3RP-110

XTO ENERGY

Annual Groundwater Remediation Reports For Year 2009

March 2010

XTO ENERGY

March 8, 2010

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) herein submits our Annual Groundwater Remediation Reports for year ending 2009, in accordance with the New Mexico Oil Conservation Division (NMOCD) approved Groundwater Management Plan (GWMP). Enclosed are summary reports with analytical data, summary tables, site maps, topographic maps, potentiometric surface diagrams and recommendations/proposed actions for:

- Bruington Gas Com #1- 3RP106
- Federal Gas Com #H1- 3RP110
- McCoy GC D #1E- 3RP414
- OH Randel #7- 3RP386
- Rowland Gas Com #1- 3RP124
- Valdez A #1E- 3RP134

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

- EJ Johnson C #1E- 3RP385
- Frost, Jack B #2- 3RP416
- PO Pipken #3E- 3RP409

In previously submitted reports, eighteen sites met the closure requirements outlined in the GWMP. XTO has requested closure of these sites annually since 2006. The reports for the below listed sites are being submitted again for your review.

- Abrams J #1- 3RP100
  Closure Requested 01-2007
- Armenta Gas Com C #1E- 3RP394
  Closure Requested 01-2006
- Baca Gas Com A #1A- 3RP104
  Closure Requested 03-2008
- Bergin Gas Com #1E- 3RP105
  Closure Requested 01-2006
- Carson Gas Com #1E- 3RP415
  Closure Requested 04-2009
- Garcia Gas Com B #1- 3RP111
  Closure Requested 03-2008
- Haney Gas Com B #1E- 3RP113
  Closure Requested 03-2008
- Hare Gas Com B #1- 3RP413
  Closure Requested 03-2008
- Hare Gas Com B #1E- 3RP384
  Closure Requested 03-2008
- Hare Gas Com I #1- 3RP412
  Closure Requested 03-2008
- Masden Gas Com #1E- 3RP120
  Closure Requested 03-2008
- McDaniel Gas Com B #1E- 3RP121
  Closure Requested 03-2008
- Romero Gas Com A #1- 3RP123
  Closure Requested 01-2007
- Snyder Gas Com #1A- 3RP126
  Closure Requested 04-2009
- State Gas Com BS #1- 3RP127
  Closure Requested 01-2006
- Stedje Gas Com #1- 3RP128
  Closure Requested 03-2008
- Sullivan Frame A #1E- 3RP130
  Closure Requested 03-2008
- Sullivan Gas Com D #1- 3RP131
  Closure Requested 04-2009

Thank you for your review of the reports. XTO looks forward to hearing from you regarding closure requests and proposed remedial actions. If you have any questions please do not hesitate to contact me at (505) 333-3100.

Respectfully,

Martin Nee
EH & S Manager
San Juan Division

cc: Mr. Brandon Powell, Environmental, NMOCD District III Office, Aztec, NM
Ms. Ashley Ager, LT Environmental
File- San Juan Groundwater

Federal Gas Com
 # H 1

XTO ENERGY INC.

ANNUAL GROUNDWATER REPORT

2009

FEDERAL GAS COM H #1
3RP-110
(C) SECTION 31 – T30N – R12W, NMPM
SAN JUAN COUNTY, NEW MEXICO

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

MARCH 2010

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Appendices

2009 XTO GROUNDWATER REPORT

FEDERAL GAS COM H #1
3RP-110

SITE DETAILS

LEGALS - TWN: 30N **RNG:** 12W **SEC:** 31 **UNIT:** C
OCD HAZARD RANKING: 30 **LAND TYPE:** FEE
LATITUDE: 36.77306 **LONGITUDE:** 108.14085

INTRODUCTION

XTO Energy Inc. (XTO) acquired the Federal Gas Com H #1 well site from Amoco Production Company (Amoco) in January 1998. This is a gas producing well in the Dakota Sandstone and is currently active. A topographic map and site map are presented as Figures 1 and 2.

HISTORY

In November 1999 XTO responded to a release of a produced water/condensate mixture of approximately 69 barrels. The clean up involved excavating and disposing of 304 cubic yards of impacted soil and sampling the perimeter of the excavation (Attachment 1). In reviewing the field and analytical data at the time it appeared that vertical extent had been established and lateral extent of the impact met closure standards with the exception of the source area. Vertical vent piping was installed in January 2000 in an effort to passively remediate the remaining impacted soil.

In March 2005, while upgrading equipment on location, XTO discovered what was believed to be a historical earthen blow pit. Approximately 300 cubic yards of impacted soil was excavated and disposed of off site. This excavation overlapped part of the previous excavation from 1999. Groundwater was encountered during the second excavation and monitoring wells were installed in each of the source areas, but were not sampled at the time of installation. Completion Diagram and Borehole Logs documenting drilling that occurred in 2005 are presented in Figures 6-7.

