

3R - 416

**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 110
- Frost, Jack B #2 3R 416
- McCoy GC D #1E
- OH Randel #7- 3RP386
- PO Pipken #3E 3R 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:

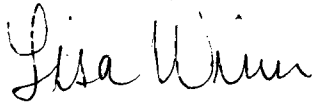
- Baca Gas Com A #1A- 3RP104
- Garcia Gas Com B #1- 3RP111
- Haney Gas Com B #1E- 3RP113
- Hare Gas Com B #1
- Hare Gas Com B #1E- 3RP384
- Hare Gas Com I #1
- Masden Gas Com #1E- 3RP120
- McDaniel Gas Com B #1E- 3RP121
- Stedje Gas Com #1- 3RP128
- Sullivan Frame A #1E- 3RP130

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
- Armenta Gas Com C #1E- 3RP394
- Bergin Gas Com #1E- 3RP105
- Romero Gas Com A #1- 3RP123
- 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 questions please do not hesitate to contact me at (505) 333-3100.

Respectfully,



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

3R 416

OG 210 5380

2 BEF/SEPARATION Pit

0 DTU 9'

2 8/15/1994

XTO ENERGY INC.

ANNUAL GROUNDWATER REPORT

2007

JACK FROST B #2

**(D) SECTION 27 - T27N - R10W, NMPM
SAN JUAN COUNTY, NEW MEXICO**

PREPARED FOR:

MR. GLENN VON GONTEN

NEW MEXICO OIL CONSERVATION DIVISION

January 2008

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Table 1:	Summary Groundwater Laboratory Results
Table 2:	General Water Quality
Figure 1:	Site Map
Figures 2 - 5:	Potentiometric Surface Diagrams
Figures 6 - 12:	Geologic Logs and Well Completion Diagrams
Attachment 1:	2006 & 2007 Laboratory Reports
Attachment 2:	Pit Closure report (08/94)

2007 XTO GROUNDWATER REPORT

FROST, JACK B #2

SITE DETAILS

LEGALS - TWN: 27N

RNG: 10W

SEC: 27

UNIT: D

NMOCD HAZARD RANKING: 30

LAND TYPE: FEDERAL

PREVIOUS ACTIVITIES

Excavation: Aug-94 (400 CY)

Monitoring Wells: Sep-99

Quarterly Sampling Initiated: Sep-99

Additional Monitoring Well: Aug-06

Sampling Re-initiated: Jun-06

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. A summary of general water quality data from 1999 is presented as Table 2. Copies of the laboratory data sheets and associated quality assurance/quality control data for 2006 and 2007 are presented as Attachment 1.

POTENTIOMETRIC SURFACE DIAGRAMS

Field data collected during site monitoring activities indicate a groundwater gradient that trends towards the west with a slight southwest component, following surface contours and the general flow of the arroyo. In March the gradient shifted to the south so that groundwater was flowing towards the adjacent wash rather than the same direction as the wash. The gradient increased slightly at this time also. The change in direction and increase in gradient was attributed to the arroyo being at a low flow stage. Figures 2 - 5 illustrate the estimated groundwater gradients for 2006 and 2007.

ANNUAL GROUNDWATER REMEDIATION REPORTS

The 2005 annual report was submitted to New Mexico Oil Conservation Division (NMOCD) in April 2006, proposing installation of an additional groundwater monitoring well and quarterly sampling of the groundwater monitoring wells.

The 2006 annual groundwater report was submitted to NMOCD in February 2007, proposing continued quarterly sampling of the groundwater monitoring wells, in accordance with the NMOCD approved Groundwater Management Plan.

2007 ACTIVITIES

Groundwater samples were collected from monitoring wells MW-1 through MW-4 during 2007. Laboratory analytical results have been below standards or not detectable for benzene, toluene, ethyl benzene, and total xylenes (BTEX) for five consecutive quarters at MW-1, MW-2R and MW-3. Quarterly groundwater samples from MW-4 have shown slightly elevated levels of benzene that exceed New Mexico Water Quality Control Commission (NMWQCC) standards.

2007 XTO GROUNDWATER REPORT

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

Bore/Test Hole Reports are presented as Figures 6 - 8 representing drilling that occurred on site in September 1999 and Figures 9 - 12 are presented for the monitoring wells installed during 2006.

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 Energy Inc. (XTO) acquired the Jack Frost B #2 from Amoco Production Company. XTO understands the initial evaluation of groundwater impact came from samples collected from groundwater pooling in the bottom of the excavated pit (Attachment 2). The analytical results of the initial groundwater samples indicated elevated levels of BTEX constituents. Following closure of the pit, groundwater monitoring wells were installed and groundwater samples were collected for laboratory analysis in September 1999 and again in February and June 2000. Groundwater collected for analysis from monitoring well MW-2 exhibited BTEX concentrations that exceed NMWQCC standards. Subsequent sampling events showed a decrease in BTEX constituents to trace levels. Up gradient monitoring well MW-1 and down gradient monitoring well MW-3 exhibit no detectable concentrations of BTEX constituents during the 2000 sampling events. Monitoring well MW-4 was installed down gradient of the estimated source area in August 2006 and has been sampled for five consecutive quarters. Groundwater analysis from MW-4 exhibits benzene concentrations that exceed NMWQCC standards.

Groundwater analytical data from MW-1, MW-2R, and MW-3 for five consecutive quarters have demonstrated no detectable levels or trace levels of BTEX constituents. XTO proposes terminating sampling at these three monitoring wells in accordance with the NMOCD approved Groundwater Management Plan. Current sampling events from MW-4 show a consistent decrease in BTEX constituents and quarterly sampling will continue until four (4) consecutive quarters have been analyzed for BTEX constituents and indicate groundwater is below NMWQCC standards.

RECOMMENDATIONS

- Terminate quarterly sampling of MW-1, MW-2R and MW-3.
- Quarterly sampling will continue at MW-4 until analytical results show hydrocarbon constituents are 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

FROST, JACK B #2- SEPARATOR PIT
UNIT D, SEC. 27, T27N, R10W

Sample Date	Monitor Well No.	DTW (ft)	TD (ft)	Product (ft)	BTEX EPA Method 801 (PPB)			
					Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)
27-Sep-99	MW #1	8.73	20		24.9	4	ND	6.3
18-Feb-00		9.26			ND	ND	ND	ND
20-Jun-00		9.28			ND	ND	ND	ND
20-Jun-06		10.24	20.44		ND	ND	ND	ND
20-Sep-06		10.34	20.4		ND	ND	ND	ND
5-Dec-06		9.74	20.4		ND	ND	ND	ND
8-Mar-07		9.56	20.4		ND	ND	ND	ND
12-Jun-07		9.5	20.4		ND	ND	ND	ND
28-Sep-07		9.78	20.4		ND	ND	ND	ND
20-Dec-07		10.11	20.4					
27-Sep-99	MW #2	11.71	20		350	60.1	90.5	253.9
18-Feb-00		11.87			0.9	ND	2.6	3.9
20-Jun-00		11.38			0.5	ND	1.6	3.5
20-Jun-06		MONITORING WELL NOT FOUND						
20-Sep-06	MW #2R	13.44	22.44		ND	ND	1	3.7
5-Dec-06		13.33	22.44		ND	ND	ND	ND
8-Mar-07		13.91	22.44		ND	ND	ND	ND
12-Jun-07		12.52	22.44		ND	ND	ND	2.4
28-Sep-07		12.78	22.44		ND	ND	ND	2.1
20-Dec-07		13.02	22.44					
27-Sep-99	MW #3	13.76	20		21.2	3.1	3.1	15.1
18-Feb-00		12.87			ND	ND	ND	ND
20-Jun-00		12.42			ND	ND	ND	ND
20-Jun-06		13.29	20.41		ND	ND	ND	ND
20-Sep-06		13.34	20.4		ND	ND	ND	ND
5-Dec-06		13.4	20.4		ND	ND	ND	ND
8-Mar-07		12.63	20.4		ND	ND	ND	ND
12-Jun-07		12.41	20.4		ND	ND	ND	ND
28-Sep-07		12.54	20.4		ND	ND	ND	ND
20-Dec-07		12.7	20.4					
20-Sep-06	MW #4	13.24	22.62		46	240	53	640
5-Dec-06		13.22	22.62		73	6.4	62	130
8-Mar-07		12.84	22.62		17	ND	18	14
12-Jun-07		12.43	22.62		16	ND	11	3
28-Sep-07		12.54	22.62		11	ND	5.9	ND
20-Dec-07		12.72	22.62		29	ND	4.4	ND
NMWQCC GROUNDWATER STANDARDS					10	750	750	620

