3R - 124

ANNUAL MONITORING REPORT

03/07/2008



March 7, 2008

Mr. Glenn von Gonten Hydrologist-Groundwater Remediation New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

RE: Annual Groundwater Remediation Reports

Dear Mr. von Gonten,

XTO Energy Inc. (XTO) is submitting the Annual Groundwater Remediation Reports in accordance with the NMOCD approved Groundwater Management Plan (GMP). Enclosed are summary reports with analytical data, summary tables, site maps, potentiometric surface diagrams and recommendations/proposed actions for:

- Bruington Gas Com #1- 3RP106
- Carson Gas Com #1E
- EJ Johnson C #1E- 3RP385
- Federal Gas Com #H1 3R (10)
- Frost, Jack B #2
- McCoy GC D #1E

- OH Randel #7- 3RP386
- ✓ PO Pipken #3E 31 409
- Rowland Gas Com #1- 3RP124
- Snyder Gas Com #1A- 3RP126
- Sullivan Gas Com D #1- 3RP131
- Valdez A #1E- 3RP134

We have also enclosed an Annual Report for ten sites that meet the closure requirements outlined in the GMP. XTO respectfully requests closure of:

- Baca Gas Com A #1A- 3RP104
- Garcia Gas Com B #1- 3RP111
- Haney Gas Com B #1E- 3RP113
- Hare Gas Com B #1
- Hare Gas Com B #1E- 3RP384
- Hare Gas Com | #1
- Masden Gas Com #1E- 3RP120
- McDaniel Gas Com B #1E- 3RP121
- Stedje Gas Com #1- 3RP128
- Sullivan Frame A #1E- 3RP130

In previously submitted reports five sites met the closure requirements outlined in the GMP and XTO requested closure on those sites in 2006 and 2007. The reports for the below listed sites are being submitted again for your review.

- Abrams J #1- 3RP100
- Romero Gas Com A #1- 3RP123
- Armenta Gas Com C #1E- 3RP394
- Bergin Gas Com #1E- 3RP105
- State Gas Com BS #1- 3RP127
- Thank you for your review of the reports. XTO looks forward to hearing from you regarding closure requests and proposed remediation actions. If you have any

Respectfully,

A Mun

Lisa Winn EH & S Manager San Juan Division

cc:

Mr. Brandon Powell, Environmental, NMOCD District III Office, Aztec, NM Mr. Martin Nee, Lodestar Services Inc. File- San Juan Groundwater

questions please do not hesitate to contact me at (505) 333-3100.

3R124

XTO ENERGY INC.

5

· · · · ·

ANNUAL GROUNDWATER REPORT

2007

ROWLAND GAS COM #1 (P) SECTION 25 – T30N – R12W, NMPM SAN JUAN COUNTY, NEW MEXICO

PREPARED FOR: MR. GLENN VON GONTEN NEW MEXICO OIL CONSERVATION DIVISION

January 2008

TABLE OF CONTENTS

Site Details		3
Previous Activities		3
Site Map		3
Summary Tables		3
Potentiometric Surf	ace Diagrams	3
Annual Groundwate	er Remediation Reports	3
2007 Activities		3
Geologic Logs and	Well Completion Diagrams	3
Disposition of Gene	erated Wastes	4
Conclusions		4
Recommendations		4
Appendices		
Table 1:	Summary Groundwater Laboratory Results	
Table 2:	General Water Chemistry Laboratory Results	
Figure 1:	Site Map	
Figures 2 - 4:	Potentiometric Surface Diagrams	
Attachment 1:	2007 Laboratory Reports	

2007 XTO GROUNDWATER REPORT

ROWLAND GAS COM #1

LEGALS - TWN: 30N LAND TYPE: FEE SITE DETAILS RNG: 12W SEC: 25

UNIT: P

PREVIOUS ACTIVITIES

Excavation: Jun-96 Monitoring Wells: Jun-96 Soil Boring: Jun-96 Quarterly Sampling Initiated: Jun-96

SITE MAP

A site map is presented as Figure 1.

SUMMARY TABLES

A summary of laboratory results from historical and current groundwater monitoring is presented as Table 1. General water quality data from 1999 is included as Table 2. Copies of the laboratory data sheets and associated quality assurance/quality control data for 2007 are presented as Attachment 1.

POTENTIOMETRIC SURFACE DIAGRAMS

Field data collected during site monitoring activities indicates a groundwater gradient that trends southeast and is likely influenced by a nearby irrigation ditch located immediately west of the location. Figures 2 - 4 illustrate the estimated groundwater gradient observed in 2006 and 2007.

ANNUAL GROUNDWATER REMEDIATION REPORT

The 2005 annual groundwater report was submitted to New Mexico Oil Conservation Division (NMOCD) in January 2006, requesting termination of sampling for BTEX in all monitoring wells except MW-5. Annual sampling was proposed for BTEX in monitoring well MW-5, in accordance with the NMOCD approved Groundwater Management Plan.

The 2006 annual groundwater report was submitted to NMOCD in February 2007, proposing continued annual sampling of MW-5 for benzene, toluene, ethyl benzene and total xylenes (BTEX) until the groundwater is naturally attenuated below closure standards. Quarterly sampling will be conducted once groundwater is below New Mexico Water Quality Control Commission (NMWQCC) standards in MW-5, until site closure is achieved.

2007 ACTIVITIES

Annual groundwater samples were collected and submitted for laboratory analysis of BTEX in MW-5 in June 2007. The results indicate natural attenuation is occurring but still exceeds NMWQCC standards for BTEX constituents.

