GW - 001

C-141s
(6 of 7)

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, June 01, 2010 2:48 PM
To: 'Schmaltz, Randy'; Monzeglio, Hope, NMENV
Cc: Robinson, Kelly; Hurtado, Cindy
Subject: RE: Groundwater Discovery

Randy:

Good afternoon. Some questions based on the discovery.

Is this a former or a new seep area or location? If so, do you know why it occurred or is occurring now?
A description of system to "catch" the groundwater would be appreciated? Also, how will the waste water system treat the contaminated ground water?
Has Western evaluated the potential discharge location(s) along the river and conducted any analytical surface water sampling along the river to assess any discharge of ground water or via overland flow into the river?

Please clarify the above and/or any followup plans based on the above to assess impacts to the river. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Schmaltz, Randy [mailto:Randy.Schmaltz@wnr.com]
Sent: Tuesday, June 01, 2010 2:33 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD
Cc: Robinson, Kelly; Hurtado, Cindy
Subject: Groundwater Discovery

Hope & Carl,

On Wednesday, May 19, 2010 during the bi-monthly visual inspections of area north of the refinery, Bloomfield found a new area where groundwater had surfaced. This new area is located north of the raw water ponds and is shown on the attached property map. A sample was collected on that day and analyzed for BTEX and MTBE using method 8260. Results were received on May 26, 2010 showing benzene at 110 ug/l. Bloomfield collected confirmation split samples on May 26, 2010, and received results from Envirotech Analytical Laboratory on June 1, 2010 showing benzene at 167 ug/l. Results from Hall Environmental Analysis Laboratory are still pending.

Bloomfield is currently installing a system to catch this groundwater, which will be transported to the refinery's wastewater system. Bloomfield will collect weekly samples of this captured water and will analyze for BTEX and MTBE. Bloomfield will provide a monthly summary on sample results and progress.

Randy Schmaltz
Environmental Manager

Western Refining Southwest, Inc.
Bloomfield Refinery
#50 County Road 4990
Bloomfield, New Mexico 87413
(505) 632-4171

(505) 320-6989
email: randy.schmaltz@wnr.com

Chavez, Carl J, EMNRD

From: Schmaltz, Randy [Randy.Schmaltz@wnr.com]
Sent: Tuesday, June 01, 2010 2:33 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD
Cc: Robinson, Kelly; Hurtado, Cindy
Subject: Groundwater Discovery
Attachments: Groundwater to surface location map.pdf; Groundwater to surface - Envirotech.pdf; Groundwater to surface - Hall.pdf

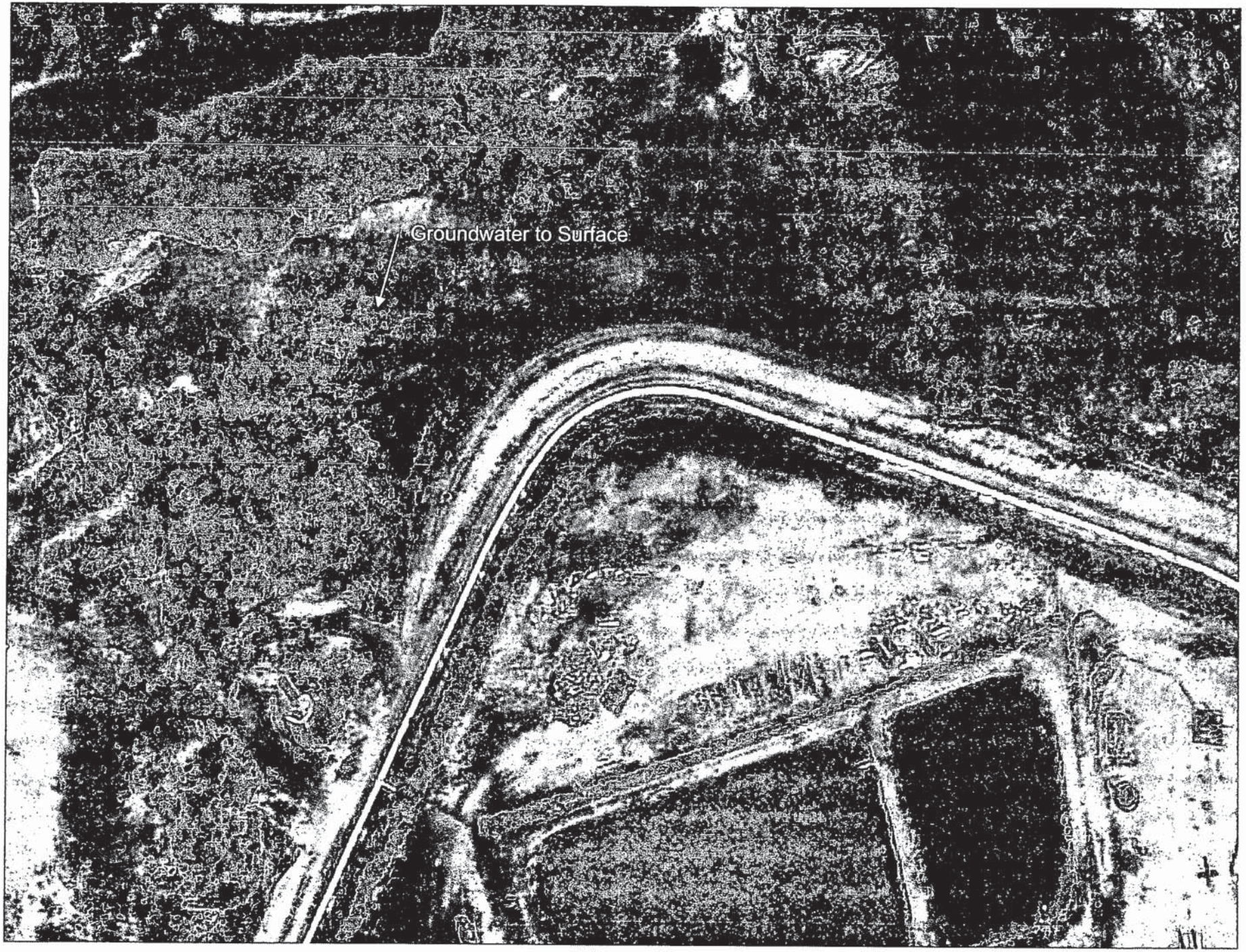
Hope & Carl,

On Wednesday, May 19, 2010 during the bi-monthly visual inspections of area north of the refinery, Bloomfield found a new area where groundwater had surfaced. This new area is located north of the raw water ponds and is shown on the attached property map. A sample was collected on that day and analyzed for BTEX and MTBE using method 8260. Results were received on May 26, 2010 showing benzene at 110 ug/l. Bloomfield collected confirmation split samples on May 26, 2010, and received results from Envirotech Analytical Laboratory on June 1, 2010 showing benzene at 167 ug/l. Results from Hall Environmental Analysis Laboratory are still pending.

Bloomfield is currently installing a system to catch this groundwater, which will be transported to the refinery's wastewater system. Bloomfield will collect weekly samples of this captured water and will analyze for BTEX and MTBE. Bloomfield will provide a monthly summary on sample results and progress.

Randy Schmaltz
Environmental Manager

Western Refining Southwest, Inc.
Bloomfield Refinery
#50 County Road 4990
Bloomfield, New Mexico 87413
(505) 632-4171
(505) 320-6989
email: randy.schmaltz@wnr.com


Groundwater to Surface

envirotech
Analytical Laboratory

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Western Refining	Project #:	96012-0009
Sample ID:	East Fork	Date Reported:	05-31-10
Chain of Custody:	9482	Date Sampled:	05-26-10
Laboratory Number:	54455	Date Received:	05-26-10
Sample Matrix:	Aqueous	Date Analyzed:	05-27-10
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	167	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	ND	1	0.2
o-Xylene	ND	1	0.1
Total BTEX	167		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	**113 %**
	1,4-difluorobenzene	**101 %**
	4-bromochlorobenzene	**122 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Drainage North of TK #38**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, May 25, 2010

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: 5-19-10 Drainage North of TK#38

Order No.: 1005560

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 5/20/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

FOR Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *25-May-10*

CLIENT: Western Refining Southwest, Inc.
Project: 5-19-10 Drainage North of TK#38

Lab Order: 1005560

Lab ID: 1005560-01 **Collection Date:** 5/19/2010 2:15:00 PM
Client Sample ID: West Fork **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: HL
Benzene	ND	1.0		µg/L	1	5/20/2010 5:23:50 PM
Toluene	ND	1.0		µg/L	1	5/20/2010 5:23:50 PM
Ethylbenzene	ND	1.0		µg/L	1	5/20/2010 5:23:50 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/20/2010 5:23:50 PM
Xylenes, Total	ND	2.0		µg/L	1	5/20/2010 5:23:50 PM

Lab ID: 1005560-02 **Collection Date:** 5/19/2010 2:25:00 PM
Client Sample ID: East Fork **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: HL
Benzene	110	5.0		µg/L	5	5/21/2010 6:03:59 PM
Toluene	ND	1.0		µg/L	1	5/20/2010 6:52:11 PM
Ethylbenzene	ND	1.0		µg/L	1	5/20/2010 6:52:11 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/20/2010 6:52:11 PM
Xylenes, Total	ND	2.0		µg/L	1	5/20/2010 6:52:11 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: 5-19-10 Drainage North of TK#38 **Work Order:** 1005560

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 1005560-01a msd		*MSD*				Batch ID:	R38830	Analysis Date:		5/20/2010 6:22:54 PM	
Benzene	20.31	µg/L	1.0	20	0	102	72.4	126	0.138	20	
Toluene	21.54	µg/L	1.0	20	0	108	79.2	115	1.72	20	
Sample ID: 5ml rb		*MBLK*				Batch ID:	R38830	Analysis Date:		5/20/2010 8:45:56 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 5ml rb		*MBLK*				Batch ID:	R38844	Analysis Date:		5/21/2010 8:57:02 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 5ml rb		*MBLK*				Batch ID:	R38830	Analysis Date:		5/20/2010 8:45:56 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100ng lcs		*LCS*				Batch ID:	R38830	Analysis Date:		5/20/2010 10:54:22 AM	
Benzene	20.06	µg/L	1.0	20	0	100	82.4	116			
Toluene	22.33	µg/L	1.0	20	0	112	89.5	123			
Sample ID: 100ng lcs		*LCS*				Batch ID:	R38844	Analysis Date:		5/21/2010 10:19:50 AM	
Benzene	18.82	µg/L	1.0	20	0	94.1	82.4	116			
Toluene	21.74	µg/L	1.0	20	0	109	89.5	123			
Sample ID: 100ng lcs		*LCS*				Batch ID:	R38830	Analysis Date:		5/20/2010 10:54:22 AM	
Benzene	20.06	µg/L	1.0	20	0	100	82.4	116			
Toluene	22.33	µg/L	1.0	20	0	112	89.5	123			
Sample ID: 1005560-01a ms		*MS*				Batch ID:	R38830	Analysis Date:		5/20/2010 5:53:38 PM	
Benzene	20.28	µg/L	1.0	20	0	101	72.4	126			
Toluene	21.91	µg/L	1.0	20	0	110	79.2	115			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT — *Date Received:* 5/20/2010

Work Order Number 1005560 — Received by: TLS

Checklist completed by: _____ 5/20/10 — Sample ID labels checked by: _____

Signature — Date — Initials

Matrix: — Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	4.0°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining

Mailing Address: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: 5-19-10
DRAINAGE North of TK# 38

Project #:

Project Manager:

Sampler: Cindy & Bob

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1005360	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) BTEX, MTBE only	8270 (Semi-VOA)	Air Bubbles (Y or N)
5-19-10	2:15	H_2O	West Fork	3-VOA	HCl	1										X		
5-19-10	2:25	H_2O	East Fork	3-VOA	HCl	2										X		

Date: 5-19-10 Time: 3:00 Relinquished by: Robert Knabow Received by: _____ Date _____ Time 1015

Date: _____ Time: _____ Relinquished by: _____ Received by: _____ Date _____ Time _____

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chavez, Carl J, EMNRD

From: Schmaltz, Randy [Randy.Schmaltz@wnr.com]
Sent: Monday, January 25, 2010 2:09 PM
To: Chavez, Carl J, EMNRD
Subject: RE: Tank #33 Discharge Water

Carl,

This all goes as far back as 2003 when hydrocarbons were first discovered in the #1 east outfall. This discovery resulted in Western (f.k.a. Giant) installing the #1 East Outfall Collection system.

