3.0	25	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	500
R-021A DUP	4/3/07	0.64	0.64	<3.0	26	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	500
R-021A	8/18/06	0.71	0.71	<3.0	30	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	460
R-021A	5/3/05	86	86	320	570	2200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3600
R-021A DUP	5/3/05	86	86	310	600	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3600
R-021A	12/28/04	330	330	49	480	880	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10000
R-021A	5/17/04	460	460	3700	750	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2700
R-021A	7/19/99	1000	1000	<20	100	540	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-021A	1/27/99	1100	1100	<100	<100	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<100*	NA	<500*	<100*	<100	NA
R-021A	10/15/98	2100	2100	3800	190	6100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-021A	1/29/98	510	510	650	98	810	<63	<63	NA	110	<63	460	<63	<63	<63	<63	<63*	<63*	NA	<63*	<63	<63	NA
R-022A	3/31/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-022A	3/19/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-022A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-022A	3/26/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-022A	3/21/12	<0.50	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	3/29/11	<0.50	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	3/29/10	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	3/30/09	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	3/14/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A DUP	3/14/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	3/21/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	4/11/05	<0.5	0.3	5.9	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	3/22/04	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A DUP	3/22/04	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	<2.0
R-022A	4/14/03	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	<2.0
R-022A	3/20/02	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	NA	NA	NA	NA	NA	<2.0
R-022A	4/17/01	27	27	5.5	<0.10	43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-022A	2/23/00	<0.5	0.3	<0.5	<0.5	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.01	NA	NA	NA	NA	NA	<5.0
R-022A	7/20/99	5	5	5.1	5.1	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-022A	1/26/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
R-022A	10/13/98	0.89	0.89	<1.0	<1.0	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-022A	1/29/98	1.9	1.9	1.1	<0.5	2.7	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
R-027A	3/21/16	1520	1520	3300	1030	6310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2020
R-028A	3/21/16	<25	12.5	<25	442	3990	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<25
R-028A	3/25/08	8.5	8.5	93	37	140	<2.5	5.3	<5	13	<2.5	39	<1.5	<2.5	<2.5	12	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
R-028A	3/20/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.0
R-028A DUP	3/20/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.0
R-028A	3/22/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-028A DUP	3/22/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-028A	4/12/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-028A	3/22/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-028A	4/7/03	<2.5	1.5	<15	<10	<15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	<10
R-028A	3/13/02	<1.0	0.5	<2.0	13	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-028A	4/19/01	3.3	3.3	<2.0	57	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-028A FS-2	7/20/99	8.8	8.8	52	<2	7.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-028A FS-2	1/28/99	150	150	5	110	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.8	NA	<10*	<2	<2	NA
R-029A	3/21/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-029A	3/21/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
R-029A	3/18/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-029A	3/18/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-029A	3/19/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-029A	3/19/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-029A	3/27/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-029A	3/29/12	<0.5	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-029A	5/4/11	<0.5	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-029A	3/25/10	<0.5	0.3	<2.0	4.9	8.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-029A	3/26/09	<0.5	0.3	<2.0	9.4	9.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-029A	4/1/08	<0.5	0.3	<0.5	16	18	4.3	8.1	<1	13	<1	25	1.3	4.3	<1	2.4	<1	<0.5	<0.5	<2	<0.5	<0.5	<2
R-029A (DUP)	4/1/08	<0.5	0.3	<0.5	16	18	4.2	8.2	<1	13	<1	25	1.3	4.2	<1	2.5	<1	<0.5	<0.5	<2	<0.5	<0.5	<2
R-029A	3/27/07	0.73	0.73	<3.0	35	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-029A	4/6/06	8.1	8.1	8.6	34	1200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
<i>R-029A was not sampled prior to 2006 and in 2011 due to free product.</i>																							
R-030A	3/21/16	883	883	3790	2040	18900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	261
R-030A	3/24/15	813	813	3240	587	6230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	124
<i>R-030A was not sampled prior to 2015 due to free product.</i>																							
R-031A	3/21/16	847	847	2510	931	8220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7730
R-031A	3/24/15	1290	1290	3060	928	4380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4650
<i>R-031A was not sampled prior to 2015 due to free product.</i>																							
R-032A	3/24/15	6.1	6.1	<2.5	10.3	1770	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1100
<i>R-032A was not sampled prior to 2015 due to free product.</i>																							
R-033A	3/18/16	<20	10	<20	25.8	86.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11400
R-033A	3/18/15	<100	50	<100	<100	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11600
R-033A	3/19/14	<100	50	<100	110	2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7140
R-033A	4/9/09	1100	1100	940	510	11000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7600
R-033A DUP	4/9/09	1100	1100	960	500	11000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7900
R-033A	3/13/02	9100	9100	990	910	690	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	300	NA	NA	NA	NA	NA	6600
R-033A	4/18/01	21000	21000	7000	2300	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-033A	2/23/00	18000	18000	11000	2900	7300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27	NA	NA	NA	NA	NA	3700
R-033A FS-7	7/21/99	18000	18000	2500	14000	8200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-033A FS-7	1/27/99	15000	15000	9300	1300	3400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<200*	NA	<1,000*	<200*	<200	NA
R-033A FS-7	8/19/98	16000	16000	5600	2000	3300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>R-033A was not sampled between years 2002 - 2009 and 2010 - 2014 due to free product.</i>																							
R-034A	3/22/16	<1	0.5	<1	2.1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	438
R-034A	3/18/15	<4	2	<4	<4	<8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	794
R-034A	3/19/14	200	200	1400	1230	3540	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	865
R-034A FS-8	1/28/99	6300	6300	8600	2000	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130	NA	<200*	<40	<40	NA
R-034A FS-8	8/19/98	5800	5800	6100	1500	4600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>R-034A was not sampled between years 1999 to present day due to free product.</i>																							
R-035A	3/18/16	<20	10	<20	106	<40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10200
R-035A	4/9/09	1700	1700	660	600	3800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20000
R-035A	5/9/05	3500	3500	4600	1300	5300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21000
R-035A DUP	5/9/05	4700	4700	10000	1900	9900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19000
R-035A	4/8/03	5700	5700	7300	2000	5700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-035A	3/14/02	2800	2800	520	1100	650	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-035A	4/19/01	6000	6000	1900	1800	1500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-035A FS-9	7/21/99	11000	11000	2100	3100	2400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-035A FS-9	1/28/99	15000	15000	6700	2100	4900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<100*	NA	<500*	<100*	<100	NA
R-035A FS-9	8/19/98	13000	13000	7500	1500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>R-035A was not sampled between years 2005 - 2009 and after 2010 due to free product.</i>																							

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	p-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
R-036A	3/22/16	<1	0.5	<1	<1	2.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	230
R-036A	3/18/15	<1	0.5	<1	2.6	3.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420
R-036A	3/19/14	<10	5	<10	15.3	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	667
R-036A	4/24/13	<20	10	<20	51	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	870
R-036A FS-10	1/28/99	4900	4900	1600	780	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130	NA	<50*	<10	<10	NA
R-036A FS-10	8/19/98	3000	3000	1200	810	1600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>R-036A was not sampled between 1999 and 2013 due to free product.</i>																							
R-037A	3/23/16	<500	250	<500	<500	<1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19200
R-037A	3/31/15	<50	25	<50	133	176	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19400
R-037A	3/29/11	70.2	70.2	55.9	35.4	8870	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4720
R-037A	4/8/03	4900	4900	4100	1000	2700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-037A	3/14/02	2600	2600	430	600	510	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-037A	4/19/01	7600	7600	1000	1000	710	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>R-037A was not sampled between 2003 - 2011 and between 2011 - 2015 due to free product.</i>																							
R-044A	3/23/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-044A	3/26/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-044A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-044A	3/28/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-044A	3/28/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-044A	3/28/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-044A	3/29/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-044A	3/25/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-044A	3/31/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-044A	3/24/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
R-044A	3/20/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
R-044A	3/22/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-044A	4/12/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-044A DUP	4/12/05	<0.5	0.3	3.1	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-044A	3/22/04	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-044A	4/7/03	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-044A	3/13/02	2.5	2.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	NA	NA	NA	NA	NA	<2.0
R-044A	4/18/01	1.2	1.2	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-044A	2/23/00	<0.5	0.3	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.01	NA	NA	NA	NA	NA	<5.0
R-044A FS-11	7/19/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-044A FS-11	2/18/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-045A	3/23/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.4
R-045A	3/26/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-045A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.8
R-045A	3/28/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-045A	3/28/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.11
R-045A	5/4/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.87
R-045A	4/5/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9
R-045A	4/1/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14
R-045A	4/3/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	16
R-045A	3/19/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11
R-045A	3/30/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21
R-045A DUP	3/30/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21
R-045A	4/12/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16
R-045A	3/24/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14
R-045A DUP	3/24/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	14
R-045A	4/7/03	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	7.7
R-045A	3/13/02	2.3	2.3	2.7	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	NA	NA	NA	NA	NA	3.3
R-045A	4/18/01	3.8	3.8	<2.0	2.2	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-045A	2/23/00	8.1	8.1	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.02	NA	NA	NA	NA	NA	33
R-045A FS-12	7/19/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloroethane	Methyl-Tert-Butyl-Ether (MTBE)
R-045A FS-12	2/19/99	3	3	<2	34	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-046A	3/24/16	<1	0.5	<1	<1	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.3
R-046A	3/24/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.5
R-046A	3/27/14	6.6	6.6	<1	2.8	84.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	71
R-046A	3/25/13	16	16	<20	<20	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	86
R-046A	4/4/06	21	22	6.9	5.5	9.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	55
R-046A DUP	4/4/06	23	24	7.4	5.7	9.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	55
R-046A	5/3/05	36	36	3.8	12	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	60
R-046A	3/29/04	130	130	74	32	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	190
R-046A DUP	3/29/04	130	130	110	31	75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	71
R-046A	2/26/04	22	22	3.8	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	55
R-046A DUP	2/26/04	19	19	3.5	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	56
R-046A	2/26/04	24	24	7.5	2.4	4.9	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	47
R-046A	4/10/03	100	100	3.4	6	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	66
R-046A	3/14/02	120	120	<20	23	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	NA	NA	NA	NA	NA	68
R-046D	3/14/02	120	120	<20	23	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	NA	NA	NA	NA	NA	69
R-046A	4/18/01	1100	1100	44	120	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-046A	2/23/00	320	320	49	71	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.13	NA	NA	NA	NA	NA	99
R-046A FS-13	7/20/99	370	370	70	110	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-PSC BD R-046A	7/20/99	390	390	72	79	49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-046A FS-13	2/18/99	570	570	45	480	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>R-046A was not sampled between 2006 - 2013 due to free product.</i>																							
R-047A	3/23/16	3.5	3.5	<1	30.4	222	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6310
R-047A	4/19/01	10000	10000	5200	2700	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>R-047A was sampled only in 2006 due to free product being present other times.</i>																							
R-048A	3/21/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-048A	3/18/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2
R-048A	3/21/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.5
R-048A	3/28/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-048A	3/29/12	0.56	0.56	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.14
R-048A	5/4/11	0.78	0.78	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.81
R-048A	3/31/10	2.3	2.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.9
R-048A	4/1/09	4.4	4.4	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11
R-048A	4/3/08	16	16	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	14
R-048A	3/29/07	190	190	7.7	<2.0	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24
R-048A	4/6/06	130	130	11	<2.0	190	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	33
R-048A DUP	4/6/06	130	130	12	<2.0	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	33
R-048A	5/2/05	280	280	16	5.7	340	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49
R-048A	4/8/03	88	88	9.5	17	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	260
R-048A	2/23/00	180	180	260	100	320	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.13	NA	NA	NA	NA	NA	94
R-048A FS-15	7/21/99	17000	17000	700	1200	900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-048A FS-15	1/28/99	21000	21000	4700	1500	2700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	360	NA	<10*	<50	<10	NA
R-048A FS-15	8/19/98	19000	19000	2700	1900	1900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-049A	3/21/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-049A	3/18/15	<1	0.5	1.5	<1	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-049A	3/20/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-049A	3/27/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-049A	3/29/12	1.36	1.36	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-049A	3/29/11	11.5	11.5	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-049A	3/31/10	120	120	<2	2	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-049A	3/30/09	660	660	<2	11	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-049A	4/1/08	640	640	<5	28	90	<10	<10	<10	15	<10	35	<10	<10	<10	<10	<10	<5	<5	<20	<5	<5	<20
R-049A	3/28/07	760	760	24	23	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10
R-049A	4/11/06	560	560	580	160	7700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<100

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
R-049A DUP	4/11/06	590	590	500	140	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10
R-049A	5/9/05	990	990	210	120	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20
	<i>R-049A was not sampled prior to 2005 due to free product.</i>																						
R-050A	3/22/16	2.9	2.9	1.8	73.2	294	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.6
R-050A	3/22/16	2.4	2.4	1.6	61	312	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.6
R-050A	3/18/15	14.3	14.3	7.7	509	963	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	28.5
R-050A	3/19/14	24	24	13.7	526	1420	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	28.2
	<i>R-050A was not sampled prior to 2014 due to free product.</i>																						
R-051A	3/22/16	15.6	15.6	3.6	58.7	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
	<i>R-051A was not sampled prior to 2016 due to free product.</i>																						
R-098A	3/22/16	<10	5	<10	14.6	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	978
	<i>R-098A was not sampled prior to 2016 due to free product.</i>																						
R-099A	3/21/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-099A	3/18/15	<1	0.5	<1	8.9	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-099A	3/20/14	<5	2.5	<5	17.2	36.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-099A	3/20/14	<5	2.5	<5	14.5	28.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-099A	3/27/13	2.7	2.7	<2.8	21	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.2
	<i>R-099A was not sampled prior to 2013 due to free product.</i>																						
PCM-506A	3/31/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
PCM-506A	3/24/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
PCM-506A	3/21/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
PCM-506A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
PCM-506A	3/28/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
PCM-506A	3/22/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
PCM-506A	3/22/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
PCM-506A	3/24/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
PCM-506A	3/26/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
PCM-506A	3/27/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.50	<1.5	<0.5	<3	<1.5	<0.5	<2
PCM-506A	3/26/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
PCM-506A	8/18/06	<0.50	0.3	<3.0	<20	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
PCM-508A	3/18/16	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,540
PCM-508A	3/19/15	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,930
PCM-508A	3/19/14	<100	50	<100	<100	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,840
PCM-508A	3/25/13	2.5	2.5	<2	130	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,300
PCM-508A	3/28/12	1.55	1.55	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,630
PCM-508A	3/29/11	194	194	<20	152	782	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,670
PCM-508A	4/8/10	420	420	11	670	3000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,700
PCM-508A	4/7/09	710	710	120	340	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,500
PCM-508A	4/9/08	660	660	310	500	3000	25	58	<5	140	<5	510	<5	25	5.2	210	<5	<2.5	<2.5	<10	<2.5	<2.5	6,400
PCM-508A	4/5/07	2100	2100	1300	650	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,400
PCM-508A	8/15/06	1,100	1,100	1,300	350	2,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,800
PCM-508B	3/18/16	<10	5	<10	34.7	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,620
PCM-508B	3/19/15	<10	5	<10	51	22.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,870
PCM-508B	3/19/14	<100	50	<100	<100	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,060
PCM-508B	3/25/13	10	10	<20	130	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,500
PCM-508B	3/28/12	71	71	<20	91.7	439	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,660
PCM-508B	3/28/12	76	76	<20	90.4	478	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,520
PCM-509A	3/29/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
PCM-509A	3/20/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
PCM-509A	3/26/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethylbenzene	Total Xylenes	Isopropylbenzene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	P-Isopropyltoluene	N-Butylbenzene	Naphthalene	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	trans 1,2-dichloroethene	Methylene chloride	1,4-Dichlorobenzene	Bromochloromethane	Methyl-Tert-Butyl-Ether (MTBE)
PCM-509A	3/26/13	<1	0.5	<2.0	<2.0	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
PCM-509A	3/21/12	<0.50	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
PCM-509A	3/28/11	<0.50	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
PCM-509A	4/7/10	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	730
PCM-509A	4/2/09	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	520
PCM-509A	4/2/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	290
PCM-509B	3/29/16	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10
PCM-509B	3/20/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	777
PCM-509B	3/26/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	700
PCM-509B	3/26/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,000
PCM-509B	3/21/12	5.6	5.6	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,280
PCM-510A	3/29/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0
PCM-510A	3/31/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0
PCM-510A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.6
PCM-510A	3/26/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	220
PCM-510A	3/21/12	1.6	1.6	7.56	2.84	29.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	695
PCM-510A	3/21/11	<2.5	1.25	<10	<10	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	997
PCM-510A	4/12/10	<5	2.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,400
PCM-510A DUP	4/12/10	<5	2.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,300
PCM-510A	4/7/09	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,000
PCM-510A	4/9/08	13	13	23	16	85	<1	1.8	<1	9.5	<1	19	<1	<1	<1	6.8	<1	<0.5	<0.5	<2	<0.5	<0.5	2500
PCM-510A	4/4/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,100
PCM-510B	3/29/16	<4	2	<4	<4	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	875.0
PCM-510B	3/31/15	28.8	28.8	<25	135.0	374	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,940.0
PCM-510B	3/27/14	25.3	25.3	<25	85.7	159	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,340.0
		<i>PCM-510B was not sampled prior to 2014 due to free product.</i>																					
PCM-511A	3/22/16	1.3	1.3	1.5	8.1	41.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	374
PCM-511A	3/29/11	1,180	1180	909	832	4,410	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,470
		<i>PCM-511A was not sampled prior to 2011 and between 2001-2016 due to free product.</i>																					
PCM-512A	3/29/16	<25	12.5	<25	36.6	106	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,260
PCM-512A	3/25/15	276	276	<20	1050	1,430	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9,980
PCM-512A	3/27/14	363	363	<200	1850	8,450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11,000
PCM-512A	3/27/12	1,150	1150	457	734	2,220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13,700
PCM-512A	3/21/11	865	865	<40	382	193	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11,900
PCM-512A DUP	3/21/11	903	903	<40	403	210	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12,000
PCM-512A	4/15/10	470	470	<50	250	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14,000
PCM-512A	4/8/09	1,200	1200	150	510	3,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16,000
PCM-512A	4/10/08	580	580	83	280	3700	29	58	<50	290	<25	1500	<15	29	<25	270	<5	<15	<5	<30	<15	<5	16000
PCM-512A	8/19/06	1,300	1,300	1,200	390	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14,000
		<i>PCM-512A was not sampled in 2008 and 2013 due to free product.</i>																					
PCM-517A	3/23/16	6,760	6,760	<100	266	449	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	182
PCM-517A	3/25/15	5,950	5,950	14.2	208	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	247
PCM-517A	3/25/15	4,980	4,980	12.8	230	55.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	247
PCM-517A	3/21/14	7,110	7,110	<100	237	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	362
PCM-517A	3/25/13	11,000	11,000	22	520	<30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	430
PCM-517A	3/29/12	10,500	10,500	<200	276	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	489
PCM-517A	3/29/11	13,300	13,300	<100	538	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	563
PCM-517A	4/8/10	15,000	15,000	100	690	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	520
PCM-517A	4/7/09	21,000	21,000	380	980	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	600
PCM-517A	4/9/08	21000	21000	320	730	440	47	120	<5	44	<5	190	5.6	47	<5	140	<5	<2.5	<2.5	<10	<2.5	<2.5	390
PCM-517A	4/12/07	20,000	20000	3,400	1400	960	56	120	NA	92	NA	270	<15	NA	<25	230	NA	NA	NA	NA	NA	NA	680

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2-Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)	
PCM-535A	3/22/16	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	68.9
PCM-535A	3/19/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	58.5
PCM-535A	3/19/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	60.0
PCM-535A	3/20/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	62
PCM-535A	4/24/13	<4	2	<4	<4	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	63
PCM-535A	4/2/12	0.63	0.63	2	4.34	143	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.4

Notes:

µg/L = micrograms per liter

NA = Not Analyzed

<0.5 = Indicates concentration was less than the Method Detection Limit (MDL)

DUP = Field Duplicate

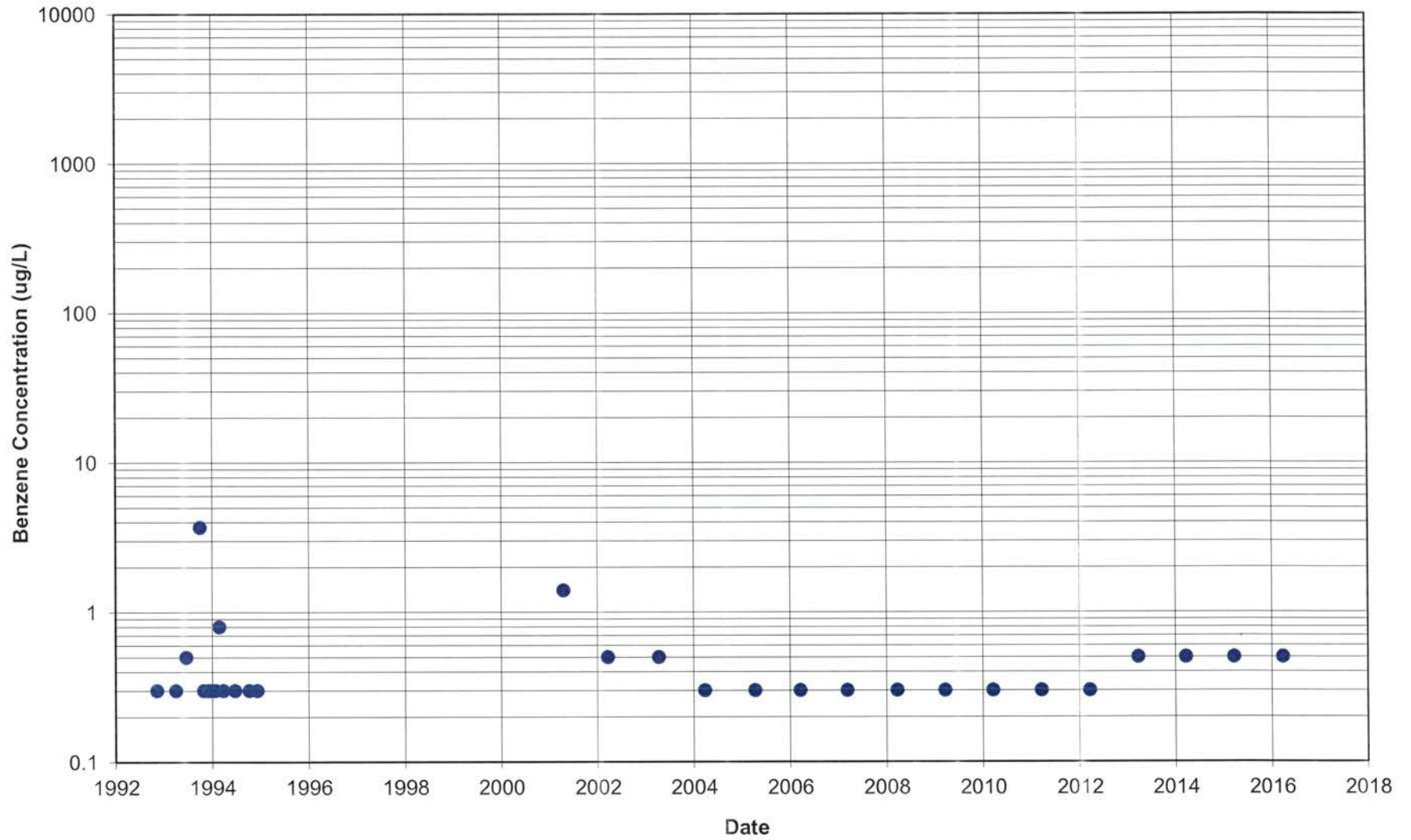
* - Laboratory detection limit exceeds AWQS