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

No Bore/Test Hole Reports are presented in this report.

S:XTO ENVIRONMENTAL\San Juan Groundwater\Annual Reports\Jan 08 Submittals\Reports\Rowland GC #1\ROWLAND GC 1 GW Report.doc

2007 XTO GROUNDWATER REPORT

DISPOSITION OF GENERATED WASTES

Waste generated (groundwater) during monitoring well sampling and development was placed in the produced water tank located on the well site.

CONCLUSIONS

January 1998 XTO acquired the Rowland Gas Com #1 from Amoco Production Company. With the exception of monitoring well MW-5, analyses of groundwater monitoring wells have shown no detectable levels or trace levels of hydrocarbons since the wells were installed. Laboratory analysis of groundwater from MW-4 has been below equipment detection levels since June 2000. Analytical data from up-gradient monitoring well MW-5 indicate elevated levels of hydrocarbons that exceed the NMWQCC closure standards. It is possible an additional source associated with the gas purchasers meter house (a historical dehydrator unit with an associated pit) may exist. XTO requests the NMOCD notify the gas purchaser that impacts to groundwater may potentially be present in the area of the purchaser's meter house.

Laboratory results of MW-5 for 2007 indicate natural attenuation is occurring. To verify natural degradation of hydrocarbon constituents, semi-annual groundwater samples were collected in December 2007. At this time the well was very low and the change in the analytical results is being attributed to the low water volume. XTO proposes quarterly sampling to monitor groundwater attenuation

RECOMMENDATIONS

- Quarterly sampling is proposed in 2007 to monitor groundwater attenuation until the well is below New Mexico groundwater standards for four (4) consecutive quarters.
- Following OCD approval for closure, all monitoring well locations will be abandoned in accordance with the monitoring well abandonment plan.

TABLE 1

XTO ENERGY INC. GROUNDWATER LAB RESULTS

ROWLAND GC #1- PROD. TANK & SEP. PITS UNIT P, SEC. 25, T30N, R12W

					BTEX EPA Method 801 (PPB)				
Sample Date	Monitor Well No.	DTW (ft)	TD (ft)	Product (ft)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)	
14-Jun-96	MW #1	16.11	25.00		ND	ND	ND	ND	
14-Jun-96	MW #2	15.44	20.00		ND	1.19	ND	3.41	
26-May-99		15.30			NA	NA	NA	NA	
14-Jun-96	MW #3	14.39	20.00		ND	ND	ND	ND	
26-May-99		15.29			ND	NA	NA	NA	
30-Jun-00		15.51			ND	ND	ND	ND	
28-Jun-06		13.81	-			NO REC			
14-Jun-96	MW #4	13.72	19.00		94.3	2.71	ND	106.4	
24-Jun-97		14.02	19.00		44.7	0.5	0.4	3	
26-Jun-98	MW #4R	11.52	19.09		13.4	ND	ND	0.6	
26-May-99		11.28			16.4	0.9	2.1	72.2	
30-Jun-00		11.69			ND	ND	ND	ND	
16-May-01		13.07			ND	ND	ND	ND	
25-Sep-01		11.81			ND	ND	ND	ND	
19-Dec-01		12.66			ND	ND	ND	ND	
19-Feb-02		13.97			ND	ND	ND	ND	
28-Jun-06		9.87	19.00			NO REC	OVERY		
14-Jun-96	MW #5	10.40	16.90		25.4	732	953	9,070	
24-Jun-97		10.27	15.00		58.8	2.5	2.8	6,290	
26-Jun-98		10.34	15.00		1,270	89	41.4	3,200	
26-May-99		10.03			174	129	252	990	
30-Jun-00		10.78			38	6.4	750	6,390	
16-May-01		12.52			49	34	700	4,480	
26-Jun-02		10.87			84	ND	630	3,460	
30-Jun-03		10.96			51	ND	420	2,600	
21-Jun-04		9.85			39	19	490	1,200	
27-Jun-05		9.32			18	44	420	1,900	
28-Jun-06		9.35	15.23	┥──┤	60	ND	360	1,500	
15-Jun-07		8.51	15.23		55	ND	240	620	
26-Dec-07		10.17	15.23	$\left \right $	ND	ND	ND	ND	
24-Jun-97	MW #6	15.55	25.00		ND	0.6	0.5	5.4	
24-Jun-97 26-May-99	0# 2210	15.55	20.00		NA	NA	NA	NA	
30-Jun-00		15.90		+ +	ND	ND	ND	ND	
28-Jun-06		13.59		╂────┤	NU	NO REC			
20-Jun-00		13.33						· · · · · · · · · · · · · · · · · · ·	
NMWG		DWATER	STANDAR	bs 🗍	10	750	750	620	