Briefly, the #1 East Outfall water is collected in Tank #38. This collected water/hydrocarbon is pumped to a separator tank (tank #33) that is set up for gravitational separation of the mixed hydrocarbon effluent. Recovered oil is routed to a horizontal vessel (V-610). The underflow, clarified water, is sampled and routed to the refinery's raw water ponds.

Western is still investigating the recent change in the recovered water.

Thanks
Randy

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Friday, January 22, 2010 1:55 PM
To: Schmaltz, Randy
Subject: RE: Tank #33 Discharge Water

Thanks Randy. I received your phone call, but have been unable to contact you yet.

Was there a discharge to the environment that may require a C-141 notification to the OCD? Could you explain what the fluid and related process is for Tk 33? What caused contamination to get into Tk 33 or exceed regulatory limits? Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Schmaltz, Randy [mailto:Randy.Schmaltz@wnr.com]
Sent: Friday, January 22, 2010 11:49 AM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD
Subject: Tank #33 Discharge Water

This email is a follow up to the phone calls made on 1/14/2010 to NMED and OCD concerning the Tank # 33 discharge.

On January 14, 2010 Western received analytical results showing the discharge water from Tank #33 to be out of compliance. Tank #33 discharge water was immediately rerouted to the frontend of the API Separator and through the wastewater system. This is accomplished by using a vacuum truck to pump out Tank #33 as it fills. Key Energy, a local trucking company has been employed to be on-site continuously to transfer the Tank #33 water to the API Separator.

Randy Schmaltz
Western Refining Southwest, Inc.
Bloomfield Refinery

Main (505) 632-8013
Direct (505) 632-4171
email: randy.schmaltz@wnr.com

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SOIL AND GROUNDWATER INVESTIGATION REPORT

XTO ENERGY, INC.

DAVIS GC F#1E
PRODUCTION WELL SITE
BLOOMFIELD, NEW MEXICO

OCD # TBD

Prepared for:

XTO ENERGY

382 CR-3100
Aztec, New Mexico 87410

Prepared by:

TETRA TECH, INC.

6121 Indian School Rd. NE, Suite 200
Albuquerque, NM 87110
Tetra Tech Project No. 114-690126

September 4, 2009

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FIGURES

TABLES

APPENDICES

SOIL AND GROUNDWATER INVESTIGATION REPORT DAVIS GAS COM F#1E, SAN JUAN COUNTY, NEW MEXICO SEPTEMBER 2009

1.0 INTRODUCTION

This report discusses the soil and groundwater investigation conducted by Tetra Tech, Inc. (Tetra Tech) from August 11 through 19, 2009 at the XTO Energy, Inc. (XTO) Davis Gas Com F#1E site located in Bloomfield, New Mexico (Site). The Site is located in Unit H of Section 27 within Township 29N and Range 11W, of San Juan County, New Mexico (Figure 1). The site layout is illustrated on Figure 2.

1.1 Site Background

On July 9, 2009, XTO's lease operator discovered a small hole in the 90 barrel open-top beneath grade separator tank. The water from the tank was immediately removed, and XTO's construction supervisor was contacted to replace the tank. XTO construction crews discovered impacted soil beneath its former location and excavated approximately 200 cubic yards of sand and river cobble. The excavation stopped at 18' feet below ground surface (bgs) in sandstone bedrock due to sidewall stability concerns. A thin layer of groundwater began seeping in at that depth along the top of the sandstone bedrock. Within the excavation pit, the deepest 2.5' of cobbles (approximately 16-18' bgs) were gray in color, likely representing the groundwater smear zone where soil may have been impacted by a historic release. Potential up-gradient sources are also shown on Figure 1 and include the adjacent San Juan Refinery owned and operated by Western Refining Company and the Jacque #2 gas production well, owned and operated by Holcomb Oil. The subsurface investigation discussed in this report was initiated to better characterize lithology, delineate vertical and lateral extent of impacted soil, and investigate possible up-gradient concerns.

The location and dimensions of the excavation pit advanced during July 2009 and total petroleum hydrocarbon (TPH) results from the associated composite sampling are shown on Figures 2 and 3. Review of those results by the New Mexico Oil Conservation Division (NMOCD), prompted XTO to initiate this investigation.

2.0 SOIL AND GROUNDWATER INVESTIGATION

2.1 Methodology and Results

Beginning on August 11, 2009, Tetra Tech supervised advancement of six potholes at the site by Core Oil Field Services of Waterflow, New Mexico using excavator and backhoe equipment. Figure 2 illustrates the location of the potholes. Three holes were advanced up-gradient of the initial excavation (B1, B2, and B3). Two holes were advanced on the east side of the existing excavation (B4 and B5) and one hole on the south side to plan for additional soil removal (B6). A pothole was not advanced on the west side, due to the presence of four high pressure gas lines located directly adjacent to that side of the excavation. Figure 2 illustrates the approximate locations of the pipelines and identifies ownership. Since the original soil sample collected from the bottom of the west wall contained only 434 parts per million (ppm) total petroleum hydrocarbon (TPH), Brandon Powell, with the NMOCD, who reviewed the initial analytical results, suggested XTO collect an additional composite sample of the west wall and request closure with those results if they were still relatively low or close to the standard of 100 ppm for site remediation required by the NMOCD. This sample was collected prior to additional excavation and had measured TPH of 138 ppm (Figure 3).

Soil from within the potholes was screened in the field for volatile organic compounds, described, and collected for laboratory analysis when the lithology changed or discoloration or hydrocarbon odor was noted. The total depth of potholes was controlled by the depth to groundwater, which was encountered along the top of the sandstone layer at approximately 17 to 18 feet below ground surface in most locations. Potholes containing no impacted soil were backfilled with original material.

The sample from the highest field screening result and the sample from just above the groundwater level in the bottom of each pothole was submitted for laboratory analysis. If no impacts were detected through field screening, only the sample from just above the groundwater level was collected for laboratory analysis. A photo-ionization detector (PID) was used for field screening by the heated headspace method.

The laboratory samples were placed in pre-cleaned glass jars supplied by Hall Environmental Laboratory, labeled with the location, date, time, sampler, and method of analysis and immediately placed on ice. Strict chain-of-custody procedures were followed during transport of the samples to the laboratory. Soil samples were analyzed for benzene, toluene, ethyl-benzene and xylenes (BTEX) and TPH according to USEPA Methods 8021 and 8015B, and anions/cations by USEPA Methods 300.0 and 6010B per NMOCD request. Soil sampling results from the pothole locations are presented in Table 1 and on Figure 2. The complete laboratory reports are attached as Appendix A.

All pothole soil samples were non-detect or below standards for BTEX and TPH, with the exception of B3 (3 feet to 3.5 feet deep), which was collected from an area where black sandy-silt was encountered from approximately two to four feet bgs. B3 was advanced approximately 65 feet north of the Jacque #2 wellhead.

Groundwater accumulated in the bottom of each pothole location, with the exception of B3, which was approximately 17 to 18 feet deep and advanced into the sandstone. The accumulated groundwater was collected from each location using a stainless steel cup attached to a telescoping rod that was lowered into the bottom of the excavations. The sampling device was decontaminated prior to use at each location by rinsing with de-ionized water. All groundwater samples were submitted to Hall Environmental Laboratory for analysis of BTEX and anions/cations according to USEPA Methods 8260B, 300.0, and 6010B. Groundwater sampling results are presented in Table 2 and Figure 2. The complete laboratory reports are attached as Appendix A.

All pothole groundwater results were non-detect or below the New Mexico Water Quality Control Commission (NMWQCC) standards for BTEX. The NMWQCC standard for sulfate was exceeded in potholes B4, B5, and B6 (Figure 2). The NMWQCC standard for chloride was exceeded in B6.

Following pothole advancement, prior to backfilling, it was noted that there was an area with varying degrees of light discoloration in the soil located approximately four to five feet deep in each location. Soil samples for field chloride analysis were collected from B1, B5, B6, and the east wall of the existing excavation for rush turn around at Envirotech, Inc. located in Farmington in order to compare the levels and determine if possible chloride presence could be naturally occurring. The results of those samples are included on Table 1. All pothole soil samples ranged from less than 33 ppm to 55 ppm, while the sample collected from the same depth in the east wall of the existing excavation resulted in 400 ppm chloride. The complete laboratory report is contained in Appendix A.

3.0 EXCAVATION EXPANSION AND ADDITIONAL SOIL REMOVAL

3.1 Methodology and Results

Groundwater from the initial 200 cubic yard excavation was sampled for cations/anions in addition to BTEX and TPH prior to additional soil removal in the area. A vacuum truck operated by Riley Industrial Services was used to purge the water prior to sampling. Sample collection took place the following day on August 12, 2009. Groundwater collected from the excavation prior to additional soil removal contained 3,300 ppm chloride; however, another groundwater sample was collected

following excavation expansion due to the large volume of additional soil removed. This groundwater sample, collected on August 19, 2009, resulted in 590 ppm chloride. BTEX was non-detect or below the standards for both groundwater samples.

The decision to remove additional soil from the excavation was made based on soil sampling results collected during the initial excavation work completed in July 2009 (Figure 3). NMOCD advised additional removal of soil from the north, south, and east walls. This work began on August 13, 2009. Confirmatory soil samples were collected for laboratory analysis of BTEX and TPH by USEPA Methods 8021 and 8015B, and anions/cations by USEPA Methods 300.0 and 6010B. Soil containing white crystallization, PID readings above 100 ppm , hydrocarbon odor, or discoloration were removed from the site for disposal at the Envirotech landfarm located south of Bloomfield, New Mexico. The associated waste manifest documents are attached as Appendix B.