In April 2006 a third monitoring well (MW-3) was installed cross gradient of the source area. Completion Diagram and Borehole Log for monitoring well MW-w is presented in Figure 8.

The 2006 annual groundwater report was submitted to the New Mexico Oil Conservation Division (OCD) in February 2007 proposing removal of passive remediation system (wind turbines) and quarterly sampling of monitoring wells in accordance with the OCD approved Groundwater Management Plan.

The 2007 annual groundwater report was submitted to the OCD in February 2008 proposing semi-annual sampling of monitoring wells MW-1 and MW-2 until analytical results show hydrocarbon constituents below New Mexico Water Quality Control Commission (WQCC) groundwater standards.

2009 XTO GROUNDWATER REPORT

The 2008 annual groundwater report was submitted to the OCD in April 2009 proposing installation of an additional monitoring well, quarterly sampling of monitoring wells MW-1 and MW-2, annual sampling of monitoring well MW-3 and possible addition of an oxygenate in monitoring wells MW-1 and MW-2.

A summary of laboratory results from historical and current groundwater monitoring is presented as Table 1. Copies of the laboratory data sheets and associated quality assurance/quality control data for 2009 are presented as Attachment 2.

METHODOLOGY

Quarterly groundwater samples were collected from monitoring wells MW-1 and MW-2 and submitted for laboratory analysis of benzene, toluene, ethyl benzene and total xylene (BTEX) in 2009.

Water Level Measurements

Static groundwater level monitoring includes recording depth to groundwater measurements with a Keck oil/water interface probe. The interface probe is decontaminated with Alconox™ soap and rinsed with de-ionized water prior to each measurement. These data are recorded as Depth to Water (DTW) and Total Depth (TD) in feet on Table 1.

Groundwater Sampling

Prior to sampling groundwater, depth to groundwater and total depth of wells is measured with a Keck oil/water interface probe. Presence of any free-phase crude oil is also investigated using the interface probe. The interface probe is decontaminated with Alconox™ soap and rinsed with de-ionized water prior to each measurement. The volume of water in the wells is calculated, and a minimum of three casing volumes of water is purged from each well using a disposable bailer or a permanent decontaminated PVC bailer. As water is extracted, pH, electric conductivity and temperature are monitored. Wells are purged until these properties stabilize, indicating that the purge water is representative of aquifer conditions. Stabilization is defined as three consecutive stable readings for each water property (±0.4 units for pH, ±10 percent for electric conductivity and ±2° C for temperature). All purge water is disposed of into tanks on site.

Once each monitoring well is properly purged, groundwater samples are collected by filling at least two 40-millititer (ml) glass vials. The pre-cleaned and pre-preserved (with hydrochloric acid or mercuric chloride) vials are filled and capped with no air inside to prevent degradation of the sample. Samples are labeled with the date and time of collection, well designation, project name, collector's name and parameters to be analyzed. They are immediately sealed and packed on ice. The samples are shipped to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico in a sealed cooler via bus before designated holding times expire. Proper chain-of-custody (COC) procedures are followed with logs documenting the date and time sampled, sample number, type of sample, sampler's name, preservative used, analyses required and sampler's signature.

Groundwater Contour Maps

Top of casing well elevations were surveyed using a surveyor's level; and groundwater elevations obtained from monitoring wells during site visits were used to draft groundwater contour maps. Contours were inferred based on groundwater elevations

obtained and observation of physical characteristics at the site (topography, proximity to irrigation ditches, etc.).

RESULTS

Laboratory results from monitoring well MW-1 reveal levels of benzene and total xylene that are slightly above WQCC standards. Toluene and ethyl benzene in monitoring well MW-1 are currently below standards. Benzene levels in monitoring well MW-2 are slightly above standards while levels of toluene, ethyl benzene and total xylene are below standards. Analytical results from monitoring well MW-3 have consistently demonstrated no detectable levels of BTEX. All laboratory analytical results are presented in Table 1. Laboratory reports are presented in Attachment 2.

Field data collected during site monitoring activities indicate a groundwater gradient that trends toward the south with a slightly varying southeasterly/southwesterly component. Figures 3-5 illustrate the estimated groundwater gradient for 2009.

CONCLUSIONS

Laboratory analysis indicates impact to groundwater in the source areas with no lateral impact in the cross gradient direction. Impact in the source area is degrading and installation of a downgradient monitoring well to the south/southwest of monitoring well MW-2 is not needed.