** - Wells purged dry and initial samples were collected prior to wells recovering to at least 80%.

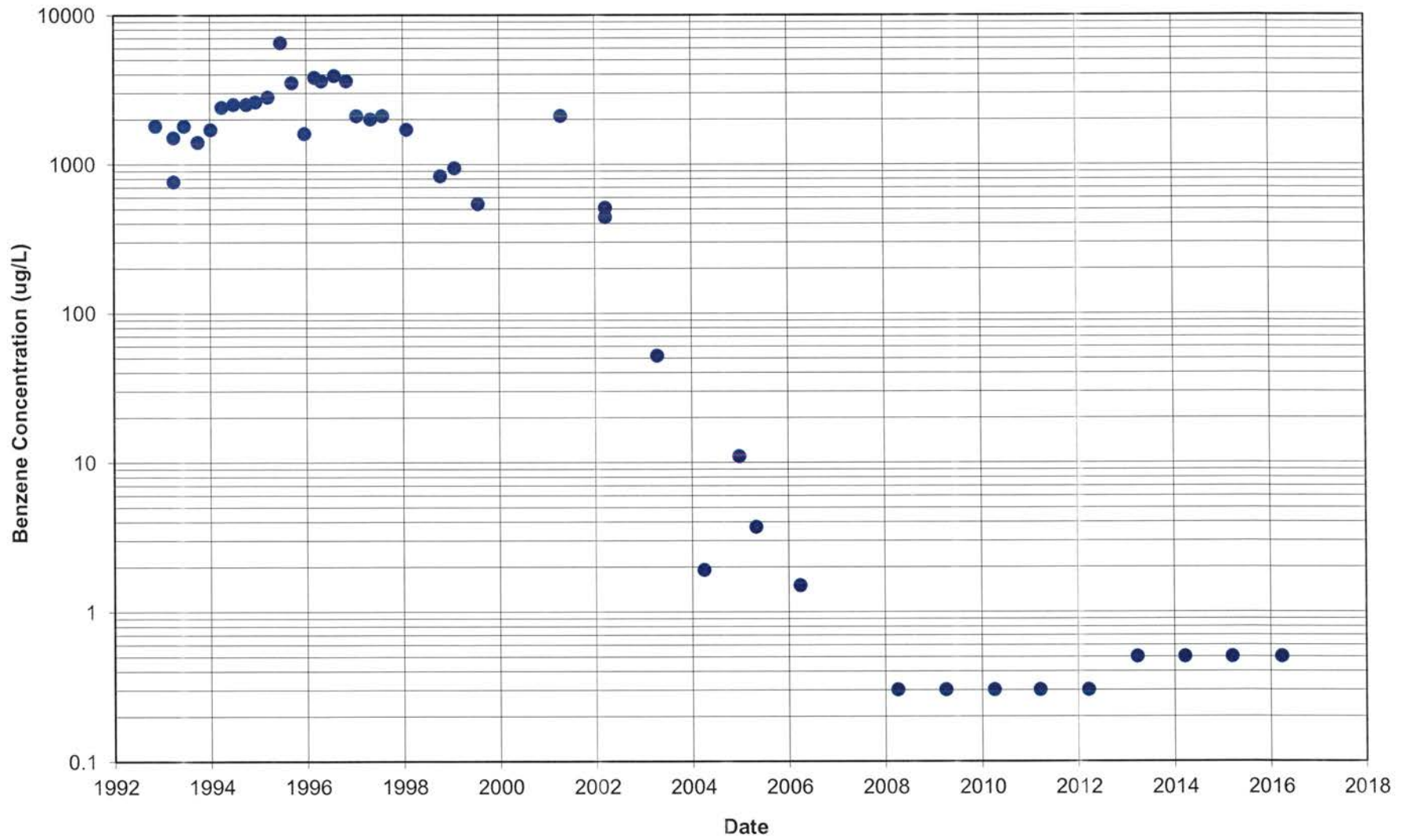
APPENDIX F

Benzene Concentration Time Series Plots

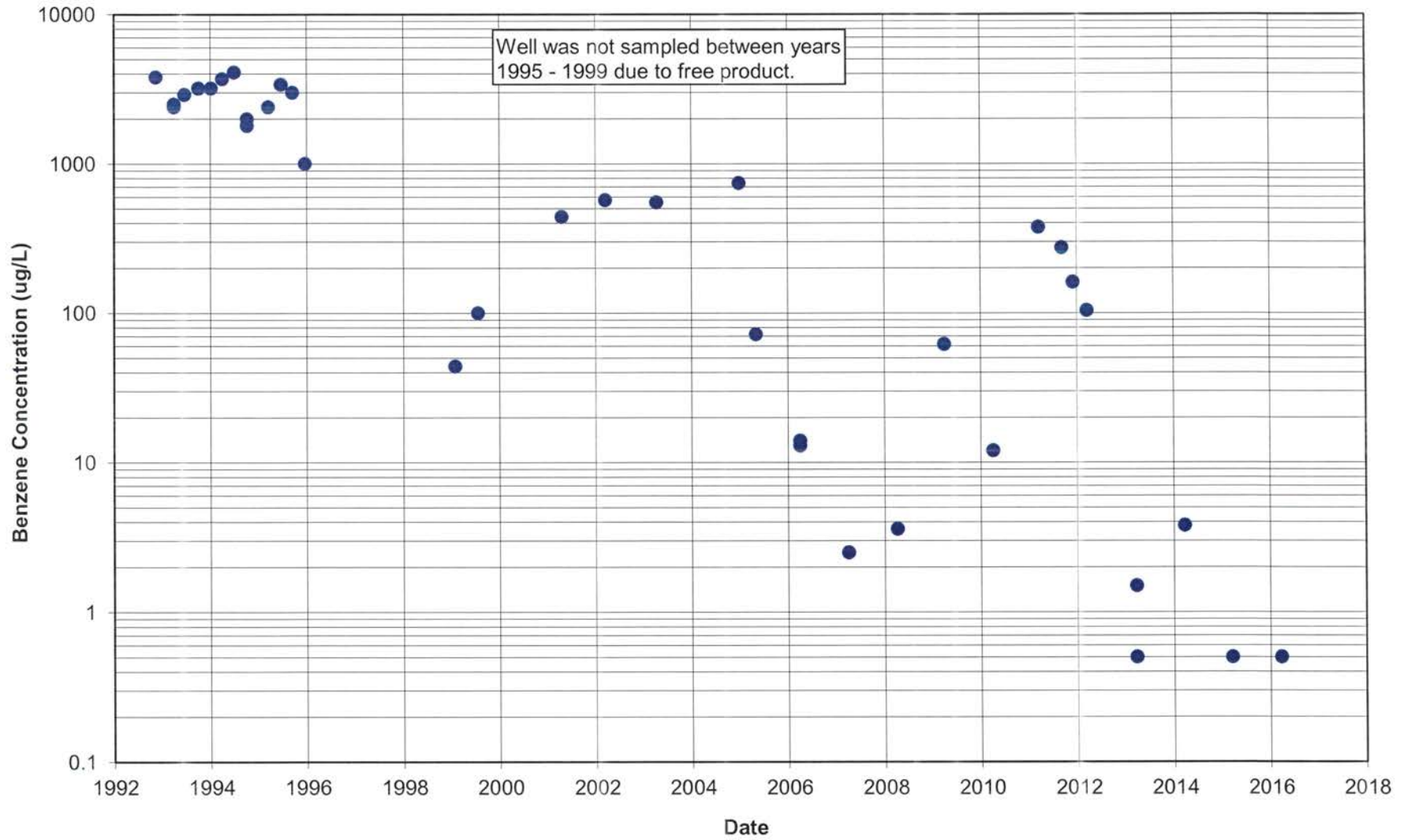
Time series plot of benzene in WR-208A



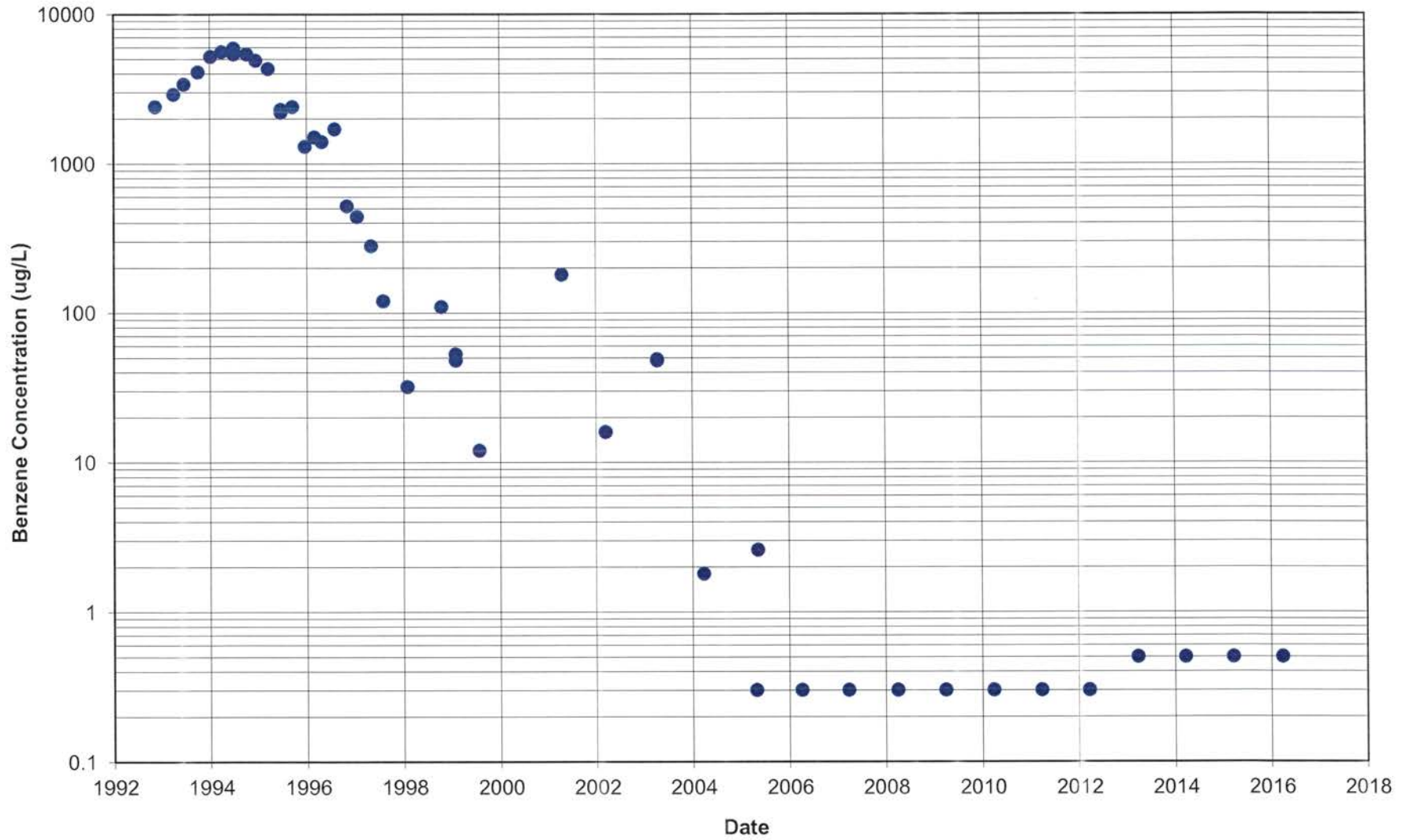
Time series plot of benzene in WR-209A



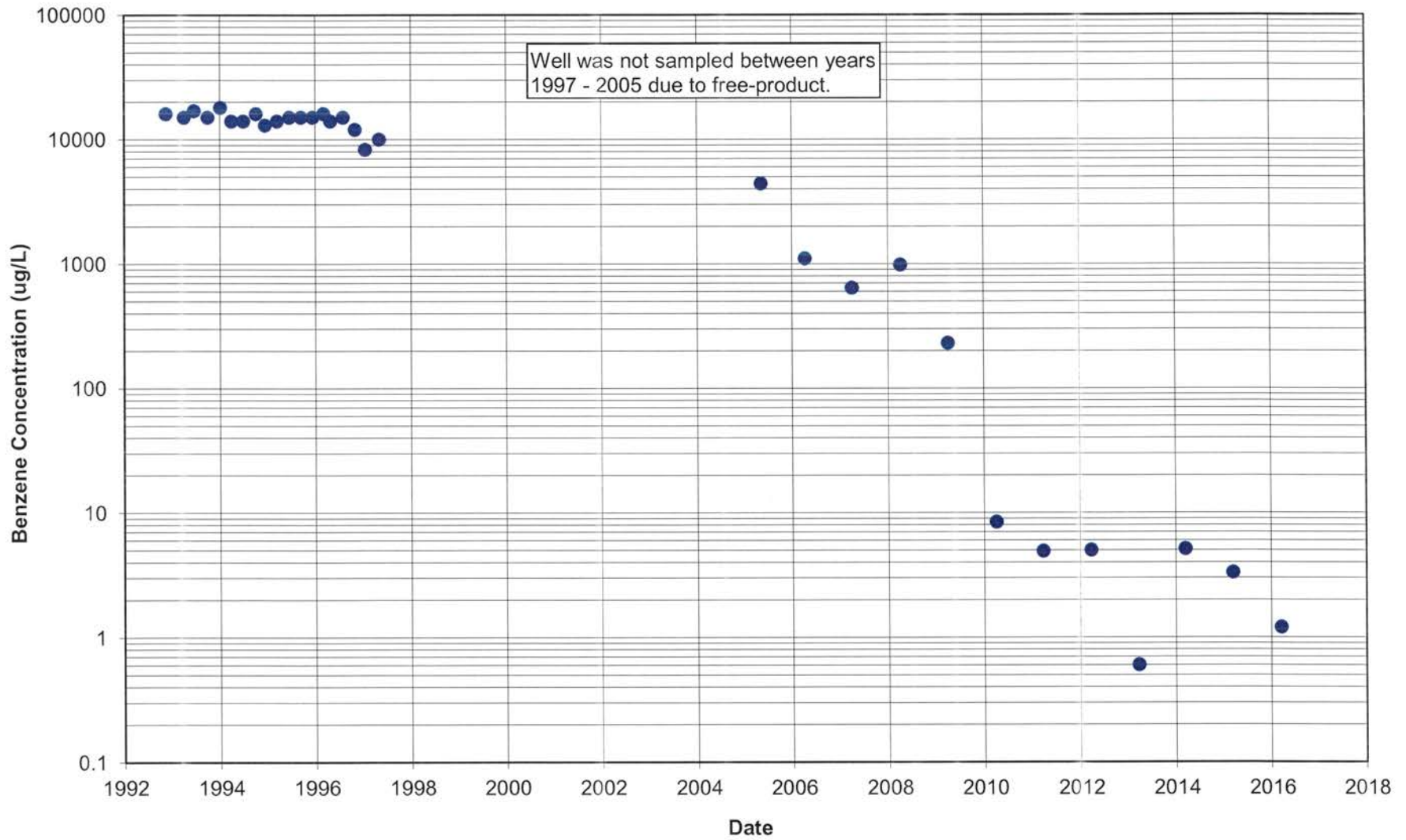
Time series plot of benzene in WR-210A



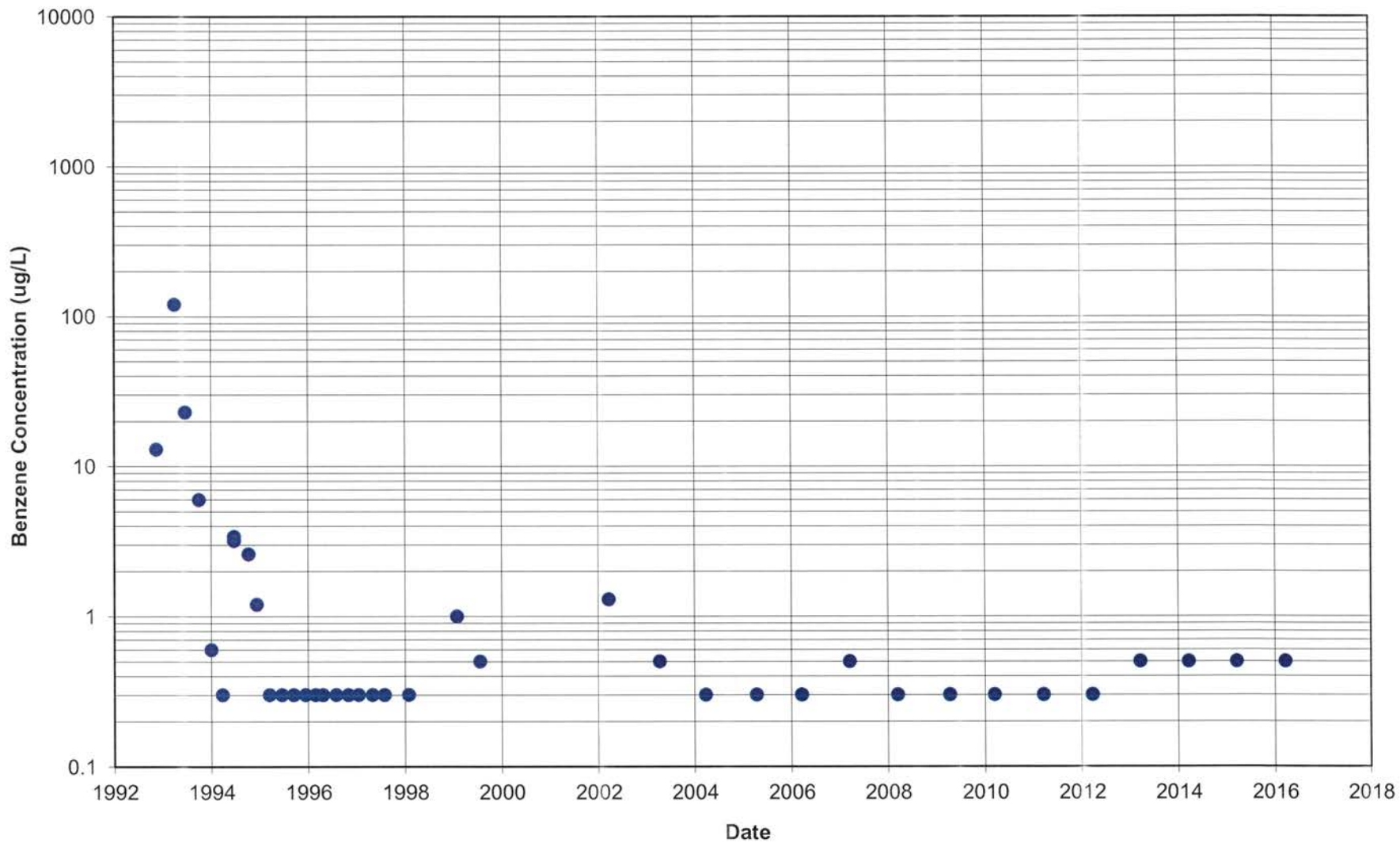
Time series plot of benzene in WR-211A



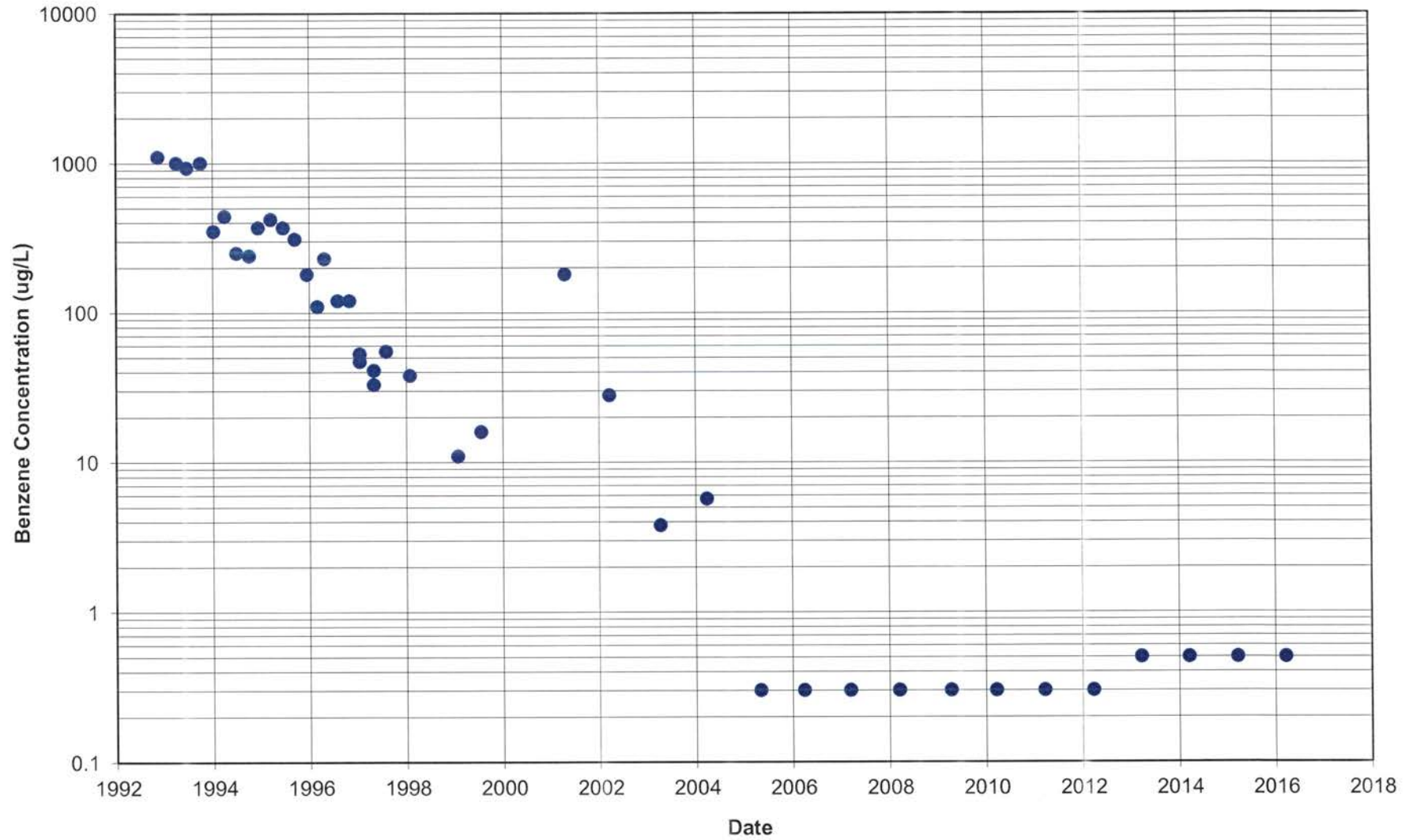
Time series plot of benzene in WR-212A



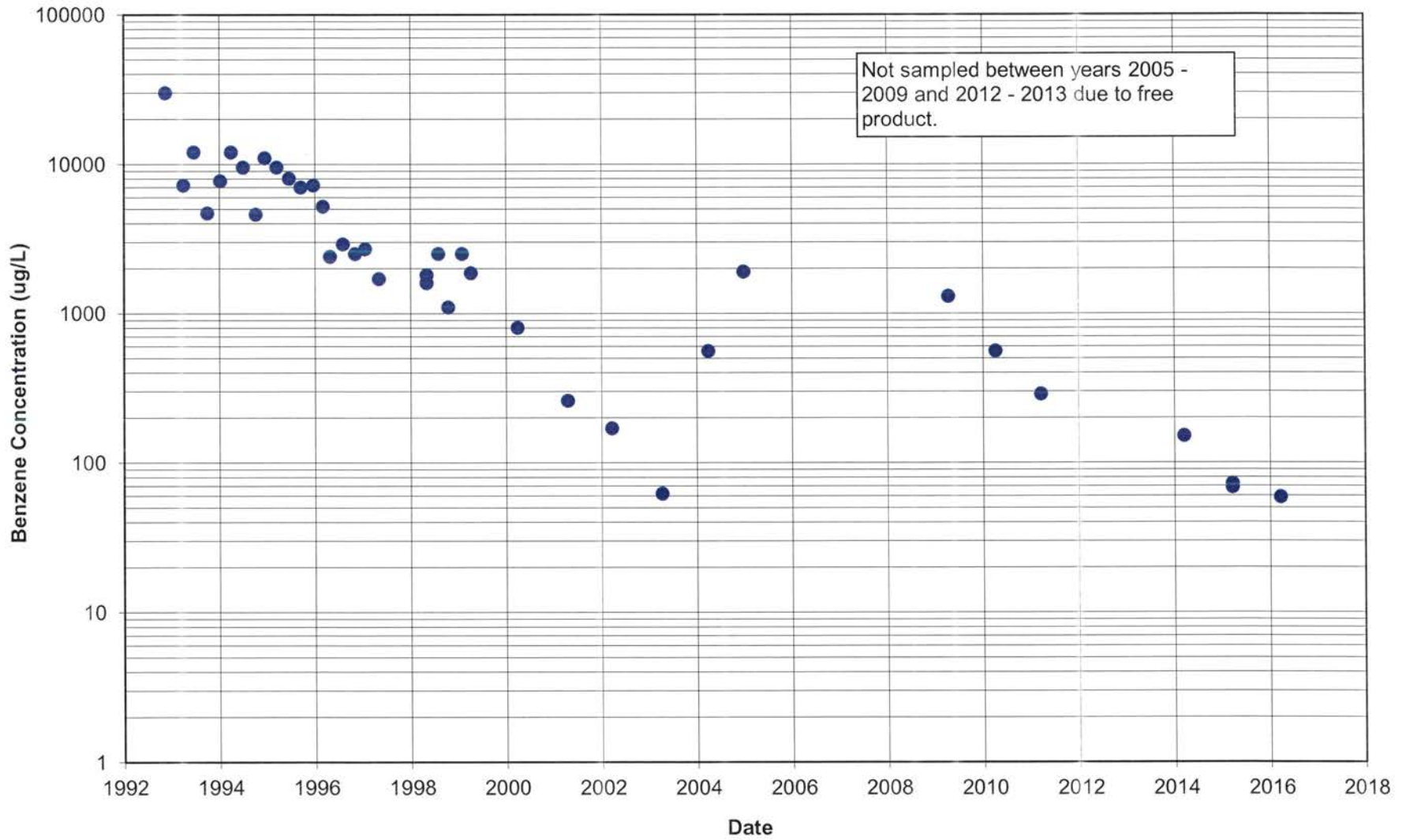
Time series plot of benzene in WR-213A



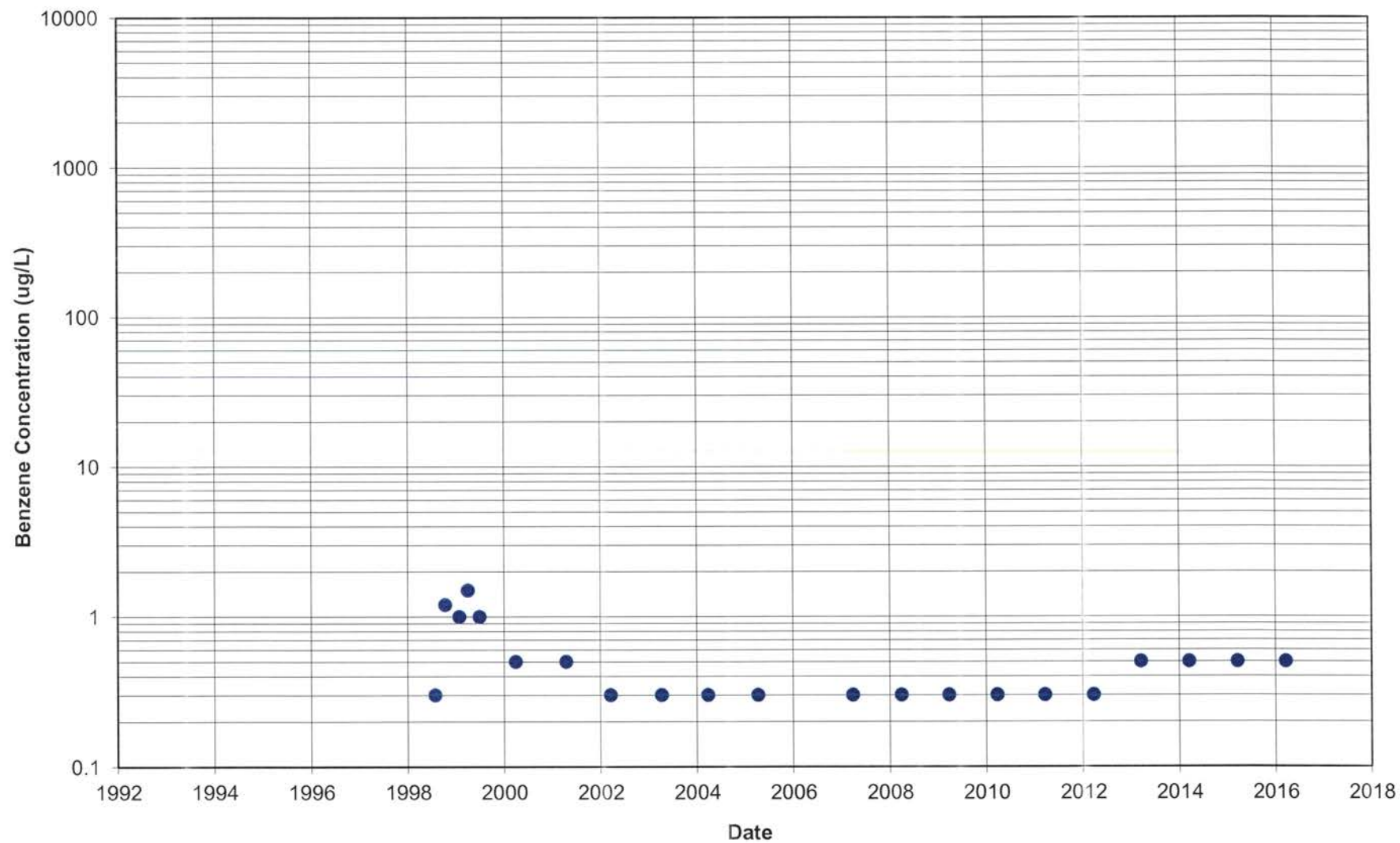
Time series plot of benzene in WR-214A



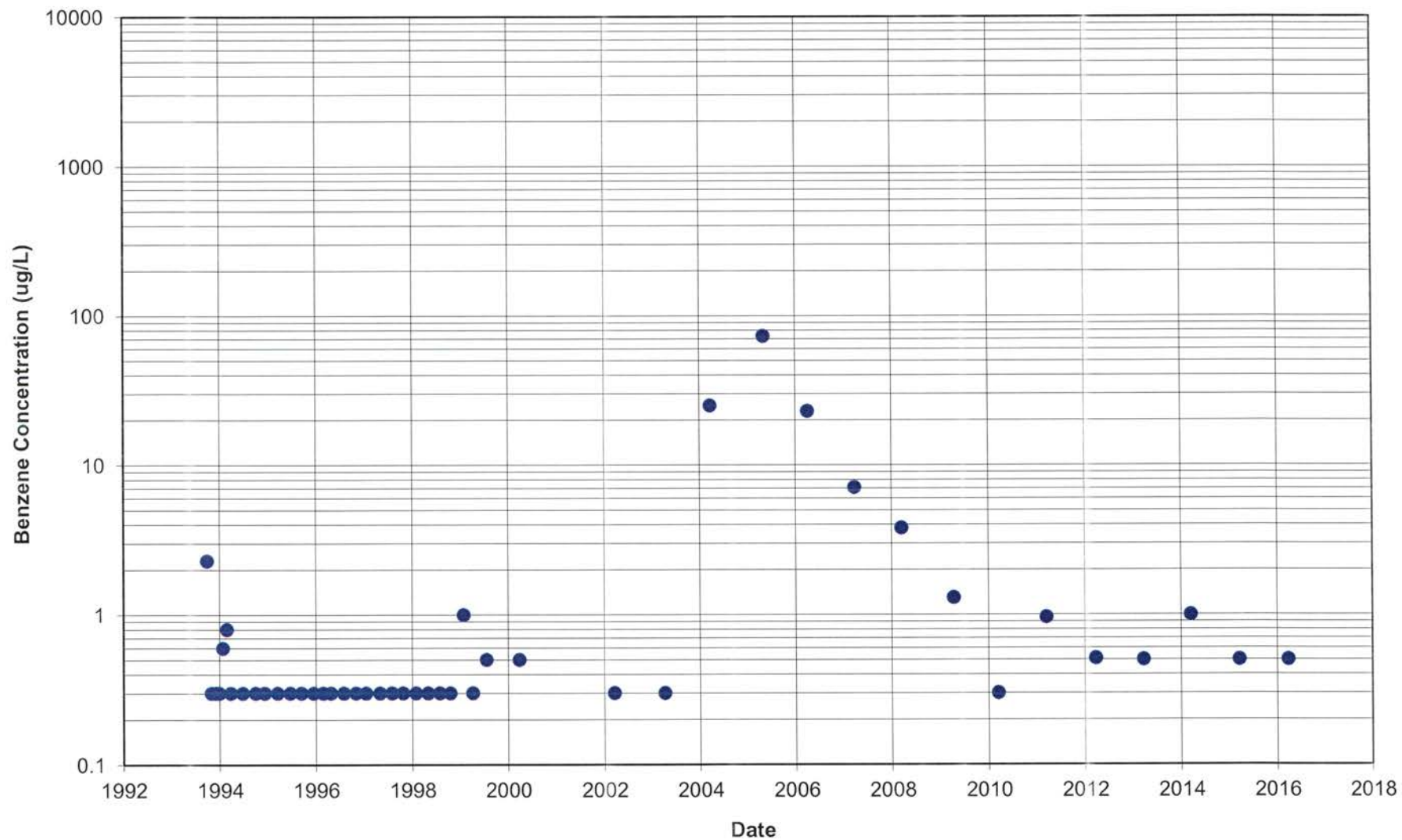
Time series plot of benzene in WR-215A



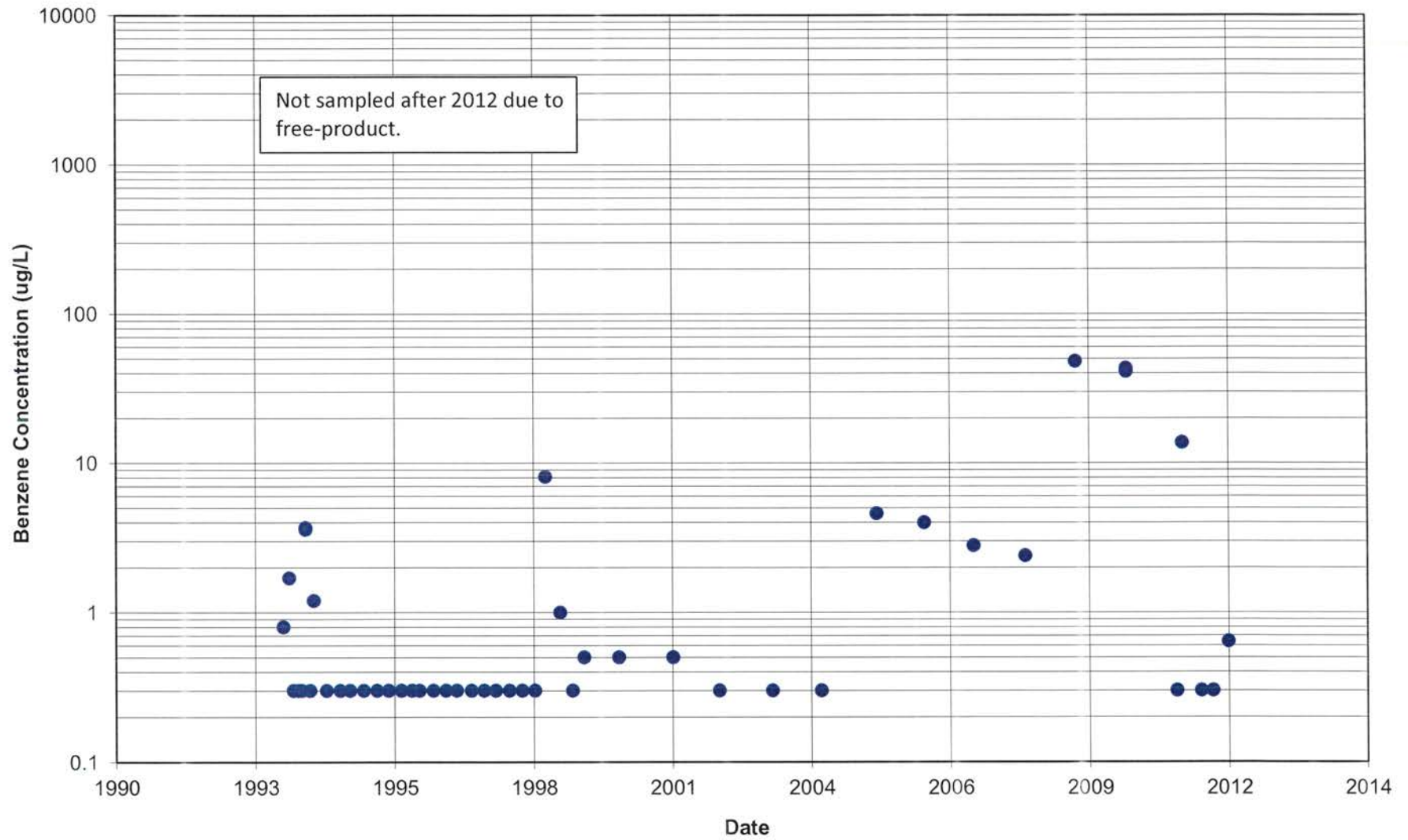
Time series plot of benzene in WR-217A



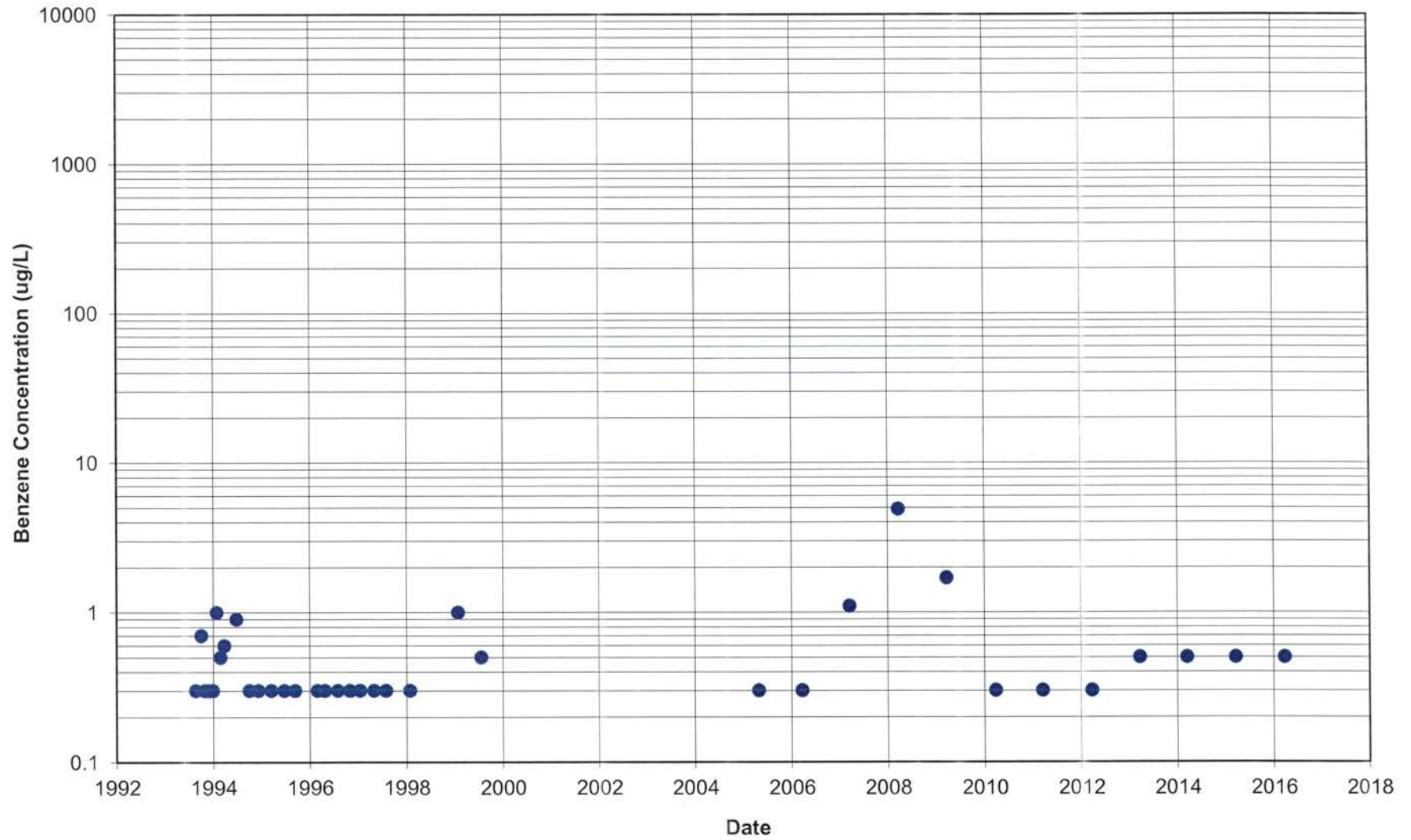
Time series plot of benzene in WR-219A



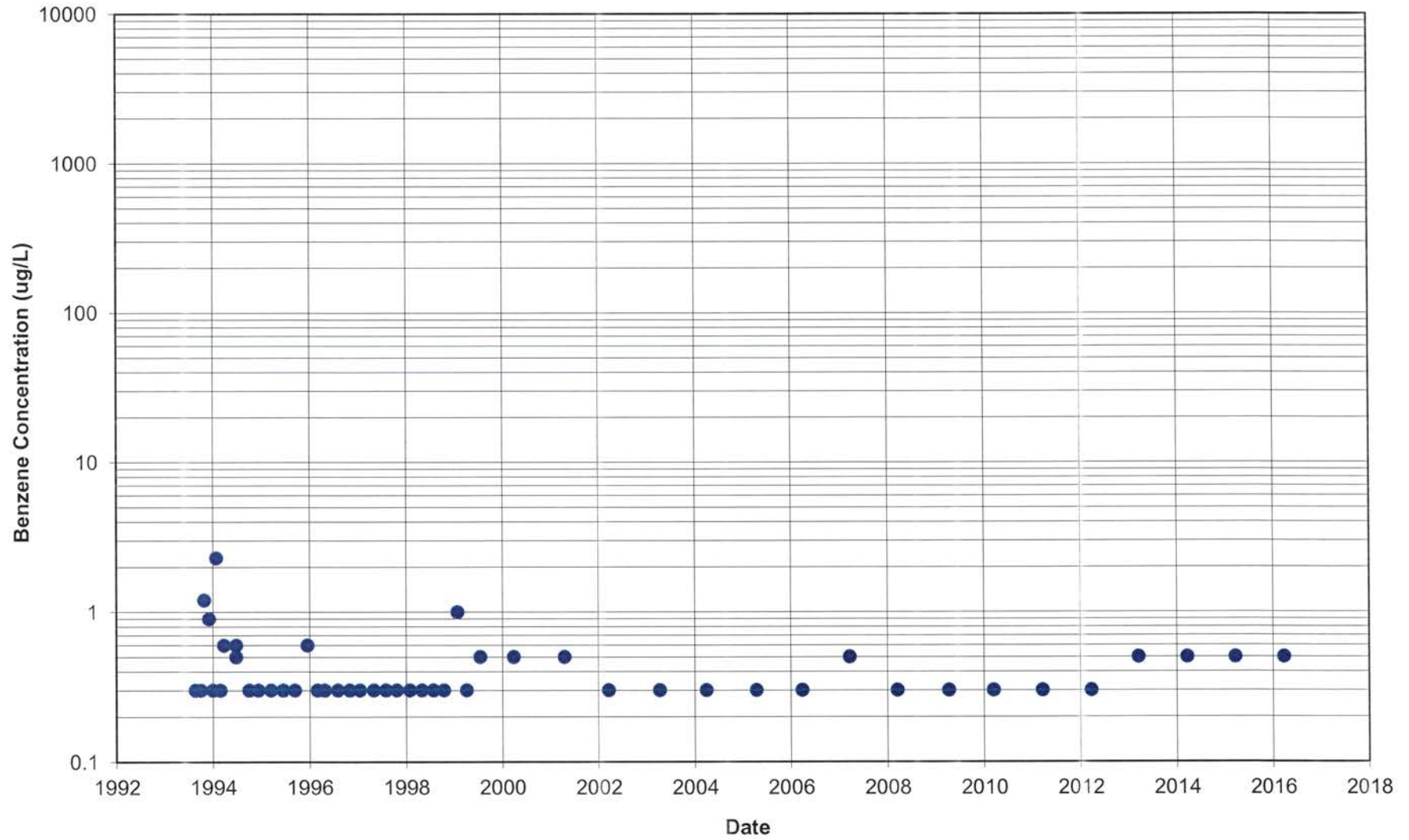
Time series plot of benzene in WR-220A



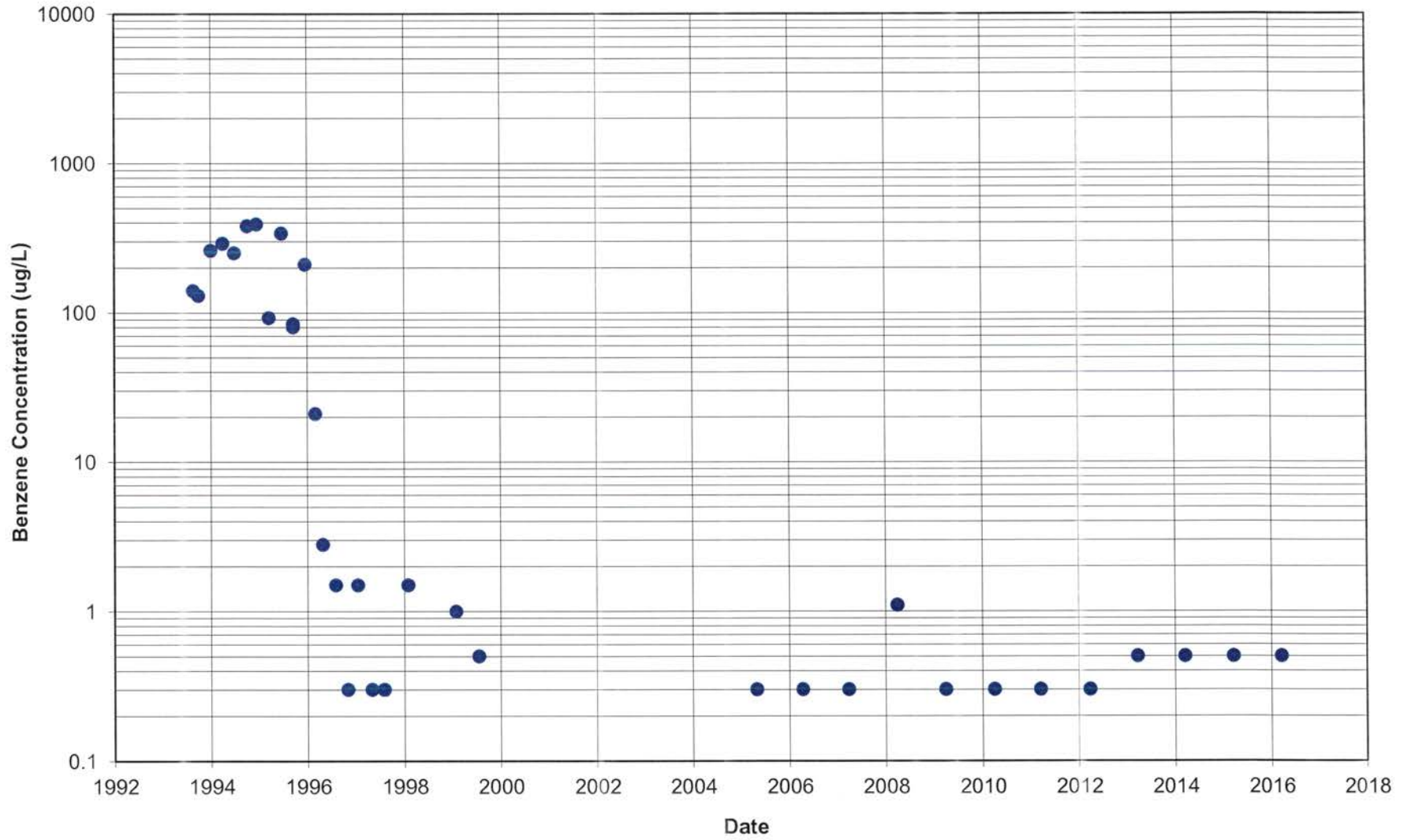
Time series plot of benzene in WR-221A



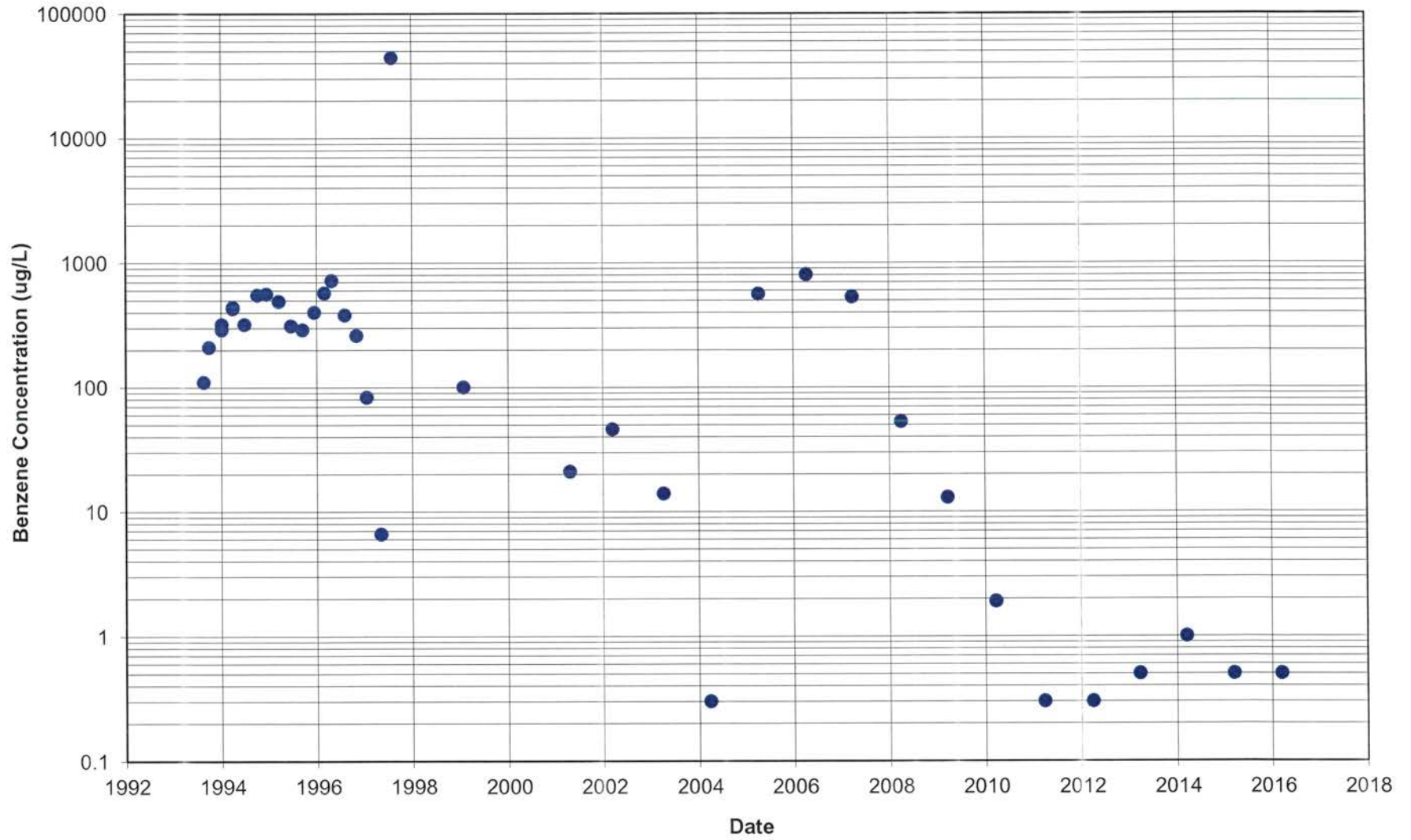
Time series plot of benzene in WR-222A



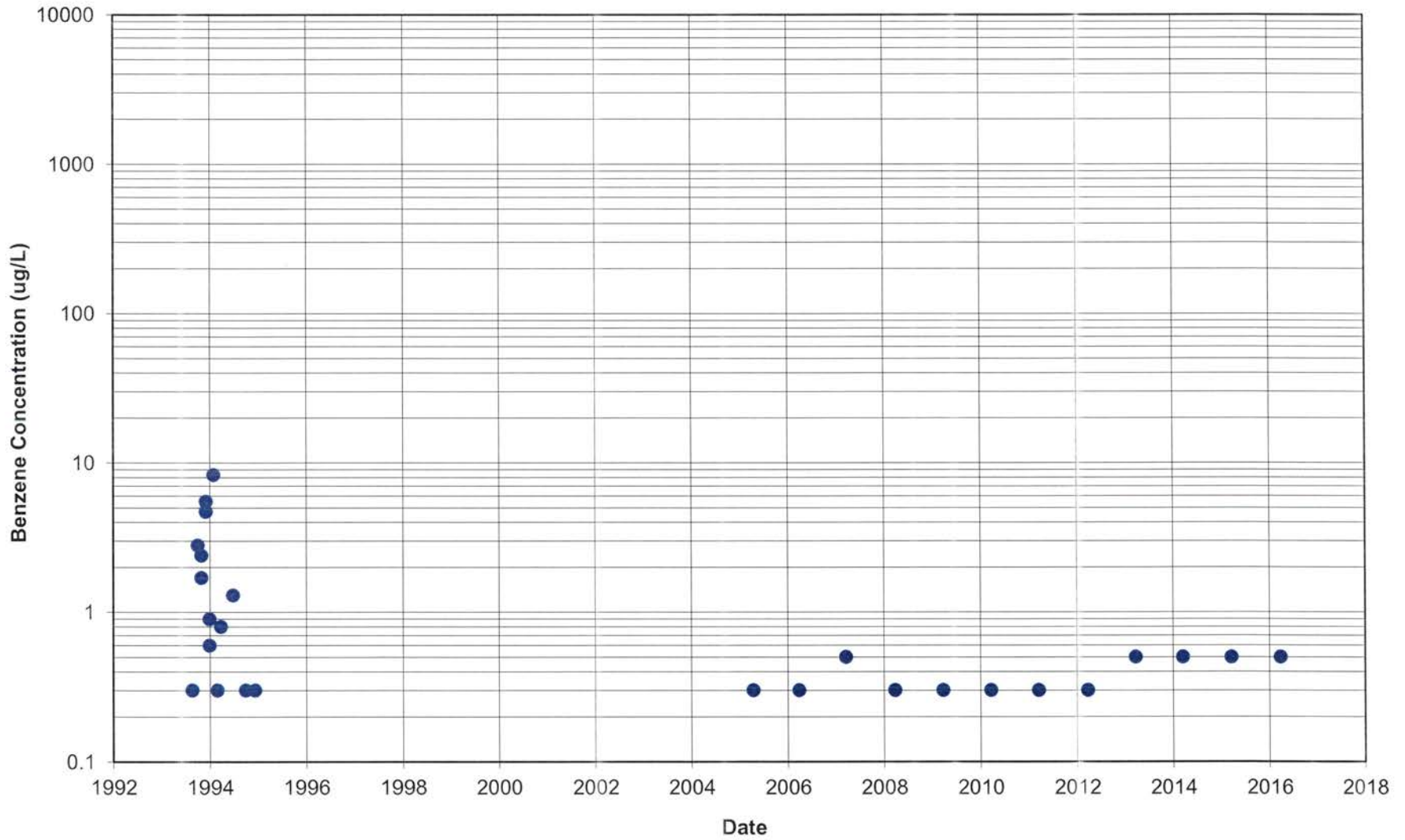
Time series plot of benzene in WR-223A



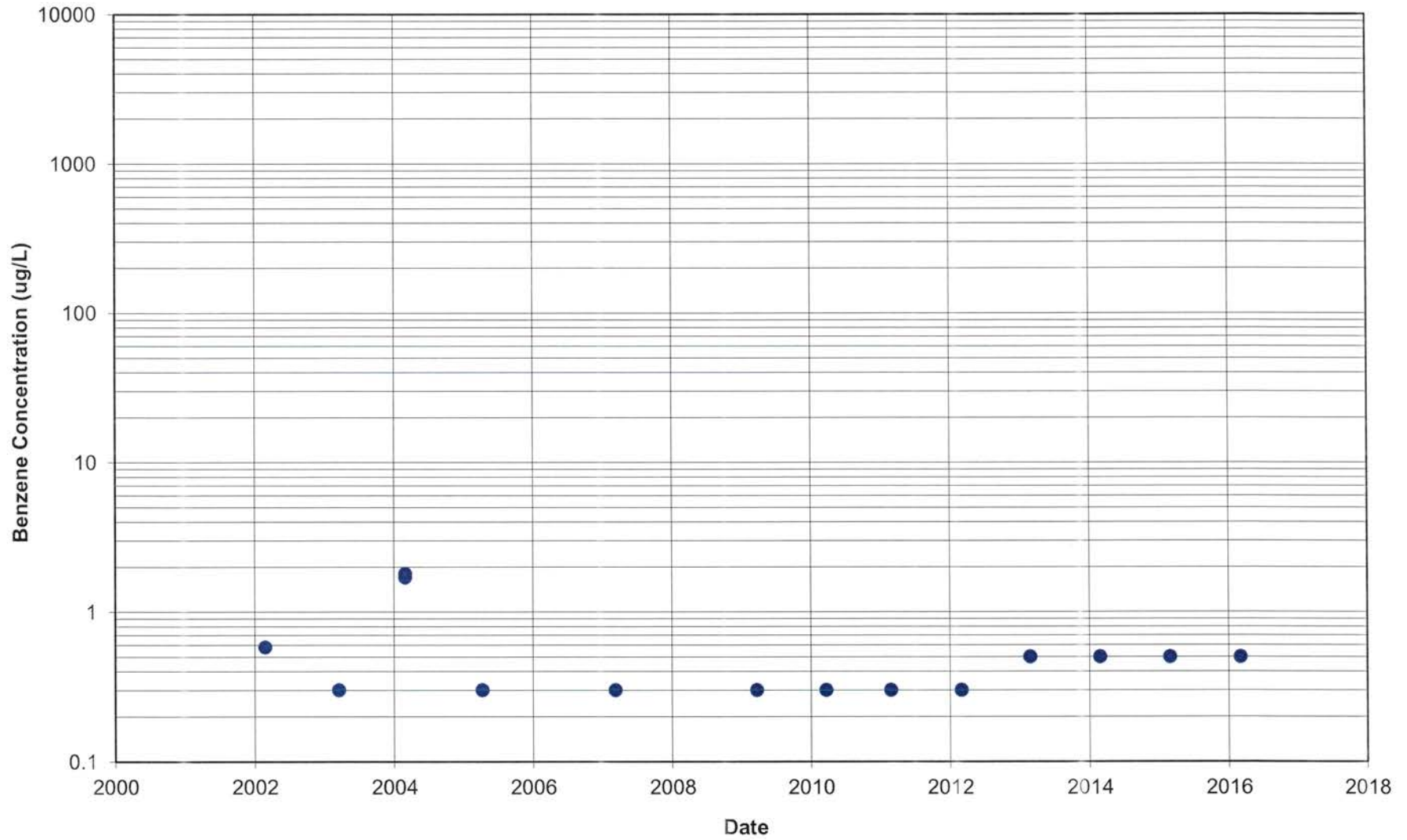
Time series plot of benzene in WR-224A



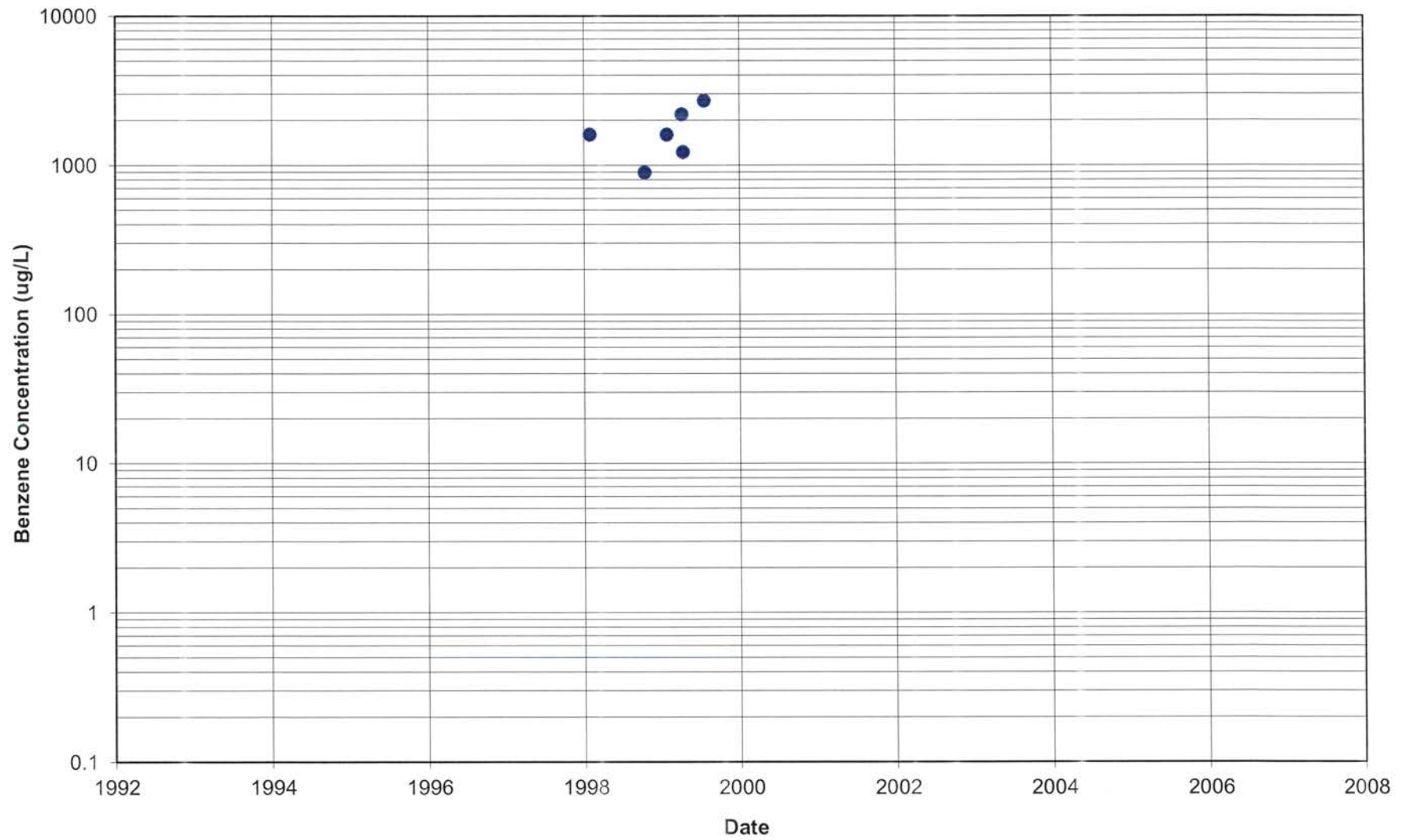
Time series plot of benzene in WR-225A



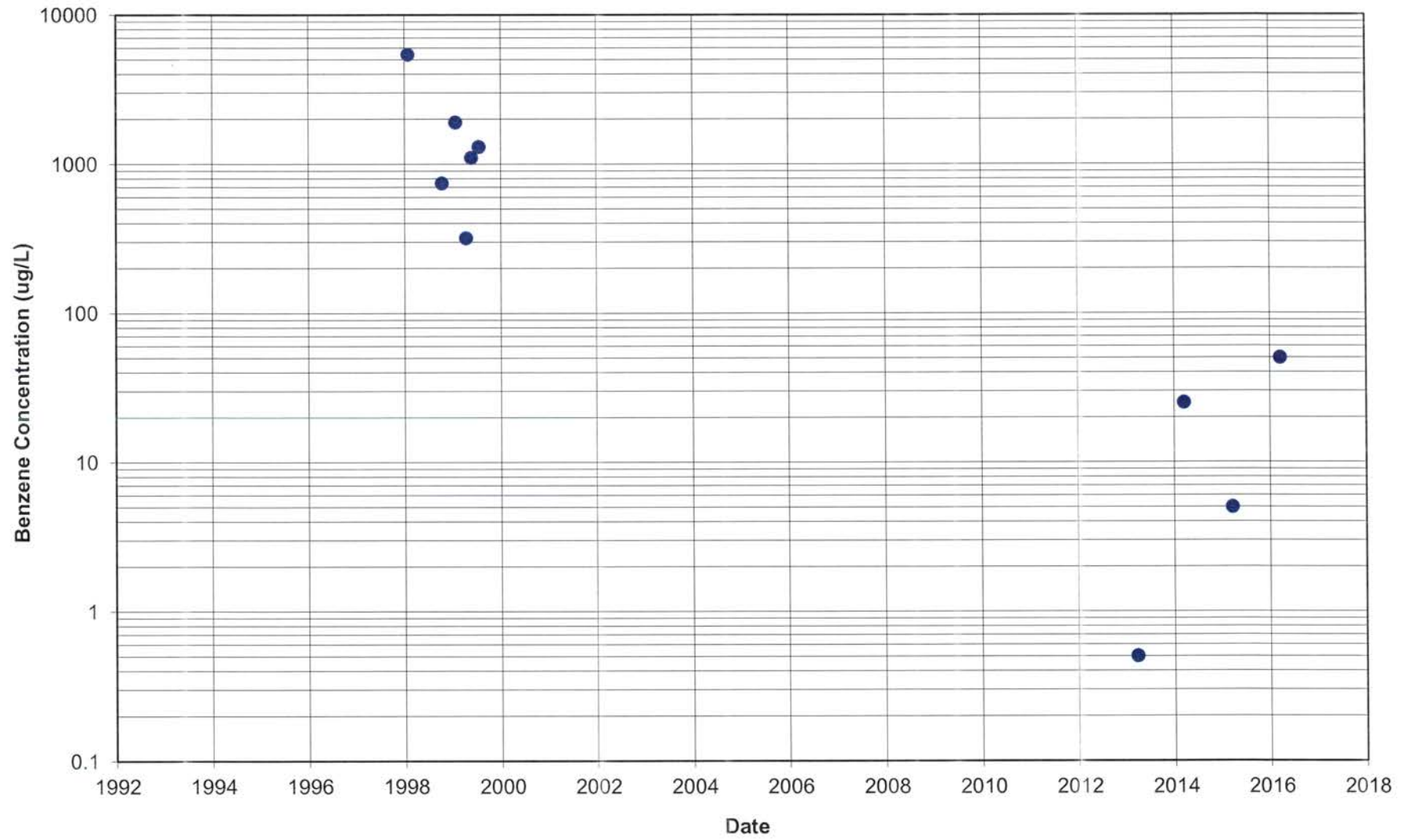
Time series plot of benzene in WR-227A



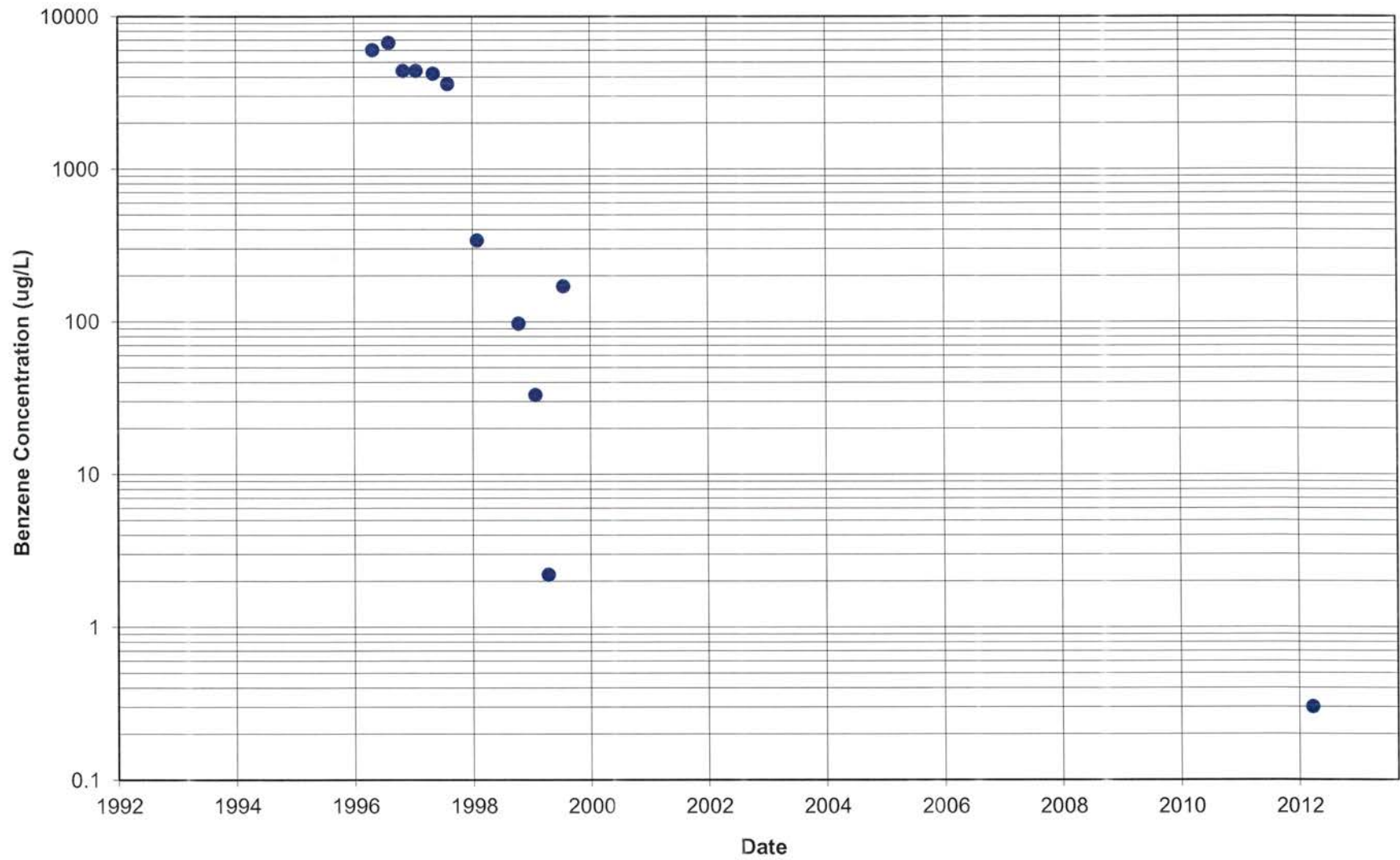
Time series plot of benzene in WR-295A INJ-1S



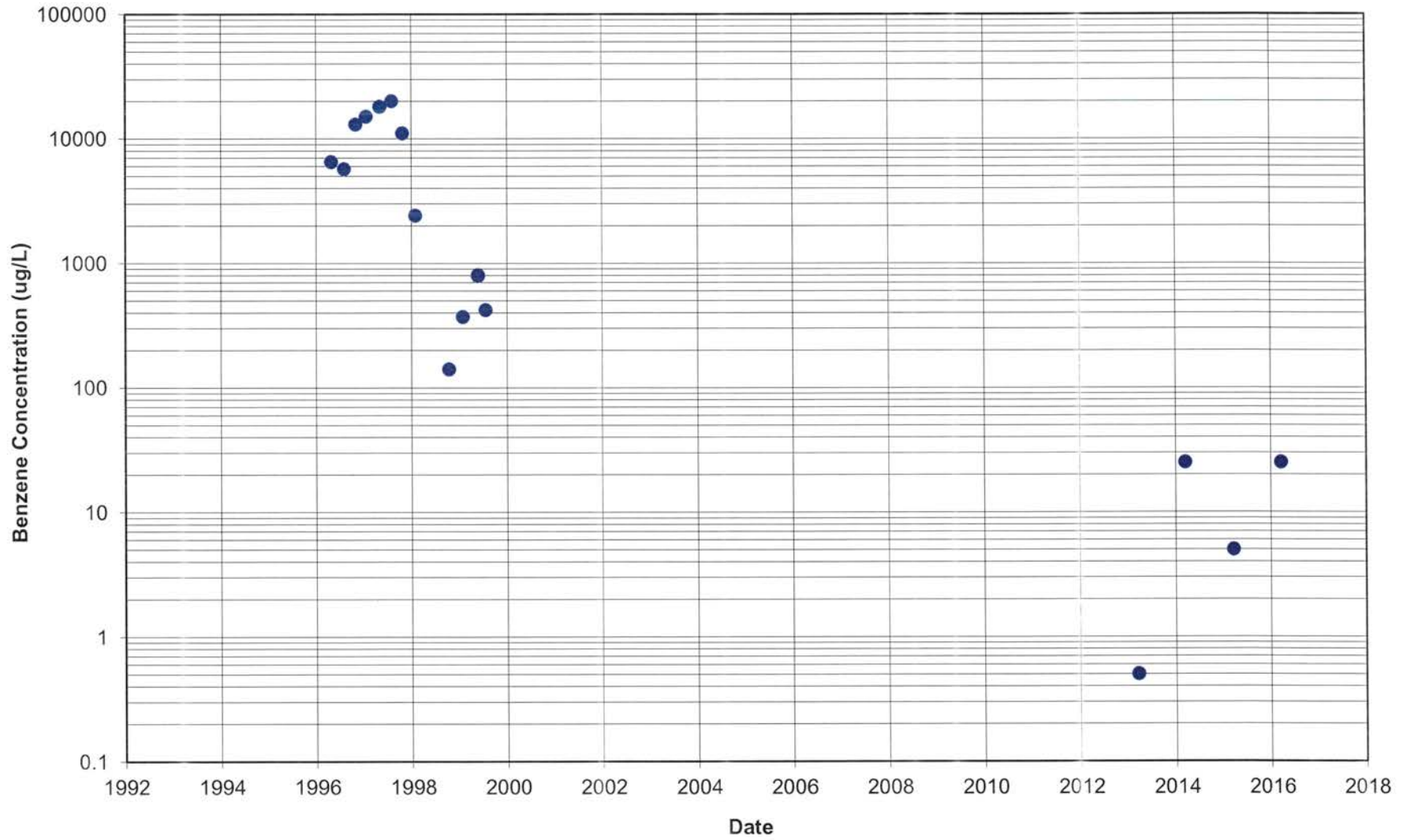
Time series plot of benzene in WR-296A INJ-1S



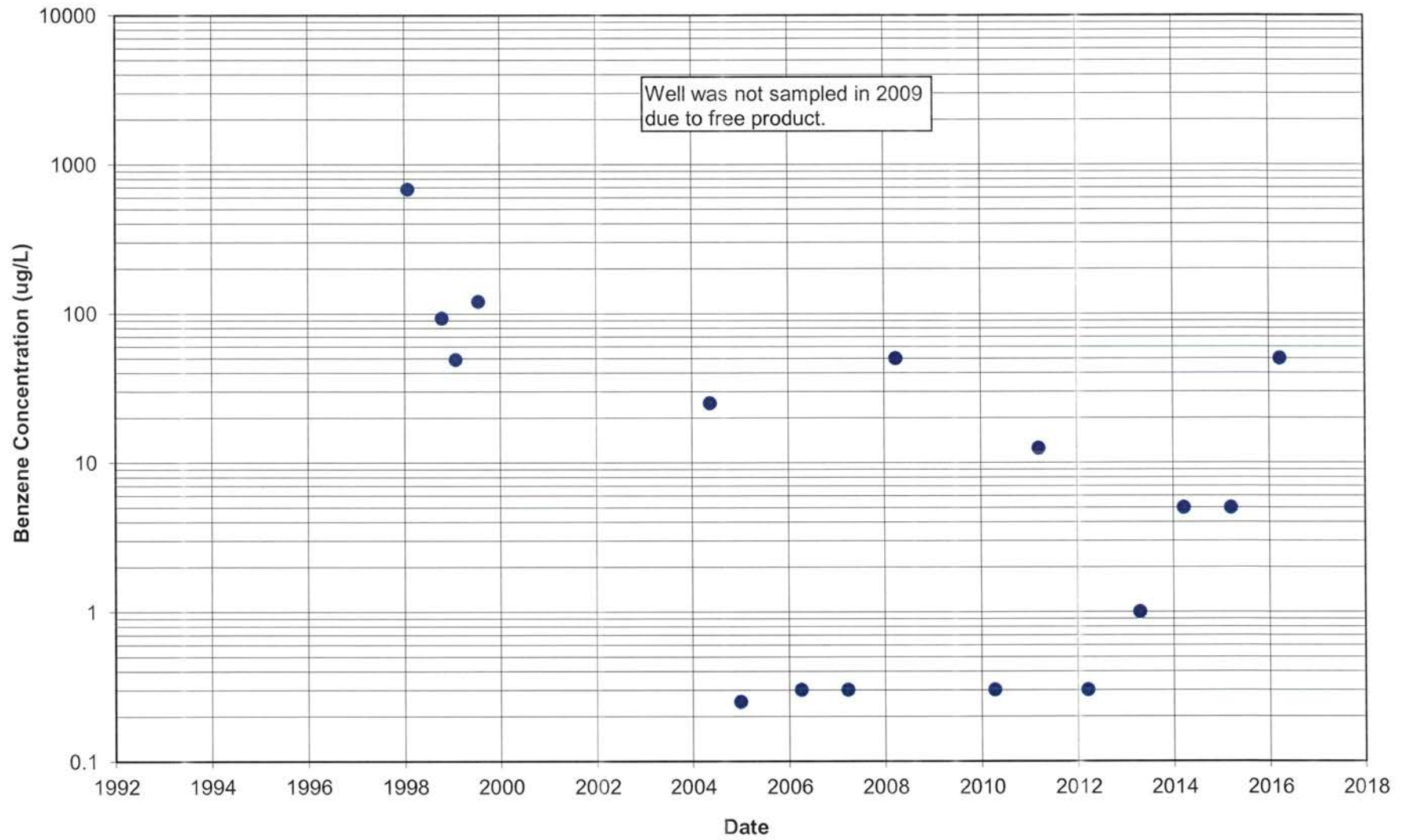
Time series plot of benzene in WR-297A INJ-3S



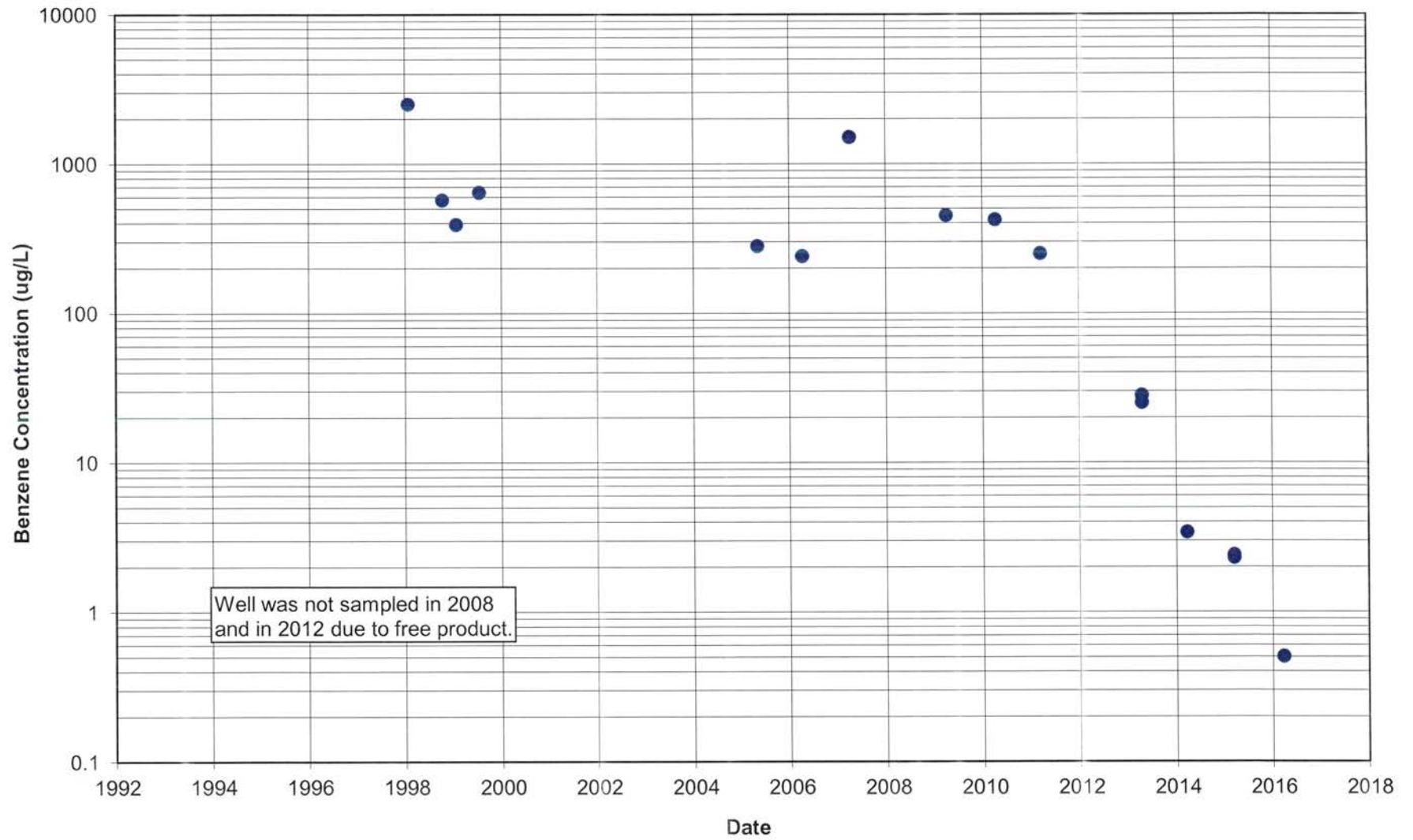
Time series plot of benzene in WR-298A INJ-4S



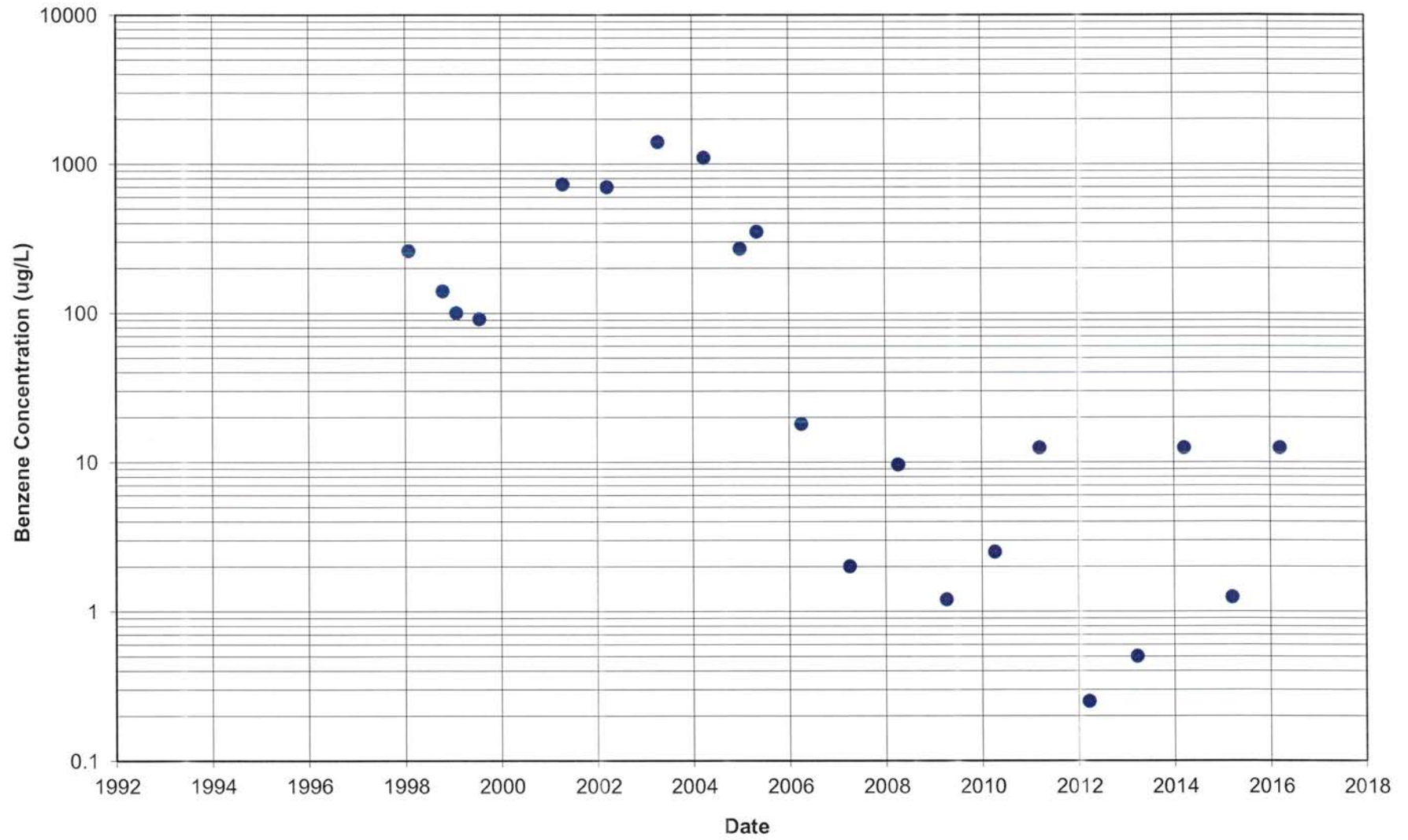
Time series plot of benzene in R-012A



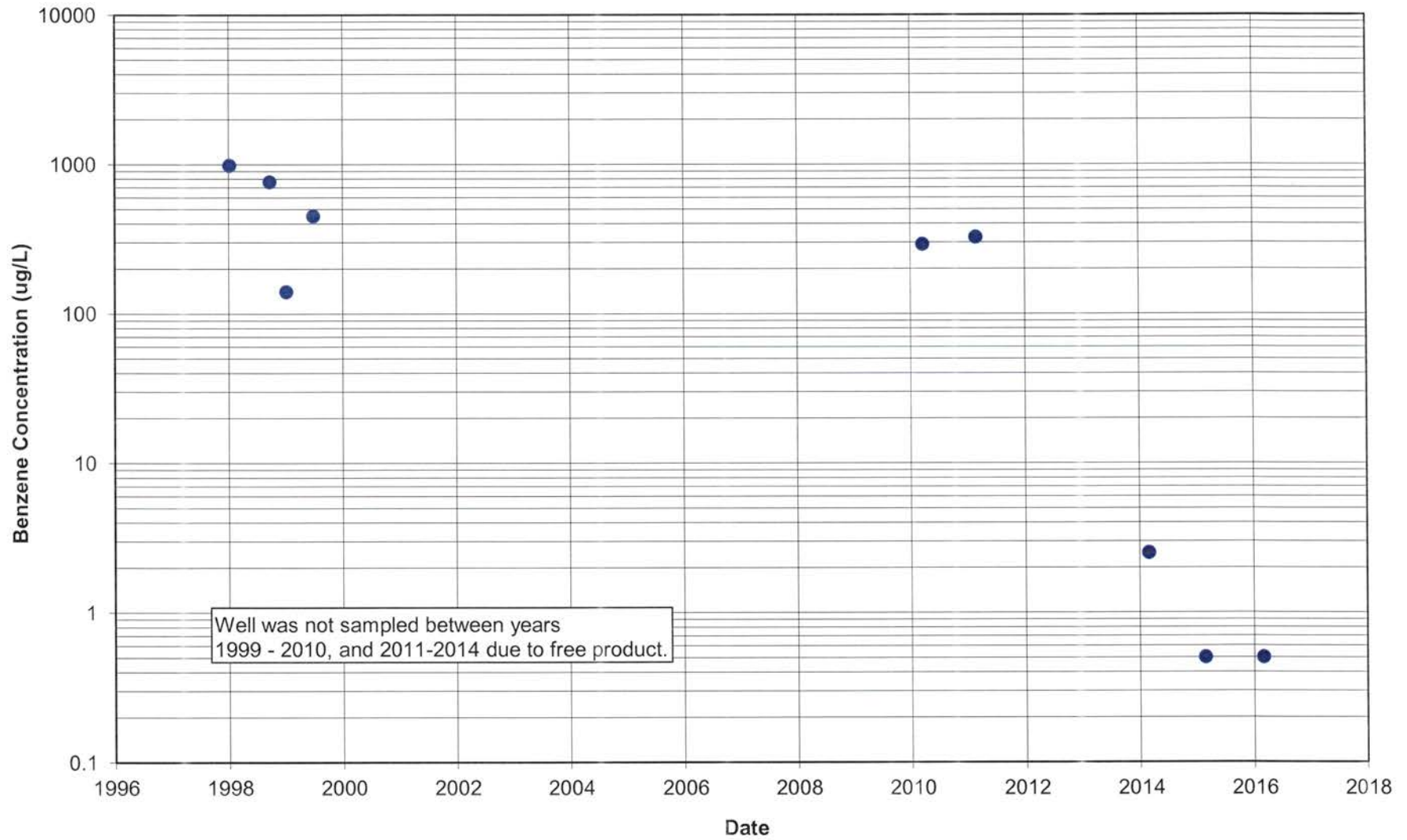
Time series plot of benzene in R-013A



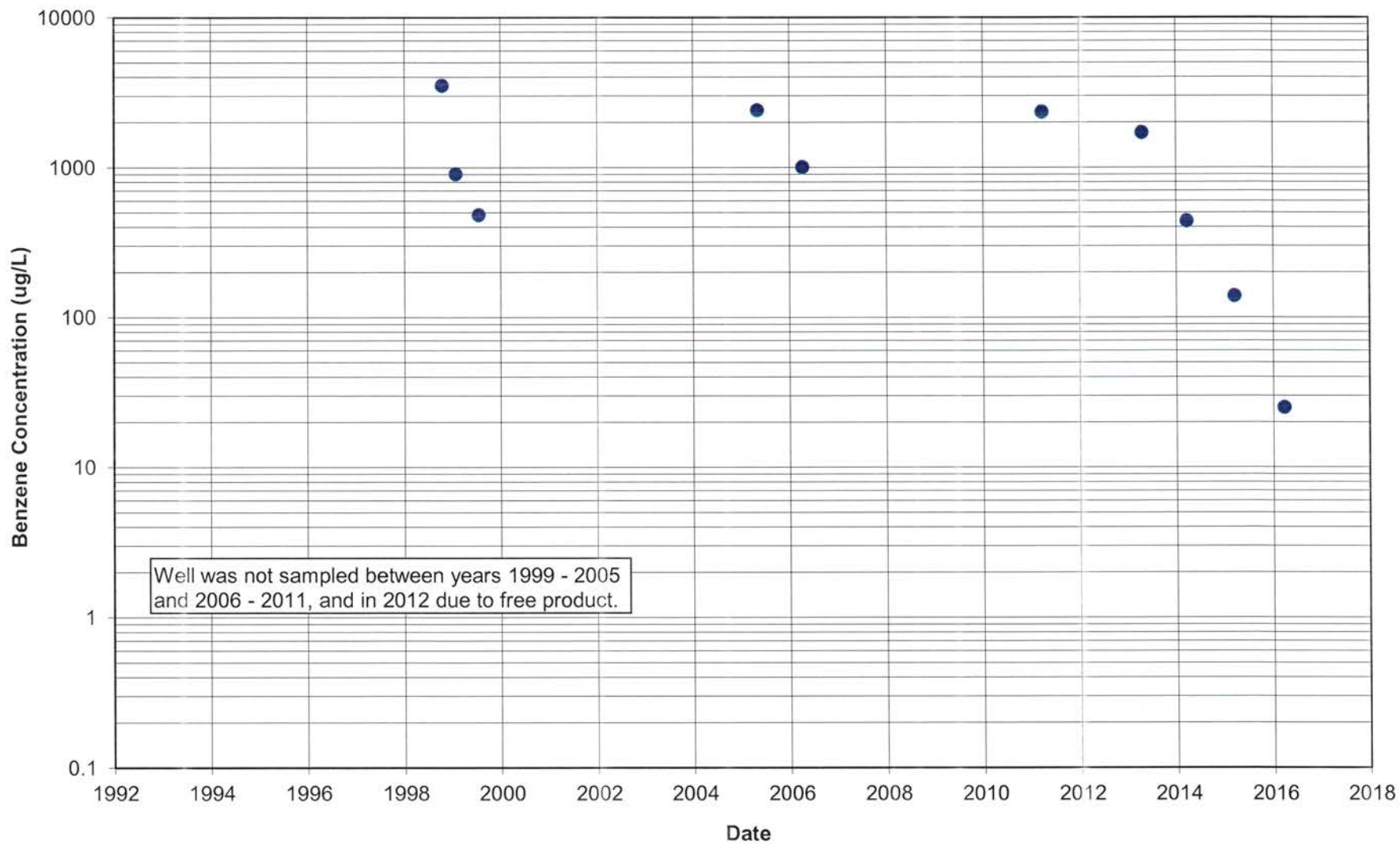
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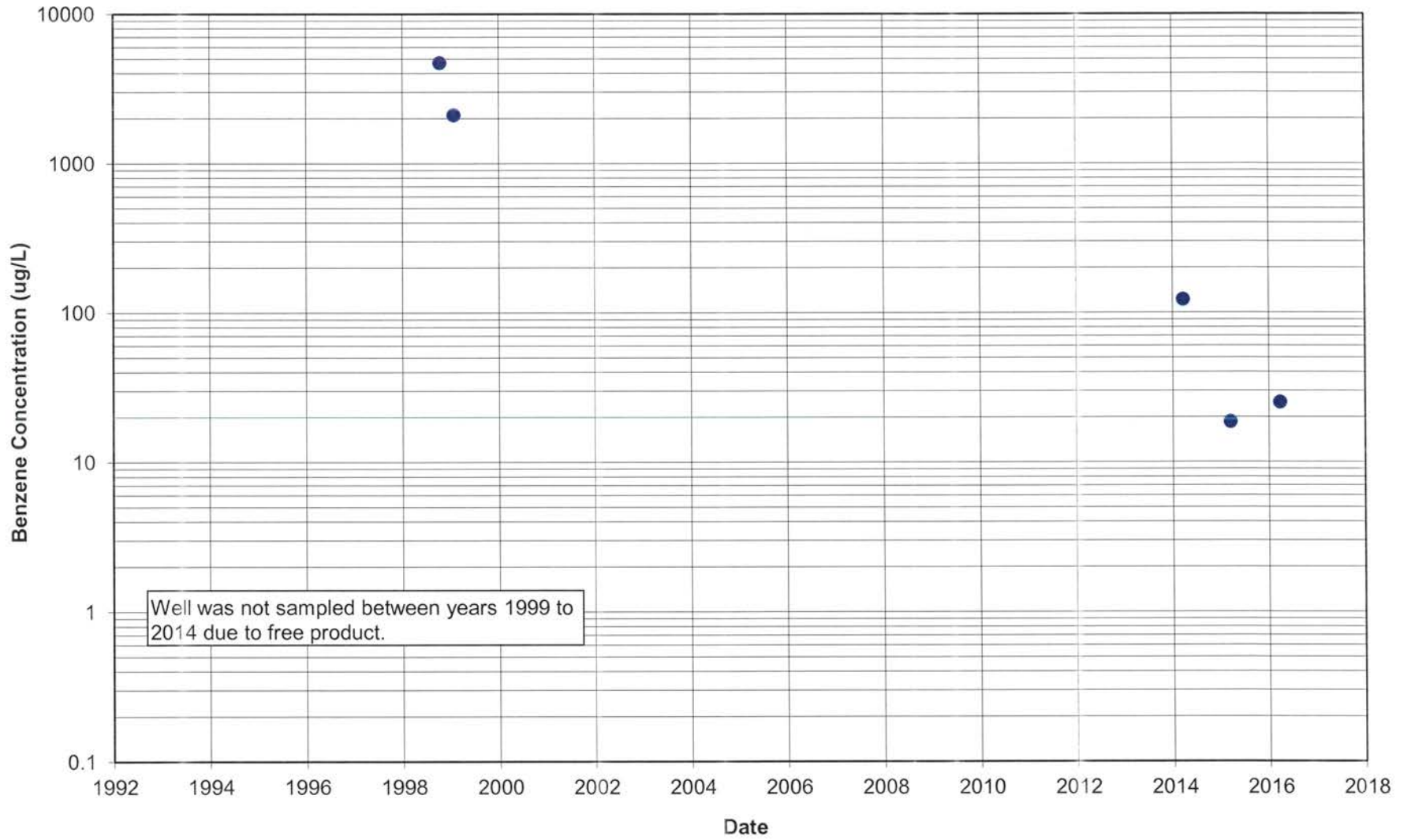
Time series plot of benzene in R-017A