XTO ENERGY INC. GROUNDWATER LAB RESULTS

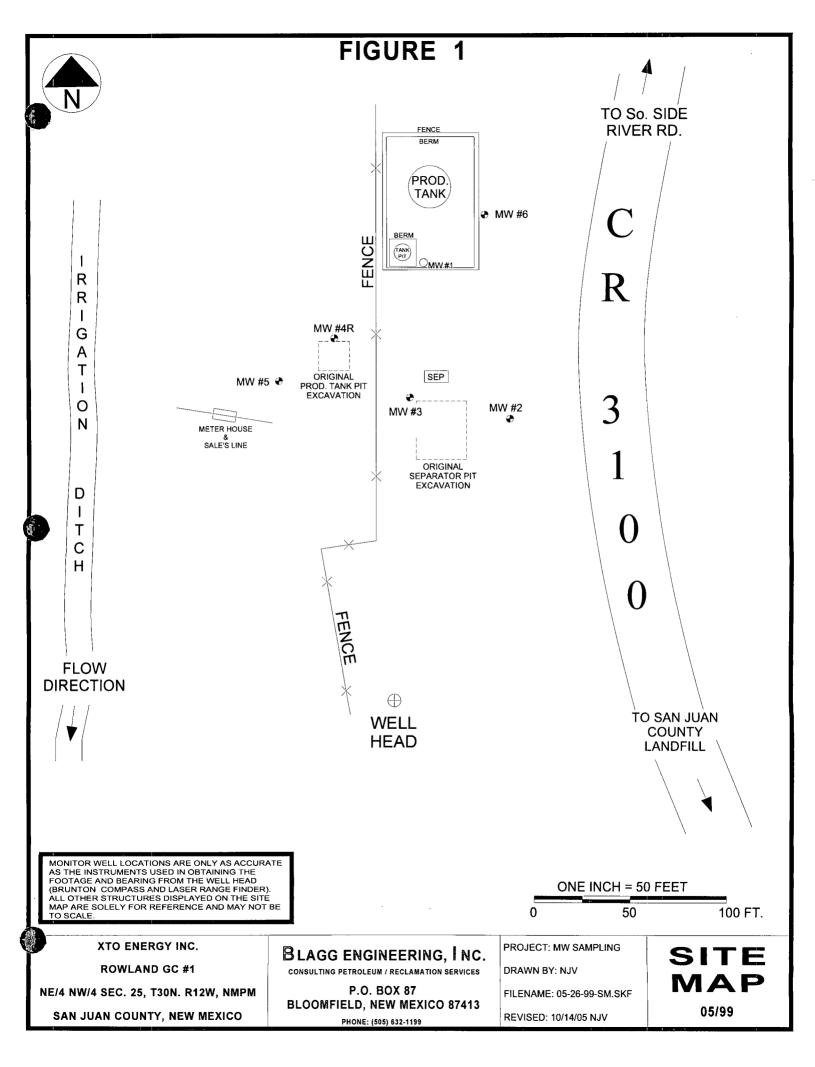
ROWLAND GC #1- PROD. TANK & SEP. PITS UNIT P, SEC. 25, T30N, R12W

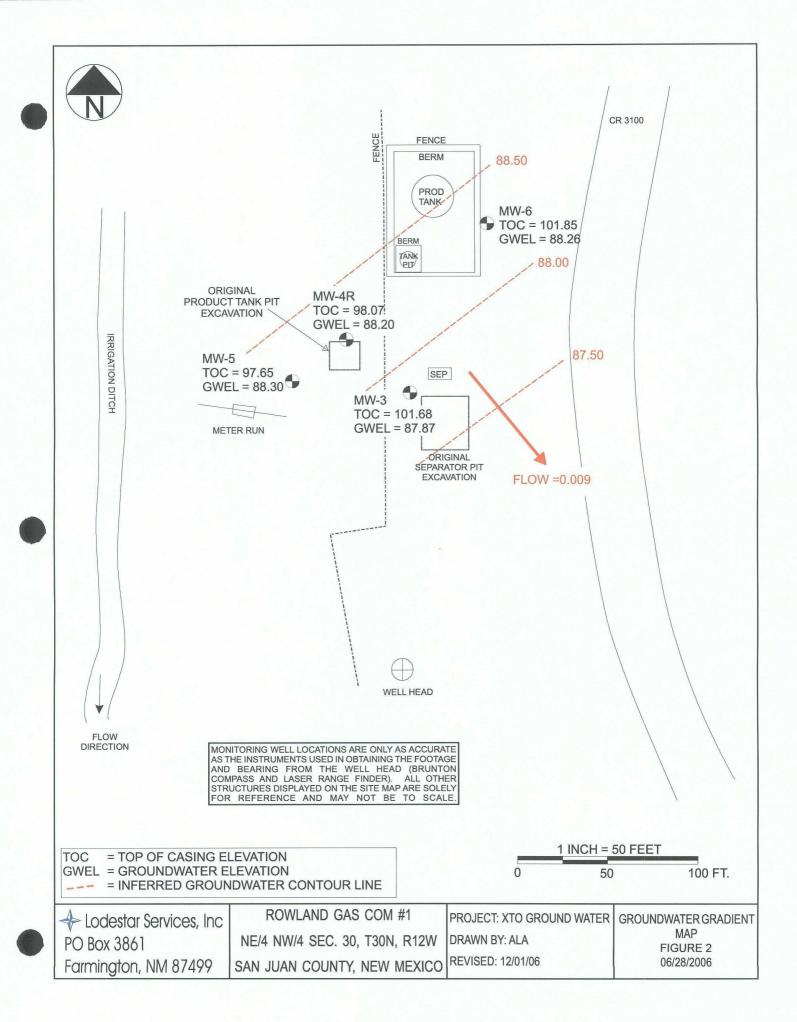
PARAMETERS	MW #2	MW #3	MW #4R	MW #5	MW #6	UNITS
LAB Ph	7.35	7.11	7.06	7.52	7.67	s.u.
LAB CONDUCTIVITY @ 25 C	18,500	3,200	2,250	2,050	20,420	umhos/cm
TOTAL DISSOLVED SOLIDS @ 180 C	9,200	1,550	1,110	1,016	10,200	mg/L_
TOTAL DISSOLVED SOLIDS (Calc)	9,111	1,480	1,076	1,010	10,026	mg/L
SODIUM ABSORPTION RATIO	34.8	5.3	2.7	0.2	30.6	ratio
TOTAL ALKALINITY AS CaCO3	536	496	576	880	352	mg/L
TOTAL HARDNESS AS CaCO3	1,048	560	584	872	1,456	mg/L
BICARBONATE AS HCO3	536	496	576	880	352	mg/L
CARBONATE AS CO3	< 1	< 1	< 1	< 1	< 1	mg/L
HYDROXIDE AS OH	< 1	< 1	< 1	< 1	< 1	mg/L
NITRATE NITORGEN	190	6.6	0.4	0.3	220	mg/L
NITRITE NITROGEN	0.214	0.083	0.027	0.016	0.94	mg/L
CHLORIDE	644	188	160	112	560	mg/L
FLUORIDE	1.43	0.48	0.67	0.36	1.54	mg/L
PHOSPHATE	0.5	0.7	0.1	2	0.4	mg/L
SULFATE	4,980	490	200	21	5,800	mg/L
IRON	0.001	0.017	0.003	0.519	0.012	mg/L
CALCIUM	298	160	179	285	477	mg/L
MAGNESIUM	74.2	9.1	33.2	39.1	64.5	mg/L
POTASSIUM	7.5	4.0	3.0	1.1	7.5	mg/L
SODIUM	2,590	290	150	15	2,680	mg/L
CATION/ANION DIFFERENCE	0.03	0.54	0.56	0.02	0.07	%