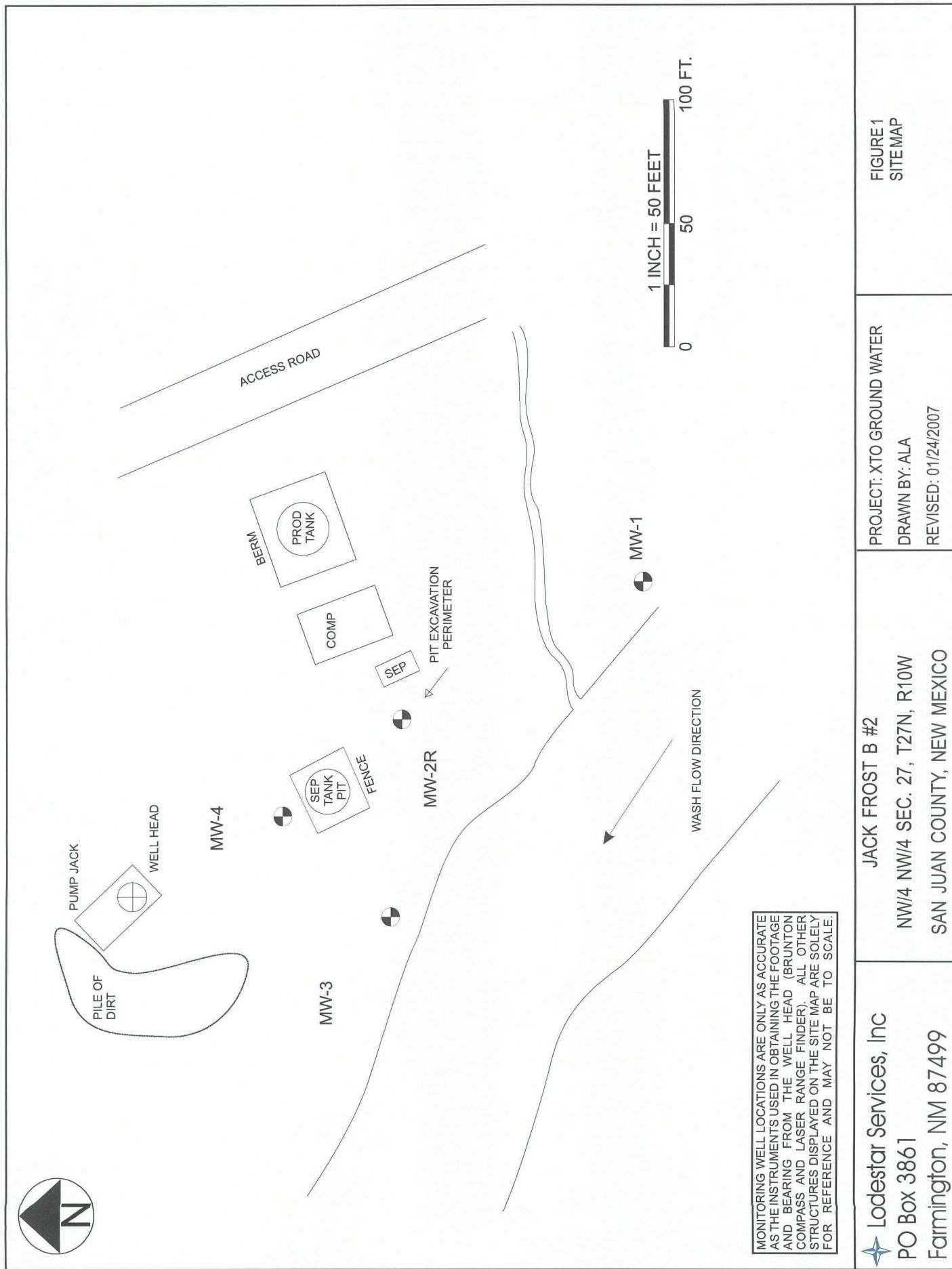
TABLE 2

XTO ENERGY INC. GROUNDWATER LAB RESULTS

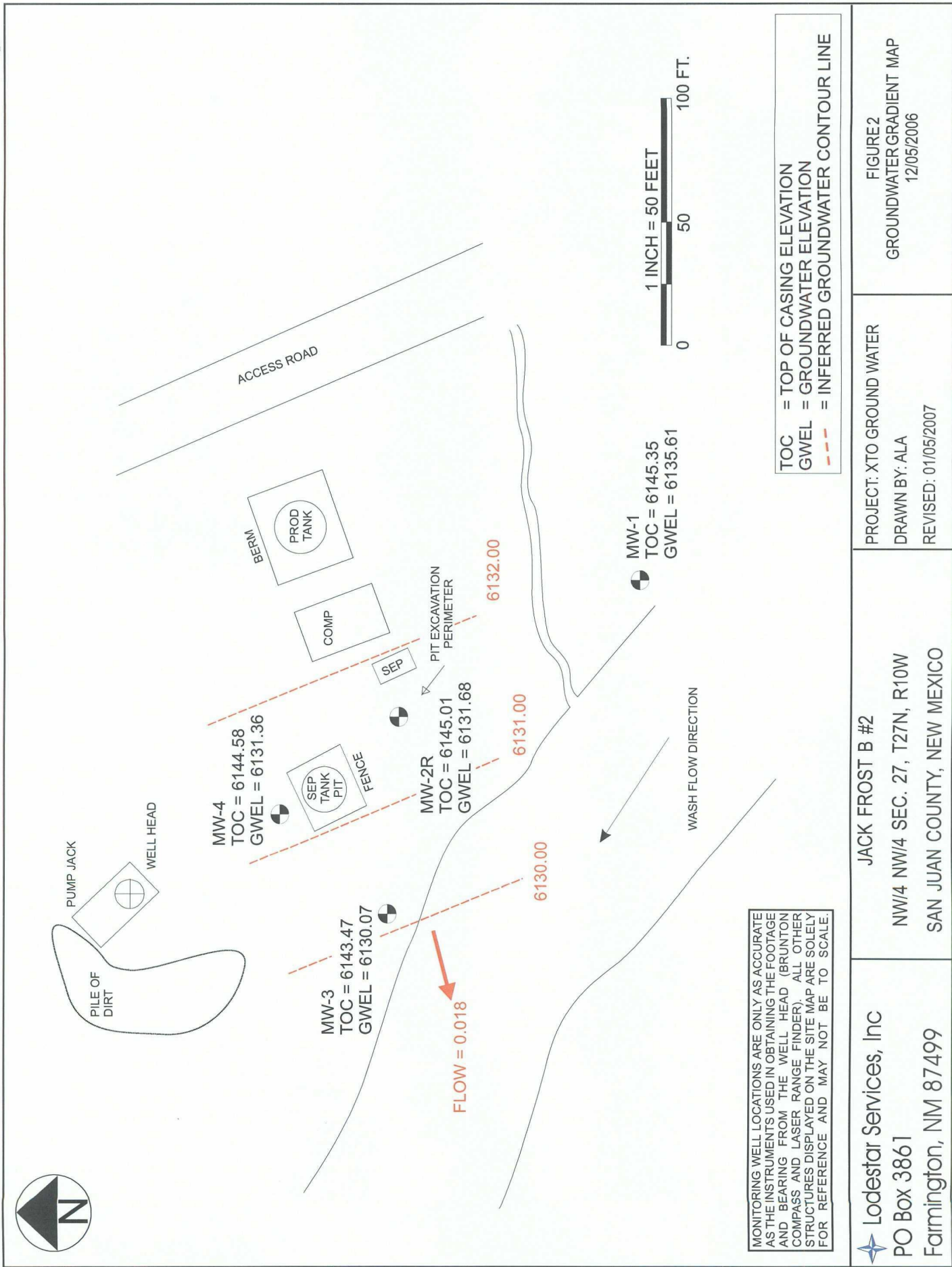
FROST, JACK B #2- SEPARATOR PIT
UNIT D, SEC. 27, T27N, R10W

Sample Date: September 27, 1999

PARAMETERS	MW #1	MW #2	MW #3	UNITS
LAB Ph	7.85	7.98	7.8	s.u.
LAB CONDUCTIVITY @ 25 C	6,810	1,876	4,180	umhos/cm
TOTAL DISSOLVED SOLIDS @ 180 C	3,400	915	2,080	mg/L
TOTAL DISSOLVED SOLIDS (Calc)	3,370	710	1,980	mg/L
SODIUM ABSORPTION RATIO	48.9	10.5	39.2	ratio
TOTAL ALKALINITY AS CaCO ₃	638	316	524	mg/L
TOTAL HARDNESS AS CaCO ₃	94	78	52	mg/L
BICARBONATE AS HCO ₃	638	316	524	mg/L
CARBONATE AS CO ₃	< 1	< 1	< 1	mg/L
HYDROXIDE AS OH	< 1	< 1	< 1	mg/L
NITRATE NITROGEN	0.1	1	0.5	mg/L
NITRITE NITROGEN	0.004	0.300	0.021	mg/L
CHLORIDE	5	2	4.5	mg/L
FLUORIDE	1.96	1.21	4.4	mg/L
PHOSPHATE	0.9	6.5	1	mg/L
SULFATE	1,850	260	983	mg/L
IRON	0.007	0.288	0.042	mg/L
CALCIUM	28.8	25.6	18.4	mg/L
MAGNESIUM	5.4	3.4	1.5	mg/L
POTASSIUM	3.0	3.0	3.0	mg/L
SODIUM	1,090	214	650	mg/L
CATION/ANION DIFFERENCE	0.25	0.02	0.2	%



Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	JACK FROST B #2 NW/4 NW/4 SEC. 27, T27N, R10W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ALA REVISED: 01/24/2007	FIGURE 1 SITEMAP
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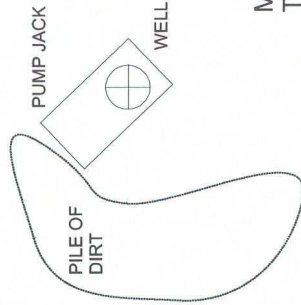


Lodestar Services, Inc
PO Box 3861
Farmington, NM 87499

JACK FROST B #2
NW/4 NW/4 SEC. 27, T27N, R10W
SAN JUAN COUNTY, NEW MEXICO

PROJECT: XTO GROUND WATER
DRAWN BY: ALA
REVISED: 01/05/2007

FIGURE 2
GROUNDWATER GRADIENT MAP
12/05/2006



MW-4
TOC = 6144.58
GWEL = 6131.74

6131.50

6131.00

MW-3
TOC = 6143.47
GWEL = 6130.84

MW-2R
TOC = 6145.01
GWEL = 6131.10

FLOW = 0.083

MW-1
TOC = 6145.35
GWEL = 6135.79

ACCESS ROAD

BERM

COMP

SEP
TANK
PIT

FENCE

PIT EXCAVATION
PERIMETER

WASH FLOW DIRECTION

1 INCH = 50 FEET
0 50 100 FT.

NOTES:

1. Groundwater elevation at MW-1 is affected by the small drainage that separates MW-1 from the rest of the monitoring wells. Groundwater elevation at MW-1 was not used to infer contours.
2. Monitoring well locations are only as accurate as the instruments used in obtaining the footage and bearing from the well head (Brunton Compass and Laser Range Finder). All other structures displayed on the site map are solely for reference and may not be to scale.

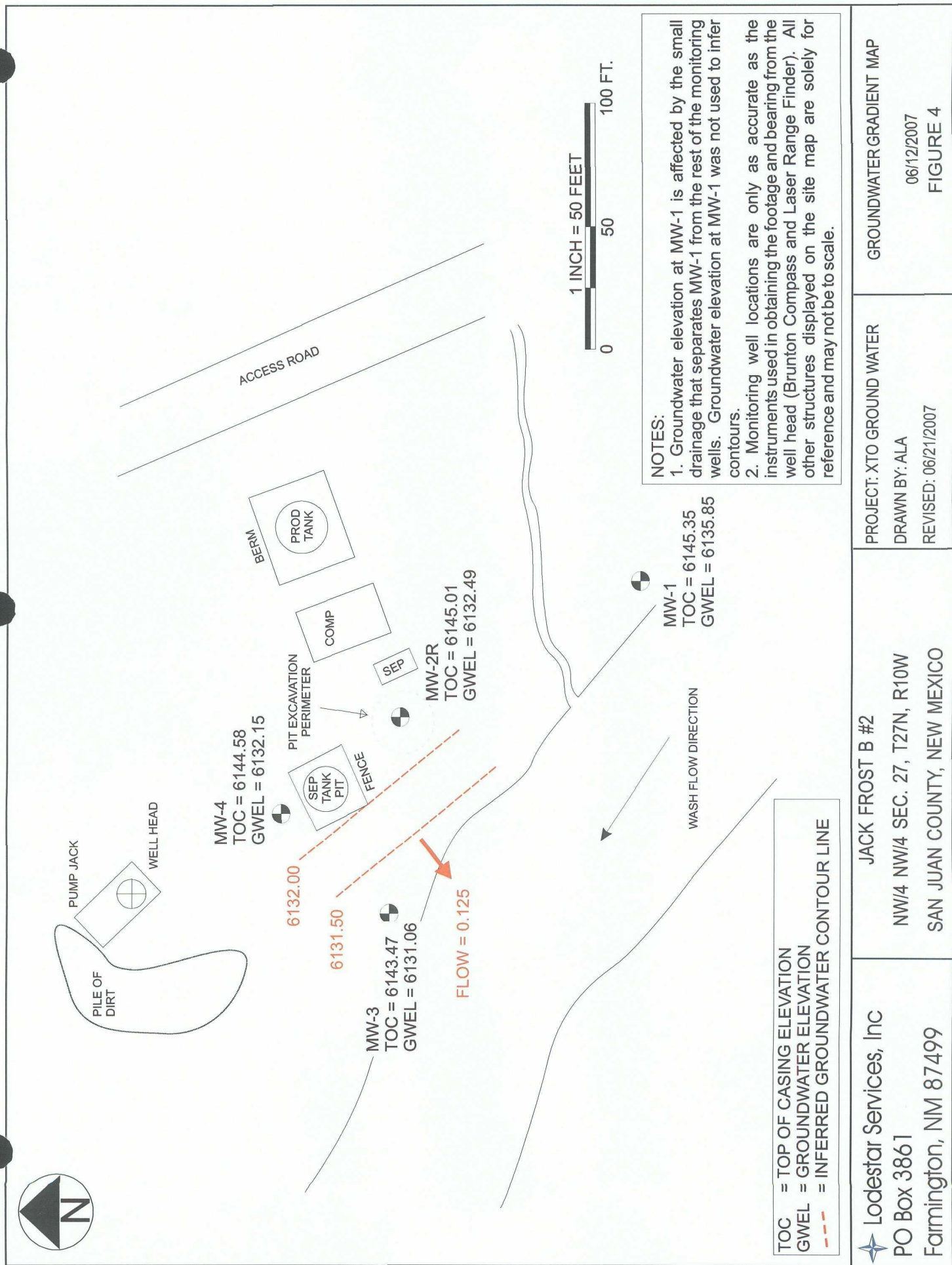
TOC = TOP OF CASING ELEVATION
GWEL = GROUNDWATER ELEVATION
--- = INFERRED GROUNDWATER CONTOUR LINE