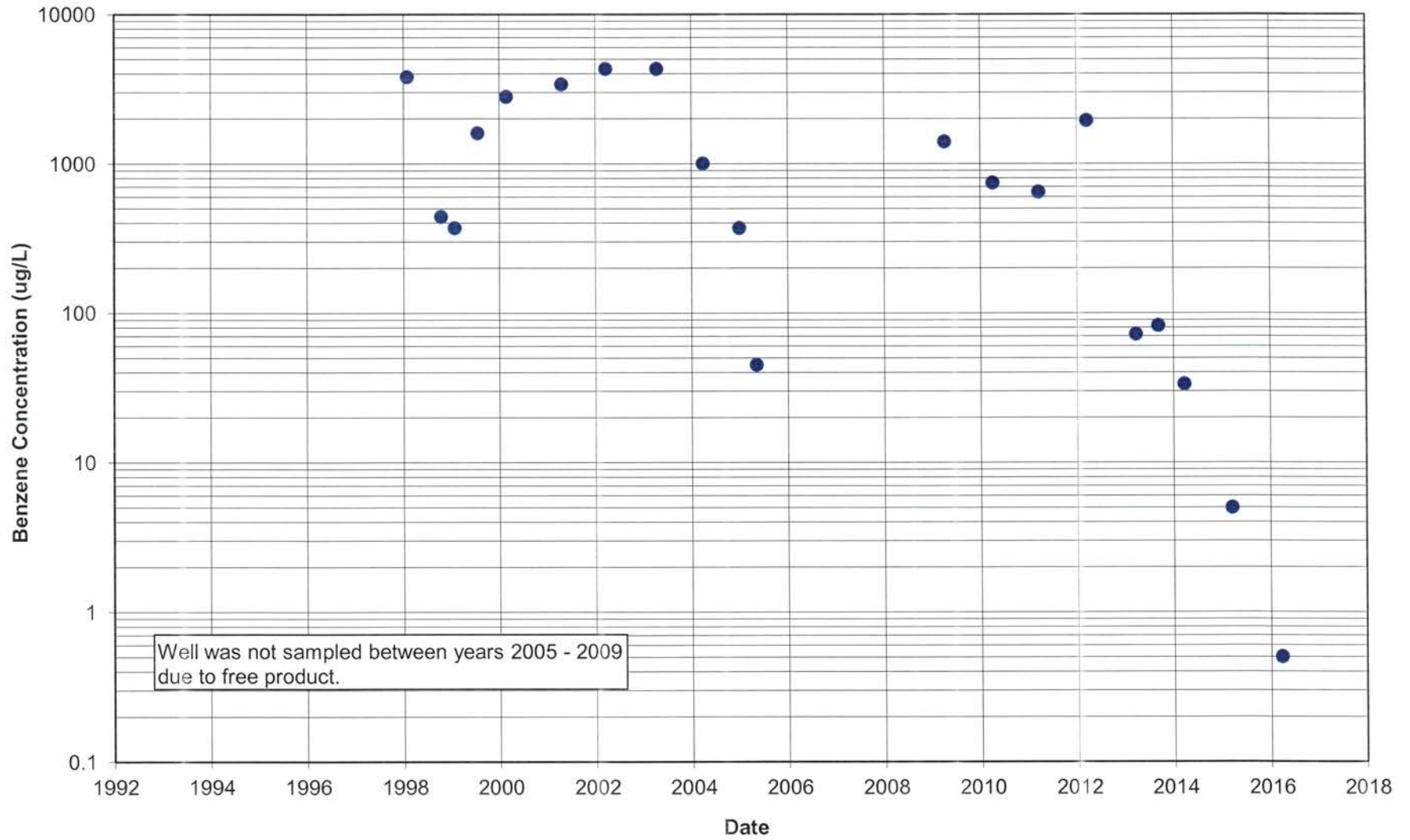
Time series plot of benzene in R-018A



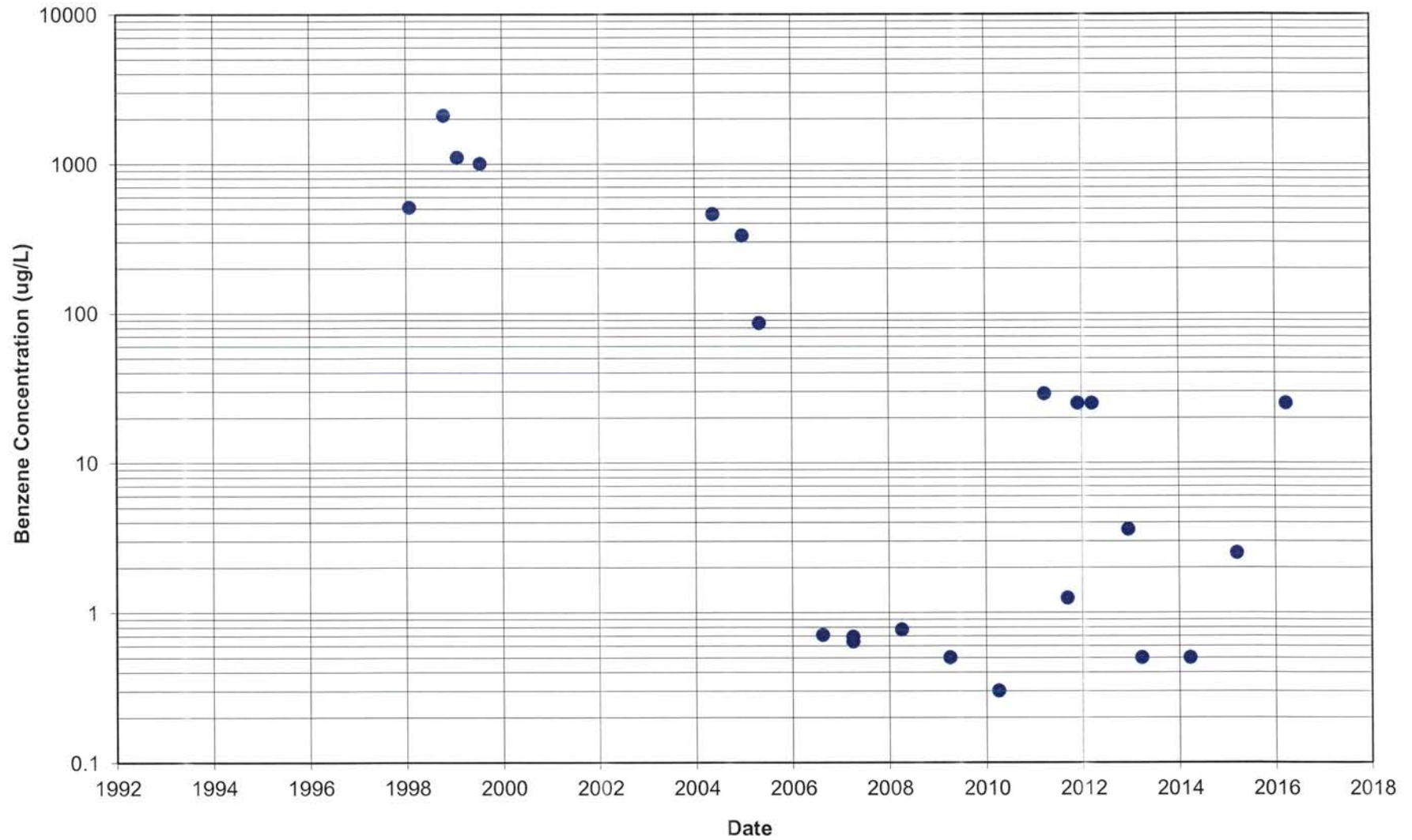
Time series plot of benzene in R-019A



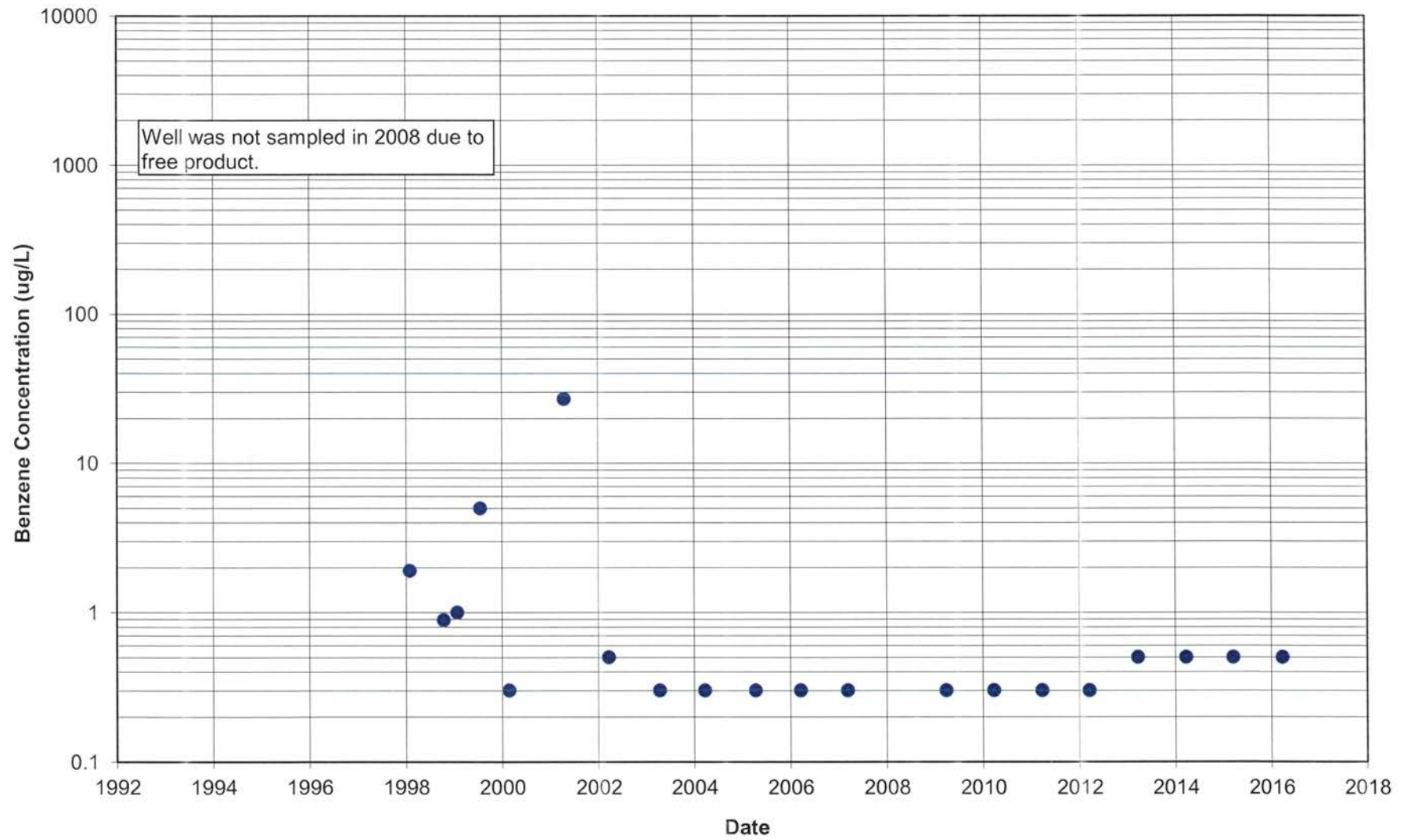
Time series plot of benzene in R-020A



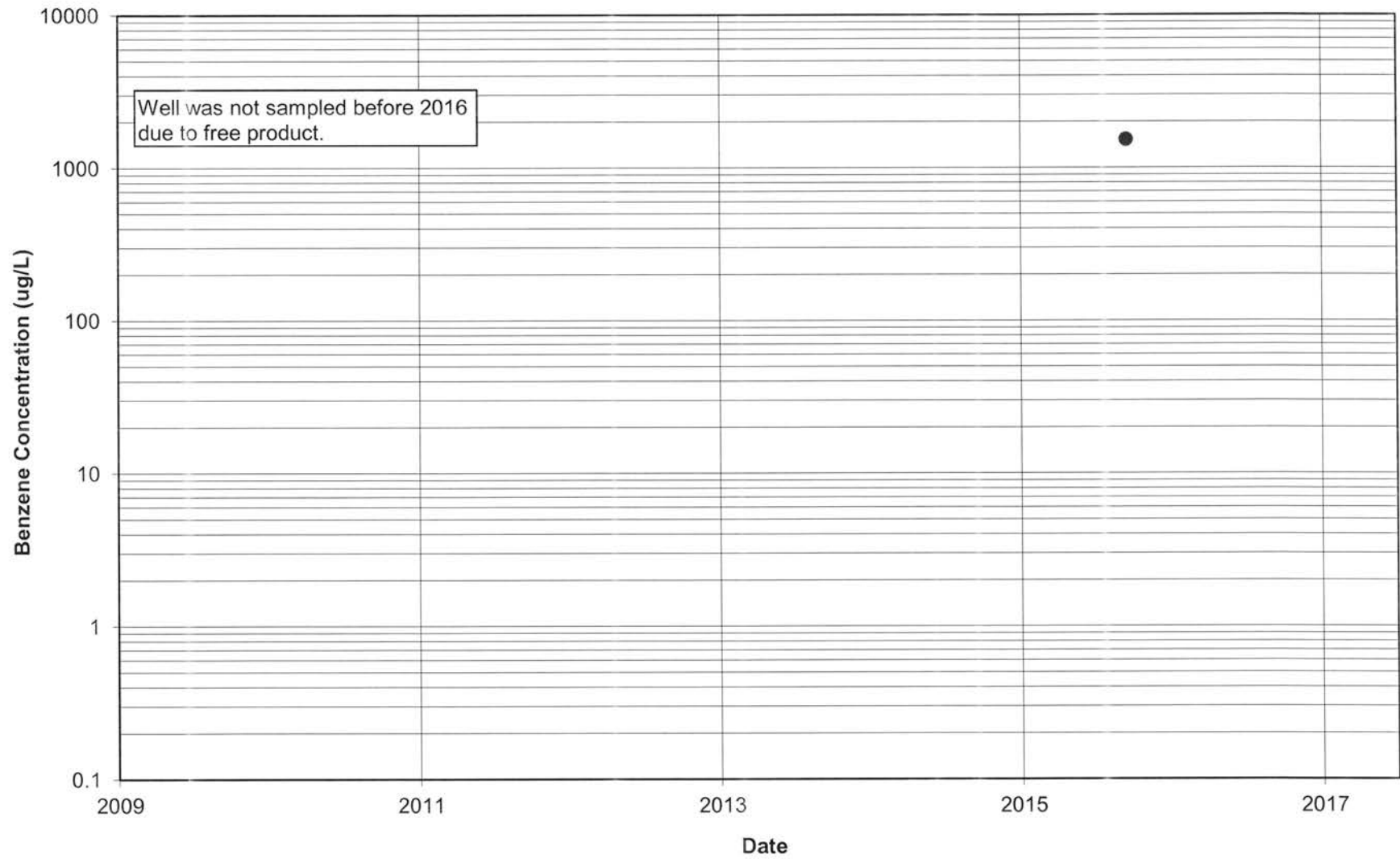
Time series plot of benzene in R-021A



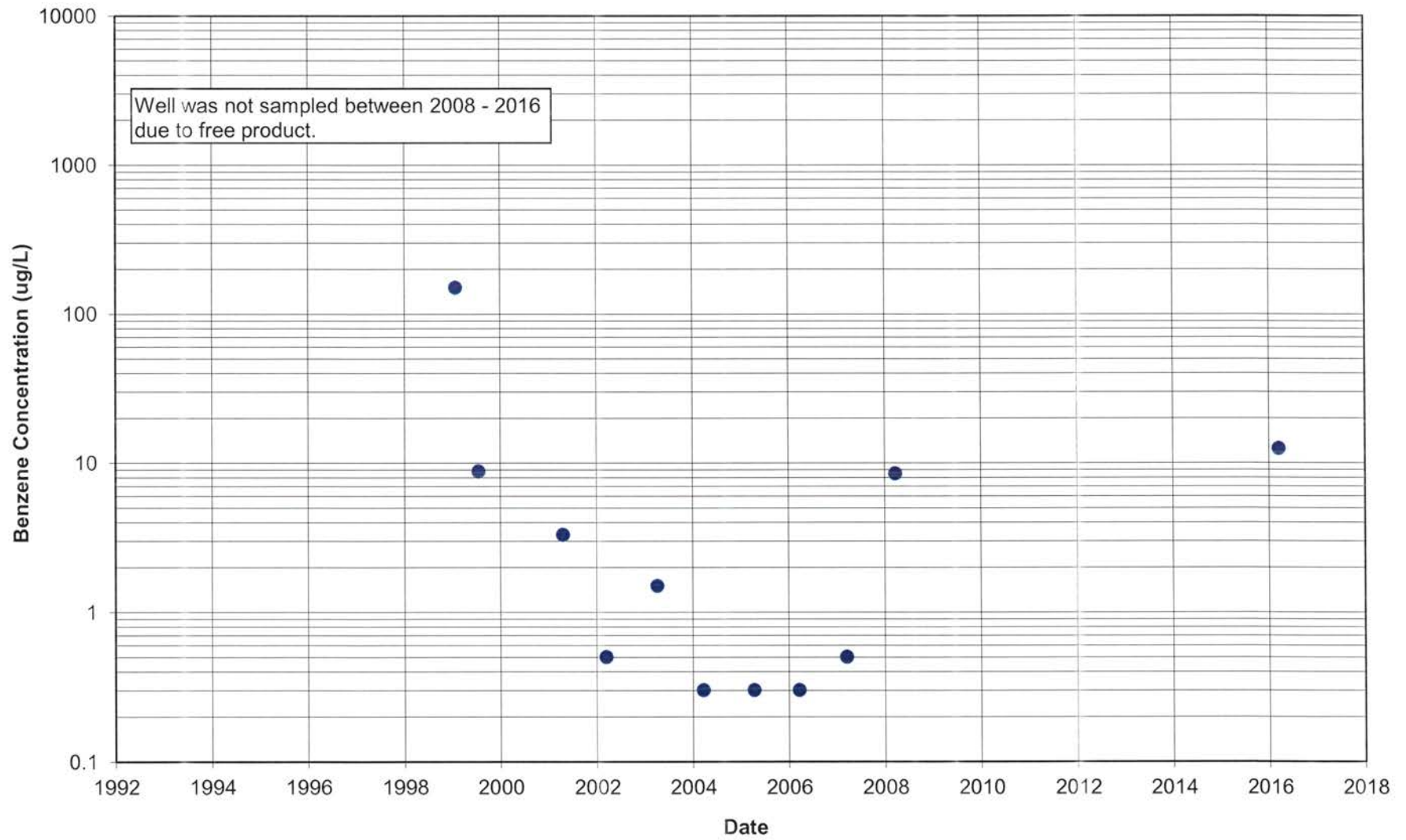
Time series plot of benzene in R-022A



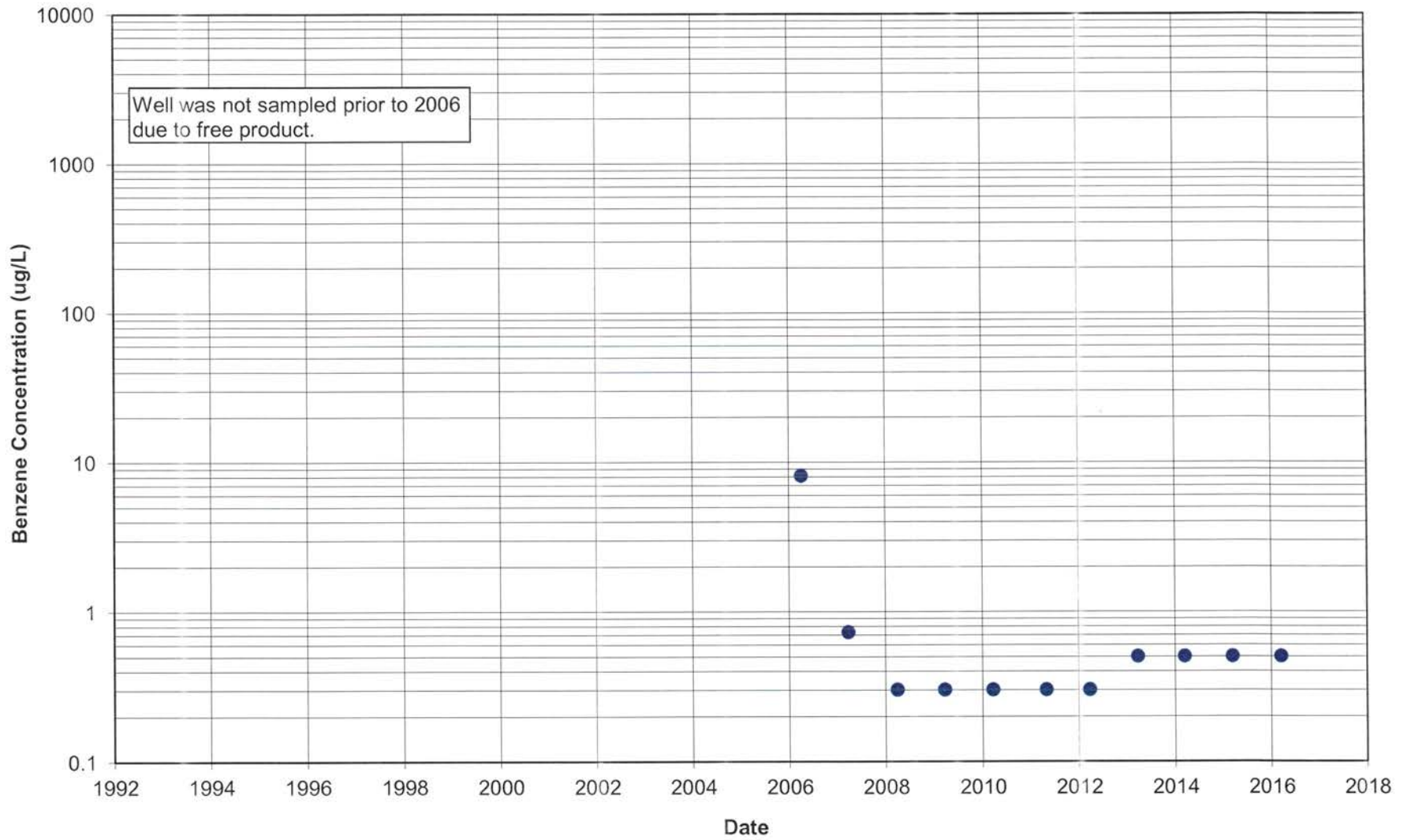
Time series plot of benzene in R-027A



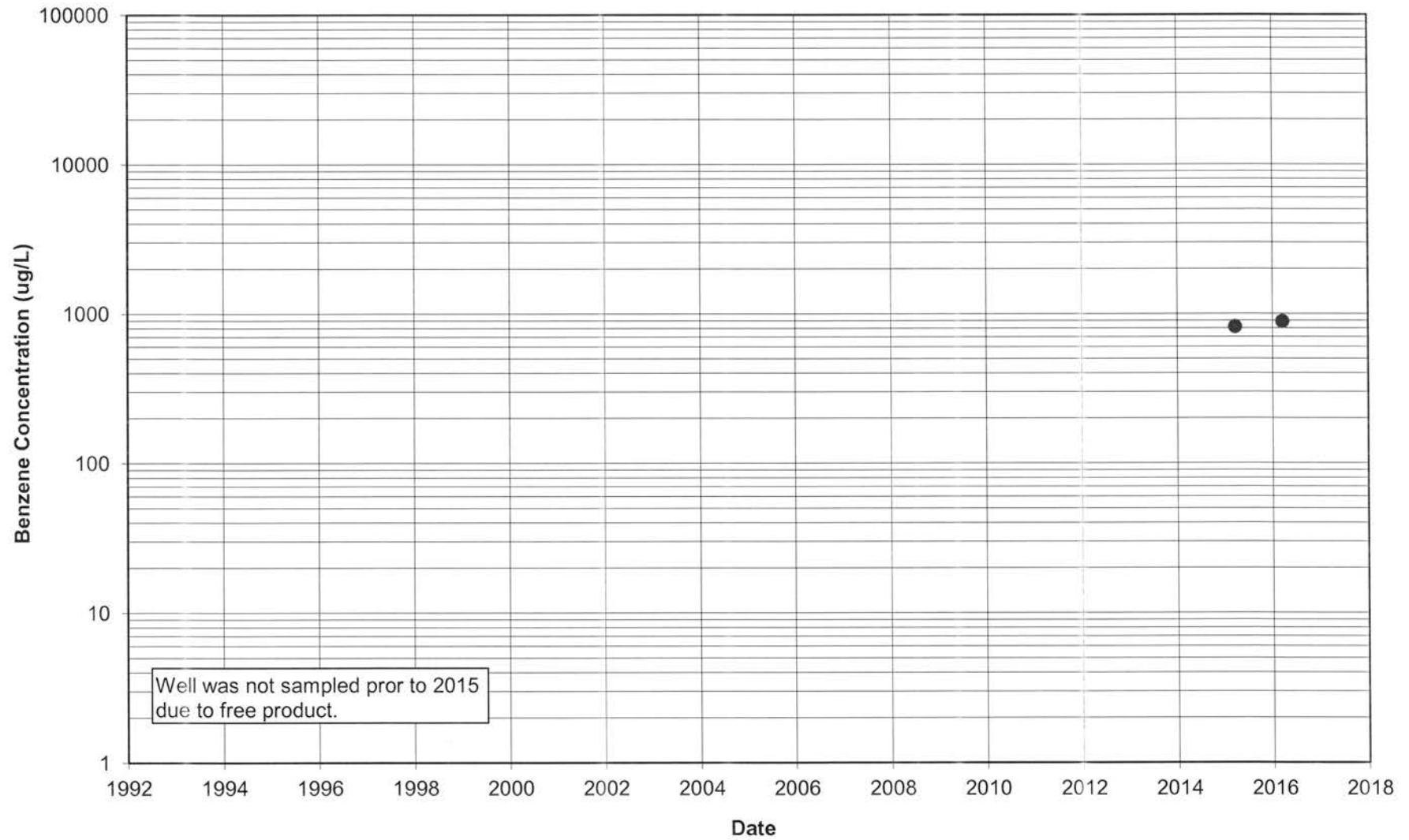
Time series plot of benzene in R-028A



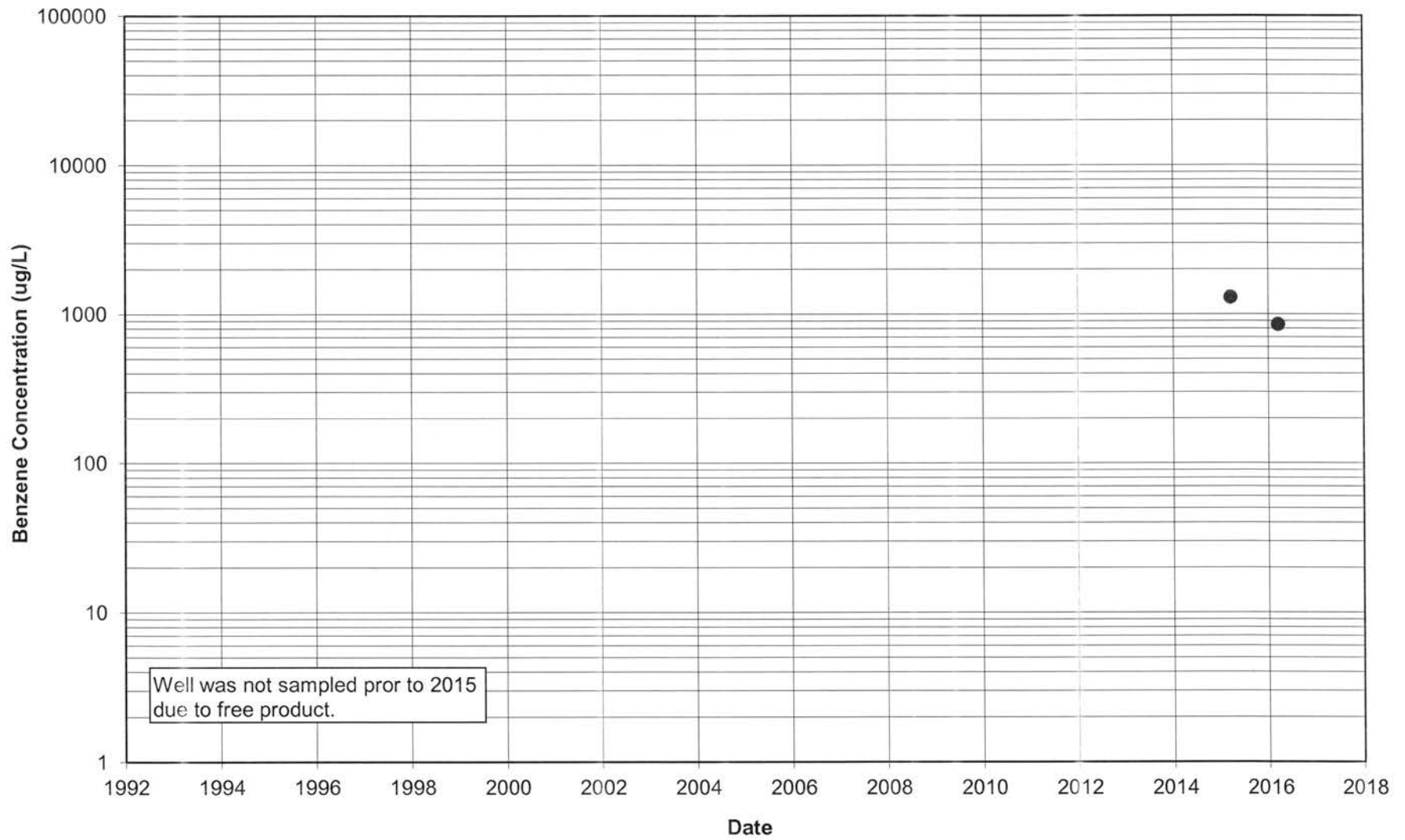
Time series plot of benzene in R-029A



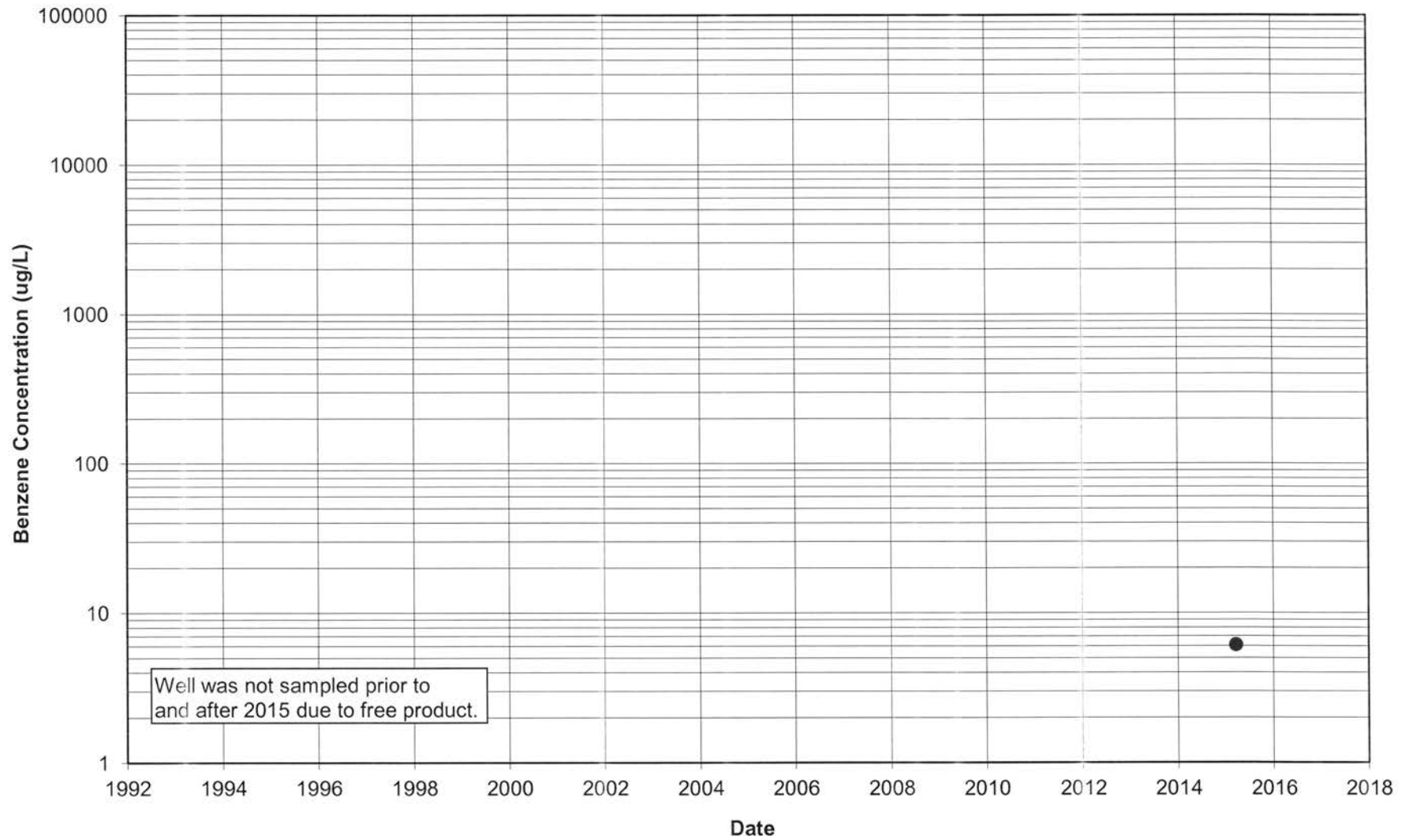
Time series plot of benzene in R-030A



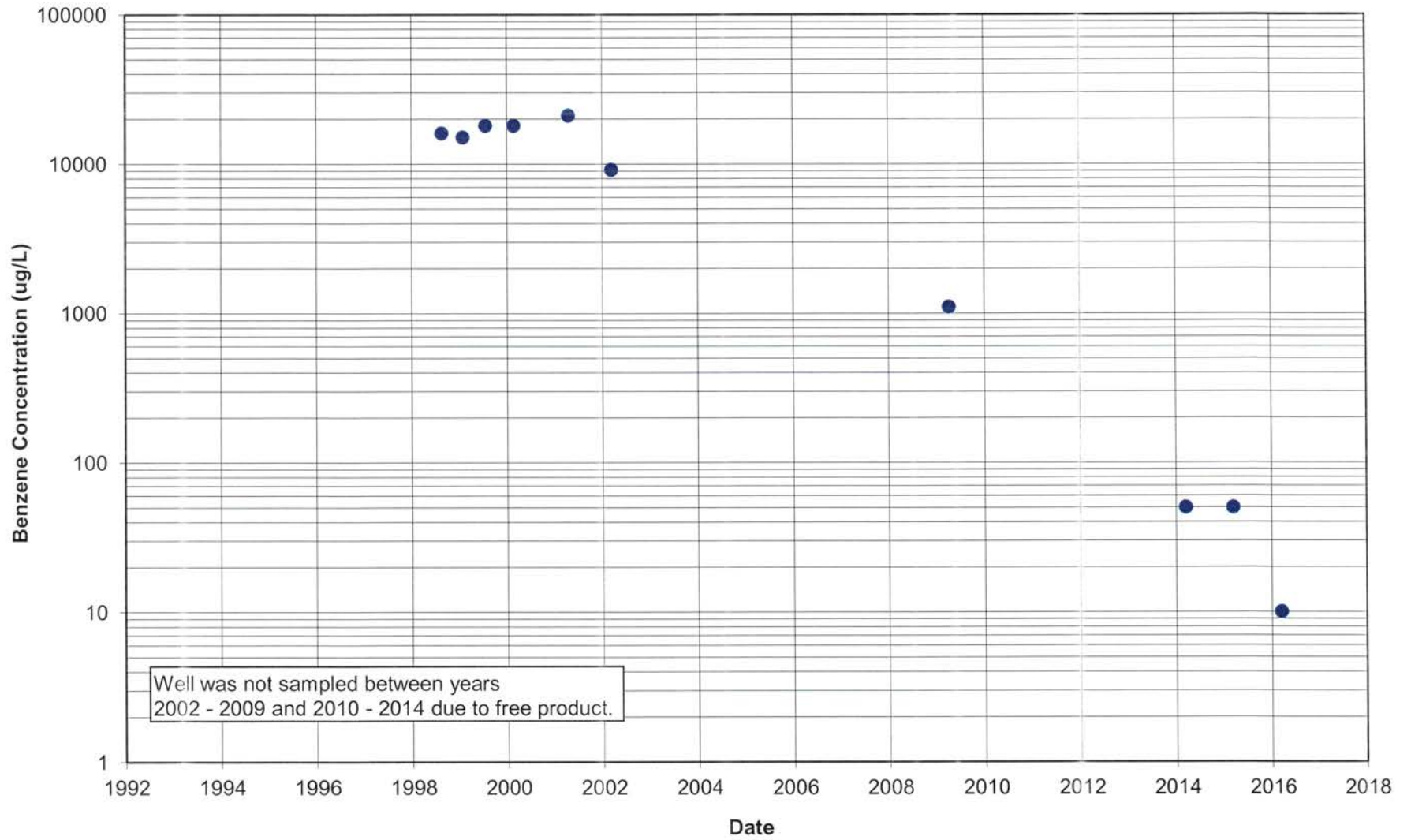
Time series plot of benzene in R-031A



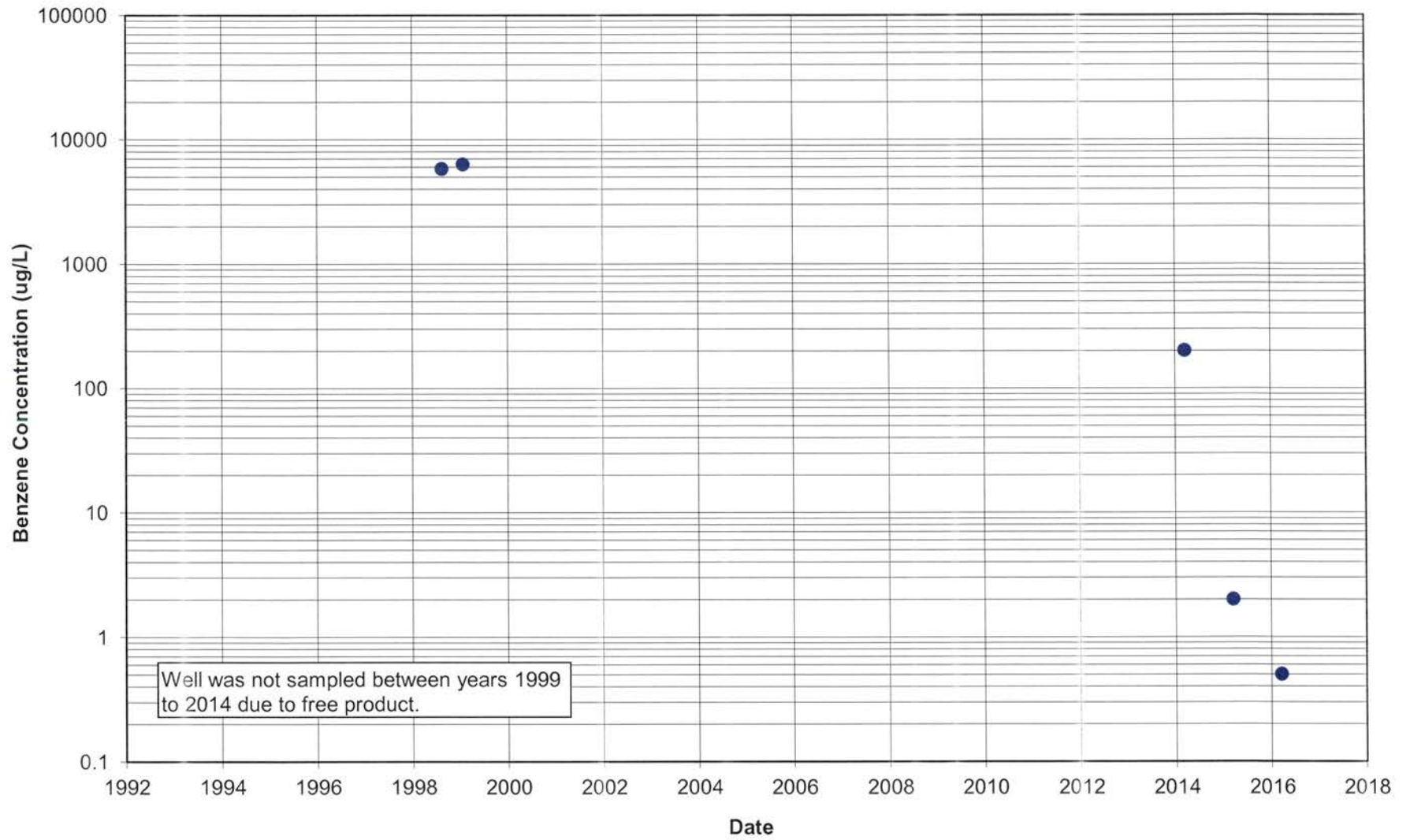
Time series plot of benzene in R-032A



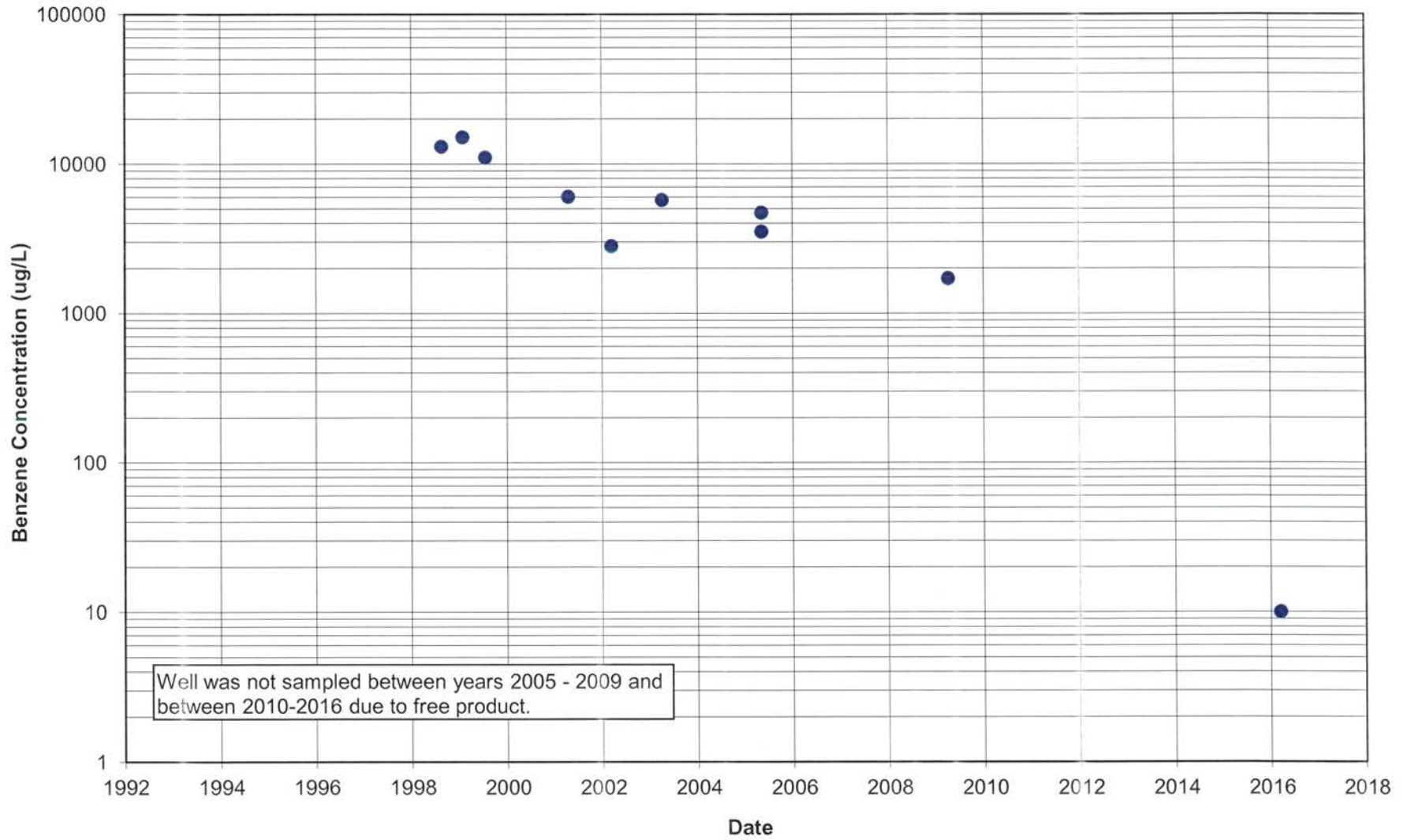
Time series plot of benzene in R-033A



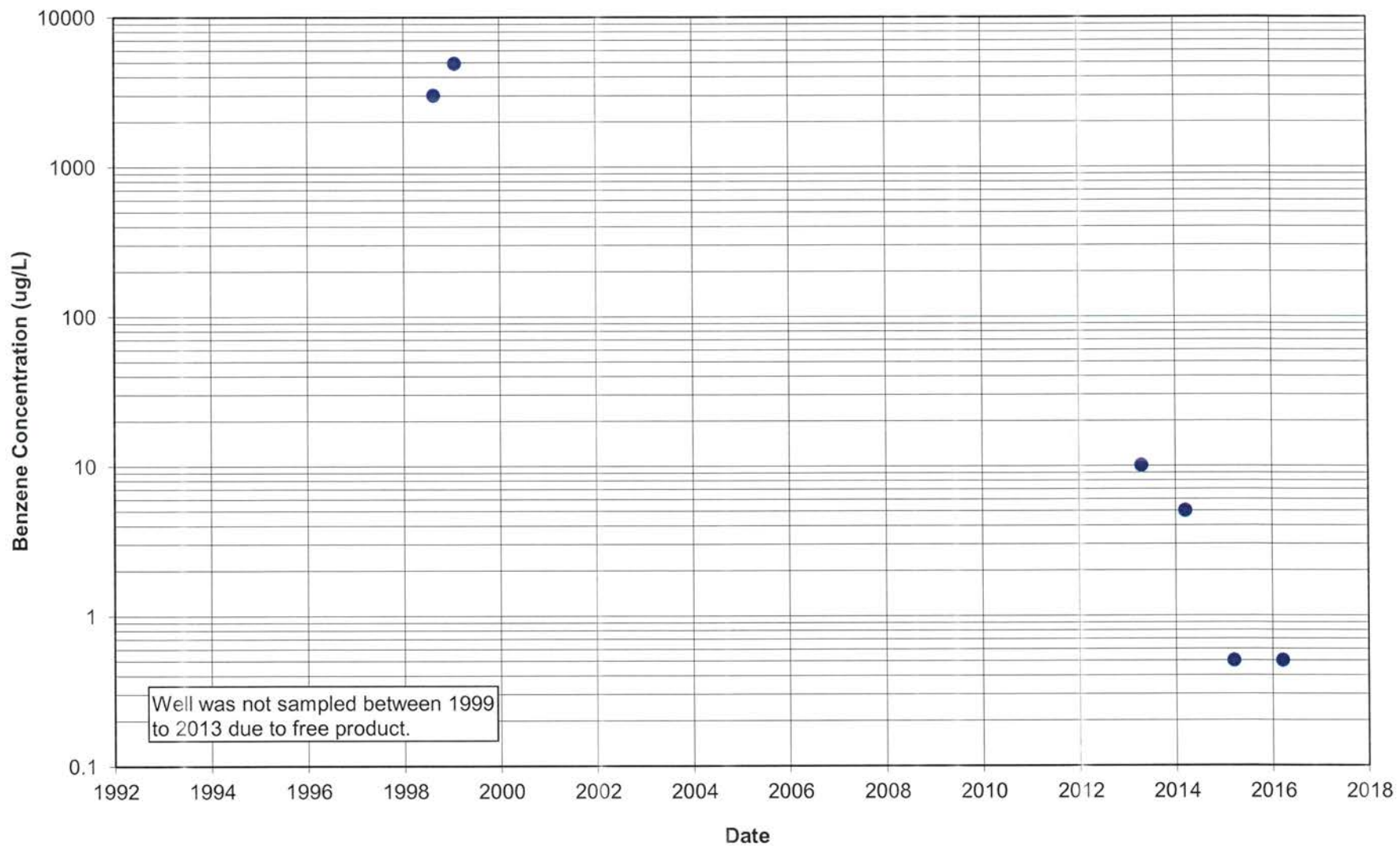
Time series plot of benzene in R-034A



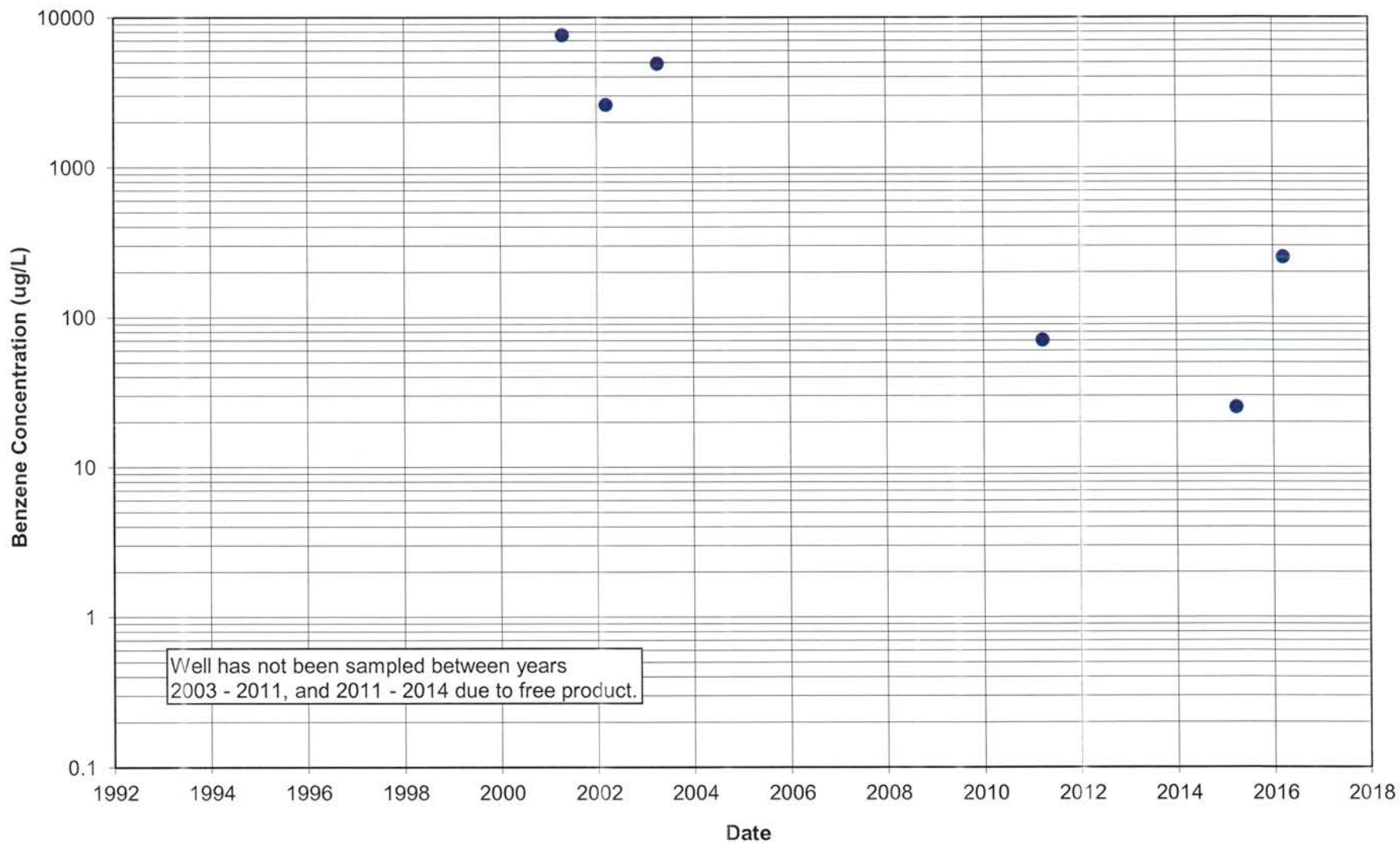
Time series plot of benzene in R-035A



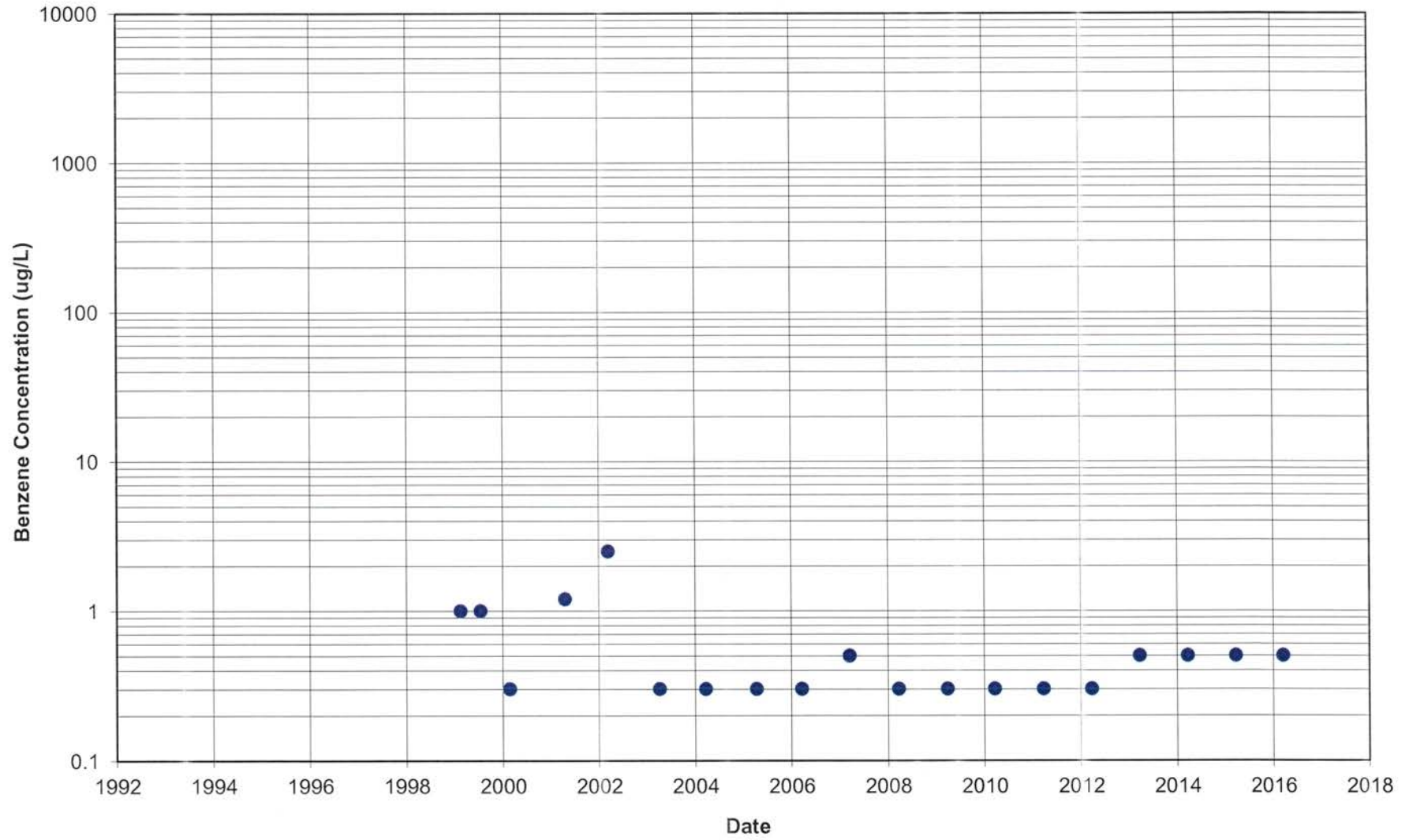
Time series plot of benzene in R-036A



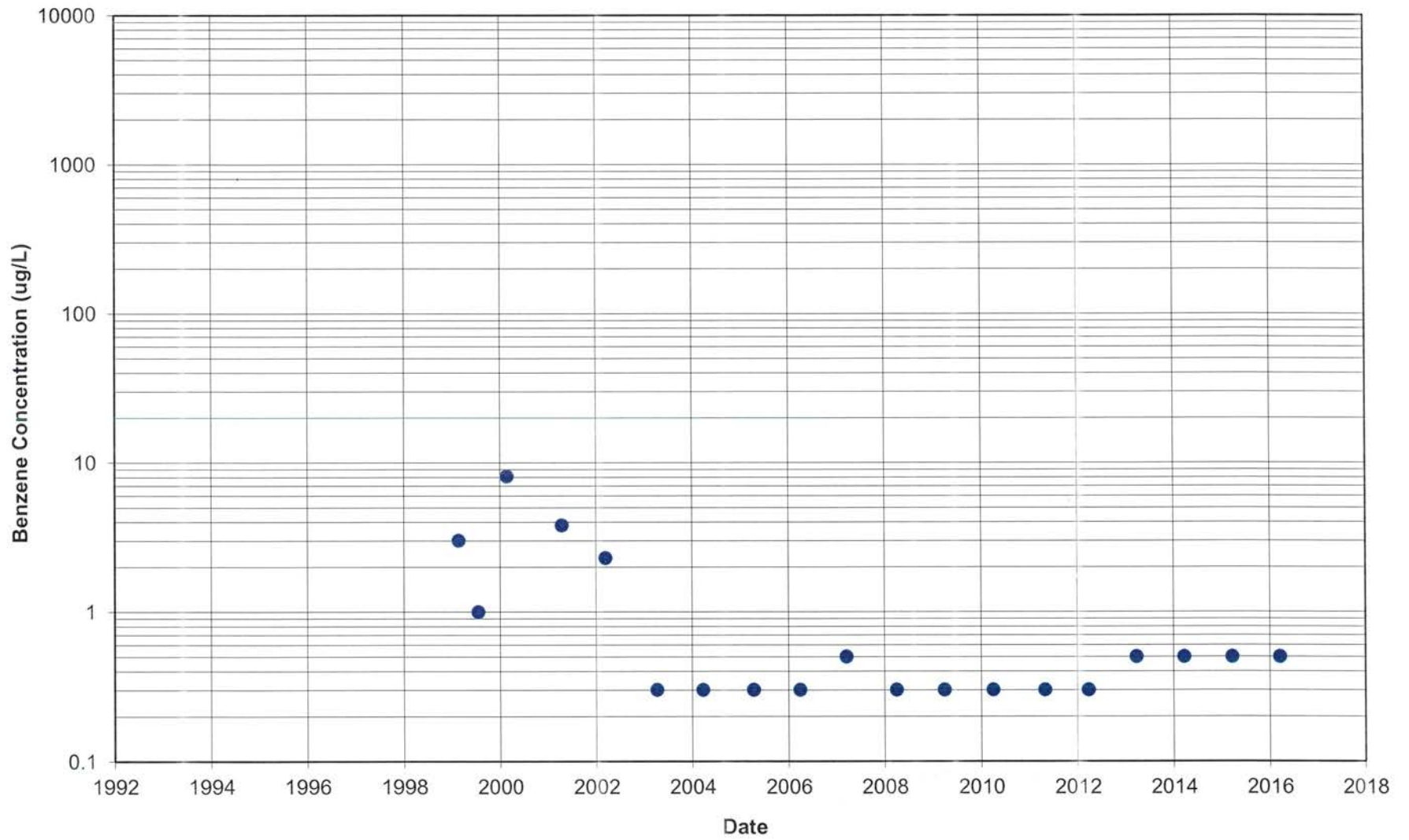
Time series plot of benzene in R-037A



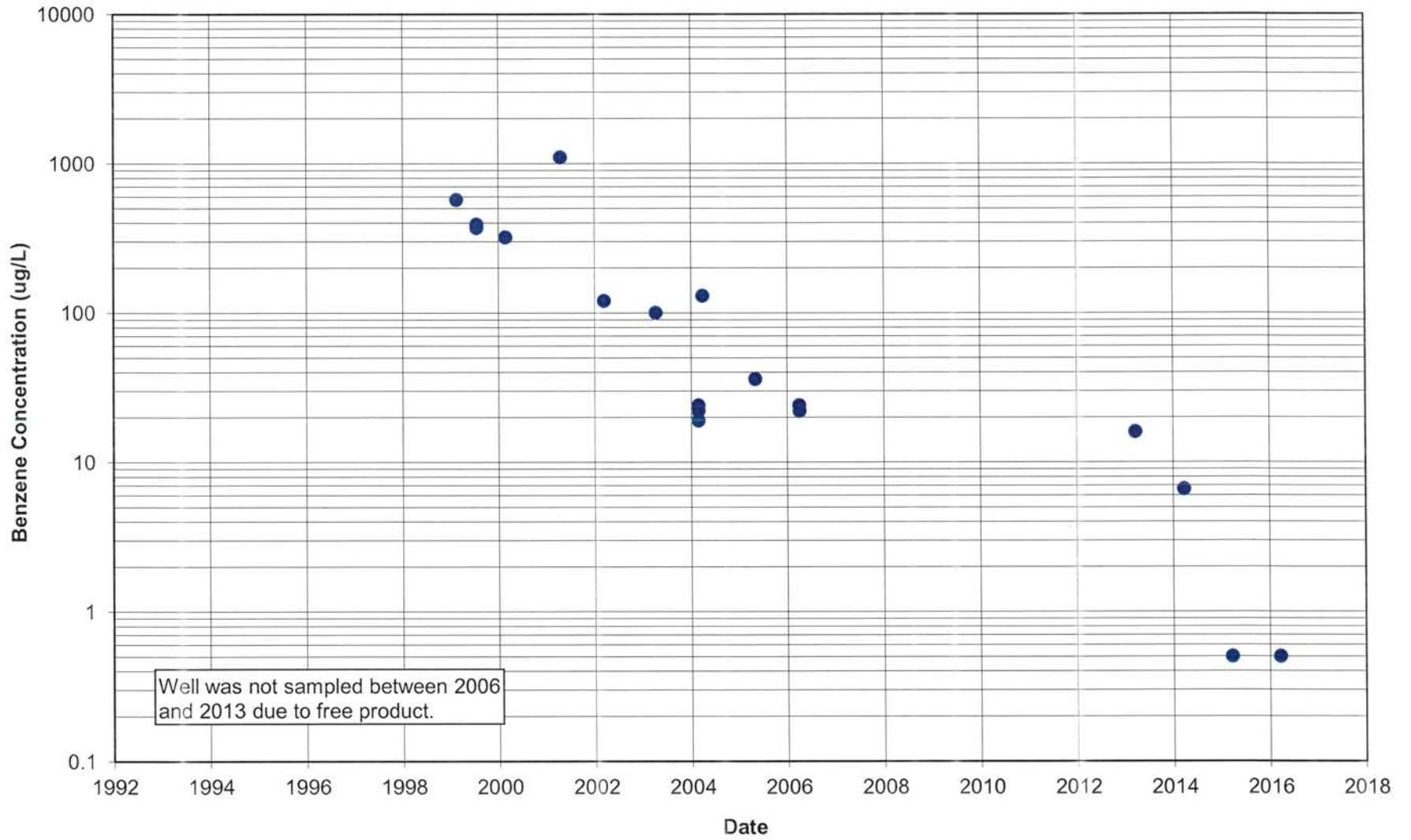
Time series plot of benzene in R-044A



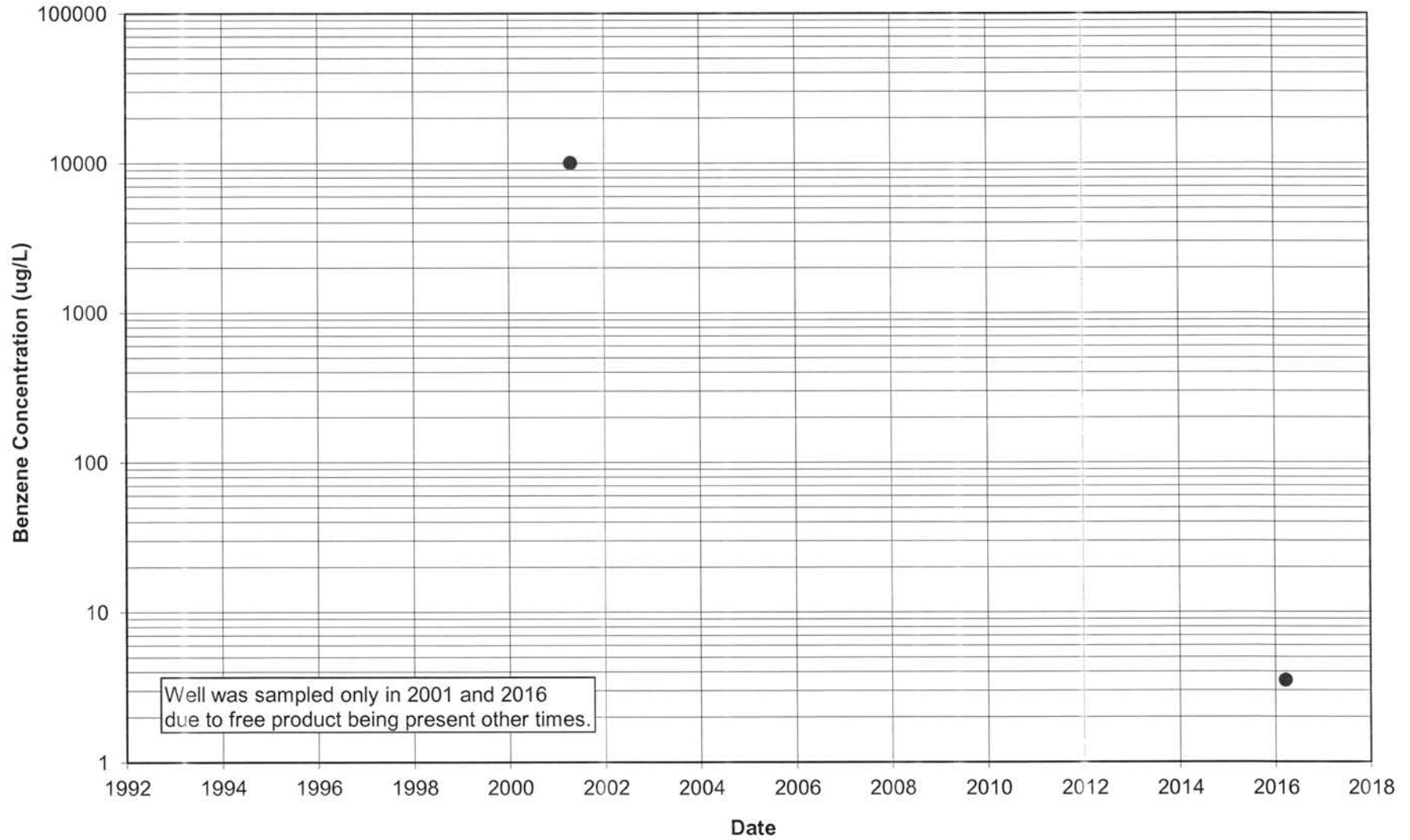
Time series plot of benzene in R-045A



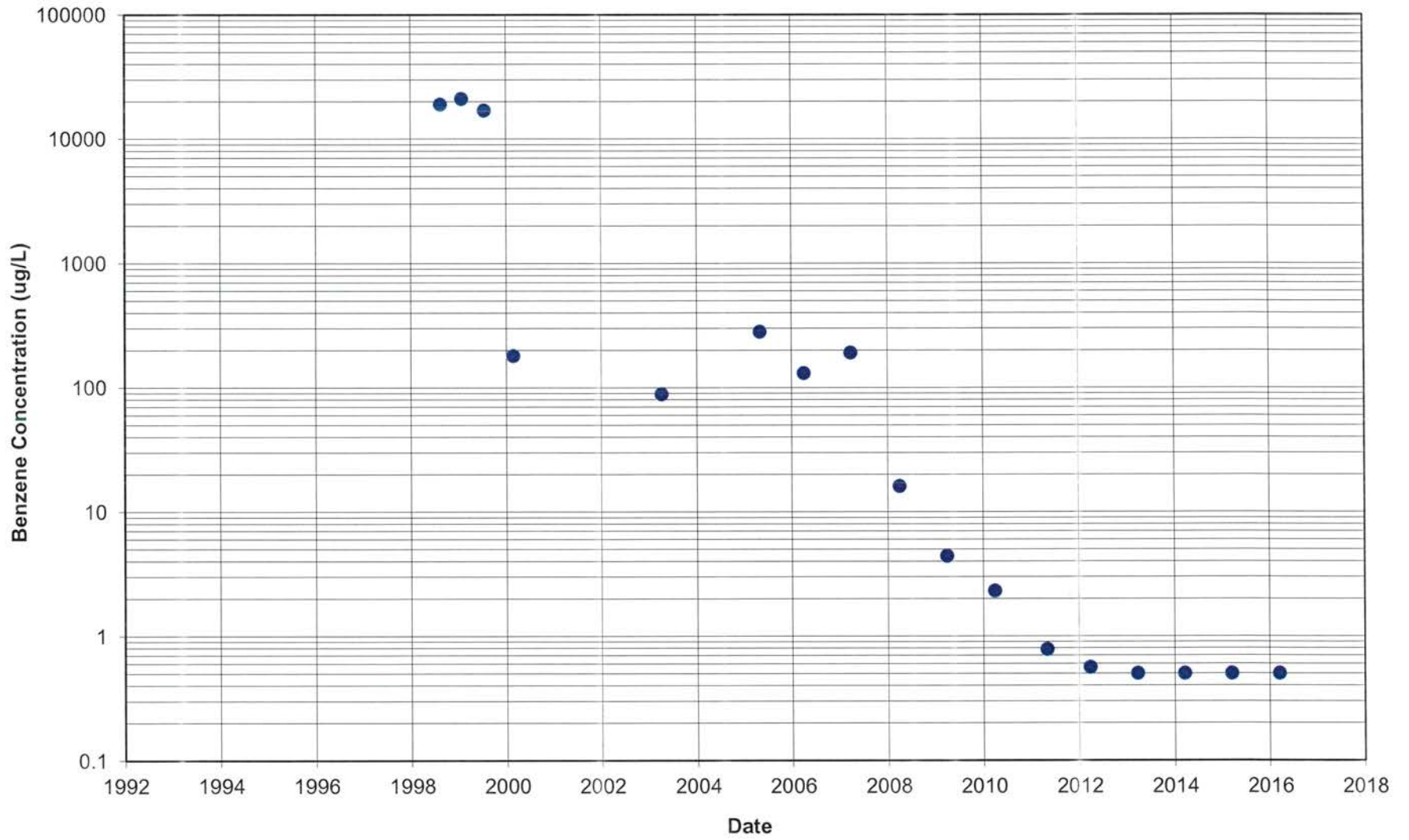
Time series plot of benzene in R-046A



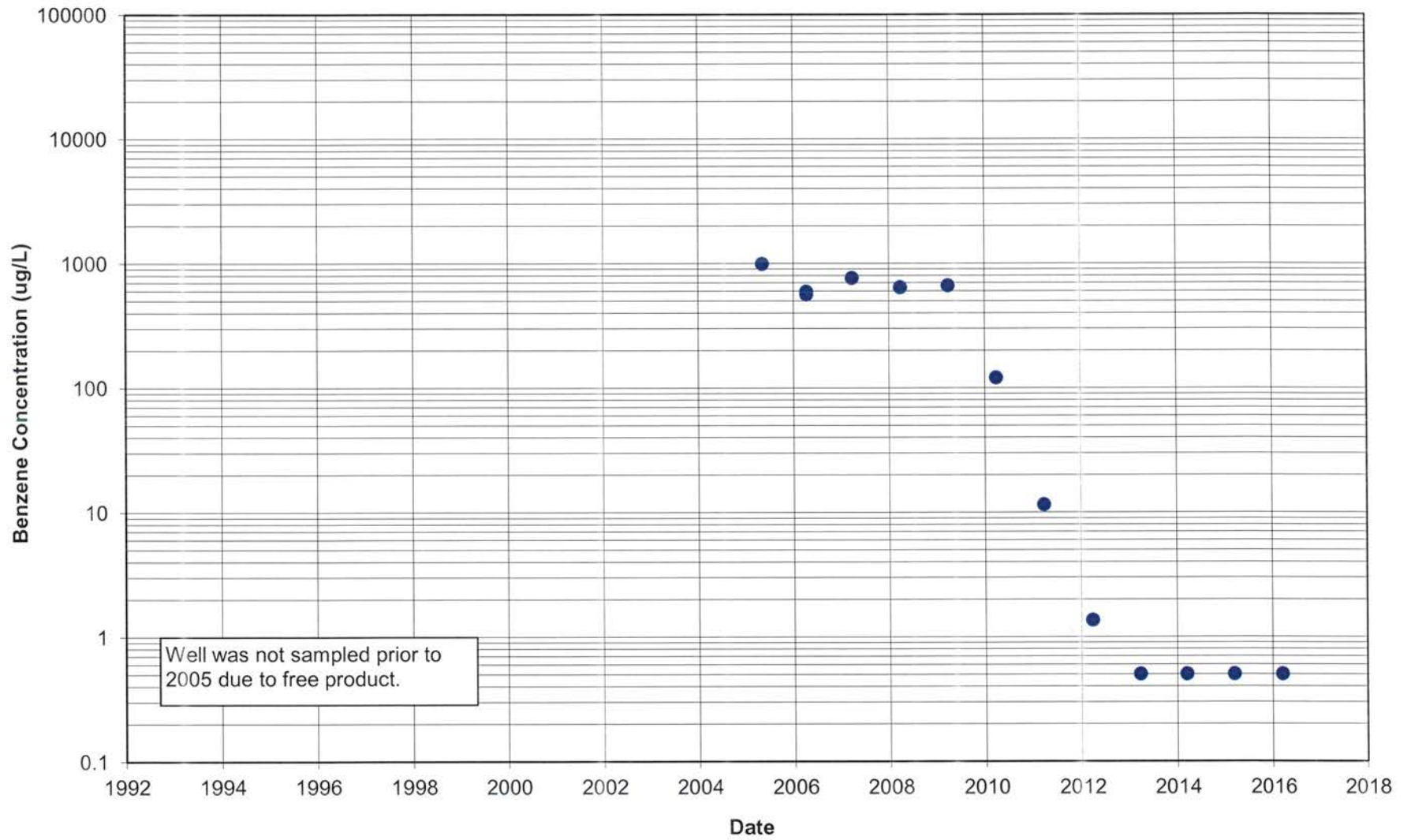
Time series plot of benzene in R-047A



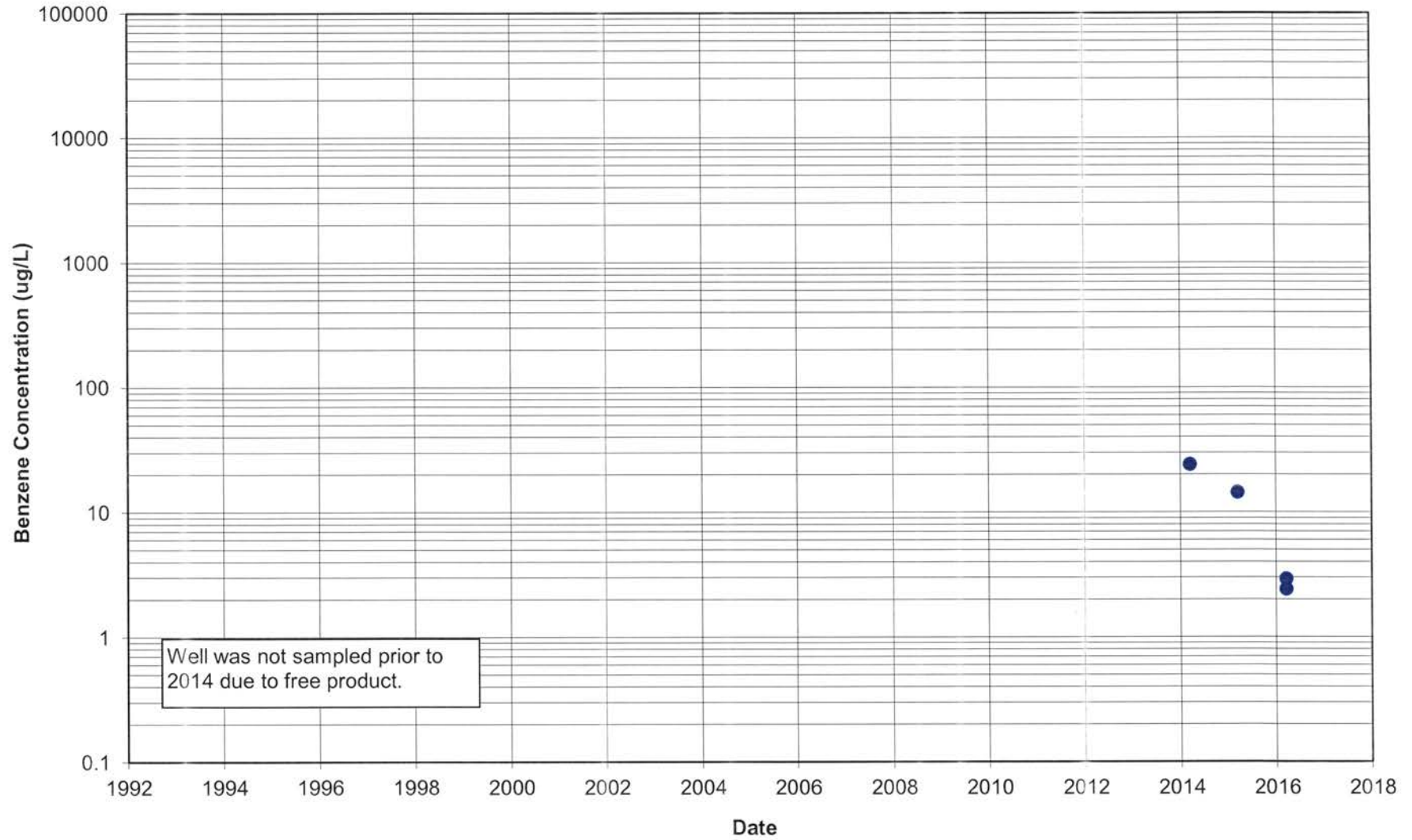
Time series plot of benzene in R-048A



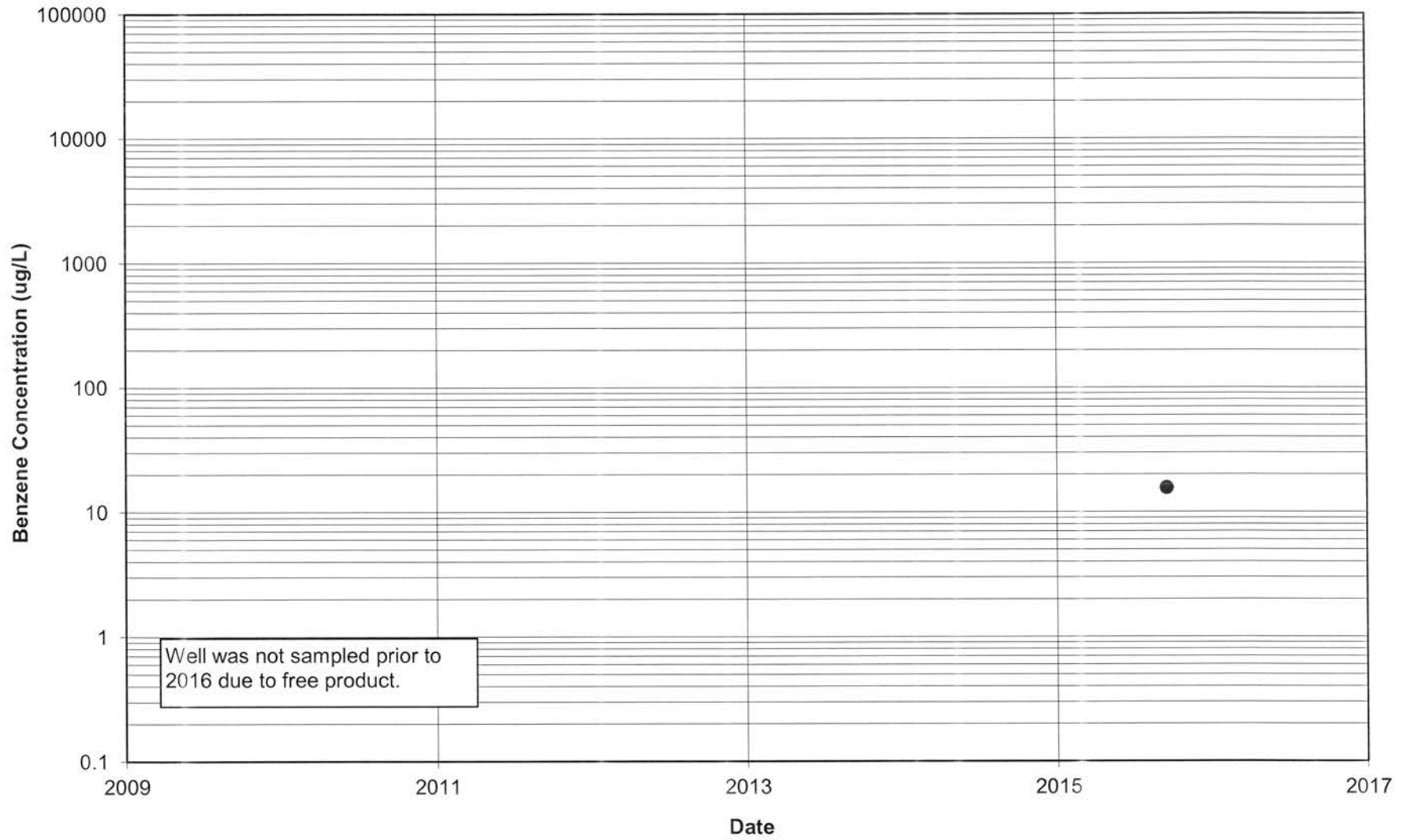
Time series plot of benzene in R-049A



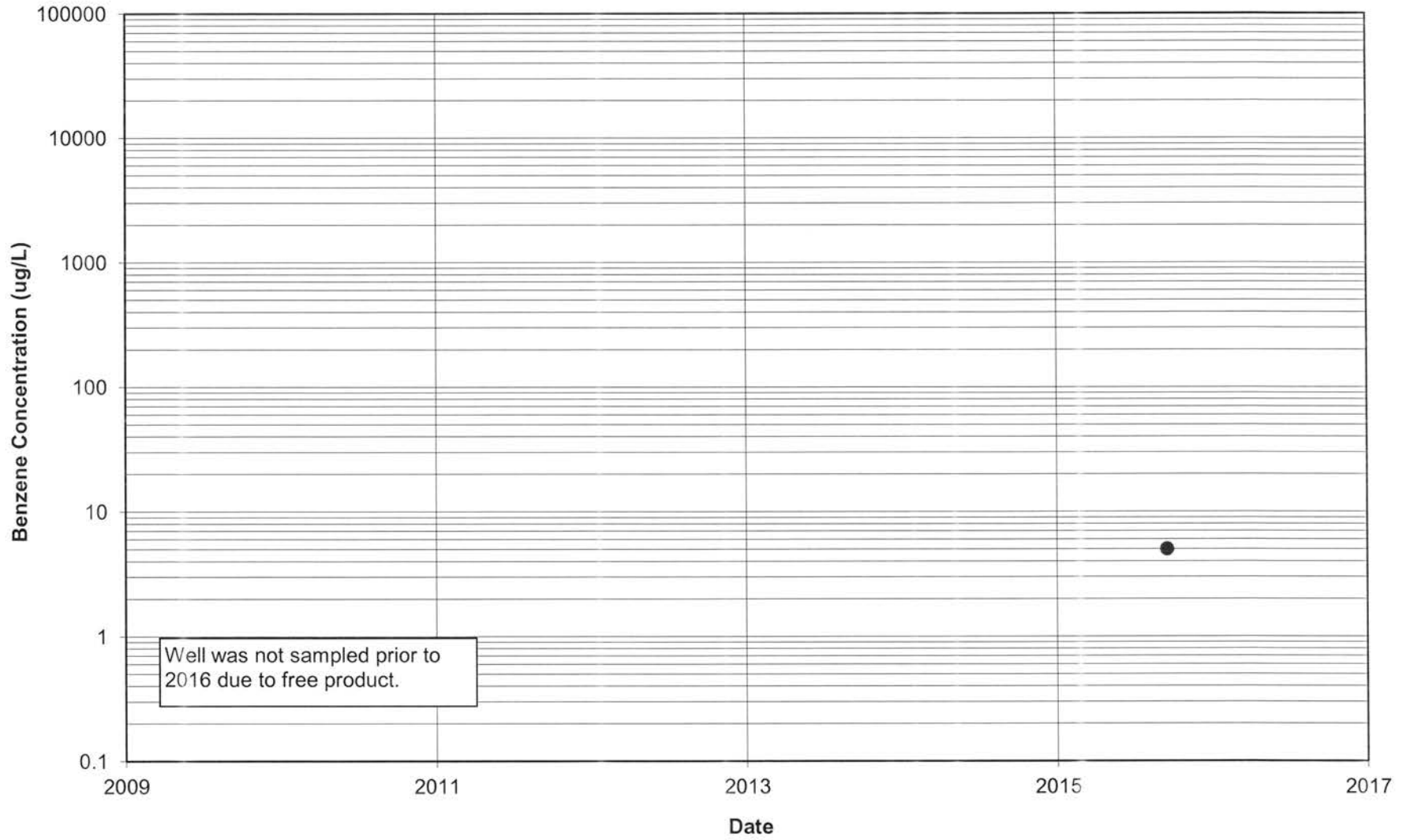
Time series plot of benzene in R-050A



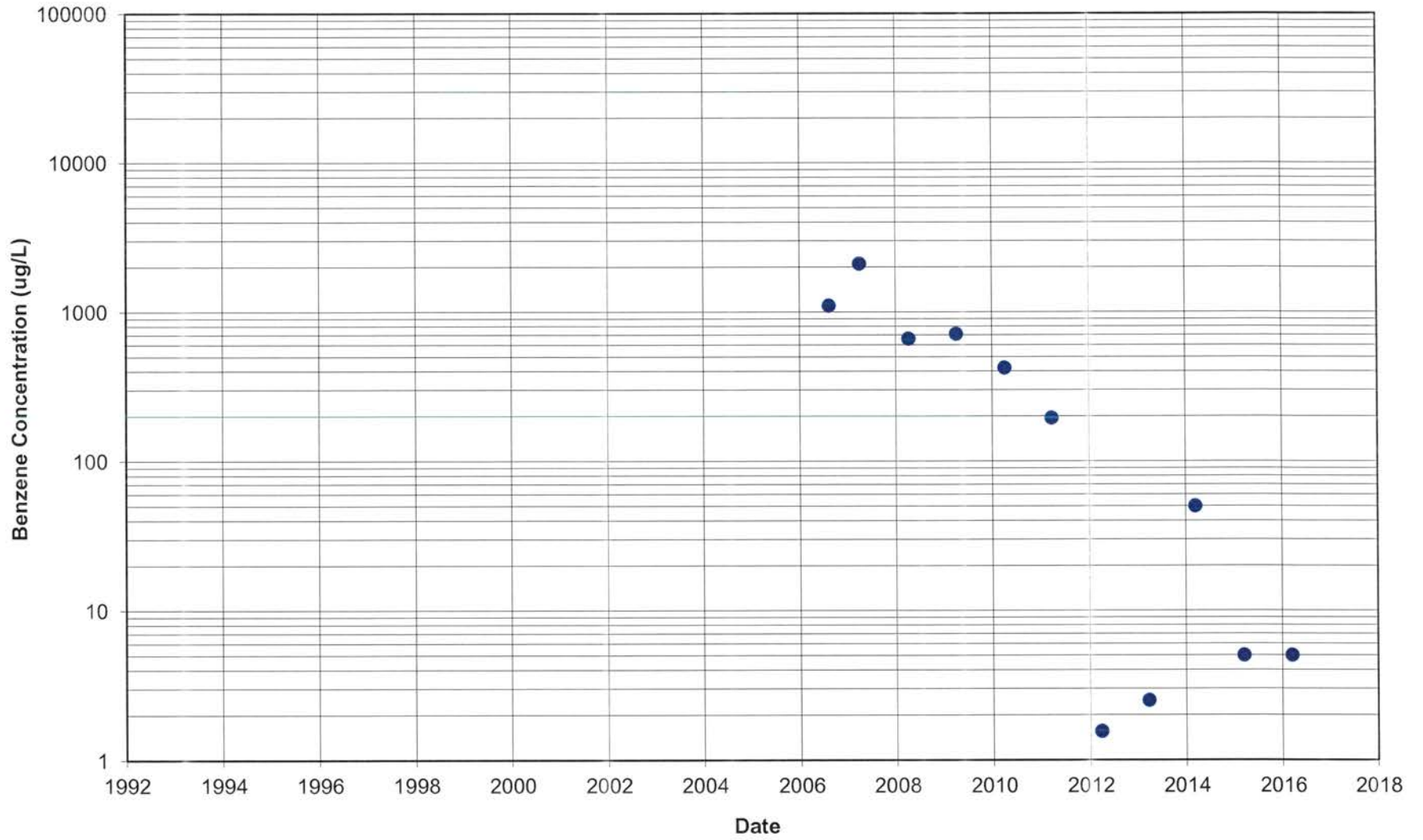
Time series plot of benzene in R-051A



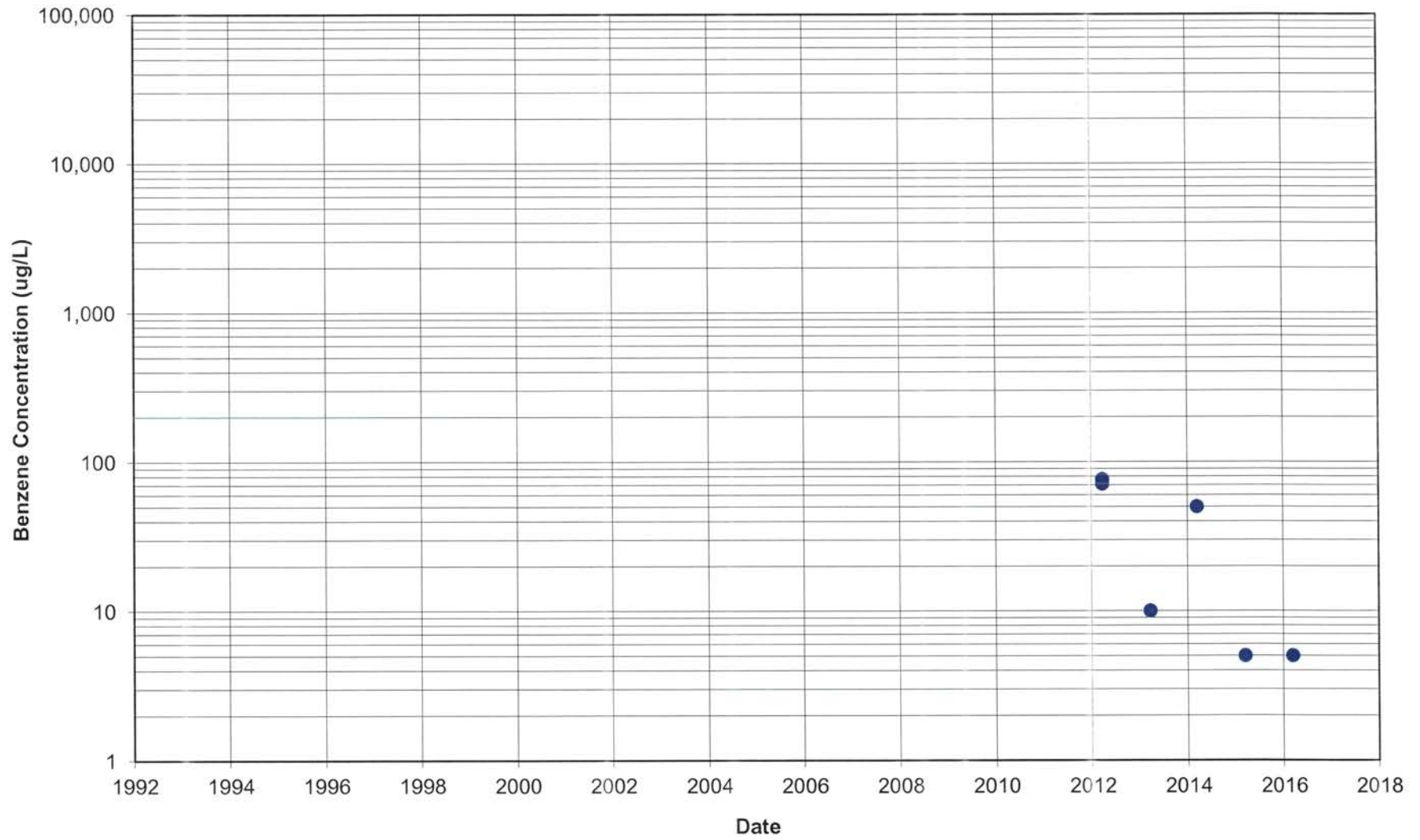
Time series plot of benzene in R-098A



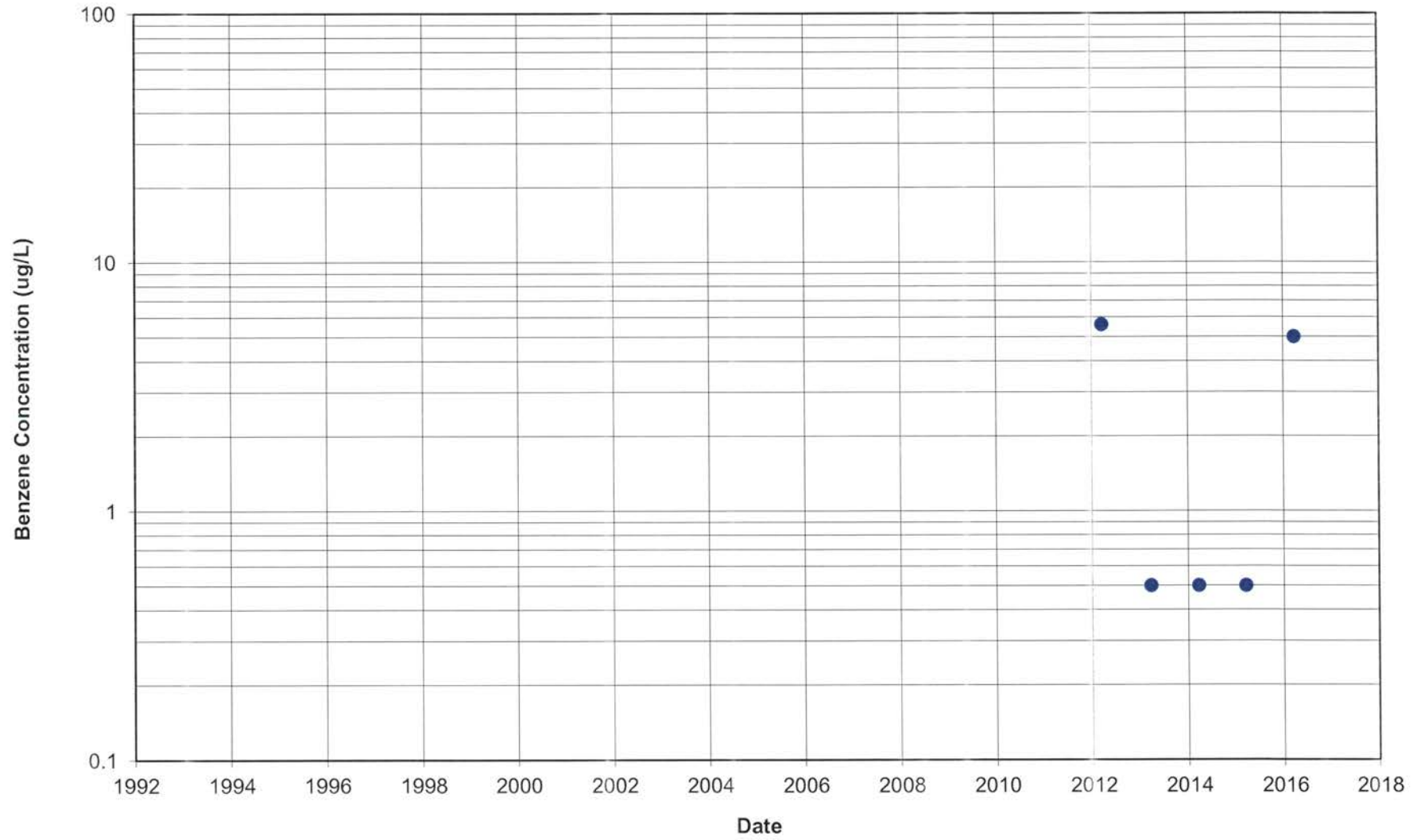
Time series plot of benzene in PCM-508A



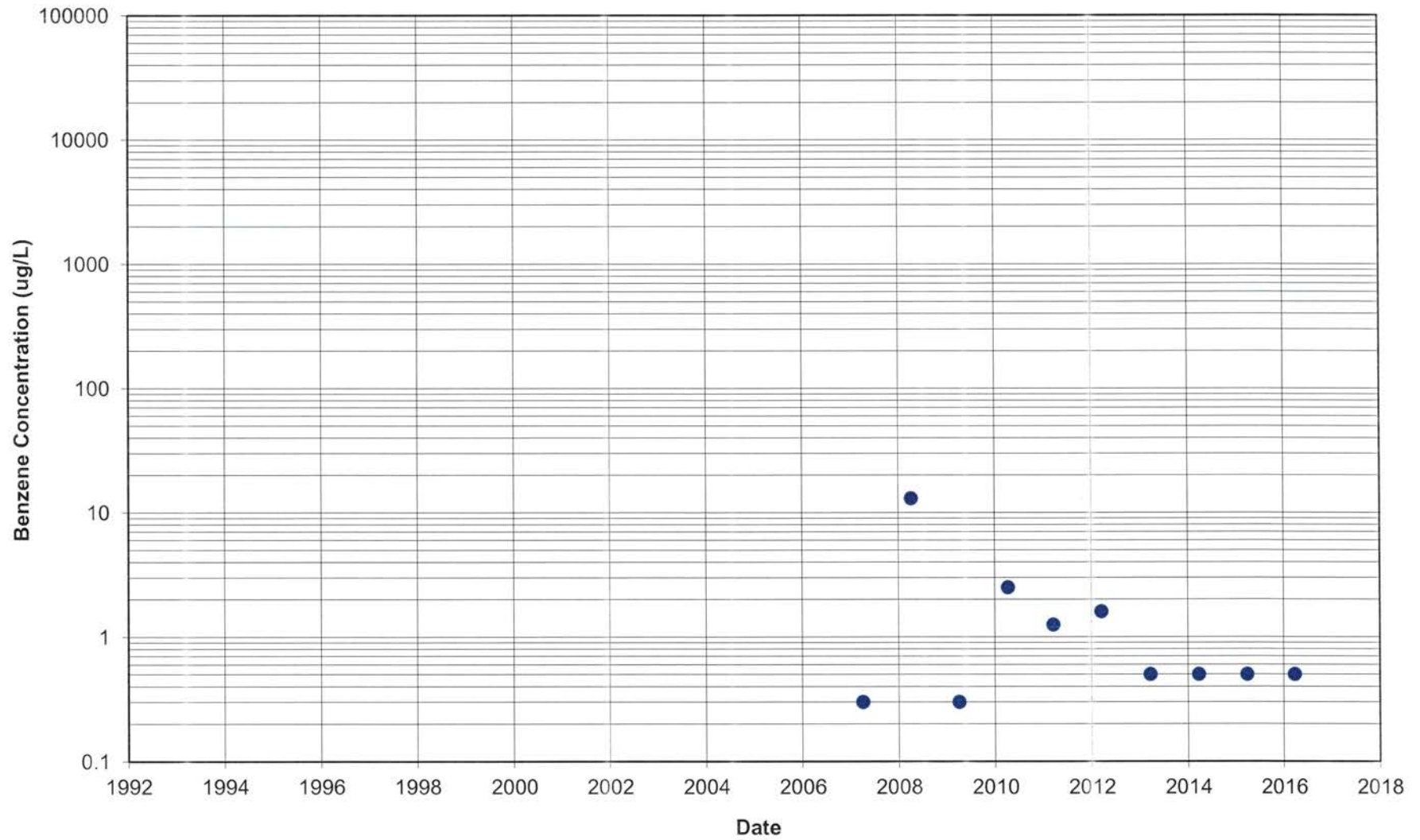
Time series plot of benzene in PCM-508B



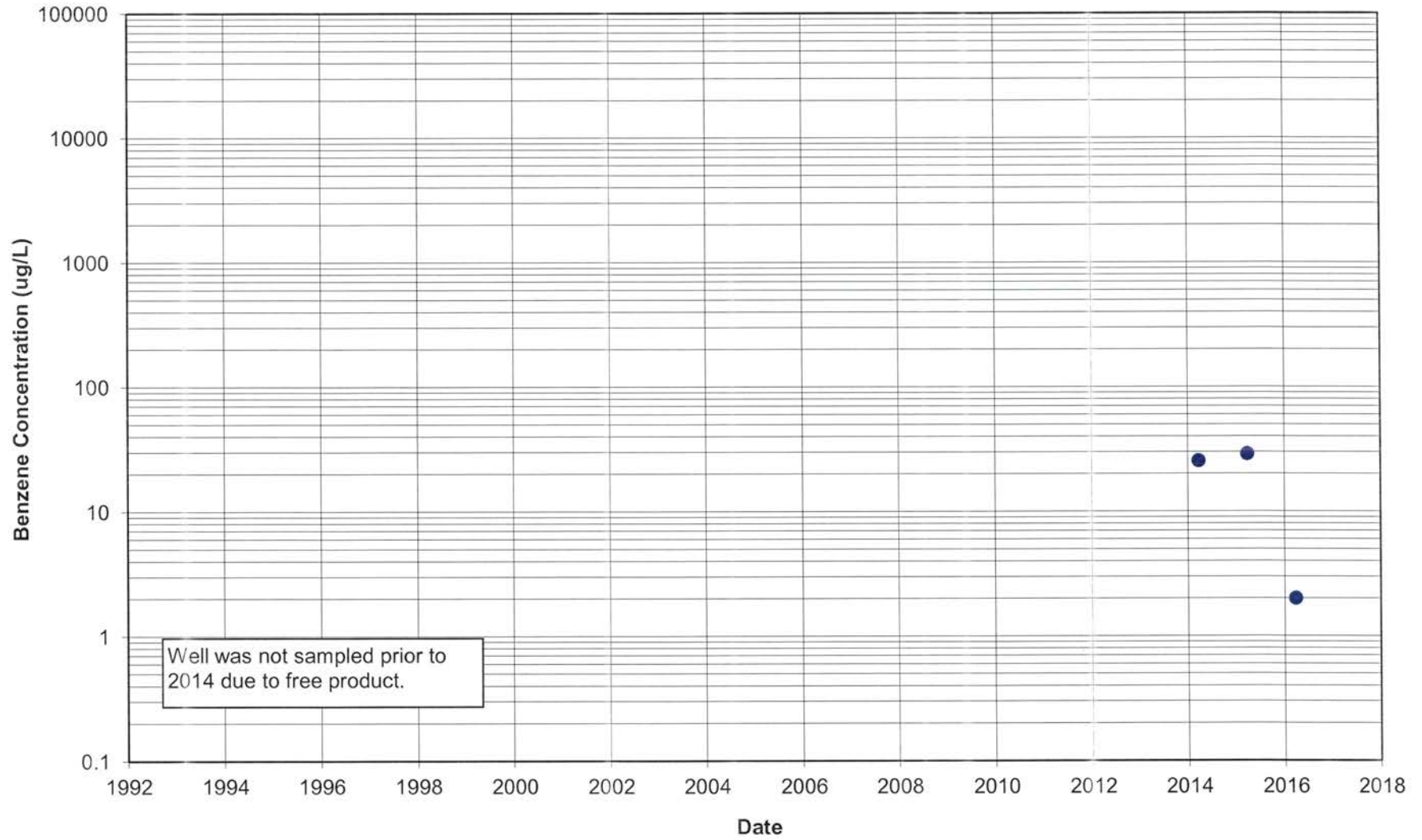
Time series plot of benzene in PCM-509B



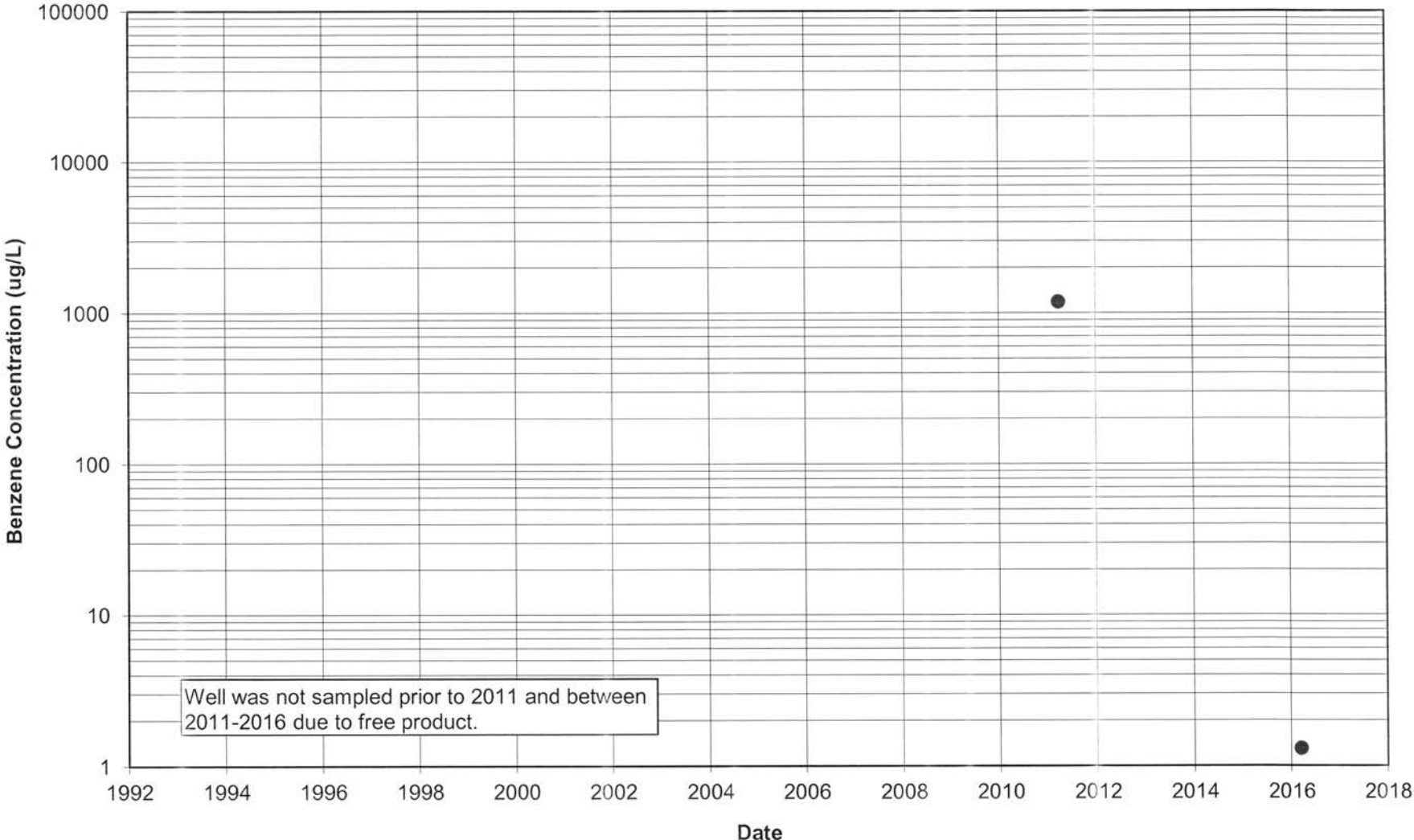
Time series plot of benzene in PCM-510A



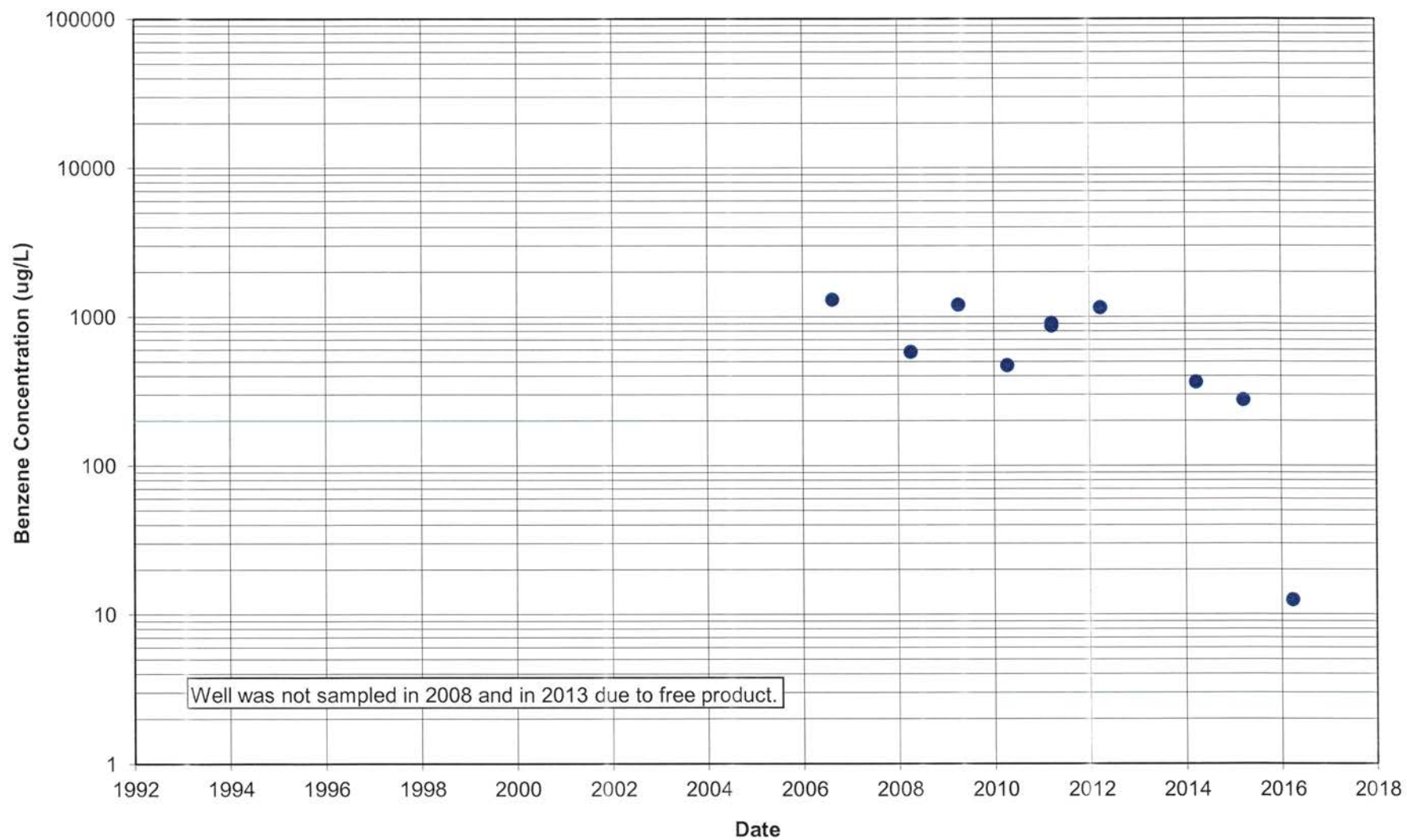
Time series plot of benzene in PCM-510B



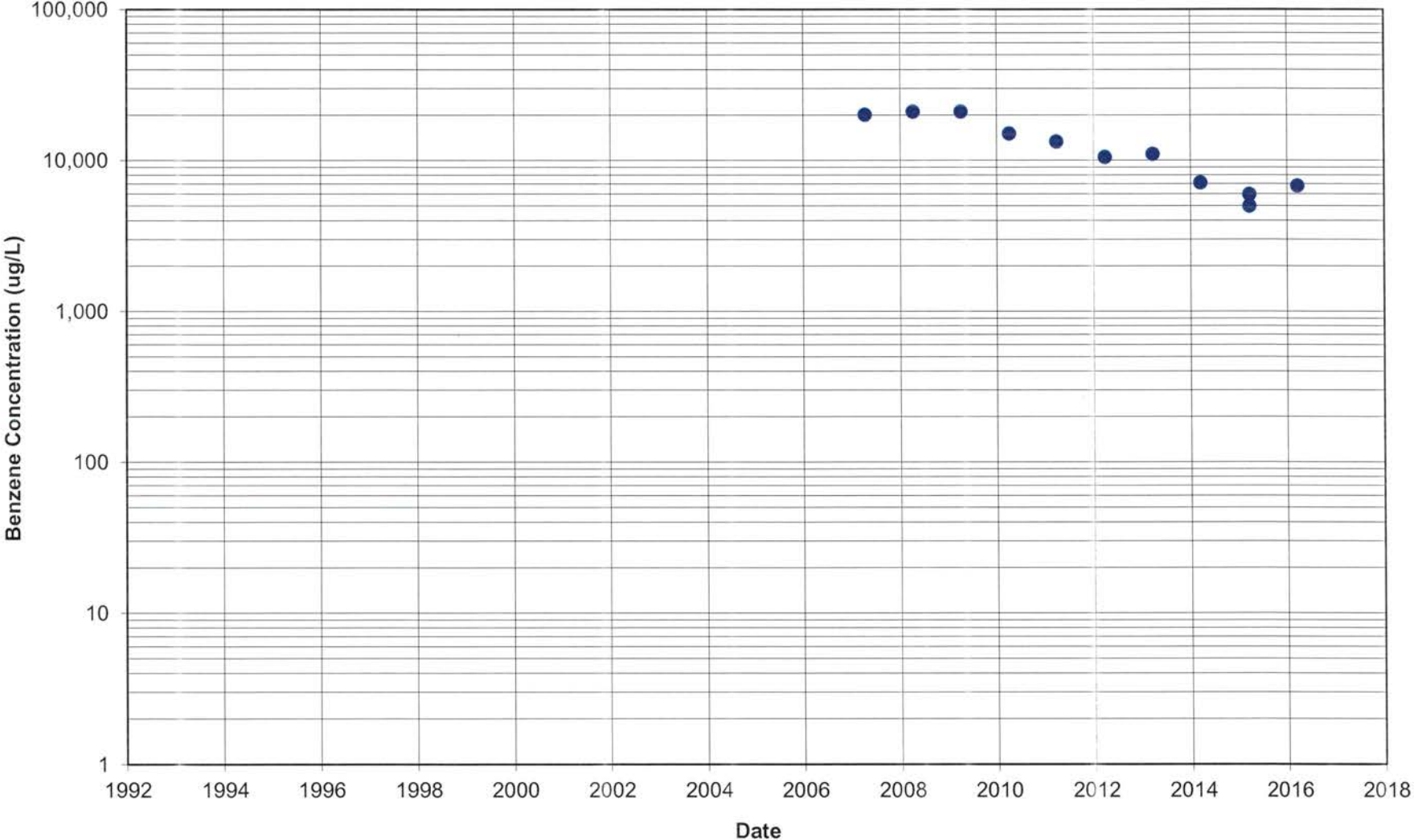
Time series plot of benzene in PCM-511A



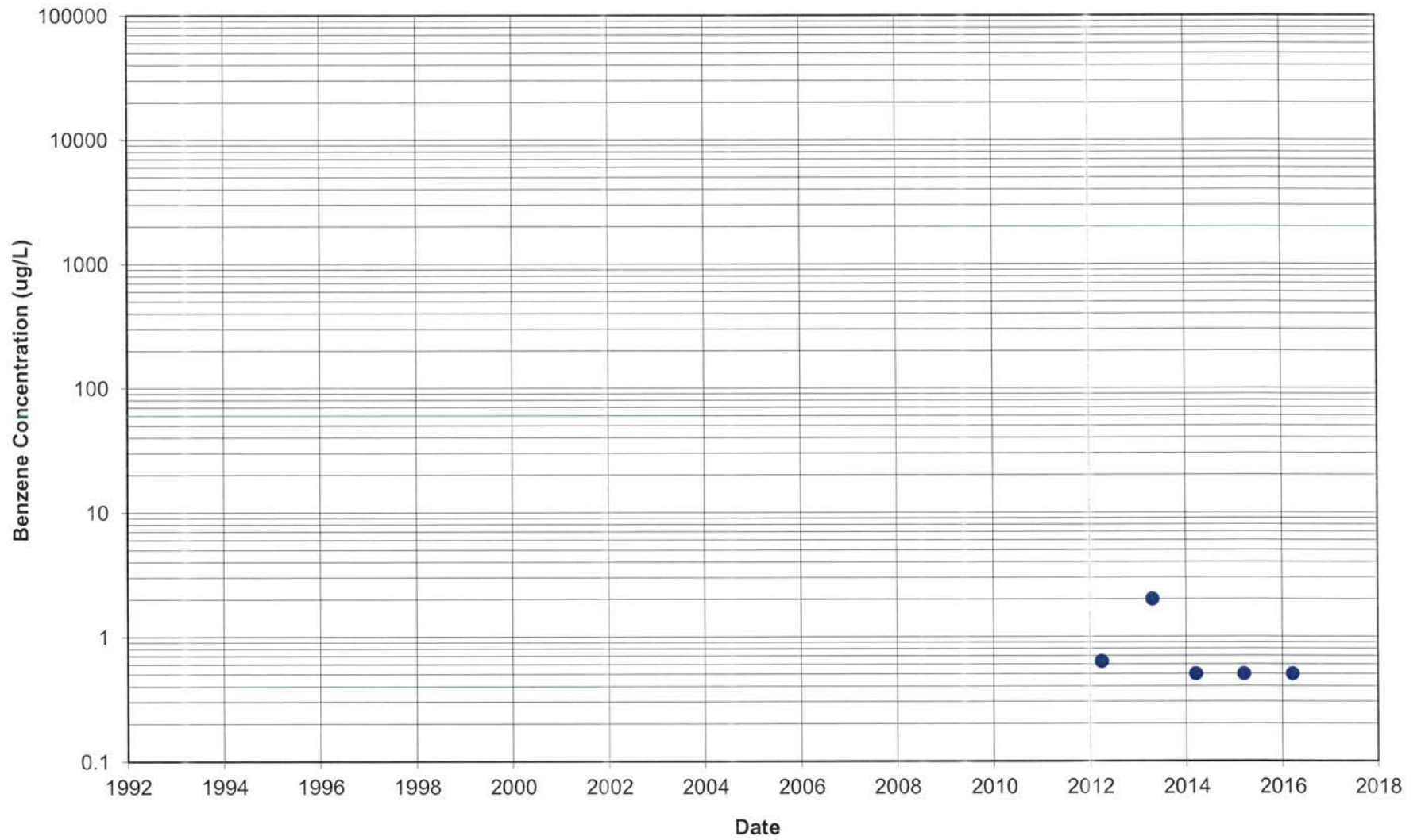
Time series plot of benzene in PCM-512A



Time series plot of benzene in PCM-517A



Time series plot of benzene in PCM-535A



APPENDIX G

2016 TFS-10 Quarterly System Performance Summary Reports,
By Cardno



January 27, 2017
4161240000.Q116TFS10

Mr. Richard Byrd
City of Tucson - Environmental Services
P.O. Box 27210
Tucson, AZ 85726-7210

Cardno
19621 North 23rd Drive,
Suite 150
Phoenix, AZ 85027
USA
Phone 602 977 8000
Fax 602 977 8099
www.cardno.com

**Subject: TFS-10 System Performance Summary
Thomas O. Price Service Center**
4004 South Park Avenue, Tucson, Arizona 85714
Facility ID: 0-005160, LUST No. 0767.01-.05

Mr. Byrd:

At the request of City of Tucson – Environmental Services (COT-ES), Cardno is submitting this remedial summary for the Air Sparge/Soil Vapor Extraction (AS/SVE) with catalytic oxidation abatement system at the above referenced Site, for activities performed by Cardno from January through March 2016. Relevant figures, tables, and appendices are attached.

SUMMARY OF FIELD ACTIVITIES

First Quarter Field Activities

- Weekly system readings and equipment maintenance.
- Monthly well gauging, vapor monitoring, and non-aqueous phase liquid (NAPL) bailing.
- The remediation system has seven zones (1 through 7) which represent remediation wells on the same trunk lines; currently there are 23 wells connected to the seven remedial zones. The wells and zones are depicted on Figure 1. During the reporting period, remedial zones 1 through 4 were not operating; all of the remediation wells, excluding, well PCM-535A (zone 7) were operating in zones 5 through 7.
- Adjusted the bypass stingers to optimize the flow rate and vapor recovery in wells PCM-534A and PCM-507A (zone 7).
- On March 8, 2016, the AS/SVE system was shut down for the annual groundwater monitoring and sampling. Prior to restarting the AS/SVE system, the SVE blower was removed and replaced, and the SVE system was restarted on April 5, 2016. Due to low levels of NAPL in the monitor wells, the AS system was cycled on/off to optimize system performance.

January 27, 2017
4161240000.Q116 City of Tucson, Thomas O. Price Service Center, TFS-10

- During the reporting period an estimated 1,464 pounds (approximately 244 gallons) of petroleum hydrocarbons were removed through the AS/SVE system.
- Manually bailed approximately 1.5 gallons (9 pounds) of NAPL from monitor well WR-220A.
- During the reporting period an estimated 1,473 pounds (approximately 245.5 gallons) of petroleum hydrocarbons were removed from the Site through AS/SVE remediation and NAPL removal activities. Since April 1, 2012 an estimated 106,920 pounds (approximately 17,820 gallons) of petroleum hydrocarbons have been removed from the Site through AS/SVE remediation and NAPL removal activities.

PROPOSED SECOND QUARTER 2016 SITE ACTIVITIES

- Continue weekly system readings, monthly well gauging, vapor monitoring, and NAPL bailing.
- Continue adjusting system to optimize vapor recovery.
- Continue adjusting bypass stingers to optimize flow rate and vapor recovery in wells PCM-534A and PCM-507A.

Please feel free to call me at (602) 909-3448 or email me at justin.patton@cardno.com with any questions or comments.

Respectfully submitted,

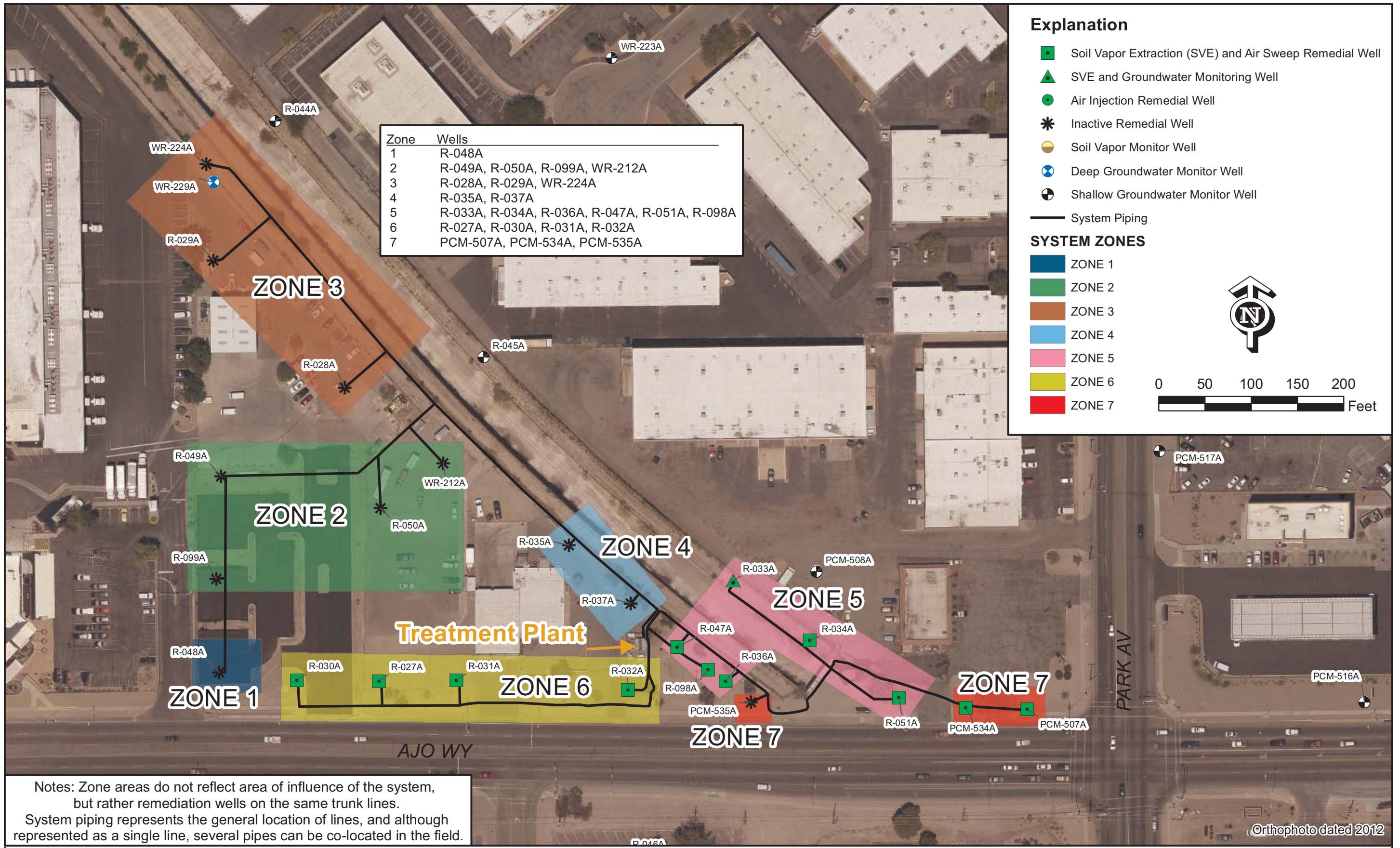


Justin T. Patton
Project Manager
for Cardno
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Enclosures:

Figure 1	TFS-10 Site Layout and Well Location Map
Table 1	SVE Operating Conditions Summary
Table 2	Influent Vapor Process Stream Analytical Results
Table 3	Estimated Petroleum Hydrocarbon Mass Removal
Table 4	Total Vapor Phase Hydrocarbon Removal Between Sampling Events
Table 5	Cumulative TPH Mass Removal
Table 6	Manually Bailed NAPL Removal
Table 7	Annual NAPL Removal
Appendix A	Weekly Operation and Maintenance System Readings
Appendix B	Historical TPH mass removal table and graphs



Notes: Zone areas do not reflect area of influence of the system, but rather remediation wells on the same trunk lines.
 System piping represents the general location of lines, and although represented as a single line, several pipes can be co-located in the field.

Orthophoto dated 2012



FIGURE 1
TFS-10 SITE LAYOUT AND WELL LOCATION MAP
 THOMAS O. PRICE SERVICE CENTER
 4004 South Park Avenue
 Tucson, Arizona

Drawn By:	LE
Checked:	RB
Approved:	NP
Date:	1/24/2014
File:	See Below

J:\GIS\PRICE\2012\TFSSYS.mxd

TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Op Hours	Vacuum (Inches H₂O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
08/27/12	13,472	67	318	480	167
09/05/12	13,685	50	577	471	159
09/18/12	13,779	55	425	468	155
09/24/12	13,924	52	612	466	156
10/01/12	14,090	55	747	469	154
10/08/12	14,256	57	251	476	153
10/18/12	14,493	61	655	479	151
10/22/12	14,560	64	596	484	145
11/06/12	14,920	70	338	520	146
11/27/12	15,394	63	219	395	139
12/11/12	15,729	63	439	404	132
01/02/13	16,205	66	822	246	125
01/21/13	16,657	64	381	399	132
02/07/13	17,062	64	285	366	135
04/30/13	17,880	48	737	425	146
07/15/13	19,128	60	367	306	179
08/12/13	19,706	63	287	319	172
11/07/13	20,590	48	508	309	148
12/12/13	21,407	51	422	324	145
01/14/14	22,357	45	743	324	150
02/19/14	22,983	68	351	296	115
03/27/14	23,325	54	722	227	115
04/14/14	23,754	61	372	253	122
05/15/14	24,476	60	143	247	125
06/05/14	24,930	60	441	227	139
07/07/14	25,647	59	182	221	139
08/06/14	26,208	61	329	225	143
09/10/14	26,985	55	283	235	134
10/02/14	27,427	54	443	237	129
11/12/14	28,401	55	413	264	118
12/15/14	29,068	60	211	240	120
01/14/15	29,758	50	259	263	101
02/17/15	30,423	56	321	287	110
03/24/15	31,018	30	355	209	104
04/27/15	31,686	57	873	280	113
05/26/15	32,228	50	500	265	130
07/06/15	32,998	50	150	369	130
07/28/15	33,484	65	108	391	133

TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
 4004 South Park Avenue, Tucson, Arizona
 (Page 2 of 2)

Date	Op Hours	Vacuum (Inches H₂O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
09/03/15	33,983	30	1322	310	123
09/28/15	34,558	50	73	426	127
10/26/15	35,111	40	61	397	124
12/01/15	35,442	40	1100	265	98
01/05/16	36,255	42	1100	248	100
02/15/16	37,083	38	34	257	117
Average		55	452	336	134

Notes:

- VOC = Volatile organic compounds concentrations reported from PID.
- ppmv = Parts per million by volume.
- scfm = Standard cubic feet per minute.
- Deg. F = Degree Fahrenheit.

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
08/27/12	12:50	9.9	9.9	2.0	8.2	630
09/05/12	9:36	14	17	3.2	12	810
09/18/12	10:55	8.5	12	3.2	16	880
09/24/12	1:00	19	15	2.0	8.5	900
10/01/12	11:10	23	20	2.5	15	1,100
10/08/12	10:30	4.4	3.7	<5.0	4.4	320
10/18/12	11:15	22	18	2.0	12	1,100
10/22/12	11:20	14	13	1.8	7.6	730
11/06/12	11:15	8.1	8.0	<5.0	3.9	460
11/27/12	12:50	5.6	2.9	0.99	7.4	440
12/11/12	12:50	10	8.8	1.3	6.9	590
01/02/13	10:50	18	20	2.8	12	760
01/21/13	11:50	8.5	7.7	1.7	7.8	460
02/07/13	11:35	4.7	3.7	1.2	6.9	370
04/30/13	11:28	17	14	1.7	8.0	900
07/15/13	9:15	3.89	9.42	<2.30	17.2	767
08/12/13	8:40	2.48	5.03	<1.15	13.4	579
11/07/13	10:20	7.43	18.2	2.96	16.7	891
12/12/13	10:25	4.20	12.5	2.11	14.2	619
01/14/14	8:48	8.48	25.0	4.27	25.9	1,210
02/19/14	11:23	4.62	15.5	3.13	16.8	765
03/27/14	11:07	7.73	23.2	3.63	30.1	1,350
04/14/14	9:50	3.48	8.20	1.83	21.1	705
05/15/14	8:50	2.2	4.50	<1.15	9.76	753
06/05/14	9:50	12.0	23.3	3.00	27.0	1,540
07/07/14	9:55	3.37	5.50	<1.15	8.69	658
08/06/14	9:30	5.61	10.6	1.95	16.9	958
09/10/14	11:25	8.36	26.6	4.86	21.0	965
10/02/14	10:23	7.88	21.9	3.13	27.2	1,260
11/12/14	10:43	5.82	19.2	4.40	28.5	1,010
12/15/14	8:20	1.13	3.32	0.40	4.34	398
01/14/15	10:25	2.69	10.5	2.14	9.3	358
02/16/15	10:10	19.6	37.6	4.78	23.8	1,410
03/24/15	10:00	2.6	11.0	2.53	11.8	463
04/27/15	11:00	11.9	25.7	4.18	20.7	979
05/26/15	12:45	1.22	2.64	0.54	4.40	298
07/06/15	1:00	2.65	5.05	0.62	3.82	319

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
 4004 South Park Avenue, Tucson, Arizona
 (Page 2 of 2)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
07/28/15	11:00	0.61	1.08	0.23	3.02	162
09/03/15	12:00	16.4	62.0	10.9	47.5	1,280
09/28/15	11:15	0.54	1.21	0.24	2.65	160
10/26/15	11:15	0.49	1.14	0.25	1.92	65.5
12/01/15	9:45	0.56	13.2	4.95	19.7	222
01/05/16	12:00	<0.31	<0.27	0.30	4.35	442
02/15/16	11:20	<0.31	<0.27	0.51	2.89	<23.3
Average		7.42	12.0	2.30	12.6	721

Notes:

ppmv = Part per million by volume.

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.

TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.

< = Below laboratory reporting limits.

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 3)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
08/27/12	480	630	9.9	9.9	2.0	8.2	4.70	112.81	5.8E-02	1.4E+00	6.7E-02	1.6E+00	1.6E-02	3.8E-01	6.5E-02	1.6E+00
09/05/12	471	810	14	17	3.2	12	5.93	142.33	8.0E-02	1.9E+00	1.1E-01	2.7E+00	2.5E-02	6.0E-01	9.3E-02	2.2E+00
09/18/12	468	880	8.5	12	3.2	16	6.40	153.64	4.8E-02	1.2E+00	7.9E-02	1.9E+00	2.5E-02	5.9E-01	1.2E-01	3.0E+00
09/24/12	466	900	19	15	2.0	8.5	6.52	156.46	1.1E-01	2.6E+00	9.9E-02	2.4E+00	1.5E-02	3.7E-01	6.5E-02	1.6E+00
10/01/12	469	1,100	23	20	2.5	15	8.02	192.46	1.3E-01	3.1E+00	1.3E-01	3.2E+00	1.9E-02	4.6E-01	1.2E-01	2.8E+00
10/08/12	476	320	4.4	3.7	<5.0	4.4	2.37	56.82	2.5E-02	6.1E-01	2.5E-02	6.0E-01	3.9E-02	9.4E-01	3.5E-02	8.3E-01
10/18/12	479	1,100	22	18	2.0	12	8.19	196.57	1.3E-01	3.1E+00	1.2E-01	2.9E+00	1.6E-02	3.8E-01	9.5E-02	2.3E+00
10/22/12	484	730	14	13	1.8	7.6	5.49	131.81	8.2E-02	2.0E+00	8.9E-02	2.1E+00	1.4E-02	3.4E-01	6.1E-02	1.5E+00
11/06/12	520	460	8.1	8	<5.0	3.9	3.72	89.24	5.1E-02	1.2E+00	5.9E-02	1.4E+00	4.3E-02	1.0E+00	3.3E-02	8.0E-01
11/27/12	395	440	5.6	2.9	1.0	7.4	2.70	64.84	2.7E-02	6.4E-01	1.6E-02	3.9E-01	6.4E-03	1.5E-01	4.8E-02	1.2E+00
12/11/12	404	590	10	8.8	1.3	6.9	3.71	88.92	4.9E-02	1.2E+00	5.0E-02	1.2E+00	8.7E-03	2.1E-01	4.6E-02	1.1E+00
01/02/13	246	760	18	20	2.8	12	2.91	69.75	5.4E-02	1.3E+00	7.0E-02	1.7E+00	1.1E-02	2.7E-01	4.9E-02	1.2E+00
01/21/13	399	460	8.5	7.7	1.7	7.8	2.85	68.47	4.1E-02	9.9E-01	4.3E-02	1.0E+00	1.1E-02	2.7E-01	5.1E-02	1.2E+00
02/07/13	366	370	4.7	3.7	1.2	6.9	2.11	50.52	2.1E-02	5.0E-01	1.9E-02	4.6E-01	7.2E-03	1.7E-01	4.2E-02	1.0E+00
04/30/13	425	900	17	14	1.7	8.0	5.95	142.70	8.8E-02	2.1E+00	8.4E-02	2.0E+00	1.2E-02	2.9E-01	5.6E-02	1.3E+00
07/15/13	306	767	3.89	9.42	<2.30	17.2	3.65	87.56	1.4E-02	3.5E-01	4.1E-02	9.8E-01	1.2E-02	2.8E-01	8.7E-02	2.1E+00
08/12/13	319	579	2.48	5.03	<1.15	13.4	2.87	68.91	9.6E-03	2.3E-01	2.3E-02	5.4E-01	6.0E-03	1.5E-01	7.0E-02	1.7E+00
11/07/13	309	891	7.43	18.2	2.96	16.7	4.28	102.71	2.8E-02	6.7E-01	8.0E-02	1.9E+00	1.5E-02	3.6E-01	8.5E-02	2.0E+00
12/12/13	324	619	4.20	12.5	2.11	14.2	3.12	74.82	1.6E-02	4.0E-01	5.7E-02	1.4E+00	1.1E-02	2.7E-01	7.6E-02	1.8E+00
01/14/14	324	1,210	8.48	25.0	4.27	25.9	6.09	146.26	3.3E-02	8.0E-01	1.1E-01	2.7E+00	2.3E-02	5.5E-01	1.4E-01	3.3E+00
02/19/14	296	765	4.62	15.5	3.13	16.8	3.52	84.48	1.7E-02	4.0E-01	6.5E-02	1.6E+00	1.5E-02	3.7E-01	8.2E-02	2.0E+00

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 3)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
03/27/14	227	1,350	7.73	23.2	3.63	30.1	4.76	114.33	2.1E-02	5.1E-01	7.4E-02	1.8E+00	1.4E-02	3.3E-01	1.1E-01	2.7E+00
04/14/14	253	705	3.48	8.20	1.83	21.1	2.77	66.54	1.1E-02	2.6E-01	2.9E-02	7.0E-01	7.6E-03	1.8E-01	8.8E-02	2.1E+00
05/15/14	247	753	2.23	4.50	1.15	9.76	2.89	69.39	6.7E-03	1.6E-01	1.6E-02	3.8E-01	4.7E-03	1.1E-01	4.0E-02	9.5E-01
06/05/14	227	1,540	12.0	23.3	3.00	27	5.43	130.42	3.3E-02	7.9E-01	7.5E-02	1.8E+00	1.1E-02	2.7E-01	1.0E-01	2.4E+00
07/07/14	221	658	3.37	5.50	1.15	8.69	2.26	54.25	9.0E-03	2.2E-01	1.7E-02	4.1E-01	4.2E-03	1.0E-01	3.2E-02	7.6E-01
08/06/14	225	958	5.61	10.6	1.95	16.9	3.35	80.41	1.5E-02	3.7E-01	3.4E-02	8.1E-01	7.2E-03	1.7E-01	6.3E-02	1.5E+00
09/10/14	235	965	8.36	26.6	4.86	21	3.53	84.60	2.4E-02	5.7E-01	8.8E-02	2.1E+00	1.9E-02	4.5E-01	8.1E-02	2.0E+00
10/02/14	237	1,260	7.88	21.9	3.13	27.2	4.64	111.40	2.3E-02	5.4E-01	7.3E-02	1.8E+00	1.2E-02	2.9E-01	1.1E-01	2.5E+00
11/12/14	264	1,010	5.82	19.2	4.40	28.5	4.14	99.47	1.9E-02	4.5E-01	7.2E-02	1.7E+00	1.9E-02	4.6E-01	1.2E-01	3.0E+00
12/15/14	240	398	1.13	3.32	0.40	4.34	1.48	35.63	3.3E-03	7.9E-02	1.1E-02	2.7E-01	1.6E-03	3.8E-02	1.7E-02	4.1E-01
01/14/15	263	358	2.69	10.5	2.14	9.27	1.46	35.13	8.6E-03	2.1E-01	3.9E-02	9.4E-01	9.3E-03	2.2E-01	4.0E-02	9.6E-01
02/16/15	287	1,410	19.6	37.6	4.78	23.8	6.29	150.97	6.8E-02	1.6E+00	1.5E-01	3.7E+00	2.3E-02	5.4E-01	1.1E-01	2.7E+00
03/24/15	209	463	2.60	11.0	2.53	11.8	1.50	36.10	6.6E-03	1.6E-01	3.3E-02	7.8E-01	8.7E-03	2.1E-01	4.1E-02	9.8E-01
04/27/15	280	979	11.9	25.7	4.18	20.7	4.26	102.26	4.0E-02	9.7E-01	1.0E-01	2.4E+00	1.9E-02	4.6E-01	9.6E-02	2.3E+00
05/26/15	265	298	1.22	2.64	0.54	4.4	1.23	29.46	3.9E-03	9.4E-02	9.9E-03	2.4E-01	2.4E-03	5.7E-02	1.9E-02	4.6E-01
07/06/15	369	319	2.65	5.05	0.62	3.82	1.83	43.91	1.2E-02	2.8E-01	2.6E-02	6.3E-01	3.8E-03	9.0E-02	2.3E-02	5.6E-01
07/28/15	391	162	0.61	1.08	0.23	3.02	0.98	23.63	2.9E-03	6.9E-02	6.0E-03	1.4E-01	1.5E-03	3.6E-02	1.9E-02	4.7E-01
09/03/15	310	1,280	16.4	62.0	10.9	47.5	6.17	148.03	6.2E-02	1.5E+00	2.7E-01	6.5E+00	5.6E-02	1.3E+00	2.4E-01	5.8E+00
09/28/15	426	160	0.54	1.21	0.24	2.65	1.06	25.43	2.8E-03	6.7E-02	7.3E-03	1.7E-01	1.7E-03	4.0E-02	1.9E-02	4.5E-01
10/26/15	397	65.5	0.49	1.14	0.25	1.92	0.40	9.70	2.4E-03	5.7E-02	6.4E-03	1.5E-01	1.6E-03	3.9E-02	1.3E-02	3.0E-01
12/01/15	265	222	0.56	13.2	4.95	19.7	0.91	21.95	1.8E-03	4.3E-02	4.9E-02	1.2E+00	2.2E-02	5.2E-01	8.6E-02	2.1E+00

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 3 of 3)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
01/05/16	248	442	0.31	0.3	0.30	4.35	1.70	40.89	9.3E-04	2.2E-02	9.5E-04	2.3E-02	1.2E-03	2.9E-02	1.8E-02	4.3E-01
02/15/16	257	23	0.31	0.3	0.51	2.89	0.09	2.23	9.7E-04	2.3E-02	9.8E-04	2.4E-02	2.2E-03	5.2E-02	1.2E-02	2.9E-01
AVERAGE	336	721	7.42	12.0	2.30	12.6	3.60	86.32	3.4E-02	8.1E-01	6.0E-02	1.4E+00	1.4E-02	3.3E-01	6.9E-02	1.6E+00

Notes:

- TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
- Lbs = Pounds.
- scfm = Standard cubic feet per minute.
- ppmv = Parts per million by volume.
- < = Below minimum laboratory reporting limits.

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
08/27/12	3,321	15,611	191.34	223.23	52.53	215.4
09/05/12	213	1,263	17.03	24.12	5.29	19.8
09/18/12	94	602	4.53	7.47	2.32	11.6
09/24/12	145	945	15.57	14.34	2.23	9.5
10/01/12	166	1,331	21.71	22.03	3.21	19.2
10/08/12	166	393	4.22	4.14	6.51	5.7
10/18/12	237	1,941	30.28	28.90	3.74	22.4
10/22/12	67	368	5.50	5.96	0.96	4.1
11/06/12	360	1,339	18.38	21.18	15.42	12.0
11/27/12	474	1,281	12.71	7.68	3.05	22.8
12/11/12	335	1,241	16.41	16.85	2.90	15.4
01/02/13	476	1,383	25.56	33.13	5.40	23.2
01/21/13	452	1,290	18.59	19.64	5.05	23.2
02/07/13	405	853	8.45	7.76	2.93	16.9
04/30/13	818	4,864	71.66	68.85	9.74	45.8
07/15/13	1,248	4,553	18.01	50.89	14.47	108.2
08/12/13	578	1,659	5.54	13.12	3.49	40.7
11/07/13	884	3,783	24.61	70.32	13.32	75.2
12/12/13	817	2,547	13.48	46.80	9.20	61.9
01/14/14	950	5,789	31.65	108.85	21.66	131.4
02/19/14	626	2,203	10.38	40.63	9.56	51.3
03/27/14	342	1,629	7.28	25.48	4.64	38.5
04/14/14	429	1,189	4.58	12.59	3.27	37.7
05/15/14	722	2,087	4.82	11.35	3.38	28.7
06/05/14	454	2,467	14.99	33.97	5.09	45.8
07/07/14	717	1,621	6.47	12.33	3.00	22.7
08/06/14	561	1,880	8.59	18.93	4.06	35.1
09/10/14	777	2,739	18.51	68.70	14.62	63.2
10/02/14	442	2,052	10.01	32.45	5.40	46.9
11/12/14	974	4,037	18.14	69.84	18.64	120.7
12/15/14	667	990	2.19	7.52	1.06	11.4
01/14/15	690	1,010	5.92	26.95	6.40	27.7
02/17/15	665	4,183	45.36	101.51	15.03	74.8
03/24/15	595	895	3.92	19.35	5.18	24.2
04/27/15	668	2,846	26.99	68.00	12.88	63.8
05/26/15	542	665	2.12	5.36	1.28	10.4
07/06/15	770	1,409	9.13	20.30	2.90	17.9

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
 4004 South Park Avenue, Tucson, Arizona
 (Page 2 of 2)

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
07/28/15	486	479	1.41	2.90	0.72	9.5
09/03/15	499	3,078	30.76	135.66	27.78	121.1
09/28/15	575	609	1.60	4.19	0.97	10.7
10/26/15	553	224	1.30	3.54	0.90	6.9
12/01/15	331	303	0.60	16.38	7.15	28.5
01/05/16	813	1,385	0.76	0.77	1.00	14.5
02/15/16	828	77	0.80	0.81	1.79	10.1
TOTAL	26,932	93,093	791.8	1,535	340.1	1,807

Notes:

- TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
- lbs = Pounds.
- OP Hours = Duration of SVE operation during period.

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs) ^a	Cumulative TPH (Lbs)	TPH (Gallons) ^b	Cumulative TPH (Gallons) ^b	Manually Bailed (Gallons)	Well Pumps (Gallons) ^c	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs) ^d	TPH (Gallons) ^d
04/03/12 - 08/27/12	3321	15,611	15,611	2,602	2,602	83.50	520.00	603.50	1,277	23,270	3,878
08/27/12 - 09/05/12	213	1,263	16,874	211	2,812	3.50	30.00	33.50	1,310	24,734	4,122
09/05/12 - 09/18/12	94	602	17,476	100	2,913	6.25	33.50	39.75	1,350	25,575	4,262
09/18/12 - 09/24/12	145	945	18,421	158	3,070	4.00	20.00	24.00	1,374	26,664	4,444
09/24/12 - 10/01/12	166	1,331	19,752	222	3,292	3.50	23.25	26.75	1,401	28,156	4,693
10/01/12 - 10/08/12	166	393	20,145	66	3,358	3.00	23.25	26.25	1,427	28,706	4,784
10/08/12 - 10/18/12	237	1,941	22,086	324	3,681	3.00	33.00	36.00	1,463	30,863	5,144
10/18/12 - 10/22/12	67	368	22,454	61	3,742	3.00	13.28	16.28	1,479	31,329	5,221
10/22/12 - 11/06/12	360	1,339	23,793	223	3,965	9.25	50.00	59.25	1,538	33,023	5,504
11/06/12 - 11/27/12	474	1,281	25,073	213	4,179	9.25	62.37	71.62	1,610	34,733	5,789
11/27/12 - 12/11/12	335	1,241	26,315	207	4,386	9.50	36.52	46.02	1,656	36,251	6,042
12/11/12 - 01/02/13	476	1,383	27,698	231	4,616	9.50	85.85	95.35	1,751	38,206	6,368
01/02/13 - 01/21/13	452	1,290	28,987	215	4,831	9.50	72.56	82.06	1,833	39,988	6,665
01/21/13 - 02/07/13	405	853	29,840	142	4,973	6.50	64.92	71.42	1,905	41,269	6,878
02/07/13 - 04/30/13	818	4,864	34,704	811	5,784	13.50	191.00	204.50	2,109	47,360	7,893
04/30/13 - 07/15/13	1248	4,553	39,257	759	6,543	8.25	---	8.25	2,118	51,962	8,660
07/15/13 - 08/12/13	578	1,659	40,916	277	6,819	5.25	---	5.25	2,123	53,653	8,942
08/12/13 - 11/07/13	884	3,783	44,699	631	7,450	6.75	---	6.75	2,130	57,477	9,579
11/07/13 - 12/12/13	817	2,547	47,246	424	7,874	9.75	---	9.75	2,139	60,082	10,014
12/12/13 - 01/14/14	950	5,789	53,036	965	8,839	14.25	---	14.25	2,154	65,957	10,993
01/14/14 - 02/19/14	626	2,203	55,239	367	9,206	18.00	---	18.00	2,172	68,269	11,378
02/19/14 - 03/27/14	342	1,629	56,868	272	9,478	0.00	---	0.00	2,172	69,898	11,650
03/27/14 - 04/14/14	429	1,189	58,058	198	9,676	9.50	---	9.50	2,181	71,144	11,857
04/14/14 - 05/15/14	722	2,087	60,145	348	10,024	4.75	---	4.75	2,186	73,260	12,210
05/15/14 - 06/05/14	454	2,467	62,612	411	10,435	14.25	---	14.25	2,200	75,813	12,635
06/05/14 - 07/07/14	717	1,621	64,233	270	10,705	8.75	---	8.75	2,209	77,486	12,914

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs) ^a	Cumulative TPH (Lbs)	TPH (Gallons) ^b	Cumulative TPH (Gallons) ^b	Manually Bailed (Gallons)	Well Pumps (Gallons) ^c	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs) ^d	TPH (Gallons) ^d
07/07/14 - 08/06/14	561	1,880	66,112	313	11,019	8.75	---	8.75	2,218	79,418	13,236
08/06/14 - 09/10/14	777	2,739	68,851	456	11,475	5.00	---	5.00	2,223	82,187	13,698
09/10/14 - 10/02/14	442	2,052	70,903	342	11,817	4.50	---	4.50	2,227	84,266	14,044
10/02/14 - 11/12/14	974	4,037	74,940	673	12,490	5.50	---	5.50	2,233	88,336	14,723
11/12/14 - 12/15/14	667	990	75,930	165	12,655	15.25	---	15.25	2,248	89,417	14,903
12/15/14 - 01/14/15	690	1,010	76,940	168	12,823	4.50	---	4.50	2,252	90,454	15,076
01/14/15 - 02/17/15	665	4,183	81,123	697	13,521	3.75	---	3.75	2,256	94,660	15,777
02/17/15 - 03/24/15	595	895	82,018	149	13,670	5.00	---	5.00	2,261	95,585	15,931
03/24/15 - 04/27/15	668	2,846	84,865	474	14,144	4.25	---	4.25	2,265	98,457	16,409
04/27/15 - 05/26/15	542	665	85,530	111	14,255	3.75	---	3.75	2,269	99,144	16,524
05/26/15 - 07/06/15	770	1,409	86,939	235	14,490	10.00	---	10.00	2,279	100,613	16,769
07/06/15 - 07/28/15	486	479	87,417	80	14,570	3.00	---	3.00	2,282	101,110	16,852
07/28/15 - 09/03/15	499	3,078	90,495	513	15,083	5.00	---	5.00	2,287	104,218	17,370
09/03/15 - 09/28/15	575	609	91,104	102	15,184	4.00	---	4.00	2,291	104,851	17,475
09/28/15 - 10/26/15	553	224	91,328	37	15,221	5.00	---	5.00	2,296	105,104	17,517
10/26/15 - 12/01/15	331	303	91,631	50	15,272	3.50	---	3.50	2,300	105,428	17,571
12/01/15 - 01/05/16	813	1,385	93,016	231	15,503	4.50	---	4.50	2,304	106,840	17,807
01/05/16 - 02/15/16	828	77	93,093	13	15,515	0.50	---	0.50	2,305	106,920	17,820

Notes:

- BOLD** = Sample collection date.
- TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
- NAPL = Non-aqueous phase liquid.
- Lbs = Pounds.
- = All skimmer pump extraction wells were converted to air-sparge technology.
- ^a = TPH lbs are calculated from mass removal from SVE remediation system.
- ^b = TPH gallons are converted to gallons using 6 lbs = 1 gallon of TPH.
- ^c = Well pump totals are calculated by subtracting the total volume of NAPL (combination of manually bailed and pneumatically pumped from well) in the storage vessel minus the manually bailed NAPL and averaged over the NAPL collection period.
- ^d = Cumulative TPH lbs and gallons are calculated by adding NAPL removed from wells to mass removal from SVE remediation system.

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
04/03/12	R-028A,PCM-516	4.00	4.00
04/17/12	PCM-516	2.25	6.25
05/01/12	PCM-516	4.25	10.50
05/10/12	PCM-516	2.50	13.00
05/17/12	R-32,PCM-516	3.50	16.50
05/25/12	R-017A, 018A, 028A, 035A, 037A, PCM-516, WR-215A	11.3	27.75
05/31/12	PCM-516	3.00	30.75
06/06/12	PCM-516,17,18	7.75	38.50
06/12/12	PCM-516,17,18	3.25	41.75
06/18/12	PCM-516	3.00	44.75
06/28/12	PCM-516,35,37	5.75	50.50
07/05/12	PCM-516, R-099	5.25	55.75
07/10/12	PCM-516	3.00	58.75
07/18/12	PCM-516, R-099	7.50	66.25
07/25/12	PCM-516	3.00	69.25
07/30/12	PCM-516	3.25	72.50
08/10/12	PCM-516	8.00	80.50
08/27/12	PCM-516	3.00	83.50
09/05/12	PCM-516	3.50	87.00
09/14/12	PCM-516	3.00	90.00
09/18/12	PCM-516	3.25	93.25
09/24/12	PCM-516	4.00	97.25
10/01/12	PCM-516	3.50	100.75
10/08/12	PCM-516	3.00	103.75
10/18/12	PCM-516	3.00	106.75
10/22/12	PCM-516	3.00	109.75
11/01/12	PCM-516	3.00	112.75
11/06/12	PCM-516	3.25	116.00
11/13/12	PCM-516	3.25	119.25
11/19/12	PCM-516	3.00	122.25
11/27/12	PCM-516	3.00	125.25
12/04/12	PCM-516	3.00	128.25
12/11/12	PCM-516	3.50	131.75
12/18/12	PCM-516	3.25	135.00
12/27/12	PCM-516	3.00	138.00
01/02/13	PCM-516	3.25	141.25
01/07/13	PCM-516	3.25	144.50
01/14/13	PCM-516	3.25	147.75
01/21/13	PCM-516	3.00	150.75
01/28/13	PCM-516	3.50	154.25
02/07/13	PCM-516	3.00	157.25
02/11/13	PCM-516	3.00	160.25
02/19/13	PCM-516	3.50	163.75
02/25/13	PCM-516	3.50	167.25
03/04/13	PCM-516	3.50	170.75
05/15/13	R-028A, 035A, 037A, 050A, PCM-516	4.00	174.75
06/13/13	PCM-516	2.25	177.00
06/24/13	PCM-516	2.00	179.00
07/31/13	PCM-516	1.75	180.75

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
08/05/13	PCM-516	2.00	182.75
08/12/13	PCM-516	1.50	184.25
08/19/13	PCM-516	1.00	185.25
09/04/13	PCM-516	1.25	186.50
10/10/13	PCM-516	1.75	188.25
10/21/13	PCM-516	0.75	189.00
10/30/13	PCM-516	1.00	190.00
11/07/13	PCM-516	1.00	191.00
11/11/13	PCM-516	1.00	192.00
11/25/13	PCM-516, WR-220A	5.00	197.00
12/02/13	PCM-516, WR-220A	3.75	200.75
12/18/13	PCM-516, WR-220A	3.25	204.00
01/02/14	PCM-516, WR-220A	4.00	208.00
01/07/14	PCM-516, WR-220A	3.50	211.50
01/14/14	PCM-516, WR-220A	3.50	215.00
01/22/14	PCM-516, WR-220A	3.25	218.25
02/03/14	PCM-516, WR-220A	4.00	222.25
02/10/14	PCM-516, WR-220A	4.00	226.25
02/19/14	PCM-516, WR-220A	3.25	229.50
04/03/14	PCM-516, WR-220A	5.00	234.50
04/07/14	PCM-516, WR-220A	4.50	239.00
04/25/14	PCM-516, WR-220A	4.75	243.75
05/19/14	PCM-516, WR-220A	5.00	248.75
05/27/14	PCM-516, WR-220A	4.50	253.25
06/05/14	PCM-516, WR-220A	4.75	258.00
06/16/14	PCM-516, WR-220A	4.00	262.00
07/07/14	PCM-516, WR-220A	4.75	266.75
07/14/14	PCM-516, WR-220A	4.25	271.00
07/23/14	PCM-516, WR-220A	4.50	275.50
08/06/14	PCM-516, WR-220A	5.00	280.50
10/02/14	PCM-516, WR-220A	4.50	285.00
10/08/14	PCM-516, WR-220A	5.50	290.50
11/25/14	R-031A, R-098, PCM-507, PCM-516, WR-220A	11.75	302.25
12/15/14	PCM-516, WR-220A	3.50	305.75
01/15/15	PCM-516, WR-220A	4.50	310.25
02/17/15	PCM-516, WR-220A	3.75	314.00
03/16/15	PCM-516, WR-220A	5.00	319.00
04/21/15	PCM-516, WR-220A	4.25	323.25
05/19/15	WR-220A	3.75	327.00
06/16/15	WR-220A	10.00	337.00
07/13/15	WR-220A	3.00	340.00
08/25/15	PCM-516, WR-220A	5.00	345.00
09/23/15	PCM-516, WR-220A	4.00	349.00
10/21/15	PCM-516, WR-220A	5.00	354.00
11/18/15	PCM-516, WR-220A	3.50	357.50
12/23/15	PCM-516, WR-220A	4.50	362.00
01/20/16	WR-220A	0.50	362.50
02/16/16	WR-220A	0.50	363.00
03/08/16	WR-220A	0.50	363.50

Notes:

NAPL = Non-aqueous phase liquid.

TABLE 7
ANNUAL NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
 4004 South Park Avenue, Tucson, Arizona
 (Page 1 of 1)

Time Period	NAPL Removed Bailed/Pumped (Gallons)	Cummulative NAPL Removal (Gallons)
1998	86	86
1999	131	217
2000	45	262
2001	45	307
2002	28	335
2003	956	1,291
2004	1,210	2,501
2005	1,365	3,866
2006	923	4,789
2007	2,315	7,104
2008	2,577	9,681
2009	1,200	10,881
2010	1,703	12,584
2011	1,750	14,334
2012	1,690	16,024
2013	473	16,497
2014	133	16,630
2015	56	16,686
2016	1.5	16,687.5

Notes:

NAPL = Non-aqueous phase liquid.

APPENDIX A

WEEKLY OPERATION AND MAINTENANCE SYSTEM READINGS

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300
 SITE LOCATION: TFS-10

SYSTEM READINGS

SOLLECO			4" Pipe											
	OP	VAC	FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
DATE	HOUR	(in. H2O)	p-tube (in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	TEMP (°F)	Reading	Reading	Bailed Gallons	Emission Y/N	TAKEN Y/N	
04/03/12	10151	64	2700	134	211	252	0.7	619	82438	103776	4.00	N	N	run/o&m/run
04/09/12	10294	59	2800	145	215	306	1.3	601	82724	103806	0.00	N	N	run/o&m/run
05/01/12	10818	58	2400	146	184	164	4	624	83794	103918	4.25	N	N	run/o&m/run
05/08/12	10984	58	2400	137	186	246	4	614	84141	103954	0.00	N	N	run/o&m/run "see note 1"
	10985	57	2400	144	184	368	1	691	84143	103955		N	N	
	10988	85	4200 ^a	166	311	395	1	696	84148	103955		N	N	
05/10/12	11033	67	4800	153	363	251	2	623	84241	103968	2.50	N	N	run/o&m/run
05/17/12	11109	65	4900	163	365	238	1	627	84388	103988	3.50	N	N	run/o&m/run "see note 2"
	11112	63	5000	169	369	263	4	630	84393	103989		N	N	
05/25/12	11304	63	NT ^b	160	450 ^b	246	2	635	84765	104034	11.25	N	N	run/o&m/run
05/31/12	11443	55	NT	146	459	255	3	620	85034	104067	3.00	N	N	run/o&m/run "see note 2"
	11445	54	NT	155	458	435	0	704	85039	104067		N	N	
06/28/12	12066	60	NT	168	472	347	21	688	86299	104213	5.75	N	N	run/o&m/run
07/05/12	12237	77	NT	171	481	635	7	778	86647	104254	5.25	N	N	run/o&m/run
07/25/12	12701	62	NT	159	462	558	11	705	87525	104367	3.00	N	N	run/o&m/run
07/30/12	12820	63	NT	157	465	287	2	658	87754	104397	3.25	N	N	run/o&m/run
08/10/12	13070	59	NT	169	479	221	6	644	0004 ^c	104459	8.00	N	N	run/o&m/run
08/14/12	13163	60	NT	171	485	233	13	653	00168	104484	0.00	N	N	run/o&m/run
08/20/12	13305	67	NT	169	483	256	16	654	00431	104521	8.00	N	N	run/o&m/run
08/27/12	13472	67	NT	167	480	318	11	685	00733	104565	3.00	N	Y	run/o&m/run
09/05/12	13683	68	NT	154	463	302	14	655	1119	104622	3.50	N	N	run/o&m/run "see note 2"
	13685	50	NT	159	471	577	9	619	1119	104622		N	Y	run/o&m/run "see note 2"
09/18/12	13779	55	NT	155	468	425	18	633	1297	104651	3.25	N	Y	run/o&m/run
09/24/12	13924	52	NT	156	466	612	10	622	1576	104685	4.00	N	Y	run/o&m/run
10/01/12	14090	55	NT	154	469	747	6	649	1910	104722	3.50	N	Y	run/o&m/run
10/08/12	14256	57	NT	153	476	251	0	647	2228	104764	3.00	N	Y	run/o&m/run
10/18/12	14493	61	NT	151	479	655	16	636	2688	104818	3.00	N	Y	run/o&m/run
10/22/12	14560	64	NT	145	484	596	7	638	2816	104837	3.00	N	Y	run/o&m/run
11/01/12	14800	74	NT	149	520	472	16	636	3277	104901	3.00	N	N	run/o&m/run
11/06/12	14920	70	NT	146	520	338	9	643	3504	104933	3.25	N	Y	run/o&m/run
11/13/12	15067	71	5150	140	398	481	9	644	3790	104972	3.25	N	N	run/o&m/run
11/19/12	15202	62	4950	141	382	231	2	628	4060	105009	3.00	N	N	run/o&m/run
11/27/12	15394	63	5100	139	395	219	6	614	4440	105061	3.00	N	Y	run/o&m/run
12/04/12	15559	65	5000	139	387	286	4	628	4771	105106	3.00	N	N	run/o&m/run
12/11/12	15729	63	5160	132	404	439	26	635	5118	105152	3.50	N	Y	run/o&m/run
12/18/12	15889	64	2460	130	193	276	0	618	5440	105192	3.25	N	N	run/o&m/run
12/27/12	16107	64	2600	127	205	959	12	636	5899	105246	3.00	N	N	run/o&m/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300
 SITE LOCATION: TFS-10

SYSTEM READINGS

SOLLECO			4" Pipe											
	OP	VAC	FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)	Reading	Reading	Bailed	Emission	TAKEN	
01/02/13	16205	66	3100	125	246	822	12	627	6105	105274	3.25	N	Y	down/o&m,ted/run
01/07/13	16325	67	5255	128	414	359	6	642	6355	106307	3.25	N	N	run/o&m/run
01/14/13	16493	66	5150	120	411	346	21	625	6079	105354	3.25	N	N	run/o&m/run
01/16/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
01/21/13	16657	64	5100	132	399	381	6	637	7070	105398	3.00	N	Y	run/o&m,ted/run
01/28/13	16822	63	4900	125	388	305	9	626	7410	105443	3.50	N	N	run/o&m/run
02/07/13	17062	64	4700	135	366	285	7	690	7920	105509	3.00	N	Y	run/o&m,ted/run
02/11/13	17157	62	4736	125	375	165	4	687	8116	105535	3.00	N	N	run/o&m/run
02/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
02/19/13	17349	54	5100	127	403	243	27	620	8509	105588	3.50	N	N	run/o&m/run
02/25/13	17494	64	4950	124	393	266	5	640	8815	105627	3.50	N	N	run/o&m/run
03/04/13	17659	64	5150	127	407	256	28	1014	9167	105672	3.50	N	N	run/o&m/run
03/13/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	run/down "see note 3"
03/20/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
03/26/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down "see note 4"
04/09/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/19/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
04/23/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/25/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/30/13	17880	48	5560	146	425	737	32	690	9643	105750	0.00	N	Y	down/o&m/ted/down
05/15/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	4.00	NT	N	Down/monthly well
05/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/run "see note 5"
05/30/13	18050	33	8730	145	668	774	65	776	9978	105803	0.00	N	N	run/o&m/run "see note 6"
06/06/13	18218	54	9500	164	706	235	0	625	10289	105850	0.00	N	N	run/o&m/run
06/13/13	18387	64	9240	176	679	317	58	653	10589	105899	2.25	N	Y	run/o&m,ted/run
06/21/13	18574	72	9300	168	686	280	40	646	10907	105956	0.00	N	N	run/o&m/run
06/24/13	18647	73	9265	166	686	320	61	655	11033	105978	2.00	N	N	run/o&m/run
07/01/13	18792	64	5520	165	480	266	24	631	11284	106023	2.25	N	N	run/o&m/run
07/08/13	18959	58	4039	175	295	296	31	647	11550	106068	2.00	N	N	run/o&m/run
07/15/13	19128	60	4220	179	306	367	32	658	11821	106114	1.25	N	Y	run/o&m,ted/run
07/25/13	19363	61	4165	173	305	312	28	640	12213	106191	2.00	N	N	run/o&m/run
07/31/13	19418	60	4202	168	310	247	19	644	12302	106209	1.75	N	N	run/o&m/run
08/05/13	19538	64	4244	162	316	265	29	660	12498	106240	2.00	N	N	run/o&m/run
08/12/13	19706	63	4355	172	319	287	34	652	12772	106288	1.50	N	Y	run/o&m,ted/run
08/19/13	19874	64	4390	172	322	274	51	636	13045	106336	1.00	N	N	run/o&m/down "see note 7"

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300
 SITE LOCATION: TFS-10

SYSTEM READINGS

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
09/04/13	19877	60	4335	172	318	286	31	626	13052	106345	1.25	N	Y	down/o&m,ted/down
10/08/13	19879	60	4401	168	325	447	44	637	13054	106363	0.00	N	N	Down/O&M/run
10/10/13	19922	56	4567	152	346	1051	103	770	13125	106376	1.75	N	Y	run/o&m,ted/run
10/15/13	20046	54	4166	160	311	245	14	630	13334	106412	0.00	N	N	run/wells,o&m/run
10/21/13	20181	50	4000	153	302	459	19	667	13554	106449	0.75	N	N	run/o&m/run
10/30/13	20398	45	4065	153	307	377	24	636	13897	106505	1.00	N	N	run/o&m/run
11/07/13	20590	48	4063	148	309	508	4	682	14205	106556	1.00	N	Y	run/o&m,ted/run
11/11/13	20685	49	4100	149	312	296	11	631	14357	106578	1.00	N	N	run/o&m,well/down
11/19/13	20854	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	N	N	run/o&m/run
11/25/13	20997	49	4040	138	313	429	7	669	14870	106662	5.00	N	N	run/o&m/run
12/02/13	21165	48	4065	144	311	502	6	691	15149	106707	3.75	N	N	run/o&m/run
12/12/13	21407	51	4230	145	324	422	0	630	15550	106773	3.50	N	Y	run/o&m,ted/run
12/18/13	21523	49	4205	148	328	389	0	602	15746	106806	3.25	N	N	run/o&m/run
12/24/13	21668	49	4255	143	327	308	0	630	15971	106841	0.00	N	N	run/o&m/run
01/02/14	21881	48	4100	147	313	281	0	628	16294	106898	4.00	N	N	run/o&m/run
01/07/14	22004	49	4165	149	317	322	12	629	16485	NT	3.5	N	N	run/o&m/run
01/14/14	22169	45	4275	150	324	743	2	640	16734	106907	3.5	N	Y	run/o&m,ted/run
01/22/14	22357	48	4220	150	320	503	1	670	17016	107020	3.25	N	N	run/o&m/run
01/28/14	22497	46	4945	160	369	467	0	655	17223	107057	0	N	N	down/o&m/run
02/03/14	22601	40	4366	138	338	697	9	661	17361	107083	4	N	N	run/o&m/run
02/10/14	22768	65	3505	117	281	754	7	667	17663	107119	4	N	N	run/o&m/run
02/19/14	22983	68	3685	115	296	351	13	643	18072	107162	3.25	N	Y	run/o&m,ted/run
02/24/14	23012	NT	NT	NT	NT	NT	NT	NT	18126	107169	0	N	N	don/o&m/down
03/04/14	23106	58	3700	112	300	454	9	505	18305	107187	0	N	N	run/o&m/run
03/12/14	23250	NT	NT	NT	NT	NT	NT	NT	NT	NT	0	N	N	down for annual
03/27/14	23325	54	2820	115	227	722	1	552	18678	107223	0	N	Y	run/o&m,ted/run
04/03/14	23493	62	3330	114	269	410	7	642	18971	107253	5	N	N	run/o&m/run
04/07/14	23587	60	3285	118	263	527	4	662	19144	107270	4.5	N	N	run/o&m/run
04/14/14	23754	61	3175	122	253	372	7	645	19438	107303	0	N	Y	run/o&m,ted,wells/run
04/25/14	23992	61	3240	117	260	224	7	634	19866	107352	4.75	N	N	run/o&m/run
05/01/14	24136	64	3085	116	248	382	6	634	20133	107382	0	N	N	run/o&m/run
05/07/14	24282	61	3188	122	254	317	13	651	20391	107413	0	N	N	run/o&m/run
05/15/14	24476	60	3120	125	247	143	0	645	20747	107451	0	N	Y	run/o&m,ted,wells/run
09/19/14	24568	61	3165	123	252	282	0	639	20910	107468	5	N	N	run/o&m/run
05/27/14	247162	62	3210	127	253	376	14	651	21177	107495	4.5	N	N	run/o&m/run
06/05/14	24930	60	2930	139	227	441	17	650	21555	107528	4.75	N	Y	run/o&m,ted,wells/run
06/12/14	251002	60	2790	141	215	291	0	670	21856	107557	0	N	N	run/o&m/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300
 SITE LOCATION: TFS-10

SYSTEM READINGS

SOLLECO			4" Pipe											
	OP	VAC	FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
DATE	HOUR	(in. H2O)	p-tube (in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	TEMP (°F)	Reading	Reading	Bailed Gallons	Emission Y/N	TAKEN Y/N	
06/16/14	25195	58	2873	142	221	185	0	648	22026	107572	4	N	N	run/o&m/run
06/26/14	25431	60	2780	141	214	217	0	676	22449	107612	0	N	N	run/o&m/run
07/03/14	25591	60	2765	140	214	407	14	682	22743	107637	0	N	N	run/o&m/run
07/07/14	25647	59	2850	139	221	182	0	644	22850	107646	4.74	N	Y	down/o&m,ted/run
07/14/14	25819	60	2910	142	224	268	21	663	23154	107678	4.25	N	N	run/o&m/down
07/23/14	25871	60	2935	145	225	310	17	655	23242	107704	4.5	N	N	run/o&m/run
07/29/14	26014	60	3055	135	238	156	0	640	23492	107743	0	N	N	run/o&m/run
08/06/14	26208	61	2930	143	225	329	0	660	23841	107797	5	N	Y	run/o&m,ted/run
08/14/14	26398	55	2880	132	225	1000	0	657	24187	107850	0	N	N	run/o&m/run
08/19/14	26520	52	2860	137	222	1000	0	668	24408	107885	0	N	N	run/o&m/run
08/25/14	26663	59	2930	134	229	371	0	684	24667	107925	0	N	N	run/o&m/run
09/02/14	26814	52	2910	135	227	168	0.5	680	24935	107977	0	N	N	run/o&m/run
09/10/14	26985	55	3010	134	235	283	4	673	25233	108032	0	N	Y	run/o&m,ted/run
09/16/14	27068	54	3045	135	237	223	0	668	25379	108061	0	N	N	run/o&m/run
09/22/14	27211	54	3002	128	237	272	0	671	25628	108099	0	N	N	run/o&m/down
10/02/14	27427	54	3015	129	237	443	5	701	26007	108162	4.5	N	Y	run/o&m,ted/run
10/08/14	27570	57	2950	119	236	305	0.4	692	26262	108204	5.5	N	N	run/o&m/run
10/17/14	27786	56	2995	126	237	412	2.9	697	26651	108268	0	N	N	run/o&m/run
10/20/14	27858	55	2931	129	231	321	2.1	691	26780	108289	0	N	N	run/o&m/run
10/31/14	28113	55	3000	127	237	299	0.9	705	27245	108361	0	N	N	run/o&m/run
11/07/14	28281	57	2965	126	234	382	0.4	698	27556	108404	0	N	N	run/o&m/run
11/12/14	28401	55	3290	118	264	413	0.1	659	27772	108437	5	N	Y	run/o&m,ted/run
11/17/14	28427	45	2900	102	239	340	2.1	668	27817	108446	0	N	N	down/o&m/run
11/24/14	28594	60	3765	104	309	357	3.1	664	28170	108492	0	N	N	run/o&m/run
12/03/14	28785	58	3465	115	279	345	1.2	682	28559	108546	0	N	N	run/o&m/run
12/08/14	28905	57	3702	111	300	413	0.2	668	28808	108613	0	N	N	run/o&m/run
12/15/14	29068	60	3010	120	240	211	1.8	631	29157	108613	3.5	N	Y	run/o&m,ted,wells/down
12/24/14	29258	60	3951	99	327	291	9	664	29570	108669	0	N	N	run/o&m/run
12/29/14	29377	45	4130	89	348	314	12	690	29863	108704	0	N	N	run/o&m/run
01/07/15	29593	57	3630	108	296	528	4	677	30386	108767	0	N	N	run/o&m/run
01/14/15	29758	50	3190	101	263	259	7	647	30747	108821	0	N	Y	run/o&m,ted,wells/down
01/20/15	29879	60	3365	98	279	283	16	645	31001	108857	0	N	N	run/o&m/run
01/30/15	30066	55	3560	106	291	323	0.3	653	31397	108912	0	N	N	run/o&m/run
02/06/15	30236	52	3650	113	295	264	1.9	660	31789	108962	0	N	Y	run/o&m,ted,wells/down
02/12/15	30378	54	3585	106	293	316	0	669	32047	109003	0	N	N	run/o&m/run
02/17/15	30423	56	3527	110	287	321	8.6	642	32137	109017	3.75	N	Y	run/o&m,ted,wells/down
02/26/15	30616	55	3568	109	290	243	4.8	637	32528	109073	0	N	N	run/o&m/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300
 SITE LOCATION: TFS-10

SYSTEM READINGS

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
03/04/15	30760	55	3605	104	296	226	5.9	632	32818	109114	0	N	N	run/o&m/run
03/11/15	30928	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 8"
03/20/15	30929	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 9"
03/24/15	31018	30	2550	104	209	355	3.2	645	33372	109187	0	N	Y	run/o&m,tcd/run
04/01/15	31212	55	3400	127	268	261	2.5	662	33969	109232	0	N	N	run/o&m/run
04/06/15	31331	58	3445	125	273	200	4.1	665	33739	109265	0	N	N	run/o&m/run
04/13/15	31499	62	3467	122	276	189	2.1	669	34329	109313	0	N	N	run/o&m/run
04/21/15	31663	59	3410	109	278	355	5.8	667	34696	109360	4.25	N	N	run/o&m/run
04/27/15	31686	57	3460	113	280	873	8.2	635	34747	109370	0	N	Y	run/o&m,tcd/run
05/04/15	31771	NT	NT	NT	NT	NT	NT	NT	NT	109396	0	N	N	down/o&m/run
05/05/15	31772	NT	NT	NT	NT	NT	NT	NT	34918	109396	0	N	N	down/o&m/run
05/11/15	31893	65	3560	123	283	410	3.4	660	35179	109404	0	N	N	run/o&m/run
05/18/15	332081	60	3460	127	273	262	1.5	664	35579	109480	0	N	N	run/o&m/run
05/26/15	32228	50	3380	130	265	500	1.2	663	NT	109517	0	N	Y	run/o&m,tcd/run
06/01/15	32373	50	3360	143	258	740	0.7	664	NT	109556	0	N	N	run/o&m/run
06/08/15	32540	60	3485	128	275	280	0.5	663	36556	109599	0	N	N	run/o&m/run
06/16/15	32731	64	4500	125	356	187	1.1	665	36760	109656	10	N	N	run/o&m/down
06/24/15	32852	50	4500	127	355	130	0.5	663	NT	109688	0	N	Y	run/o&m,tcd/run
07/06/15	32998	50	4700	130	369	150	0.4	652	NT	NT	0	N	Y	run/o&m,tcd/run
07/14/15	33165	52	4500	133	352	62.4	7	656	NT	109733	3	N	N	run/o&m/run
07/21/15	33314	54	4300	128	339	68	0.9	650	NT	109814	0	N	N	run/o&m/run
07/28/15	33484	65	5000	133	391	108	2.1	650	NT	109861	0	N	Y	run/o&m,tcd/run
08/07/15	33646	65	5000	130	393	69.9	5	649	NT	109899	0	N	N	run/o&m/run
08/11/15	33740	60	4700	122	374	98.1	1.2	652	39114	109924	0	N	N	run/o&m/run
08/21/15	33952	50	4200	124	333	82.2	1.6	650	NT	109954	0	N	N	run/o&m/run
09/03/15	33983	30	3900	123	310	1322	8.1	656	NT	109961	0	N	Y	run/o&m,tcd/run
09/09/15	34125	45	5000	122	398	351	9.3	653	NT	109990	0	N	N	run/o&m/run
09/15/15	34271	58	5000	128	394	78	1.8	656	NT	110024	0	N	N	run/o&m/run
09/22/15	34435	40	5500	125	436	33.3	4.4	656	NT	110064	0	N	N	run/o&m/run
09/24/15	34461	40	5300	123	421	48.1	0.5	653	40658	110070	4	N	N	run/o&m/run
09/28/15	34558	50	5400	127	426	73.4	1	645	NT	110093	0	N	Y	run/o&m,tcd/run
10/05/15	34727	45	5300	125	420	65.8	0.8	650	41253	110133	0	N	N	run/o&m/run
10/12/15	34802	58	5000	123	397	62.6	0.1	650	41712	110151	0	N	N	run/o&m/run
10/19/15	34969	50	3500	132	274	91.7	0.2	650	NT	110191	0	N	N	run/o&m/run
10/26/15	35111	40	5000	124	397	60.8	0	650	NT	110221	0	N	Y	run/o&m,tcd/down
11/24/15	35278	47	4400	116	354	2200	1.7	650	NT	NT	0	N	N	run/o&m/run
12/01/15	35442	40	3200	98	265	1100	1.5	651	NT	NT	0	N	Y	run/o&m,tcd/down

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300

SYSTEM READINGS

SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
12/11/15	35681	35	4300	92	361	720	1.8	650	NT	NT	0	N	N	run/o&m/run
12/14/15	35730	35	4300	89	362	680	1.6	650	NT	NT	0	N	N	run/o&m/run
12/21/15	35899	40	3200	91	269	1000	1.9	653	NT	NT	0	N	N	run/o&m/run
12/28/15	36062	42	3000	90	252	440	0.3	656	NT	00155	0	N	N	run/o&m/run
01/05/16	36255	42	3000	100	248	1100	200	650	44284	00197	0	N	Y	run/o&m,ted/down
01/13/16	36447	46	3000	112	243	23	0.6	650	44614	00240	0	N	N	run/o&m/run
01/19/16	36591	36	3300	108	269	15	0.2	650	44849	00280	0	N	N	run/o&m, wells/run
01/26/16	36711	55	5000	98	415	968	3.7	651	45105	00307	0	N	N	run/o&m/run
02/05/16	36844	40	3300	93	276	2683	0.8	654	45325	00346	0	N	N	down/o&m/run
02/12/16	37012	38	3200	121	255	744	2.1	652	NT	00392	0	N	N	run/o&m/run
02/15/16	37083	38	3200	117	257	34	0	653	NT	00401	0	N	Y	run/o&m,ted,wells/down
02/22/16	37106	40	3200	112	259	207	3.2	658	45754	00408	0	N	N	down/o&m/run
03/01/16	37298	40	3200	124	254	188	1.5	649	46063	00457	0	N	N	run/o&m/run
03/08/16	37462	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 10"
04/05/16	37467	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
^a Reading was taken approximately 8-inches from the original location were the first two readings were collected.														
^b Reading was taken from system display screen.														
^c New natural gas meter was installed on August 10, 2012.														
Note 1: Multiple system readings were collected with initial air sparge start up and optimize air sparge system.														
Note 2: Multiple system readings were collected to optimize air sparge equipment.														
Note 3: System was shutdown for City of Tucson sampling event and NAPL fingerprint assessment.														
Note 4: Lori Ehman with City of Tucson was on-site and informed Cardno of upcoming well test and asked Cardno to postpone LNAPL until well testing is complete.														
Note 5: Bill with the City of Tucson re-started the system with dilution open and Air Sparge system off.														
Note 6: Re-started Air Sparge system.														
Note 7: The remediation system was shut down due to poor destruction. Inspect the catalytic plate.														
Note 8: Contacted by Bill Ramber with the City of Tucson and was told that the remediation system was shutdown for annual groundwater sampling. OP hours were recorded and no additional readings were collected.														
Note 9: After completion of annual groundwater sampling, system was restarted by City of Tucson. OP hours were recorded and no additional readings were collected.														
Note 10: Bill Ramber with the City of Tucson, notified Cardno that the remediation system was shutdown for annual sampling. Monthly well readings were collected, during remedial shutdown.														
On March 25, 2016, Cardno was informed that the system would remain shutdown until the blower was replaced. The blower was replaced and the system was restarted on April 5, 2016.														
* Pre-compliance sample event, due to sample results from 8/12/13 showing poor destruction "NOT COMPLIANCE SAMPLE".														
Highlighted cells indicate vapor sampling events.														