On August 13, 2009, the south wall of the excavation was expanded approximately 25 feet from the original south boundary. Gray material was completely removed to the sandstone layer at approximately 17 feet deep and PID readings no longer indicated hydrocarbon impacts. Confirmatory composite soil samples from the south bottom and the south wall were collected. Laboratory results were non-detect for BTEX and TPH.

On August 14, 2009 the north wall of the excavation was expanded approximately 37 feet north until gray material was completely removed to the sandstone layer at approximately 17 feet deep and PID readings no longer indicated hydrocarbon impacts. Confirmatory composite soil samples from the north bottom and the north wall were collected. Laboratory results were non-detect for BTEX and TPH.

On August 17, 2009 the east wall of the excavation was expanded approximately 22 feet east until the soil containing white crystallization from approximately four to seven feet deep and all gray material from approximately 14 feet to 17 feet deep was removed. Confirmatory composite soil samples from the north bottom and the north wall were collected. Laboratory results were non-detect for BTEX and TPH.

4.0 SUMMARY AND CONCLUSIONS

Approximately 2,180 cubic yards of soil was excavated in situ at the Davis Gas Com F#1E site. Potholes were advanced to determine if the source was up-gradient. The results indicate this is likely a historic release that is not connected to existing up-gradient impacts. All TPH impacts have been removed from the excavation area to below standards with the exception of the west wall,

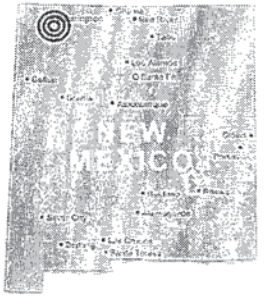
which resulted in 138 ppm TPH. Tetra Tech, on behalf of XTO, requests no further action be taken to remediate soil at the Site in the area of the excavation.

Please contact Kelly Blanchard at 505-237-8440 or kelly.blanchard@tetratech.com if you have any questions or require additional information.

FIGURES

FIGURE 1.

Site Location Map
XTO Energy, Inc.
Davis Gas Com F#1E
Bloomfield, NM



Approximate XTO Energy, Inc.
Davis Gas Com F#1E
Site location

N

TETRA TECH, INC.

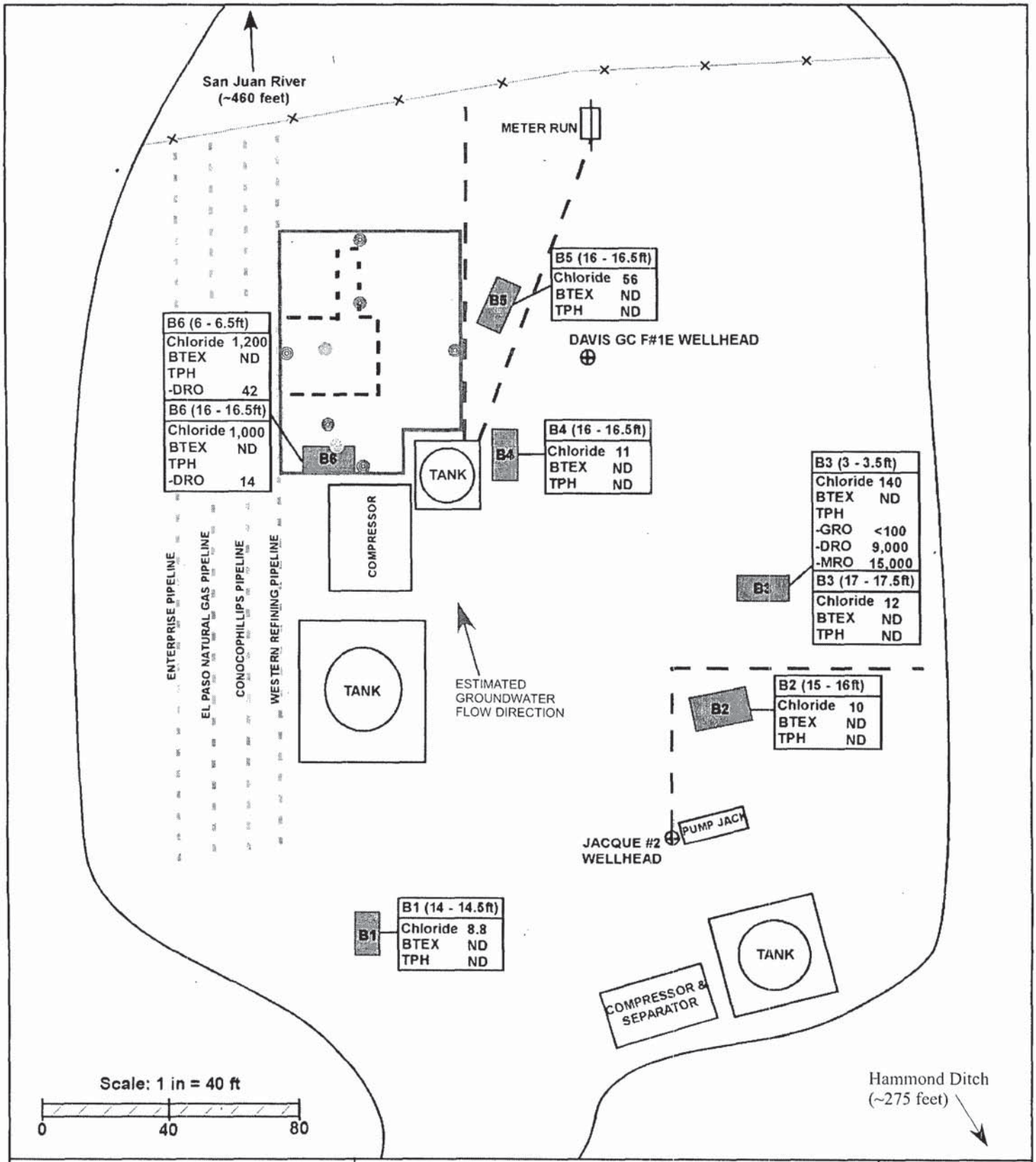


FIGURE 2.
SITE LAYOUT AND
SOIL BORING QUALITY DATA MAP
DAVIS GC F #1E SITE
UNIT H, SEC. 27, T29N, R11W
SAN JUAN COUNTY, NEW MEXICO

LEGEND

- PRODUCT LINE
- APPROXIMATE INITIAL SOIL EXCAVATION (200 CY)
- EXTENDED SOIL EXCAVATION
- SOIL SAMPLE COLLECTION LOCATION
- GROUNDWATER SAMPLE COLLECTION LOCATION
- FENCE LINE

N

TETRA TECH, INC.

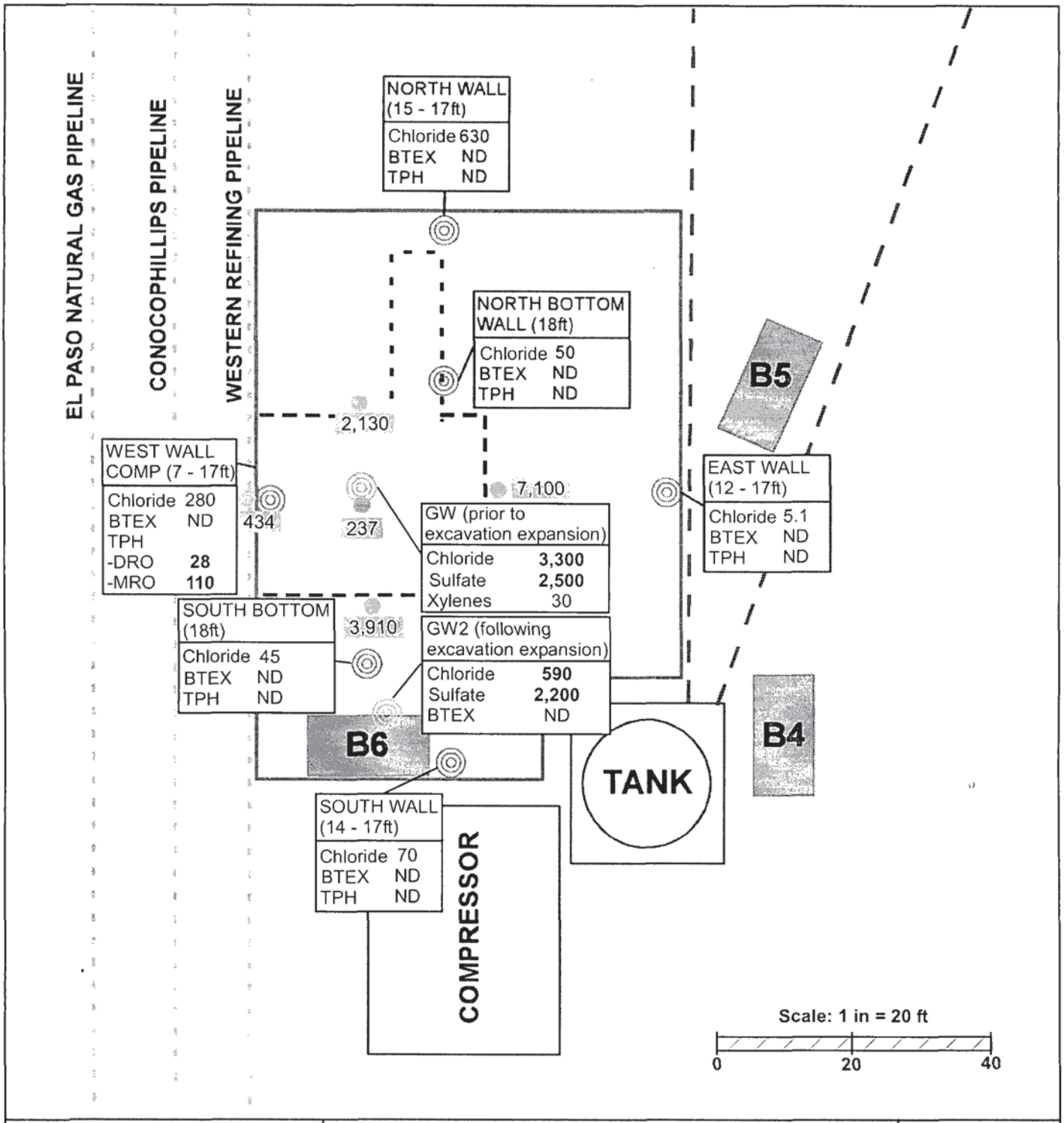


FIGURE 3.
GROUNDWATER AND SOIL QUALITY DATA MAP
DAVIS GC F #1E SITE
UNIT H, SEC. 27, T29N, R11W
SAN JUAN COUNTY, NEW MEXICO

LEGEND

- PRODUCT LINE
- APPROXIMATE INITIAL SOIL EXCAVATION (200 CY)
- EXTENDED SOIL EXCAVATION
- SOIL SAMPLE COLLECTION LOCATION (AUGUST 2009)
- GROUNDWATER SAMPLE COLLECTION LOCATION (AUGUST 2009)
- BOLD CONCENTRATIONS ARE ABOVE APPLICABLE GROUNDWATER AND SOIL QUALITY STANDARDS
- COMPOSITE SOIL SAMPLE RESULTS FOR TPH IN mg/kg (JULY 2009)

N

TETRA TECH, INC.