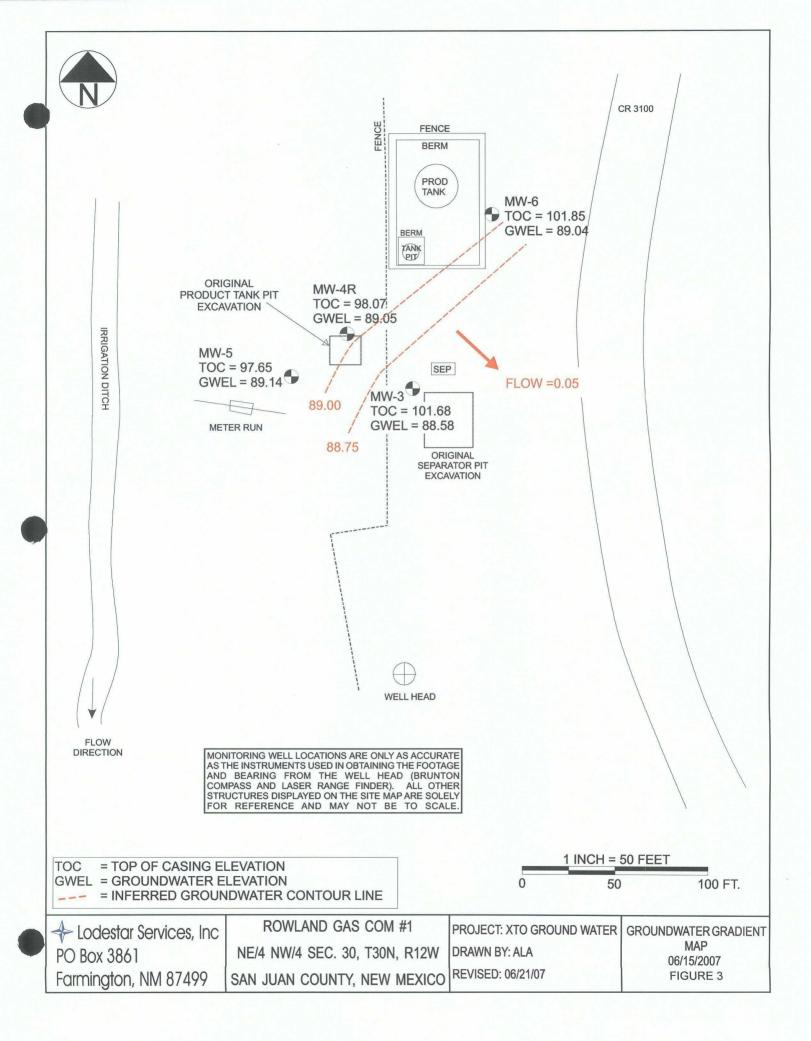
Sample Date: May 26, 1999

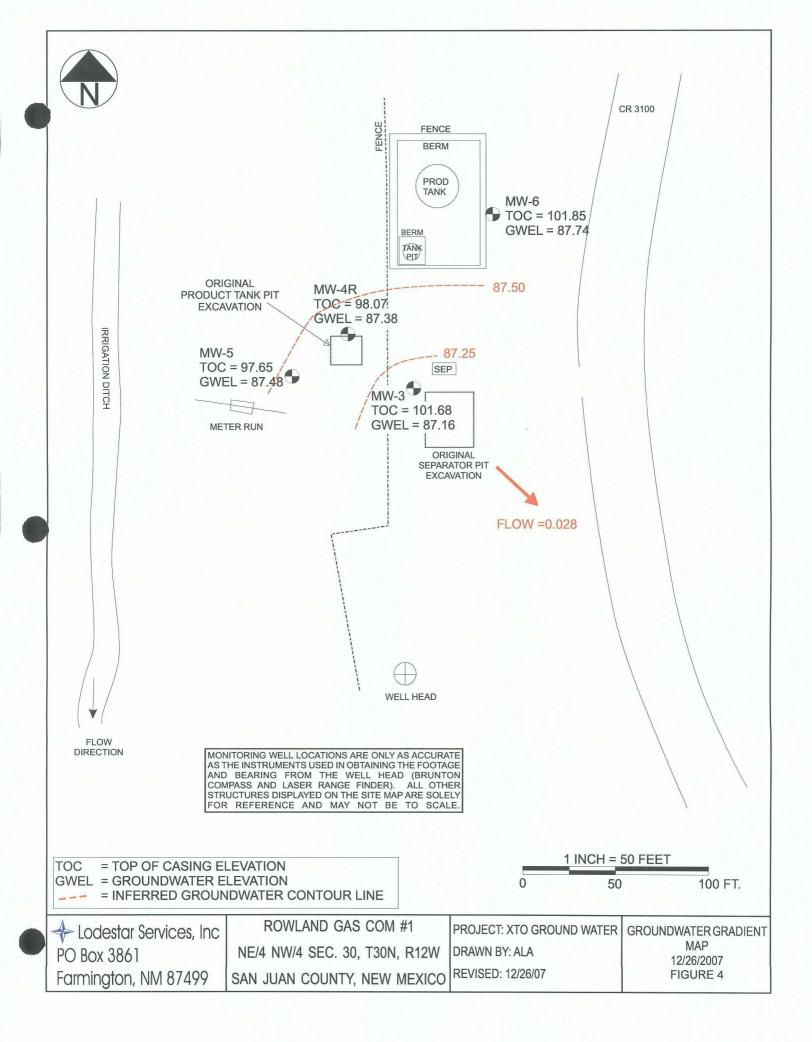
,

-









CLIENT: Project:	XTO Energy Ground Water	· · · · · · · · · · · · · · · · · · ·			Lab Orde	r: 0706264
Lab ID:	0706264-01			Collection D	ate: 6/15/20	007 9:42:00 AM
Client Sample]	ID: Valdez A #IE MN	₩-6-		Mat	rix: AQUE	OUS
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8260: VOLATILES SHO	ORT LIST				Analyst: LMM
Benzene		2.1	2.0	µg/L	2	6/27/2007 2:04:40 PM
Toluene		ND	2.0	μg/L	2	6/27/2007 2:04:40 PM
Elhylbenzene		76	2.0	µg/L	2	6/27/2007 2:04:40 PM
Xylenes, Total		470	30	µg/L	10	6/26/2007 2:31:53 PM
Surr: 4-Bromo	ofluorobenzene	91.6	71.2-123	%REC	2	6/27/2007 2:04:40 PM
Lab ID:	0706264-02			Collection D	ate: 6/15/20	007 10:10:00 AM
Client Sample 1	ID: Valdez A #1E M	₩-7-		Mat	rix: AQUE	OUS
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8260: VOLATILES SHO					Analyst: LMI
Benzene		86	1.0	μg/L	1	6/27/2007 2:43:37 PM
Toluene		ND	1.0	µg/L	t	6/27/2007 2:43:37 PM
Elhylbenzene		67	1.0	µg/L	1	6/27/2007 2:43:37 PM
Xylenes, Total		97	3.0	µg/L	1	6/27/2007 2:43:37 PM
Surr A-Brook	ofluorobenzene	74.8	71.2-123	%REC	1	6/27/2007 2:43:37 PM
	0706264-03		·	Collection D	ate: 6/15/20	007 11:22:00 AM
Lab ID:	0706264-03 ID: Rowland GC #1 N	MW-5	·		ate: 6/15/2(rix: AQUE	
Lab 1D: Client Sample		MW-5 Result	PQL			
Lab ID: Client Sample Analyses		Result	PQL	Mat	rix: AQUE	ous
Lab ID: Client Sample Analyses	ID: Rowland GC #11	Result	PQL 5.0	Mat	rix: AQUE	OUS Date Analyzed Analyst: LM
Lab ID: Client Sample Analyses EPA METHOD	ID: Rowland GC #11	Result DRT LIST		Mat Qual Units	rix: AQUE DF	OUS Date Analyzed Analyst: LM 6/27/2007 3:23:32 PM
Lab ID: Client Sample Analyses EPA METHOD Benzene	ID: Rowland GC #11	Result DRT LIST 55	5.0	Mat Qual Units µg/L	rix: AQUE DF 5	OUS Date Analyzed
Lab ID: Client Sample Analyses EPA METHOD Benzene Toluene	ID: Rowland GC #11	Result DRT LIST 55 ND	5.0 5.0	Mat Qual Units µg/L µg/L	rix: AQUE DF 5 5	OUS Date Analyzed Analyst: LM 6/27/2007 3:23:32 PM 6/27/2007 3:23:32 PM

. _ _. . .

+

Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits 1/5
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level

RL Reporting Limit

Hall Envi	ronmental Analy	sis Ladora	atory, Inc.		Date. 27-Jun-	.07
CLIENT: Project:	XTO Energy Ground Water		<u> </u>		Lab Order:	0706264
Lab ID:	0706264-07			Collection	Date:	
Client Sample	e ID: Trip Blank			Ν	latrix: AQUEO	US
Analyses		Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD	8260: VOLATILES SH	ORT LIST				Analyst: LMM
Benzene		ND	1.0	μg/L	1	6/27/2007 4:02:24 PM
Toluene		1.1	1.0	μg/L	1	6/27/2007 4:02:24 PM
Ethylbenzene		ND	1.0	μg/L	1	6/27/2007 4:02:24 PM
Xylenes, Total		ND	3.0	μg/L	1	6/27/2007 4:02:24 PM
Surr: 4-Bror	nolluorobenzene	90.3	71.2-123	%REC	1	6/27/2007 4:02:24 PM

Hall Environmental Analysis Laboratory Inc.