Lodestar Services, Inc
PO Box 3861
Farmington, NM 87499

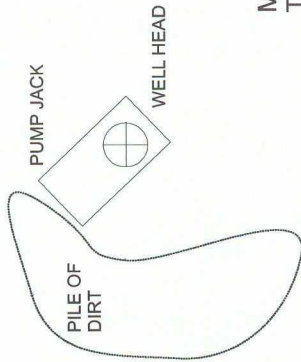
JACK FROST B #2
NW/4 NW/4 SEC. 27, T27N, R10W
SAN JUAN COUNTY, NEW MEXICO

PROJECT: XTO GROUND WATER
DRAWN BY: ALA
REVISED: 03/12/2007

GROUNDWATER GRADIENT MAP
03/08/2007
FIGURE 3

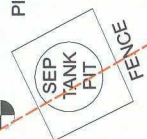


Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	JACK FROST B #2 NW/4 NW/4 SEC. 27, T27N, R10W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ALA REVISED: 06/21/2007	GROUNDWATER GRADIENT MAP 06/12/2007 FIGURE 4
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MW-4
TOC = 6144.58
GWEL = 6132.04

PIT EXCAVATION
PERIMETER



COMP



ACCESS ROAD

MW-3
TOC = 6143.47
GWEL = 6130.93

MW-2R
TOC = 6145.01
GWEL = 6132.23

MW-1
TOC = 6145.35
GWEL = 6135.57

WASH FLOW DIRECTION

FLOW = 0.095



NOTES:

1. Groundwater elevation at MW-1 is affected by the small drainage that separates MW-1 from the rest of the monitoring wells. Groundwater elevation at MW-1 was not used to infer contours.
2. Monitoring well locations are only as accurate as the instruments used in obtaining the footage and bearing from the well head (Brunton Compass and Laser Range Finder). All other structures displayed on the site map are solely for reference and may not be to scale.

TOC = TOP OF CASING ELEVATION
GWEL = GROUNDWATER ELEVATION
--- = INFERRED GROUNDWATER CONTOUR LINE

Lodestar Services, Inc
PO Box 3861
Farmington, NM 87499

JACK FROST B #2
NW/4 NW/4 SEC. 27, T27N, R10W
SAN JUAN COUNTY, NEW MEXICO

PROJECT: XTO GROUND WATER
DRAWN BY: ALA
REVISED: 09/28/2007

GROUNDWATER GRADIENT MAP
09/25/2007
FIGURE 5

FIGURE 6

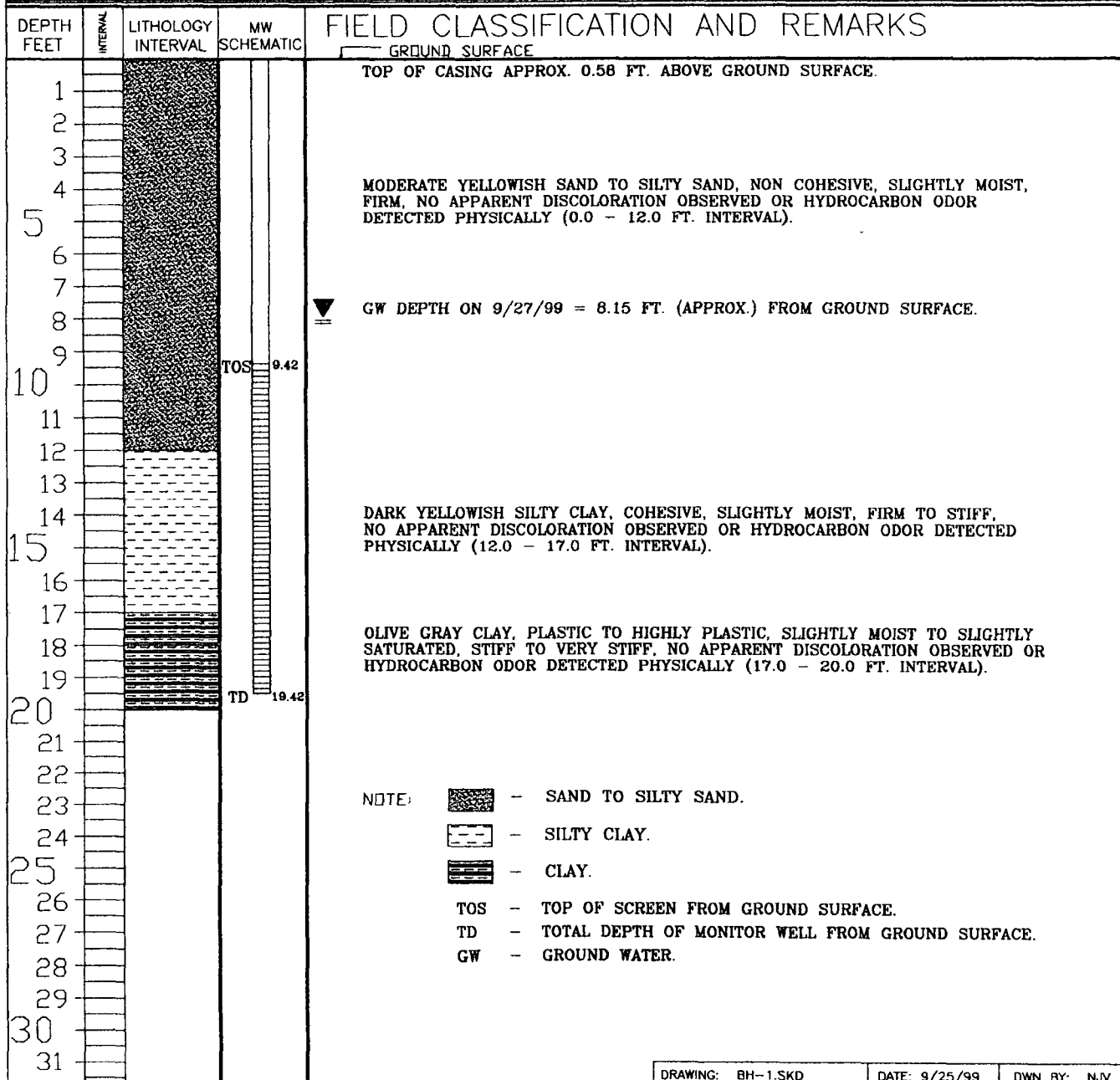
BLAGG ENGINEERING, Inc.

P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

BORE / TEST HOLE REPORT

CLIENT: XTO ENERGY INC.
LOCATION NAME: FROST, JACK B #2
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG (EARTHROBE)
BORING LOCATION: 273 FT., S33E FEET FROM WELL HEAD.

BORING #..... BH - 1
MW #..... 1
PAGE #..... 1
DATE STARTED 9/21/99
DATE FINISHED 9/21/99
OPERATOR..... REP
PREPARED BY NJV



DRAWING: BH-1.SKD

DATE: 9/25/99

DWN BY: NJV

FIGURE 7

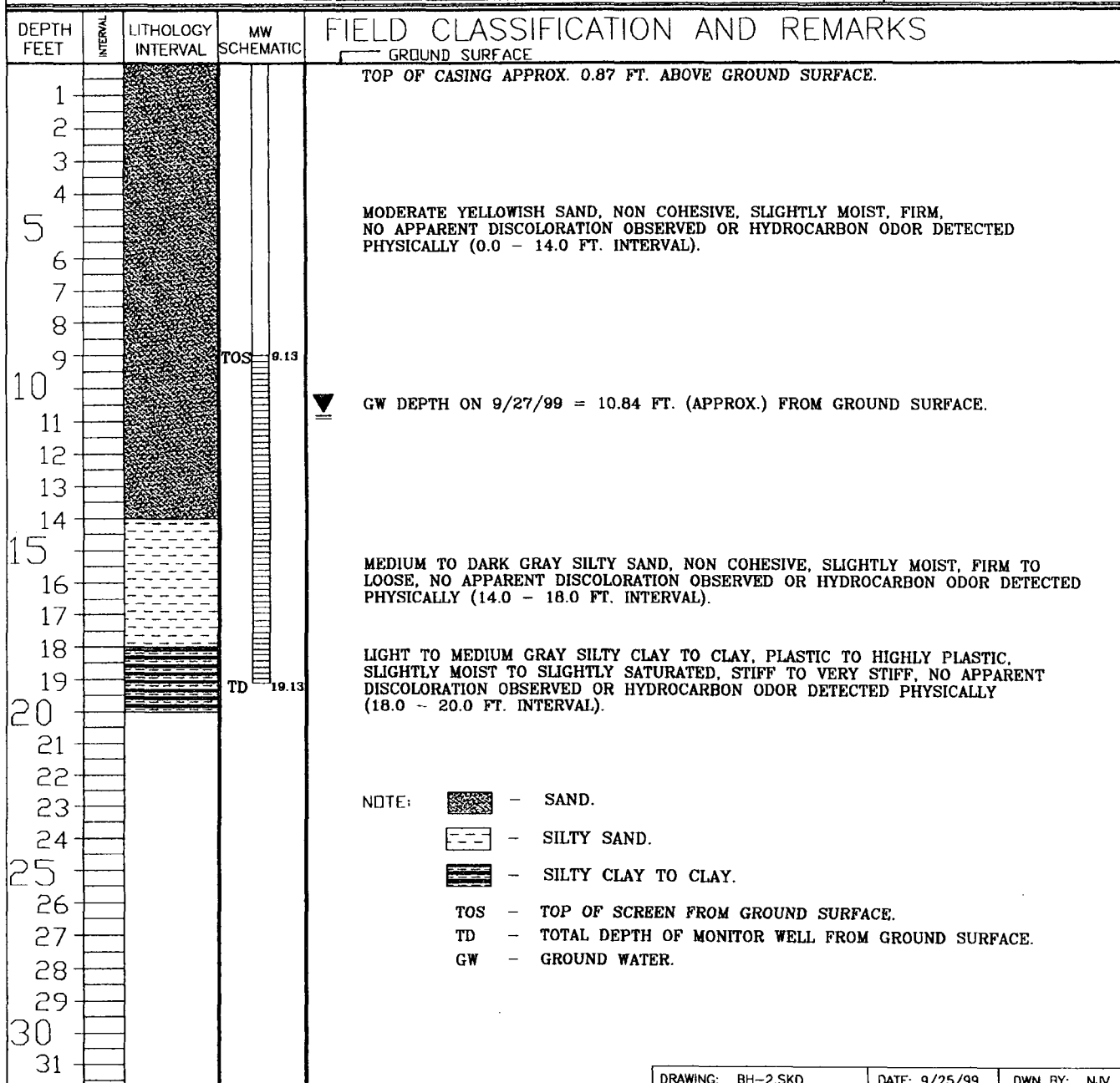
BLAGG ENGINEERING, Inc.