APPENDIX B

HISTORICAL TPH MASS REMOVAL TABLE AND GRAPHS

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Aug-02	228	228	4,050	592	99	592	99
Solleco 500	Sep-02	324	552	6,500	1,501	250	2,093	349
Solleco 500	Oct-02	360	912	6,100	1,174	196	3,267	545
Solleco 500	Oct-02	344	1,256	4,400	750	125	4,016	670
Solleco 500	Oct-02	145	1,402	8,650	707	118	4,724	788
Solleco 500	Nov-02	339	1,741	4,100	798	133	5,522	921
Solleco 500	Dec-02	664	2,405	1,900	762	127	6,283	1,048
Solleco 500	Jan-03	359	2,764	1,900	489	82	6,772	1,129
Solleco 500	Feb-03	1,104	3,868	2,200	1,395	233	8,167	1,362
Solleco 500	Mar-03	454	4,322	3,650	986	164	9,153	1,526
Solleco 500	Oct-04	264	4,586	337	21,985	3,575	31,138	5,101
Solleco 500	Oct-04	408	4,994	447	784	131	31,922	5,231
Solleco 500	Nov-04	384	5,378	328	979	163	32,901	5,394
Solleco 500	Dec-04	336	5,714	118	629	105	33,530	5,499
Solleco 500	Dec-04	528	6,242	272	355	59	33,885	5,558
Solleco 500	Feb-05	312	6,554	455	484	81	34,369	5,639
Solleco 500	Mar-05	1,536	8,090	557	3,987	665	38,356	6,304
Solleco 500	May-05	840	8,930	220	2,669	445	41,025	6,748
Solleco 500	Jun-05	408	9,338	378	512	85	41,537	6,834
Solleco 500	Jul-05	720	10,058	1,500	1,553	259	43,090	7,093
Solleco 500	Aug-05	768	10,826	1,500	6,572	1,095	49,662	8,188
Solleco 500	Sep-05	744	11,570	1,508	6,367	638	56,029	8,826
Solleco 500	Oct-05	672	12,242	1,612	7,156	1,193	63,185	10,018
Solleco 500	Nov-05	624	12,866	988	4,073	679	67,258	10,697
Solleco 500	Dec-05	528	13,394	1,508	5,260	877	72,518	11,574
Solleco 500	Jan-06	864	14,258	1,196	6,827	1,138	79,345	12,712
Solleco 500	Feb-06	792	15,050	936	4,897	816	84,242	13,528
Solleco 500	Mar-06	720	15,770	1,101	5,237	873	89,479	14,401
Solleco 500	Apr-06	816	16,586	1,300	7,008	1,168	96,487	15,569
Solleco 500	May-06	552	17,138	1,508	5,499	917	101,986	16,485
Solleco 500	Jun-06	840	17,978	624	3,463	577	105,449	17,062
Solleco 500	Jul-06	792	18,770	1,326	6,938	1,156	112,387	18,219
Solleco 500	Aug-06	336	19,106	1,664	3,694	616	116,081	18,834
Solleco 500	Sep-06	984	20,090	2,800	18,528	3,088	134,609	21,922
Solleco 500	Jan-07	2,472	22,562	2,500	46,546	7,758	181,154	29,680
Solleco 500	Jan-07	312	22,874	3,500	5,875	979	187,029	30,659
Solleco 500	Mar-07	2,616	25,490	3,300	49,257	8,210	236,286	38,868
Solleco 500	Aug-07	2,736	28,226	8,500	76,619	12,770	312,905	51,638
Solleco 500	Oct-07	1,032	29,258	11,000	28,900	4,817	341,806	56,455
Solleco 500	Jan-08	2,376	31,634	910	66,538	11,090	408,344	67,545
Solleco 500	Mar-08	1,392	33,026	980	38,982	6,497	447,325	74,042
Solleco 500	Jun-08	864	33,890	610	24,453	4,076	471,778	78,117
Solleco 500	Sep-08	2,112	36,002	500	7,190	1,198	478,968	79,315
Solleco 500	Nov-08	1,248	37,250	800	6,798	1,133	485,766	80,448
Solleco 500	Nov-08	192	37,442	600	784	131	486,550	80,579
Solleco 500	Dec-08	816	38,258	690	3,833	639	490,383	81,218

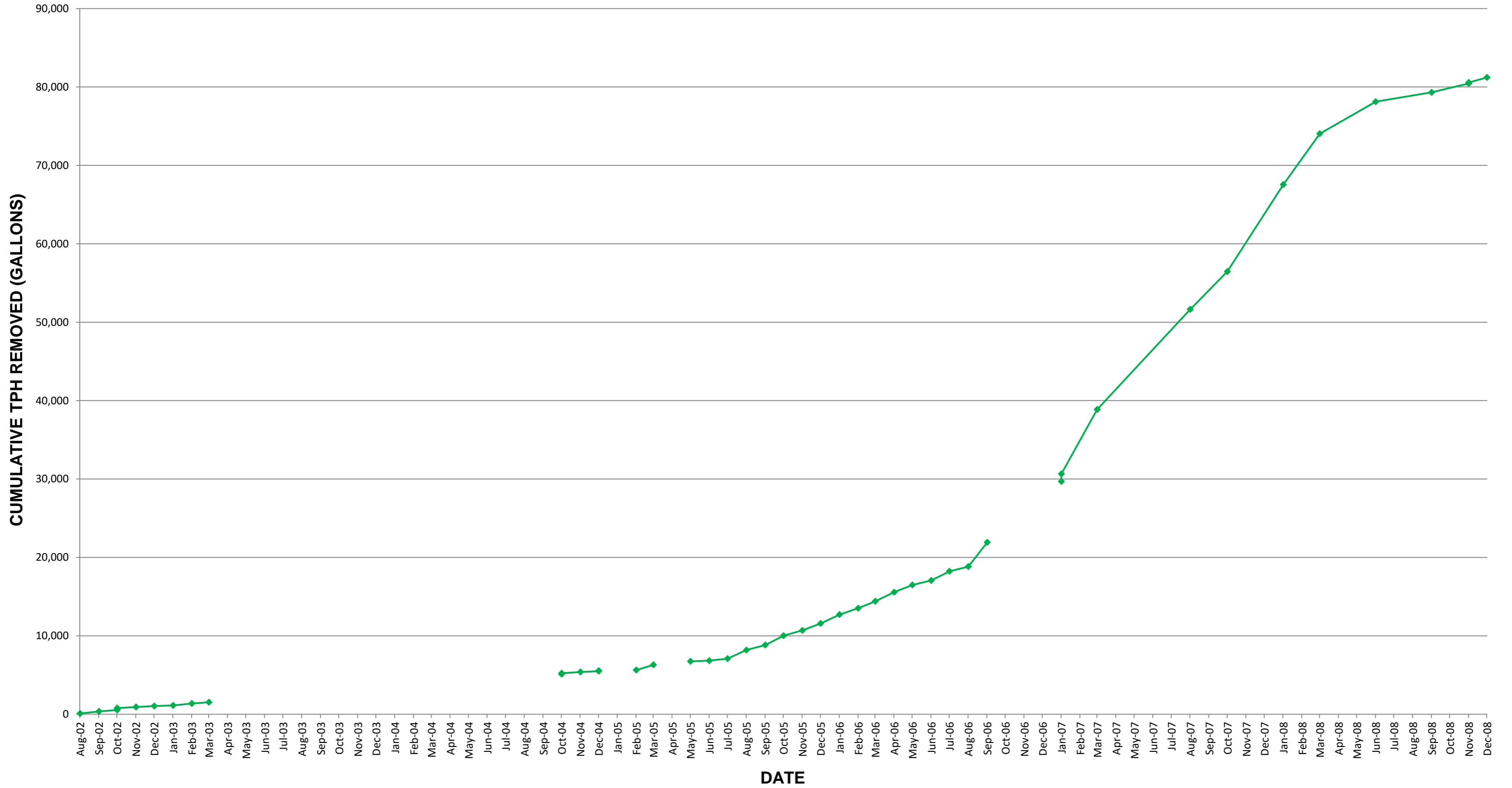
APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 2 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Jan-09	696	38,954	630	2,985	498	493,368	81,715
Solleco 500	Apr-09	2,624	41,578	320	5,716	953	499,084	82,668
Solleco 500	Aug-09	1,068	42,646	510	2,950	492	502,035	83,160
Solleco 500	Nov-09	2,232	44,878	560	6,166	1,028	508,201	84,187
Solleco 500	Mar-10	2,448	47,326	470	6,763	1,127	514,963	85,315
Solleco 500	Aug-10	2,712	50,038	330	7,492	1,249	522,455	86,563
Solleco 500	Nov-10	1,776	51,814	170	7,119	1,186	529,574	87,750
Solleco 500	Mar-11	2,784	54,598	207	11,159	1,860	540,733	89,610
Solleco 500	Jul-11	2,592	57,190	498	10,390	1,732	551,123	91,341
Solleco 500	Sep-11	1,680	58,870	1,160	6,734	1,122	557,857	92,464
Solleco 500	Dec-11	1,094	59,964	901	4,387	731	562,244	93,195
Solleco 500	Apr-12	96	60,060	252	77	13	562,320	93,208
Solleco 500	Apr-12	143	60,203	306	143	24	562,463	93,231
Solleco 500	May-12	524	60,727	164	262	44	562,725	93,275
Solleco 500	May-12	170	60,897	395	323	54	563,048	93,329
Solleco 500	May-12	45	60,942	251	63	11	563,111	93,339
Solleco 500	May-12	79	61,021	263	119	20	563,230	93,359
Solleco 500	May-12	192	61,213	263	288	48	563,518	93,407
Solleco 500	May-12	141	61,354	435	437	73	563,955	93,480
Solleco 500	Jun-12	144	61,498	236	173	29	564,128	93,509
Solleco 500	Jun-12	288	61,786	307	634	106	564,761	93,615
Solleco 500	Jun-12	189	61,975	347	473	79	565,234	93,693
Solleco 500	Aug-12	3,321	63,285	630	15,611	2,602	580,845	96,295
Solleco 500	Sep-12	213	63,498	810	1,263	211	582,108	96,506
Solleco 500	Sep-12	94	63,592	880	602	100	582,710	96,606
Solleco 500	Sep-12	145	63,737	900	945	158	583,655	96,764
Solleco 500	Oct-12	166	63,903	1,100	1,331	222	584,986	96,985
Solleco 500	Oct-12	166	64,069	320	393	66	585,379	97,051
Solleco 500	Oct-12	237	64,306	1,100	1,941	324	587,320	97,374
Solleco 500	Oct-12	67	64,373	730	368	61	587,688	97,436
Solleco 500	Nov-12	360	64,733	460	1,339	223	589,027	97,659
Solleco 500	Nov-12	474	65,207	440	1,281	214	590,308	97,872
Solleco 500	Dec-12	335	65,542	590	1,241	207	591,549	98,079
Solleco 500	Jan-13	476	66,018	760	1,383	231	592,932	98,310
Solleco 500	Jan-13	452	66,470	460	1,290	215	594,222	98,525
Solleco 500	Feb-13	405	66,875	370	853	142	595,075	98,667
Solleco 500	Apr-13	818	67,693	900	4,864	811	599,939	99,478
Solleco 500	Jul-13	1,248	68,941	767	4,553	759	604,492	100,236
Solleco 500	Aug-13	578	69,519	579	1,659	277	606,151	100,513
Solleco 500	Nov-13	884	70,403	891	3,783	631	609,934	101,143
Solleco 500	Dec-13	817	71,220	619	2,547	425	612,481	101,568
Solleco 500	Jan-14	950	72,170	1,210	5,789	965	618,270	102,533
Solleco 500	Feb-14	626	72,796	765	2,203	367	620,473	102,900
Solleco 500	Mar-14	342	73,138	1,350	1,629	272	622,102	103,171
Solleco 500	Apr-14	429	73,567	705	1,189	198	623,291	103,370
Solleco 500	May-14	722	74,289	753	2,087	348	625,378	103,717

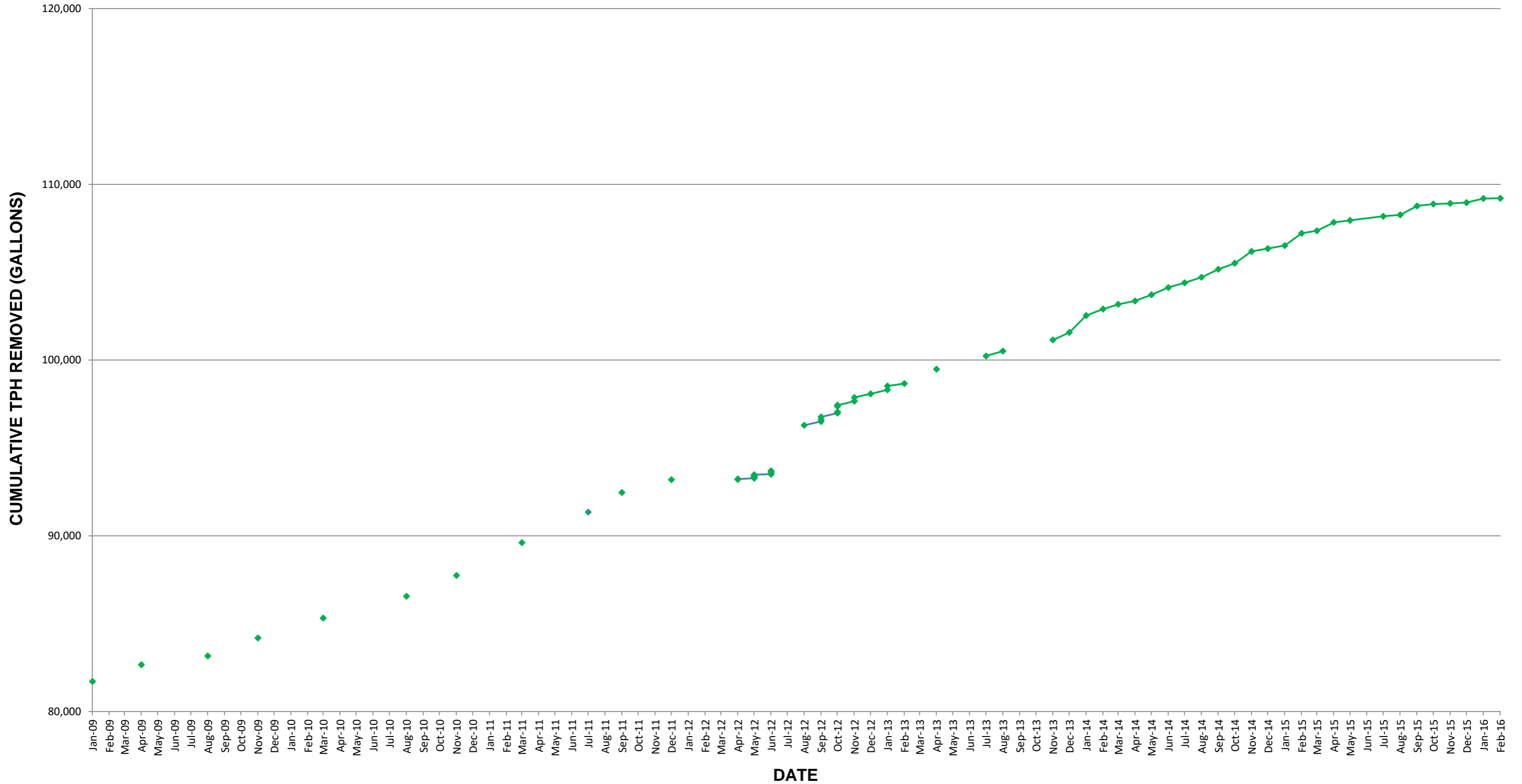
APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 3 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Jun-14	454	74,743	1,540	2,467	411	627,845	104,129
Solleco 500	Jul-14	717	75,460	658	1,621	270	629,466	104,399
Solleco 500	Aug-14	561	76,021	958	1,880	313	631,346	104,712
Solleco 500	Sep-14	777	76,798	965	2,739	457	634,085	105,169
Solleco 500	Oct-14	442	77,240	1,260	2,052	342	636,137	105,511
Solleco 500	Nov-14	974	78,214	1,010	4,037	673	640,174	106,183
Solleco 500	Dec-14	667	78,881	398	990	165	641,164	106,348
Solleco 500	Jan-15	690	79,571	358	1,010	168	642,174	106,516
Solleco 500	Feb-15	665	80,236	1,410	4,183	697	646,357	107,213
Solleco 500	Mar-15	595	80,831	463	895	149	647,252	107,362
Solleco 500	Apr-15	668	81,499	979	2,846	474	650,098	107,836
Solleco 500	May-15	542	82,041	298	665	111	650,763	107,947
Solleco 500	Jul-15	770	82,811	319	1,409	235	652,172	108,182
Solleco 500	Aug-15	486	83,297	162	479	80	652,651	108,262
Solleco 500	Sep-15	499	83,796	1,280	3,078	513	655,729	108,775
Solleco 500	Oct-15	575	84,371	160	609	102	656,338	108,877
Solleco 500	Nov-15	331	84,702	65.5	224	37	656,562	108,914
Solleco 500	Dec-15	542	85,244	222	303	50	656,865	108,964
Solleco 500	Jan-16	813	86,057	442	1,385	231	658,250	109,195
Solleco 500	Feb-16	828	86,885	<23.3	77	13	658,327	109,208

- | | | |
|-----|---|--|
| (1) | = Soil vapor extraction (SVE) well | Remediation information reported by Hydro Geo Chem |
| (2) | = Air infiltration/injection well | Remediation information reported by Groundwater Technology |
| (3) | = Nested vadose zone monitoring probe | Remediation information reported by Fluor Daniel GTI |
| (4) | = System was shutdown November 1995 and was replaced with a 500-scfm | Remediation information reported by The IT Group |
| (5) | = System was started on February 13, 1996 | Remediation information reported by SCS Engineers |
| (6) | = System was shutdown January 2001 and was replaced with a Paragon ET-150 | Remediation information reported by Clear Creek Associates |
| (7) | = System was shutdown September 4, 2002 and was restarted on November 4, 2002 | Remediation information reported by City of Tucson |
| (8) | = System was shutdown December 31, 2002 for rebound recovery evaluation | Average influent concentration |
| | | Remediation information reported by Cardno |
| | | Mass removal estimated using PID measurements |



**TFS-10 HISTORICAL TPH MASS REMOVAL
(2002 THROUGH 2008)**



**TFS-10 HISTORICAL TPH MASS REMOVAL
(2009 THROUGH 2016)**

January 27, 2017
4161240000.Q216TFS10

Mr. Richard Byrd
City of Tucson - Environmental Services
P.O. Box 27210
Tucson, AZ 85726-7210

Cardno
19621 North 23rd Drive,
Suite 150
Phoenix, AZ 85027
USA
Phone 602 977 8000
Fax 602 977 8099
www.cardno.com

**Subject: TFS-10 System Performance Summary
Thomas O. Price Service Center**
4004 South Park Avenue, Tucson, Arizona 85714
Facility ID: 0-005160, LUST No. 0767.01-.05

Mr. Byrd:

At the request of City of Tucson – Environmental Services (COT-ES), Cardno is submitting this remedial summary for the Air Sparge/Soil Vapor Extraction (AS/SVE) with catalytic oxidation abatement system at the above referenced Site, for activities performed by Cardno from April through June 2016. Relevant figures, tables, and appendices are attached.

SUMMARY OF FIELD ACTIVITIES

Second Quarter Field Activities

- Weekly system readings and equipment maintenance.
- Monthly well gauging, vapor monitoring, and non-aqueous phase liquid (NAPL) bailing.
- The remediation system has seven zones (1 through 7) which represent remediation wells on the same trunk lines; currently there are 23 wells connected to the seven remedial zones. The wells and zones are depicted on Figure 1. During the reporting period, remedial zones 1 through 4 were not operating; all of the remediation wells, excluding, well PCM-535A (zone 7) were operating in zones 5 through 7.
- Adjusted the bypass stingers to optimize the flow rate and vapor recovery in wells PCM-534A and PCM-507A (zone 7).
- On March 8, 2016, the AS/SVE system was shut down for the annual groundwater monitoring and sampling. Prior to restarting the AS/SVE system, the SVE blower was removed and replaced, and the SVE system was restarted on April 5, 2016. Due to low levels of NAPL in the monitor wells, the AS system was cycled on/off to optimize system performance.

January 27, 2017
4161240000.Q216 City of Tucson, Thomas O. Price Service Center, TFS-10

- During the reporting period an estimated 2,682 pounds (approximately 447 gallons) of petroleum hydrocarbons were removed through the AS/SVE system.
- Manually bailed approximately 1.5 gallons (9 pounds) of NAPL from monitor well WR-220A. During the first and second quarters, a cumulative 3.0 gallons (18 pounds) of NAPL were removed.
- During the reporting period an estimated 2,691 pounds (approximately 448.5 gallons) of petroleum hydrocarbons were removed from the Site through AS/SVE remediation and NAPL removal activities. Since April 1, 2012 an estimated 109,617 pounds (approximately 18,269 gallons) of petroleum hydrocarbons have been removed from the Site through AS/SVE remediation and NAPL removal activities.

PROPOSED THIRD QUARTER 2016 SITE ACTIVITIES

- Continue weekly system readings, monthly well gauging, vapor monitoring, and NAPL bailing.
- Continue adjusting system to optimize vapor recovery.
- Continue adjusting bypass stingers to optimize flow rate and vapor recovery in wells PCM-534A and PCM-507A.

Please feel free to call me at (602) 909-3448 or email me at justin.patton@cardno.com with any questions or comments.

Respectfully submitted,

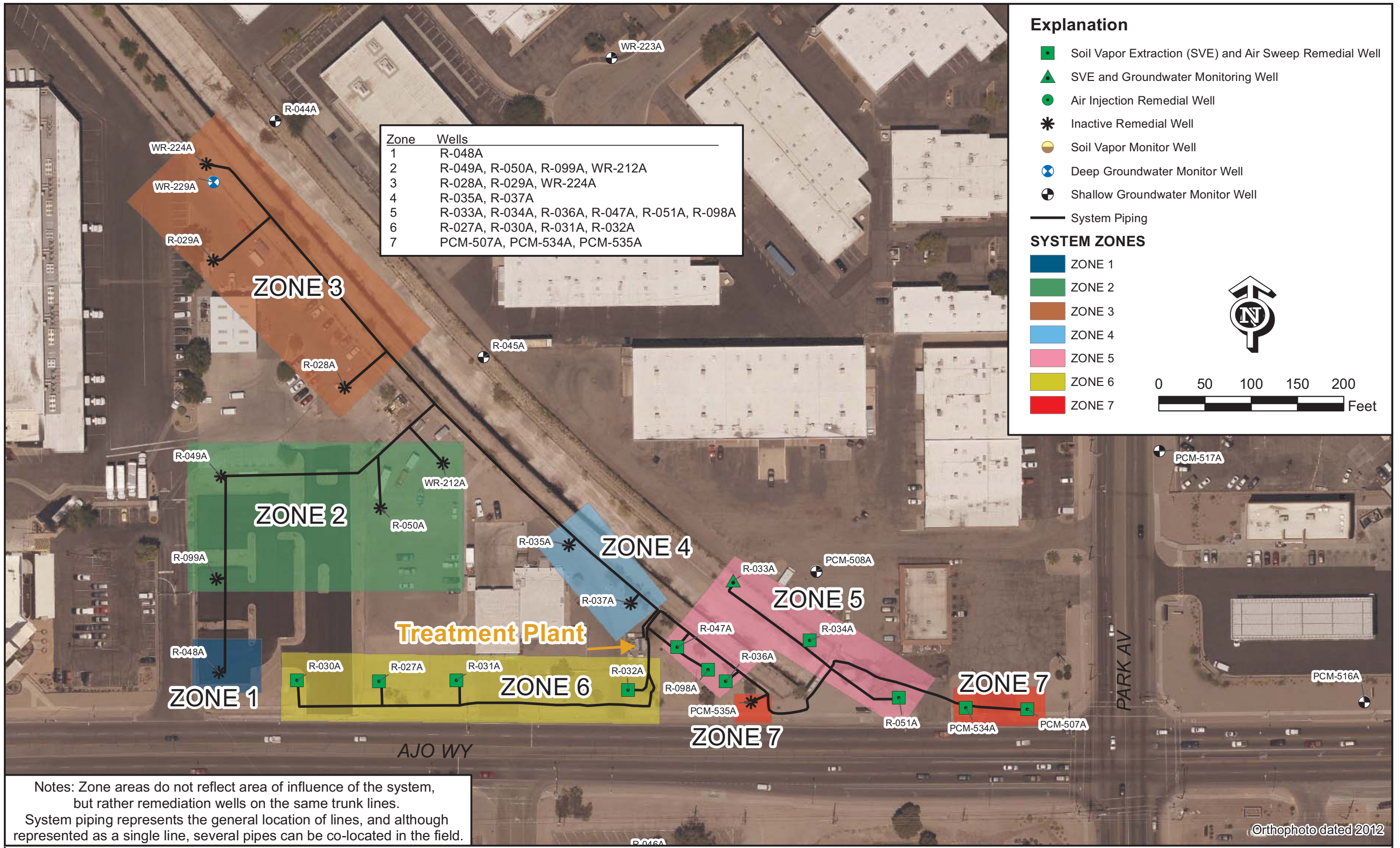


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January 27, 2017
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Enclosures:

Figure 1	TFS-10 Site Layout and Well Location Map
Table 1	SVE Operating Conditions Summary
Table 2	Influent Vapor Process Stream Analytical Results
Table 3	Estimated Petroleum Hydrocarbon Mass Removal
Table 4	Total Vapor Phase Hydrocarbon Removal Between Sampling Events
Table 5	Cumulative TPH Mass Removal
Table 6	Manually Bailed NAPL Removal
Table 7	Annual NAPL Removal
Appendix A	Weekly Operation and Maintenance System Readings
Appendix B	Historical TPH mass removal table and graphs



Notes: Zone areas do not reflect area of influence of the system, but rather remediation wells on the same trunk lines.
 System piping represents the general location of lines, and although represented as a single line, several pipes can be co-located in the field.

Orthophoto dated 2012



FIGURE 1
TFS-10 SITE LAYOUT AND WELL LOCATION MAP
 THOMAS O. PRICE SERVICE CENTER
 4004 South Park Avenue
 Tucson, Arizona

Drawn By:	LE
Checked:	RB
Approved:	NP
Date:	1/24/2014
File:	See Below

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TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Op Hours	Vacuum (Inches H₂O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
08/27/12	13,472	67	318	480	167
09/05/12	13,685	50	577	471	159
09/18/12	13,779	55	425	468	155
09/24/12	13,924	52	612	466	156
10/01/12	14,090	55	747	469	154
10/08/12	14,256	57	251	476	153
10/18/12	14,493	61	655	479	151
10/22/12	14,560	64	596	484	145
11/06/12	14,920	70	338	520	146
11/27/12	15,394	63	219	395	139
12/11/12	15,729	63	439	404	132
01/02/13	16,205	66	822	246	125
01/21/13	16,657	64	381	399	132
02/07/13	17,062	64	285	366	135
04/30/13	17,880	48	737	425	146
07/15/13	19,128	60	367	306	179
08/12/13	19,706	63	287	319	172
11/07/13	20,590	48	508	309	148
12/12/13	21,407	51	422	324	145
01/14/14	22,357	45	743	324	150
02/19/14	22,983	68	351	296	115
03/27/14	23,325	54	722	227	115
04/14/14	23,754	61	372	253	122
05/15/14	24,476	60	143	247	125
06/05/14	24,930	60	441	227	139
07/07/14	25,647	59	182	221	139
08/06/14	26,208	61	329	225	143
09/10/14	26,985	55	283	235	134
10/02/14	27,427	54	443	237	129
11/12/14	28,401	55	413	264	118
12/15/14	29,068	60	211	240	120
01/14/15	29,758	50	259	263	101
02/17/15	30,423	56	321	287	110
03/24/15	31,018	30	355	209	104
04/27/15	31,686	57	873	280	113
05/26/15	32,228	50	500	265	130
07/06/15	32,998	50	150	369	130
07/28/15	33,484	65	108	391	133

TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
 4004 South Park Avenue, Tucson, Arizona
 (Page 2 of 2)

Date	Op Hours	Vacuum (Inches H₂O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
09/03/15	33,983	30	1322	310	123
09/28/15	34,558	50	73	426	127
10/26/15	35,111	40	61	397	124
12/01/15	35,442	40	1100	265	98
01/05/16	36,255	42	1100	248	100
02/15/16	37,083	38	34	257	117
04/29/16	37,966	50	118	420	136
05/24/16	38,281	49	832	182	154
Average		55	453	334	135

Notes:

- VOC = Volatile organic compounds concentrations reported from PID.
- ppmv = Parts per million by volume.
- scfm = Standard cubic feet per minute.
- Deg. F = Degree Fahrenheit.

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
08/27/12	12:50	9.9	9.9	2.0	8.2	630
09/05/12	9:36	14	17	3.2	12	810
09/18/12	10:55	8.5	12	3.2	16	880
09/24/12	1:00	19	15	2.0	8.5	900
10/01/12	11:10	23	20	2.5	15	1,100
10/08/12	10:30	4.4	3.7	<5.0	4.4	320
10/18/12	11:15	22	18	2.0	12	1,100
10/22/12	11:20	14	13	1.8	7.6	730
11/06/12	11:15	8.1	8.0	<5.0	3.9	460
11/27/12	12:50	5.6	2.9	0.99	7.4	440
12/11/12	12:50	10	8.8	1.3	6.9	590
01/02/13	10:50	18	20	2.8	12	760
01/21/13	11:50	8.5	7.7	1.7	7.8	460
02/07/13	11:35	4.7	3.7	1.2	6.9	370
04/30/13	11:28	17	14	1.7	8.0	900
07/15/13	9:15	3.89	9.42	<2.30	17.2	767
08/12/13	8:40	2.48	5.03	<1.15	13.4	579
11/07/13	10:20	7.43	18.2	2.96	16.7	891
12/12/13	10:25	4.20	12.5	2.11	14.2	619
01/14/14	8:48	8.48	25.0	4.27	25.9	1,210
02/19/14	11:23	4.62	15.5	3.13	16.8	765
03/27/14	11:07	7.73	23.2	3.63	30.1	1,350
04/14/14	9:50	3.48	8.20	1.83	21.1	705
05/15/14	8:50	2.2	4.50	<1.15	9.76	753
06/05/14	9:50	12.0	23.3	3.00	27.0	1,540
07/07/14	9:55	3.37	5.50	<1.15	8.69	658
08/06/14	9:30	5.61	10.6	1.95	16.9	958
09/10/14	11:25	8.36	26.6	4.86	21.0	965
10/02/14	10:23	7.88	21.9	3.13	27.2	1,260
11/12/14	10:43	5.82	19.2	4.40	28.5	1,010
12/15/14	8:20	1.13	3.32	0.40	4.34	398
01/14/15	10:25	2.69	10.5	2.14	9.3	358
02/16/15	10:10	19.6	37.6	4.78	23.8	1,410
03/24/15	10:00	2.6	11.0	2.53	11.8	463
04/27/15	11:00	11.9	25.7	4.18	20.7	979
05/26/15	12:45	1.22	2.64	0.54	4.40	298
07/06/15	1:00	2.65	5.05	0.62	3.82	319

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
07/28/15	11:00	0.61	1.08	0.23	3.02	162
09/03/15	12:00	16.4	62.0	10.9	47.5	1,280
09/28/15	11:15	0.54	1.21	0.24	2.65	160
10/26/15	11:15	0.49	1.14	0.25	1.92	65.5
12/01/15	9:45	0.56	13.2	4.95	19.7	222
01/05/16	12:00	<0.31	<0.27	0.30	4.35	442
02/15/16	11:20	<0.31	<0.27	0.51	2.89	<23.3
04/29/16	10:36	1.54	6.11	1.24	7.02	175
05/24/16	12:00	17.9	82.9	13.8	56.5	1,880
Average		7.52	13.4	2.54	13.5	734

Notes:

- ppmv = Part per million by volume.
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
- TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
- < = Below laboratory reporting limits.

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 3)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
08/27/12	480	630	9.9	9.9	2.0	8.2	4.70	112.81	5.8E-02	1.4E+00	6.7E-02	1.6E+00	1.6E-02	3.8E-01	6.5E-02	1.6E+00
09/05/12	471	810	14	17	3.2	12	5.93	142.33	8.0E-02	1.9E+00	1.1E-01	2.7E+00	2.5E-02	6.0E-01	9.3E-02	2.2E+00
09/18/12	468	880	8.5	12	3.2	16	6.40	153.64	4.8E-02	1.2E+00	7.9E-02	1.9E+00	2.5E-02	5.9E-01	1.2E-01	3.0E+00
09/24/12	466	900	19	15	2.0	8.5	6.52	156.46	1.1E-01	2.6E+00	9.9E-02	2.4E+00	1.5E-02	3.7E-01	6.5E-02	1.6E+00
10/01/12	469	1,100	23	20	2.5	15	8.02	192.46	1.3E-01	3.1E+00	1.3E-01	3.2E+00	1.9E-02	4.6E-01	1.2E-01	2.8E+00
10/08/12	476	320	4.4	3.7	<5.0	4.4	2.37	56.82	2.5E-02	6.1E-01	2.5E-02	6.0E-01	3.9E-02	9.4E-01	3.5E-02	8.3E-01
10/18/12	479	1,100	22	18	2.0	12	8.19	196.57	1.3E-01	3.1E+00	1.2E-01	2.9E+00	1.6E-02	3.8E-01	9.5E-02	2.3E+00
10/22/12	484	730	14	13	1.8	7.6	5.49	131.81	8.2E-02	2.0E+00	8.9E-02	2.1E+00	1.4E-02	3.4E-01	6.1E-02	1.5E+00
11/06/12	520	460	8.1	8	<5.0	3.9	3.72	89.24	5.1E-02	1.2E+00	5.9E-02	1.4E+00	4.3E-02	1.0E+00	3.3E-02	8.0E-01
11/27/12	395	440	5.6	2.9	1.0	7.4	2.70	64.84	2.7E-02	6.4E-01	1.6E-02	3.9E-01	6.4E-03	1.5E-01	4.8E-02	1.2E+00
12/11/12	404	590	10	8.8	1.3	6.9	3.71	88.92	4.9E-02	1.2E+00	5.0E-02	1.2E+00	8.7E-03	2.1E-01	4.6E-02	1.1E+00
01/02/13	246	760	18	20	2.8	12	2.91	69.75	5.4E-02	1.3E+00	7.0E-02	1.7E+00	1.1E-02	2.7E-01	4.9E-02	1.2E+00
01/21/13	399	460	8.5	7.7	1.7	7.8	2.85	68.47	4.1E-02	9.9E-01	4.3E-02	1.0E+00	1.1E-02	2.7E-01	5.1E-02	1.2E+00
02/07/13	366	370	4.7	3.7	1.2	6.9	2.11	50.52	2.1E-02	5.0E-01	1.9E-02	4.6E-01	7.2E-03	1.7E-01	4.2E-02	1.0E+00
04/30/13	425	900	17	14	1.7	8.0	5.95	142.70	8.8E-02	2.1E+00	8.4E-02	2.0E+00	1.2E-02	2.9E-01	5.6E-02	1.3E+00
07/15/13	306	767	3.89	9.42	<2.30	17.2	3.65	87.56	1.4E-02	3.5E-01	4.1E-02	9.8E-01	1.2E-02	2.8E-01	8.7E-02	2.1E+00
08/12/13	319	579	2.48	5.03	<1.15	13.4	2.87	68.91	9.6E-03	2.3E-01	2.3E-02	5.4E-01	6.0E-03	1.5E-01	7.0E-02	1.7E+00
11/07/13	309	891	7.43	18.2	2.96	16.7	4.28	102.71	2.8E-02	6.7E-01	8.0E-02	1.9E+00	1.5E-02	3.6E-01	8.5E-02	2.0E+00
12/12/13	324	619	4.20	12.5	2.11	14.2	3.12	74.82	1.6E-02	4.0E-01	5.7E-02	1.4E+00	1.1E-02	2.7E-01	7.6E-02	1.8E+00
01/14/14	324	1,210	8.48	25.0	4.27	25.9	6.09	146.26	3.3E-02	8.0E-01	1.1E-01	2.7E+00	2.3E-02	5.5E-01	1.4E-01	3.3E+00
02/19/14	296	765	4.62	15.5	3.13	16.8	3.52	84.48	1.7E-02	4.0E-01	6.5E-02	1.6E+00	1.5E-02	3.7E-01	8.2E-02	2.0E+00

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 3)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
03/27/14	227	1,350	7.73	23.2	3.63	30.1	4.76	114.33	2.1E-02	5.1E-01	7.4E-02	1.8E+00	1.4E-02	3.3E-01	1.1E-01	2.7E+00
04/14/14	253	705	3.48	8.20	1.83	21.1	2.77	66.54	1.1E-02	2.6E-01	2.9E-02	7.0E-01	7.6E-03	1.8E-01	8.8E-02	2.1E+00
05/15/14	247	753	2.23	4.50	1.15	9.76	2.89	69.39	6.7E-03	1.6E-01	1.6E-02	3.8E-01	4.7E-03	1.1E-01	4.0E-02	9.5E-01
06/05/14	227	1,540	12.0	23.3	3.00	27	5.43	130.42	3.3E-02	7.9E-01	7.5E-02	1.8E+00	1.1E-02	2.7E-01	1.0E-01	2.4E+00
07/07/14	221	658	3.37	5.50	1.15	8.69	2.26	54.25	9.0E-03	2.2E-01	1.7E-02	4.1E-01	4.2E-03	1.0E-01	3.2E-02	7.6E-01
08/06/14	225	958	5.61	10.6	1.95	16.9	3.35	80.41	1.5E-02	3.7E-01	3.4E-02	8.1E-01	7.2E-03	1.7E-01	6.3E-02	1.5E+00
09/10/14	235	965	8.36	26.6	4.86	21	3.53	84.60	2.4E-02	5.7E-01	8.8E-02	2.1E+00	1.9E-02	4.5E-01	8.1E-02	2.0E+00
10/02/14	237	1,260	7.88	21.9	3.13	27.2	4.64	111.40	2.3E-02	5.4E-01	7.3E-02	1.8E+00	1.2E-02	2.9E-01	1.1E-01	2.5E+00
11/12/14	264	1,010	5.82	19.2	4.40	28.5	4.14	99.47	1.9E-02	4.5E-01	7.2E-02	1.7E+00	1.9E-02	4.6E-01	1.2E-01	3.0E+00
12/15/14	240	398	1.13	3.32	0.40	4.34	1.48	35.63	3.3E-03	7.9E-02	1.1E-02	2.7E-01	1.6E-03	3.8E-02	1.7E-02	4.1E-01
01/14/15	263	358	2.69	10.5	2.14	9.27	1.46	35.13	8.6E-03	2.1E-01	3.9E-02	9.4E-01	9.3E-03	2.2E-01	4.0E-02	9.6E-01
02/16/15	287	1,410	19.6	37.6	4.78	23.8	6.29	150.97	6.8E-02	1.6E+00	1.5E-01	3.7E+00	2.3E-02	5.4E-01	1.1E-01	2.7E+00
03/24/15	209	463	2.60	11.0	2.53	11.8	1.50	36.10	6.6E-03	1.6E-01	3.3E-02	7.8E-01	8.7E-03	2.1E-01	4.1E-02	9.8E-01
04/27/15	280	979	11.9	25.7	4.18	20.7	4.26	102.26	4.0E-02	9.7E-01	1.0E-01	2.4E+00	1.9E-02	4.6E-01	9.6E-02	2.3E+00
05/26/15	265	298	1.22	2.64	0.54	4.4	1.23	29.46	3.9E-03	9.4E-02	9.9E-03	2.4E-01	2.4E-03	5.7E-02	1.9E-02	4.6E-01
07/06/15	369	319	2.65	5.05	0.62	3.82	1.83	43.91	1.2E-02	2.8E-01	2.6E-02	6.3E-01	3.8E-03	9.0E-02	2.3E-02	5.6E-01
07/28/15	391	162	0.61	1.08	0.23	3.02	0.98	23.63	2.9E-03	6.9E-02	6.0E-03	1.4E-01	1.5E-03	3.6E-02	1.9E-02	4.7E-01
09/03/15	310	1,280	16.4	62.0	10.9	47.5	6.17	148.03	6.2E-02	1.5E+00	2.7E-01	6.5E+00	5.6E-02	1.3E+00	2.4E-01	5.8E+00
09/28/15	426	160	0.54	1.21	0.24	2.65	1.06	25.43	2.8E-03	6.7E-02	7.3E-03	1.7E-01	1.7E-03	4.0E-02	1.9E-02	4.5E-01
10/26/15	397	65.5	0.49	1.14	0.25	1.92	0.40	9.70	2.4E-03	5.7E-02	6.4E-03	1.5E-01	1.6E-03	3.9E-02	1.3E-02	3.0E-01
12/01/15	265	222	0.56	13.2	4.95	19.7	0.91	21.95	1.8E-03	4.3E-02	4.9E-02	1.2E+00	2.2E-02	5.2E-01	8.6E-02	2.1E+00

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
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Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
01/05/16	248	442	0.31	0.3	0.30	4.35	1.70	40.89	9.3E-04	2.2E-02	9.5E-04	2.3E-02	1.2E-03	2.9E-02	1.8E-02	4.3E-01
02/15/16	257	23	0.31	0.3	0.51	2.89	0.09	2.23	9.7E-04	2.3E-02	9.8E-04	2.4E-02	2.2E-03	5.2E-02	1.2E-02	2.9E-01
04/29/16	420	175	1.54	6.1	1.24	7.02	1.14	27.42	7.8E-03	1.9E-01	3.6E-02	8.7E-01	8.6E-03	2.1E-01	4.9E-02	1.2E+00
05/24/16	182	1,880	17.90	82.9	13.80	56.5	5.32	127.65	3.9E-02	9.5E-01	2.1E-01	5.1E+00	4.1E-02	9.9E-01	1.7E-01	4.1E+00
AVERAGE	334	734	7.52	13.4	2.54	13.5	3.58	85.94	3.3E-02	8.0E-01	6.3E-02	1.5E+00	1.4E-02	3.4E-01	7.0E-02	1.7E+00

Notes:

- TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
- Lbs = Pounds.
- scfm = Standard cubic feet per minute.
- ppmv = Parts per million by volume.
- < = Below minimum laboratory reporting limits.

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
08/27/12	3,321	15,611	191.34	223.23	52.53	215.4
09/05/12	213	1,263	17.03	24.12	5.29	19.8
09/18/12	94	602	4.53	7.47	2.32	11.6
09/24/12	145	945	15.57	14.34	2.23	9.5
10/01/12	166	1,331	21.71	22.03	3.21	19.2
10/08/12	166	393	4.22	4.14	6.51	5.7
10/18/12	237	1,941	30.28	28.90	3.74	22.4
10/22/12	67	368	5.50	5.96	0.96	4.1
11/06/12	360	1,339	18.38	21.18	15.42	12.0
11/27/12	474	1,281	12.71	7.68	3.05	22.8
12/11/12	335	1,241	16.41	16.85	2.90	15.4
01/02/13	476	1,383	25.56	33.13	5.40	23.2
01/21/13	452	1,290	18.59	19.64	5.05	23.2
02/07/13	405	853	8.45	7.76	2.93	16.9
04/30/13	818	4,864	71.66	68.85	9.74	45.8
07/15/13	1,248	4,553	18.01	50.89	14.47	108.2
08/12/13	578	1,659	5.54	13.12	3.49	40.7
11/07/13	884	3,783	24.61	70.32	13.32	75.2
12/12/13	817	2,547	13.48	46.80	9.20	61.9
01/14/14	950	5,789	31.65	108.85	21.66	131.4
02/19/14	626	2,203	10.38	40.63	9.56	51.3
03/27/14	342	1,629	7.28	25.48	4.64	38.5
04/14/14	429	1,189	4.58	12.59	3.27	37.7
05/15/14	722	2,087	4.82	11.35	3.38	28.7
06/05/14	454	2,467	14.99	33.97	5.09	45.8
07/07/14	717	1,621	6.47	12.33	3.00	22.7
08/06/14	561	1,880	8.59	18.93	4.06	35.1
09/10/14	777	2,739	18.51	68.70	14.62	63.2
10/02/14	442	2,052	10.01	32.45	5.40	46.9
11/12/14	974	4,037	18.14	69.84	18.64	120.7
12/15/14	667	990	2.19	7.52	1.06	11.4
01/14/15	690	1,010	5.92	26.95	6.40	27.7
02/17/15	665	4,183	45.36	101.51	15.03	74.8
03/24/15	595	895	3.92	19.35	5.18	24.2
04/27/15	668	2,846	26.99	68.00	12.88	63.8
05/26/15	542	665	2.12	5.36	1.28	10.4
07/06/15	770	1,409	9.13	20.30	2.90	17.9

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
 4004 South Park Avenue, Tucson, Arizona
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Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
07/28/15	486	479	1.41	2.90	0.72	9.5
09/03/15	499	3,078	30.76	135.66	27.78	121.1
09/28/15	575	609	1.60	4.19	0.97	10.7
10/26/15	553	224	1.30	3.54	0.90	6.9
12/01/15	331	303	0.60	16.38	7.15	28.5
01/05/16	813	1,385	0.76	0.77	1.00	14.5
02/15/16	828	77	0.80	0.81	1.79	10.1
04/29/16	883	1,009	6.92	32.05	7.58	42.9
05/24/16	315	1,675	12.44	67.23	13.04	53.4
TOTAL	28,130	95,777	811.2	1,634	360.8	1,903

Notes:

- TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
- lbs = Pounds.
- OP Hours = Duration of SVE operation during period.

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs) ^a	Cumulative TPH (Lbs)	TPH (Gallons) ^b	Cumulative TPH (Gallons) ^b	Manually Bailed (Gallons)	Well Pumps (Gallons) ^c	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs) ^d	TPH (Gallons) ^d
04/03/12 - 08/27/12	3321	15,611	15,611	2,602	2,602	83.50	520.00	603.50	1,277	23,270	3,878
08/27/12 - 09/05/12	213	1,263	16,874	211	2,812	3.50	30.00	33.50	1,310	24,734	4,122
09/05/12 - 09/18/12	94	602	17,476	100	2,913	6.25	33.50	39.75	1,350	25,575	4,262
09/18/12 - 09/24/12	145	945	18,421	158	3,070	4.00	20.00	24.00	1,374	26,664	4,444
09/24/12 - 10/01/12	166	1,331	19,752	222	3,292	3.50	23.25	26.75	1,401	28,156	4,693
10/01/12 - 10/08/12	166	393	20,145	66	3,358	3.00	23.25	26.25	1,427	28,706	4,784
10/08/12 - 10/18/12	237	1,941	22,086	324	3,681	3.00	33.00	36.00	1,463	30,863	5,144
10/18/12 - 10/22/12	67	368	22,454	61	3,742	3.00	13.28	16.28	1,479	31,329	5,221
10/22/12 - 11/06/12	360	1,339	23,793	223	3,965	9.25	50.00	59.25	1,538	33,023	5,504
11/06/12 - 11/27/12	474	1,281	25,073	213	4,179	9.25	62.37	71.62	1,610	34,733	5,789
11/27/12 - 12/11/12	335	1,241	26,315	207	4,386	9.50	36.52	46.02	1,656	36,251	6,042
12/11/12 - 01/02/13	476	1,383	27,698	231	4,616	9.50	85.85	95.35	1,751	38,206	6,368
01/02/13 - 01/21/13	452	1,290	28,987	215	4,831	9.50	72.56	82.06	1,833	39,988	6,665
01/21/13 - 02/07/13	405	853	29,840	142	4,973	6.50	64.92	71.42	1,905	41,269	6,878
02/07/13 - 04/30/13	818	4,864	34,704	811	5,784	13.50	191.00	204.50	2,109	47,360	7,893
04/30/13 - 07/15/13	1248	4,553	39,257	759	6,543	8.25	---	8.25	2,118	51,962	8,660
07/15/13 - 08/12/13	578	1,659	40,916	277	6,819	5.25	---	5.25	2,123	53,653	8,942
08/12/13 - 11/07/13	884	3,783	44,699	631	7,450	6.75	---	6.75	2,130	57,477	9,579
11/07/13 - 12/12/13	817	2,547	47,246	424	7,874	9.75	---	9.75	2,139	60,082	10,014
12/12/13 - 01/14/14	950	5,789	53,036	965	8,839	14.25	---	14.25	2,154	65,957	10,993
01/14/14 - 02/19/14	626	2,203	55,239	367	9,206	18.00	---	18.00	2,172	68,269	11,378
02/19/14 - 03/27/14	342	1,629	56,868	272	9,478	0.00	---	0.00	2,172	69,898	11,650
03/27/14 - 04/14/14	429	1,189	58,058	198	9,676	9.50	---	9.50	2,181	71,144	11,857
04/14/14 - 05/15/14	722	2,087	60,145	348	10,024	4.75	---	4.75	2,186	73,260	12,210
05/15/14 - 06/05/14	454	2,467	62,612	411	10,435	14.25	---	14.25	2,200	75,813	12,635
06/05/14 - 07/07/14	717	1,621	64,233	270	10,705	8.75	---	8.75	2,209	77,486	12,914
07/07/14 - 08/06/14	561	1,880	66,112	313	11,019	8.75	---	8.75	2,218	79,418	13,236
08/06/14 - 09/10/14	777	2,739	68,851	456	11,475	5.00	---	5.00	2,223	82,187	13,698

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs) ^a	Cumulative TPH (Lbs)	TPH (Gallons) ^b	Cumulative TPH (Gallons) ^b	Manually Bailed (Gallons)	Well Pumps (Gallons) ^c	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs) ^d	TPH (Gallons) ^d
09/10/14 - 10/02/14	442	2,052	70,903	342	11,817	4.50	---	4.50	2,227	84,266	14,044
10/02/14 - 11/12/14	974	4,037	74,940	673	12,490	5.50	---	5.50	2,233	88,336	14,723
11/12/14 - 12/15/14	667	990	75,930	165	12,655	15.25	---	15.25	2,248	89,417	14,903
12/15/14 - 01/14/15	690	1,010	76,940	168	12,823	4.50	---	4.50	2,252	90,454	15,076
01/14/15 - 02/17/15	665	4,183	81,123	697	13,521	3.75	---	3.75	2,256	94,660	15,777
02/17/15 - 03/24/15	595	895	82,018	149	13,670	5.00	---	5.00	2,261	95,585	15,931
03/24/15 - 04/27/15	668	2,846	84,865	474	14,144	4.25	---	4.25	2,265	98,457	16,409
04/27/15 - 05/26/15	542	665	85,530	111	14,255	3.75	---	3.75	2,269	99,144	16,524
05/26/15 - 07/06/15	770	1,409	86,939	235	14,490	10.00	---	10.00	2,279	100,613	16,769
07/06/15 - 07/28/15	486	479	87,417	80	14,570	3.00	---	3.00	2,282	101,110	16,852
07/28/15 - 09/03/15	499	3,078	90,495	513	15,083	5.00	---	5.00	2,287	104,218	17,370
09/03/15 - 09/28/15	575	609	91,104	102	15,184	4.00	---	4.00	2,291	104,851	17,475
09/28/15 - 10/26/15	553	224	91,328	37	15,221	5.00	---	5.00	2,296	105,104	17,517
10/26/15 - 12/01/15	331	303	91,631	50	15,272	3.50	---	3.50	2,300	105,428	17,571
12/01/15 - 01/05/16	813	1,385	93,016	231	15,503	4.50	---	4.50	2,304	106,840	17,807
01/05/16 - 02/15/16	828	77	93,093	13	15,515	0.50	---	0.50	2,305	106,920	17,820
02/15/16 - 04/29/16	883	1,009	94,102	168	15,684	1.50	---	1.50	2,306	107,938	17,990
04/29/16 - 05/24/16	315	1,675	95,777	279	15,963	0.50	---	0.50	2,307	109,617	18,269

- Notes:
- BOLD** = Sample collection date.
 - TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
 - NAPL = Non-aqueous phase liquid.
 - Lbs = Pounds.
 -
 - = All skimmer pump extraction wells were converted to air-sparge technology.
 - ^a = TPH lbs are calculated from mass removal from SVE remediation system.
 - ^b = TPH gallons are converted to gallons using 6 lbs = 1 gallon of TPH.
 - ^c = Well pump totals are calculated by subtracting the total volume of NAPL (combination of manually bailed and pneumatically pumped from well) in the storage vessel minus the manually bailed NAPL and averaged over the NAPL collection period.
 - ^d = Cumulative TPH lbs and gallons are calculated by adding NAPL removed from wells to mass removal from SVE remediation system.

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 3)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
04/03/12	R-028A,PCM-516	4.00	4.00
04/17/12	PCM-516	2.25	6.25
05/01/12	PCM-516	4.25	10.50
05/10/12	PCM-516	2.50	13.00
05/17/12	R-32,PCM-516	3.50	16.50
05/25/12	R-017A, 018A, 028A, 035A, 037A, PCM-516, WR-215A	11.3	27.75
05/31/12	PCM-516	3.00	30.75
06/06/12	PCM-516,17,18	7.75	38.50
06/12/12	PCM-516,17,18	3.25	41.75
06/18/12	PCM-516	3.00	44.75
06/28/12	PCM-516,35,37	5.75	50.50
07/05/12	PCM-516, R-099	5.25	55.75
07/10/12	PCM-516	3.00	58.75
07/18/12	PCM-516, R-099	7.50	66.25
07/25/12	PCM-516	3.00	69.25
07/30/12	PCM-516	3.25	72.50
08/10/12	PCM-516	8.00	80.50
08/27/12	PCM-516	3.00	83.50
09/05/12	PCM-516	3.50	87.00
09/14/12	PCM-516	3.00	90.00
09/18/12	PCM-516	3.25	93.25
09/24/12	PCM-516	4.00	97.25
10/01/12	PCM-516	3.50	100.75
10/08/12	PCM-516	3.00	103.75
10/18/12	PCM-516	3.00	106.75
10/22/12	PCM-516	3.00	109.75
11/01/12	PCM-516	3.00	112.75
11/06/12	PCM-516	3.25	116.00
11/13/12	PCM-516	3.25	119.25
11/19/12	PCM-516	3.00	122.25
11/27/12	PCM-516	3.00	125.25
12/04/12	PCM-516	3.00	128.25
12/11/12	PCM-516	3.50	131.75
12/18/12	PCM-516	3.25	135.00
12/27/12	PCM-516	3.00	138.00
01/02/13	PCM-516	3.25	141.25
01/07/13	PCM-516	3.25	144.50
01/14/13	PCM-516	3.25	147.75
01/21/13	PCM-516	3.00	150.75
01/28/13	PCM-516	3.50	154.25
02/07/13	PCM-516	3.00	157.25
02/11/13	PCM-516	3.00	160.25
02/19/13	PCM-516	3.50	163.75
02/25/13	PCM-516	3.50	167.25
03/04/13	PCM-516	3.50	170.75
05/15/13	R-028A, 035A, 037A, 050A, PCM-516	4.00	174.75
06/13/13	PCM-516	2.25	177.00
06/24/13	PCM-516	2.00	179.00

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 3)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
07/31/13	PCM-516	1.75	180.75
08/05/13	PCM-516	2.00	182.75
08/12/13	PCM-516	1.50	184.25
08/19/13	PCM-516	1.00	185.25
09/04/13	PCM-516	1.25	186.50
10/10/13	PCM-516	1.75	188.25
10/21/13	PCM-516	0.75	189.00
10/30/13	PCM-516	1.00	190.00
11/07/13	PCM-516	1.00	191.00
11/11/13	PCM-516	1.00	192.00
11/25/13	PCM-516, WR-220A	5.00	197.00
12/02/13	PCM-516, WR-220A	3.75	200.75
12/18/13	PCM-516, WR-220A	3.25	204.00
01/02/14	PCM-516, WR-220A	4.00	208.00
01/07/14	PCM-516, WR-220A	3.50	211.50
01/14/14	PCM-516, WR-220A	3.50	215.00
01/22/14	PCM-516, WR-220A	3.25	218.25
02/03/14	PCM-516, WR-220A	4.00	222.25
02/10/14	PCM-516, WR-220A	4.00	226.25
02/19/14	PCM-516, WR-220A	3.25	229.50
04/03/14	PCM-516, WR-220A	5.00	234.50
04/07/14	PCM-516, WR-220A	4.50	239.00
04/25/14	PCM-516, WR-220A	4.75	243.75
05/19/14	PCM-516, WR-220A	5.00	248.75
05/27/14	PCM-516, WR-220A	4.50	253.25
06/05/14	PCM-516, WR-220A	4.75	258.00
06/16/14	PCM-516, WR-220A	4.00	262.00
07/07/14	PCM-516, WR-220A	4.75	266.75
07/14/14	PCM-516, WR-220A	4.25	271.00
07/23/14	PCM-516, WR-220A	4.50	275.50
08/06/14	PCM-516, WR-220A	5.00	280.50
10/02/14	PCM-516, WR-220A	4.50	285.00
10/08/14	PCM-516, WR-220A	5.50	290.50
11/25/14	R-031A, R-098, PCM-507, PCM-516, WR-220A	11.75	302.25
12/15/14	PCM-516, WR-220A	3.50	305.75
01/15/15	PCM-516, WR-220A	4.50	310.25
02/17/15	PCM-516, WR-220A	3.75	314.00
03/16/15	PCM-516, WR-220A	5.00	319.00
04/21/15	PCM-516, WR-220A	4.25	323.25
05/19/15	WR-220A	3.75	327.00
06/16/15	WR-220A	10.00	337.00
07/13/15	WR-220A	3.00	340.00
08/25/15	PCM-516, WR-220A	5.00	345.00
09/23/15	PCM-516, WR-220A	4.00	349.00
10/21/15	PCM-516, WR-220A	5.00	354.00
11/18/15	PCM-516, WR-220A	3.50	357.50
12/23/15	PCM-516, WR-220A	4.50	362.00
01/20/16	WR-220A	0.50	362.50
02/16/16	WR-220A	0.50	363.00

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 3 of 3)

Date	Wells Bailed	NAPL Removed Gallons	Cumulative NAPL Gallons
03/08/16	WR-220A	0.50	363.50
04/15/16	WR-220A	0.50	364.00
05/10/16	WR-220A	0.50	364.50
06/16/16	WR-220A	0.50	365.00

Notes:

NAPL = Non-aqueous phase liquid.

TABLE 7
ANNUAL NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
 4004 South Park Avenue, Tucson, Arizona
 (Page 1 of 1)

Time Period	NAPL Removed Bailed/Pumped (Gallons)	Cummulative NAPL Removal (Gallons)
1998	86	86
1999	131	217
2000	45	262
2001	45	307
2002	28	335
2003	956	1,291
2004	1,210	2,501
2005	1,365	3,866
2006	923	4,789
2007	2,315	7,104
2008	2,577	9,681
2009	1,200	10,881
2010	1,703	12,584
2011	1,750	14,334
2012	1,690	16,024
2013	473	16,497
2014	133	16,630
2015	56	16,686
2016	3.0	16,689

Notes:

NAPL = Non-aqueous phase liquid.