Date: 29-1m-07



Qualifiers:

and the second and and the second ŧ Value exceeds Maximum Contaminant Level

Value above quantitation range

Е Analyte detected below quantitation limits

J ND Not Detected at the Reporting Limit

3/5 S Spike recovery outside accepted recovery limits

В Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level RL Reporting Limit

. . .

.

XTO Energy

Client:	
Project:	4

QA/QC SUMMARY REPORT

Project:	Ground Water						Work	Order: 0706264
Analyte	Result	Units	PQL	%Rec	LowLimit H	lighLimit	%RPD RP	DLimit Qual
Method: SW8260	B	a a a an a	•					
Sample ID: 5mL rt)	MBLK			Batch ID:	R24131	Analysis Date:	6/26/2007 11:55:15 AM
Benzene	ND	µg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Xylenes, Total	ND	µg/L	3.0					
Sample ID: 5mL rt	2	MBLK			Batch ID:	R24155	Analysis Date:	6/27/2007 931:05 AM
Benzene	ND	μg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Xylenes, Total	ND	μg/L	3.0					
Sample ID: 100ng	lcs	LCS			Batch ID:	R24131	Analysis Date:	6/26/2007 1:12:58 PM
Benzene	20.49	µg/L	1.0	102	82.4	128		
Toluene	19.13	μg/L	1.0	95.6	77.2	115		
Sample ID: 100ng	ics	LCS			Batch ID:	: R24155	Analysis Date:	6/27/2007 10:49:11 AM
Benzene	21.10	µg/L	1.0	106	82.4	128		
Toluene	20.10	µg/L	1.0	101	77.2	115		



Qualifiers: E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery fimits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

.....