P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

BORE / TEST HOLE REPORT

CLIENT: XTO ENERGY INC.
LOCATION NAME: FROST, JACK B #2
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION: 156 FT., S35E FEET FROM WELL HEAD.

BORING #..... BH - 2
MW #..... 2
PAGE #..... 2
DATE STARTED 9/21/99
DATE FINISHED 9/21/99
OPERATOR..... REP
PREPARED BY NJV



DRAWING: BH-2.SKD

DATE: 9/25/99

OWN BY: NJV

FIGURE 8

BLAGG ENGINEERING, Inc.

P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

BORE / TEST HOLE REPORT

CLIENT: XTO ENERGY INC.
LOCATION NAME: FROST, JACK B #2
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION: 120 FT., S1E FEET FROM WELL HEAD.

BORING #..... BH - 3
MW #..... 3
PAGE #..... 3
DATE STARTED 9/21/99
DATE FINISHED 9/21/99
OPERATOR..... REP
PREPARED BY NJV

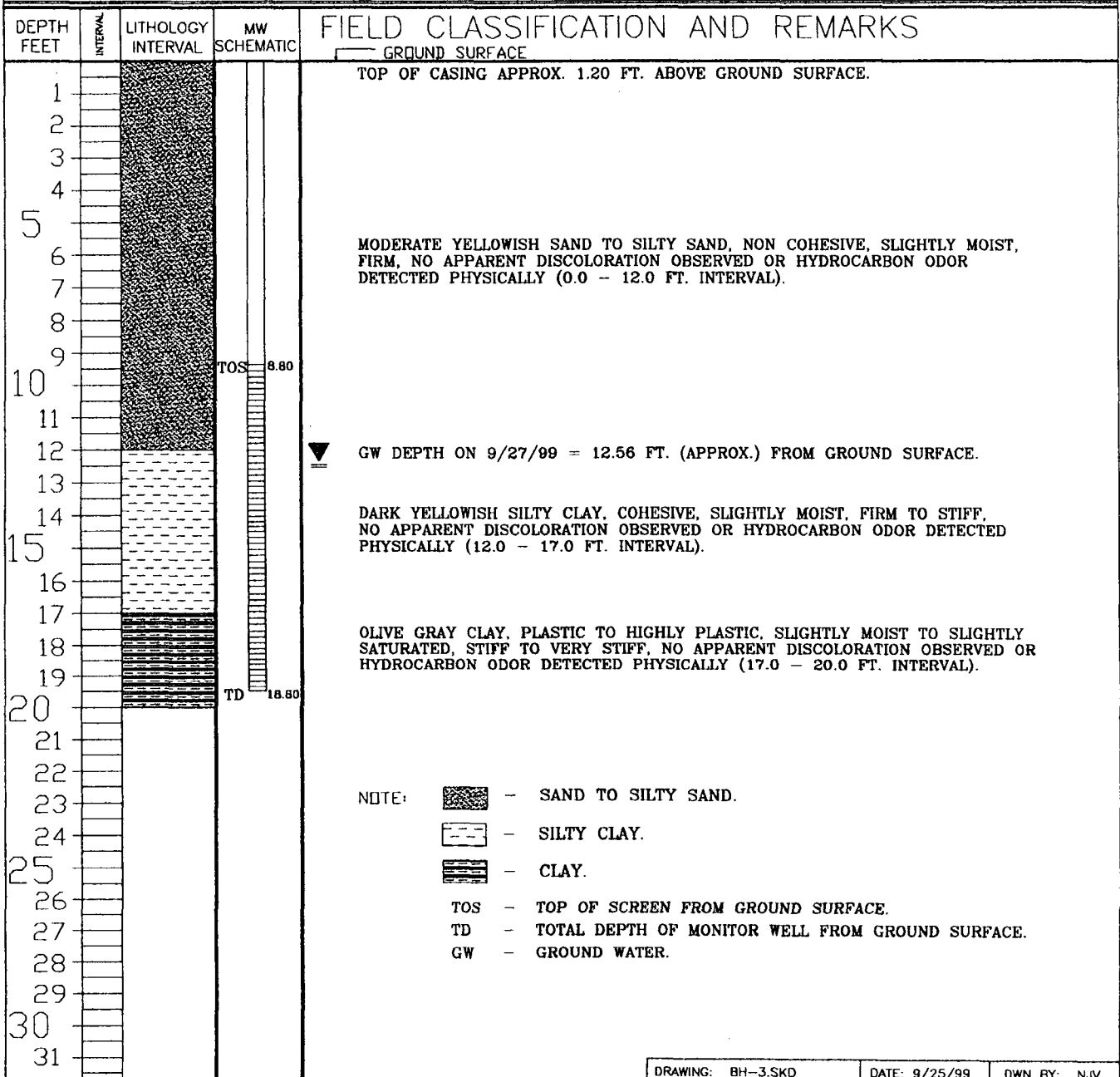


FIGURE 9 **RECORD OF SUBSURFACE EXPLORATION**

LodeStar Services
P.O. Box 4465
Durango, CO 81302
303-917-6288

Borehole #: 1
Well #: MW-2R
Page: 1 of 1

Project Number: _____
Project Name: XTO Ground Water
Project Location: Jack Frost B #2

Borehole Location: 36° 33.041' N, 107° 53.289' W
GWL Depth: 13'
Drilled By: Envirotech
Well Logged By: Ashley Ager
Date Started: 08/31/06
Date Completed: 08/31/06

Drilling Method: Hollow Stem Auger
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
0		0-1.5	cuttings	Tan, poorly sorted coarse sand and gravel (<10? Gravel), angular and dry (Fill)	0	Easy and fast
		1.5-15.5	cuttings	Brown, poorly sorted coarse sand, no gravel, angular, varying mineralogies, damp and unconsolidated	0	Easy and fast
5						
10						
15		15.5-20	cuttings	Gray, poorly sorted coarse sand, angular, varying mineralogy, wet and unconsolidated	5.8	Easy and fast
20						

Comments: Very easy well to install.

Geologist Signature: Ashley L. Ager

FIGURE 10
MONITORING WELL INSTALLATION RECORD

Lodestar Services, Inc

PO Box 3861

Farmington, New Mexico 87499

(505) 334-2791

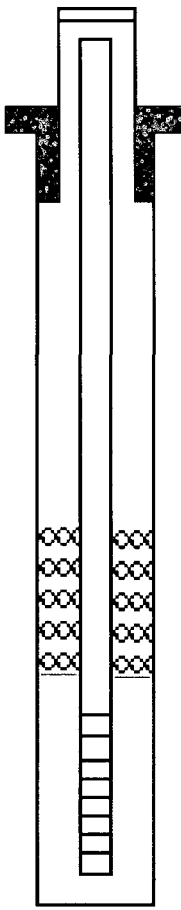
Borehole # 1
Well # MW-2R
Page 1 of 1

Project Name XTO Ground Water
Project Number Cost Code
Project Location Jack Frost B #2

Elevation 6172'
Well Location 36° 33.041' N, 107° 53.289' W
GWL Depth 14.89'
Installed By Envirotech

On-Site Geologist Ashley Ager
Personnel On-Site
Contractors On-Site Kelly Padilla and assistant
Client Personnel On-Site

Date/Time Started 08/31/06, 11:05
Date/Time Completed 08/31/06, 12:27

Depths in Reference to Ground Surface				
Item	Material	Depth (feet)		
Top of Protective Casing	Steel	2.68		Top of Protective Casing <u>2.68</u>
Bottom of Protective Casing		-1.68		Top of Riser <u>2.66</u>
Top of Permanent Borehole Casing	Sch. 40 PVC	2.66		Ground Surface <u>0</u>
Bottom of Permanent Borehole Casing		-22.44		
Top of Concrete	Concrete	0.1		
Bottom of Concrete		-0.2		
Top of Grout		NA		
Bottom of Grout		NA		
Top of Well Riser	Sch. 40 PVC	2.66		
Bottom of Well Riser		-22.44		
Top of Well Screen	Sch. 40 PVC	-7.14		Top of Seal <u>-0.2</u>
Bottom of Well Screen		-22.14		
Top of Peltonite Seal	Bentonite	-0.2		
Bottom of Peltonite Seal		-3		Top of Gravel Pack <u>-3</u>
Top of Gravel Pack	Sand	-3		Top of Screen <u>-7.14</u>
Bottom of Gravel Pack		-22.13		
Top of Natural Cave-In	Sand and cobbles	-22.13		
Bottom of Natural Cave-In		-22.26		
Top of Groundwater		-14.89		Bottom of Screen <u>-22.14</u>
Total Depth of Borehole		-22.26		Bottom of Borehole <u>-22.26</u>

Comments: 50 lb bags of sand used: 8 ea. . 50 lb bags of bentontie used: 2 ea.

Geologist Signature Ashley L. Ager

FIGURE 11 RECORD OF SUBSURFACE EXPLORATION

LodeStar Services
P.O. Box 4465
Durango, CO 81302
303-917-6288

Borehole #: 1
Well #: MW-4
Page: 1 of 1

Project Number: _____
Project Name: XTO Ground Water
Project Location: Jack Frost B #2

Borehole Location: 36° 33.044' N, 107° 53.297' W
GWL Depth: 18'
Drilled By: Envirotech
Well Logged By: Ashley Ager
Date Started: 08/31/06
Date Completed: 08/31/06

Drilling Method: Hollow Stem Auger
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
0		0-0.5	cuttings	Tan, poorly sorted coarse sand and gravel (<10%), angular and dry (Fill)	0	Easy
		0.5-13.5	cuttings	Brown, poorly sorted coarse sand, damp, subangular, <1% gravel content	0	Easy
5						
10						
15		13.5-17	cuttings	Gray, silty sand, very coarse, angular, wet, poorly sorted	2.9	Easy
		17-19	cuttings	Brown, poorly sorted coarse sand, wet, subangular, no gravel	0	Easy
20		19-22	cuttings	Brown, poorly sorted coarse sand with cobbles (<5%)	0	Hard and slow

Comments: _____

Geologist Signature: Ashley L. Ager

FIGURE 12
MONITORING WELL INSTALLATION RECORD
Lodestar Services, Inc
 PO Box 3861
 Farmington, New Mexico 87499
 (505) 334-2791

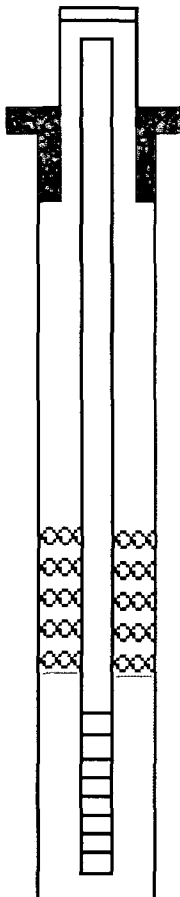
Borehole # 1
 Well # MW-4
 Page 1 of 1

Project Name XTO Ground Water
 Project Number _____ Cost Code _____
 Project Location Jack Frost B #2