TABLES

TETRA TECH, INC.

Table 1. Soil Laboratory Analytical Results - XTO Energy - Davis GC F #1E Excavation

Sample Location	Date Sampled	Anions by Method E300.0 (mg/kg - dry)						Volatile Organics by Method 8021B (mg/kg - dry)				TPH by Method 8015B (mg/kg - dry)		
		Flouride	Chloride	Nitrite (as N)	Nitrate (as N)	Phosphorous, Orthophosphate (as P)	Sulfate	Benzene	Toluene	Ethylbenzene	Xylenes	GRO	DRO	MRO
B1 (14 - 14.5 feet)	08/11/09	2.7	8.8	<1.5	<1.5	<7.5	1,600	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
B2 (15 - 16 feet)	08/11/09	2.0	10	<1.5	<1.5	<7.5	37	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
B3 (3 - 3.5 feet)	08/11/09	<1.5	140	<1.5	<1.5	<7.5	99	<1.0	<1.0	<1.0	<2.0	<100	**9,000**	**15,000**
B3 (17 - 17.5 feet)	08/11/09	1.8	12	<1.5	<1.5	<7.5	46	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
B4 (16 - 16.5 feet)	08/12/09	5.6	11	<1.5	<1.5	<7.5	510	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
B5 (16 - 16.5 feet	08/12/09	<1.5	56	<1.5	<1.5	<7.5	570	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
B6 (6 - 6.5 feet)	08/12/09	6.2	1,200	<1.5	14	<7.5	1,500	<0.050	<0.050	<0.050	<0.10	<10	42	<50
B6 (16 - 16.5 feet)	08/12/09	3.8	1,000	<1.5	12	<7.5	3,800	<0.10	<0.10	<0.10	<0.20	<5.0	14	<50
North Wall (15 - 17 feet)	08/14/09	2.0	630	<1.5	3.2	<7.5	430	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
South Wall (14 - 17 feet)	08/13/09	2.4	70	<1.5	3.1	<7.5	1,700	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
East Wall (12 - 17 feet)	08/17/09	0.69	5.1	<0.3	0.33	<1.5	570	<0.050	<0.050	<0.050	<0.10	<10	<10	<50
West Wall Comp. (7 - 17 feet	08/13/09	2.5	280	<1.5	3.8	<7.5	1,000	<0.10	<0.10	<0.10	<0.20	<10	**28**	**110**
South Bottom (18 feet)	08/14/09	1.6	45	<1.5	<1.5	<7.5	230	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
North Bottom (18 feet)	08/14/09	1.6	50	<1.5	<1.5	<7.5	180	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
Excavation D (Duplicate of North Bottom)	08/14/09	<1.5	10	<1.5	<1.5	<7.5	57	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
NMOCD Standards		NE	NE	NE	NE	NE	NE	10ppm - Benzene; 50ppm - Total BTEX				100		

Explanation

NMOCD = New Mexico Oil Conservation Division recommended action level

NE = Not established by NMOCD

N = Nitrogen

P = Phosphate

mg/kg - dry = Milligrams per kilogram; analyzed after residual water was removed from soil

MTBE = Methyl tertiary-butyl ether

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil Range Organics

ppm = Parts per million

Envirotech Field Test Results for Chloride

Sample	Date	Chloride (ppm)
B1 (4 -5 feet)	8/12/2009	<33
B5 (4 - 5 feet)	8/12/2009	<33
B6 (4 - 5 feet)	8/12/2009	55
Existing Excavation (4- 5 feet)	8/12/2009	400

TETRA TECH, INC.

Table 2. Groundwater Laboratory Analytical Results - XTO Energy - Davis GC F #1E Excavation

Constituent			SAMPLE ID / Date Collected							
			8/12/2009	8/12/2009	8/13/2009	8/13/2009	8/13/2009	8/12/2009	8/19/2009	
Anions	**Method**	**Units**	**B1 - GW**	**B2 - GW**	**B4 - GW**	**B5 - GW**	**B6 - GW**	***Excavation Pit GW**	****Excavation GW2**	**NMWQCC Groundwater Quality Standard**
Fluoride	E300.0	mg/L	0.46	1.1	1.4	0.78	1.1	1.4	0.44	1.6
Chloride	E300.0	mg/L	65	69	110	200	**430**	**3,300**	**590**	250
Nitrate (as N)	E300.0	mg/L	<0.10	<0.10	<2.0	<2.0	<2.0	<10	3.3	10
Nitrite (as N)	E300.0	mg/L	<0.10	1.2	4	1.9	14	<10	<2.0	NE
Phosphorus, Orthophospate (as P)	E300.0	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	NE
Sulfate	E300.0	mg/L	380	560	**1,600**	**1,500**	**2,700**	**2,500**	**2,200**	600
VOCs (detections and BTEX only)	**Method**	**Units**	**B1 - GW**	**B2 - GW**	**B4 - GW**	**B5 - GW**	**B6 - GW**	**Excavation Pit**	**Excavation GW2**	**NMWQCC Groundwater Quality Standard**
Benzene	8260B	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10
Toluene	8260B	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	750
Ethylbenzene	8260B	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	750
Total Xylenes	8260B	µg/L	<1.5	<1.5	<1.5	<1.5	<1.5	30	<1.5	620

Notes:

NMWQCC = New Mexico Water Quality Control Commission

Constituents in **BOLD** are in excess of NMWQCC groundwater quality standards

VOCs = volatile organic compounds

mg/L = milligrams per liter

µg/L = micrograms per liter

P = phosphate

N = nitrogen

NE = not established

NA = not analyzed

***Excavation Pit GW sample collected prior to removal of additional soil in excavated area.**

****Excavation GW2 sample collected following removal of additional soil in excavated area.**

APPENDICES

APPENDIX A

Soil and Groundwater Laboratory Analytical Reports

envirotech
Analytical Laboratory

Chloride

Client:	XTO Energy	Project #:	98031-0121
Sample ID:	B5 (4'-5')	Date Reported:	08-13-09
Lab ID#:	51224	Date Sampled:	08-12-09
Sample Matrix:	Soil	Date Received:	08-12-09
Preservative:	Cool	Date Analyzed:	08-12-09
Condition:	Intact	Chain of Custody:	7702

Parameter	Concentration (mg/Kg)
Total Chloride	**< 33**

Reference: Quantab Titrator

Comments: **Davis GC F #1E / Bloomfield, NM.**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

envirotech
Analytical Laboratory

Chloride

Client:	XTO Energy	Project #:	98031-0121
Sample ID:	B6 (4'-5')	Date Reported:	08-13-09
Lab ID#:	51225	Date Sampled:	08-12-09
Sample Matrix:	Soil	Date Received:	08-12-09
Preservative:	Cool	Date Analyzed:	08-12-09
Condition:	Intact	Chain of Custody:	7702

Parameter	Concentration (mg/Kg)
Total Chloride	**55**

Reference: Quantab Titrator

Comments: **Davis GC F #1E / Bloomfield, NM.**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

envirotech
Analytical Laboratory

Chloride

Client:	XTO Energy	Project #:	98031-0121
Sample ID:	Existing Excavation (4'-5')	Date Reported:	08-13-09
Lab ID#:	51226	Date Sampled:	08-12-09
Sample Matrix:	Soil	Date Received:	08-12-09
Preservative:	Cool	Date Analyzed:	08-12-09
Condition:	Intact	Chain of Custody:	7702

Parameter	Concentration (mg/Kg)
Total Chloride	**400**

Reference: Quantab Titrator

Comments: **Davis GC F #1E / Bloomfield, NM.**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505)632-0615 Fr (800)362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

envirotech
Analytical Laboratory

Chloride

Client:	XTO Energy	Project #:	98031-0121
Sample ID:	B1 (4'-5')	Date Reported:	08-13-09
Lab ID#:	51227	Date Sampled:	08-12-09
Sample Matrix:	Soil	Date Received:	08-12-09
Preservative:	Cool	Date Analyzed:	08-12-09
Condition:	Intact	Chain of Custody:	7702

Parameter	Concentration (mg/Kg)
Total Chloride	**< 33**

Reference: Quantab Titrator

Comments: **Davis GC F #1E / Bloomfield, NM.**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

CHAIN OF CUSTODY RECORD

7702

Client: XTO Energy, Inc. by Tetra Tech	Project Name / Location: Davis GC F#1E / Bloomfield, NM
Client Address: 382 CR-3100 Aztec, NM.	Sampler Name: Kelly Blanchard (Tetra Tech)
Client Phone No.: 505-975-2563	Client No.: 98021-0121

Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative: $HgCl_2$	Preservative: HCl	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE Field test				Sample Cool	Sample Intact
B5 (4-5')	8-12-09	11:00	57224	Soil Solid Sludge Aqueous	1-4oz												X				✓	✓
B6 (4-5')	8-12-09	12:50	57225	Soil Solid Sludge Aqueous	1-4oz												X				✓	✓
Existing Excavation (4-5')	8/12/09	1530	57226	Soil Solid Sludge Aqueous	1-4oz												X				✓	✓
B1 (4-5')	8/12/09	1350	57227	Soil Solid Sludge Aqueous	1-4oz												X				✓	✓
				Soil Solid Sludge Aqueous																		
				Soil Solid Sludge Aqueous																		
				Soil Solid Sludge Aqueous																		
				Soil Solid Sludge Aqueous																		
				Soil Solid Sludge Aqueous																		
				Soil Solid Sludge Aqueous																		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Kelly E Blanchard	8-12-09	14:40	Kurt Hoekstra	8/12	14:45
Kurt Hoekstra	8-12	14:55	Kendall Angelin	8/12	14:55
Relinquished by: (Signature)			Received by: (Signature)		

Verbals in a.m.

* Hold Sample For further Analysis

envirotech
Analytical Laboratory
5796 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • lab@envirotech-inc.com

email results to: Kelly.blanchard@tetratech.com

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HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, September 17, 2009

Martin Nee
XTO Energy
382 County Road 3100
Aztec, NM 87410

TEL: (505) 333-3100
FAX (505) 333-3280

RE: Davis GC F#1E

Order No.: 0908207

Dear Martin Nee:

Hall Environmental Analysis Laboratory, Inc. received 9 sample(s) on 8/13/2009 for the analyses presented in the following report.

This report is an addendum to the report dated September 3 2009. This is an updated report.

No determination of compounds below these (denoted by the ND or < sign) has been made. Please don't hesitate to contact Hall Environmental for any additional information or clarifications.