APPENDIX A

WEEKLY OPERATION AND MAINTENANCE SYSTEM READINGS

PSC: TFS-10

O&M
 CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
 SITE LOCATION: TFS-10

SOLLECO		4" Pipe												
DATE	OP HOUR	VAC (in. H2O)	FLOW (in. fpm)	TEMP (°F)	SYS FLOW (scfm)	INF (ppmv)	EFF (ppmv)	Inlet TEMP (°F)	Gas Reading	Electric Reading	LNAPL Bailed Gallons	Visible Emission Y/N	TEDLARS TAKEN Y/N	COMMENTS
04/03/12	10151	64	2700	134	211	252	0.7	619	82438	103776	4.00	N	N	run/o&m/run
04/09/12	10294	59	2800	145	215	306	1.3	601	82724	103806	0.00	N	N	run/o&m/run
05/01/12	10818	58	2400	146	184	164	4	624	83794	103918	4.25	N	N	run/o&m/run
05/08/12	10984	58	2400	137	186	246	4	614	84141	103954	0.00	N	N	run/o&m/run "see note 1"
	10985	57	2400	144	184	368	1	691	84143	103955		N	N	
	10988	85	4200 ^a	166	311	395	1	696	84148	103955		N	N	
05/10/12	11033	67	4800	153	363	251	2	623	84241	103968	2.50	N	N	run/o&m/run
05/17/12	11109	65	4900	163	365	238	1	627	84388	103988	3.50	N	N	run/o&m/run "see note 2"
	11112	63	5000	169	369	263	4	630	84393	103989		N	N	
05/25/12	11304	63	NT ^b	160	450 ^b	246	2	635	84765	104034	11.25	N	N	run/o&m/run
05/31/12	11443	55	NT	146	459	255	3	620	85034	104067	3.00	N	N	run/o&m/run "see note 2"
	11445	54	NT	155	458	435	0	704	85039	104067		N	N	
06/28/12	12066	60	NT	168	472	347	21	688	86299	104213	5.75	N	N	run/o&m/run
07/05/12	12237	77	NT	171	481	635	7	778	86647	104254	5.25	N	N	run/o&m/run
07/25/12	12701	62	NT	159	462	558	11	705	87525	104367	3.00	N	N	run/o&m/run
07/30/12	12820	63	NT	157	465	287	2	658	87754	104397	3.25	N	N	run/o&m/run
08/10/12	13070	59	NT	169	479	221	6	644	0004 ^c	104459	8.00	N	N	run/o&m/run
08/14/12	13163	60	NT	171	485	233	13	653	00168	104484	0.00	N	N	run/o&m/run
08/20/12	13305	67	NT	169	483	256	16	654	00431	104521	8.00	N	N	run/o&m/run
08/27/12	13472	67	NT	167	480	318	11	685	00733	104565	3.00	N	Y	run/o&m/run
09/05/12	13683	68	NT	154	463	302	14	655	1119	104622	3.50	N	N	run/o&m/run "see note 2"
	13685	50	NT	159	471	577	9	619	1119	104622		N	Y	run/o&m/run "see note 2"
09/18/12	13779	55	NT	155	468	425	18	633	1297	104651	3.25	N	Y	run/o&m/run
09/24/12	13924	52	NT	156	466	612	10	622	1576	104685	4.00	N	Y	run/o&m/run
10/01/12	14090	55	NT	154	469	747	6	649	1910	104722	3.50	N	Y	run/o&m/run
10/08/12	14256	57	NT	153	476	251	0	647	2228	104764	3.00	N	Y	run/o&m/run
10/18/12	14493	61	NT	151	479	655	16	636	2688	104818	3.00	N	Y	run/o&m/run
10/22/12	14560	64	NT	145	484	596	7	638	2816	104837	3.00	N	Y	run/o&m/run
11/01/12	14800	74	NT	149	520	472	16	636	3277	104901	3.00	N	N	run/o&m/run
11/06/12	14920	70	NT	146	520	338	9	643	3504	104933	3.25	N	Y	run/o&m/run
11/13/12	15067	71	5150	140	398	481	9	644	3790	104972	3.25	N	N	run/o&m/run
11/19/12	15202	62	4950	141	382	231	2	628	4060	105009	3.00	N	N	run/o&m/run
11/27/12	15394	63	5100	139	395	219	6	614	4440	105061	3.00	N	Y	run/o&m/run
12/04/12	15559	65	5000	139	387	286	4	628	4771	105106	3.00	N	N	run/o&m/run
12/11/12	15729	63	5160	132	404	439	26	635	5118	105152	3.50	N	Y	run/o&m/run

PSC: TFS-10

O&M
 CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
 SITE LOCATION: TFS-10

SOLLECO		4" Pipe												
DATE	OP HOUR	VAC (in. H2O)	FLOW p-tube (in. fpm)	TEMP INF (°F)	SYS FLOW (scfm)	INF (ppmv)	EFF (ppmv)	Inlet TEMP (°F)	Gas Reading	Electric Reading	LNAPL Bailed Gallons	Visible Emission Y/N	TEDLARS TAKEN Y/N	COMMENTS
12/18/12	15889	64	2460	130	193	276	0	618	5440	105192	3.25	N	N	run/o&m/run
12/27/12	16107	64	2600	127	205	959	12	636	5899	105246	3.00	N	N	run/o&m/run
01/02/13	16205	66	3100	125	246	822	12	627	6105	105274	3.25	N	Y	down/o&m,ted/run
01/07/13	16325	67	5255	128	414	359	6	642	6355	106307	3.25	N	N	run/o&m/run
01/14/13	16493	66	5150	120	411	346	21	625	6079	105354	3.25	N	N	run/o&m/run
01/16/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
01/21/13	16657	64	5100	132	399	381	6	637	7070	105398	3.00	N	Y	run/o&m,ted/run
01/28/13	16822	63	4900	125	388	305	9	626	7410	105443	3.50	N	N	run/o&m/run
02/07/13	17062	64	4700	135	366	285	7	690	7920	105509	3.00	N	Y	run/o&m,ted/run
02/11/13	17157	62	4736	125	375	165	4	687	8116	105535	3.00	N	N	run/o&m/run
02/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
02/19/13	17349	54	5100	127	403	243	27	620	8509	105588	3.50	N	N	run/o&m/run
02/25/13	17494	64	4950	124	393	266	5	640	8815	105627	3.50	N	N	run/o&m/run
03/04/13	17659	64	5150	127	407	256	28	1014	9167	105672	3.50	N	N	run/o&m/run
03/13/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	run/down "see note 3"
03/20/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
03/26/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down "see note 4"
04/09/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/19/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
04/23/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/25/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/30/13	17880	48	5560	146	425	737	32	690	9643	105750	0.00	N	Y	down/o&m,ted/down
05/15/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	4.00	NT	N	Down/monthly well
05/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/run "see note 5"
05/30/13	18050	33	8730	145	668	774	65	776	9978	105803	0.00	N	N	run/o&m/run "see note 6"
06/06/13	18218	54	9500	164	706	235	0	625	10289	105850	0.00	N	N	run/o&m/run
06/13/13	18387	64	9240	176	679	317	58	653	10589	105899	2.25	N	Y	run/o&m,ted/run
06/21/13	18574	72	9300	168	686	280	40	646	10907	105956	0.00	N	N	run/o&m/run
06/24/13	18647	73	9265	166	686	320	61	655	11033	105978	2.00	N	N	run/o&m/run
07/01/13	18792	64	5520	165	480	266	24	631	11284	106023	2.25	N	N	run/o&m/run
07/08/13	18959	58	4039	175	295	296	31	647	11550	106068	2.00	N	N	run/o&m/run
07/15/13	19128	60	4220	179	306	367	32	658	11821	106114	1.25	N	Y	run/o&m,ted/run
07/25/13	19363	61	4165	173	305	312	28	640	12213	106191	2.00	N	N	run/o&m/run

PSC: TFS-10

O&M
 CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
 SITE LOCATION: TFS-10

SOLLECO		4" Pipe												
	OP	VAC	FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
DATE	HOUR	(in. H2O)	p-tube (in. fpm)	(°F)	FLOW (scfm)	(ppmv)	(ppmv)	TEMP (°F)	Reading	Reading	Bailed Gallons	Emission Y/N	TAKEN Y/N	
07/31/13	19418	60	4202	168	310	247	19	644	12302	106209	1.75	N	N	run/o&m/run
08/05/13	19538	64	4244	162	316	265	29	660	12498	106240	2.00	N	N	run/o&m/run
08/12/13	19706	63	4355	172	319	287	34	652	12772	106288	1.50	N	Y	run/o&m,ted/run
08/19/13	19874	64	4390	172	322	274	51	636	13045	106336	1.00	N	N	run/o&m/down "see note 7"
09/04/13	19877	60	4335	172	318	286	31	626	13052	106345	1.25	N	Y	down/o&m,ted/down
10/08/13	19879	60	4401	168	325	447	44	637	13054	106363	0.00	N	N	Down/O&M/run
10/10/13	19922	56	4567	152	346	1051	103	770	13125	106376	1.75	N	Y	run/o&m,ted/run
10/15/13	20046	54	4166	160	311	245	14	630	13334	106412	0.00	N	N	run/wells,o&m/run
10/21/13	20181	50	4000	153	302	459	19	667	13554	106449	0.75	N	N	run/o&m/run
10/30/13	20398	45	4065	153	307	377	24	636	13897	106505	1.00	N	N	run/o&m/run
11/07/13	20590	48	4063	148	309	508	4	682	14205	106556	1.00	N	Y	run/o&m,ted/run
11/11/13	20685	49	4100	149	312	296	11	631	14357	106578	1.00	N	N	run/o&m,well/down
11/19/13	20854	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	N	N	run/o&m/run
11/25/13	20997	49	4040	138	313	429	7	669	14870	106662	5.00	N	N	run/o&m/run
12/02/13	21165	48	4065	144	311	502	6	691	15149	106707	3.75	N	N	run/o&m/run
12/12/13	21407	51	4230	145	324	422	0	630	15550	106773	3.50	N	Y	run/o&m,ted/run
12/18/13	21523	49	4205	148	328	389	0	602	15746	106806	3.25	N	N	run/o&m/run
12/24/13	21668	49	4255	143	327	308	0	630	15971	106841	0.00	N	N	run/o&m/run
01/02/14	21881	48	4100	147	313	281	0	628	16294	106898	4.00	N	N	run/o&m/run
01/07/14	22004	49	4165	149	317	322	12	629	16485	NT	3.5	N	N	run/o&m/run
01/14/14	22169	45	4275	150	324	743	2	640	16734	106907	3.5	N	Y	run/o&m,ted/run
01/22/14	22357	48	4220	150	320	503	1	670	17016	107020	3.25	N	N	run/o&m/run
01/28/14	22497	46	4945	160	369	467	0	655	17223	107057	0	N	N	down/o&m/run
02/03/14	22601	40	4366	138	338	697	9	661	17361	107083	4	N	N	run/o&m/run
02/10/14	22768	65	3505	117	281	754	7	667	17663	107119	4	N	N	run/o&m/run
02/19/14	22983	68	3685	115	296	351	13	643	18072	107162	3.25	N	Y	run/o&m,ted/run
02/24/14	23012	NT	NT	NT	NT	NT	NT	NT	18126	107169	0	N	N	don/o&m/down
03/04/14	23106	58	3700	112	300	454	9	505	18305	107187	0	N	N	run/o&m/run
03/12/14	23250	NT	NT	NT	NT	NT	NT	NT	NT	NT	0	N	N	down for annual
03/27/14	23325	54	2820	115	227	722	1	552	18678	107223	0	N	Y	run/o&m,ted/run
04/03/14	23493	62	3330	114	269	410	7	642	18971	107253	5	N	N	run/o&m/run
04/07/14	23587	60	3285	118	263	527	4	662	19144	107270	4.5	N	N	run/o&m/run
04/14/14	23754	61	3175	122	253	372	7	645	19438	107303	0	N	Y	run/o&m,ted,wells/run
04/25/14	23992	61	3240	117	260	224	7	634	19866	107352	4.75	N	N	run/o&m/run
05/01/14	24136	64	3085	116	248	382	6	634	20133	107382	0	N	N	run/o&m/run

PSC: TFS-10

O&M
 CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
 SITE LOCATION: TFS-10

SOLLECO		4" Pipe												
	OP	VAC	FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
DATE	HOUR	(in. H2O)	p-tube (in. fpm)	(°F)	FLOW (scfm)	(ppmv)	(ppmv)	TEMP (°F)	Reading	Reading	Bailed Gallons	Emission Y/N	TAKEN Y/N	
05/07/14	24282	61	3188	122	254	317	13	651	20391	107413	0	N	N	run/o&m/run
05/15/14	24476	60	3120	125	247	143	0	645	20747	107451	0	N	Y	run/o&m,ted,wells/run
09/19/14	24568	61	3165	123	252	282	0	639	20910	107468	5	N	N	run/o&m/run
05/27/14	247162	62	3210	127	253	376	14	651	21177	107495	4.5	N	N	run/o&m/run
06/05/14	24930	60	2930	139	227	441	17	650	21555	107528	4.75	N	Y	run/o&m,ted,wells/run
06/12/14	251002	60	2790	141	215	291	0	670	21856	107557	0	N	N	run/o&m/run
06/16/14	25195	58	2873	142	221	185	0	648	22026	107572	4	N	N	run/o&m/run
06/26/14	25431	60	2780	141	214	217	0	676	22449	107612	0	N	N	run/o&m/run
07/03/14	25591	60	2765	140	214	407	14	682	22743	107637	0	N	N	run/o&m/run
07/07/14	25647	59	2850	139	221	182	0	644	22850	107646	4.74	N	Y	down/o&m,ted/run
07/14/14	25819	60	2910	142	224	268	21	663	23154	107678	4.25	N	N	run/o&m/down
07/23/14	25871	60	2935	145	225	310	17	655	23242	107704	4.5	N	N	run/o&m/run
07/29/14	26014	60	3055	135	238	156	0	640	23492	107743	0	N	N	run/o&m/run
08/06/14	26208	61	2930	143	225	329	0	660	23841	107797	5	N	Y	run/o&m,ted/run
08/14/14	26398	55	2880	132	225	1000	0	657	24187	107850	0	N	N	run/o&m/run
08/19/14	26520	52	2860	137	222	1000	0	668	24408	107885	0	N	N	run/o&m/run
08/25/14	26663	59	2930	134	229	371	0	684	24667	107925	0	N	N	run/o&m/run
09/02/14	26814	52	2910	135	227	168	0.5	680	24935	107977	0	N	N	run/o&m/run
09/10/14	26985	55	3010	134	235	283	4	673	25233	108032	0	N	Y	run/o&m,ted/run
09/16/14	27068	54	3045	135	237	223	0	668	25379	108061	0	N	N	run/o&m/run
09/22/14	27211	54	3002	128	237	272	0	671	25628	108099	0	N	N	run/o&m/down
10/02/14	27427	54	3015	129	237	443	5	701	26007	108162	4.5	N	Y	run/o&m,ted/run
10/08/14	27570	57	2950	119	236	305	0.4	692	26262	108204	5.5	N	N	run/o&m/run
10/17/14	27786	56	2995	126	237	412	2.9	697	26651	108268	0	N	N	run/o&m/run
10/20/14	27858	55	2931	129	231	321	2.1	691	26780	108289	0	N	N	run/o&m/run
10/31/14	28113	55	3000	127	237	299	0.9	705	27245	108361	0	N	N	run/o&m/run
11/07/14	28281	57	2965	126	234	382	0.4	698	27556	108404	0	N	N	run/o&m/run
11/12/14	28401	55	3290	118	264	413	0.1	659	27772	108437	5	N	Y	run/o&m,ted/run
11/17/14	28427	45	2900	102	239	340	2.1	668	27817	108446	0	N	N	down/o&m/run
11/24/14	28594	60	3765	104	309	357	3.1	664	28170	108492	0	N	N	run/o&m/run
12/03/14	28785	58	3465	115	279	345	1.2	682	28559	108546	0	N	N	run/o&m/run
12/08/14	28905	57	3702	111	300	413	0.2	668	28808	108613	0	N	N	run/o&m/run
12/15/14	29068	60	3010	120	240	211	1.8	631	29157	108613	3.5	N	Y	run/o&m,ted,wells/down
12/24/14	29258	60	3951	99	327	291	9	664	29570	108669	0	N	N	run/o&m/run
12/29/14	29377	45	4130	89	348	314	12	690	29863	108704	0	N	N	run/o&m/run

PSC: TFS-10

O&M
 CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
 SITE LOCATION: TFS-10

SOLLECO		4" Pipe												
	OP	VAC	FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
DATE	HOUR	(in. H2O)	p-tube (in. fpm)	(°F)	FLOW (scfm)	(ppmv)	(ppmv)	TEMP (°F)	Reading	Reading	Bailed Gallons	Emission Y/N	TAKEN Y/N	
01/07/15	29593	57	3630	108	296	528	4	677	30386	108767	0	N	N	run/o&m/run
01/14/15	29758	50	3190	101	263	259	7	647	30747	108821	0	N	Y	run/o&m,ted,wells/down
01/20/15	29879	60	3365	98	279	283	16	645	31001	108857	0	N	N	run/o&m/run
01/30/15	30066	55	3560	106	291	323	0.3	653	31397	108912	0	N	N	run/o&m/run
02/06/15	30236	52	3650	113	295	264	1.9	660	31789	108962	0	N	Y	run/o&m,ted,wells/down
02/12/15	30378	54	3585	106	293	316	0	669	32047	109003	0	N	N	run/o&m/run
02/17/15	30423	56	3527	110	287	321	8.6	642	32137	109017	3.75	N	Y	run/o&m,ted,wells/down
02/26/15	30616	55	3568	109	290	243	4.8	637	32528	109073	0	N	N	run/o&m/run
03/04/15	30760	55	3605	104	296	226	5.9	632	32818	109114	0	N	N	run/o&m/run
03/11/15	30928	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 8"
03/20/15	30929	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 9"
03/24/15	31018	30	2550	104	209	355	3.2	645	33372	109187	0	N	Y	run/o&m,ted/run
04/01/15	31212	55	3400	127	268	261	2.5	662	33969	109232	0	N	N	run/o&m/run
04/06/15	31331	58	3445	125	273	200	4.1	665	33739	109265	0	N	N	run/o&m/run
04/13/15	31499	62	3467	122	276	189	2.1	669	34329	109313	0	N	N	run/o&m/run
04/21/15	31663	59	3410	109	278	355	5.8	667	34696	109360	4.25	N	N	run/o&m/run
04/27/15	31686	57	3460	113	280	873	8.2	635	34747	109370	0	N	Y	run/o&m,ted/run
05/04/15	31771	NT	NT	NT	NT	NT	NT	NT	NT	109396	0	N	N	down/o&m/run
05/05/15	31772	NT	NT	NT	NT	NT	NT	NT	34918	109396	0	N	N	down/o&m/run
05/11/15	31893	65	3560	123	283	410	3.4	660	35179	109404	0	N	N	run/o&m/run
05/18/15	332081	60	3460	127	273	262	1.5	664	35579	109480	0	N	N	run/o&m/run
05/26/15	32228	50	3380	130	265	500	1.2	663	NT	109517	0	N	Y	run/o&m,ted/run
06/01/15	32373	50	3360	143	258	740	0.7	664	NT	109556	0	N	N	run/o&m/run
06/08/15	32540	60	3485	128	275	280	0.5	663	36556	109599	0	N	N	run/o&m/run
06/16/15	32731	64	4500	125	356	187	1.1	665	36760	109656	10	N	N	run/o&m/down
06/24/15	32852	50	4500	127	355	130	0.5	663	NT	109688	0	N	Y	run/o&m,ted/run
07/06/15	32998	50	4700	130	369	150	0.4	652	NT	NT	0	N	Y	run/o&m,ted/run
07/14/15	33165	52	4500	133	352	62.4	7	656	NT	109733	3	N	N	run/o&m/run
07/21/15	33314	54	4300	128	339	68	0.9	650	NT	109814	0	N	N	run/o&m/run
07/28/15	33484	65	5000	133	391	108	2.1	650	NT	109861	0	N	Y	run/o&m,ted/run
08/07/15	33646	65	5000	130	393	69.9	5	649	NT	109899	0	N	N	run/o&m/run
08/11/15	33740	60	4700	122	374	98.1	1.2	652	39114	109924	0	N	N	run/o&m/run
08/21/15	33952	50	4200	124	333	82.2	1.6	650	NT	109954	0	N	N	run/o&m/run
09/03/15	33983	30	3900	123	310	1322	8.1	656	NT	109961	0	N	Y	run/o&m,ted/run
09/09/15	34125	45	5000	122	398	351	9.3	653	NT	109990	0	N	N	run/o&m/run

PSC: TFS-10

O&M
 CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
 SITE LOCATION: TFS-10

SOLLECO		4" Pipe												
	OP	VAC	FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
DATE	HOUR	(in. H2O)	p-tube (in. fpm)	(°F)	FLOW (scfm)	(ppmv)	(ppmv)	TEMP (°F)	Reading	Reading	Bailed Gallons	Emission Y/N	TAKEN Y/N	
09/15/15	34271	58	5000	128	394	78	1.8	656	NT	110024	0	N	N	run/o&m/run
09/22/15	34435	40	5500	125	436	33.3	4.4	656	NT	110064	0	N	N	run/o&m/run
09/24/15	34461	40	5300	123	421	48.1	0.5	653	40658	110070	4	N	N	run/o&m/run
09/28/15	34558	50	5400	127	426	73.4	1	645	NT	110093	0	N	Y	run/o&m,ted/run
10/05/15	34727	45	5300	125	420	65.8	0.8	650	41253	110133	0	N	N	run/o&m/run
10/12/15	34802	58	5000	123	397	62.6	0.1	650	41712	110151	0	N	N	run/o&m/run
10/19/15	34969	50	3500	132	274	91.7	0.2	650	NT	110191	0	N	N	run/o&m/run
10/26/15	35111	40	5000	124	397	60.8	0	650	NT	110221	0	N	Y	run/o&m,ted/down
11/24/15	35278	47	4400	116	354	2200	1.7	650	NT	NT	0	N	N	run/o&m/run
12/01/15	35442	40	3200	98	265	1100	1.5	651	NT	NT	0	N	Y	run/o&m,ted/down
12/11/15	35681	35	4300	92	361	720	1.8	650	NT	NT	0	N	N	run/o&m/run
12/14/15	35730	35	4300	89	362	680	1.6	650	NT	NT	0	N	N	run/o&m/run
12/21/15	35899	40	3200	91	269	1000	1.9	653	NT	NT	0	N	N	run/o&m/run
12/28/15	36062	42	3000	90	252	440	0.3	656	NT	00155	0	N	N	run/o&m/run
01/05/16	36255	42	3000	100	248	1100	200	650	44284	00197	0	N	Y	run/o&m,ted/down
01/13/16	36447	46	3000	112	243	23	0.6	650	44614	00240	0	N	N	run/o&m/run
01/19/16	36591	36	3300	108	269	15	0.2	650	44849	00280	0	N	N	run/o&m, wells/run
01/26/16	36711	55	5000	98	415	968	3.7	651	45105	00307	0	N	N	run/o&m/run
02/05/16	36844	40	3300	93	276	2683	0.8	654	45325	00346	0	N	N	down/o&m/run
02/12/16	37012	38	3200	121	255	744	2.1	652	NT	00392	0	N	N	run/o&m/run
02/15/16	37083	38	3200	117	257	34	0	653	NT	00401	0	N	Y	run/o&m,ted,wells/down
02/22/16	37106	40	3200	112	259	207	3.2	658	45754	00408	0	N	N	down/o&m/run
03/01/16	37298	40	3200	124	254	188	1.5	649	46063	00457	0	N	N	run/o&m/run
03/08/16	37462	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 10"
04/05/16	37467	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
04/06/16	37491	53	3200	135	249	6.4	0	647	46498	00512	0	N	N	run/o&m/run
04/14/16	37683	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	run/monthly wells/run
04/23/16	37876	71	2100	150	160	92	0.4	649	47276	00640	0	N	N	run/o&m/run
04/29/16	37966	50	5400	136	420	118	2.6	655	47606	00610	0	N	Y	run/o&m,ted/run
05/04/16	38085	50	3088	139	239	28	0	649	47856	00630	0	N	N	run/o&m/down
05/10/16	38085	50	3143	108	256	98	0	679	47856	00630	0	N	N	down/O&M, wells/run
05/20/16	38184	40	3075	140	238	86	0	655	NT	00650	0	N	N	run/o&m/run
05/24/16	38281	49	2416	154	182	832	2.1	681	NT	00668	0	N	Y	run/o&m,ted/run
06/02/16	38497	34	6100	144	468	7.5	0	634	NT	00724	0	N	N	run/o&m/run
06/17/16	38592	33	6100	149	464	17	0	632	NT	00752	0	N	N	run/o&m,wells/run

PSC: TFS-10

O&M
 CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
 SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
	OP	VAC	FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
DATE	HOUR	(in. H2O)	p-tube (in. fpm)	(°F)	FLOW (scfm)	(ppmv)	(ppmv)	TEMP (°F)	Reading	Reading	Bailed Gallons	Emission Y/N	TAKEN Y/N	
06/21/16	38684	15	4264	140	329	576	0	658	NT	00766	0	N	N	run/o&m/run
06/30/16	38899	10	4155	109	338	274	0	644	NT	00821	0	N	N	run/o&m/run

^a Reading was taken approximately 8-inches from the original location were the first two readings were collected.

^b Reading was taken from system display screen.

^c New natural gas meter was installed on August 10, 2012.

Note 1: Multiple system readings were collected with initial air sparge start up and optimize air sparge system.

Note 2: Multiple system readings were collected to optimize air sparge equipment.

Note 3: System was shutdown for City of Tucson sampling event and NAPL fingerprint assessment.

Note 4: Lori Ehman with City of Tucson was on-site and informed Cardno of upcoming well test and asked Cardno to postpone LNAPL until well testing is complete.

Note 5: Bill with the City of Tucson re-started the system with dilution open and Air Sparge system off.

Note 6: Re-started Air Sparge system.

Note 7: The remediation system was shut down due to poor destruction. Inspect the catalytic plate.

Note 8: Contacted by Bill Ramber with the City of Tucson and was told that the remediation system was shutdown for annual groundwater sampling. OP hours were recorded and no additional readings were collected.

Note 9: After completion of annual groundwater sampling, system was restarted by City of Tucson. OP hours were recorded and no additional readings were collected.

Note 10: Bill Ramber with the City of Tucson, notified Cardno that the remediation system was shutdown for annual sampling. Monthly well readings were collected, during remedial shutdown. On March Cardno was informed that the system would remain shutdown until the blower was replaced. The blower was replaced and the system was restarted on April 5, 2016.

* Pre-compliance sample event, due to sample results from 8/12/13 showing poor destruction "NOT COMPLIANCE SAMPLE".

Highlighted cells indicate vapor sampling events.

APPENDIX B

HISTORICAL TPH MASS REMOVAL TABLE AND GRAPHS

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Aug-02	228	228	4,050	592	99	592	99
Solleco 500	Sep-02	324	552	6,500	1,501	250	2,093	349
Solleco 500	Oct-02	360	912	6,100	1,174	196	3,267	545
Solleco 500	Oct-02	344	1,256	4,400	750	125	4,016	670
Solleco 500	Oct-02	145	1,402	8,650	707	118	4,724	788
Solleco 500	Nov-02	339	1,741	4,100	798	133	5,522	921
Solleco 500	Dec-02	664	2,405	1,900	762	127	6,283	1,048
Solleco 500	Jan-03	359	2,764	1,900	489	82	6,772	1,129
Solleco 500	Feb-03	1,104	3,868	2,200	1,395	233	8,167	1,362
Solleco 500	Mar-03	454	4,322	3,650	986	164	9,153	1,526
Solleco 500	Oct-04	264	4,586	337	21,985	3,575	31,138	5,101
Solleco 500	Oct-04	408	4,994	447	784	131	31,922	5,231
Solleco 500	Nov-04	384	5,378	328	979	163	32,901	5,394
Solleco 500	Dec-04	336	5,714	118	629	105	33,530	5,499
Solleco 500	Dec-04	528	6,242	272	355	59	33,885	5,558
Solleco 500	Feb-05	312	6,554	455	484	81	34,369	5,639
Solleco 500	Mar-05	1,536	8,090	557	3,987	665	38,356	6,304
Solleco 500	May-05	840	8,930	220	2,669	445	41,025	6,748
Solleco 500	Jun-05	408	9,338	378	512	85	41,537	6,834
Solleco 500	Jul-05	720	10,058	1,500	1,553	259	43,090	7,093
Solleco 500	Aug-05	768	10,826	1,500	6,572	1,095	49,662	8,188
Solleco 500	Sep-05	744	11,570	1,508	6,367	638	56,029	8,826
Solleco 500	Oct-05	672	12,242	1,612	7,156	1,193	63,185	10,018
Solleco 500	Nov-05	624	12,866	988	4,073	679	67,258	10,697
Solleco 500	Dec-05	528	13,394	1,508	5,260	877	72,518	11,574
Solleco 500	Jan-06	864	14,258	1,196	6,827	1,138	79,345	12,712
Solleco 500	Feb-06	792	15,050	936	4,897	816	84,242	13,528
Solleco 500	Mar-06	720	15,770	1,101	5,237	873	89,479	14,401
Solleco 500	Apr-06	816	16,586	1,300	7,008	1,168	96,487	15,569
Solleco 500	May-06	552	17,138	1,508	5,499	917	101,986	16,485
Solleco 500	Jun-06	840	17,978	624	3,463	577	105,449	17,062
Solleco 500	Jul-06	792	18,770	1,326	6,938	1,156	112,387	18,219
Solleco 500	Aug-06	336	19,106	1,664	3,694	616	116,081	18,834
Solleco 500	Sep-06	984	20,090	2,800	18,528	3,088	134,609	21,922
Solleco 500	Jan-07	2,472	22,562	2,500	46,546	7,758	181,154	29,680
Solleco 500	Jan-07	312	22,874	3,500	5,875	979	187,029	30,659
Solleco 500	Mar-07	2,616	25,490	3,300	49,257	8,210	236,286	38,868
Solleco 500	Aug-07	2,736	28,226	8,500	76,619	12,770	312,905	51,638
Solleco 500	Oct-07	1,032	29,258	11,000	28,900	4,817	341,806	56,455
Solleco 500	Jan-08	2,376	31,634	910	66,538	11,090	408,344	67,545
Solleco 500	Mar-08	1,392	33,026	980	38,982	6,497	447,325	74,042
Solleco 500	Jun-08	864	33,890	610	24,453	4,076	471,778	78,117
Solleco 500	Sep-08	2,112	36,002	500	7,190	1,198	478,968	79,315
Solleco 500	Nov-08	1,248	37,250	800	6,798	1,133	485,766	80,448
Solleco 500	Nov-08	192	37,442	600	784	131	486,550	80,579
Solleco 500	Dec-08	816	38,258	690	3,833	639	490,383	81,218

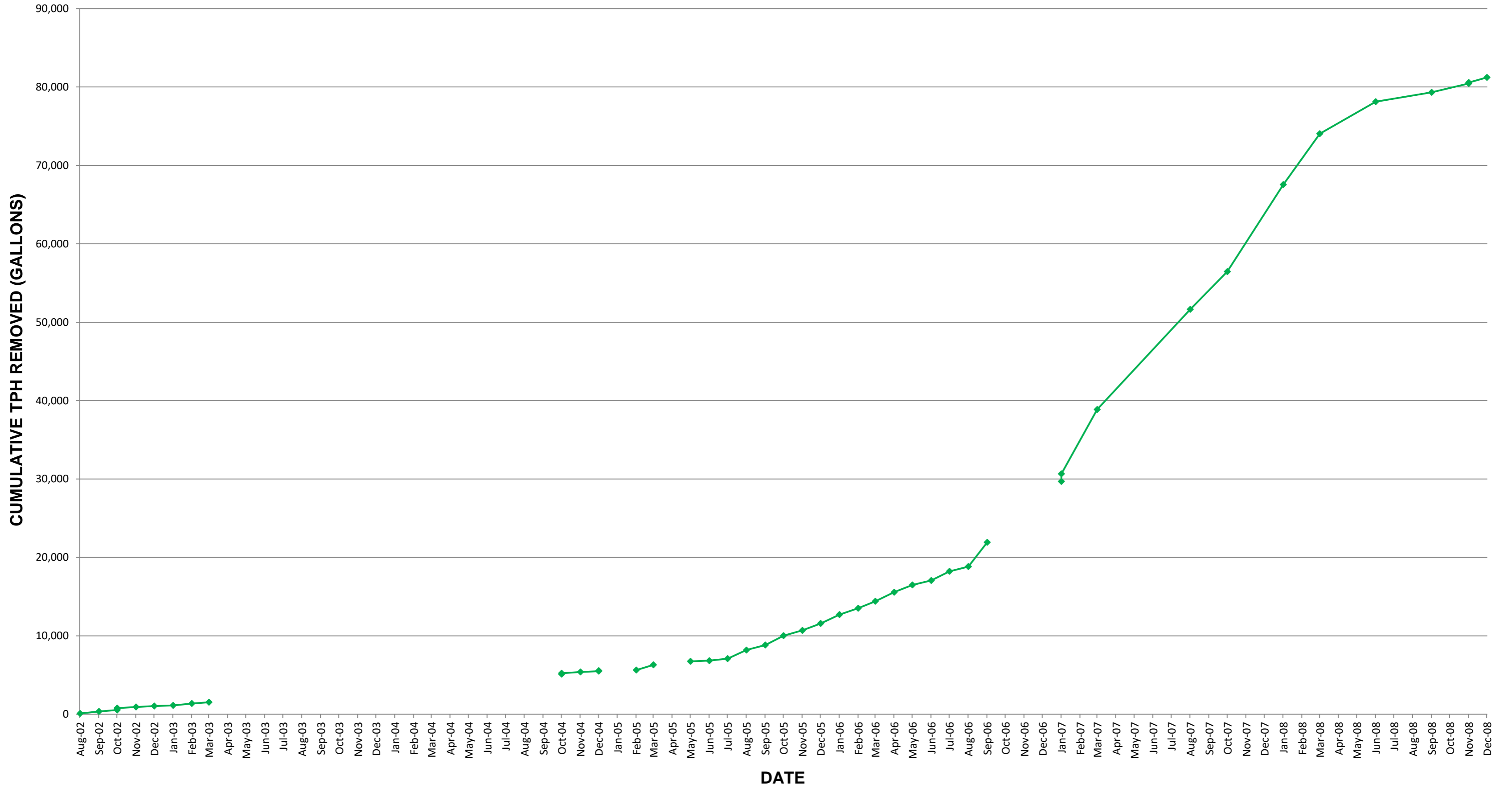
APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 2 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Jan-09	696	38,954	630	2,985	498	493,368	81,715
Solleco 500	Apr-09	2,624	41,578	320	5,716	953	499,084	82,668
Solleco 500	Aug-09	1,068	42,646	510	2,950	492	502,035	83,160
Solleco 500	Nov-09	2,232	44,878	560	6,166	1,028	508,201	84,187
Solleco 500	Mar-10	2,448	47,326	470	6,763	1,127	514,963	85,315
Solleco 500	Aug-10	2,712	50,038	330	7,492	1,249	522,455	86,563
Solleco 500	Nov-10	1,776	51,814	170	7,119	1,186	529,574	87,750
Solleco 500	Mar-11	2,784	54,598	207	11,159	1,860	540,733	89,610
Solleco 500	Jul-11	2,592	57,190	498	10,390	1,732	551,123	91,341
Solleco 500	Sep-11	1,680	58,870	1,160	6,734	1,122	557,857	92,464
Solleco 500	Dec-11	1,094	59,964	901	4,387	731	562,244	93,195
Solleco 500	Apr-12	96	60,060	252	77	13	562,320	93,208
Solleco 500	Apr-12	143	60,203	306	143	24	562,463	93,231
Solleco 500	May-12	524	60,727	164	262	44	562,725	93,275
Solleco 500	May-12	170	60,897	395	323	54	563,048	93,329
Solleco 500	May-12	45	60,942	251	63	11	563,111	93,339
Solleco 500	May-12	79	61,021	263	119	20	563,230	93,359
Solleco 500	May-12	192	61,213	263	288	48	563,518	93,407
Solleco 500	May-12	141	61,354	435	437	73	563,955	93,480
Solleco 500	Jun-12	144	61,498	236	173	29	564,128	93,509
Solleco 500	Jun-12	288	61,786	307	634	106	564,761	93,615
Solleco 500	Jun-12	189	61,975	347	473	79	565,234	93,693
Solleco 500	Aug-12	3,321	63,285	630	15,611	2,602	580,845	96,295
Solleco 500	Sep-12	213	63,498	810	1,263	211	582,108	96,506
Solleco 500	Sep-12	94	63,592	880	602	100	582,710	96,606
Solleco 500	Sep-12	145	63,737	900	945	158	583,655	96,764
Solleco 500	Oct-12	166	63,903	1,100	1,331	222	584,986	96,985
Solleco 500	Oct-12	166	64,069	320	393	66	585,379	97,051
Solleco 500	Oct-12	237	64,306	1,100	1,941	324	587,320	97,374
Solleco 500	Oct-12	67	64,373	730	368	61	587,688	97,436
Solleco 500	Nov-12	360	64,733	460	1,339	223	589,027	97,659
Solleco 500	Nov-12	474	65,207	440	1,281	214	590,308	97,872
Solleco 500	Dec-12	335	65,542	590	1,241	207	591,549	98,079
Solleco 500	Jan-13	476	66,018	760	1,383	231	592,932	98,310
Solleco 500	Jan-13	452	66,470	460	1,290	215	594,222	98,525
Solleco 500	Feb-13	405	66,875	370	853	142	595,075	98,667
Solleco 500	Apr-13	818	67,693	900	4,864	811	599,939	99,478
Solleco 500	Jul-13	1,248	68,941	767	4,553	759	604,492	100,236
Solleco 500	Aug-13	578	69,519	579	1,659	277	606,151	100,513
Solleco 500	Nov-13	884	70,403	891	3,783	631	609,934	101,143
Solleco 500	Dec-13	817	71,220	619	2,547	425	612,481	101,568
Solleco 500	Jan-14	950	72,170	1,210	5,789	965	618,270	102,533
Solleco 500	Feb-14	626	72,796	765	2,203	367	620,473	102,900
Solleco 500	Mar-14	342	73,138	1,350	1,629	272	622,102	103,171
Solleco 500	Apr-14	429	73,567	705	1,189	198	623,291	103,370
Solleco 500	May-14	722	74,289	753	2,087	348	625,378	103,717

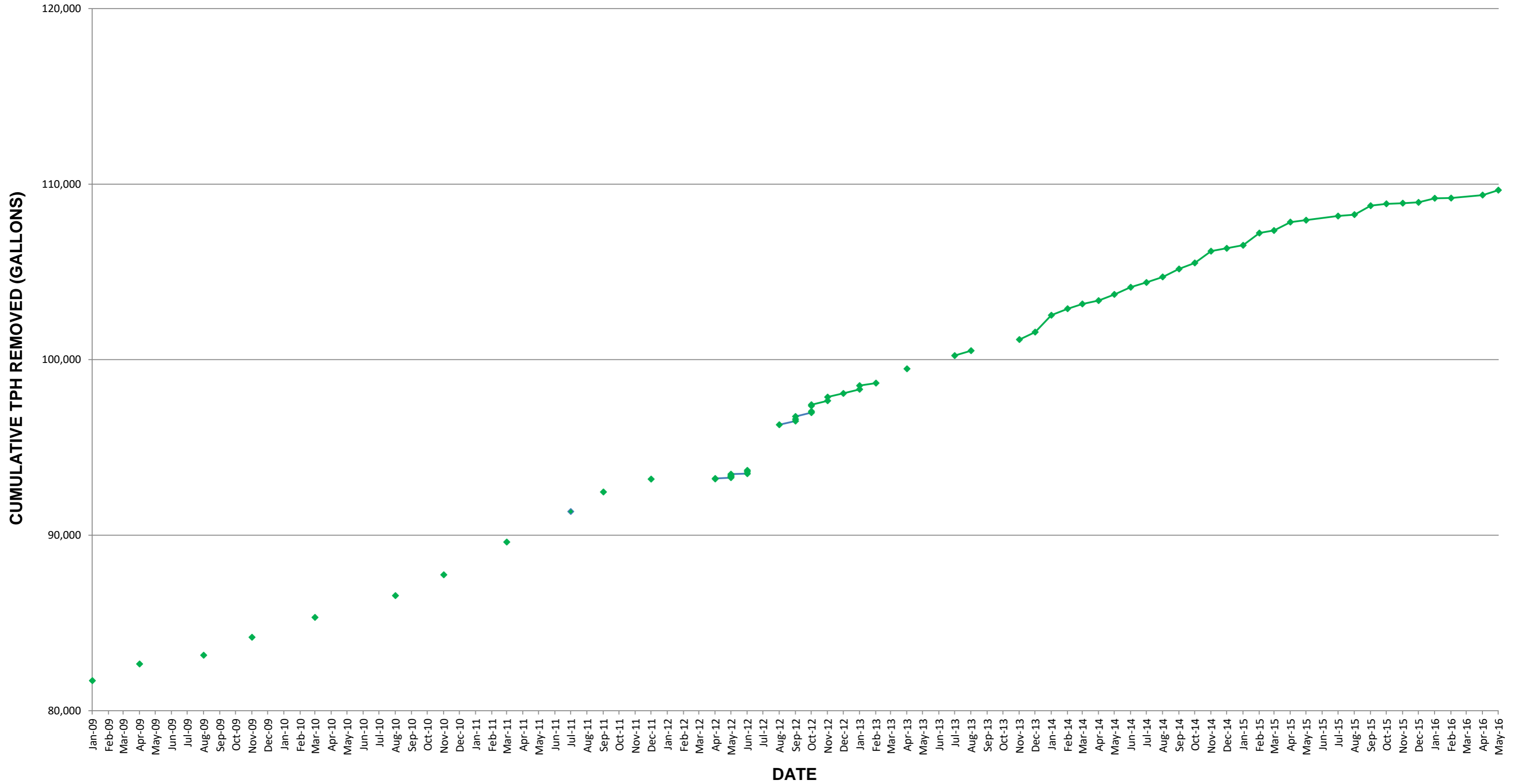
APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 3 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Jun-14	454	74,743	1,540	2,467	411	627,845	104,129
Solleco 500	Jul-14	717	75,460	658	1,621	270	629,466	104,399
Solleco 500	Aug-14	561	76,021	958	1,880	313	631,346	104,712
Solleco 500	Sep-14	777	76,798	965	2,739	457	634,085	105,169
Solleco 500	Oct-14	442	77,240	1,260	2,052	342	636,137	105,511
Solleco 500	Nov-14	974	78,214	1,010	4,037	673	640,174	106,183
Solleco 500	Dec-14	667	78,881	398	990	165	641,164	106,348
Solleco 500	Jan-15	690	79,571	358	1,010	168	642,174	106,516
Solleco 500	Feb-15	665	80,236	1,410	4,183	697	646,357	107,213
Solleco 500	Mar-15	595	80,831	463	895	149	647,252	107,362
Solleco 500	Apr-15	668	81,499	979	2,846	474	650,098	107,836
Solleco 500	May-15	542	82,041	298	665	111	650,763	107,947
Solleco 500	Jul-15	770	82,811	319	1,409	235	652,172	108,182
Solleco 500	Aug-15	486	83,297	162	479	80	652,651	108,262
Solleco 500	Sep-15	499	83,796	1,280	3,078	513	655,729	108,775
Solleco 500	Oct-15	575	84,371	160	609	102	656,338	108,877
Solleco 500	Nov-15	331	84,702	65.5	224	37	656,562	108,914
Solleco 500	Dec-15	542	85,244	222	303	50	656,865	108,964
Solleco 500	Jan-16	813	86,057	442	1,385	231	658,250	109,195
Solleco 500	Feb-16	828	86,885	<23.3	77	13	658,327	109,208
Solleco 500	Apr-16	883	87,768	175	1,009	168	659,336	109,376
Solleco 500	May-16	315	88,083	1,880	1,675	279	661,011	109,655

- | | |
|---|--|
| (1) = Soil vapor extraction (SVE) well | Remediation information reported by Hydro Geo Chem |
| (2) = Air infiltration/injection well | Remediation information reported by Groundwater Technology |
| (3) = Nested vadose zone monitoring probe | Remediation information reported by Fluor Daniel GTI |
| (4) = System was shutdown November 1995 and was replaced with a 500-scfm | Remediation information reported by The IT Group |
| (5) = System was started on February 13, 1996 | Remediation information reported by SCS Engineers |
| (6) = System was shutdown January 2001 and was replaced with a Paragon ET-150 | Remediation information reported by Clear Creek Associates |
| (7) = System was shutdown September 4, 2002 and was restarted on November 4, 2002 | Remediation information reported by City of Tucson |
| (8) = System was shutdown December 31, 2002 for rebound recovery evaluation | Average influent concentration |
| | Remediation information reported by Cardno |
| | Mass removal estimated using PID measurements |



**TFS-10 HISTORICAL TPH MASS REMOVAL
(2002 THROUGH 2008)**



**TFS-10 HISTORICAL TPH MASS REMOVAL
(2009 THROUGH 2016)**

January 27, 2017
4161240000.Q316TFS10

Mr. Richard Byrd
City of Tucson - Environmental Services
P.O. Box 27210
Tucson, AZ 85726-7210

Cardno
19621 North 23rd Drive,
Suite 150
Phoenix, AZ 85027
USA
Phone 602 977 8000
Fax 602 977 8099
www.cardno.com

**Subject: TFS-10 System Performance Summary
Thomas O. Price Service Center**
4004 South Park Avenue, Tucson, Arizona 85714
Facility ID: 0-005160, LUST No. 0767.01-.05

Mr. Byrd:

At the request of City of Tucson – Environmental Services (COT-ES), Cardno is submitting this remedial summary for the Air Sparge/Soil Vapor Extraction (AS/SVE) with catalytic oxidation abatement system at the above referenced Site, for activities performed by Cardno from July through September 2016. Relevant figures, tables, and appendices are attached.

SUMMARY OF FIELD ACTIVITIES

Third Quarter Field Activities

- Weekly system readings and equipment maintenance.
- Monthly well gauging, vapor monitoring, and non-aqueous phase liquid (NAPL) bailing.
- The remediation system has seven zones (1 through 7) which represent remediation wells on the same trunk lines; currently there are 23 wells connected to the seven remedial zones. The wells and zones are depicted on Figure 1. During the reporting period, remedial zones 1 through 4 were not operating; all of the remediation wells, excluding, well PCM-535A (zone 7) were operating in zones 5 through 7.
- Adjusted the bypass stingers to optimize the flow rate and vapor recovery in wells PCM-534A and PCM-507A (zone 7).
- During the reporting period an estimated 5,208 pounds (approximately 868 gallons) of petroleum hydrocarbons were removed through the AS/SVE system.
- Manually bailed approximately 1.5 gallons (9 pounds) of NAPL from monitor well WR-220A. During the first, second, and third quarters, a cumulative 4.5 gallons (27 pounds) of NAPL were removed.

January 27, 2017
 4161240000.Q316 City of Tucson, Thomas O. Price Service Center, TFS-10

- During the reporting period an estimated 5,217 pounds (approximately 869.5 gallons) of petroleum hydrocarbons were removed from the Site through AS/SVE remediation and NAPL removal activities. Since April 1, 2012 an estimated 114,834 pounds (approximately 19,139 gallons) of petroleum hydrocarbons have been removed from the Site through AS/SVE remediation and NAPL removal activities.

PROPOSED FOURTH QUARTER 2016 SITE ACTIVITIES

- Continue weekly system readings, monthly well gauging, vapor monitoring, and NAPL bailing.
- Continue adjusting system to optimize vapor recovery.
- Continue adjusting bypass stingers to optimize flow rate and vapor recovery in wells PCM-534A and PCM-507A.

Please feel free to call me at (602) 909-3448 or email me at justin.patton@cardno.com with any questions or comments.

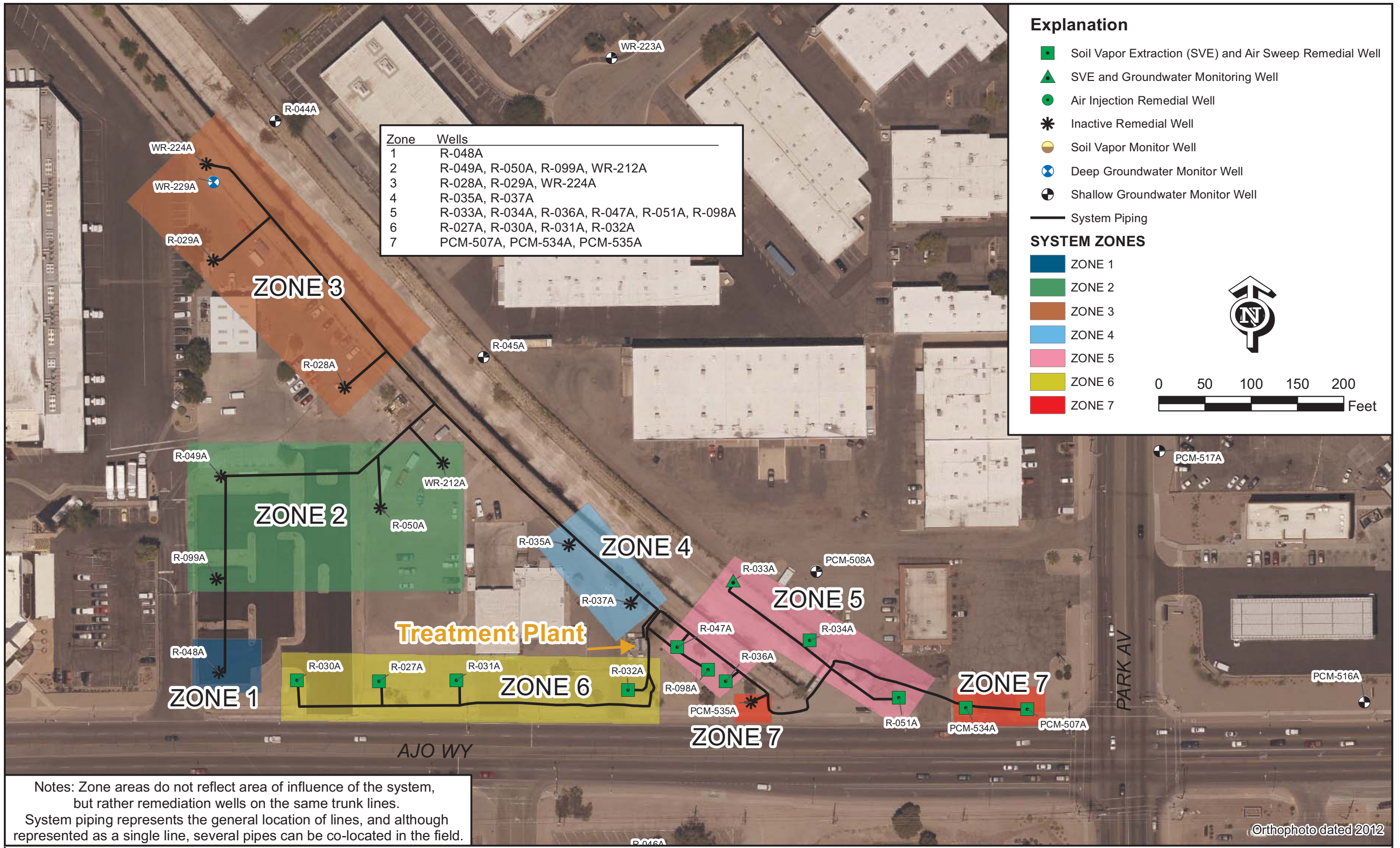
Respectfully submitted,



Justin T. Patton
 Project Manager
 for Cardno
 Direct Line 602 909 3448
 Email: justin.patton@cardno.com

Enclosures:

Figure 1	TFS-10 Site Layout and Well Location Map
Table 1	SVE Operating Conditions Summary
Table 2	Influent Vapor Process Stream Analytical Results
Table 3	Estimated Petroleum Hydrocarbon Mass Removal
Table 4	Total Vapor Phase Hydrocarbon Removal Between Sampling Events
Table 5	Cumulative TPH Mass Removal
Table 6	Manually Bailed NAPL Removal
Table 7	Annual NAPL Removal
Appendix A	Weekly Operation and Maintenance System Readings
Appendix B	Historical TPH mass removal table and graphs



Notes: Zone areas do not reflect area of influence of the system, but rather remediation wells on the same trunk lines.
 System piping represents the general location of lines, and although represented as a single line, several pipes can be co-located in the field.

Orthophoto dated 2012



FIGURE 1
TFS-10 SITE LAYOUT AND WELL LOCATION MAP
 THOMAS O. PRICE SERVICE CENTER
 4004 South Park Avenue
 Tucson, Arizona

Drawn By:	LE
Checked:	RB
Approved:	NP
Date:	1/24/2014
File:	See Below

J:\GIS\PRICE\2012\TFSSYS.mxd

TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Op Hours	Vacuum (Inches H₂O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
08/27/12	13,472	67	318	480	167
09/05/12	13,685	50	577	471	159
09/18/12	13,779	55	425	468	155
09/24/12	13,924	52	612	466	156
10/01/12	14,090	55	747	469	154
10/08/12	14,256	57	251	476	153
10/18/12	14,493	61	655	479	151
10/22/12	14,560	64	596	484	145
11/06/12	14,920	70	338	520	146
11/27/12	15,394	63	219	395	139
12/11/12	15,729	63	439	404	132
01/02/13	16,205	66	822	246	125
01/21/13	16,657	64	381	399	132
02/07/13	17,062	64	285	366	135
04/30/13	17,880	48	737	425	146
07/15/13	19,128	60	367	306	179
08/12/13	19,706	63	287	319	172
11/07/13	20,590	48	508	309	148
12/12/13	21,407	51	422	324	145
01/14/14	22,357	45	743	324	150
02/19/14	22,983	68	351	296	115
03/27/14	23,325	54	722	227	115
04/14/14	23,754	61	372	253	122
05/15/14	24,476	60	143	247	125
06/05/14	24,930	60	441	227	139
07/07/14	25,647	59	182	221	139
08/06/14	26,208	61	329	225	143
09/10/14	26,985	55	283	235	134
10/02/14	27,427	54	443	237	129
11/12/14	28,401	55	413	264	118
12/15/14	29,068	60	211	240	120
01/14/15	29,758	50	259	263	101
02/17/15	30,423	56	321	287	110
03/24/15	31,018	30	355	209	104
04/27/15	31,686	57	873	280	113
05/26/15	32,228	50	500	265	130
07/06/15	32,998	50	150	369	130
07/28/15	33,484	65	108	391	133

TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
 4004 South Park Avenue, Tucson, Arizona
 (Page 2 of 2)

Date	Op Hours	Vacuum (Inches H₂O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
09/03/15	33,983	30	1322	310	123
09/28/15	34,558	50	73	426	127
10/26/15	35,111	40	61	397	124
12/01/15	35,442	40	1100	265	98
01/05/16	36,255	42	1100	248	100
02/15/16	37,083	38	34	257	117
04/29/16	37,966	50	118	420	136
05/24/16	38,281	49	832	182	154
07/22/16	39,397	50	156	158	162
08/25/16	40,195	50	439	363	140
09/15/16	40,692	50	764	189	150
Average		54	453	328	136

Notes:

- VOC = Volatile organic compounds concentrations reported from PID.
- ppmv = Parts per million by volume.
- scfm = Standard cubic feet per minute.
- Deg. F = Degree Fahrenheit.

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
08/27/12	12:50	9.9	9.9	2.0	8.2	630
09/05/12	9:36	14	17	3.2	12	810
09/18/12	10:55	8.5	12	3.2	16	880
09/24/12	1:00	19	15	2.0	8.5	900
10/01/12	11:10	23	20	2.5	15	1,100
10/08/12	10:30	4.4	3.7	<5.0	4.4	320
10/18/12	11:15	22	18	2.0	12	1,100
10/22/12	11:20	14	13	1.8	7.6	730
11/06/12	11:15	8.1	8.0	<5.0	3.9	460
11/27/12	12:50	5.6	2.9	0.99	7.4	440
12/11/12	12:50	10	8.8	1.3	6.9	590
01/02/13	10:50	18	20	2.8	12	760
01/21/13	11:50	8.5	7.7	1.7	7.8	460
02/07/13	11:35	4.7	3.7	1.2	6.9	370
04/30/13	11:28	17	14	1.7	8.0	900
07/15/13	9:15	3.89	9.42	<2.30	17.2	767
08/12/13	8:40	2.48	5.03	<1.15	13.4	579
11/07/13	10:20	7.43	18.2	2.96	16.7	891
12/12/13	10:25	4.20	12.5	2.11	14.2	619
01/14/14	8:48	8.48	25.0	4.27	25.9	1,210
02/19/14	11:23	4.62	15.5	3.13	16.8	765
03/27/14	11:07	7.73	23.2	3.63	30.1	1,350
04/14/14	9:50	3.48	8.20	1.83	21.1	705
05/15/14	8:50	2.2	4.50	<1.15	9.76	753
06/05/14	9:50	12.0	23.3	3.00	27.0	1,540
07/07/14	9:55	3.37	5.50	<1.15	8.69	658
08/06/14	9:30	5.61	10.6	1.95	16.9	958
09/10/14	11:25	8.36	26.6	4.86	21.0	965
10/02/14	10:23	7.88	21.9	3.13	27.2	1,260
11/12/14	10:43	5.82	19.2	4.40	28.5	1,010
12/15/14	8:20	1.13	3.32	0.40	4.34	398
01/14/15	10:25	2.69	10.5	2.14	9.3	358
02/16/15	10:10	19.6	37.6	4.78	23.8	1,410
03/24/15	10:00	2.6	11.0	2.53	11.8	463
04/27/15	11:00	11.9	25.7	4.18	20.7	979
05/26/15	12:45	1.22	2.64	0.54	4.40	298
07/06/15	1:00	2.65	5.05	0.62	3.82	319

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
07/28/15	11:00	0.61	1.08	0.23	3.02	162
09/03/15	12:00	16.4	62.0	10.9	47.5	1,280
09/28/15	11:15	0.54	1.21	0.24	2.65	160
10/26/15	11:15	0.49	1.14	0.25	1.92	65.5
12/01/15	9:45	0.56	13.2	4.95	19.7	222
01/05/16	12:00	<0.31	<0.27	0.30	4.35	442
02/15/16	11:20	<0.31	<0.27	0.51	2.89	<23.3
04/29/16	10:36	1.54	6.11	1.24	7.02	175
05/24/16	12:00	17.9	82.9	13.8	56.5	1,880
07/22/16	7:55	0.40	2.54	0.84	5.01	164
08/25/16	3:50	8.82	24.3	3.17	12.9	512
09/15/16	10:40	20.7	50.7	5.72	19.9	1,680
Average		7.67	14.2	2.58	13.4	738

Notes:

ppmv = Part per million by volume.

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.

TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.

< = Below laboratory reporting limits.

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 3)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
08/27/12	480	630	9.9	9.9	2.0	8.2	4.70	112.81	5.8E-02	1.4E+00	6.7E-02	1.6E+00	1.6E-02	3.8E-01	6.5E-02	1.6E+00
09/05/12	471	810	14	17	3.2	12	5.93	142.33	8.0E-02	1.9E+00	1.1E-01	2.7E+00	2.5E-02	6.0E-01	9.3E-02	2.2E+00
09/18/12	468	880	8.5	12	3.2	16	6.40	153.64	4.8E-02	1.2E+00	7.9E-02	1.9E+00	2.5E-02	5.9E-01	1.2E-01	3.0E+00
09/24/12	466	900	19	15	2.0	8.5	6.52	156.46	1.1E-01	2.6E+00	9.9E-02	2.4E+00	1.5E-02	3.7E-01	6.5E-02	1.6E+00
10/01/12	469	1,100	23	20	2.5	15	8.02	192.46	1.3E-01	3.1E+00	1.3E-01	3.2E+00	1.9E-02	4.6E-01	1.2E-01	2.8E+00
10/08/12	476	320	4.4	3.7	<5.0	4.4	2.37	56.82	2.5E-02	6.1E-01	2.5E-02	6.0E-01	3.9E-02	9.4E-01	3.5E-02	8.3E-01
10/18/12	479	1,100	22	18	2.0	12	8.19	196.57	1.3E-01	3.1E+00	1.2E-01	2.9E+00	1.6E-02	3.8E-01	9.5E-02	2.3E+00
10/22/12	484	730	14	13	1.8	7.6	5.49	131.81	8.2E-02	2.0E+00	8.9E-02	2.1E+00	1.4E-02	3.4E-01	6.1E-02	1.5E+00
11/06/12	520	460	8.1	8	<5.0	3.9	3.72	89.24	5.1E-02	1.2E+00	5.9E-02	1.4E+00	4.3E-02	1.0E+00	3.3E-02	8.0E-01
11/27/12	395	440	5.6	2.9	1.0	7.4	2.70	64.84	2.7E-02	6.4E-01	1.6E-02	3.9E-01	6.4E-03	1.5E-01	4.8E-02	1.2E+00
12/11/12	404	590	10	8.8	1.3	6.9	3.71	88.92	4.9E-02	1.2E+00	5.0E-02	1.2E+00	8.7E-03	2.1E-01	4.6E-02	1.1E+00
01/02/13	246	760	18	20	2.8	12	2.91	69.75	5.4E-02	1.3E+00	7.0E-02	1.7E+00	1.1E-02	2.7E-01	4.9E-02	1.2E+00
01/21/13	399	460	8.5	7.7	1.7	7.8	2.85	68.47	4.1E-02	9.9E-01	4.3E-02	1.0E+00	1.1E-02	2.7E-01	5.1E-02	1.2E+00
02/07/13	366	370	4.7	3.7	1.2	6.9	2.11	50.52	2.1E-02	5.0E-01	1.9E-02	4.6E-01	7.2E-03	1.7E-01	4.2E-02	1.0E+00
04/30/13	425	900	17	14	1.7	8.0	5.95	142.70	8.8E-02	2.1E+00	8.4E-02	2.0E+00	1.2E-02	2.9E-01	5.6E-02	1.3E+00
07/15/13	306	767	3.89	9.42	<2.30	17.2	3.65	87.56	1.4E-02	3.5E-01	4.1E-02	9.8E-01	1.2E-02	2.8E-01	8.7E-02	2.1E+00
08/12/13	319	579	2.48	5.03	<1.15	13.4	2.87	68.91	9.6E-03	2.3E-01	2.3E-02	5.4E-01	6.0E-03	1.5E-01	7.0E-02	1.7E+00
11/07/13	309	891	7.43	18.2	2.96	16.7	4.28	102.71	2.8E-02	6.7E-01	8.0E-02	1.9E+00	1.5E-02	3.6E-01	8.5E-02	2.0E+00
12/12/13	324	619	4.20	12.5	2.11	14.2	3.12	74.82	1.6E-02	4.0E-01	5.7E-02	1.4E+00	1.1E-02	2.7E-01	7.6E-02	1.8E+00
01/14/14	324	1,210	8.48	25.0	4.27	25.9	6.09	146.26	3.3E-02	8.0E-01	1.1E-01	2.7E+00	2.3E-02	5.5E-01	1.4E-01	3.3E+00
02/19/14	296	765	4.62	15.5	3.13	16.8	3.52	84.48	1.7E-02	4.0E-01	6.5E-02	1.6E+00	1.5E-02	3.7E-01	8.2E-02	2.0E+00

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 3)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
03/27/14	227	1,350	7.73	23.2	3.63	30.1	4.76	114.33	2.1E-02	5.1E-01	7.4E-02	1.8E+00	1.4E-02	3.3E-01	1.1E-01	2.7E+00
04/14/14	253	705	3.48	8.20	1.83	21.1	2.77	66.54	1.1E-02	2.6E-01	2.9E-02	7.0E-01	7.6E-03	1.8E-01	8.8E-02	2.1E+00
05/15/14	247	753	2.23	4.50	1.15	9.76	2.89	69.39	6.7E-03	1.6E-01	1.6E-02	3.8E-01	4.7E-03	1.1E-01	4.0E-02	9.5E-01
06/05/14	227	1,540	12.0	23.3	3.00	27	5.43	130.42	3.3E-02	7.9E-01	7.5E-02	1.8E+00	1.1E-02	2.7E-01	1.0E-01	2.4E+00
07/07/14	221	658	3.37	5.50	1.15	8.69	2.26	54.25	9.0E-03	2.2E-01	1.7E-02	4.1E-01	4.2E-03	1.0E-01	3.2E-02	7.6E-01
08/06/14	225	958	5.61	10.6	1.95	16.9	3.35	80.41	1.5E-02	3.7E-01	3.4E-02	8.1E-01	7.2E-03	1.7E-01	6.3E-02	1.5E+00
09/10/14	235	965	8.36	26.6	4.86	21	3.53	84.60	2.4E-02	5.7E-01	8.8E-02	2.1E+00	1.9E-02	4.5E-01	8.1E-02	2.0E+00
10/02/14	237	1,260	7.88	21.9	3.13	27.2	4.64	111.40	2.3E-02	5.4E-01	7.3E-02	1.8E+00	1.2E-02	2.9E-01	1.1E-01	2.5E+00
11/12/14	264	1,010	5.82	19.2	4.40	28.5	4.14	99.47	1.9E-02	4.5E-01	7.2E-02	1.7E+00	1.9E-02	4.6E-01	1.2E-01	3.0E+00
12/15/14	240	398	1.13	3.32	0.40	4.34	1.48	35.63	3.3E-03	7.9E-02	1.1E-02	2.7E-01	1.6E-03	3.8E-02	1.7E-02	4.1E-01
01/14/15	263	358	2.69	10.5	2.14	9.27	1.46	35.13	8.6E-03	2.1E-01	3.9E-02	9.4E-01	9.3E-03	2.2E-01	4.0E-02	9.6E-01
02/16/15	287	1,410	19.6	37.6	4.78	23.8	6.29	150.97	6.8E-02	1.6E+00	1.5E-01	3.7E+00	2.3E-02	5.4E-01	1.1E-01	2.7E+00
03/24/15	209	463	2.60	11.0	2.53	11.8	1.50	36.10	6.6E-03	1.6E-01	3.3E-02	7.8E-01	8.7E-03	2.1E-01	4.1E-02	9.8E-01
04/27/15	280	979	11.9	25.7	4.18	20.7	4.26	102.26	4.0E-02	9.7E-01	1.0E-01	2.4E+00	1.9E-02	4.6E-01	9.6E-02	2.3E+00
05/26/15	265	298	1.22	2.64	0.54	4.4	1.23	29.46	3.9E-03	9.4E-02	9.9E-03	2.4E-01	2.4E-03	5.7E-02	1.9E-02	4.6E-01
07/06/15	369	319	2.65	5.05	0.62	3.82	1.83	43.91	1.2E-02	2.8E-01	2.6E-02	6.3E-01	3.8E-03	9.0E-02	2.3E-02	5.6E-01
07/28/15	391	162	0.61	1.08	0.23	3.02	0.98	23.63	2.9E-03	6.9E-02	6.0E-03	1.4E-01	1.5E-03	3.6E-02	1.9E-02	4.7E-01
09/03/15	310	1,280	16.4	62.0	10.9	47.5	6.17	148.03	6.2E-02	1.5E+00	2.7E-01	6.5E+00	5.6E-02	1.3E+00	2.4E-01	5.8E+00
09/28/15	426	160	0.54	1.21	0.24	2.65	1.06	25.43	2.8E-03	6.7E-02	7.3E-03	1.7E-01	1.7E-03	4.0E-02	1.9E-02	4.5E-01
10/26/15	397	65.5	0.49	1.14	0.25	1.92	0.40	9.70	2.4E-03	5.7E-02	6.4E-03	1.5E-01	1.6E-03	3.9E-02	1.3E-02	3.0E-01
12/01/15	265	222	0.56	13.2	4.95	19.7	0.91	21.95	1.8E-03	4.3E-02	4.9E-02	1.2E+00	2.2E-02	5.2E-01	8.6E-02	2.1E+00

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 3 of 3)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
01/05/16	248	442	0.31	0.3	0.30	4.35	1.70	40.89	9.3E-04	2.2E-02	9.5E-04	2.3E-02	1.2E-03	2.9E-02	1.8E-02	4.3E-01
02/15/16	257	23	0.31	0.3	0.51	2.89	0.09	2.23	9.7E-04	2.3E-02	9.8E-04	2.4E-02	2.2E-03	5.2E-02	1.2E-02	2.9E-01
04/29/16	420	175	1.54	6.1	1.24	7.02	1.14	27.42	7.8E-03	1.9E-01	3.6E-02	8.7E-01	8.6E-03	2.1E-01	4.9E-02	1.2E+00
05/24/16	182	1,880	17.90	82.9	13.80	56.5	5.32	127.65	3.9E-02	9.5E-01	2.1E-01	5.1E+00	4.1E-02	9.9E-01	1.7E-01	4.1E+00
07/22/16	158	164	0.40	2.5	0.84	5.01	0.40	9.67	7.7E-04	1.8E-02	5.7E-03	1.4E-01	2.2E-03	5.2E-02	1.3E-02	3.1E-01
08/25/16	363	512	8.82	24.3	3.17	12.9	2.89	69.34	3.9E-02	9.3E-01	1.2E-01	3.0E+00	1.9E-02	4.6E-01	7.7E-02	1.9E+00
09/15/16	189	1,680	20.70	50.7	5.72	19.9	4.94	118.46	4.7E-02	1.1E+00	1.4E-01	3.3E+00	1.8E-02	4.3E-01	6.2E-02	1.5E+00
AVERAGE	328	738	7.67	14.2	2.58	13.4	3.53	84.71	3.3E-02	7.9E-01	6.4E-02	1.5E+00	1.4E-02	3.4E-01	6.9E-02	1.7E+00

Notes:

- TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
- Lbs = Pounds.
- scfm = Standard cubic feet per minute.
- ppmv = Parts per million by volume.
- < = Below minimum laboratory reporting limits.

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
08/27/12	3,321	15,611	191.34	223.23	52.53	215.4
09/05/12	213	1,263	17.03	24.12	5.29	19.8
09/18/12	94	602	4.53	7.47	2.32	11.6
09/24/12	145	945	15.57	14.34	2.23	9.5
10/01/12	166	1,331	21.71	22.03	3.21	19.2
10/08/12	166	393	4.22	4.14	6.51	5.7
10/18/12	237	1,941	30.28	28.90	3.74	22.4
10/22/12	67	368	5.50	5.96	0.96	4.1
11/06/12	360	1,339	18.38	21.18	15.42	12.0
11/27/12	474	1,281	12.71	7.68	3.05	22.8
12/11/12	335	1,241	16.41	16.85	2.90	15.4
01/02/13	476	1,383	25.56	33.13	5.40	23.2
01/21/13	452	1,290	18.59	19.64	5.05	23.2
02/07/13	405	853	8.45	7.76	2.93	16.9
04/30/13	818	4,864	71.66	68.85	9.74	45.8
07/15/13	1,248	4,553	18.01	50.89	14.47	108.2
08/12/13	578	1,659	5.54	13.12	3.49	40.7
11/07/13	884	3,783	24.61	70.32	13.32	75.2
12/12/13	817	2,547	13.48	46.80	9.20	61.9
01/14/14	950	5,789	31.65	108.85	21.66	131.4
02/19/14	626	2,203	10.38	40.63	9.56	51.3
03/27/14	342	1,629	7.28	25.48	4.64	38.5
04/14/14	429	1,189	4.58	12.59	3.27	37.7
05/15/14	722	2,087	4.82	11.35	3.38	28.7
06/05/14	454	2,467	14.99	33.97	5.09	45.8
07/07/14	717	1,621	6.47	12.33	3.00	22.7
08/06/14	561	1,880	8.59	18.93	4.06	35.1
09/10/14	777	2,739	18.51	68.70	14.62	63.2
10/02/14	442	2,052	10.01	32.45	5.40	46.9
11/12/14	974	4,037	18.14	69.84	18.64	120.7
12/15/14	667	990	2.19	7.52	1.06	11.4
01/14/15	690	1,010	5.92	26.95	6.40	27.7
02/17/15	665	4,183	45.36	101.51	15.03	74.8
03/24/15	595	895	3.92	19.35	5.18	24.2
04/27/15	668	2,846	26.99	68.00	12.88	63.8
05/26/15	542	665	2.12	5.36	1.28	10.4
07/06/15	770	1,409	9.13	20.30	2.90	17.9

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
 4004 South Park Avenue, Tucson, Arizona
 (Page 2 of 2)

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
07/28/15	486	479	1.41	2.90	0.72	9.5
09/03/15	499	3,078	30.76	135.66	27.78	121.1
09/28/15	575	609	1.60	4.19	0.97	10.7
10/26/15	553	224	1.30	3.54	0.90	6.9
12/01/15	331	303	0.60	16.38	7.15	28.5
01/05/16	813	1,385	0.76	0.77	1.00	14.5
02/15/16	828	77	0.80	0.81	1.79	10.1
04/29/16	883	1,009	6.92	32.05	7.58	42.9
05/24/16	315	1,675	12.44	67.23	13.04	53.4
07/22/16	1,116	450	0.86	6.34	2.44	14.6
08/25/16	798	2,305	30.98	99.57	15.13	61.6
09/15/16	497	2,453	23.58	67.37	8.85	30.8
TOTAL	30,541	100,985	866.6	1,807	387.2	2,010

Notes:

- TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
- lbs = Pounds.
- OP Hours = Duration of SVE operation during period.