Elevation 6172'
 Well Location 36° 33.044' N, 107° 53.297' W
 GWL Depth 19.52'
 Installed By Envirotech

On-Site Geologist Ashley Ager
 Personnel On-Site _____
 Contractors On-Site Kelly Padilla and assistant
 Client Personnel On-Site _____

Date/Time Started 08/31/06, 12:55
 Date/Time Completed 08/31/06, 14:45

Depths in Reference to Ground Surface				
Item	Material	Depth (feet)		
Top of Protective Casing	Steel	2.4		Top of Protective Casing <u>2.4</u>
Bottom of Protective Casing		-0.6		Top of Riser <u>2.3</u>
Top of Permanent Borehole Casing	Sch. 40 PVC	2.3		Ground Surface <u>0</u>
Bottom of Permanent Borehole Casing		-22.65		
Top of Concrete	Concrete	0.1		
Bottom of Concrete		-0.3		
Top of Grout		NA		
Bottom of Grout		NA		
Top of Well Riser	Sch. 40 PVC	2.3		
Bottom of Well Riser		-22.65		
Top of Well Screen	Sch. 40 PVC	-7.35		Top of Seal <u>-0.1</u>
Bottom of Well Screen		-22.35		
Top of Peltonite Seal	Bentonite	-0.3		
Bottom of Peltonite Seal		-3		Top of Gravel Pack <u>-3</u>
Top of Gravel Pack	Sand	-3		Top of Screen <u>-7.35</u>
Bottom of Gravel Pack		-22.65		
Top of Natural Cave-In	Sand and cobbles	-22.65		
Bottom of Natural Cave-In		-22.8		
Top of Groundwater		-19.52		Bottom of Screen <u>-22.35</u>
Total Depth of Borehole		-22.6		Bottom of Borehole <u>-22.6</u>

Comments: 50 lb bags of sand used: 10 ea. , 50 lb bags of bentontie used: 2 ea.

Geologist Signature Ashley L. Ager

Hall Environmental Analysis Laboratory, Inc.

Date: 04-Oct-06

CLIENT: XTO Energy
Lab Order: 0609291
Project: XTO Ground Water
Lab ID: 0609291-05

Client Sample ID: Jack Frost B#2 MW-4
Collection Date: 9/20/2006 12:10:00 PM
Date Received: 9/22/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: SMP
Benzene	46	5.0		µg/L	5	9/29/2006
Toluene	240	5.0		µg/L	5	9/29/2006
Ethylbenzene	53	5.0		µg/L	5	9/29/2006
Xylenes, Total	640	15		µg/L	5	9/29/2006
Surr: 1,2-Dichloroethane-d4	93.4	69.9-130		%REC	5	9/29/2006
Surr: 4-Bromofluorobenzene	113	71.2-123		%REC	5	9/29/2006
Surr: Dibromofluoromethane	91.9	73.9-134		%REC	5	9/29/2006
Surr: Toluene-d8	101	81.9-122		%REC	5	9/29/2006

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 04-Oct-06

CLIENT: XTO Energy
Lab Order: 0609291
Project: XTO Ground Water
Lab ID: 0609291-06

Client Sample ID: Jack Frost B#2 MW-3
Collection Date: 9/20/2006 12:28:00 PM
Date Received: 9/22/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: SMP
Benzene	ND	1.0		µg/L	1	9/29/2006
Toluene	ND	1.0		µg/L	1	9/29/2006
Ethylbenzene	ND	1.0		µg/L	1	9/29/2006
Xylenes, Total	ND	3.0		µg/L	1	9/29/2006
Surr: 1,2-Dichloroethane-d4	93.4	69.9-130		%REC	1	9/29/2006
Surr: 4-Bromofluorobenzene	104	71.2-123		%REC	1	9/29/2006
Surr: Dibromofluoromethane	104	73.9-134		%REC	1	9/29/2006
Surr: Toluene-d8	97.3	81.9-122		%REC	1	9/29/2006

Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 04-Oct-06

CLIENT: XTO Energy
Lab Order: 0609291
Project: XTO Ground Water
Lab ID: 0609291-07

Client Sample ID: Jack Frost B#2 MW-1
Collection Date: 9/20/2006 1:22:00 PM
Date Received: 9/22/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: SMP
Benzene	ND	1.0		µg/L	1	9/29/2006
Toluene	ND	1.0		µg/L	1	9/29/2006
Ethylbenzene	ND	1.0		µg/L	1	9/29/2006
Xylenes, Total	ND	3.0		µg/L	1	9/29/2006
Surr: 1,2-Dichloroethane-d4	91.1	69.9-130		%REC	1	9/29/2006
Surr: 4-Bromofluorobenzene	104	71.2-123		%REC	1	9/29/2006
Surr: Dibromofluoromethane	94.2	73.9-134		%REC	1	9/29/2006
Surr: Toluene-d8	98.6	81.9-122		%REC	1	9/29/2006

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 04-Oct-06

CLIENT: XTO Energy
Lab Order: 0609291
Project: XTO Ground Water
Lab ID: 0609291-08

Client Sample ID: Jack Frost B#2 MW-2R
Collection Date: 9/20/2006 1:15:00 PM
Date Received: 9/22/2006
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: SMP
Benzene	ND	1.0		µg/L	1	9/29/2006
Toluene	ND	1.0		µg/L	1	9/29/2006
Ethylbenzene	1.0	1.0		µg/L	1	9/29/2006
Xylenes, Total	3.7	3.0		µg/L	1	9/29/2006
Surr: 1,2-Dichloroethane-d4	92.6	69.9-130		%REC	1	9/29/2006
Surr: 4-Bromofluorobenzene	106	71.2-123		%REC	1	9/29/2006
Surr: Dibromofluoromethane	97.9	73.9-134		%REC	1	9/29/2006
Surr: Toluene-d8	98.3	81.9-122		%REC	1	9/29/2006

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 04-Oct-06

CLIENT: XTO Energy
Lab Order: 0609291
Project: XTO Ground Water
Lab ID: 0609291-10

Client Sample ID: 20092003TB01
Collection Date:
Date Received: 9/22/2006
Matrix: TRJP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: SMP
Benzene	ND	1.0		µg/L	1	9/29/2006
Toluene	ND	1.0		µg/L	1	9/29/2006
Ethylbenzene	ND	1.0		µg/L	1	9/29/2006
Xylenes, Total	ND	3.0		µg/L	1	9/29/2006
Surr: 1,2-Dichloroethane-d4	91.3	69.9-130		%REC	1	9/29/2006
Surr: 4-Bromofluorobenzene	103	71.2-123		%REC	1	9/29/2006
Surr: Dibromofluoromethane	94.1	73.9-134		%REC	1	9/29/2006
Surr: Toluene-d8	96.0	81.9-122		%REC	1	9/29/2006

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: XTO Ground Water

Work Order: 0609291

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: E300									
Sample ID: 0609291-01A MSD		MSD							
Chloride	11.75	mg/L	0.10	88.5	80	120	0.0681	20	
Sample ID: MBLK		MBLK							
Chloride	ND	mg/L	0.10						
Sample ID: LCS ST300-06008		LCS							
Chloride	4.991	mg/L	0.10	99.8	90	110			
Sample ID: 0609291-01A MS		MS							
Chloride	11.75	mg/L	0.10	88.7	80	120			
Method: SW8015									
Sample ID: MB-11352		MBLK							
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-11352		LCS							
Diesel Range Organics (DRO)	32.57	mg/Kg	10	65.1	64.6	116			
Sample ID: LCSD-11352		LCSD							
Diesel Range Organics (DRO)	34.41	mg/Kg	10	68.8	64.6	116	5.48	17.4	
Method: SW8015									
Sample ID: MB-11343		MBLK							
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-11343		LCS							
Gasoline Range Organics (GRO)	21.20	mg/Kg	5.0	80.8	73.4	115			
Sample ID: LCSD-11343		LCSD							
Gasoline Range Organics (GRO)	20.60	mg/Kg	5.0	78.4	73.4	115	2.87	11.6	

Qualifiers:

E Value above quantitation range
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: XTO Ground Water

Work Order: 0609291

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: MB-11343

MBLK

Batch ID: 11343 Analysis Date: 9/26/2006 1:06:36 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	0.15

Sample ID: LCS-11343

LCS

Batch ID: 11343 Analysis Date: 9/26/2006 1:36:35 AM

Methyl tert-butyl ether (MTBE)	0.5803	mg/Kg	0.10	126	67.9	135
Benzene	0.2887	mg/Kg	0.050	111	77.5	123
Toluene	2.015	mg/Kg	0.050	110	85.3	129
Ethylbenzene	0.3749	mg/Kg	0.050	104	79.6	121
Xylenes, Total	2.318	mg/Kg	0.15	107	80	130

Sample ID: LCSD-11343

LCSD

Batch ID: 11343 Analysis Date: 9/26/2006 2:06:38 AM

Methyl tert-butyl ether (MTBE)	0.6050	mg/Kg	0.10	132	67.9	135	4.17	28
Benzene	0.2927	mg/Kg	0.050	113	77.5	123	1.38	27
Toluene	2.044	mg/Kg	0.050	112	85.3	129	1.42	19
Ethylbenzene	0.3802	mg/Kg	0.050	106	79.6	121	1.40	10
Xylenes, Total	2.342	mg/Kg	0.15	108	80	130	1.05	13

Method: E160.1

Sample ID: MB-11366

MBLK

Batch ID: 11366 Analysis Date: 9/26/2006

Total Dissolved Solids	ND	mg/L	20
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Sample ID: LCS-11366

LCS

Batch ID: 11366 Analysis Date: 9/26/2006

Total Dissolved Solids	982.0	mg/L	20	98.2	80	120
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Qualifiers:

E	Value above quantitation range	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: XTO Ground Water

Work Order: 1609291

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8260B

Sample ID: 5ml rb

MBLK

Batch ID: R20888 Analysis Date: 9/29/2006

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	1.5
1,2,4-Trimethylbenzene	ND	µg/L	1.0
1,3,5-Trimethylbenzene	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	3.0

Sample ID: 100ng lcs B

LCS

Batch ID: R20888 Analysis Date: 9/29/2006

Benzene	18.83	µg/L	1.0	94.1	74.9	113
Toluene	18.96	µg/L	1.0	94.8	77	121

Qualifiers:

E	Value above quantitation range	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

Hall Environmental Analysis Laboratory, Inc.