Reporting limits are determined by EPA methodology.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	B1 (14'-14.5')
Lab Order:	0908207	**Collection Date:**	8/11/2009 12:00:00 PM
Project:	Davis GC F#1E	**Date Received:**	8/13/2009
Lab ID:	0908207-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/17/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/17/2009
Surr: DNOP	85.0	61.7-135		%REC	1	8/17/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2009 4:18:34 PM
Surr: BFB	82.0	58.8-123		%REC	1	8/18/2009 4:18:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	8/18/2009 4:18:34 PM
Toluene	ND	0.050		mg/Kg	1	8/18/2009 4:18:34 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2009 4:18:34 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/18/2009 4:18:34 PM
Surr: 4-Bromofluorobenzene	89.6	66.8-139		%REC	1	8/18/2009 4:18:34 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	2.7	1.5		mg/Kg	5	8/17/2009 5:07:37 PM
Chloride	8.8	1.5		mg/Kg	5	8/17/2009 5:07:37 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 5:07:37 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 5:07:37 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 5:07:37 PM
Sulfate	160	7.5		mg/Kg	5	8/17/2009 5:07:37 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **SNV**
Calcium	6000	120		mg/Kg	5	8/20/2009 11:47:46 AM
Magnesium	980	25		mg/Kg	1	8/18/2009 5:22:29 PM
Potassium	340	50		mg/Kg	1	8/18/2009 5:22:29 PM
Sodium	130	25		mg/Kg	1	8/18/2009 5:22:29 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	B3 (17'-17.5')
Lab Order:	0908207	**Collection Date:**	8/11/2009 2:30:00 PM
Project:	Davis GC F#1E	**Date Received:**	8/13/2009
Lab ID:	0908207-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	86.7	61.7-135		%REC	1	8/18/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2009 4:49:04 PM
Surr: BFB	82.6	58.8-123		%REC	1	8/18/2009 4:49:04 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	8/18/2009 4:49:04 PM
Toluene	ND	0.050		mg/Kg	1	8/18/2009 4:49:04 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2009 4:49:04 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/18/2009 4:49:04 PM
Surr: 4-Bromofluorobenzene	91.6	66.8-139		%REC	1	8/18/2009 4:49:04 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	1.8	1.5		mg/Kg	5	8/17/2009 5:42:26 PM
Chloride	12	1.5		mg/Kg	5	8/17/2009 5:42:26 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 5:42:26 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 5:42:26 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 5:42:26 PM
Sulfate	46	7.5		mg/Kg	5	8/17/2009 5:42:26 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **SNV**
Calcium	880	25		mg/Kg	1	8/18/2009 5:25:28 PM
Magnesium	500	25		mg/Kg	1	8/18/2009 5:25:28 PM
Potassium	200	50		mg/Kg	1	8/18/2009 5:25:28 PM
Sodium	100	25		mg/Kg	1	8/18/2009 5:25:28 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	B3 (3'-3.5')
Lab Order:	0908207	**Collection Date:**	8/11/2009 2:40:00 PM
Project:	Davis GC F#1E	**Date Received:**	8/13/2009
Lab ID:	0908207-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	9000	1000		mg/Kg	100	8/18/2009
Motor Oil Range Organics (MRO)	15000	5000		mg/Kg	100	8/18/2009
Surr: DNOP	0	61.7-135	S	%REC	100	8/18/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	8/18/2009 5:19:37 PM
Surr: BFB	77.9	58.8-123		%REC	20	8/18/2009 5:19:37 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		mg/Kg	20	8/18/2009 5:19:37 PM
Toluene	ND	1.0		mg/Kg	20	8/18/2009 5:19:37 PM
Ethylbenzene	ND	1.0		mg/Kg	20	8/18/2009 5:19:37 PM
Xylenes, Total	ND	2.0		mg/Kg	20	8/18/2009 5:19:37 PM
Surr: 4-Bromofluorobenzene	83.8	66.8-139		%REC	20	8/18/2009 5:19:37 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	ND	1.5		mg/Kg	5	8/17/2009 7:09:29 PM
Chloride	140	1.5		mg/Kg	5	8/17/2009 7:09:29 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 7:09:29 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 7:09:29 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 7:09:29 PM
Sulfate	99	7.5		mg/Kg	5	8/17/2009 7:09:29 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **SNV**
Calcium	3100	2500		mg/Kg	100	8/20/2009 1:27:32 PM
Magnesium	ND	2500		mg/Kg	100	8/20/2009 1:27:32 PM
Potassium	ND	5000		mg/Kg	100	8/20/2009 1:27:32 PM
Sodium	5100	2500		mg/Kg	100	8/20/2009 1:27:32 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	B2 (15-16')
Lab Order:	0908207	**Collection Date:**	8/11/2009 3:45:00 PM
Project:	Davis GC F#1E	**Date Received:**	8/13/2009
Lab ID:	0908207-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	85.3	61.7-135		%REC	1	8/18/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2009 5:50:06 PM
Surr: BFB	82.3	58.8-123		%REC	1	8/18/2009 5:50:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	8/18/2009 5:50:06 PM
Toluene	ND	0.050		mg/Kg	1	8/18/2009 5:50:06 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2009 5:50:06 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/18/2009 5:50:06 PM
Surr: 4-Bromofluorobenzene	89.6	66.8-139		%REC	1	8/18/2009 5:50:06 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	2.0	1.5		mg/Kg	5	8/17/2009 7:44:18 PM
Chloride	10	1.5		mg/Kg	5	8/17/2009 7:44:18 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 7:44:18 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 7:44:18 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 7:44:18 PM
Sulfate	37	7.5		mg/Kg	5	8/17/2009 7:44:18 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **SNV**
Calcium	1600	25		mg/Kg	1	8/18/2009 5:41:45 PM
Magnesium	1000	25		mg/Kg	1	8/18/2009 5:41:45 PM
Potassium	480	50		mg/Kg	1	8/18/2009 5:41:45 PM
Sodium	200	25		mg/Kg	1	8/18/2009 5:41:45 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	B4 (16-16.5')
Lab Order:	0908207	**Collection Date:**	8/12/2009 9:58:00 AM
Project:	Davis GC F#1E	**Date Received:**	8/13/2009
Lab ID:	0908207-05	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	87.7	61.7-135		%REC	1	8/18/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2009 6:20:41 PM
Surr: BFB	83.0	58.8-123		%REC	1	8/18/2009 6:20:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	8/18/2009 6:20:41 PM
Toluene	ND	0.050		mg/Kg	1	8/18/2009 6:20:41 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2009 6:20:41 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/18/2009 6:20:41 PM
Surr: 4-Bromofluorobenzene	93.4	66.8-139		%REC	1	8/18/2009 6:20:41 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	5.6	1.5		mg/Kg	5	8/17/2009 8:19:06 PM
Chloride	11	1.5		mg/Kg	5	8/17/2009 8:19:06 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 8:19:06 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 8:19:06 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 8:19:06 PM
Sulfate	510	7.5		mg/Kg	5	8/17/2009 8:19:06 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **SNV**
Calcium	21000	130		mg/Kg	5	8/20/2009 11:54:21 AM
Magnesium	2600	130		mg/Kg	5	8/20/2009 11:54:21 AM
Potassium	920	250		mg/Kg	5	8/20/2009 11:54:21 AM
Sodium	690	130		mg/Kg	5	8/20/2009 11:54:21 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	B5 (16-16.5')
Lab Order:	0908207	**Collection Date:**	8/12/2009 11:35:00 AM
Project:	Davis GC F#1E	**Date Received:**	8/13/2009
Lab ID:	0908207-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	83.9	61.7-135		%REC	1	8/18/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2009 6:51:20 PM
Surr: BFB	78.6	58.8-123		%REC	1	8/18/2009 6:51:20 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	8/18/2009 6:51:20 PM
Toluene	ND	0.050		mg/Kg	1	8/18/2009 6:51:20 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2009 6:51:20 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/18/2009 6:51:20 PM
Surr: 4-Bromofluorobenzene	87.4	66.8-139		%REC	1	8/18/2009 6:51:20 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	ND	1.5		mg/Kg	5	8/17/2009 8:53:55 PM
Chloride	56	1.5		mg/Kg	5	8/17/2009 8:53:55 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 8:53:55 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 8:53:55 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 8:53:55 PM
Sulfate	570	7.5		mg/Kg	5	8/17/2009 8:53:55 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **SNV**
Calcium	1100	25		mg/Kg	1	8/18/2009 5:48:49 PM
Magnesium	600	25		mg/Kg	1	8/18/2009 5:48:49 PM
Potassium	240	50		mg/Kg	1	8/18/2009 5:48:49 PM
Sodium	400	25		mg/Kg	1	8/18/2009 5:48:49 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	B6 (16-16.5')
Lab Order:	0908207	**Collection Date:**	8/12/2009 1:00:00 PM
Project:	Davis GC F#1E	**Date Received:**	8/13/2009
Lab ID:	0908207-07	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	14	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	92.0	61.7-135		%REC	1	8/18/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2009 7:21:43 PM
Surr: BFB	87.1	58.8-123		%REC	1	8/18/2009 7:21:43 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	8/18/2009 7:21:43 PM
Toluene	ND	0.050		mg/Kg	1	8/18/2009 7:21:43 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2009 7:21:43 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/18/2009 7:21:43 PM
Surr: 4-Bromofluorobenzene	95.1	66.8-139		%REC	1	8/18/2009 7:21:43 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	3.8	1.5		mg/Kg	5	8/17/2009 9:28:44 PM
Chloride	1000	15		mg/Kg	50	8/17/2009 10:38:23 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 9:28:44 PM
Nitrogen, Nitrate (As N)	12	1.5		mg/Kg	5	8/17/2009 9:28:44 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 9:28:44 PM
Sulfate	3800	75		mg/Kg	50	8/17/2009 10:38:23 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **SNV**
Calcium	9900	130		mg/Kg	5	8/20/2009 11:57:23 AM
Magnesium	1700	130		mg/Kg	5	8/20/2009 11:57:23 AM
Potassium	850	250		mg/Kg	5	8/20/2009 11:57:23 AM
Sodium	2200	130		mg/Kg	5	8/20/2009 11:57:23 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	B6 (6-6.5')
Lab Order:	0908207	**Collection Date:**	8/12/2009 12:20:00 PM
Project:	Davis GC F#1E	**Date Received:**	8/13/2009
Lab ID:	0908207-08	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	42	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	91.4	61.7-135		%REC	1	8/18/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	8/18/2009 11:56:00 PM
Surr: BFB	83.9	58.8-123		%REC	2	8/18/2009 11:56:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.10		mg/Kg	2	8/18/2009 11:56:00 PM
Toluene	ND	0.10		mg/Kg	2	8/18/2009 11:56:00 PM
Ethylbenzene	ND	0.10		mg/Kg	2	8/18/2009 11:56:00 PM
Xylenes, Total	ND	0.20		mg/Kg	2	8/18/2009 11:56:00 PM
Surr: 4-Bromofluorobenzene	92.2	66.8-139		%REC	2	8/18/2009 11:56:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	6.2	1.5		mg/Kg	5	8/17/2009 10:55:47 PM
Chloride	1200	15		mg/Kg	50	8/17/2009 11:13:12 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 10:55:47 PM
Nitrogen, Nitrate (As N)	14	1.5		mg/Kg	5	8/17/2009 10:55:47 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 10:55:47 PM
Sulfate	1500	75		mg/Kg	50	8/17/2009 11:13:12 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **SNV**
Calcium	2400	25		mg/Kg	1	8/18/2009 5:56:17 PM
Magnesium	1100	25		mg/Kg	1	8/18/2009 5:56:17 PM
Potassium	580	50		mg/Kg	1	8/18/2009 5:56:17 PM
Sodium	1900	25		mg/Kg	1	8/18/2009 5:56:17 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	Excavation Pit
Lab Order:	0908207	**Collection Date:**	8/12/2009 2:10:00 PM
Project:	Davis GC F#1E	**Date Received:**	8/13/2009
Lab ID:	0908207-09	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	1.4	0.10		mg/L	1	8/13/2009 1:48:54 PM
Chloride	3300	20		mg/L	200	8/18/2009 12:33:16 AM
Nitrate (As N)+Nitrite (As N)	ND	10		mg/L	50	8/18/2009 12:50:40 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/13/2009 1:48:54 PM
Sulfate	2500	100		mg/L	200	8/18/2009 12:33:16 AM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **SNV**
Calcium	860	10		mg/L	10	8/18/2009 10:38:03 AM
Magnesium	150	10		mg/L	10	8/18/2009 10:38:03 AM
Potassium	13	1.0		mg/L	1	8/17/2009 4:39:23 PM
Sodium	1600	20		mg/L	20	8/18/2009 10:40:59 AM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	8/14/2009 7:38:16 AM
Toluene	ND	1.0		µg/L	1	8/14/2009 7:38:16 AM
Ethylbenzene	ND	1.0		µg/L	1	8/14/2009 7:38:16 AM
Xylenes, Total	30	1.5		µg/L	1	8/14/2009 7:38:16 AM
Surr: 1,2-Dichloroethane-d4	95.4	54.6-141		%REC	1	8/14/2009 7:38:16 AM
Surr: 4-Bromofluorobenzene	109	60.1-133		%REC	1	8/14/2009 7:38:16 AM
Surr: Dibromofluoromethane	100	78.5-130		%REC	1	8/14/2009 7:38:16 AM
Surr: Toluene-d8	98.7	79.5-126		%REC	1	8/14/2009 7:38:16 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E **Work Order:** 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB-19889		*MBLK*				Batch ID:	**19889**	Analysis Date:	8/17/2009 12:11:39 PM		
Fluoride	ND	mg/Kg	0.30								
Chloride	ND	mg/Kg	0.30								
Nitrogen, Nitrite (As N)	ND	mg/Kg	0.30								
Nitrogen, Nitrate (As N)	ND	mg/Kg	0.30								
Phosphorus, Orthophosphate (As P)	ND	mg/Kg	1.5								
Sulfate	3.201	mg/Kg	1.5								
Sample ID: MB-19889		*MBLK*				Batch ID:	**19889**	Analysis Date:	8/18/2009 2:07:17 AM		
Fluoride	ND	mg/Kg	0.30								
Chloride	ND	mg/Kg	0.30								
Nitrogen, Nitrite (As N)	ND	mg/Kg	0.30								
Nitrogen, Nitrate (As N)	ND	mg/Kg	0.30								
Phosphorus, Orthophosphate (As P)	ND	mg/Kg	1.5								
Sulfate	2.985	mg/Kg	1.5								
Sample ID: LCS-19889		*LCS*				Batch ID:	**19889**	Analysis Date:	8/17/2009 12:29:03 PM		
Fluoride	1.557	mg/Kg	0.30	1.5	0	104	90	110			
Chloride	14.71	mg/Kg	0.30	15	0	98.0	90	110			
Nitrogen, Nitrite (As N)	2.990	mg/Kg	0.30	3	0	99.7	90	110			
Nitrogen, Nitrate (As N)	7.378	mg/Kg	0.30	7.5	0	98.4	90	110			
Phosphorus, Orthophosphate (As P)	14.57	mg/Kg	1.5	15	0	97.1	90	110			
Sulfate	29.49	mg/Kg	1.5	30	2.985	88.4	90	110			BS