S

 $\frac{6}{4}$ / $\frac{1}{5}$

Client Sample ID: -EJ Johnson CIE-MW-5. N Analyses Result PQL Qual Units EPA METHOD 8021B: VOLATILES Benzene 9.0 1.0 µg/L Toluene ND 1.0 µg/L Ethylbenzene ND 1.0 µg/L Xylenes, Total ND 2.0 µg/L Surr: 4-Bromofluorobenzene 86.5 68.9-122 %REC Lab ID: 0712350-06 Collection Client Sample ID: Rowland GC1 MW-5 M Analyses Result PQL Qual Units EPA METHOD 8021B: VOLATILES Benzene ND 1.0 µg/L Toluene ND 1.0 µg/L Y Toluene ND 1.0 µg/L Y Toluene ND 1.0 µg/L Y Surr: 4-Bromofluorobenzene 86.6 68.9-122 % REC Lab ID: 0712350-07 Collection Client Sample ID: TRIP BLANK M Analyses Result PQL Qual Units	Date: 12/20/2 Iatrix: AQUE DF 1 1 1 1 1 1	2007 3:49:00 PM BOUS Date Analyzed Analyst: NSB 12/27/2007 5:17:10 PM 12/27/2007 5:17:10 PM
AnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILES Benzene9.01.0µg/LTolueneND1.0µg/LTolueneND1.0µg/LEthylbenzeneND1.0µg/LXylenes, TotalND2.0µg/LSur: 4-Bromofluorobenzene86.568.9-122%RECLab ID:0712350-06CollectionClient Sample ID:Rowland GC1 MW-5MAnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILES BenzeneND1.0µg/LTolueneND1.0µg/LSur: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionClient Sample ID:TRIP BLANKMAnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILES BenzeneND1.0µg/LSur: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionClient Sample ID:TRIP BLANKMAnalysesResultPQLQualEPA METHOD 8021B: VOLATILES BenzeneND1.0µg/LTolueneND1.0µg/LTolueneND1.0µg/L	DF 1 1 1	Date Analyzed Analyst: NSB 12/27/2007 5:17:10 PM
EPA METHOD 8021B: VOLATILES Benzene 9.0 1.0 µg/L Toluene ND 1.0 µg/L Ethylbenzene ND 1.0 µg/L Xylenes, Total ND 2.0 µg/L Sur: 4-Bromofluorobenzene 86.5 68.9-122 %REC Lab ID: 0712350-06 Collection Client Sample ID: Rowland GC1 MW-5 M Analyses Result PQL Qual Units EPA METHOD 8021B: VOLATILES Benzene ND 1.0 µg/L Toluene ND 1.0 µg/L Xylepes, Total ND 2.0 µg/L Surr: 4-Bromofluorobenzene ND 1.0 µg/L Xylepes, Total ND 2.0 µg/L Surr: 4-Bromofluorobenzene 86.6 68.9-122 %REC %REC Lab ID: 0712350-07 Collection Collection Client Sample ID: TRIP BLANK M M Analyses Result PQL Qual Units EPA METHOD 8021B: VOLATILES Benzene <th>1 1 1 1</th> <th>Analyst: NSB 12/27/2007 5:17:10 PM</th>	1 1 1 1	Analyst: NSB 12/27/2007 5:17:10 PM
Benzene9.01.0µg/LTolueneND1.0µg/LEthylbenzeneND1.0µg/LXylenes, TotalND2.0µg/LSurr: 4-Bromofluorobenzene86.568.9-122%RECLab ID: 0712350-06CollectionClient Sample ID: Rowland GC1 MW-5MAnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILESBenzeneND1.0µg/LTolueneND1.0µg/LYlepes, TotalND2.0µg/LSurr: 4-Bromofluorobenzene86.668.9-122%RECWRECLab ID:0712350-07CollectionCollectionClient Sample ID: TRIP BLANKMAnalysesResultPQLQualEPA METHOD 8021B: VOLATILESBenzeneND1.0µg/LSurr: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionClient Sample ID: TRIP BLANKMAnalysesResultPQLQualEPA METHOD 8021B: VOLATILESBenzeneND1.0µg/LBenzeneND1.0µg/LTolueneND1.0µg/L	1 1 1	12/27/2007 5:17:10 PM
TolueneND1.0µg/LEthylbenzeneND1.0µg/LXylenes, TotalND2.0µg/LSurr: 4-Bromofluorobenzene86.568.9-122%RECLab ID:0712350-06CollectionClient Sample ID:Rowland GC1 MW-5MAnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILESBenzeneND1.0µg/LTolueneND1.0µg/Lyg/LSurr: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionClient Sample ID:TRIP BLANKMAnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILESMECBenzeneND1.0µg/LSurr: 4-Bromofluorobenzene86.668.9-122EPA METHOD 8021B: VOLATILESBenzeneND1.0BenzeneND1.0µg/LToluenaND1.0µg/LToluenaND1.0µg/L	1 1 1	
EthylbenzeneND1.0µg/LXylenes, TotalND2.0µg/LSurr: 4-Bromofluorobenzene86.568.9-122%RECLab ID:0712350-06CollectionClient Sample ID:Rowland GC1 MW-5MAnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILESBenzeneND1.0µg/LTolueneND1.0µg/LXylepes, TotalND2.0Xylepes, TotalND2.0µg/LSurr: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionCollectionMClient Sample ID:TRIP BLANKMMAnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILESBenzeneND1.0µg/LSurr: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionMClient Sample ID:TRIP BLANKMAnalysesResultPQLQualEPA METHOD 8021B: VOLATILESBenzeneND1.0µg/LTolueneND1.0µg/LTolueneND1.0µg/L	1 1	12/27/2007 5:17:10 PM