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs) ^a	Cumulative TPH (Lbs)	TPH (Gallons) ^b	Cumulative TPH (Gallons) ^b	Manually Bailed (Gallons)	Well Pumps (Gallons) ^c	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs) ^d	TPH (Gallons) ^d
04/03/12 - 08/27/12	3321	15,611	15,611	2,602	2,602	83.50	520.00	603.50	1,277	23,270	3,878
08/27/12 - 09/05/12	213	1,263	16,874	211	2,812	3.50	30.00	33.50	1,310	24,734	4,122
09/05/12 - 09/18/12	94	602	17,476	100	2,913	6.25	33.50	39.75	1,350	25,575	4,262
09/18/12 - 09/24/12	145	945	18,421	158	3,070	4.00	20.00	24.00	1,374	26,664	4,444
09/24/12 - 10/01/12	166	1,331	19,752	222	3,292	3.50	23.25	26.75	1,401	28,156	4,693
10/01/12 - 10/08/12	166	393	20,145	66	3,358	3.00	23.25	26.25	1,427	28,706	4,784
10/08/12 - 10/18/12	237	1,941	22,086	324	3,681	3.00	33.00	36.00	1,463	30,863	5,144
10/18/12 - 10/22/12	67	368	22,454	61	3,742	3.00	13.28	16.28	1,479	31,329	5,221
10/22/12 - 11/06/12	360	1,339	23,793	223	3,965	9.25	50.00	59.25	1,538	33,023	5,504
11/06/12 - 11/27/12	474	1,281	25,073	213	4,179	9.25	62.37	71.62	1,610	34,733	5,789
11/27/12 - 12/11/12	335	1,241	26,315	207	4,386	9.50	36.52	46.02	1,656	36,251	6,042
12/11/12 - 01/02/13	476	1,383	27,698	231	4,616	9.50	85.85	95.35	1,751	38,206	6,368
01/02/13 - 01/21/13	452	1,290	28,987	215	4,831	9.50	72.56	82.06	1,833	39,988	6,665
01/21/13 - 02/07/13	405	853	29,840	142	4,973	6.50	64.92	71.42	1,905	41,269	6,878
02/07/13 - 04/30/13	818	4,864	34,704	811	5,784	13.50	191.00	204.50	2,109	47,360	7,893
04/30/13 - 07/15/13	1248	4,553	39,257	759	6,543	8.25	---	8.25	2,118	51,962	8,660
07/15/13 - 08/12/13	578	1,659	40,916	277	6,819	5.25	---	5.25	2,123	53,653	8,942
08/12/13 - 11/07/13	884	3,783	44,699	631	7,450	6.75	---	6.75	2,130	57,477	9,579
11/07/13 - 12/12/13	817	2,547	47,246	424	7,874	9.75	---	9.75	2,139	60,082	10,014
12/12/13 - 01/14/14	950	5,789	53,036	965	8,839	14.25	---	14.25	2,154	65,957	10,993
01/14/14 - 02/19/14	626	2,203	55,239	367	9,206	18.00	---	18.00	2,172	68,269	11,378
02/19/14 - 03/27/14	342	1,629	56,868	272	9,478	0.00	---	0.00	2,172	69,898	11,650
03/27/14 - 04/14/14	429	1,189	58,058	198	9,676	9.50	---	9.50	2,181	71,144	11,857
04/14/14 - 05/15/14	722	2,087	60,145	348	10,024	4.75	---	4.75	2,186	73,260	12,210
05/15/14 - 06/05/14	454	2,467	62,612	411	10,435	14.25	---	14.25	2,200	75,813	12,635
06/05/14 - 07/07/14	717	1,621	64,233	270	10,705	8.75	---	8.75	2,209	77,486	12,914
07/07/14 - 08/06/14	561	1,880	66,112	313	11,019	8.75	---	8.75	2,218	79,418	13,236
08/06/14 - 09/10/14	777	2,739	68,851	456	11,475	5.00	---	5.00	2,223	82,187	13,698

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs) ^a	Cumulative TPH (Lbs)	TPH (Gallons) ^b	Cumulative TPH (Gallons) ^b	Manually Bailed (Gallons)	Well Pumps (Gallons) ^c	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs) ^d	TPH (Gallons) ^d
09/10/14 - 10/02/14	442	2,052	70,903	342	11,817	4.50	---	4.50	2,227	84,266	14,044
10/02/14 - 11/12/14	974	4,037	74,940	673	12,490	5.50	---	5.50	2,233	88,336	14,723
11/12/14 - 12/15/14	667	990	75,930	165	12,655	15.25	---	15.25	2,248	89,417	14,903
12/15/14 - 01/14/15	690	1,010	76,940	168	12,823	4.50	---	4.50	2,252	90,454	15,076
01/14/15 - 02/17/15	665	4,183	81,123	697	13,521	3.75	---	3.75	2,256	94,660	15,777
02/17/15 - 03/24/15	595	895	82,018	149	13,670	5.00	---	5.00	2,261	95,585	15,931
03/24/15 - 04/27/15	668	2,846	84,865	474	14,144	4.25	---	4.25	2,265	98,457	16,409
04/27/15 - 05/26/15	542	665	85,530	111	14,255	3.75	---	3.75	2,269	99,144	16,524
05/26/15 - 07/06/15	770	1,409	86,939	235	14,490	10.00	---	10.00	2,279	100,613	16,769
07/06/15 - 07/28/15	486	479	87,417	80	14,570	3.00	---	3.00	2,282	101,110	16,852
07/28/15 - 09/03/15	499	3,078	90,495	513	15,083	5.00	---	5.00	2,287	104,218	17,370
09/03/15 - 09/28/15	575	609	91,104	102	15,184	4.00	---	4.00	2,291	104,851	17,475
09/28/15 - 10/26/15	553	224	91,328	37	15,221	5.00	---	5.00	2,296	105,104	17,517
10/26/15 - 12/01/15	331	303	91,631	50	15,272	3.50	---	3.50	2,300	105,428	17,571
12/01/15 - 01/05/16	813	1,385	93,016	231	15,503	4.50	---	4.50	2,304	106,840	17,807
01/05/16 - 02/15/16	828	77	93,093	13	15,515	0.50	---	0.50	2,305	106,920	17,820
02/15/16 - 04/29/16	883	1,009	94,102	168	15,684	1.50	---	1.50	2,306	107,938	17,990
04/29/16 - 05/24/16	315	1,675	95,777	279	15,963	0.50	---	0.50	2,307	109,617	18,269
05/24/16 - 07/22/16	1116	450	96,227	75	16,038	1.00	---	1.00	2,308	110,072	18,345
07/22/16 - 08/25/16	798	2,305	98,532	384	16,422	0.50	---	0.50	2,308	112,381	18,730
08/25/16 - 09/15/16	497	2,453	100,985	409	16,831	0.00	---	0.00	2,308	114,834	19,139

- Notes:
- BOLD** = Sample collection date.
 - TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
 - NAPL = Non-aqueous phase liquid.
 - Lbs = Pounds.
 -
 - = All skimmer pump extraction wells were converted to air-sparge technology.
 - ^a = TPH lbs are calculated from mass removal from SVE remediation system.
 - ^b = TPH gallons are converted to gallons using 6 lbs = 1 gallon of TPH.
 - ^c = Well pump totals are calculated by subtracting the total volume of NAPL (combination of manually bailed and pneumatically pumped from well) in the storage vessel minus the manually bailed NAPL and averaged over the NAPL collection period.
 - ^d = Cumulative TPH lbs and gallons are calculated by adding NAPL removed from wells to mass removal from SVE remediation system.

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 3)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
04/03/12	R-028A,PCM-516	4.00	4.00
04/17/12	PCM-516	2.25	6.25
05/01/12	PCM-516	4.25	10.50
05/10/12	PCM-516	2.50	13.00
05/17/12	R-32,PCM-516	3.50	16.50
05/25/12	R-017A, 018A, 028A, 035A, 037A, PCM-516, WR-215A	11.3	27.75
05/31/12	PCM-516	3.00	30.75
06/06/12	PCM-516,17,18	7.75	38.50
06/12/12	PCM-516,17,18	3.25	41.75
06/18/12	PCM-516	3.00	44.75
06/28/12	PCM-516,35,37	5.75	50.50
07/05/12	PCM-516, R-099	5.25	55.75
07/10/12	PCM-516	3.00	58.75
07/18/12	PCM-516, R-099	7.50	66.25
07/25/12	PCM-516	3.00	69.25
07/30/12	PCM-516	3.25	72.50
08/10/12	PCM-516	8.00	80.50
08/27/12	PCM-516	3.00	83.50
09/05/12	PCM-516	3.50	87.00
09/14/12	PCM-516	3.00	90.00
09/18/12	PCM-516	3.25	93.25
09/24/12	PCM-516	4.00	97.25
10/01/12	PCM-516	3.50	100.75
10/08/12	PCM-516	3.00	103.75
10/18/12	PCM-516	3.00	106.75
10/22/12	PCM-516	3.00	109.75
11/01/12	PCM-516	3.00	112.75
11/06/12	PCM-516	3.25	116.00
11/13/12	PCM-516	3.25	119.25
11/19/12	PCM-516	3.00	122.25
11/27/12	PCM-516	3.00	125.25
12/04/12	PCM-516	3.00	128.25
12/11/12	PCM-516	3.50	131.75
12/18/12	PCM-516	3.25	135.00
12/27/12	PCM-516	3.00	138.00
01/02/13	PCM-516	3.25	141.25
01/07/13	PCM-516	3.25	144.50
01/14/13	PCM-516	3.25	147.75
01/21/13	PCM-516	3.00	150.75
01/28/13	PCM-516	3.50	154.25
02/07/13	PCM-516	3.00	157.25
02/11/13	PCM-516	3.00	160.25
02/19/13	PCM-516	3.50	163.75
02/25/13	PCM-516	3.50	167.25
03/04/13	PCM-516	3.50	170.75
05/15/13	R-028A, 035A, 037A, 050A, PCM-516	4.00	174.75
06/13/13	PCM-516	2.25	177.00
06/24/13	PCM-516	2.00	179.00

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 3)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
07/31/13	PCM-516	1.75	180.75
08/05/13	PCM-516	2.00	182.75
08/12/13	PCM-516	1.50	184.25
08/19/13	PCM-516	1.00	185.25
09/04/13	PCM-516	1.25	186.50
10/10/13	PCM-516	1.75	188.25
10/21/13	PCM-516	0.75	189.00
10/30/13	PCM-516	1.00	190.00
11/07/13	PCM-516	1.00	191.00
11/11/13	PCM-516	1.00	192.00
11/25/13	PCM-516, WR-220A	5.00	197.00
12/02/13	PCM-516, WR-220A	3.75	200.75
12/18/13	PCM-516, WR-220A	3.25	204.00
01/02/14	PCM-516, WR-220A	4.00	208.00
01/07/14	PCM-516, WR-220A	3.50	211.50
01/14/14	PCM-516, WR-220A	3.50	215.00
01/22/14	PCM-516, WR-220A	3.25	218.25
02/03/14	PCM-516, WR-220A	4.00	222.25
02/10/14	PCM-516, WR-220A	4.00	226.25
02/19/14	PCM-516, WR-220A	3.25	229.50
04/03/14	PCM-516, WR-220A	5.00	234.50
04/07/14	PCM-516, WR-220A	4.50	239.00
04/25/14	PCM-516, WR-220A	4.75	243.75
05/19/14	PCM-516, WR-220A	5.00	248.75
05/27/14	PCM-516, WR-220A	4.50	253.25
06/05/14	PCM-516, WR-220A	4.75	258.00
06/16/14	PCM-516, WR-220A	4.00	262.00
07/07/14	PCM-516, WR-220A	4.75	266.75
07/14/14	PCM-516, WR-220A	4.25	271.00
07/23/14	PCM-516, WR-220A	4.50	275.50
08/06/14	PCM-516, WR-220A	5.00	280.50
10/02/14	PCM-516, WR-220A	4.50	285.00
10/08/14	PCM-516, WR-220A	5.50	290.50
11/25/14	R-031A, R-098, PCM-507, PCM-516, WR-220A	11.75	302.25
12/15/14	PCM-516, WR-220A	3.50	305.75
01/15/15	PCM-516, WR-220A	4.50	310.25
02/17/15	PCM-516, WR-220A	3.75	314.00
03/16/15	PCM-516, WR-220A	5.00	319.00
04/21/15	PCM-516, WR-220A	4.25	323.25
05/19/15	WR-220A	3.75	327.00
06/16/15	WR-220A	10.00	337.00
07/13/15	WR-220A	3.00	340.00
08/25/15	PCM-516, WR-220A	5.00	345.00
09/23/15	PCM-516, WR-220A	4.00	349.00
10/21/15	PCM-516, WR-220A	5.00	354.00
11/18/15	PCM-516, WR-220A	3.50	357.50
12/23/15	PCM-516, WR-220A	4.50	362.00
01/20/16	WR-220A	0.50	362.50
02/16/16	WR-220A	0.50	363.00

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 3 of 3)

Date	Wells Bailed	NAPL Removed Gallons	Cumulative NAPL Gallons
03/08/16	WR-220A	0.50	363.50
04/15/16	WR-220A	0.50	364.00
05/10/16	WR-220A	0.50	364.50
06/16/16	WR-220A	0.50	365.00
07/20/16	WR-220A	0.50	365.50
08/17/16	WR-220A	0.50	366.00
09/23/16	WR-220A	0.50	366.50

Notes:

NAPL = Non-aqueous phase liquid.

TABLE 7
ANNUAL NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
 4004 South Park Avenue, Tucson, Arizona
 (Page 1 of 1)

Time Period	NAPL Removed Bailed/Pumped (Gallons)	Cummulative NAPL Removal (Gallons)
1998	86	86
1999	131	217
2000	45	262
2001	45	307
2002	28	335
2003	956	1,291
2004	1,210	2,501
2005	1,365	3,866
2006	923	4,789
2007	2,315	7,104
2008	2,577	9,681
2009	1,200	10,881
2010	1,703	12,584
2011	1,750	14,334
2012	1,690	16,024
2013	473	16,497
2014	133	16,630
2015	56	16,686
2016	4.5	16,690.5

Notes:

NAPL = Non-aqueous phase liquid.

APPENDIX A

WEEKLY OPERATION AND MAINTENANCE SYSTEM READINGS

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300
 SITE LOCATION: TFS-10

SYSTEM READINGS

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
04/03/12	10151	64	2700	134	211	252	0.7	619	82438	103776	4.00	N	N	run/o&m/run
04/09/12	10294	59	2800	145	215	306	1.3	601	82724	103806	0.00	N	N	run/o&m/run
05/01/12	10818	58	2400	146	184	164	4	624	83794	103918	4.25	N	N	run/o&m/run
05/08/12	10984	58	2400	137	186	246	4	614	84141	103954	0.00	N	N	run/o&m/run "see note 1"
	10985	57	2400	144	184	368	1	691	84143	103955		N	N	
	10988	85	4200 ^a	166	311	395	1	696	84148	103955		N	N	
05/10/12	11033	67	4800	153	363	251	2	623	84241	103968	2.50	N	N	run/o&m/run
05/17/12	11109	65	4900	163	365	238	1	627	84388	103988	3.50	N	N	run/o&m/run "see note 2"
	11112	63	5000	169	369	263	4	630	84393	103989		N	N	
05/25/12	11304	63	NT ^b	160	450 ^b	246	2	635	84765	104034	11.25	N	N	run/o&m/run
05/31/12	11443	55	NT	146	459	255	3	620	85034	104067	3.00	N	N	run/o&m/run "see note 2"
	11445	54	NT	155	458	435	0	704	85039	104067		N	N	
06/28/12	12066	60	NT	168	472	347	21	688	86299	104213	5.75	N	N	run/o&m/run
07/05/12	12237	77	NT	171	481	635	7	778	86647	104254	5.25	N	N	run/o&m/run
07/25/12	12701	62	NT	159	462	558	11	705	87525	104367	3.00	N	N	run/o&m/run
07/30/12	12820	63	NT	157	465	287	2	658	87754	104397	3.25	N	N	run/o&m/run
08/10/12	13070	59	NT	169	479	221	6	644	0004 ^c	104459	8.00	N	N	run/o&m/run
08/14/12	13163	60	NT	171	485	233	13	653	00168	104484	0.00	N	N	run/o&m/run
08/20/12	13305	67	NT	169	483	256	16	654	00431	104521	8.00	N	N	run/o&m/run
08/27/12	13472	67	NT	167	480	318	11	685	00733	104565	3.00	N	Y	run/o&m/run
09/05/12	13683	68	NT	154	463	302	14	655	1119	104622	3.50	N	N	run/o&m/run "see note 2"
	13685	50	NT	159	471	577	9	619	1119	104622		N	Y	run/o&m/run "see note 2"
09/18/12	13779	55	NT	155	468	425	18	633	1297	104651	3.25	N	Y	run/o&m/run
09/24/12	13924	52	NT	156	466	612	10	622	1576	104685	4.00	N	Y	run/o&m/run
10/01/12	14090	55	NT	154	469	747	6	649	1910	104722	3.50	N	Y	run/o&m/run
10/08/12	14256	57	NT	153	476	251	0	647	2228	104764	3.00	N	Y	run/o&m/run
10/18/12	14493	61	NT	151	479	655	16	636	2688	104818	3.00	N	Y	run/o&m/run
10/22/12	14560	64	NT	145	484	596	7	638	2816	104837	3.00	N	Y	run/o&m/run
11/01/12	14800	74	NT	149	520	472	16	636	3277	104901	3.00	N	N	run/o&m/run
11/06/12	14920	70	NT	146	520	338	9	643	3504	104933	3.25	N	Y	run/o&m/run
11/13/12	15067	71	5150	140	398	481	9	644	3790	104972	3.25	N	N	run/o&m/run
11/19/12	15202	62	4950	141	382	231	2	628	4060	105009	3.00	N	N	run/o&m/run
11/27/12	15394	63	5100	139	395	219	6	614	4440	105061	3.00	N	Y	run/o&m/run
12/04/12	15559	65	5000	139	387	286	4	628	4771	105106	3.00	N	N	run/o&m/run
12/11/12	15729	63	5160	132	404	439	26	635	5118	105152	3.50	N	Y	run/o&m/run
12/18/12	15889	64	2460	130	193	276	0	618	5440	105192	3.25	N	N	run/o&m/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300
 SITE LOCATION: TFS-10

SYSTEM READINGS

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
12/27/12	16107	64	2600	127	205	959	12	636	5899	105246	3.00	N	N	run/o&m/run
01/02/13	16205	66	3100	125	246	822	12	627	6105	105274	3.25	N	Y	down/o&m,ted/run
01/07/13	16325	67	5255	128	414	359	6	642	6355	106307	3.25	N	N	run/o&m/run
01/14/13	16493	66	5150	120	411	346	21	625	6079	105354	3.25	N	N	run/o&m/run
01/16/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
01/21/13	16657	64	5100	132	399	381	6	637	7070	105398	3.00	N	Y	run/o&m,ted/run
01/28/13	16822	63	4900	125	388	305	9	626	7410	105443	3.50	N	N	run/o&m/run
02/07/13	17062	64	4700	135	366	285	7	690	7920	105509	3.00	N	Y	run/o&m,ted/run
02/11/13	17157	62	4736	125	375	165	4	687	8116	105535	3.00	N	N	run/o&m/run
02/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
02/19/13	17349	54	5100	127	403	243	27	620	8509	105588	3.50	N	N	run/o&m/run
02/25/13	17494	64	4950	124	393	266	5	640	8815	105627	3.50	N	N	run/o&m/run
03/04/13	17659	64	5150	127	407	256	28	1014	9167	105672	3.50	N	N	run/o&m/run
03/13/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	run/down "see note 3"
03/20/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
03/26/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down "see note 4"
04/09/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/19/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
04/23/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/25/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/30/13	17880	48	5560	146	425	737	32	690	9643	105750	0.00	N	Y	down/o&m/ted/down
05/15/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	4.00	NT	N	Down/monthly well
05/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/run "see note 5"
05/30/13	18050	33	8730	145	668	774	65	776	9978	105803	0.00	N	N	run/o&m/run "see note 6"
06/06/13	18218	54	9500	164	706	235	0	625	10289	105850	0.00	N	N	run/o&m/run
06/13/13	18387	64	9240	176	679	317	58	653	10589	105899	2.25	N	Y	run/o&m,ted/run
06/21/13	18574	72	9300	168	686	280	40	646	10907	105956	0.00	N	N	run/o&m/run
06/24/13	18647	73	9265	166	686	320	61	655	11033	105978	2.00	N	N	run/o&m/run
07/01/13	18792	64	5520	165	480	266	24	631	11284	106023	2.25	N	N	run/o&m/run
07/08/13	18959	58	4039	175	295	296	31	647	11550	106068	2.00	N	N	run/o&m/run
07/15/13	19128	60	4220	179	306	367	32	658	11821	106114	1.25	N	Y	run/o&m,ted/run
07/25/13	19363	61	4165	173	305	312	28	640	12213	106191	2.00	N	N	run/o&m/run
07/31/13	19418	60	4202	168	310	247	19	644	12302	106209	1.75	N	N	run/o&m/run
08/05/13	19538	64	4244	162	316	265	29	660	12498	106240	2.00	N	N	run/o&m/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300
 SITE LOCATION: TFS-10

SYSTEM READINGS

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
08/12/13	19706	63	4355	172	319	287	34	652	12772	106288	1.50	N	Y	run/o&m,ted/run
08/19/13	19874	64	4390	172	322	274	51	636	13045	106336	1.00	N	N	run/o&m/down "see note 7"
09/04/13	19877	60	4335	172	318	286	31	626	13052	106345	1.25	N	Y	down/o&m,ted/down
10/08/13	19879	60	4401	168	325	447	44	637	13054	106363	0.00	N	N	Down/O&M/run
10/10/13	19922	56	4567	152	346	1051	103	770	13125	106376	1.75	N	Y	run/o&m,ted/run
10/15/13	20046	54	4166	160	311	245	14	630	13334	106412	0.00	N	N	run/wells,o&m/run
10/21/13	20181	50	4000	153	302	459	19	667	13554	106449	0.75	N	N	run/o&m/run
10/30/13	20398	45	4065	153	307	377	24	636	13897	106505	1.00	N	N	run/o&m/run
11/07/13	20590	48	4063	148	309	508	4	682	14205	106556	1.00	N	Y	run/o&m,ted/run
11/11/13	20685	49	4100	149	312	296	11	631	14357	106578	1.00	N	N	run/o&m,well/down
11/19/13	20854	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	N	N	run/o&m/run
11/25/13	20997	49	4040	138	313	429	7	669	14870	106662	5.00	N	N	run/o&m/run
12/02/13	21165	48	4065	144	311	502	6	691	15149	106707	3.75	N	N	run/o&m/run
12/12/13	21407	51	4230	145	324	422	0	630	15550	106773	3.50	N	Y	run/o&m,ted/run
12/18/13	21523	49	4205	148	328	389	0	602	15746	106806	3.25	N	N	run/o&m/run
12/24/13	21668	49	4255	143	327	308	0	630	15971	106841	0.00	N	N	run/o&m/run
01/02/14	21881	48	4100	147	313	281	0	628	16294	106898	4.00	N	N	run/o&m/run
01/07/14	22004	49	4165	149	317	322	12	629	16485	NT	3.5	N	N	run/o&m/run
01/14/14	22169	45	4275	150	324	743	2	640	16734	106907	3.5	N	Y	run/o&m,ted/run
01/22/14	22357	48	4220	150	320	503	1	670	17016	107020	3.25	N	N	run/o&m/run
01/28/14	22497	46	4945	160	369	467	0	655	17223	107057	0	N	N	down/o&m/run
02/03/14	22601	40	4366	138	338	697	9	661	17361	107083	4	N	N	run/o&m/run
02/10/14	22768	65	3505	117	281	754	7	667	17663	107119	4	N	N	run/o&m/run
02/19/14	22983	68	3685	115	296	351	13	643	18072	107162	3.25	N	Y	run/o&m,ted/run
02/24/14	23012	NT	NT	NT	NT	NT	NT	NT	18126	107169	0	N	N	don/o&m/down
03/04/14	23106	58	3700	112	300	454	9	505	18305	107187	0	N	N	run/o&m/run
03/12/14	23250	NT	NT	NT	NT	NT	NT	NT	NT	NT	0	N	N	down for annual
03/27/14	23325	54	2820	115	227	722	1	552	18678	107223	0	N	Y	run/o&m,ted/run
04/03/14	23493	62	3330	114	269	410	7	642	18971	107253	5	N	N	run/o&m/run
04/07/14	23587	60	3285	118	263	527	4	662	19144	107270	4.5	N	N	run/o&m/run
04/14/14	23754	61	3175	122	253	372	7	645	19438	107303	0	N	Y	run/o&m,ted,wells/run
04/25/14	23992	61	3240	117	260	224	7	634	19866	107352	4.75	N	N	run/o&m/run
05/01/14	24136	64	3085	116	248	382	6	634	20133	107382	0	N	N	run/o&m/run
05/07/14	24282	61	3188	122	254	317	13	651	20391	107413	0	N	N	run/o&m/run
05/15/14	24476	60	3120	125	247	143	0	645	20747	107451	0	N	Y	run/o&m,ted,wells/run
09/19/14	24568	61	3165	123	252	282	0	639	20910	107468	5	N	N	run/o&m/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300
 SITE LOCATION: TFS-10

SYSTEM READINGS

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
05/27/14	247162	62	3210	127	253	376	14	651	21177	107495	4.5	N	N	run/o&m/run
06/05/14	24930	60	2930	139	227	441	17	650	21555	107528	4.75	N	Y	run/o&m,ted,wells/run
06/12/14	251002	60	2790	141	215	291	0	670	21856	107557	0	N	N	run/o&m/run
06/16/14	25195	58	2873	142	221	185	0	648	22026	107572	4	N	N	run/o&m/run
06/26/14	25431	60	2780	141	214	217	0	676	22449	107612	0	N	N	run/o&m/run
07/03/14	25591	60	2765	140	214	407	14	682	22743	107637	0	N	N	run/o&m/run
07/07/14	25647	59	2850	139	221	182	0	644	22850	107646	4.74	N	Y	down/o&m,ted/run
07/14/14	25819	60	2910	142	224	268	21	663	23154	107678	4.25	N	N	run/o&m/down
07/23/14	25871	60	2935	145	225	310	17	655	23242	107704	4.5	N	N	run/o&m/run
07/29/14	26014	60	3055	135	238	156	0	640	23492	107743	0	N	N	run/o&m/run
08/06/14	26208	61	2930	143	225	329	0	660	23841	107797	5	N	Y	run/o&m,ted/run
08/14/14	26398	55	2880	132	225	1000	0	657	24187	107850	0	N	N	run/o&m/run
08/19/14	26520	52	2860	137	222	1000	0	668	24408	107885	0	N	N	run/o&m/run
08/25/14	26663	59	2930	134	229	371	0	684	24667	107925	0	N	N	run/o&m/run
09/02/14	26814	52	2910	135	227	168	0.5	680	24935	107977	0	N	N	run/o&m/run
09/10/14	26985	55	3010	134	235	283	4	673	25233	108032	0	N	Y	run/o&m,ted/run
09/16/14	27068	54	3045	135	237	223	0	668	25379	108061	0	N	N	run/o&m/run
09/22/14	27211	54	3002	128	237	272	0	671	25628	108099	0	N	N	run/o&m/down
10/02/14	27427	54	3015	129	237	443	5	701	26007	108162	4.5	N	Y	run/o&m,ted/run
10/08/14	27570	57	2950	119	236	305	0.4	692	26262	108204	5.5	N	N	run/o&m/run
10/17/14	27786	56	2995	126	237	412	2.9	697	26651	108268	0	N	N	run/o&m/run
10/20/14	27858	55	2931	129	231	321	2.1	691	26780	108289	0	N	N	run/o&m/run
10/31/14	28113	55	3000	127	237	299	0.9	705	27245	108361	0	N	N	run/o&m/run
11/07/14	28281	57	2965	126	234	382	0.4	698	27556	108404	0	N	N	run/o&m/run
11/12/14	28401	55	3290	118	264	413	0.1	659	27772	108437	5	N	Y	run/o&m,ted/run
11/17/14	28427	45	2900	102	239	340	2.1	668	27817	108446	0	N	N	down/o&m/run
11/24/14	28594	60	3765	104	309	357	3.1	664	28170	108492	0	N	N	run/o&m/run
12/03/14	28785	58	3465	115	279	345	1.2	682	28559	108546	0	N	N	run/o&m/run
12/08/14	28905	57	3702	111	300	413	0.2	668	28808	108613	0	N	N	run/o&m/run
12/15/14	29068	60	3010	120	240	211	1.8	631	29157	108613	3.5	N	Y	run/o&m,ted,wells/down
12/24/14	29258	60	3951	99	327	291	9	664	29570	108669	0	N	N	run/o&m/run
12/29/14	29377	45	4130	89	348	314	12	690	29863	108704	0	N	N	run/o&m/run
01/07/15	29593	57	3630	108	296	528	4	677	30386	108767	0	N	N	run/o&m/run
01/14/15	29758	50	3190	101	263	259	7	647	30747	108821	0	N	Y	run/o&m,ted,wells/down
01/20/15	29879	60	3365	98	279	283	16	645	31001	108857	0	N	N	run/o&m/run
01/30/15	30066	55	3560	106	291	323	0.3	653	31397	108912	0	N	N	run/o&m/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300

SYSTEM READINGS

SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
02/06/15	30236	52	3650	113	295	264	1.9	660	31789	108962	0	N	Y	run/o&m,ted,wells/down
02/12/15	30378	54	3585	106	293	316	0	669	32047	109003	0	N	N	run/o&m/run
02/17/15	30423	56	3527	110	287	321	8.6	642	32137	109017	3.75	N	Y	run/o&m,ted,wells/down
02/26/15	30616	55	3568	109	290	243	4.8	637	32528	109073	0	N	N	run/o&m/run
03/04/15	30760	55	3605	104	296	226	5.9	632	32818	109114	0	N	N	run/o&m/run
03/11/15	30928	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 8"
03/20/15	30929	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 9"
03/24/15	31018	30	2550	104	209	355	3.2	645	33372	109187	0	N	Y	run/o&m,ted/run
04/01/15	31212	55	3400	127	268	261	2.5	662	33969	109232	0	N	N	run/o&m/run
04/06/15	31331	58	3445	125	273	200	4.1	665	33739	109265	0	N	N	run/o&m/run
04/13/15	31499	62	3467	122	276	189	2.1	669	34329	109313	0	N	N	run/o&m/run
04/21/15	31663	59	3410	109	278	355	5.8	667	34696	109360	4.25	N	N	run/o&m/run
04/27/15	31686	57	3460	113	280	873	8.2	635	34747	109370	0	N	Y	run/o&m,ted/run
05/04/15	31771	NT	NT	NT	NT	NT	NT	NT	NT	109396	0	N	N	down/o&m/run
05/05/15	31772	NT	NT	NT	NT	NT	NT	NT	34918	109396	0	N	N	down/o&m/run
05/11/15	31893	65	3560	123	283	410	3.4	660	35179	109404	0	N	N	run/o&m/run
05/18/15	332081	60	3460	127	273	262	1.5	664	35579	109480	0	N	N	run/o&m/run
05/26/15	32228	50	3380	130	265	500	1.2	663	NT	109517	0	N	Y	run/o&m,ted/run
06/01/15	32373	50	3360	143	258	740	0.7	664	NT	109556	0	N	N	run/o&m/run
06/08/15	32540	60	3485	128	275	280	0.5	663	36556	109599	0	N	N	run/o&m/run
06/16/15	32731	64	4500	125	356	187	1.1	665	36760	109656	10	N	N	run/o&m/down
06/24/15	32852	50	4500	127	355	130	0.5	663	NT	109688	0	N	Y	run/o&m,ted/run
07/06/15	32998	50	4700	130	369	150	0.4	652	NT	NT	0	N	Y	run/o&m,ted/run
07/14/15	33165	52	4500	133	352	62.4	7	656	NT	109733	3	N	N	run/o&m/run
07/21/15	33314	54	4300	128	339	68	0.9	650	NT	109814	0	N	N	run/o&m/run
07/28/15	33484	65	5000	133	391	108	2.1	650	NT	109861	0	N	Y	run/o&m,ted/run
08/07/15	33646	65	5000	130	393	69.9	5	649	NT	109899	0	N	N	run/o&m/run
08/11/15	33740	60	4700	122	374	98.1	1.2	652	39114	109924	0	N	N	run/o&m/run
08/21/15	33952	50	4200	124	333	82.2	1.6	650	NT	109954	0	N	N	run/o&m/run
09/03/15	33983	30	3900	123	310	1322	8.1	656	NT	109961	0	N	Y	run/o&m,ted/run
09/09/15	34125	45	5000	122	398	351	9.3	653	NT	109990	0	N	N	run/o&m/run
09/15/15	34271	58	5000	128	394	78	1.8	656	NT	110024	0	N	N	run/o&m/run
09/22/15	34435	40	5500	125	436	33.3	4.4	656	NT	110064	0	N	N	run/o&m/run
09/24/15	34461	40	5300	123	421	48.1	0.5	653	40658	110070	4	N	N	run/o&m/run
09/28/15	34558	50	5400	127	426	73.4	1	645	NT	110093	0	N	Y	run/o&m,ted/run
10/05/15	34727	45	5300	125	420	65.8	0.8	650	41253	110133	0	N	N	run/o&m/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300
 SITE LOCATION: TFS-10

SYSTEM READINGS

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
10/12/15	34802	58	5000	123	397	62.6	0.1	650	41712	110151	0	N	N	run/o&m/run
10/19/15	34969	50	3500	132	274	91.7	0.2	650	NT	110191	0	N	N	run/o&m/run
10/26/15	35111	40	5000	124	397	60.8	0	650	NT	110221	0	N	Y	run/o&m,ted/down
11/24/15	35278	47	4400	116	354	2200	1.7	650	NT	NT	0	N	N	run/o&m/run
12/01/15	35442	40	3200	98	265	1100	1.5	651	NT	NT	0	N	Y	run/o&m,ted/down
12/11/15	35681	35	4300	92	361	720	1.8	650	NT	NT	0	N	N	run/o&m/run
12/14/15	35730	35	4300	89	362	680	1.6	650	NT	NT	0	N	N	run/o&m/run
12/21/15	35899	40	3200	91	269	1000	1.9	653	NT	NT	0	N	N	run/o&m/run
12/28/15	36062	42	3000	90	252	440	0.3	656	NT	00155	0	N	N	run/o&m/run
01/05/16	36255	42	3000	100	248	1100	200	650	44284	00197	0	N	Y	run/o&m,ted/down
01/13/16	36447	46	3000	112	243	23	0.6	650	44614	00240	0	N	N	run/o&m/run
01/19/16	36591	36	3300	108	269	15	0.2	650	44849	00280	0	N	N	run/o&m, wells/run
01/26/16	36711	55	5000	98	415	968	3.7	651	45105	00307	0	N	N	run/o&m/run
02/05/16	36844	40	3300	93	276	2683	0.8	654	45325	00346	0	N	N	down/o&m/run
02/12/16	37012	38	3200	121	255	744	2.1	652	NT	00392	0	N	N	run/o&m/run
02/15/16	37083	38	3200	117	257	34	0	653	NT	00401	0	N	Y	run/o&m,ted,wells/down
02/22/16	37106	40	3200	112	259	207	3.2	658	45754	00408	0	N	N	down/o&m/run
03/01/16	37298	40	3200	124	254	188	1.5	649	46063	00457	0	N	N	run/o&m/run
03/08/16	37462	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 10"
04/05/16	37467	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
04/06/16	37491	53	3200	135	249	6.4	0	647	46498	00512	0	N	N	run/o&m/run
04/14/16	37683	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	run/monthly wells/run
04/23/16	37876	71	2100	150	160	92	0.4	649	47276	00640	0	N	N	run/o&m/run
04/29/16	37966	50	5400	136	420	118	2.6	655	47606	00610	0	N	Y	run/o&m,ted/run
05/04/16	38085	50	3088	139	239	28	0	649	47856	00630	0	N	N	run/o&m/down
05/10/16	38085	50	3143	108	256	98	0	679	47856	00630	0	N	N	down/O&M, wells/run
05/20/16	38184	40	3075	140	238	86	0	655	NT	00650	0	N	N	run/o&m/run
05/24/16	38281	49	2416	154	182	832	2.1	681	NT	00668	0	N	Y	run/o&m,ted/run
06/02/16	38497	34	6100	144	468	7.5	0	634	NT	00724	0	N	N	run/o&m/run
06/17/16	38592	33	6100	149	464	17	0	632	NT	00752	0	N	N	run/o&m,wells/run
06/21/16	38684	15	4264	140	329	576	0	658	NT	00766	0	N	N	run/o&m/run
06/30/16	38899	10	4155	109	338	274	0	644	NT	00821	0	N	N	run/o&m/run
07/07/16	39067	52	2231	170	164	36	0	649	NT	00872	0	N	N	run/o&m/run
07/12/16	39187	54	2105	175	154	527	0	763	NT	00894	0	N	Y	run/o&m,ted/run
07/19/16	39354	55	2088	171	154	2729	0	637	NT	00935	0	N	N	run/o&m,wells/run
07/22/16	39397	50	2122	162	158	156	2.9	655	NT	00945	0	N	Y	run/o&m,ted/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300
 SITE LOCATION: TFS-10

SYSTEM READINGS

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
07/30/16	39591	50	1600	154	121	125	1.3	656	1535	00981	0	N	N	run/o&m/run
08/03/16	39688	52	2131	155	161	169	0.2	716	NT	00999	0	N	N	run/o&m/run
08/12/16	39903	51	2068	151	157	614	2.1	805	NT	01057	0	N	N	run/o&m/run
08/16/16	40001	52	2110	153	160	177	3.2	661	NT	01080	0	N	N	run/o&m,wells/run
08/25/16	40195	50	4700	140	363	439	3.4	643	NT	01119	0	N	Y	run/o&m,ted/run
08/30/16	40310	50	2075	135	162	1042	2.8	643	NT	01140	0	N	N	run/o&m/run
09/08/16	40527	50	2108	141	163	916	3.3	645	NT	01199	0	N	N	run/o&m/run
09/15/16	40692	50	2493	150	189	764	2.8	779	NT	01244	0	N	Y	run/o&m,ted/run
09/22/16	40866	50	2225	131	174	126	2.0	653	NT	01285	0	N	N	run/o&m/down
09/28/16	40867	50	2178	138	169	211	1.6	655	NT	01287	0	N	N	down/o&m/run
10/06/16	41059	50	3830	124	304	1849	13.6	742	NT	01322	0	N	N	run/o&m/run

^a Reading was taken approximately 8-inches from the original location were the first two readings were collected.

^b Reading was taken from system display screen.

^c New natural gas meter was installed on August 10, 2012.

Note 1: Multiple system readings were collected with initial air sparge start up and optimize air sparge system.

Note 2: Multiple system readings were collected to optimize air sparge equipment.

Note 3: System was shutdown for City of Tucson sampling event and NAPL fingerprint assessment.

Note 4: Lori Ehman with City of Tucson was on-site and informed Cardno of upcoming well test and asked Cardno to postpone LNAPL until well testing is complete.

Note 5: Bill with the City of Tucson re-started the system with dilution open and Air Sparge system off.

Note 6: Re-started Air Sparge system.

Note 7: The remediation system was shut down due to poor destruction. Inspect the catalytic plate.

Note 8: Contacted by Bill Ramber with the City of Tucson and was told that the remediation system was shutdown for annual groundwater sampling. OP hours

were recorded and no additional readings were collected.

Note 9: After completion of annual groundwater sampling, system was restarted by City of Tucson. OP hours were recorded and no additional readings were collected.

Note 10: Bill Ramber with the City of Tucson, notified Cardno that the remediation system was shutdown for annual sampling. Monthly well readings were collected, during remedial shutdown. On March Cardno was informed that the system would remain shutdown until the blower was replaced. The blower was replaced and the system was restarted on April 5, 2016.

* Pre-compliance sample event, due to sample results from 8/12/13 showing poor destruction "NOT COMPLIANCE SAMPLE".

Highlighted cells indicate vapor sampling events.

APPENDIX B

HISTORICAL TPH MASS REMOVAL TABLE AND GRAPHS

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Aug-02	228	228	4,050	592	99	592	99
Solleco 500	Sep-02	324	552	6,500	1,501	250	2,093	349
Solleco 500	Oct-02	360	912	6,100	1,174	196	3,267	545
Solleco 500	Oct-02	344	1,256	4,400	750	125	4,016	670
Solleco 500	Oct-02	145	1,402	8,650	707	118	4,724	788
Solleco 500	Nov-02	339	1,741	4,100	798	133	5,522	921
Solleco 500	Dec-02	664	2,405	1,900	762	127	6,283	1,048
Solleco 500	Jan-03	359	2,764	1,900	489	82	6,772	1,129
Solleco 500	Feb-03	1,104	3,868	2,200	1,395	233	8,167	1,362
Solleco 500	Mar-03	454	4,322	3,650	986	164	9,153	1,526
Solleco 500	Oct-04	264	4,586	337	21,985	3,575	31,138	5,101
Solleco 500	Oct-04	408	4,994	447	784	131	31,922	5,231
Solleco 500	Nov-04	384	5,378	328	979	163	32,901	5,394
Solleco 500	Dec-04	336	5,714	118	629	105	33,530	5,499
Solleco 500	Dec-04	528	6,242	272	355	59	33,885	5,558
Solleco 500	Feb-05	312	6,554	455	484	81	34,369	5,639
Solleco 500	Mar-05	1,536	8,090	557	3,987	665	38,356	6,304
Solleco 500	May-05	840	8,930	220	2,669	445	41,025	6,748
Solleco 500	Jun-05	408	9,338	378	512	85	41,537	6,834
Solleco 500	Jul-05	720	10,058	1,500	1,553	259	43,090	7,093
Solleco 500	Aug-05	768	10,826	1,500	6,572	1,095	49,662	8,188
Solleco 500	Sep-05	744	11,570	1,508	6,367	638	56,029	8,826
Solleco 500	Oct-05	672	12,242	1,612	7,156	1,193	63,185	10,018
Solleco 500	Nov-05	624	12,866	988	4,073	679	67,258	10,697
Solleco 500	Dec-05	528	13,394	1,508	5,260	877	72,518	11,574
Solleco 500	Jan-06	864	14,258	1,196	6,827	1,138	79,345	12,712
Solleco 500	Feb-06	792	15,050	936	4,897	816	84,242	13,528
Solleco 500	Mar-06	720	15,770	1,101	5,237	873	89,479	14,401
Solleco 500	Apr-06	816	16,586	1,300	7,008	1,168	96,487	15,569
Solleco 500	May-06	552	17,138	1,508	5,499	917	101,986	16,485
Solleco 500	Jun-06	840	17,978	624	3,463	577	105,449	17,062
Solleco 500	Jul-06	792	18,770	1,326	6,938	1,156	112,387	18,219
Solleco 500	Aug-06	336	19,106	1,664	3,694	616	116,081	18,834
Solleco 500	Sep-06	984	20,090	2,800	18,528	3,088	134,609	21,922
Solleco 500	Jan-07	2,472	22,562	2,500	46,546	7,758	181,154	29,680
Solleco 500	Jan-07	312	22,874	3,500	5,875	979	187,029	30,659
Solleco 500	Mar-07	2,616	25,490	3,300	49,257	8,210	236,286	38,868
Solleco 500	Aug-07	2,736	28,226	8,500	76,619	12,770	312,905	51,638
Solleco 500	Oct-07	1,032	29,258	11,000	28,900	4,817	341,806	56,455
Solleco 500	Jan-08	2,376	31,634	910	66,538	11,090	408,344	67,545
Solleco 500	Mar-08	1,392	33,026	980	38,982	6,497	447,325	74,042
Solleco 500	Jun-08	864	33,890	610	24,453	4,076	471,778	78,117
Solleco 500	Sep-08	2,112	36,002	500	7,190	1,198	478,968	79,315
Solleco 500	Nov-08	1,248	37,250	800	6,798	1,133	485,766	80,448
Solleco 500	Nov-08	192	37,442	600	784	131	486,550	80,579
Solleco 500	Dec-08	816	38,258	690	3,833	639	490,383	81,218

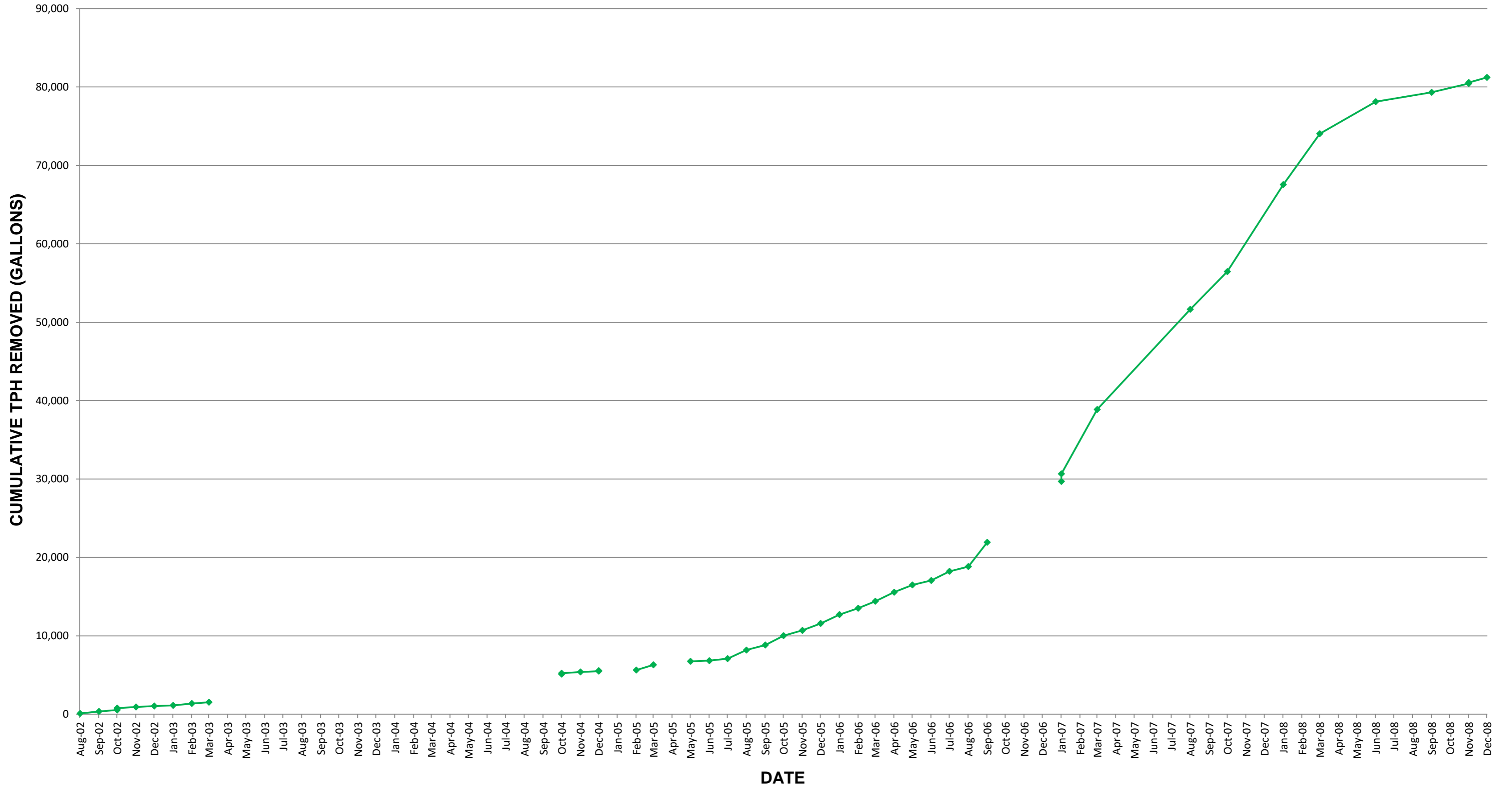
APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 2 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Jan-09	696	38,954	630	2,985	498	493,368	81,715
Solleco 500	Apr-09	2,624	41,578	320	5,716	953	499,084	82,668
Solleco 500	Aug-09	1,068	42,646	510	2,950	492	502,035	83,160
Solleco 500	Nov-09	2,232	44,878	560	6,166	1,028	508,201	84,187
Solleco 500	Mar-10	2,448	47,326	470	6,763	1,127	514,963	85,315
Solleco 500	Aug-10	2,712	50,038	330	7,492	1,249	522,455	86,563
Solleco 500	Nov-10	1,776	51,814	170	7,119	1,186	529,574	87,750
Solleco 500	Mar-11	2,784	54,598	207	11,159	1,860	540,733	89,610
Solleco 500	Jul-11	2,592	57,190	498	10,390	1,732	551,123	91,341
Solleco 500	Sep-11	1,680	58,870	1,160	6,734	1,122	557,857	92,464
Solleco 500	Dec-11	1,094	59,964	901	4,387	731	562,244	93,195
Solleco 500	Apr-12	96	60,060	252	77	13	562,320	93,208
Solleco 500	Apr-12	143	60,203	306	143	24	562,463	93,231
Solleco 500	May-12	524	60,727	164	262	44	562,725	93,275
Solleco 500	May-12	170	60,897	395	323	54	563,048	93,329
Solleco 500	May-12	45	60,942	251	63	11	563,111	93,339
Solleco 500	May-12	79	61,021	263	119	20	563,230	93,359
Solleco 500	May-12	192	61,213	263	288	48	563,518	93,407
Solleco 500	May-12	141	61,354	435	437	73	563,955	93,480
Solleco 500	Jun-12	144	61,498	236	173	29	564,128	93,509
Solleco 500	Jun-12	288	61,786	307	634	106	564,761	93,615
Solleco 500	Jun-12	189	61,975	347	473	79	565,234	93,693
Solleco 500	Aug-12	3,321	63,285	630	15,611	2,602	580,845	96,295
Solleco 500	Sep-12	213	63,498	810	1,263	211	582,108	96,506
Solleco 500	Sep-12	94	63,592	880	602	100	582,710	96,606
Solleco 500	Sep-12	145	63,737	900	945	158	583,655	96,764
Solleco 500	Oct-12	166	63,903	1,100	1,331	222	584,986	96,985
Solleco 500	Oct-12	166	64,069	320	393	66	585,379	97,051
Solleco 500	Oct-12	237	64,306	1,100	1,941	324	587,320	97,374
Solleco 500	Oct-12	67	64,373	730	368	61	587,688	97,436
Solleco 500	Nov-12	360	64,733	460	1,339	223	589,027	97,659
Solleco 500	Nov-12	474	65,207	440	1,281	214	590,308	97,872
Solleco 500	Dec-12	335	65,542	590	1,241	207	591,549	98,079
Solleco 500	Jan-13	476	66,018	760	1,383	231	592,932	98,310
Solleco 500	Jan-13	452	66,470	460	1,290	215	594,222	98,525
Solleco 500	Feb-13	405	66,875	370	853	142	595,075	98,667
Solleco 500	Apr-13	818	67,693	900	4,864	811	599,939	99,478
Solleco 500	Jul-13	1,248	68,941	767	4,553	759	604,492	100,236
Solleco 500	Aug-13	578	69,519	579	1,659	277	606,151	100,513
Solleco 500	Nov-13	884	70,403	891	3,783	631	609,934	101,143
Solleco 500	Dec-13	817	71,220	619	2,547	425	612,481	101,568
Solleco 500	Jan-14	950	72,170	1,210	5,789	965	618,270	102,533
Solleco 500	Feb-14	626	72,796	765	2,203	367	620,473	102,900
Solleco 500	Mar-14	342	73,138	1,350	1,629	272	622,102	103,171
Solleco 500	Apr-14	429	73,567	705	1,189	198	623,291	103,370
Solleco 500	May-14	722	74,289	753	2,087	348	625,378	103,717

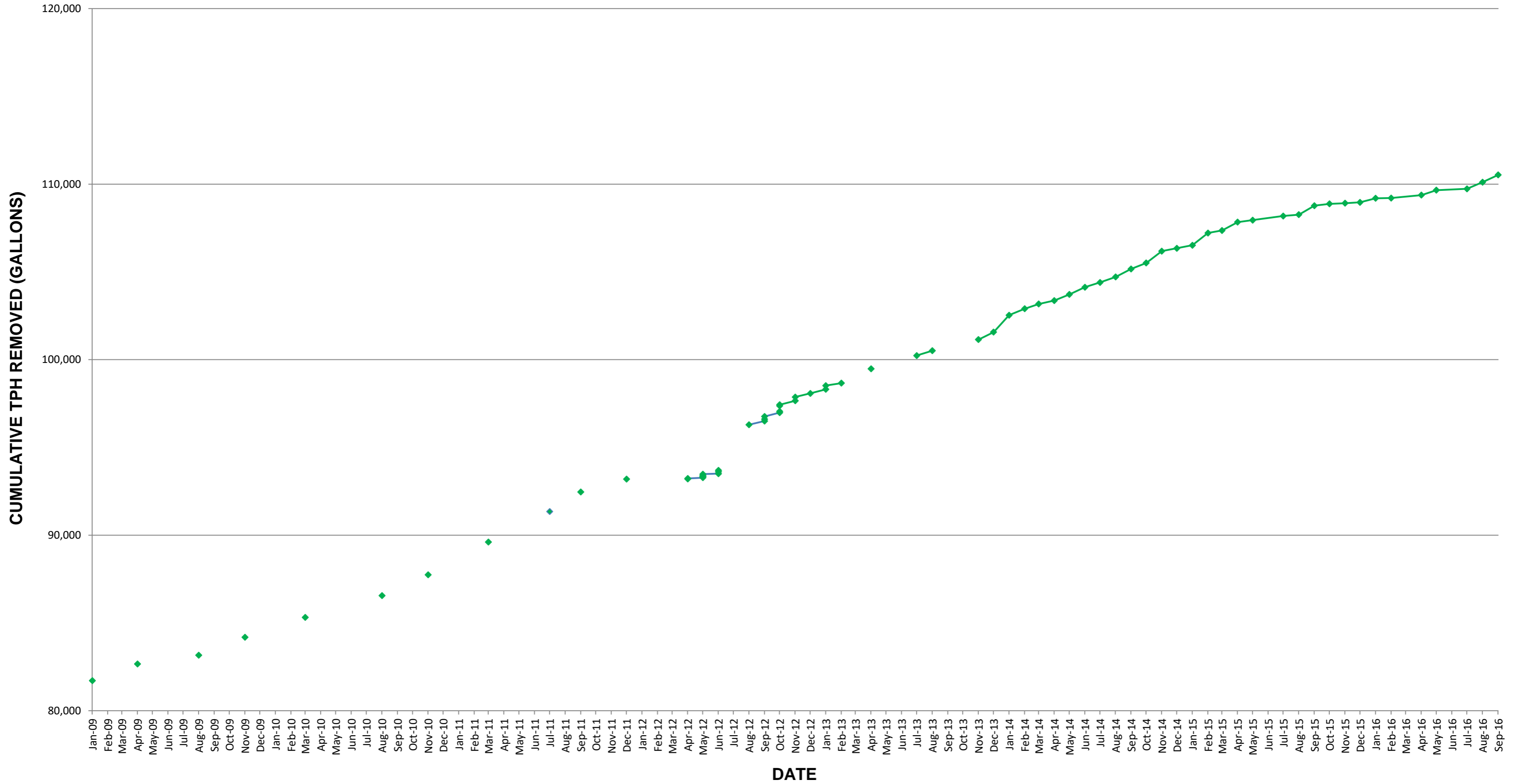
APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 3 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Jun-14	454	74,743	1,540	2,467	411	627,845	104,129
Solleco 500	Jul-14	717	75,460	658	1,621	270	629,466	104,399
Solleco 500	Aug-14	561	76,021	958	1,880	313	631,346	104,712
Solleco 500	Sep-14	777	76,798	965	2,739	457	634,085	105,169
Solleco 500	Oct-14	442	77,240	1,260	2,052	342	636,137	105,511
Solleco 500	Nov-14	974	78,214	1,010	4,037	673	640,174	106,183
Solleco 500	Dec-14	667	78,881	398	990	165	641,164	106,348
Solleco 500	Jan-15	690	79,571	358	1,010	168	642,174	106,516
Solleco 500	Feb-15	665	80,236	1,410	4,183	697	646,357	107,213
Solleco 500	Mar-15	595	80,831	463	895	149	647,252	107,362
Solleco 500	Apr-15	668	81,499	979	2,846	474	650,098	107,836
Solleco 500	May-15	542	82,041	298	665	111	650,763	107,947
Solleco 500	Jul-15	770	82,811	319	1,409	235	652,172	108,182
Solleco 500	Aug-15	486	83,297	162	479	80	652,651	108,262
Solleco 500	Sep-15	499	83,796	1,280	3,078	513	655,729	108,775
Solleco 500	Oct-15	575	84,371	160	609	102	656,338	108,877
Solleco 500	Nov-15	331	84,702	65.5	224	37	656,562	108,914
Solleco 500	Dec-15	542	85,244	222	303	50	656,865	108,964
Solleco 500	Jan-16	813	86,057	442	1,385	231	658,250	109,195
Solleco 500	Feb-16	828	86,885	<23.3	77	13	658,327	109,208
Solleco 500	Apr-16	883	87,768	175	1,009	168	659,336	109,376
Solleco 500	May-16	315	88,083	1,880	1,675	279	661,011	109,655
Solleco 500	Jul-16	1,116	89,199	164	450	75	661,461	109,730
Solleco 500	Aug-16	798	89,997	512	2,305	384	663,766	110,114
Solleco 500	Sep-16	497	90,494	1,680	2,453	409	666,219	110,523

- | | | |
|-----|---|---|
| (1) | = Soil vapor extraction (SVE) well | Remediation information reported by Hydro Geo Chem |
| (2) | = Air infiltration/injection well | Remediation information reported by Groundwater Technology |
| (3) | = Nested vadose zone monitoring probe | Remediation information reported by Fluor Daniel GTI |
| (4) | = System was shutdown November 1995 and was replaced with a 500-scfm | Remediation information reported by The IT Group |
| (5) | = System was started on February 13, 1996 | Remediation information reported by SCS Engineers |
| (6) | = System was shutdown January 2001 and was replaced with a Paragon ET-150 | Remediation information reported by Clear Creek Associates |
| (7) | = System was shutdown September 4, 2002 and was restarted on November 4, 2002 | Remediation information reported by City of Tucson |
| (8) | = System was shutdown December 31, 2002 for rebound recovery evaluation | Average influent concentration
Remediation information reported by Cardno
Mass removal estimated using PID measurements |



**TFS-10 HISTORICAL TPH MASS REMOVAL
(2002 THROUGH 2008)**



**TFS-10 HISTORICAL TPH MASS REMOVAL
(2009 THROUGH 2016)**



January 27, 2017
4161240000.Q416TFS10

Mr. Richard Byrd
City of Tucson - Environmental Services
P.O. Box 27210
Tucson, AZ 85726-7210

Cardno
19621 North 23rd Drive,
Suite 150
Phoenix, AZ 85027
USA
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**Subject: TFS-10 System Performance Summary
Thomas O. Price Service Center**
4004 South Park Avenue, Tucson, Arizona 85714
Facility ID: 0-005160, LUST No. 0767.01-.05

Mr. Byrd:

At the request of City of Tucson – Environmental Services (COT-ES), Cardno is submitting this remedial summary for the Air Sparge/Soil Vapor Extraction (AS/SVE) with catalytic oxidation abatement system at the above referenced Site, for activities performed by Cardno from October through December 2016. Relevant figures, tables, and appendices are attached.

SUMMARY OF FIELD ACTIVITIES

Fourth Quarter Field Activities

- Weekly system readings and equipment maintenance.
- Monthly well gauging, vapor monitoring, and non-aqueous phase liquid (NAPL) bailing.
- The remediation system has seven zones (1 through 7) which represent remediation wells on the same trunk lines; currently there are 23 wells connected to the seven remedial zones. The wells and zones are depicted on Figure 1. During the reporting period, remedial zones 1 through 4 were not operating; all of the remediation wells, excluding, well PCM-535A (zone 7) were operating in zones 5 through 7.
- Adjusted the bypass stingers to optimize the flow rate and vapor recovery in wells PCM-534A and PCM-507A (zone 7).
- During the reporting period an estimated 6,594 pounds (approximately 1,099 gallons) of petroleum hydrocarbons were removed through the AS/SVE system.
- Manually bailed approximately 6.0 gallons (36 pounds) of NAPL from monitor well WR-220A. During the annual reporting period a cumulative 10.5 gallons (63 pounds) of NAPL was removed.

January 27, 2017
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- An estimated 16,011 pounds (approximately 2,668.5 gallons) of petroleum hydrocarbons were removed through the AS/SVE remediation and NAPL removal activities during the reporting year of 2016.
- During the reporting period an estimated 6,630 pounds (approximately 1,105 gallons) of petroleum hydrocarbons were removed from the Site through AS/SVE remediation and NAPL removal activities. Since April 1, 2012 an estimated 121,464 pounds (approximately 20,244 gallons) of petroleum hydrocarbons have been removed from the Site through AS/SVE remediation and NAPL removal activities.

PROPOSED FIRST QUARTER 2017 SITE ACTIVITIES

- Continue weekly system readings, monthly well gauging, vapor monitoring, and NAPL bailing.
- Continue adjusting system to optimize vapor recovery.
- Continue adjusting bypass stingers to optimize flow rate and vapor recovery in wells PCM-534A and PCM-507A.

Please feel free to call me at (602) 909-3448 or email me at justin.patton@cardno.com with any questions or comments.

Respectfully submitted,



Justin T. Patton
Project Manager
for Cardno
Direct Line 602 909 3448
Email: justin.patton@cardno.com

Enclosures:

Figure 1	TFS-10 Site Layout and Well Location Map
Table 1	SVE Operating Conditions Summary
Table 2	Influent Vapor Process Stream Analytical Results
Table 3	Estimated Petroleum Hydrocarbon Mass Removal
Table 4	Total Vapor Phase Hydrocarbon Removal Between Sampling Events
Table 5	Cumulative TPH Mass Removal
Table 6	Manually Bailed NAPL Removal
Table 7	Annual NAPL Removal

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Appendix A Weekly Operation and Maintenance System Readings

Appendix B Historical TPH mass removal table and graphs

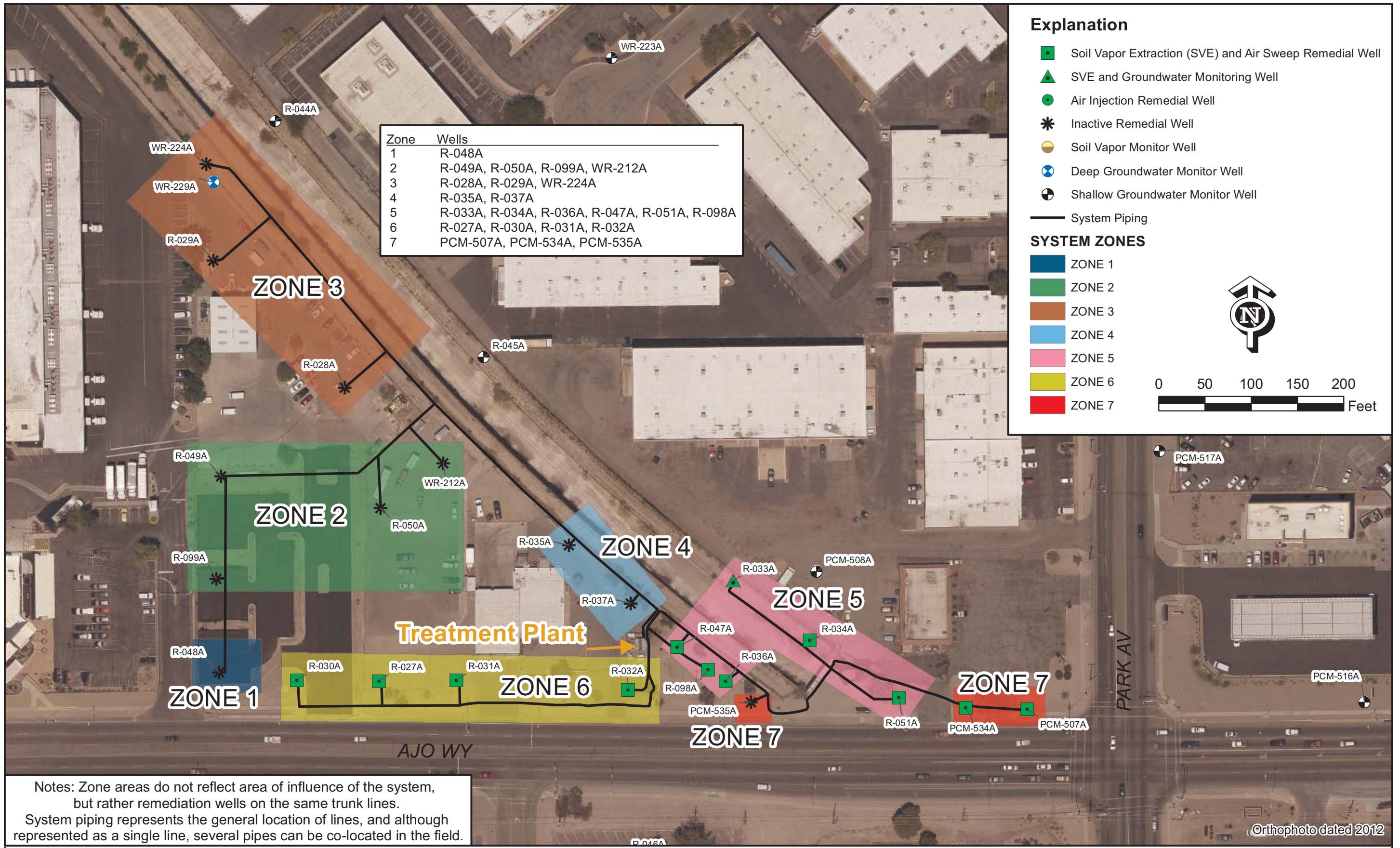


TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Op Hours	Vacuum (Inches H₂O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
08/27/12	13,472	67	318	480	167
09/05/12	13,685	50	577	471	159
09/18/12	13,779	55	425	468	155
09/24/12	13,924	52	612	466	156
10/01/12	14,090	55	747	469	154
10/08/12	14,256	57	251	476	153
10/18/12	14,493	61	655	479	151
10/22/12	14,560	64	596	484	145
11/06/12	14,920	70	338	520	146
11/27/12	15,394	63	219	395	139
12/11/12	15,729	63	439	404	132
01/02/13	16,205	66	822	246	125
01/21/13	16,657	64	381	399	132
02/07/13	17,062	64	285	366	135
04/30/13	17,880	48	737	425	146
07/15/13	19,128	60	367	306	179
08/12/13	19,706	63	287	319	172
11/07/13	20,590	48	508	309	148
12/12/13	21,407	51	422	324	145
01/14/14	22,357	45	743	324	150
02/19/14	22,983	68	351	296	115
03/27/14	23,325	54	722	227	115
04/14/14	23,754	61	372	253	122
05/15/14	24,476	60	143	247	125
06/05/14	24,930	60	441	227	139
07/07/14	25,647	59	182	221	139
08/06/14	26,208	61	329	225	143
09/10/14	26,985	55	283	235	134
10/02/14	27,427	54	443	237	129
11/12/14	28,401	55	413	264	118
12/15/14	29,068	60	211	240	120
01/14/15	29,758	50	259	263	101
02/17/15	30,423	56	321	287	110
03/24/15	31,018	30	355	209	104
04/27/15	31,686	57	873	280	113
05/26/15	32,228	50	500	265	130
07/06/15	32,998	50	150	369	130
07/28/15	33,484	65	108	391	133

TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
 4004 South Park Avenue, Tucson, Arizona
 (Page 2 of 2)

Date	Op Hours	Vacuum (Inches H₂O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
09/03/15	33,983	30	1322	310	123
09/28/15	34,558	50	73	426	127
10/26/15	35,111	40	61	397	124
12/01/15	35,442	40	1100	265	98
01/05/16	36,255	42	1100	248	100
02/15/16	37,083	38	34	257	117
04/29/16	37,966	50	118	420	136
05/24/16	38,281	49	832	182	154
07/22/16	39,397	50	156	158	162
08/25/16	40,195	50	439	363	140
09/15/16	40,692	50	764	189	150
10/18/16	41,346	48	162	206	147
11/22/16	42,088	46	747	210	109
12/21/16	42,594	50	429	263	120
Average		54	452	322	135

Notes:

- VOC = Volatile organic compounds concentrations reported from PID.
- ppmv = Parts per million by volume.
- scfm = Standard cubic feet per minute.
- Deg. F = Degree Fahrenheit.

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
08/27/12	12:50	9.9	9.9	2.0	8.2	630
09/05/12	9:36	14	17	3.2	12	810
09/18/12	10:55	8.5	12	3.2	16	880
09/24/12	1:00	19	15	2.0	8.5	900
10/01/12	11:10	23	20	2.5	15	1,100
10/08/12	10:30	4.4	3.7	<5.0	4.4	320
10/18/12	11:15	22	18	2.0	12	1,100
10/22/12	11:20	14	13	1.8	7.6	730
11/06/12	11:15	8.1	8.0	<5.0	3.9	460
11/27/12	12:50	5.6	2.9	0.99	7.4	440
12/11/12	12:50	10	8.8	1.3	6.9	590
01/02/13	10:50	18	20	2.8	12	760
01/21/13	11:50	8.5	7.7	1.7	7.8	460
02/07/13	11:35	4.7	3.7	1.2	6.9	370
04/30/13	11:28	17	14	1.7	8.0	900
07/15/13	9:15	3.89	9.42	<2.30	17.2	767
08/12/13	8:40	2.48	5.03	<1.15	13.4	579
11/07/13	10:20	7.43	18.2	2.96	16.7	891
12/12/13	10:25	4.20	12.5	2.11	14.2	619
01/14/14	8:48	8.48	25.0	4.27	25.9	1,210
02/19/14	11:23	4.62	15.5	3.13	16.8	765
03/27/14	11:07	7.73	23.2	3.63	30.1	1,350
04/14/14	9:50	3.48	8.20	1.83	21.1	705
05/15/14	8:50	2.2	4.50	<1.15	9.76	753
06/05/14	9:50	12.0	23.3	3.00	27.0	1,540
07/07/14	9:55	3.37	5.50	<1.15	8.69	658
08/06/14	9:30	5.61	10.6	1.95	16.9	958
09/10/14	11:25	8.36	26.6	4.86	21.0	965
10/02/14	10:23	7.88	21.9	3.13	27.2	1,260
11/12/14	10:43	5.82	19.2	4.40	28.5	1,010
12/15/14	8:20	1.13	3.32	0.40	4.34	398
01/14/15	10:25	2.69	10.5	2.14	9.3	358
02/16/15	10:10	19.6	37.6	4.78	23.8	1,410
03/24/15	10:00	2.6	11.0	2.53	11.8	463
04/27/15	11:00	11.9	25.7	4.18	20.7	979
05/26/15	12:45	1.22	2.64	0.54	4.40	298
07/06/15	1:00	2.65	5.05	0.62	3.82	319

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
07/28/15	11:00	0.61	1.08	0.23	3.02	162
09/03/15	12:00	16.4	62.0	10.9	47.5	1,280
09/28/15	11:15	0.54	1.21	0.24	2.65	160
10/26/15	11:15	0.49	1.14	0.25	1.92	65.5
12/01/15	9:45	0.56	13.2	4.95	19.7	222
01/05/16	12:00	<0.31	<0.27	0.30	4.35	442
02/15/16	11:20	<0.31	<0.27	0.51	2.89	<23.3
04/29/16	10:36	1.54	6.11	1.24	7.02	175
05/24/16	12:00	17.9	82.9	13.8	56.5	1,880
07/22/16	7:55	0.40	2.54	0.84	5.01	164
08/25/16	3:50	8.82	24.3	3.17	12.9	512
09/15/16	10:40	20.7	50.7	5.72	19.9	1,680
10/18/16	10:36	1.89	5.93	0.71	3.17	251
11/22/16	9:29	23.7	94.2	13.7	53.5	1,980
12/21/16	11:36	5.9	27.4	5.8	22.7	614
Average		7.84	15.9	2.82	14.2	750

Notes:

- ppmv = Part per million by volume.
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
- TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
- < = Below laboratory reporting limits.