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E **Work Order:** 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: 0908207-09BMSD		*MSD*				Batch ID:	**R34902**	Analysis Date:		8/13/2009 2:41:09 PM	
Fluoride	1.836	mg/L	0.10	0.5	1.402	86.8	75.3	117	0.202	20	
Phosphorus, Orthophosphate (As P)	4.405	mg/L	0.50	5	0	88.1	74.5	116	1.46	20	
Sample ID: MB		*MBLK*				Batch ID:	**R34902**	Analysis Date:		8/13/2009 9:45:10 AM	
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R34924**	Analysis Date:		8/14/2009 8:54:06 AM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R34944**	Analysis Date:		8/17/2009 8:53:05 AM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R34902**	Analysis Date:		8/13/2009 10:02:34 AM	
Chloride	4.910	mg/L	0.10	5	0	98.2	90	110			
Nitrate (As N)+Nitrite (As N)	3.424	mg/L	0.20	3.5	0	97.8	90	110			
Phosphorus, Orthophosphate (As P)	4.805	mg/L	0.50	5	0	96.1	90	110			
Sulfate	9.814	mg/L	0.50	10	0	98.1	90	110			
Sample ID: LCS-b		*LCS*				Batch ID:	**R34902**	Analysis Date:		8/13/2009 1:14:05 PM	
Fluoride	0.5170	mg/L	0.10	0.5	0	103	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R34924**	Analysis Date:		8/14/2009 9:11:31 AM	
Fluoride	0.5038	mg/L	0.10	0.5	0	101	90	110			
Chloride	4.778	mg/L	0.10	5	0	95.6	90	110			
Nitrate (As N)+Nitrite (As N)	3.353	mg/L	0.20	3.5	0	95.8	90	110			
Phosphorus, Orthophosphate (As P)	4.885	mg/L	0.50	5	0	97.7	90	110			
Sulfate	9.849	mg/L	0.50	10	0	98.5	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R34944**	Analysis Date:		8/17/2009 9:10:30 AM	
Fluoride	0.4744	mg/L	0.10	0.5	0	94.9	90	110			
Chloride	4.793	mg/L	0.10	5	0	95.9	90	110			
Nitrate (As N)+Nitrite (As N)	3.355	mg/L	0.20	3.5	0	95.8	90	110			
Phosphorus, Orthophosphate (As P)	4.816	mg/L	0.50	5	0	96.3	90	110			
Sulfate	9.772	mg/L	0.50	10	0	97.7	90	110			
Sample ID: 0908207-09BMS		*MS*				Batch ID:	**R34902**	Analysis Date:		8/13/2009 2:23:44 PM	
Fluoride	1.832	mg/L	0.10	0.5	1.402	86.1	75.3	117			
Phosphorus, Orthophosphate (As P)	4.470	mg/L	0.50	5	0	89.4	74.5	116			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E **Work Order:** 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: 0908207-01AMSD		*MSD*				Batch ID: **19884**		Analysis Date:			8/18/2009
Diesel Range Organics (DRO)	36.44	mg/Kg	10	50	0	72.9	67.4	117	0.283	17.4	
Sample ID: MB-19884		*MBLK*				Batch ID: **19884**		Analysis Date:			8/17/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Sample ID: LCS-19884		*LCS*				Batch ID: **19884**		Analysis Date:			8/17/2009
Diesel Range Organics (DRO)	35.66	mg/Kg	10	50	0	71.3	64.6	116			
Sample ID: LCSD-19884		*LCSD*				Batch ID: **19884**		Analysis Date:			8/17/2009
Diesel Range Organics (DRO)	39.25	mg/Kg	10	50	0	78.5	64.6	116	9.59	17.4	
Sample ID: 0908207-01AMS		*MS*				Batch ID: **19884**		Analysis Date:			8/17/2009
Diesel Range Organics (DRO)	36.34	mg/Kg	10	50	0	72.7	67.4	117			
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 0908207-01A MSD		*MSD*				Batch ID: **19869**		Analysis Date:			8/21/2009 11:49:59 PM
Gasoline Range Organics (GRO)	27.63	mg/Kg	5.0	25	4.05	94.3	69.5	120	7.55	11.6	
Sample ID: MB-19869		*MBLK*				Batch ID: **19869**		Analysis Date:			8/19/2009 3:59:26 AM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-19869		*LCS*				Batch ID: **19869**		Analysis Date:			8/22/2009 12:20:12 AM
Gasoline Range Organics (GRO)	27.71	mg/Kg	5.0	25	0	111	64.4	133			
Sample ID: 0908207-01A MS		*MS*				Batch ID: **19869**		Analysis Date:			8/21/2009 11:19:39 PM
Gasoline Range Organics (GRO)	25.62	mg/Kg	5.0	25	4.05	86.3	69.5	120			

Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E **Work Order:** 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 0908207-01A MSD		*MSD*				Batch ID:	**19869**	Analysis Date:		8/22/2009 5:23:53 AM	
Methyl tert-butyl ether (MTBE)	0.9763	mg/Kg	0.10	1	0	97.6	67.9	135	1.65	28	
Benzene	0.9698	mg/Kg	0.050	1	0.0038	96.6	78.8	132	0.607	27	
Toluene	0.9600	mg/Kg	0.050	1	0	96.0	78.9	112	6.40	19	
Ethylbenzene	0.9559	mg/Kg	0.050	1	0	95.6	69.3	125	9.78	10	
Xylenes, Total	2.802	mg/Kg	0.10	3	0	93.4	73	128	10.8	13	
Sample ID: MB-19869		*MBLK*				Batch ID:	**19869**	Analysis Date:		8/19/2009 3:59:26 AM	
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10								
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-19869		*LCS*				Batch ID:	**19869**	Analysis Date:		8/22/2009 5:54:13 AM	
Methyl tert-butyl ether (MTBE)	1.038	mg/Kg	0.10	1	0	104	67.9	135			
Benzene	0.9817	mg/Kg	0.050	1	0	98.2	78.8	132			
Toluene	0.9746	mg/Kg	0.050	1	0	97.5	78.9	112			
Ethylbenzene	0.9807	mg/Kg	0.050	1	0	98.1	69.3	125			
Xylenes, Total	2.883	mg/Kg	0.10	3	0	96.1	73	128			
Sample ID: 0908207-01A MS		*MS*				Batch ID:	**19869**	Analysis Date:		8/22/2009 4:53:33 AM	
Methyl tert-butyl ether (MTBE)	0.9603	mg/Kg	0.10	1	0	96.0	67.9	135			
Benzene	0.9757	mg/Kg	0.050	1	0.0038	97.2	78.8	132			
Toluene	1.024	mg/Kg	0.050	1	0	102	78.9	112			
Ethylbenzene	1.054	mg/Kg	0.050	1	0	105	69.3	125			
Xylenes, Total	3.123	mg/Kg	0.10	3	0	104	73	128			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E **Work Order:** 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 0908207-09a MSD		*MSD*				Batch ID: **R34910**		Analysis Date:		8/14/2009 8:33:28 AM	
Benzene	19.82	µg/L	1.0	20	0	99.1	78.9	115	2.63	15	
Toluene	18.49	µg/L	1.0	20	0	92.5	80.5	105	5.51	15	
Chlorobenzene	18.59	µg/L	1.0	20	0	93.0	85	102	7.31	15	
1,1-Dichloroethene	18.09	µg/L	1.0	20	0	90.5	80.2	128	0.149	17.8	
Trichloroethene (TCE)	16.03	µg/L	1.0	20	0	80.2	70.3	125	3.32	19.8	
Sample ID: b4		*MBLK*				Batch ID: **R34910**		Analysis Date:		8/13/2009 12:54:09 PM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								

Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E **Work Order:** 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b4		*MBLK*					Batch ID: **R34910**		Analysis Date:	8/13/2009 12:54:09 PM	
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: b8		*MBLK*					Batch ID: **R34910**		Analysis Date:	8/14/2009 2:06:53 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E **Work Order:** 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b8		*MBLK*					**Batch ID: R34910**		**Analysis Date:**		8/14/2009 2:06:53 AM
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								

Qualifiers:

- E Estimated value
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E **Work Order:** 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b8		*MBLK*				Batch ID: **R34910**		Analysis Date:	8/14/2009 2:06:53 AM		
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: b11		*MBLK*				Batch ID: **R34910**		Analysis Date:	8/14/2009 1:44:23 PM		
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E **Work Order:** 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b11		*MBLK*				Batch ID:	**R34910**	Analysis Date:		8/14/2009 1:44:23 PM	
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R34910**	Analysis Date:		8/13/2009 1:50:06 PM	
Benzene	17.48	µg/L	1.0	20	0	87.4	76.7	114			
Toluene	19.25	µg/L	1.0	20	0	96.2	78.4	117			
Chlorobenzene	19.09	µg/L	1.0	20	0	95.5	80.7	127			
1,1-Dichloroethene	18.37	µg/L	1.0	20	0	91.9	80.2	128			
Trichloroethene (TCE)	11.32	µg/L	1.0	20	0	56.6	77.4	115			S
Sample ID: 100ng lcs-b		*LCS*				Batch ID:	**R34910**	Analysis Date:		8/14/2009 1:39:16 AM	
Benzene	18.81	µg/L	1.0	20	0	94.1	76.7	114			
Toluene	18.61	µg/L	1.0	20	0	93.0	78.4	117			
Chlorobenzene	19.02	µg/L	1.0	20	0	95.1	80.7	127			
1,1-Dichloroethene	18.89	µg/L	1.0	20	0	94.4	80.2	128			
Trichloroethene (TCE)	14.81	µg/L	1.0	20	0	74.1	77.4	115			S
Sample ID: 0908207-09a MS		*MS*				Batch ID:	**R34910**	Analysis Date:		8/14/2009 8:05:54 AM	
Benzene	19.30	µg/L	1.0	20	0	96.5	78.9	115			
Toluene	19.54	µg/L	1.0	20	0	97.7	80.5	105			
Chlorobenzene	20.00	µg/L	1.0	20	0	100	85	102			
1,1-Dichloroethene	18.12	µg/L	1.0	20	0	90.6	80.2	128			

Qualifiers:

E	*Estimated value*	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E **Work Order:** 0908207

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 0908207-09a MS		*MS*				Batch ID:	**R34910**	Analysis Date:		8/14/2009 8:05:54 AM	
Trichloroethene (TCE)	15.51	µg/L	1.0	20	0	77.5	70.3	125			
Method: EPA Method 6010B: Dissolved Metals											
Sample ID: MB		*MBLK*				Batch ID:	**R34935**	Analysis Date:		8/17/2009 3:19:12 PM	
Calcium	ND	mg/L	1.0								
Magnesium	ND	mg/L	1.0								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Sample ID: LCS		*LCS*				Batch ID:	**R34935**	Analysis Date:		8/17/2009 3:22:13 PM	
Calcium	49.11	mg/L	1.0	50.5	0	97.3	80	120			
Magnesium	49.11	mg/L	1.0	50.5	0	97.3	80	120			
Potassium	52.25	mg/L	1.0	55	0	95.0	80	120			
Sodium	48.51	mg/L	1.0	50.5	0	96.1	80	120			
Method: EPA Method 6010B: Soil Metals											
Sample ID: MB-19887		*MBLK*				Batch ID:	**19887**	Analysis Date:		8/18/2009 4:55:33 PM	
Calcium	ND	mg/Kg	25								
Magnesium	ND	mg/Kg	25								
Potassium	ND	mg/Kg	50								
Sodium	ND	mg/Kg	25								
Sample ID: MB-19887		*MBLK*				Batch ID:	**19887**	Analysis Date:		8/20/2009 12:14:44 PM	
Calcium	ND	mg/Kg	25								
Magnesium	ND	mg/Kg	25								
Potassium	ND	mg/Kg	50								
Sodium	ND	mg/Kg	25								
Sample ID: LCS-19887		*LCS*				Batch ID:	**19887**	Analysis Date:		8/18/2009 4:58:37 PM	
Calcium	2321	mg/Kg	25	2500	0	92.8	80	120			
Magnesium	2336	mg/Kg	25	2500	0	93.5	80	120			
Potassium	2508	mg/Kg	50	2500	0	100	80	120			
Sodium	2490	mg/Kg	25	2500	0	99.6	80	120			
Sample ID: LCS-19887		*LCS*				Batch ID:	**19887**	Analysis Date:		8/20/2009 12:17:47 PM	
Calcium	2440	mg/Kg	25	2500	0	97.6	80	120			
Magnesium	2433	mg/Kg	25	2500	0	97.3	80	120			
Potassium	2609	mg/Kg	50	2500	15.88	104	80	120			
Sodium	2628	mg/Kg	25	2500	0	105	80	120			

Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **XTO ENERGY** Date Received: **8/13/2009**

Work Order Number **0908207** Received by: **ARS**

Sample ID labels checked by: _____ Initials

Checklist completed by: _____ 8/13/09
Signature Date

Matrix: Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	**3.0°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: 2

(<2) *>12 unless noted below.*

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: XTO Energy, Inc by TetraTech

Mailing Address: 382 CR-3100
Aztec, NM 87410

Phone #: 505-333-3100

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Davis GC FILE

Project #:

Project Manager: TetraTech - Kelly Blanchard
XTO - Marton Nee

Sampler: Kelly Blanchard

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0908261	Analysis Request: BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Cations	Chloride			Air Bubbles (Y or N)
8-11-09	12:00	soil	B1 (14'-14.5')	glass jars	cold	1	X		X					X				X				
8-11-09	14:30	soil	B3 (17'-17.5')	glass jars	cold	2	X		X					X				X				
8-11-09	14:40	soil	B3 (3'-3.5')	glass jars	cold	3	X		X					X				X				
8-11-09	15:45	soil	B2 (15'-16')	glass jars	cold	4	X		X					X				X				
8-12-09	9:58	soil	B4 (16'-16.5')	glass jars	cold	5	X		X					X				X				
~~8-12-09~~	~~11:00~~	~~soil~~	~~B5 (4-5')~~	~~glass jars~~	~~cold~~														☒			
8-12-09	11:35	soil	B5 (16'-16.5')	glass jars	cold	6	X	☒	X					X				X				
~~8-12-09~~	~~12:50~~	~~soil~~	~~B6 (4-5')~~	~~glass jars~~	~~cold~~														☒			
8-12-09	1300	soil	B6 (16'-16.5')	glass jars	cold	7	X		X					X				X				
8-12-09	1220	soil	B6 (6'-6.5')	glass jars	cold	8	X		X					X				X				
8-12-09	1410	water	Excavation Pit	various(1)	various	9			X					X		X		X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/12/09	1520	Kelly Blanchard	Kurt Hackstein	8/12	1425
8/12	15:20	Kurt Hackstein		9:30	8/13/09

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, September 17, 2009

Martin Nee
XTO Energy
382 County Road 3100
Aztec, NM 87410

TEL: (505) 333-3100
FAX (505) 333-3280

RE: Davis GC F#1E

Order No.: 0908234

Dear Martin Nee:

Hall Environmental Analysis Laboratory, Inc. received 8 sample(s) on 8/14/2009 for the analyses presented in the following report.

This report is an addendum to the report dated August 28, 2009. This is an updated report.

No determination of compounds below these (denoted by the ND or < sign) has been made. Please don't hesitate to contact Hall Environmental for any additional information or clarifications.

Reporting limits are determined by EPA methodology.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

Hall Environmental Analysis Laboratory, Inc. Date: *17-Sep-09*

CLIENT: XTO Energy
Project: Davis GC F#1E
Lab Order: 0908234

CASE NARRATIVE

See Corrective Action: [2595] MB for batch 19889 for 300.0 in soil had value for SO4 in blank higher than reporting limit.