Xylenes, Total Surr: 4-BromofluorobenzeneND2.0µg/LSurr: 4-Bromofluorobenzene86.568.9-122%RECLab ID:0712350-06CollectionClient Sample ID:Rowland GC1 MW-5MAnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILES BenzeneND1.0µg/LTolueneND1.0µg/LTolueneND1.0µg/LSurr: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionClient Sample ID:TRIP BLANKMAnalysesResultPQLQualEPA METHOD 8021B: VOLATILES BenzeneND1.0µg/LSurr: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionClient Sample ID:TRIP BLANKMAnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILES BenzeneND1.0µg/LTolueneND1.0µg/L	1	
Surr: 4-Bromofluorobenzene86.568.9-122%RECLab ID:0712350-06CollectionClient Sample ID:Rowland GC1 MW-5MAnalysesResultPQLQualEPA METHOD 8021B: VOLATILESBenzeneND1.0TolueneND1.0EthylbenzeneND1.0Xylepes, TotalNDSurr: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionClient Sample ID:TRIP BLANKAnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILESBenzeneND1.0µg/LJonneND1.0µg/LJonneND1.0µg/LJonneND1.0µg/LJonneND1.0µg/LJonneND1.0µg/LJonneND1.0µg/L		12/27/2007 5:17:10 PM
Lab ID:0712350-06CollectionClient Sample ID:Rowland GC1 MW-5MAnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILES BenzeneND1.0µg/LTolueneND1.0µg/LEthylbenzeneND1.0µg/LXylepes, TotalND2.0µg/LSurr: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionClient Sample ID:TRIP BLANKMAnalysesResultPQLQualEPA METHOD 8021B: VOLATILES BenzeneND1.0µg/LTolueneND1.0µg/L	1	12/27/2007 5:17:10 PM
Client Sample ID: Rowland GC1 MW-5 M Analyses Result PQL Qual Units EPA METHOD 8021B: VOLATILES ND 1.0 µg/L Benzene ND 1.0 µg/L Toluene ND 1.0 µg/L Ethylbenzene ND 1.0 µg/L Xylepes, Total ND 2.0 µg/L Surr: 4-Bromofluorobenzene 86.6 68.9-122 %REC Lab ID: 0712350-07 Collection Client Sample ID: TRIP BLANK M Analyses Result PQL Qual Units EPA METHOD 8021B: VOLATILES ND 1.0 µg/L Toluene ND 1.0 µg/L		12/27/2007 5:17:10 PM
AnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILES BenzeneND1.0µg/LTolueneND1.0µg/LTolueneND1.0µg/LEthylbenzeneND1.0µg/LXylenes, TotalND2.0µg/LSurr: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionClient Sample ID:TRIP BLANKMAnalysesResultPQLQualEPA METHOD 8021B: VOLATILES BenzeneND1.0µg/LTolueneND1.0µg/L	Date: 12/26/2	2007 10:16:00 AM
EPA METHOD 8021B: VOLATILES Benzene ND 1.0 µg/L Toluene ND 1.0 µg/L Ethylbenzene ND 1.0 µg/L Xylenes, Total ND 2.0 µg/L Surr: 4-Bromofluorobenzene 86.6 68.9-122 %REC Lab ID: 0712350-07 Collection Client Sample ID: TRIP BLANK M Analyses Result PQL Qual Units EPA METHOD 8021B: VOLATILES ND 1.0 µg/L Toluene ND 1.0 µg/L	latrix: AQUE	OUS
BenzeneND1.0µg/LTolueneND1.0µg/LEthylbenzeneND1.0µg/LXylenes, TotalND2.0µg/LSurr: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionClient Sample ID:TRIP BLANKMAnalysesResultPQLQualEPA METHOD 8021B: VOLATILESND1.0µg/LTolueneND1.0µg/L	DF	Date Analyzed
TolueneND1.0µg/LEthylbenzeneND1.0µg/LXylenes, TotalND2.0µg/LSurr: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionClient Sample ID:TRIP BLANKMAnalysesResultPQLQualEPA METHOD 8021B: VOLATILESND1.0µg/LTolueneND1.0µg/L		Analyst: NSB
EthylbenzeneND1.0µg/LXylenes, TotalND2.0µg/LSurr: 4-Bromofluorobenzene86.668.9-122%RECLab ID:0712350-07CollectionClient Sample ID:TRIP BLANKMAnalysesResultPQLQualEPA METHOD 8021B: VOLATILESBenzeneND1.0µg/LTolueneND1.0µg/L	[•] 1	12/27/2007 6:20:04 PM
Xylenes, Total ND 2.0 µg/L Surr: 4-Bromofluorobenzene 86.6 68.9-122 %REC Lab ID: 0712350-07 Collection Client Sample ID: TRIP BLANK M Analyses Result PQL Qual Units EPA METHOD 8021B: VOLATILES ND 1.0 µg/L Toluene ND 1.0 µg/L	1	12/27/2007 6:20:04 PM
Surr: 4-Bromofluorobenzene 86.6 68.9-122 %REC Lab ID: 0712350-07 Collection Client Sample ID: TRIP BLANK M Analyses Result PQL Qual Units EPA METHOD 8021B: VOLATILES Benzene ND 1.0 µg/L Toluene ND 1.0 µg/L	1	12/27/2007 6:20:04 PM
Lab ID: 0712350-07 Collection Client Sample ID: TRIP BLANK M Analyses Result PQL Qual Units EPA METHOD 8021B: VOLATILES Benzene ND 1.0 µg/L Toluene ND 1.0 µg/L	1	12/27/2007 6:20:04 PM
Client Sample ID: TRIP BLANK M Analyses Result PQL Qual Units EPA METHOD 8021B: VOLATILES ND 1.0 µg/L Toluene ND 1.0 µg/L	1	12/27/2007 6:20:04 PM
AnalysesResultPQLQualUnitsEPA METHOD 8021B: VOLATILES BenzeneND1.0µg/LTolueneND1.0µg/L	Date:	
EPA METHOD 8021B: VOLATILES Benzene ND 1.0 μg/L Toluene ND 1.0 μg/L	latrix: TRIP E	BLANK
Benzene ND 1.0 μg/L Toluene ND 1.0 μg/L	DF	Date Analyzed
Toluene ND 1.0 µg/L		Analyst: NSB
	1	12/27/2007 7:50:11 PM
Ethylbenzene ND 1.0 ua/L	1	12/27/2007 7:50:11 PM
	1	12/27/2007 7:50:11 PM
Xylenes, Total ND 2.0 µg/L	1	12/27/2007 7:50:11 PM
Surr: 4-Bromofluorobenzene 84.3 68.9-122 %REC	1	12/27/2007 7:50:11 PM
	н Х	