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
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Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
08/27/12	480	630	9.9	9.9	2.0	8.2	4.70	112.81	5.8E-02	1.4E+00	6.7E-02	1.6E+00	1.6E-02	3.8E-01	6.5E-02	1.6E+00
09/05/12	471	810	14	17	3.2	12	5.93	142.33	8.0E-02	1.9E+00	1.1E-01	2.7E+00	2.5E-02	6.0E-01	9.3E-02	2.2E+00
09/18/12	468	880	8.5	12	3.2	16	6.40	153.64	4.8E-02	1.2E+00	7.9E-02	1.9E+00	2.5E-02	5.9E-01	1.2E-01	3.0E+00
09/24/12	466	900	19	15	2.0	8.5	6.52	156.46	1.1E-01	2.6E+00	9.9E-02	2.4E+00	1.5E-02	3.7E-01	6.5E-02	1.6E+00
10/01/12	469	1,100	23	20	2.5	15	8.02	192.46	1.3E-01	3.1E+00	1.3E-01	3.2E+00	1.9E-02	4.6E-01	1.2E-01	2.8E+00
10/08/12	476	320	4.4	3.7	<5.0	4.4	2.37	56.82	2.5E-02	6.1E-01	2.5E-02	6.0E-01	3.9E-02	9.4E-01	3.5E-02	8.3E-01
10/18/12	479	1,100	22	18	2.0	12	8.19	196.57	1.3E-01	3.1E+00	1.2E-01	2.9E+00	1.6E-02	3.8E-01	9.5E-02	2.3E+00
10/22/12	484	730	14	13	1.8	7.6	5.49	131.81	8.2E-02	2.0E+00	8.9E-02	2.1E+00	1.4E-02	3.4E-01	6.1E-02	1.5E+00
11/06/12	520	460	8.1	8	<5.0	3.9	3.72	89.24	5.1E-02	1.2E+00	5.9E-02	1.4E+00	4.3E-02	1.0E+00	3.3E-02	8.0E-01
11/27/12	395	440	5.6	2.9	1.0	7.4	2.70	64.84	2.7E-02	6.4E-01	1.6E-02	3.9E-01	6.4E-03	1.5E-01	4.8E-02	1.2E+00
12/11/12	404	590	10	8.8	1.3	6.9	3.71	88.92	4.9E-02	1.2E+00	5.0E-02	1.2E+00	8.7E-03	2.1E-01	4.6E-02	1.1E+00
01/02/13	246	760	18	20	2.8	12	2.91	69.75	5.4E-02	1.3E+00	7.0E-02	1.7E+00	1.1E-02	2.7E-01	4.9E-02	1.2E+00
01/21/13	399	460	8.5	7.7	1.7	7.8	2.85	68.47	4.1E-02	9.9E-01	4.3E-02	1.0E+00	1.1E-02	2.7E-01	5.1E-02	1.2E+00
02/07/13	366	370	4.7	3.7	1.2	6.9	2.11	50.52	2.1E-02	5.0E-01	1.9E-02	4.6E-01	7.2E-03	1.7E-01	4.2E-02	1.0E+00
04/30/13	425	900	17	14	1.7	8.0	5.95	142.70	8.8E-02	2.1E+00	8.4E-02	2.0E+00	1.2E-02	2.9E-01	5.6E-02	1.3E+00
07/15/13	306	767	3.89	9.42	<2.30	17.2	3.65	87.56	1.4E-02	3.5E-01	4.1E-02	9.8E-01	1.2E-02	2.8E-01	8.7E-02	2.1E+00
08/12/13	319	579	2.48	5.03	<1.15	13.4	2.87	68.91	9.6E-03	2.3E-01	2.3E-02	5.4E-01	6.0E-03	1.5E-01	7.0E-02	1.7E+00
11/07/13	309	891	7.43	18.2	2.96	16.7	4.28	102.71	2.8E-02	6.7E-01	8.0E-02	1.9E+00	1.5E-02	3.6E-01	8.5E-02	2.0E+00
12/12/13	324	619	4.20	12.5	2.11	14.2	3.12	74.82	1.6E-02	4.0E-01	5.7E-02	1.4E+00	1.1E-02	2.7E-01	7.6E-02	1.8E+00
01/14/14	324	1,210	8.48	25.0	4.27	25.9	6.09	146.26	3.3E-02	8.0E-01	1.1E-01	2.7E+00	2.3E-02	5.5E-01	1.4E-01	3.3E+00
02/19/14	296	765	4.62	15.5	3.13	16.8	3.52	84.48	1.7E-02	4.0E-01	6.5E-02	1.6E+00	1.5E-02	3.7E-01	8.2E-02	2.0E+00

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
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Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
03/27/14	227	1,350	7.73	23.2	3.63	30.1	4.76	114.33	2.1E-02	5.1E-01	7.4E-02	1.8E+00	1.4E-02	3.3E-01	1.1E-01	2.7E+00
04/14/14	253	705	3.48	8.20	1.83	21.1	2.77	66.54	1.1E-02	2.6E-01	2.9E-02	7.0E-01	7.6E-03	1.8E-01	8.8E-02	2.1E+00
05/15/14	247	753	2.23	4.50	1.15	9.76	2.89	69.39	6.7E-03	1.6E-01	1.6E-02	3.8E-01	4.7E-03	1.1E-01	4.0E-02	9.5E-01
06/05/14	227	1,540	12.0	23.3	3.00	27	5.43	130.42	3.3E-02	7.9E-01	7.5E-02	1.8E+00	1.1E-02	2.7E-01	1.0E-01	2.4E+00
07/07/14	221	658	3.37	5.50	1.15	8.69	2.26	54.25	9.0E-03	2.2E-01	1.7E-02	4.1E-01	4.2E-03	1.0E-01	3.2E-02	7.6E-01
08/06/14	225	958	5.61	10.6	1.95	16.9	3.35	80.41	1.5E-02	3.7E-01	3.4E-02	8.1E-01	7.2E-03	1.7E-01	6.3E-02	1.5E+00
09/10/14	235	965	8.36	26.6	4.86	21	3.53	84.60	2.4E-02	5.7E-01	8.8E-02	2.1E+00	1.9E-02	4.5E-01	8.1E-02	2.0E+00
10/02/14	237	1,260	7.88	21.9	3.13	27.2	4.64	111.40	2.3E-02	5.4E-01	7.3E-02	1.8E+00	1.2E-02	2.9E-01	1.1E-01	2.5E+00
11/12/14	264	1,010	5.82	19.2	4.40	28.5	4.14	99.47	1.9E-02	4.5E-01	7.2E-02	1.7E+00	1.9E-02	4.6E-01	1.2E-01	3.0E+00
12/15/14	240	398	1.13	3.32	0.40	4.34	1.48	35.63	3.3E-03	7.9E-02	1.1E-02	2.7E-01	1.6E-03	3.8E-02	1.7E-02	4.1E-01
01/14/15	263	358	2.69	10.5	2.14	9.27	1.46	35.13	8.6E-03	2.1E-01	3.9E-02	9.4E-01	9.3E-03	2.2E-01	4.0E-02	9.6E-01
02/16/15	287	1,410	19.6	37.6	4.78	23.8	6.29	150.97	6.8E-02	1.6E+00	1.5E-01	3.7E+00	2.3E-02	5.4E-01	1.1E-01	2.7E+00
03/24/15	209	463	2.60	11.0	2.53	11.8	1.50	36.10	6.6E-03	1.6E-01	3.3E-02	7.8E-01	8.7E-03	2.1E-01	4.1E-02	9.8E-01
04/27/15	280	979	11.9	25.7	4.18	20.7	4.26	102.26	4.0E-02	9.7E-01	1.0E-01	2.4E+00	1.9E-02	4.6E-01	9.6E-02	2.3E+00
05/26/15	265	298	1.22	2.64	0.54	4.4	1.23	29.46	3.9E-03	9.4E-02	9.9E-03	2.4E-01	2.4E-03	5.7E-02	1.9E-02	4.6E-01
07/06/15	369	319	2.65	5.05	0.62	3.82	1.83	43.91	1.2E-02	2.8E-01	2.6E-02	6.3E-01	3.8E-03	9.0E-02	2.3E-02	5.6E-01
07/28/15	391	162	0.61	1.08	0.23	3.02	0.98	23.63	2.9E-03	6.9E-02	6.0E-03	1.4E-01	1.5E-03	3.6E-02	1.9E-02	4.7E-01
09/03/15	310	1,280	16.4	62.0	10.9	47.5	6.17	148.03	6.2E-02	1.5E+00	2.7E-01	6.5E+00	5.6E-02	1.3E+00	2.4E-01	5.8E+00
09/28/15	426	160	0.54	1.21	0.24	2.65	1.06	25.43	2.8E-03	6.7E-02	7.3E-03	1.7E-01	1.7E-03	4.0E-02	1.9E-02	4.5E-01
10/26/15	397	65.5	0.49	1.14	0.25	1.92	0.40	9.70	2.4E-03	5.7E-02	6.4E-03	1.5E-01	1.6E-03	3.9E-02	1.3E-02	3.0E-01
12/01/15	265	222	0.56	13.2	4.95	19.7	0.91	21.95	1.8E-03	4.3E-02	4.9E-02	1.2E+00	2.2E-02	5.2E-01	8.6E-02	2.1E+00

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
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Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
01/05/16	248	442	0.31	0.3	0.30	4.35	1.70	40.89	9.3E-04	2.2E-02	9.5E-04	2.3E-02	1.2E-03	2.9E-02	1.8E-02	4.3E-01
02/15/16	257	23	0.31	0.3	0.51	2.89	0.09	2.23	9.7E-04	2.3E-02	9.8E-04	2.4E-02	2.2E-03	5.2E-02	1.2E-02	2.9E-01
04/29/16	420	175	1.54	6.1	1.24	7.02	1.14	27.42	7.8E-03	1.9E-01	3.6E-02	8.7E-01	8.6E-03	2.1E-01	4.9E-02	1.2E+00
05/24/16	182	1,880	17.90	82.9	13.80	56.5	5.32	127.65	3.9E-02	9.5E-01	2.1E-01	5.1E+00	4.1E-02	9.9E-01	1.7E-01	4.1E+00
07/22/16	158	164	0.40	2.5	0.84	5.01	0.40	9.67	7.7E-04	1.8E-02	5.7E-03	1.4E-01	2.2E-03	5.2E-02	1.3E-02	3.1E-01
08/25/16	363	512	8.82	24.3	3.17	12.9	2.89	69.34	3.9E-02	9.3E-01	1.2E-01	3.0E+00	1.9E-02	4.6E-01	7.7E-02	1.9E+00
09/15/16	189	1,680	20.70	50.7	5.72	19.9	4.94	118.46	4.7E-02	1.1E+00	1.4E-01	3.3E+00	1.8E-02	4.3E-01	6.2E-02	1.5E+00
10/18/16	206	251	1.89	5.9	0.71	3.17	0.80	19.29	4.7E-03	1.1E-01	1.7E-02	4.1E-01	2.4E-03	5.8E-02	1.1E-02	2.6E-01
11/22/16	210	1,980	23.70	94.2	13.70	53.5	6.46	155.12	6.0E-02	1.4E+00	2.8E-01	6.7E+00	4.7E-02	1.1E+00	1.9E-01	4.4E+00
12/21/16	263	614	5.90	27.4	5.80	22.7	2.51	60.24	1.9E-02	4.5E-01	1.0E-01	2.4E+00	2.5E-02	6.0E-01	9.8E-02	2.4E+00
AVERAGE	322	750	7.84	15.9	2.82	14.2	3.51	84.33	3.3E-02	7.9E-01	6.8E-02	1.6E+00	1.5E-02	3.5E-01	7.1E-02	1.7E+00

Notes:

- TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
- Lbs = Pounds.
- scfm = Standard cubic feet per minute.
- ppmv = Parts per million by volume.
- < = Below minimum laboratory reporting limits.

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
08/27/12	3,321	15,611	191.34	223.23	52.53	215.4
09/05/12	213	1,263	17.03	24.12	5.29	19.8
09/18/12	94	602	4.53	7.47	2.32	11.6
09/24/12	145	945	15.57	14.34	2.23	9.5
10/01/12	166	1,331	21.71	22.03	3.21	19.2
10/08/12	166	393	4.22	4.14	6.51	5.7
10/18/12	237	1,941	30.28	28.90	3.74	22.4
10/22/12	67	368	5.50	5.96	0.96	4.1
11/06/12	360	1,339	18.38	21.18	15.42	12.0
11/27/12	474	1,281	12.71	7.68	3.05	22.8
12/11/12	335	1,241	16.41	16.85	2.90	15.4
01/02/13	476	1,383	25.56	33.13	5.40	23.2
01/21/13	452	1,290	18.59	19.64	5.05	23.2
02/07/13	405	853	8.45	7.76	2.93	16.9
04/30/13	818	4,864	71.66	68.85	9.74	45.8
07/15/13	1,248	4,553	18.01	50.89	14.47	108.2
08/12/13	578	1,659	5.54	13.12	3.49	40.7
11/07/13	884	3,783	24.61	70.32	13.32	75.2
12/12/13	817	2,547	13.48	46.80	9.20	61.9
01/14/14	950	5,789	31.65	108.85	21.66	131.4
02/19/14	626	2,203	10.38	40.63	9.56	51.3
03/27/14	342	1,629	7.28	25.48	4.64	38.5
04/14/14	429	1,189	4.58	12.59	3.27	37.7
05/15/14	722	2,087	4.82	11.35	3.38	28.7
06/05/14	454	2,467	14.99	33.97	5.09	45.8
07/07/14	717	1,621	6.47	12.33	3.00	22.7
08/06/14	561	1,880	8.59	18.93	4.06	35.1
09/10/14	777	2,739	18.51	68.70	14.62	63.2
10/02/14	442	2,052	10.01	32.45	5.40	46.9
11/12/14	974	4,037	18.14	69.84	18.64	120.7
12/15/14	667	990	2.19	7.52	1.06	11.4
01/14/15	690	1,010	5.92	26.95	6.40	27.7
02/17/15	665	4,183	45.36	101.51	15.03	74.8
03/24/15	595	895	3.92	19.35	5.18	24.2
04/27/15	668	2,846	26.99	68.00	12.88	63.8
05/26/15	542	665	2.12	5.36	1.28	10.4
07/06/15	770	1,409	9.13	20.30	2.90	17.9

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
 4004 South Park Avenue, Tucson, Arizona
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Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
07/28/15	486	479	1.41	2.90	0.72	9.5
09/03/15	499	3,078	30.76	135.66	27.78	121.1
09/28/15	575	609	1.60	4.19	0.97	10.7
10/26/15	553	224	1.30	3.54	0.90	6.9
12/01/15	331	303	0.60	16.38	7.15	28.5
01/05/16	813	1,385	0.76	0.77	1.00	14.5
02/15/16	828	77	0.80	0.81	1.79	10.1
04/29/16	883	1,009	6.92	32.05	7.58	42.9
05/24/16	315	1,675	12.44	67.23	13.04	53.4
07/22/16	1,116	450	0.86	6.34	2.44	14.6
08/25/16	798	2,305	30.98	99.57	15.13	61.6
09/15/16	497	2,453	23.58	67.37	8.85	30.8
10/18/16	654	526	3.09	11.30	1.58	7.0
11/22/16	742	4,796	44.78	207.63	35.17	137.4
12/21/16	506	1,270	9.52	51.58	12.72	49.8
TOTAL	32,443	107,577	924.0	2,078	436.7	2,204

Notes:

- TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
- lbs = Pounds.
- OP Hours = Duration of SVE operation during period.

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 3)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs) ^a	Cumulative TPH (Lbs)	TPH (Gallons) ^b	Cumulative TPH (Gallons) ^b	Manually Bailed (Gallons)	Well Pumps (Gallons) ^c	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs) ^d	TPH (Gallons) ^d
04/03/12 - 08/27/12	3321	15,611	15,611	2,602	2,602	83.50	520.00	603.50	1,277	23,270	3,878
08/27/12 - 09/05/12	213	1,263	16,874	211	2,812	3.50	30.00	33.50	1,310	24,734	4,122
09/05/12 - 09/18/12	94	602	17,476	100	2,913	6.25	33.50	39.75	1,350	25,575	4,262
09/18/12 - 09/24/12	145	945	18,421	158	3,070	4.00	20.00	24.00	1,374	26,664	4,444
09/24/12 - 10/01/12	166	1,331	19,752	222	3,292	3.50	23.25	26.75	1,401	28,156	4,693
10/01/12 - 10/08/12	166	393	20,145	66	3,358	3.00	23.25	26.25	1,427	28,706	4,784
10/08/12 - 10/18/12	237	1,941	22,086	324	3,681	3.00	33.00	36.00	1,463	30,863	5,144
10/18/12 - 10/22/12	67	368	22,454	61	3,742	3.00	13.28	16.28	1,479	31,329	5,221
10/22/12 - 11/06/12	360	1,339	23,793	223	3,965	9.25	50.00	59.25	1,538	33,023	5,504
11/06/12 - 11/27/12	474	1,281	25,073	213	4,179	9.25	62.37	71.62	1,610	34,733	5,789
11/27/12 - 12/11/12	335	1,241	26,315	207	4,386	9.50	36.52	46.02	1,656	36,251	6,042
12/11/12 - 01/02/13	476	1,383	27,698	231	4,616	9.50	85.85	95.35	1,751	38,206	6,368
01/02/13 - 01/21/13	452	1,290	28,987	215	4,831	9.50	72.56	82.06	1,833	39,988	6,665
01/21/13 - 02/07/13	405	853	29,840	142	4,973	6.50	64.92	71.42	1,905	41,269	6,878
02/07/13 - 04/30/13	818	4,864	34,704	811	5,784	13.50	191.00	204.50	2,109	47,360	7,893
04/30/13 - 07/15/13	1248	4,553	39,257	759	6,543	8.25	---	8.25	2,118	51,962	8,660
07/15/13 - 08/12/13	578	1,659	40,916	277	6,819	5.25	---	5.25	2,123	53,653	8,942
08/12/13 - 11/07/13	884	3,783	44,699	631	7,450	6.75	---	6.75	2,130	57,477	9,579
11/07/13 - 12/12/13	817	2,547	47,246	424	7,874	9.75	---	9.75	2,139	60,082	10,014
12/12/13 - 01/14/14	950	5,789	53,036	965	8,839	14.25	---	14.25	2,154	65,957	10,993
01/14/14 - 02/19/14	626	2,203	55,239	367	9,206	18.00	---	18.00	2,172	68,269	11,378
02/19/14 - 03/27/14	342	1,629	56,868	272	9,478	0.00	---	0.00	2,172	69,898	11,650
03/27/14 - 04/14/14	429	1,189	58,058	198	9,676	9.50	---	9.50	2,181	71,144	11,857
04/14/14 - 05/15/14	722	2,087	60,145	348	10,024	4.75	---	4.75	2,186	73,260	12,210
05/15/14 - 06/05/14	454	2,467	62,612	411	10,435	14.25	---	14.25	2,200	75,813	12,635

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 3)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs) ^a	Cumulative TPH (Lbs)	TPH (Gallons) ^b	Cumulative TPH (Gallons) ^b	Manually Bailed (Gallons)	Well Pumps (Gallons) ^c	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs) ^d	TPH (Gallons) ^d
06/05/14 - 07/07/14	717	1,621	64,233	270	10,705	8.75	---	8.75	2,209	77,486	12,914
07/07/14 - 08/06/14	561	1,880	66,112	313	11,019	8.75	---	8.75	2,218	79,418	13,236
08/06/14 - 09/10/14	777	2,739	68,851	456	11,475	5.00	---	5.00	2,223	82,187	13,698
09/10/14 - 10/02/14	442	2,052	70,903	342	11,817	4.50	---	4.50	2,227	84,266	14,044
10/02/14 - 11/12/14	974	4,037	74,940	673	12,490	5.50	---	5.50	2,233	88,336	14,723
11/12/14 - 12/15/14	667	990	75,930	165	12,655	15.25	---	15.25	2,248	89,417	14,903
12/15/14 - 01/14/15	690	1,010	76,940	168	12,823	4.50	---	4.50	2,252	90,454	15,076
01/14/15 - 02/17/15	665	4,183	81,123	697	13,521	3.75	---	3.75	2,256	94,660	15,777
02/17/15 - 03/24/15	595	895	82,018	149	13,670	5.00	---	5.00	2,261	95,585	15,931
03/24/15 - 04/27/15	668	2,846	84,865	474	14,144	4.25	---	4.25	2,265	98,457	16,409
04/27/15 - 05/26/15	542	665	85,530	111	14,255	3.75	---	3.75	2,269	99,144	16,524
05/26/15 - 07/06/15	770	1,409	86,939	235	14,490	10.00	---	10.00	2,279	100,613	16,769
07/06/15 - 07/28/15	486	479	87,417	80	14,570	3.00	---	3.00	2,282	101,110	16,852
07/28/15 - 09/03/15	499	3,078	90,495	513	15,083	5.00	---	5.00	2,287	104,218	17,370
09/03/15 - 09/28/15	575	609	91,104	102	15,184	4.00	---	4.00	2,291	104,851	17,475
09/28/15 - 10/26/15	553	224	91,328	37	15,221	5.00	---	5.00	2,296	105,104	17,517
10/26/15 - 12/01/15	331	303	91,631	50	15,272	3.50	---	3.50	2,300	105,428	17,571
12/01/15 - 01/05/16	813	1,385	93,016	231	15,503	4.50	---	4.50	2,304	106,840	17,807
01/05/16 - 02/15/16	828	77	93,093	13	15,515	0.50	---	0.50	2,305	106,920	17,820
02/15/16 - 04/29/16	883	1,009	94,102	168	15,684	1.50	---	1.50	2,306	107,938	17,990
04/29/16 - 05/24/16	315	1,675	95,777	279	15,963	0.50	---	0.50	2,307	109,617	18,269
05/24/16 - 07/22/16	1116	450	96,227	75	16,038	1.00	---	1.00	2,308	110,072	18,345
07/22/16 - 08/25/16	798	2,305	98,532	384	16,422	0.50	---	0.50	2,308	112,381	18,730
08/25/16 - 09/15/16	497	2,453	100,985	409	16,831	0.00	---	0.00	2,308	114,834	19,139
09/15/16 - 10/18/16	654	526	101,511	88	16,918	1.50	---	1.50	2,310	115,368	19,228

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 3 of 3)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs) ^a	Cumulative TPH (Lbs)	TPH (Gallons) ^b	Cumulative TPH (Gallons) ^b	Manually Bailed (Gallons)	Well Pumps (Gallons) ^c	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs) ^d	TPH (Gallons) ^d
10/18/16 - 11/22/16	742	4,796	106,306	799	17,718	2.00	---	2.00	2,312	120,176	20,029
11/22/16 - 12/21/16	506	1,270	107,577	212	17,929	3.00	---	3.00	2,315	121,464	20,244

Notes:

- BOLD** = Sample collection date.
- TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
- NAPL = Non-aqueous phase liquid.
- Lbs = Pounds.
- = All skimmer pump extraction wells were converted to air-sparge technology.
- a = TPH lbs are calculated from mass removal from SVE remediation system.
- b = TPH gallons are converted to gallons using 6 lbs = 1 gallon of TPH.
- c = Well pump totals are calculated by subtracting the total volume of NAPL (combination of manually bailed and pneumatically pumped from well) in the storage vessel minus the manually bailed NAPL and averaged over the NAPL collection period.
- d = Cumulative TPH lbs and gallons are calculated by adding NAPL removed from wells to mass removal from SVE remediation system.

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 3)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
04/03/12	R-028A,PCM-516	4.00	4.00
04/17/12	PCM-516	2.25	6.25
05/01/12	PCM-516	4.25	10.50
05/10/12	PCM-516	2.50	13.00
05/17/12	R-32,PCM-516	3.50	16.50
05/25/12	R-017A, 018A, 028A, 035A, 037A, PCM-516, WR-215A	11.3	27.75
05/31/12	PCM-516	3.00	30.75
06/06/12	PCM-516,17,18	7.75	38.50
06/12/12	PCM-516,17,18	3.25	41.75
06/18/12	PCM-516	3.00	44.75
06/28/12	PCM-516,35,37	5.75	50.50
07/05/12	PCM-516, R-099	5.25	55.75
07/10/12	PCM-516	3.00	58.75
07/18/12	PCM-516, R-099	7.50	66.25
07/25/12	PCM-516	3.00	69.25
07/30/12	PCM-516	3.25	72.50
08/10/12	PCM-516	8.00	80.50
08/27/12	PCM-516	3.00	83.50
09/05/12	PCM-516	3.50	87.00
09/14/12	PCM-516	3.00	90.00
09/18/12	PCM-516	3.25	93.25
09/24/12	PCM-516	4.00	97.25
10/01/12	PCM-516	3.50	100.75
10/08/12	PCM-516	3.00	103.75
10/18/12	PCM-516	3.00	106.75
10/22/12	PCM-516	3.00	109.75
11/01/12	PCM-516	3.00	112.75
11/06/12	PCM-516	3.25	116.00
11/13/12	PCM-516	3.25	119.25
11/19/12	PCM-516	3.00	122.25
11/27/12	PCM-516	3.00	125.25
12/04/12	PCM-516	3.00	128.25
12/11/12	PCM-516	3.50	131.75
12/18/12	PCM-516	3.25	135.00
12/27/12	PCM-516	3.00	138.00
01/02/13	PCM-516	3.25	141.25
01/07/13	PCM-516	3.25	144.50
01/14/13	PCM-516	3.25	147.75
01/21/13	PCM-516	3.00	150.75
01/28/13	PCM-516	3.50	154.25
02/07/13	PCM-516	3.00	157.25
02/11/13	PCM-516	3.00	160.25
02/19/13	PCM-516	3.50	163.75
02/25/13	PCM-516	3.50	167.25
03/04/13	PCM-516	3.50	170.75
05/15/13	R-028A, 035A, 037A, 050A, PCM-516	4.00	174.75
06/13/13	PCM-516	2.25	177.00
06/24/13	PCM-516	2.00	179.00

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 3)

Date	Wells Bailed	NAPL Removed Gallons	Cumulative NAPL Gallons
07/31/13	PCM-516	1.75	180.75
08/05/13	PCM-516	2.00	182.75
08/12/13	PCM-516	1.50	184.25
08/19/13	PCM-516	1.00	185.25
09/04/13	PCM-516	1.25	186.50
10/10/13	PCM-516	1.75	188.25
10/21/13	PCM-516	0.75	189.00
10/30/13	PCM-516	1.00	190.00
11/07/13	PCM-516	1.00	191.00
11/11/13	PCM-516	1.00	192.00
11/25/13	PCM-516, WR-220A	5.00	197.00
12/02/13	PCM-516, WR-220A	3.75	200.75
12/18/13	PCM-516, WR-220A	3.25	204.00
01/02/14	PCM-516, WR-220A	4.00	208.00
01/07/14	PCM-516, WR-220A	3.50	211.50
01/14/14	PCM-516, WR-220A	3.50	215.00
01/22/14	PCM-516, WR-220A	3.25	218.25
02/03/14	PCM-516, WR-220A	4.00	222.25
02/10/14	PCM-516, WR-220A	4.00	226.25
02/19/14	PCM-516, WR-220A	3.25	229.50
04/03/14	PCM-516, WR-220A	5.00	234.50
04/07/14	PCM-516, WR-220A	4.50	239.00
04/25/14	PCM-516, WR-220A	4.75	243.75
05/19/14	PCM-516, WR-220A	5.00	248.75
05/27/14	PCM-516, WR-220A	4.50	253.25
06/05/14	PCM-516, WR-220A	4.75	258.00
06/16/14	PCM-516, WR-220A	4.00	262.00
07/07/14	PCM-516, WR-220A	4.75	266.75
07/14/14	PCM-516, WR-220A	4.25	271.00
07/23/14	PCM-516, WR-220A	4.50	275.50
08/06/14	PCM-516, WR-220A	5.00	280.50
10/02/14	PCM-516, WR-220A	4.50	285.00
10/08/14	PCM-516, WR-220A	5.50	290.50
11/25/14	R-031A, R-098, PCM-507, PCM-516, WR-220A	11.75	302.25
12/15/14	PCM-516, WR-220A	3.50	305.75
01/15/15	PCM-516, WR-220A	4.50	310.25
02/17/15	PCM-516, WR-220A	3.75	314.00
03/16/15	PCM-516, WR-220A	5.00	319.00
04/21/15	PCM-516, WR-220A	4.25	323.25
05/19/15	WR-220A	3.75	327.00
06/16/15	WR-220A	10.00	337.00
07/13/15	WR-220A	3.00	340.00
08/25/15	PCM-516, WR-220A	5.00	345.00
09/23/15	PCM-516, WR-220A	4.00	349.00
10/21/15	PCM-516, WR-220A	5.00	354.00
11/18/15	PCM-516, WR-220A	3.50	357.50
12/23/15	PCM-516, WR-220A	4.50	362.00
01/20/16	WR-220A	0.50	362.50
02/16/16	WR-220A	0.50	363.00

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 3 of 3)

Date	Wells Bailed	NAPL Removed Gallons	Cumulative NAPL Gallons
03/08/16	WR-220A	0.50	363.50
04/15/16	WR-220A	0.50	364.00
05/10/16	WR-220A	0.50	364.50
06/16/16	WR-220A	0.50	365.00
07/20/16	WR-220A	0.50	365.50
08/17/16	WR-220A	0.50	366.00
09/23/16	WR-220A	0.50	366.50
10/12/16	WR-220A	1.00	367.50
10/20/16	WR-220A	0.50	368.00
11/15/16	WR-220A	0.50	368.50
11/22/16	WR-220A	1.00	369.50
12/08/16	WR-220A	0.75	370.25
12/15/16	WR-220A	0.75	371.00
12/21/16	WR-220A	0.75	371.75
12/28/16	WR-220A	0.75	372.50

Notes:

NAPL = Non-aqueous phase liquid.

TABLE 7
ANNUAL NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
 4004 South Park Avenue, Tucson, Arizona
 (Page 1 of 1)

Time Period	NAPL Removed Bailed/Pumped (Gallons)	Cummulative NAPL Removal (Gallons)
1998	86	86
1999	131	217
2000	45	262
2001	45	307
2002	28	335
2003	956	1,291
2004	1,210	2,501
2005	1,365	3,866
2006	923	4,789
2007	2,315	7,104
2008	2,577	9,681
2009	1,200	10,881
2010	1,703	12,584
2011	1,750	14,334
2012	1,690	16,024
2013	473	16,497
2014	133	16,630
2015	56	16,686
2016	10.5	16,696.5

Notes:

NAPL = Non-aqueous phase liquid.

APPENDIX A

WEEKLY OPERATION AND MAINTENANCE SYSTEM READINGS

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300

SYSTEM READINGS

SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
04/03/12	10151	64	2700	134	211	252	0.7	619	82438	103776	4.00	N	N	run/o&m/run
04/09/12	10294	59	2800	145	215	306	1.3	601	82724	103806	0.00	N	N	run/o&m/run
05/01/12	10818	58	2400	146	184	164	4	624	83794	103918	4.25	N	N	run/o&m/run
05/08/12	10984	58	2400	137	186	246	4	614	84141	103954	0.00	N	N	run/o&m/run "see note 1"
	10985	57	2400	144	184	368	1	691	84143	103955		N	N	
	10988	85	4200 ^a	166	311	395	1	696	84148	103955		N	N	
05/10/12	11033	67	4800	153	363	251	2	623	84241	103968	2.50	N	N	run/o&m/run
05/17/12	11109	65	4900	163	365	238	1	627	84388	103988	3.50	N	N	run/o&m/run "see note 2"
	11112	63	5000	169	369	263	4	630	84393	103989		N	N	
05/25/12	11304	63	NT ^b	160	450 ^b	246	2	635	84765	104034	11.25	N	N	run/o&m/run
05/31/12	11443	55	NT	146	459	255	3	620	85034	104067	3.00	N	N	run/o&m/run "see note 2"
	11445	54	NT	155	458	435	0	704	85039	104067		N	N	
06/28/12	12066	60	NT	168	472	347	21	688	86299	104213	5.75	N	N	run/o&m/run
07/05/12	12237	77	NT	171	481	635	7	778	86647	104254	5.25	N	N	run/o&m/run
07/25/12	12701	62	NT	159	462	558	11	705	87525	104367	3.00	N	N	run/o&m/run
07/30/12	12820	63	NT	157	465	287	2	658	87754	104397	3.25	N	N	run/o&m/run
08/10/12	13070	59	NT	169	479	221	6	644	0004 ^c	104459	8.00	N	N	run/o&m/run
08/14/12	13163	60	NT	171	485	233	13	653	00168	104484	0.00	N	N	run/o&m/run
08/20/12	13305	67	NT	169	483	256	16	654	00431	104521	8.00	N	N	run/o&m/run
08/27/12	13472	67	NT	167	480	318	11	685	00733	104565	3.00	N	Y	run/o&m/run
09/05/12	13683	68	NT	154	463	302	14	655	1119	104622	3.50	N	N	run/o&m/run "see note 2"
	13685	50	NT	159	471	577	9	619	1119	104622		N	Y	run/o&m/run "see note 2"
09/18/12	13779	55	NT	155	468	425	18	633	1297	104651	3.25	N	Y	run/o&m/run
09/24/12	13924	52	NT	156	466	612	10	622	1576	104685	4.00	N	Y	run/o&m/run
10/01/12	14090	55	NT	154	469	747	6	649	1910	104722	3.50	N	Y	run/o&m/run
10/08/12	14256	57	NT	153	476	251	0	647	2228	104764	3.00	N	Y	run/o&m/run
10/18/12	14493	61	NT	151	479	655	16	636	2688	104818	3.00	N	Y	run/o&m/run
10/22/12	14560	64	NT	145	484	596	7	638	2816	104837	3.00	N	Y	run/o&m/run
11/01/12	14800	74	NT	149	520	472	16	636	3277	104901	3.00	N	N	run/o&m/run
11/06/12	14920	70	NT	146	520	338	9	643	3504	104933	3.25	N	Y	run/o&m/run
11/13/12	15067	71	5150	140	398	481	9	644	3790	104972	3.25	N	N	run/o&m/run
11/19/12	15202	62	4950	141	382	231	2	628	4060	105009	3.00	N	N	run/o&m/run
11/27/12	15394	63	5100	139	395	219	6	614	4440	105061	3.00	N	Y	run/o&m/run
12/04/12	15559	65	5000	139	387	286	4	628	4771	105106	3.00	N	N	run/o&m/run
12/11/12	15729	63	5160	132	404	439	26	635	5118	105152	3.50	N	Y	run/o&m/run
12/18/12	15889	64	2460	130	193	276	0	618	5440	105192	3.25	N	N	run/o&m/run
12/27/12	16107	64	2600	127	205	959	12	636	5899	105246	3.00	N	N	run/o&m/run
01/02/13	16205	66	3100	125	246	822	12	627	6105	105274	3.25	N	Y	down/o&m,ted/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300

SYSTEM READINGS

SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
01/07/13	16325	67	5255	128	414	359	6	642	6355	106307	3.25	N	N	run/o&m/run
01/14/13	16493	66	5150	120	411	346	21	625	6079	105354	3.25	N	N	run/o&m/run
01/16/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
01/21/13	16657	64	5100	132	399	381	6	637	7070	105398	3.00	N	Y	run/o&m,ted/run
01/28/13	16822	63	4900	125	388	305	9	626	7410	105443	3.50	N	N	run/o&m/run
02/07/13	17062	64	4700	135	366	285	7	690	7920	105509	3.00	N	Y	run/o&m,ted/run
02/11/13	17157	62	4736	125	375	165	4	687	8116	105535	3.00	N	N	run/o&m/run
02/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
02/19/13	17349	54	5100	127	403	243	27	620	8509	105588	3.50	N	N	run/o&m/run
02/25/13	17494	64	4950	124	393	266	5	640	8815	105627	3.50	N	N	run/o&m/run
03/04/13	17659	64	5150	127	407	256	28	1014	9167	105672	3.50	N	N	run/o&m/run
03/13/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	run/down "see note 3"
03/20/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
03/26/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down "see note 4"
04/09/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/19/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
04/23/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/25/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/30/13	17880	48	5560	146	425	737	32	690	9643	105750	0.00	N	Y	down/o&m,ted/down
05/15/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	4.00	NT	N	Down/monthly well
05/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/run "see note 5"
05/30/13	18050	33	8730	145	668	774	65	776	9978	105803	0.00	N	N	run/o&m/run "see note 6"
06/06/13	18218	54	9500	164	706	235	0	625	10289	105850	0.00	N	N	run/o&m/run
06/13/13	18387	64	9240	176	679	317	58	653	10589	105899	2.25	N	Y	run/o&m,ted/run
06/21/13	18574	72	9300	168	686	280	40	646	10907	105956	0.00	N	N	run/o&m/run
06/24/13	18647	73	9265	166	686	320	61	655	11033	105978	2.00	N	N	run/o&m/run
07/01/13	18792	64	5520	165	480	266	24	631	11284	106023	2.25	N	N	run/o&m/run
07/08/13	18959	58	4039	175	295	296	31	647	11550	106068	2.00	N	N	run/o&m/run
07/15/13	19128	60	4220	179	306	367	32	658	11821	106114	1.25	N	Y	run/o&m,ted/run
07/25/13	19363	61	4165	173	305	312	28	640	12213	106191	2.00	N	N	run/o&m/run
07/31/13	19418	60	4202	168	310	247	19	644	12302	106209	1.75	N	N	run/o&m/run
08/05/13	19538	64	4244	162	316	265	29	660	12498	106240	2.00	N	N	run/o&m/run
08/12/13	19706	63	4355	172	319	287	34	652	12772	106288	1.50	N	Y	run/o&m,ted/run
08/19/13	19874	64	4390	172	322	274	51	636	13045	106336	1.00	N	N	run/o&m/down "see note 7"
09/04/13	19877	60	4335	172	318	286	31	626	13052	106345	1.25	N	Y	down/o&m,ted/down
10/08/13	19879	60	4401	168	325	447	44	637	13054	106363	0.00	N	N	Down/O&M/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300

SYSTEM READINGS

SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
10/10/13	19922	56	4567	152	346	1051	103	770	13125	106376	1.75	N	Y	run/o&m,ted/run
10/15/13	20046	54	4166	160	311	245	14	630	13334	106412	0.00	N	N	run/wells,o&m/run
10/21/13	20181	50	4000	153	302	459	19	667	13554	106449	0.75	N	N	run/o&m/run
10/30/13	20398	45	4065	153	307	377	24	636	13897	106505	1.00	N	N	run/o&m/run
11/07/13	20590	48	4063	148	309	508	4	682	14205	106556	1.00	N	Y	run/o&m,ted/run
11/11/13	20685	49	4100	149	312	296	11	631	14357	106578	1.00	N	N	run/o&m,well/down
11/19/13	20854	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	N	N	run/o&m/run
11/25/13	20997	49	4040	138	313	429	7	669	14870	106662	5.00	N	N	run/o&m/run
12/02/13	21165	48	4065	144	311	502	6	691	15149	106707	3.75	N	N	run/o&m/run
12/12/13	21407	51	4230	145	324	422	0	630	15550	106773	3.50	N	Y	run/o&m,ted/run
12/18/13	21523	49	4205	148	328	389	0	602	15746	106806	3.25	N	N	run/o&m/run
12/24/13	21668	49	4255	143	327	308	0	630	15971	106841	0.00	N	N	run/o&m/run
01/02/14	21881	48	4100	147	313	281	0	628	16294	106898	4.00	N	N	run/o&m/run
01/07/14	22004	49	4165	149	317	322	12	629	16485	NT	3.5	N	N	run/o&m/run
01/14/14	22169	45	4275	150	324	743	2	640	16734	106907	3.5	N	Y	run/o&m,ted/run
01/22/14	22357	48	4220	150	320	503	1	670	17016	107020	3.25	N	N	run/o&m/run
01/28/14	22497	46	4945	160	369	467	0	655	17223	107057	0	N	N	down/o&m/run
02/03/14	22601	40	4366	138	338	697	9	661	17361	107083	4	N	N	run/o&m/run
02/10/14	22768	65	3505	117	281	754	7	667	17663	107119	4	N	N	run/o&m/run
02/19/14	22983	68	3685	115	296	351	13	643	18072	107162	3.25	N	Y	run/o&m,ted/run
02/24/14	23012	NT	NT	NT	NT	NT	NT	NT	18126	107169	0	N	N	don/o&m/down
03/04/14	23106	58	3700	112	300	454	9	505	18305	107187	0	N	N	run/o&m/run
03/12/14	23250	NT	NT	NT	NT	NT	NT	NT	NT	NT	0	N	N	down for annual
03/27/14	23325	54	2820	115	227	722	1	552	18678	107223	0	N	Y	run/o&m,ted/run
04/03/14	23493	62	3330	114	269	410	7	642	18971	107253	5	N	N	run/o&m/run
04/07/14	23587	60	3285	118	263	527	4	662	19144	107270	4.5	N	N	run/o&m/run
04/14/14	23754	61	3175	122	253	372	7	645	19438	107303	0	N	Y	run/o&m,ted,wells/run
04/25/14	23992	61	3240	117	260	224	7	634	19866	107352	4.75	N	N	run/o&m/run
05/01/14	24136	64	3085	116	248	382	6	634	20133	107382	0	N	N	run/o&m/run
05/07/14	24282	61	3188	122	254	317	13	651	20391	107413	0	N	N	run/o&m/run
05/15/14	24476	60	3120	125	247	143	0	645	20747	107451	0	N	Y	run/o&m,ted,wells/run
09/19/14	24568	61	3165	123	252	282	0	639	20910	107468	5	N	N	run/o&m/run
05/27/14	247162	62	3210	127	253	376	14	651	21177	107495	4.5	N	N	run/o&m/run
06/05/14	24930	60	2930	139	227	441	17	650	21555	107528	4.75	N	Y	run/o&m,ted,wells/run
06/12/14	251002	60	2790	141	215	291	0	670	21856	107557	0	N	N	run/o&m/run
06/16/14	25195	58	2873	142	221	185	0	648	22026	107572	4	N	N	run/o&m/run
06/26/14	25431	60	2780	141	214	217	0	676	22449	107612	0	N	N	run/o&m/run
07/03/14	25591	60	2765	140	214	407	14	682	22743	107637	0	N	N	run/o&m/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300
 SITE LOCATION: TFS-10

SYSTEM READINGS

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
07/07/14	25647	59	2850	139	221	182	0	644	22850	107646	4.74	N	Y	down/o&m,ted/run
07/14/14	25819	60	2910	142	224	268	21	663	23154	107678	4.25	N	N	run/o&m/down
07/23/14	25871	60	2935	145	225	310	17	655	23242	107704	4.5	N	N	run/o&m/run
07/29/14	26014	60	3055	135	238	156	0	640	23492	107743	0	N	N	run/o&m/run
08/06/14	26208	61	2930	143	225	329	0	660	23841	107797	5	N	Y	run/o&m,ted/run
08/14/14	26398	55	2880	132	225	1000	0	657	24187	107850	0	N	N	run/o&m/run
08/19/14	26520	52	2860	137	222	1000	0	668	24408	107885	0	N	N	run/o&m/run
08/25/14	26663	59	2930	134	229	371	0	684	24667	107925	0	N	N	run/o&m/run
09/02/14	26814	52	2910	135	227	168	0.5	680	24935	107977	0	N	N	run/o&m/run
09/10/14	26985	55	3010	134	235	283	4	673	25233	108032	0	N	Y	run/o&m,ted/run
09/16/14	27068	54	3045	135	237	223	0	668	25379	108061	0	N	N	run/o&m/run
09/22/14	27211	54	3002	128	237	272	0	671	25628	108099	0	N	N	run/o&m/down
10/02/14	27427	54	3015	129	237	443	5	701	26007	108162	4.5	N	Y	run/o&m,ted/run
10/08/14	27570	57	2950	119	236	305	0.4	692	26262	108204	5.5	N	N	run/o&m/run
10/17/14	27786	56	2995	126	237	412	2.9	697	26651	108268	0	N	N	run/o&m/run
10/20/14	27858	55	2931	129	231	321	2.1	691	26780	108289	0	N	N	run/o&m/run
10/31/14	28113	55	3000	127	237	299	0.9	705	27245	108361	0	N	N	run/o&m/run
11/07/14	28281	57	2965	126	234	382	0.4	698	27556	108404	0	N	N	run/o&m/run
11/12/14	28401	55	3290	118	264	413	0.1	659	27772	108437	5	N	Y	run/o&m,ted/run
11/17/14	28427	45	2900	102	239	340	2.1	668	27817	108446	0	N	N	down/o&m/run
11/24/14	28594	60	3765	104	309	357	3.1	664	28170	108492	0	N	N	run/o&m/run
12/03/14	28785	58	3465	115	279	345	1.2	682	28559	108546	0	N	N	run/o&m/run
12/08/14	28905	57	3702	111	300	413	0.2	668	28808	108613	0	N	N	run/o&m/run
12/15/14	29068	60	3010	120	240	211	1.8	631	29157	108613	3.5	N	Y	run/o&m,ted,wells/down
12/24/14	29258	60	3951	99	327	291	9	664	29570	108669	0	N	N	run/o&m/run
12/29/14	29377	45	4130	89	348	314	12	690	29863	108704	0	N	N	run/o&m/run
01/07/15	29593	57	3630	108	296	528	4	677	30386	108767	0	N	N	run/o&m/run
01/14/15	29758	50	3190	101	263	259	7	647	30747	108821	0	N	Y	run/o&m,ted,wells/down
01/20/15	29879	60	3365	98	279	283	16	645	31001	108857	0	N	N	run/o&m/run
01/30/15	30066	55	3560	106	291	323	0.3	653	31397	108912	0	N	N	run/o&m/run
02/06/15	30236	52	3650	113	295	264	1.9	660	31789	108962	0	N	Y	run/o&m,ted,wells/down
02/12/15	30378	54	3585	106	293	316	0	669	32047	109003	0	N	N	run/o&m/run
02/17/15	30423	56	3527	110	287	321	8.6	642	32137	109017	3.75	N	Y	run/o&m,ted,wells/down
02/26/15	30616	55	3568	109	290	243	4.8	637	32528	109073	0	N	N	run/o&m/run
03/04/15	30760	55	3605	104	296	226	5.9	632	32818	109114	0	N	N	run/o&m/run
03/11/15	30928	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 8"
03/20/15	30929	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 9"
03/24/15	31018	30	2550	104	209	355	3.2	645	33372	109187	0	N	Y	run/o&m,ted/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300

SYSTEM READINGS

SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
04/01/15	31212	55	3400	127	268	261	2.5	662	33969	109232	0	N	N	run/o&m/run
04/06/15	31331	58	3445	125	273	200	4.1	665	33739	109265	0	N	N	run/o&m/run
04/13/15	31499	62	3467	122	276	189	2.1	669	34329	109313	0	N	N	run/o&m/run
04/21/15	31663	59	3410	109	278	355	5.8	667	34696	109360	4.25	N	N	run/o&m/run
04/27/15	31686	57	3460	113	280	873	8.2	635	34747	109370	0	N	Y	run/o&m,ted/run
05/04/15	31771	NT	NT	NT	NT	NT	NT	NT	NT	109396	0	N	N	down/o&m/run
05/05/15	31772	NT	NT	NT	NT	NT	NT	NT	34918	109396	0	N	N	down/o&m/run
05/11/15	31893	65	3560	123	283	410	3.4	660	35179	109404	0	N	N	run/o&m/run
05/18/15	332081	60	3460	127	273	262	1.5	664	35579	109480	0	N	N	run/o&m/run
05/26/15	32228	50	3380	130	265	500	1.2	663	NT	109517	0	N	Y	run/o&m,ted/run
06/01/15	32373	50	3360	143	258	740	0.7	664	NT	109556	0	N	N	run/o&m/run
06/08/15	32540	60	3485	128	275	280	0.5	663	36556	109599	0	N	N	run/o&m/run
06/16/15	32731	64	4500	125	356	187	1.1	665	36760	109656	10	N	N	run/o&m/down
06/24/15	32852	50	4500	127	355	130	0.5	663	NT	109688	0	N	Y	run/o&m,ted/run
07/06/15	32998	50	4700	130	369	150	0.4	652	NT	NT	0	N	Y	run/o&m,ted/run
07/14/15	33165	52	4500	133	352	62.4	7	656	NT	109733	3	N	N	run/o&m/run
07/21/15	33314	54	4300	128	339	68	0.9	650	NT	109814	0	N	N	run/o&m/run
07/28/15	33484	65	5000	133	391	108	2.1	650	NT	109861	0	N	Y	run/o&m,ted/run
08/07/15	33646	65	5000	130	393	69.9	5	649	NT	109899	0	N	N	run/o&m/run
08/11/15	33740	60	4700	122	374	98.1	1.2	652	39114	109924	0	N	N	run/o&m/run
08/21/15	33952	50	4200	124	333	82.2	1.6	650	NT	109954	0	N	N	run/o&m/run
09/03/15	33983	30	3900	123	310	1322	8.1	656	NT	109961	0	N	Y	run/o&m,ted/run
09/09/15	34125	45	5000	122	398	351	9.3	653	NT	109990	0	N	N	run/o&m/run
09/15/15	34271	58	5000	128	394	78	1.8	656	NT	110024	0	N	N	run/o&m/run
09/22/15	34435	40	5500	125	436	33.3	4.4	656	NT	110064	0	N	N	run/o&m/run
09/24/15	34461	40	5300	123	421	48.1	0.5	653	40658	110070	4	N	N	run/o&m/run
09/28/15	34558	50	5400	127	426	73.4	1	645	NT	110093	0	N	Y	run/o&m,ted/run
10/05/15	34727	45	5300	125	420	65.8	0.8	650	41253	110133	0	N	N	run/o&m/run
10/12/15	34802	58	5000	123	397	62.6	0.1	650	41712	110151	0	N	N	run/o&m/run
10/19/15	34969	50	3500	132	274	91.7	0.2	650	NT	110191	0	N	N	run/o&m/run
10/26/15	35111	40	5000	124	397	60.8	0	650	NT	110221	0	N	Y	run/o&m,ted/down
11/24/15	35278	47	4400	116	354	2200	1.7	650	NT	NT	0	N	N	run/o&m/run
12/01/15	35442	40	3200	98	265	1100	1.5	651	NT	NT	0	N	Y	run/o&m,ted/down
12/11/15	35681	35	4300	92	361	720	1.8	650	NT	NT	0	N	N	run/o&m/run
12/14/15	35730	35	4300	89	362	680	1.6	650	NT	NT	0	N	N	run/o&m/run
12/21/15	35899	40	3200	91	269	1000	1.9	653	NT	NT	0	N	N	run/o&m/run
12/28/15	36062	42	3000	90	252	440	0.3	656	NT	00155	0	N	N	run/o&m/run
01/05/16	36255	42	3000	100	248	1100	200	650	44284	00197	0	N	Y	run/o&m,ted/down

PSC: TFS-10

O&M

CLIENT NAME:

CTES

Job # 041300

SYSTEM READINGS

SITE LOCATION:

TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
01/13/16	36447	46	3000	112	243	23	0.6	650	44614	00240	0	N	N	run/o&m/run
01/19/16	36591	36	3300	108	269	15	0.2	650	44849	00280	0	N	N	run/o&m, wells/run
01/26/16	36711	55	5000	98	415	968	3.7	651	45105	00307	0	N	N	run/o&m/run
02/05/16	36844	40	3300	93	276	2683	0.8	654	45325	00346	0	N	N	down/o&m/run
02/12/16	37012	38	3200	121	255	744	2.1	652	NT	00392	0	N	N	run/o&m/run
02/15/16	37083	38	3200	117	257	34	0	653	NT	00401	0	N	Y	run/o&m,ted,wells/down
02/22/16	37106	40	3200	112	259	207	3.2	658	45754	00408	0	N	N	down/o&m/run
03/01/16	37298	40	3200	124	254	188	1.5	649	46063	00457	0	N	N	run/o&m/run
03/08/16	37462	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 10"
04/05/16	37467	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
04/06/16	37491	53	3200	135	249	6.4	0	647	46498	00512	0	N	N	run/o&m/run
04/14/16	37683	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	run/monthly wells/run
04/23/16	37876	71	2100	150	160	92	0.4	649	47276	00640	0	N	N	run/o&m/run
04/29/16	37966	50	5400	136	420	118	2.6	655	47606	00610	0	N	Y	run/o&m,ted/run
05/04/16	38085	50	3088	139	239	28	0	649	47856	00630	0	N	N	run/o&m/down
05/10/16	38085	50	3143	108	256	98	0	679	47856	00630	0	N	N	down/O&M, wells/run
05/20/16	38184	40	3075	140	238	86	0	655	NT	00650	0	N	N	run/o&m/run
05/24/16	38281	49	2416	154	182	832	2.1	681	NT	00668	0	N	Y	run/o&m,ted/run
06/02/16	38497	34	6100	144	468	7.5	0	634	NT	00724	0	N	N	run/o&m/run
06/17/16	38592	33	6100	149	464	17	0	632	NT	00752	0	N	N	run/o&m,wells/run
06/21/16	38684	15	4264	140	329	576	0	658	NT	00766	0	N	N	run/o&m/run
06/30/16	38899	10	4155	109	338	274	0	644	NT	00821	0	N	N	run/o&m/run
07/07/16	39067	52	2231	170	164	36	0	649	NT	00872	0	N	N	run/o&m/run
07/12/16	39187	54	2105	175	154	527	0	763	NT	00894	0	N	Y	run/o&m,ted/run
07/19/16	39354	55	2088	171	154	2729	0	637	NT	00935	0	N	N	run/o&m,wells/run
07/22/16	39397	50	2122	162	158	156	2.9	655	NT	00945	0	N	Y	run/o&m,ted/run
07/30/16	39591	50	1600	154	121	125	1.3	656	1535	00981	0	N	N	run/o&m/run
08/03/16	39688	52	2131	155	161	169	0.2	716	NT	00999	0	N	N	run/o&m/run
08/12/16	39903	51	2068	151	157	614	2.1	805	NT	01057	0	N	N	run/o&m/run
08/16/16	40001	52	2110	153	160	177	3.2	661	NT	01080	0	N	N	run/o&m,wells/run
08/25/16	40195	50	4700	140	363	439	3.4	643	NT	01119	0	N	Y	run/o&m,ted/run
08/30/16	40310	50	2075	135	162	1042	2.8	643	NT	01140	0	N	N	run/o&m/run
09/08/16	40527	50	2108	141	163	916	3.3	645	NT	01199	0	N	N	run/o&m/run
09/15/16	40692	50	2493	150	189	764	2.8	779	NT	01244	0	N	Y	run/o&m,ted/run
09/22/16	40866	50	2225	131	174	126	2.0	653	NT	01285	0	N	N	run/o&m/down
09/28/16	40867	50	2178	138	169	211	1.6	655	NT	01287	0	N	N	down/o&m/run
10/06/16	41059	50	3830	124	304	1849	13.6	742	NT	01322	0	N	N	run/o&m/run
10/12/16	41201	50	2576	149	196	122	0.6	721	NT	01356	1	N	N	run/o&m/run

PSC: TFS-10

O&M

CLIENT NAME: CTES Job # 041300

SYSTEM READINGS

SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
10/18/16	41346	48	2693	147	206	162	7.1	651	NT	01383	0	N	Y	run/o&m,tcd/run
10/26/16	41532	50	2744	142	211	NT	NT	633	04912	NT	0	N	N	run/o&m/down
11/02/16	41677	NT	NT	NT	NT	NT	NT	NT	NT	01433	0	N	N	run/o&m/down
11/04/16	41680	46	2522	117	202	805	1.7	811	NT	01444	0	N	Y	down/o&m,tcd/run
11/10/16	41827	46	2591	125	205	741	2.3	742	NT	01478	0	N	N	run/o&m/run
11/14/16	41923	48	2659	127	210	253	0.5	753	NT	01501	0	N	N	down/o&m/run
11/22/16	42088	46	2575	109	210	747	9.2	734	NT	01540	1	N	Y	run/o&m,tcd/run
11/30/16	42237	50	3071	112	249	720	12	622	NT	01563	0	N	N	run/o&m/run
12/08/16	42429	48	2816	106	230	807	4.7	765	06684	01609	0.75	N	N	run/o&m/run
12/15/16	42593	50	2761	110	224	316	7.6	746	07014	01653	0.75	N	N	run/o&m/down
12/21/16	42594	50	3295	120	263	429	2.3	701	07017	01654	0.75	N	Y	down/o&m,tcd/run
12/28/16	42760	55	3350	115	270	672	10	767	07372	01686	0.75	N	N	run/o&m/run
01/04/17	42928	55	3271	112	265	502	6.6	724	07731	01729	0.75	N	N	run/o&m/run
^a Reading was taken approximately 8-inches from the original location were the first two readings were collected.														
^b Reading was taken from system display screen.														
^c New natural gas meter was installed on August 10, 2012.														
Note 1: Multiple system readings were collected with initial air sparge start up and optimize air sparge system.														
Note 2: Multiple system readings were collected to optimize air sparge equipment.														
Note 3: System was shutdown for City of Tucson sampling event and NAPL fingerprint assessment.														
Note 4: Lori Ehman with City of Tucson was on-site and informed Cardno of upcoming well test and asked Cardno to postpone LNAPL until well testing is complete.														
Note 5: Bill with the City of Tucson re-started the system with dilution open and Air Sparge system off.														
Note 6: Re-started Air Sparge system.														
Note 7: The remediation system was shut down due to poor destruction. Inspect the catalytic plate.														
Note 8: Contacted by Bill Ramber with the City of Tucson and was told that the remediation system was shutdown for annual groundwater sampling. OP hours were recorded and no additional readings were collected.														
Note 9: After completion of annual groundwater sampling, system was restarted by City of Tucson. OP hours were recorded and no additional readings were collected.														
Note 10: Bill Ramber with the City of Tucson, notified Cardno that the remediation system was shutdown for annual sampling. Monthly well readings were collected, during remedial shutdown. On March Cardno was informed that the system would remain shutdown until the blower was replaced. The blower was replaced and the system was restarted on April 5, 2016.														
* Pre-compliance sample event, due to sample results from 8/12/13 showing poor destruction "NOT COMPLIANCE SAMPLE".														
Highlighted cells indicate vapor sampling events.														

APPENDIX B

HISTORICAL TPH MASS REMOVAL TABLE AND GRAPHS

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Aug-02	228	228	4,050	592	99	592	99
Solleco 500	Sep-02	324	552	6,500	1,501	250	2,093	349
Solleco 500	Oct-02	360	912	6,100	1,174	196	3,267	545
Solleco 500	Oct-02	344	1,256	4,400	750	125	4,016	670
Solleco 500	Oct-02	145	1,402	8,650	707	118	4,724	788
Solleco 500	Nov-02	339	1,741	4,100	798	133	5,522	921
Solleco 500	Dec-02	664	2,405	1,900	762	127	6,283	1,048
Solleco 500	Jan-03	359	2,764	1,900	489	82	6,772	1,129
Solleco 500	Feb-03	1,104	3,868	2,200	1,395	233	8,167	1,362
Solleco 500	Mar-03	454	4,322	3,650	986	164	9,153	1,526
Solleco 500	Oct-04	264	4,586	337	21,985	3,575	31,138	5,101
Solleco 500	Oct-04	408	4,994	447	784	131	31,922	5,231
Solleco 500	Nov-04	384	5,378	328	979	163	32,901	5,394
Solleco 500	Dec-04	336	5,714	118	629	105	33,530	5,499
Solleco 500	Dec-04	528	6,242	272	355	59	33,885	5,558
Solleco 500	Feb-05	312	6,554	455	484	81	34,369	5,639
Solleco 500	Mar-05	1,536	8,090	557	3,987	665	38,356	6,304
Solleco 500	May-05	840	8,930	220	2,669	445	41,025	6,748
Solleco 500	Jun-05	408	9,338	378	512	85	41,537	6,834
Solleco 500	Jul-05	720	10,058	1,500	1,553	259	43,090	7,093
Solleco 500	Aug-05	768	10,826	1,500	6,572	1,095	49,662	8,188
Solleco 500	Sep-05	744	11,570	1,508	6,367	638	56,029	8,826
Solleco 500	Oct-05	672	12,242	1,612	7,156	1,193	63,185	10,018
Solleco 500	Nov-05	624	12,866	988	4,073	679	67,258	10,697
Solleco 500	Dec-05	528	13,394	1,508	5,260	877	72,518	11,574
Solleco 500	Jan-06	864	14,258	1,196	6,827	1,138	79,345	12,712
Solleco 500	Feb-06	792	15,050	936	4,897	816	84,242	13,528
Solleco 500	Mar-06	720	15,770	1,101	5,237	873	89,479	14,401
Solleco 500	Apr-06	816	16,586	1,300	7,008	1,168	96,487	15,569
Solleco 500	May-06	552	17,138	1,508	5,499	917	101,986	16,485
Solleco 500	Jun-06	840	17,978	624	3,463	577	105,449	17,062
Solleco 500	Jul-06	792	18,770	1,326	6,938	1,156	112,387	18,219
Solleco 500	Aug-06	336	19,106	1,664	3,694	616	116,081	18,834
Solleco 500	Sep-06	984	20,090	2,800	18,528	3,088	134,609	21,922
Solleco 500	Jan-07	2,472	22,562	2,500	46,546	7,758	181,154	29,680
Solleco 500	Jan-07	312	22,874	3,500	5,875	979	187,029	30,659
Solleco 500	Mar-07	2,616	25,490	3,300	49,257	8,210	236,286	38,868
Solleco 500	Aug-07	2,736	28,226	8,500	76,619	12,770	312,905	51,638
Solleco 500	Oct-07	1,032	29,258	11,000	28,900	4,817	341,806	56,455
Solleco 500	Jan-08	2,376	31,634	910	66,538	11,090	408,344	67,545
Solleco 500	Mar-08	1,392	33,026	980	38,982	6,497	447,325	74,042
Solleco 500	Jun-08	864	33,890	610	24,453	4,076	471,778	78,117
Solleco 500	Sep-08	2,112	36,002	500	7,190	1,198	478,968	79,315
Solleco 500	Nov-08	1,248	37,250	800	6,798	1,133	485,766	80,448
Solleco 500	Nov-08	192	37,442	600	784	131	486,550	80,579
Solleco 500	Dec-08	816	38,258	690	3,833	639	490,383	81,218

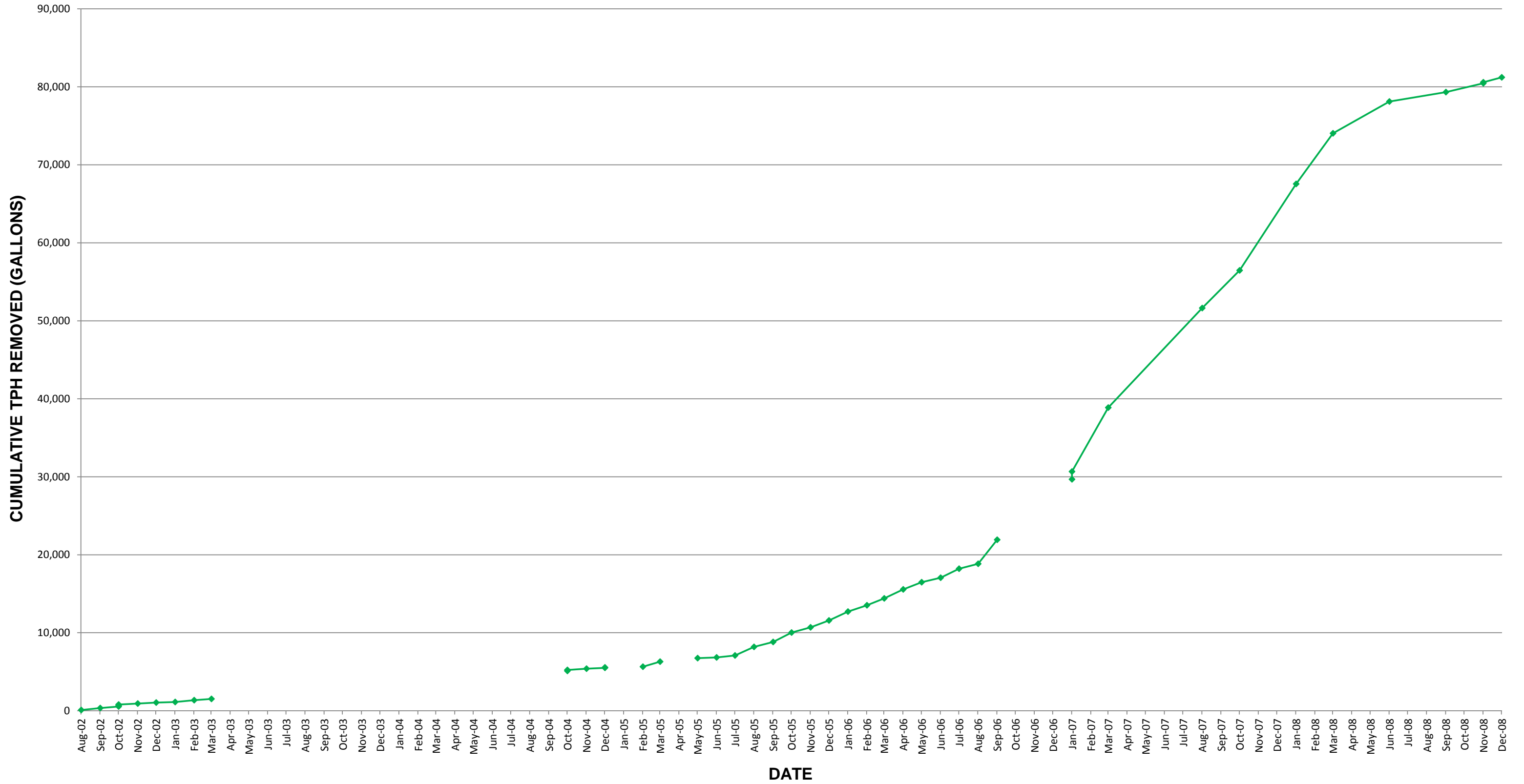
APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 2 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Jan-09	696	38,954	630	2,985	498	493,368	81,715
Solleco 500	Apr-09	2,624	41,578	320	5,716	953	499,084	82,668
Solleco 500	Aug-09	1,068	42,646	510	2,950	492	502,035	83,160
Solleco 500	Nov-09	2,232	44,878	560	6,166	1,028	508,201	84,187
Solleco 500	Mar-10	2,448	47,326	470	6,763	1,127	514,963	85,315
Solleco 500	Aug-10	2,712	50,038	330	7,492	1,249	522,455	86,563
Solleco 500	Nov-10	1,776	51,814	170	7,119	1,186	529,574	87,750
Solleco 500	Mar-11	2,784	54,598	207	11,159	1,860	540,733	89,610
Solleco 500	Jul-11	2,592	57,190	498	10,390	1,732	551,123	91,341
Solleco 500	Sep-11	1,680	58,870	1,160	6,734	1,122	557,857	92,464
Solleco 500	Dec-11	1,094	59,964	901	4,387	731	562,244	93,195
Solleco 500	Apr-12	96	60,060	252	77	13	562,320	93,208
Solleco 500	Apr-12	143	60,203	306	143	24	562,463	93,231
Solleco 500	May-12	524	60,727	164	262	44	562,725	93,275
Solleco 500	May-12	170	60,897	395	323	54	563,048	93,329
Solleco 500	May-12	45	60,942	251	63	11	563,111	93,339
Solleco 500	May-12	79	61,021	263	119	20	563,230	93,359
Solleco 500	May-12	192	61,213	263	288	48	563,518	93,407
Solleco 500	May-12	141	61,354	435	437	73	563,955	93,480
Solleco 500	Jun-12	144	61,498	236	173	29	564,128	93,509
Solleco 500	Jun-12	288	61,786	307	634	106	564,761	93,615
Solleco 500	Jun-12	189	61,975	347	473	79	565,234	93,693
Solleco 500	Aug-12	3,321	63,285	630	15,611	2,602	580,845	96,295
Solleco 500	Sep-12	213	63,498	810	1,263	211	582,108	96,506
Solleco 500	Sep-12	94	63,592	880	602	100	582,710	96,606
Solleco 500	Sep-12	145	63,737	900	945	158	583,655	96,764
Solleco 500	Oct-12	166	63,903	1,100	1,331	222	584,986	96,985
Solleco 500	Oct-12	166	64,069	320	393	66	585,379	97,051
Solleco 500	Oct-12	237	64,306	1,100	1,941	324	587,320	97,374
Solleco 500	Oct-12	67	64,373	730	368	61	587,688	97,436
Solleco 500	Nov-12	360	64,733	460	1,339	223	589,027	97,659
Solleco 500	Nov-12	474	65,207	440	1,281	214	590,308	97,872
Solleco 500	Dec-12	335	65,542	590	1,241	207	591,549	98,079
Solleco 500	Jan-13	476	66,018	760	1,383	231	592,932	98,310
Solleco 500	Jan-13	452	66,470	460	1,290	215	594,222	98,525
Solleco 500	Feb-13	405	66,875	370	853	142	595,075	98,667
Solleco 500	Apr-13	818	67,693	900	4,864	811	599,939	99,478
Solleco 500	Jul-13	1,248	68,941	767	4,553	759	604,492	100,236
Solleco 500	Aug-13	578	69,519	579	1,659	277	606,151	100,513
Solleco 500	Nov-13	884	70,403	891	3,783	631	609,934	101,143
Solleco 500	Dec-13	817	71,220	619	2,547	425	612,481	101,568
Solleco 500	Jan-14	950	72,170	1,210	5,789	965	618,270	102,533
Solleco 500	Feb-14	626	72,796	765	2,203	367	620,473	102,900
Solleco 500	Mar-14	342	73,138	1,350	1,629	272	622,102	103,171
Solleco 500	Apr-14	429	73,567	705	1,189	198	623,291	103,370
Solleco 500	May-14	722	74,289	753	2,087	348	625,378	103,717

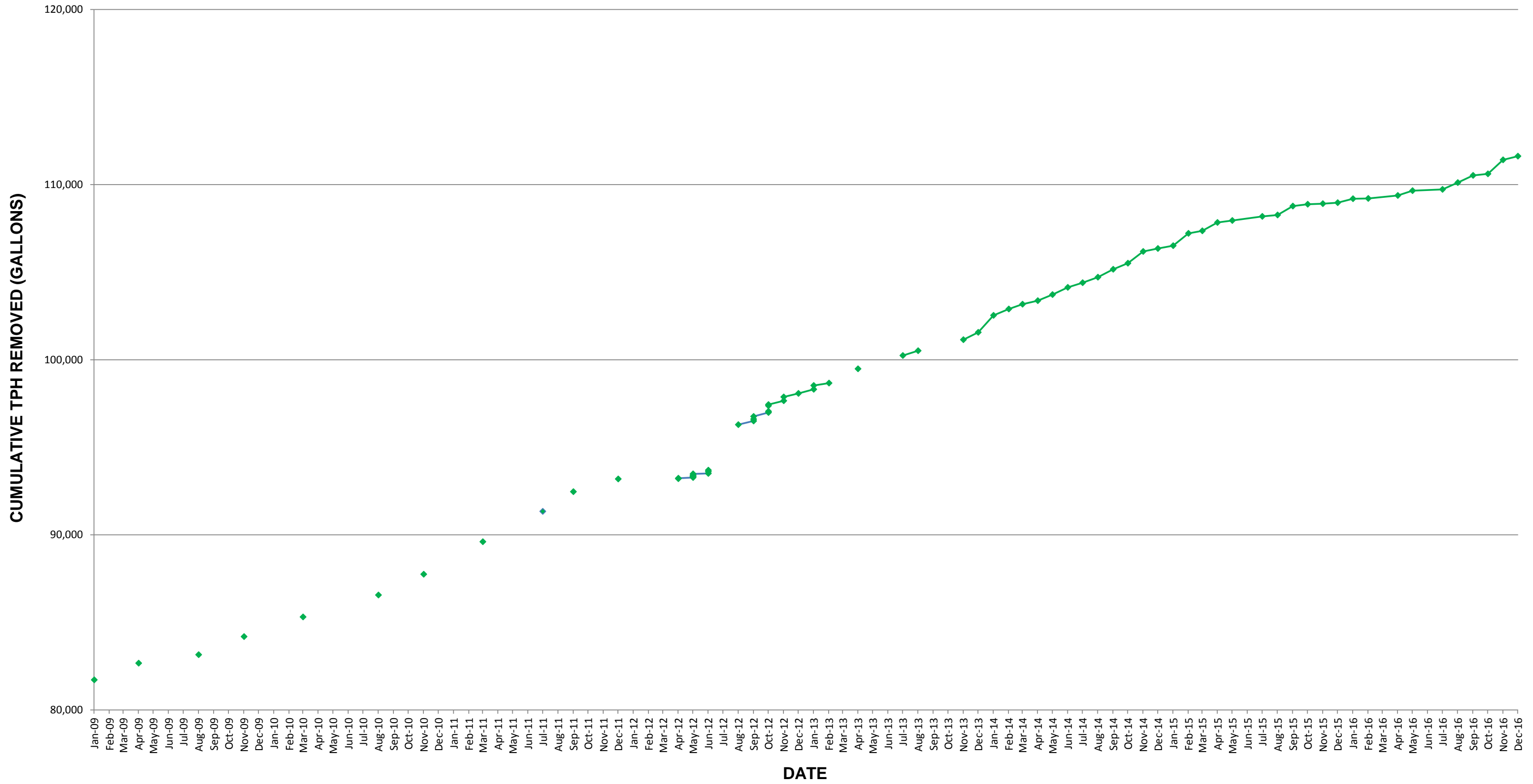
APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
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SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Jun-14	454	74,743	1,540	2,467	411	627,845	104,129
Solleco 500	Jul-14	717	75,460	658	1,621	270	629,466	104,399
Solleco 500	Aug-14	561	76,021	958	1,880	313	631,346	104,712
Solleco 500	Sep-14	777	76,798	965	2,739	457	634,085	105,169
Solleco 500	Oct-14	442	77,240	1,260	2,052	342	636,137	105,511
Solleco 500	Nov-14	974	78,214	1,010	4,037	673	640,174	106,183
Solleco 500	Dec-14	667	78,881	398	990	165	641,164	106,348
Solleco 500	Jan-15	690	79,571	358	1,010	168	642,174	106,516
Solleco 500	Feb-15	665	80,236	1,410	4,183	697	646,357	107,213
Solleco 500	Mar-15	595	80,831	463	895	149	647,252	107,362
Solleco 500	Apr-15	668	81,499	979	2,846	474	650,098	107,836
Solleco 500	May-15	542	82,041	298	665	111	650,763	107,947
Solleco 500	Jul-15	770	82,811	319	1,409	235	652,172	108,182
Solleco 500	Aug-15	486	83,297	162	479	80	652,651	108,262
Solleco 500	Sep-15	499	83,796	1,280	3,078	513	655,729	108,775
Solleco 500	Oct-15	575	84,371	160	609	102	656,338	108,877
Solleco 500	Nov-15	331	84,702	65.5	224	37	656,562	108,914
Solleco 500	Dec-15	542	85,244	222	303	50	656,865	108,964
Solleco 500	Jan-16	813	86,057	442	1,385	231	658,250	109,195
Solleco 500	Feb-16	828	86,885	<23.3	77	13	658,327	109,208
Solleco 500	Apr-16	883	87,768	175	1,009	168	659,336	109,376
Solleco 500	May-16	315	88,083	1,880	1,675	279	661,011	109,655
Solleco 500	Jul-16	1,116	89,199	164	450	75	661,461	109,730
Solleco 500	Aug-16	798	89,997	512	2,305	384	663,766	110,114
Solleco 500	Sep-16	497	90,494	1,680	2,453	409	666,219	110,523
Solleco 500	Oct-16	654	91,148	251	526	88	666,745	110,611
Solleco 500	Nov-16	742	91,890	1,980	4,796	799	671,541	111,410
Solleco 500	Dec-16	506	92,396	614	1,270	212	672,811	111,622

- | | | |
|-----|---|---|
| (1) | = Soil vapor extraction (SVE) well | Remediation information reported by Hydro Geo Chem |
| (2) | = Air infiltration/injection well | Remediation information reported by Groundwater Technology |
| (3) | = Nested vadose zone monitoring probe | Remediation information reported by Fluor Daniel GTI |
| (4) | = System was shutdown November 1995 and was replaced with a 500-scfm | Remediation information reported by The IT Group |
| (5) | = System was started on February 13, 1996 | Remediation information reported by SCS Engineers |
| (6) | = System was shutdown January 2001 and was replaced with a Paragon ET-150 | Remediation information reported by Clear Creek Associates |
| (7) | = System was shutdown September 4, 2002 and was restarted on November 4, 2002 | Remediation information reported by City of Tucson |
| (8) | = System was shutdown December 31, 2002 for rebound recovery evaluation | Average influent concentration
Remediation information reported by Cardno
Mass removal estimated using PID measurements |



**TFS-10 HISTORICAL TPH MASS REMOVAL
(2002 THROUGH 2008)**



**TFS-10 HISTORICAL TPH MASS REMOVAL
(2009 THROUGH 2016)**