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	B1-GW
Lab Order:	0908234	**Collection Date:**	8/12/2009 2:55:00 PM
Project:	Davis GC F#1E	**Date Received:**	8/14/2009
Lab ID:	0908234-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	0.46	0.10		mg/L	1	8/14/2009 3:51:54 PM
Chloride	65	2.0		mg/L	20	8/14/2009 4:09:19 PM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	8/20/2009 1:58:35 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/14/2009 3:51:54 PM
Sulfate	380	10		mg/L	20	8/14/2009 4:09:19 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **IC**
Calcium	110	10		mg/L	10	8/24/2009 12:49:44 PM
Magnesium	23	1.0		mg/L	1	8/24/2009 12:02:42 PM
Potassium	2.5	1.0		mg/L	1	8/24/2009 12:02:42 PM
Sodium	190	10		mg/L	10	8/24/2009 12:49:44 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	8/17/2009 3:34:59 PM
Toluene	ND	1.0		µg/L	1	8/17/2009 3:34:59 PM
Ethylbenzene	ND	1.0		µg/L	1	8/17/2009 3:34:59 PM
Xylenes, Total	ND	1.5		µg/L	1	8/17/2009 3:34:59 PM
Surr: 1,2-Dichloroethane-d4	99.2	54.6-141		%REC	1	8/17/2009 3:34:59 PM
Surr: 4-Bromofluorobenzene	95.8	60.1-133		%REC	1	8/17/2009 3:34:59 PM
Surr: Dibromofluoromethane	103	78.5-130		%REC	1	8/17/2009 3:34:59 PM
Surr: Toluene-d8	98.3	79.5-126		%REC	1	8/17/2009 3:34:59 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	B2-GW
Lab Order:	0908234	**Collection Date:**	8/12/2009 3:20:00 PM
Project:	Davis GC F#1E	**Date Received:**	8/14/2009
Lab ID:	0908234-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: LJB
Fluoride	1.1	0.10		mg/L	1	8/14/2009 4:26:43 PM
Chloride	69	2.0		mg/L	20	8/14/2009 4:44:08 PM
Nitrate (As N)+Nitrite (As N)	1.2	1.0		mg/L	5	8/20/2009 2:16:00 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/14/2009 4:26:43 PM
Sulfate	560	10		mg/L	20	8/14/2009 4:44:08 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: IC
Calcium	140	10		mg/L	10	8/24/2009 12:52:48 PM
Magnesium	32	1.0		mg/L	1	8/24/2009 12:05:54 PM
Potassium	2.7	1.0		mg/L	1	8/24/2009 12:05:54 PM
Sodium	230	10		mg/L	10	8/24/2009 12:52:48 PM
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	8/17/2009 4:03:22 PM
Toluene	ND	1.0		µg/L	1	8/17/2009 4:03:22 PM
Ethylbenzene	ND	1.0		µg/L	1	8/17/2009 4:03:22 PM
Xylenes, Total	ND	1.5		µg/L	1	8/17/2009 4:03:22 PM
Surr: 1,2-Dichloroethane-d4	101	54.6-141		%REC	1	8/17/2009 4:03:22 PM
Surr: 4-Bromofluorobenzene	94.7	60.1-133		%REC	1	8/17/2009 4:03:22 PM
Surr: Dibromofluoromethane	96.1	78.5-130		%REC	1	8/17/2009 4:03:22 PM
Surr: Toluene-d8	95.4	79.5-126		%REC	1	8/17/2009 4:03:22 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	B4-GW
Lab Order:	0908234	**Collection Date:**	8/13/2009 9:00:00 AM
Project:	Davis GC F#1E	**Date Received:**	8/14/2009
Lab ID:	0908234-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: LJB
Fluoride	1.4	0.10		mg/L	1	8/14/2009 5:01:33 PM
Chloride	110	2.0		mg/L	20	8/14/2009 5:18:58 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/14/2009 5:18:58 PM
Nitrogen, Nitrate (As N)	4.0	0.10		mg/L	1	8/14/2009 5:01:33 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/14/2009 5:01:33 PM
Sulfate	1600	25		mg/L	50	8/17/2009 7:54:41 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: IC
Calcium	160	10		mg/L	10	8/24/2009 12:55:52 PM
Magnesium	33	1.0		mg/L	1	8/24/2009 12:11:48 PM
Potassium	3.5	1.0		mg/L	1	8/24/2009 12:11:48 PM
Sodium	590	10		mg/L	10	8/24/2009 12:55:52 PM
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	8/17/2009 4:31:48 PM
Toluene	ND	1.0		µg/L	1	8/17/2009 4:31:48 PM
Ethylbenzene	ND	1.0		µg/L	1	8/17/2009 4:31:48 PM
Xylenes, Total	ND	1.5		µg/L	1	8/17/2009 4:31:48 PM
Surr: 1,2-Dichloroethane-d4	96.4	54.6-141		%REC	1	8/17/2009 4:31:48 PM
Surr: 4-Bromofluorobenzene	96.7	60.1-133		%REC	1	8/17/2009 4:31:48 PM
Surr: Dibromofluoromethane	99.9	78.5-130		%REC	1	8/17/2009 4:31:48 PM
Surr: Toluene-d8	94.2	79.5-126		%REC	1	8/17/2009 4:31:48 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	B5-GW
Lab Order:	0908234	**Collection Date:**	8/13/2009 9:20:00 AM
Project:	Davis GC F#1E	**Date Received:**	8/14/2009
Lab ID:	0908234-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	0.78	0.10		mg/L	1	8/14/2009 5:36:22 PM
Chloride	200	2.0		mg/L	20	8/14/2009 5:53:46 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/14/2009 5:53:46 PM
Nitrogen, Nitrate (As N)	1.9	0.10		mg/L	1	8/14/2009 5:36:22 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/14/2009 5:36:22 PM
Sulfate	1500	25		mg/L	50	8/17/2009 8:12:05 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **SNV**
Calcium	210	10		mg/L	10	8/18/2009 10:26:35 AM
Magnesium	42	1.0		mg/L	1	8/17/2009 4:30:46 PM
Potassium	4.6	1.0		mg/L	1	8/17/2009 4:30:46 PM
Sodium	510	10		mg/L	10	8/18/2009 10:26:35 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	8/17/2009 5:00:15 PM
Toluene	ND	1.0		µg/L	1	8/17/2009 5:00:15 PM
Ethylbenzene	ND	1.0		µg/L	1	8/17/2009 5:00:15 PM
Xylenes, Total	ND	1.5		µg/L	1	8/17/2009 5:00:15 PM
Surr: 1,2-Dichloroethane-d4	95.5	54.6-141		%REC	1	8/17/2009 5:00:15 PM
Surr: 4-Bromofluorobenzene	95.5	60.1-133		%REC	1	8/17/2009 5:00:15 PM
Surr: Dibromofluoromethane	98.9	78.5-130		%REC	1	8/17/2009 5:00:15 PM
Surr: Toluene-d8	95.4	79.5-126		%REC	1	8/17/2009 5:00:15 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	B6-GW
Lab Order:	0908234	**Collection Date:**	8/13/2009 9:40:00 AM
Project:	Davis GC F#1E	**Date Received:**	8/14/2009
Lab ID:	0908234-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	1.1	0.10		mg/L	1	8/14/2009 6:11:11 PM
Chloride	430	5.0		mg/L	50	8/17/2009 8:29:30 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/14/2009 6:28:36 PM
Nitrogen, Nitrate (As N)	14	2.0		mg/L	20	8/14/2009 6:28:36 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/14/2009 6:11:11 PM
Sulfate	2700	50		mg/L	100	8/17/2009 8:46:55 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **SNV**
Calcium	430	10		mg/L	10	8/18/2009 10:29:40 AM
Magnesium	84	1.0		mg/L	1	8/17/2009 4:35:08 PM
Potassium	9.5	1.0		mg/L	1	8/17/2009 4:35:08 PM
Sodium	840	10		mg/L	10	8/18/2009 10:29:40 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	8/17/2009 5:28:38 PM
Toluene	ND	1.0		µg/L	1	8/17/2009 5:28:38 PM
Ethylbenzene	ND	1.0		µg/L	1	8/17/2009 5:28:38 PM
Xylenes, Total	ND	1.5		µg/L	1	8/17/2009 5:28:38 PM
Surr: 1,2-Dichloroethane-d4	96.2	54.6-141		%REC	1	8/17/2009 5:28:38 PM
Surr: 4-Bromofluorobenzene	92.3	60.1-133		%REC	1	8/17/2009 5:28:38 PM
Surr: Dibromofluoromethane	98.0	78.5-130		%REC	1	8/17/2009 5:28:38 PM
Surr: Toluene-d8	98.8	79.5-126		%REC	1	8/17/2009 5:28:38 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	West Wall Composite (7-17')
Lab Order:	0908234	**Collection Date:**	8/13/2009 10:40:00 AM
Project:	Davis GC F#1E	**Date Received:**	8/14/2009
Lab ID:	0908234-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	28	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	110	50		mg/Kg	1	8/18/2009
Surr: DNOP	86.0	61.7-135		%REC	1	8/18/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	8/19/2009 12:26:26 AM
Surr: BFB	90.0	58.8-123		%REC	2	8/19/2009 12:26:26 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.10		mg/Kg	2	8/19/2009 12:26:26 AM
Toluene	ND	0.10		mg/Kg	2	8/19/2009 12:26:26 AM
Ethylbenzene	ND	0.10		mg/Kg	2	8/19/2009 12:26:26 AM
Xylenes, Total	ND	0.20		mg/Kg	2	8/19/2009 12:26:26 AM
Surr: 4-Bromofluorobenzene	96.1	66.8-139		%REC	2	8/19/2009 12:26:26 AM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	2.5	1.5		mg/Kg	5	8/17/2009 3:57:59 PM
Chloride	280	1.5		mg/Kg	5	8/17/2009 3:57:59 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 3:57:59 PM
Nitrogen, Nitrate (As N)	3.8	1.5		mg/Kg	5	8/17/2009 3:57:59 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 3:57:59 PM
Sulfate	1000	75		mg/Kg	50	8/17/2009 4:15:24 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **SNV**
Calcium	4200	130		mg/Kg	5	8/20/2009 12:07:22 PM
Magnesium	930	130		mg/Kg	5	8/20/2009 12:07:22 PM
Potassium	380	250		mg/Kg	5	8/20/2009 12:07:22 PM
Sodium	690	130		mg/Kg	5	8/20/2009 12:07:22 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Estimated value
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	South Wall (14-17')
Lab Order:	0908234	**Collection Date:**	8/13/2009 3:00:00 PM
Project:	Davis GC F#1E	**Date Received:**	8/14/2009
Lab ID:	0908234-07	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	86.5	61.7-135		%REC	1	8/18/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2009 12:56:54 AM
Surr: BFB	85.5	58.8-123		%REC	1	8/19/2009 12:56:54 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	8/19/2009 12:56:54 AM
Toluene	ND	0.050		mg/Kg	1	8/19/2009 12:56:54 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2009 12:56:54 AM
Xylenes, Total	ND	0.10		mg/Kg	1	8/19/2009 12:56:54 AM
Surr: 4-Bromofluorobenzene	95.6	66.8-139		%REC	1	8/19/2009 12:56:54 AM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	2.4	1.5		mg/Kg	5	8/17/2009 4:32:49 PM
Chloride	70	1.5		mg/Kg	5	8/17/2009 4:32:49 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 4:32:49 PM
Nitrogen, Nitrate (As N)	3.1	1.5		mg/Kg	5	8/17/2009 4:32:49 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 4:32:49 PM
Sulfate	1700	75		mg/Kg	50	8/17/2009 4:50:13 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **SNV**
Calcium	7500	120		mg/Kg	5	8/20/2009 12:11:54 PM
Magnesium	810	25		mg/Kg	1	8/18/2009 6:06:44 PM
Potassium	290	50		mg/Kg	1	8/18/2009 6:06:44 PM
Sodium	280	25		mg/Kg	1	8/18/2009 6:06:44 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Sep-09*

CLIENT:	XTO Energy	**Client Sample ID:**	TRIP BLANK
Lab Order:	0908234	**Collection Date:**	
Project:	Davis GC F#1E	**Date Received:**	8/14/2009
Lab ID:	0908234-08	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	8/17/2009 5:56:58 PM
Toluene	ND	1.0		µg/L	1	8/17/2009 5:56:58 PM
Ethylbenzene	ND	1.0		µg/L	1	8/17/2009 5:56:58 PM
Xylenes, Total	ND	1.5		µg/L	1	8/17/2009 5:56:58 PM
Surr: 1,2-Dichloroethane-d4	98.5	54.6-141		%REC	1	8/17/2009 5:56:58 PM
Surr: 4-Bromofluorobenzene	94.9	60.1-133		%REC	1	8/17/2009 5:56:58 PM
Surr: Dibromofluoromethane	98.2	78.5-130		%REC	1	8/17/2009 5:56:58 PM
Surr: Toluene-d8	98.8	79.5-126		%REC	1	8/17/2009 5:56:58 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		