Date: 15-Dec-06

CLIENT: XTO Energy
Project: Ground Water**Lab Order:** 0612120**Lab ID:** 0612120-01
Client Sample ID: Jack Frost B2 MW-4**Collection Date:** 12/5/2006 9:50:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	73	5.0		µg/L	5	12/11/2006 10:35:44 PM
Toluene	6.4	5.0		µg/L	5	12/11/2006 10:35:44 PM
Ethylbenzene	62	5.0		µg/L	5	12/11/2006 10:35:44 PM
Xylenes, Total	130	15		µg/L	5	12/11/2006 10:35:44 PM
Surr: 4-Bromofluorobenzene	80.8	70.2-105		%REC	5	12/11/2006 10:35:44 PM

Lab ID: 0612120-02
Client Sample ID: Jack Frost B2 MW-3**Collection Date:** 12/5/2006 11:25:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/11/2006 11:05:51 PM
Toluene	ND	1.0		µg/L	1	12/11/2006 11:05:51 PM
Ethylbenzene	ND	1.0		µg/L	1	12/11/2006 11:05:51 PM
Xylenes, Total	ND	3.0		µg/L	1	12/11/2006 11:05:51 PM
Surr: 4-Bromofluorobenzene	79.0	70.2-105		%REC	1	12/11/2006 11:05:51 PM

Lab ID: 0612120-03
Client Sample ID: Jack Frost B2 MW-2R**Collection Date:** 12/5/2006 10:58:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/11/2006 11:35:57 PM
Toluene	ND	1.0		µg/L	1	12/11/2006 11:35:57 PM
Ethylbenzene	ND	1.0		µg/L	1	12/11/2006 11:35:57 PM
Xylenes, Total	ND	3.0		µg/L	1	12/11/2006 11:35:57 PM
Surr: 4-Bromofluorobenzene	79.9	70.2-105		%REC	1	12/11/2006 11:35:57 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

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: 15-Dec-06

CLIENT: XTO Energy
Project: Ground Water

Lab Order: 0612120

Lab ID: 0612120-04
Client Sample ID: Jack Frost B2 MW-1

Collection Date: 12/5/2006 11:38:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/12/2006 12:06:05 AM
Toluene	ND	1.0		µg/L	1	12/12/2006 12:06:05 AM
Ethylbenzene	ND	1.0		µg/L	1	12/12/2006 12:06:05 AM
Xylenes, Total	ND	3.0		µg/L	1	12/12/2006 12:06:05 AM
Surr: 4-Bromofluorobenzene	79.0	70.2-105		%REC	1	12/12/2006 12:06:05 AM

Lab ID: 0612120-05
~~Client Sample ID: OH Randel 7 MW-5~~

Collection Date: 12/5/2006 1:08:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	37	1.0		µg/L	1	12/12/2006 12:36:10 AM
Toluene	ND	1.0		µg/L	1	12/12/2006 12:36:10 AM
Ethylbenzene	ND	1.0		µg/L	1	12/12/2006 12:36:10 AM
Xylenes, Total	4.1	3.0		µg/L	1	12/12/2006 12:36:10 AM
Surr: 4-Bromofluorobenzene	81.1	70.2-105		%REC	1	12/12/2006 12:36:10 AM

Lab ID: 0612120-06
~~Client Sample ID: OH Randel 7 MW-3~~

Collection Date: 12/5/2006 12:38:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/12/2006 3:36:16 AM
Toluene	ND	1.0		µg/L	1	12/12/2006 3:36:16 AM
Ethylbenzene	ND	1.0		µg/L	1	12/12/2006 3:36:16 AM
Xylenes, Total	ND	3.0		µg/L	1	12/12/2006 3:36:16 AM
Surr: 4-Bromofluorobenzene	79.5	70.2-105		%REC	1	12/12/2006 3:36:16 AM

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 Water

Work Order: 0612120

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 0612120-02A MSD	MSD		Batch ID: R21754 Analysis Date: 12/12/2006 1:36:12 AM						
Benzene	17.92	µg/L	1.0	87.5	85.9	113	6.25	27	
Toluene	17.88	µg/L	1.0	87.7	86.4	113	4.33	19	
Ethylbenzene	17.30	µg/L	1.0	86.5	83.5	118	4.82	10	
Xylenes, Total	51.71	µg/L	3.0	86.2	83.4	122	4.61	13	
Sample ID: b 15	MBLK		Batch ID: R21754 Analysis Date: 12/11/2006 3:54:38 PM						
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 REAGENT BLA	MBLK		Batch ID: R21800 Analysis Date: 12/13/2006 8:26:25 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 REAGENT BLA	MBLK		Batch ID: R21831 Analysis Date: 12/14/2006 8:42:55 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 BTEX LCS II	LCS		Batch ID: R21754 Analysis Date: 12/12/2006 2:06:12 AM						
Benzene	18.26	µg/L	1.0	90.3	85.9	113			
Toluene	18.31	µg/L	1.0	91.6	86.4	113			
Ethylbenzene	17.98	µg/L	1.0	89.9	83.5	118			
Xylenes, Total	53.73	µg/L	3.0	89.6	83.4	122			
Sample ID: 100NG BTEX LCS	LCS		Batch ID: R21800 Analysis Date: 12/13/2006 4:33:03 PM						
Benzene	18.09	µg/L	1.0	90.4	85.9	113			
Toluene	17.99	µg/L	1.0	89.9	86.4	113			
Ethylbenzene	17.55	µg/L	1.0	87.7	83.5	118			
Xylenes, Total	52.58	µg/L	3.0	87.6	83.4	122			
Sample ID: 100NG BTEX LCS	LCS		Batch ID: R21831 Analysis Date: 12/14/2006 7:50:29 PM						
Benzene	17.78	µg/L	1.0	88.9	85.9	113			
Toluene	17.85	µg/L	1.0	89.2	86.4	113			
Ethylbenzene	17.33	µg/L	1.0	86.6	83.5	118			
Xylenes, Total	52.15	µg/L	3.0	86.9	83.4	122			
Sample ID: 0612120-02A MS	MS		Batch ID: R21754 Analysis Date: 12/12/2006 1:06:08 AM						
Benzene	19.07	µg/L	1.0	93.3	85.9	113			
Toluene	18.68	µg/L	1.0	91.7	86.4	113			
Ethylbenzene	18.16	µg/L	1.0	90.8	83.5	118			
Xylenes, Total	54.15	µg/L	3.0	90.2	83.4	122			

Qualifiers:

E Value above quantitation range
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 5-10% recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Mar-07

CLIENT: XTO Energy
Project: Ground Water

Lab Order: 0703123

Lab ID: 0703123-13
Client Sample ID: Jack Frost B2 MW-4

Collection Date: 3/8/2007 4:05:00 PM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	17	1.0		µg/L	1	3/12/2007 10:59:55 PM
Toluene	ND	1.0		µg/L	1	3/12/2007 10:59:55 PM
Ethylbenzene	18	1.0		µg/L	1	3/12/2007 10:59:55 PM
Xylenes, Total	14	2.0		µg/L	1	3/12/2007 10:59:55 PM
Surr: 4-Bromofluorobenzene	85.8	70.2-105		%REC	1	3/12/2007 10:59:55 PM

Lab ID: 0703123-14
Client Sample ID: Jack Frost B2 MW-3

Collection Date: 3/8/2007 4:32:00 PM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	3/13/2007 12:00:07 AM
Toluene	ND	1.0		µg/L	1	3/13/2007 12:00:07 AM
Ethylbenzene	ND	1.0		µg/L	1	3/13/2007 12:00:07 AM
Xylenes, Total	ND	2.0		µg/L	1	3/13/2007 12:00:07 AM
Surr: 4-Bromofluorobenzene	86.0	70.2-105		%REC	1	3/13/2007 12:00:07 AM

Lab ID: 0703123-15
Client Sample ID: Jack Frost B2 MW-2R

Collection Date: 3/8/2007 4:52:00 PM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	3/13/2007 12:30:19 AM
Toluene	ND	1.0		µg/L	1	3/13/2007 12:30:19 AM
Ethylbenzene	ND	1.0		µg/L	1	3/13/2007 12:30:19 AM
Xylenes, Total	ND	2.0		µg/L	1	3/13/2007 12:30:19 AM
Surr: 4-Bromofluorobenzene	85.5	70.2-105		%REC	1	3/13/2007 12:30:19 AM

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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Mar-07

CLIENT: XTO Energy
Project: Ground Water**Lab Order:** 0703123**Lab ID:** 0703123-16
Client Sample ID: Jack Frost B2 MW-1**Collection Date:** 3/8/2007 5:10:00 PM**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	3/13/2007 1:00:16 AM
Toluene	ND	1.0		µg/L	1	3/13/2007 1:00:16 AM
Ethylbenzene	ND	1.0		µg/L	1	3/13/2007 1:00:16 AM
Xylenes, Total	ND	2.0		µg/L	1	3/13/2007 1:00:16 AM
Surr: 4-Bromofluorobenzene	85.7	70.2-105		%REC	1	3/13/2007 1:00:16 AM

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 Water

Work Order: 0703123

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 0703123-10A MSD

MSD

Batch ID: R22791

Analysis Date: 3/12/2007 5:59:11 PM

Benzene	20.46	µg/L	1.0	102	85.9	113	0.726	27
Toluene	20.45	µg/L	1.0	102	86.4	113	0.156	19
Ethylbenzene	20.55	µg/L	1.0	103	83.5	118	0.553	10
Xylenes, Total	62.34	µg/L	2.0	104	83.4	122	0.115	13

Sample ID: 5ML REAGENT BLA

MBLK

Batch ID: R22791

Analysis Date: 3/12/2007 7:48:15 AM

Benzene	ND	µg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Xylenes, Total	ND	µg/L	2.0					

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R22791

Analysis Date: 3/12/2007 6:29:11 PM

Benzene	20.59	µg/L	1.0	103	85.9	113		
Toluene	20.69	µg/L	1.0	103	86.4	113		
Ethylbenzene	20.53	µg/L	1.0	103	83.5	118		
Xylenes, Total	62.49	µg/L	2.0	104	83.4	122		

Sample ID: 0703123-10A MS

MS

Batch ID: R22791

Analysis Date: 3/12/2007 5:29:09 PM

Benzene	20.31	µg/L	1.0	102	85.9	113		
Toluene	20.49	µg/L	1.0	102	86.4	113		
Ethylbenzene	20.67	µg/L	1.0	103	83.5	118		
Xylenes, Total	62.41	µg/L	2.0	104	83.4	122		

Qualifiers:

E	Value above quantitation range	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

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Jun-07

CLIENT: XTO Energy
Project: Ground Water

Lab Order: 0706237

Lab ID: 0706237-01 Collection Date: 6/12/2007 1:40:00 PM
Client Sample ID: Jack Frost B#2 MW-4 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	16	1.0		µg/L	1	6/19/2007 2:27:53 PM
Toluene	ND	1.0		µg/L	1	6/19/2007 2:27:53 PM
Ethylbenzene	11	1.0		µg/L	1	6/19/2007 2:27:53 PM
Xylenes, Total	3.0	2.0		µg/L	1	6/19/2007 2:27:53 PM
Surr: 4-Bromofluorobenzene	84.5	70.2-105		%REC	1	6/19/2007 2:27:53 PM

Lab ID: 0706237-02 Collection Date: 6/12/2007 1:55:00 PM
Client Sample ID: Jack Frost B#2 MW-3 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	6/19/2007 2:57:53 PM
Toluene	ND	1.0		µg/L	1	6/19/2007 2:57:53 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2007 2:57:53 PM
Xylenes, Total	ND	2.0		µg/L	1	6/19/2007 2:57:53 PM
Surr: 4-Bromofluorobenzene	83.6	70.2-105		%REC	1	6/19/2007 2:57:53 PM