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- 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

QA/QC SUMMARY REPORT

Client	;

XTO Energy

Project: Ground Wat	er						Wor	k Order: 0712350
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD RF	PDLimit Qual
Method: EPA Method 8021B: V	olatiles				· ·			
Sample ID: 0712350-04A MSD		MSD			Batch	ID: R26708	Analysis Date:	12/27/2007 8:50:30 PM
Benzene	48.54	µg/L	1.0	98.2	85.9	113	0.378	27
Toluene	20.57	µg/L	1.0	103	86.4	113	0.543	19
Ethyibenzene	24.72	µg/L	1.0	102	83.5	118	0.605	10
Xylenes, ⊤otal	63.55	µg/L	2.0	102	83.4	122	0.317	13
Sample ID: 5ML RB		MBLK			Batch	ID: R26708	Analysis Date:	12/27/2007 9:07:53 AM
Benzene	ND	µg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Xylenes, Total	ND	µg/L	2.0					
Sample ID: 100NG BTEX LCS		LCS			Batch	ID: R26708	Analysis Date:	12/27/2007 9:20:40 PM
Benzene	22.03	μg/L	1.0	110	85.9	113		
Toluene	20.88	µg/L	1.0	104	86.4	113		
Ethylbenzene	20.97	µg/L	1.0	105	83.5	118		
Xylenes, Total	62.73	µg/L	2.0	105	83.4	122		
Sample ID: 0712350-04A MS		MS			Batch	D: R26708	Analysis Date:	12/27/2007 8:20:13 PM
Benzene	48.72	μg/L	1.0	99.1	85.9	113		
Toluene	20.69	μg/L	1.0	103	86.4	113		
Ethylbenzene	24.87	μg/L	, 1.0	102	83.5	118		
Xylenes, Total	63.75	µg/L	2.0	102	83.4	122		N



- E Value above quantitation range
- J Analyte detected below quantitation limits
- 5 Analyte detected below quantitation mints
- 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