Lab ID: 0706237-03 Collection Date: 6/12/2007 2:22:00 PM
Client Sample ID: Jack Frost B#2 MW-2R Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	6/19/2007 3:28:08 PM
Toluene	ND	1.0		µg/L	1	6/19/2007 3:28:08 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2007 3:28:08 PM
Xylenes, Total	2.4	2.0		µg/L	1	6/19/2007 3:28:08 PM
Surr: 4-Bromofluorobenzene	83.9	70.2-105		%REC	1	6/19/2007 3:28:08 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

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: 21-Jun-07

CLIENT: XTO Energy
Project: Ground Water

Lab Order: 0706237

Lab ID: 0706237-04 Collection Date: 6/12/2007 2:38:00 PM
Client Sample ID: Jack Frost B#2 MW-1 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	6/19/2007 3:58:23 PM
Toluene	ND	1.0		µg/L	1	6/19/2007 3:58:23 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2007 3:58:23 PM
Xylenes, Total	ND	2.0		µg/L	1	6/19/2007 3:58:23 PM
Surr: 4-Bromofluorobenzene	83.9	70.2-105		%REC	1	6/19/2007 3:58:23 PM

Lab ID: 0706237-05 Collection Date: 6/12/2007 3:06:00 PM
Client Sample ID: ~~EJ Johnson CIE MW-5~~ Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	15	1.0		µg/L	1	6/19/2007 4:28:29 PM
Toluene	ND	1.0		µg/L	1	6/19/2007 4:28:29 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2007 4:28:29 PM
Xylenes, Total	ND	2.0		µg/L	1	6/19/2007 4:28:29 PM
Surr: 4-Bromofluorobenzene	86.0	70.2-105		%REC	1	6/19/2007 4:28:29 PM

Lab ID: 0706237-06 Collection Date: 6/12/2007 3:36:00 PM
Client Sample ID: ~~EJ Johnson CIE MW-6~~ Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	6/19/2007 4:58:29 PM
Toluene	ND	1.0		µg/L	1	6/19/2007 4:58:29 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2007 4:58:29 PM
Xylenes, Total	ND	2.0		µg/L	1	6/19/2007 4:58:29 PM
Surr: 4-Bromofluorobenzene	82.8	70.2-105		%REC	1	6/19/2007 4:58:29 PM

Qualifiers: + Value exceeds Maximum Contaminant Level B Analyte detected in the associated Method Blank
E Value above quantitation range 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: Ground Water

Work Order: 0706237

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 0706237-12A MSD

MSD

Batch ID: R24017

Analysis Date: 6/18/2007 12:21:32 PM

Benzene	18.72	µg/L	1.0	93.6	85.9	113	4.52	27	
Toluene	18.79	µg/L	1.0	94.0	86.4	113	4.64	19	
Ethylbenzene	18.60	µg/L	1.0	93.0	83.5	118	4.77	10	
Xylenes, Total	55.68	µg/L	2.0	92.8	83.4	122	3.58	13	

Sample ID: 0706237-25A MSD

MSD

Batch ID: R24049

Analysis Date: 6/20/2007 9:23:49 PM

Benzene	19.29	µg/L	1.0	96.5	85.9	113	2.88	27	
Toluene	18.77	µg/L	1.0	93.9	86.4	113	2.82	19	
Ethylbenzene	18.77	µg/L	1.0	93.8	83.5	118	2.60	10	
Xylenes, Total	54.62	µg/L	2.0	91.0	83.4	122	2.24	13	

Sample ID: 5ML REAGENT BLA

MBLK

Batch ID: R24013

Analysis Date: 6/15/2007 8:56:45 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: 5ML REAGENT BLA

MBLK

Batch ID: R24017

Analysis Date: 6/18/2007 10:56:56 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: 5ML REAGENT BLA

MBLK

Batch ID: R24036

Analysis Date: 6/19/2007 9:56:41 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: 5ML REAGENT BLA

MBLK

Batch ID: R24049

Analysis Date: 6/20/2007 10:05:12 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: R24013

Analysis Date: 6/15/2007 11:42:55 PM

Benzene	19.24	µg/L	1.0	96.2	85.9	113			
Toluene	18.67	µg/L	1.0	93.4	86.4	113			
Ethylbenzene	18.36	µg/L	1.0	91.8	83.5	118			
Xylenes, Total	54.32	µg/L	2.0	90.5	83.4	122			

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R24017

Analysis Date: 6/18/2007 12:51:39 PM

Benzene	18.99	µg/L	1.0	94.9	85.9	113			
Toluene	19.05	µg/L	1.0	95.3	86.4	113			
Ethylbenzene	18.69	µg/L	1.0	93.4	83.5	118			
Xylenes, Total	56.17	µg/L	2.0	93.6	83.4	122			

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R24036

Analysis Date: 6/19/2007 11:27:18 AM

Benzene	19.95	µg/L	1.0	99.7	85.9	113			
Toluene	20.29	µg/L	1.0	101	86.4	113			

Qualifiers:

- | | | | |
|---|--|----|--|
| E | Value above quantitation range | 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: Ground Water

Work Order: 0706237

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 100NG BTEX LCS		LCS							
					Batch ID:	R24036	Analysis Date:	6/19/2007 11:27:18 AM	
Ethylbenzene	20.10	µg/L	1.0	101	83.5	118			
Xylenes, Total	59.83	µg/L	2.0	99.7	83.4	122			
Sample ID: 100NG BTEX LCS		LCS							
					Batch ID:	R24049	Analysis Date:	6/20/2007 9:54:18 PM	
Benzene	18.97	µg/L	1.0	94.9	85.9	113			
Toluene	18.46	µg/L	1.0	92.3	86.4	113			
Ethylbenzene	18.62	µg/L	1.0	93.1	83.5	118			
Xylenes, Total	54.86	µg/L	2.0	91.4	83.4	122			
Sample ID: 0706237-12A MS		MS							
					Batch ID:	R24017	Analysis Date:	6/18/2007 11:51:22 AM	
Benzene	19.59	µg/L	1.0	98.0	85.9	113			
Toluene	19.68	µg/L	1.0	98.4	86.4	113			
Ethylbenzene	19.51	µg/L	1.0	97.5	83.5	118			
Xylenes, Total	57.71	µg/L	2.0	96.2	83.4	122			
Sample ID: 0706237-25A MS		MS							
					Batch ID:	R24049	Analysis Date:	6/20/2007 8:53:24 PM	
Benzene	18.74	µg/L	1.0	93.7	85.9	113			
Toluene	18.25	µg/L	1.0	91.2	86.4	113			
Ethylbenzene	18.29	µg/L	1.0	91.4	83.5	118			
Xylenes, Total	53.41	µg/L	2.0	89.0	83.4	122			

Qualifiers:

E	Value above quantitation range	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

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-07

CLIENT: XTO Energy
Lab Order: 0709406
Project: Ground Water
Lab ID: 0709406-01

Client Sample ID: Jack Frost B2 MW-1
Collection Date: 9/25/2007 9:47:00 AM
Date Received: 9/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	10/2/2007 9:15:23 PM
Toluene	ND	1.0		µg/L	1	10/2/2007 9:15:23 PM
Ethylbenzene	ND	1.0		µg/L	1	10/2/2007 9:15:23 PM
Xylenes, Total	ND	2.0		µg/L	1	10/2/2007 9:15:23 PM
Surr: 4-Bromofluorobenzene	82.6	70.2-105		%REC	1	10/2/2007 9:15:23 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

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: 08-Oct-07

CLIENT: XTO Energy
Lab Order: 0709406
Project: Ground Water
Lab ID: 0709406-02

Client Sample ID: Jack Frost B2 MW-2R
Collection Date: 9/25/2007 10:36:00 AM
Date Received: 9/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	10/2/2007 9:45:23 PM
Toluene	ND	1.0		µg/L	1	10/2/2007 9:45:23 PM
Ethylbenzene	ND	1.0		µg/L	1	10/2/2007 9:45:23 PM
Xylenes, Total	2.1	2.0		µg/L	1	10/2/2007 9:45:23 PM
Surr: 4-Bromofluorobenzene	84.4	70.2-105		%REC	1	10/2/2007 9:45:23 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

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: 08-Oct-07

CLIENT: XTO Energy
Lab Order: 0709406
Project: Ground Water
Lab ID: 0709406-03

Client Sample ID: Jack Frost B2 MW-3
Collection Date: 9/25/2007 10:56:00 AM
Date Received: 9/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	10/2/2007 10:15:18 PM
Toluene	ND	1.0		µg/L	1	10/2/2007 10:15:18 PM
Ethylbenzene	ND	1.0		µg/L	1	10/2/2007 10:15:18 PM
Xylenes, Total	ND	2.0		µg/L	1	10/2/2007 10:15:18 PM
Surr: 4-Bromofluorobenzene	82.0	70.2-105		%REC	1	10/2/2007 10:15:18 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

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: 08-Oct-07

CLIENT: XTO Energy
Lab Order: 0709406
Project: Ground Water
Lab ID: 0709406-04

Client Sample ID: Jack Frost B2 MW-4
Collection Date: 9/25/2007 11:17:00 AM
Date Received: 9/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	11	1.0		µg/L	1	10/2/2007 10:45:25 PM
Toluene	ND	1.0		µg/L	1	10/2/2007 10:45:25 PM
Ethylbenzene	5.9	1.0		µg/L	1	10/2/2007 10:45:25 PM
Xylenes, Total	ND	2.0		µg/L	1	10/2/2007 10:45:25 PM
Surr: 4-Bromofluorobenzene	88.5	70.2-105		%REC	1	10/2/2007 10:45:25 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

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: 08-Oct-07

CLIENT: XTO Energy
Lab Order: 0709406
Project: Ground Water
Lab ID: 0709406-28

Client Sample ID: Trip Blank
Collection Date:
Date Received: 9/28/2007
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	10/3/2007 11:35:56 PM
Toluene	ND	1.0		µg/L	1	10/3/2007 11:35:56 PM
Ethylbenzene	ND	1.0		µg/L	1	10/3/2007 11:35:56 PM
Xylenes, Total	ND	2.0		µg/L	1	10/3/2007 11:35:56 PM
Surf: 4-Bromofluorobenzene	82.7	70.2-105		%REC	1	10/3/2007 11:35:56 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

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 Water

Work Order: 0709406

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 0709406-01A MSD		MSD			Batch ID: R25409	Analysis Date: 10/3/2007 3:45:13 AM			
Benzene	20.98	µg/L	1.0	105	85.9	113	0.580	27	
Toluene	19.97	µg/L	1.0	99.6	86.4	113	0.764	19	
Ethylbenzene	19.95	µg/L	1.0	99.3	83.5	118	1.13	10	
Xylenes, Total	59.14	µg/L	2.0	98.1	83.4	122	0.764	13	
Sample ID: 0709406-20A MSD		MSD			Batch ID: R25420	Analysis Date: 10/3/2007 8:05:57 PM			
Benzene	20.94	µg/L	1.0	102	85.9	113	1.15	27	
Toluene	19.97	µg/L	1.0	98.4	86.4	113	1.23	19	
Ethylbenzene	19.95	µg/L	1.0	99.2	83.5	118	2.10	10	
Xylenes, Total	58.87	µg/L	2.0	96.8	83.4	122	1.12	13	
Sample ID: 5ML RB		MBLK			Batch ID: R25409	Analysis Date: 10/2/2007 8:14:55 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: 5ML RB		MBLK			Batch ID: R25420	Analysis Date: 10/3/2007 9:00:15 AM			
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R25409	Analysis Date: 10/2/2007 8:15:26 PM			
Benzene	20.25	µg/L	1.0	101	85.9	113			
Toluene	19.54	µg/L	1.0	97.3	86.4	113			
Ethylbenzene	19.60	µg/L	1.0	97.4	83.5	118			
Xylenes, Total	58.14	µg/L	2.0	96.2	83.4	122			
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R25420	Analysis Date: 10/3/2007 11:00:56 AM			
Benzene	20.65	µg/L	1.0	103	85.9	113			
Toluene	20.04	µg/L	1.0	99.8	86.4	113			
Ethylbenzene	20.04	µg/L	1.0	99.6	83.5	118			
Xylenes, Total	60.00	µg/L	2.0	99.5	83.4	122			
Sample ID: 0709406-01A MS		MS			Batch ID: R25409	Analysis Date: 10/3/2007 3:15:09 AM			
Benzene	21.10	µg/L	1.0	105	85.9	113			
Toluene	19.82	µg/L	1.0	98.8	86.4	113			
Ethylbenzene	19.73	µg/L	1.0	98.2	83.5	118			
Xylenes, Total	58.69	µg/L	2.0	97.4	83.4	122			
Sample ID: 0709406-20A MS		MS			Batch ID: R25420	Analysis Date: 10/3/2007 7:35:52 PM			
Benzene	20.70	µg/L	1.0	101	85.9	113			
Toluene	19.73	µg/L	1.0	97.2	86.4	113			
Ethylbenzene	19.53	µg/L	1.0	97.1	83.5	118			
Xylenes, Total	58.22	µg/L	2.0	95.7	83.4	122			

Qualifiers:

E	Value above quantitation range	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: Ground Water

Work Order: 0709406

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: E160.1									
Sample ID: 0709406-08B MSD		MSD			Batch ID: 13963	Analysis Date:			10/1/2007
Total Dissolved Solids	3202	mg/L	20	104	80	120	0.627	20	
Sample ID: MB-13963		MBLK			Batch ID: 13963	Analysis Date:			10/1/2007
Total Dissolved Solids	ND	mg/L	20						
Sample ID: LCS-13963		LCS			Batch ID: 13963	Analysis Date:			10/1/2007
Total Dissolved Solids	1001	mg/L	20	100	80	120			
Sample ID: 0709406-08B MS		MS			Batch ID: 13963	Analysis Date:			10/1/2007
Total Dissolved Solids	3182	mg/L	20	102	80	120			

Qualifiers:

E	Value above quantitation range	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

Hall Environmental Analysis Laboratory, Inc.

Date: 02-Jan-08

CLIENT: XTO Energy
Project: Ground Water

Lab Order: 0712350

Lab ID: 0712350-01

Collection Date: 12/20/2007 12:15:00 PM

Client Sample ID: ~~Valdez AIE MW-6~~

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	2.9	1.0		µg/L	1	12/27/2007 1:46:19 PM
Toluene	ND	1.0		µg/L	1	12/27/2007 1:46:19 PM
Ethylbenzene	130	10		µg/L	10	12/27/2007 1:16:09 PM
Xylenes, Total	750	20		µg/L	10	12/27/2007 1:16:09 PM
Surr: 4-Bromofluorobenzene	104	68.9-122		%REC	1	12/27/2007 1:46:19 PM

Lab ID: 0712350-02

Collection Date: 12/20/2007 12:38:00 PM

Client Sample ID: ~~Valdez AIE MW-7~~

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	310	10		µg/L	10	12/29/2007 1:52:52 AM
Toluene	ND	1.0		µg/L	1	12/27/2007 3:16:33 PM
Ethylbenzene	220	10		µg/L	10	12/29/2007 1:52:52 AM
Xylenes, Total	1300	20		µg/L	10	12/29/2007 1:52:52 AM
Surr: 4-Bromofluorobenzene	97.0	68.9-122		%REC	10	12/29/2007 1:52:52 AM

Lab ID: 0712350-03

Collection Date: 12/20/2007 1:16:00 PM

Client Sample ID: ~~Sullivan GCD1 MW-1~~

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/27/2007 4:16:54 PM
Toluene	ND	1.0		µg/L	1	12/27/2007 4:16:54 PM
Ethylbenzene	ND	1.0		µg/L	1	12/27/2007 4:16:54 PM
Xylenes, Total	ND	2.0		µg/L	1	12/27/2007 4:16:54 PM
Surr: 4-Bromofluorobenzene	85.5	68.9-122		%REC	1	12/27/2007 4:16:54 PM

Lab ID: 0712350-04

Collection Date: 12/20/2007 2:54:00 PM

Client Sample ID: Jack Frost B2 MW-4

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	29	1.0		µg/L	1	12/27/2007 4:47:02 PM
Toluene	ND	1.0		µg/L	1	12/27/2007 4:47:02 PM
Ethylbenzene	4.4	1.0		µg/L	1	12/27/2007 4:47:02 PM
Xylenes, Total	ND	2.0		µg/L	1	12/27/2007 4:47:02 PM
Surr: 4-Bromofluorobenzene	92.6	68.9-122		%REC	1	12/27/2007 4:47:02 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

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 Water

Work Order: 0712350

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8021B: Volatiles

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	
Ethylbenzene	24.72	µg/L	1.0	102	83.5	118	0.605	10	
Xylenes, Total	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 ID: 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			

Qualifiers:

E	Value above quantitation range	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

Form 3160-5
(June 1990)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Amoco Production Company

3. Address and Telephone No.

200 Amoco Court, Farmington, N.M. 87401 Tel: (505) 326-9200

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

NW/NW SEC. 27, T27N, R10W NMPM

5. Lease Designation and Serial No.

SF-077951 A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

JACK FROST B #2

9. API Well No.

3004506295

10. Field and Pool, or Exploratory Area

DAKOTA

11. County or Parish, State

SAN JUAN, N.M.

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐
- Notice of Intent
-
- ☒
- Subsequent Report
-
- ☐
- Final Abandonment Notice

TYPE OF ACTION

- ☐
- Abandonment
-
- ☐
- Recompletion
-
- ☐
- Plugging Back
-
- ☐
- Casing Repair
-
- ☐
- Altering Casing
-
- ☒
- Other Pit closure
-
- ☐
- Change of Plans
-
- ☐
- New Construction
-
- ☐
- Non-Routine Fracturing
-
- ☐
- Water Shut-Off
-
- ☐
- Conversion to Injection
-
- ☐
- Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Pit closure verification - see attached documentation.

SEPARATOR PIT - ABANDONED

14. I hereby certify that the foregoing is true and correct

Signed

B. Shaw

Title

Enviro. Coordinator

Date

10/14/94

(This space for Federal or State office use)

Approved by

Conditions of approval, if any:

Title

Date

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statement or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

PIT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Company Telephone: (505) - 326-9200
Address: 200 Amoco Court, Farmington, New Mexico 87401
Facility or: JACK FROST B # 2
Well Name _____
Location: Unit or Qtr/Qtr Sec D Sec 27 T27N R10W County SAN JUAN
Pit Type: Separator X Dehydrator _____ Other _____
Land Type: BLM X, State _____, Fee _____, other _____

Pit Location: Pit dimensions: length 25', width 25', depth 15'
(Attach diagram) Reference: wellhead X, other _____
Footage from reference: 150
Direction from reference: 45 Degrees _____ East North X
of
X West South _____

Depth To Ground Water: Less than 50 feet (20 points)
(Vertical distance from 50 feet to 99 feet (10 points)
contaminants to seasonal Greater than 100 feet (0 Points) 20
high water elevation of
ground water)

Wellhead Protection Area: Yes (20 points)
(Less than 200 feet from a private No (0 points) 0
domestic water source, or; less than
1000 feet from all other water sources)

Distance To Surface Water: Less than 200 feet (20 points)
(Horizontal distance to perennial 200 feet to 1000 feet (10 points)
lakes, ponds, rivers, streams, creeks, Greater than 1000 feet (0 points) 0
irrigation canals and ditches)

RANKING SCORE (TOTAL POINTS): 20

Date Remediation Started: 8-5-94 Date Completed: 8-25-94

Remediation Method: Excavation X Approx. cubic yards 400
(Check all appropriate sections) Landfarmed Insitu Bioremediation

Other COMPOST

Remediation Location: Onsite X Offsite
(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action:

Excavation . ON-SITE COMPOST PILE CLOSURE RECORD SUBMITTED

WITH BLOW PIT CLOSURE. BLOW PIT & COMPOST PILE CLOSURE APPROVED

BY NMDCD WITH LETTER DATED 12/12/96 (ATTACHED.)

SEPARATOR PIT CLOSURE DENIED BY NMDCD WITH LETTER DATED 12/5/96

(ATTACHED) - DUE TO GROUNDWATER CONTAMINATION EXCEEDING NMDCD STANDARDS.

Ground Water Encountered: No Yes X Depth 15'

Final Pit: Sample location see Attached Documents
Closure Sampling:

(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample depth 15'

Sample date 8-25-94 Sample time

Sample Results

Benzene(ppm) ND

Total BTEX(ppm) 0.018

Field headspace(ppm)

TPH

Ground Water Sample: Yes X No (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 10/14/94

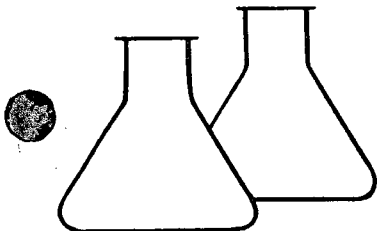
SIGNATURE

B. Shaw

PRINTED NAME
AND TITLE

Buddy D. Shaw
ENVIRONMENTAL COORDINATOR

[illegible]



ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	AMOCO	Project #:	92140
Sample ID:	ground water	Date Reported:	08-15-94
Laboratory Number:	7765	Date Sampled:	08-05-94
Sample Matrix:	Water	Date Received:	08-08-94
Preservative:	HgCl & Cool	Date Analyzed:	08-11-94
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	48	0.3
Toluene	411	0.3
Ethylbenzene	ND	0.2
p,m-Xylene	55.9	0.3
o-Xylene	35.2	0.3

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	74 %
	Bromofluorobenzene	97 %

Method: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

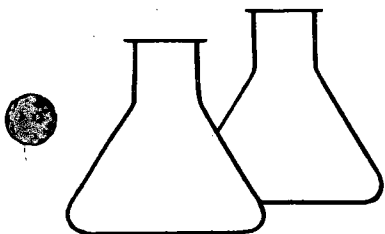
ND - Parameter not detected at the stated detection limit.

Comments: JACK FROST B # 2 A0079

SEPARATOR PIT

Rex L. Griffin
Analyst

Maris D. Young
Review



ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	Groundwater	Date Reported:	09-01-94
Laboratory Number:	7847	Date Sampled:	08-25-94
Sample Matrix:	Water	Date Received:	08-25-94
Preservative:	HgCl & Cool	Date Analyzed:	08-29-94
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	0.3
Toluene	ND	0.3
Ethylbenzene	ND	0.2
p,m-Xylene	ND	0.3
o-Xylene	18.0	0.3

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	96 %
	Bromofluorobenzene	97 %

Method: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Jack Frost B #2 ground Water Pit A0079 SEPARATOR PIT

Rex D. Gaffin
Analyst

Marion D. Young
Review

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CHAIN OF CUSTODY RECORD

[illegible]

San Juan repro Form 576-81