RECOMMENDATIONS

XTO proposed continued quarterly sampling at monitoring wells MW-1 and MW-2 until analytical results show hydrocarbon constituents are below New Mexico groundwater standards along with annual sampling of MW-3 to confirm migration has not occurred.

Following OCD approval for closure, all monitoring well locations will be abandoned in accordance with the monitoring well abandonment plan.

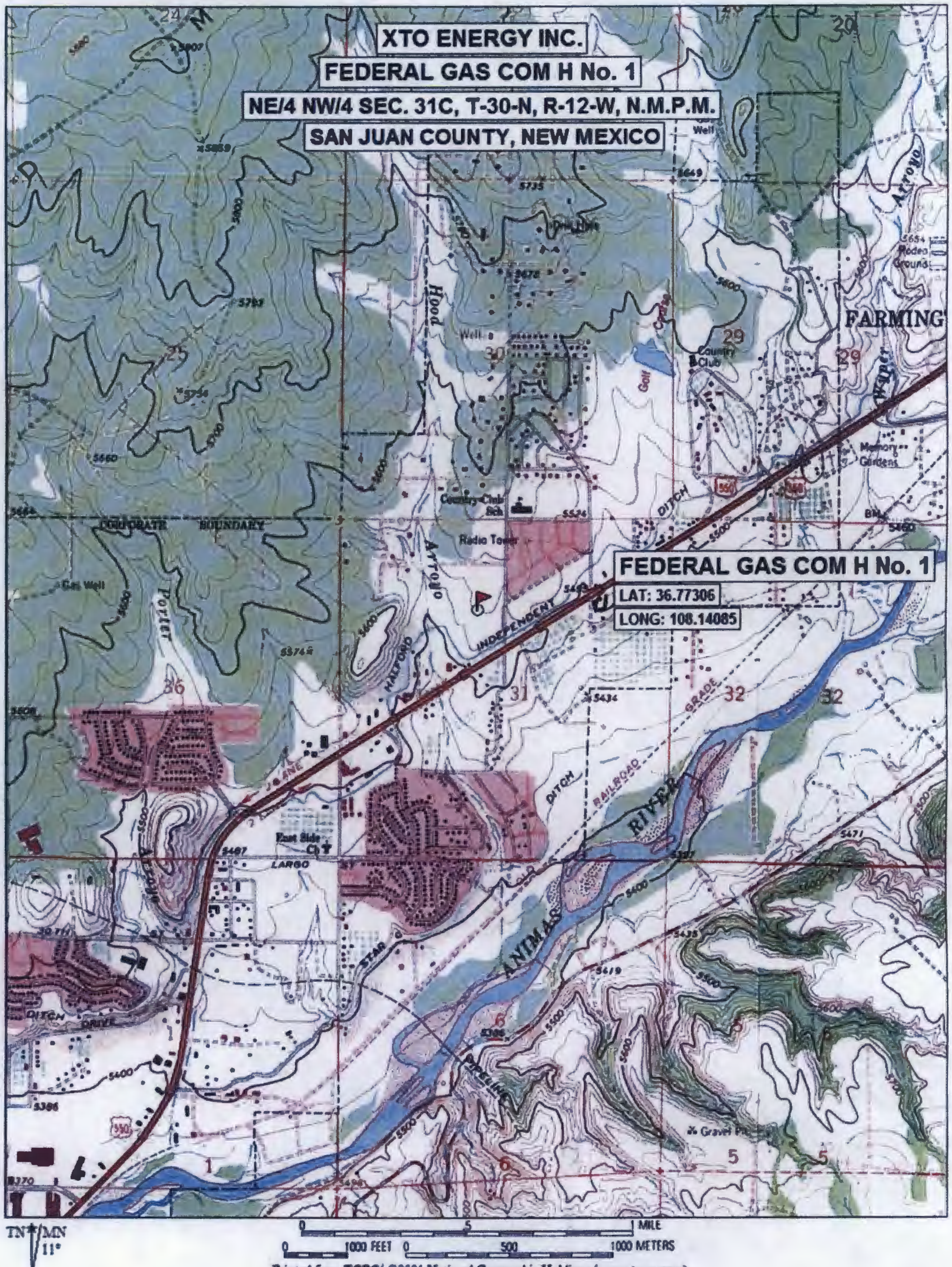
Table 1

XTO ENERGY INC. GROUNDWATER LAB RESULTS

FEDERAL GAS COM H #1
UNIT C, SEC. 31, T30N, R12W

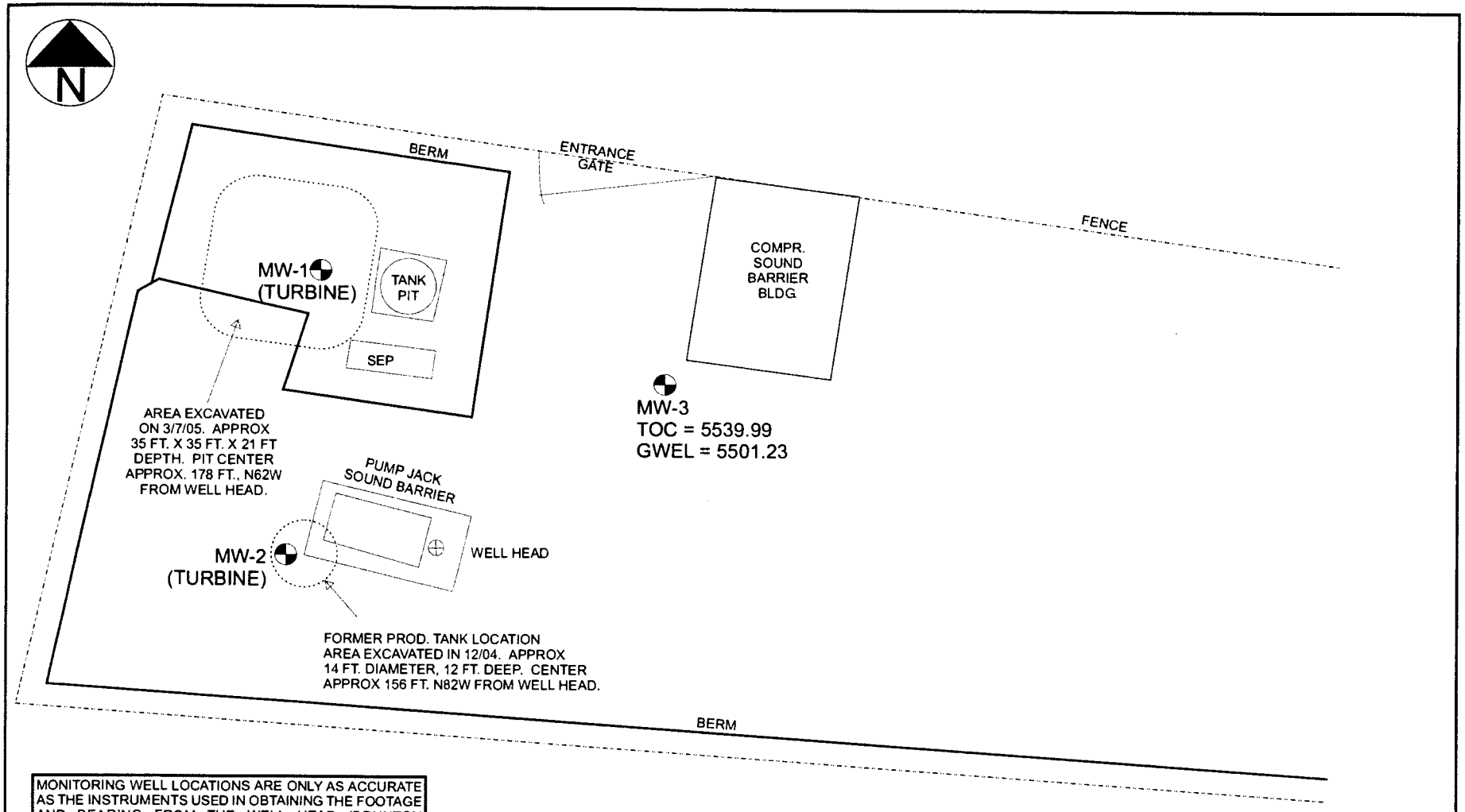
					BTEX EPA Method 801 (PPB)			
Sample Date	Monitor Well No.	DTW (ft)	TD (ft)	Product (ft)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)
29-Mar-07	MW #1	31.34	37.2		39	ND	560	2300
23-Jul-07		31.55	37.2		32	ND	610	2300
11-Oct-07		31.09	37.2		50	18	440	1500
8-Jan-08		31.26	37.2		47	7.1	730	3000
1-Jul-08		31.4	37.2		18	9.6	350	980
20-Jan-09		31.29	37.2		30	22	370	910
8-Jul-09		31.58	37.2		16	ND	280	530
20-Oct-09		31.31	37.2		33	9.7	310	630
29-Mar-07	MW #2	33.05	38.34		55	ND	39	60
23-Jul-07		33.24	38.34		39	ND	25	9.2
11-Oct-07		32.87	38.34		86	ND	97	140
8-Jan-08		32.98	38.34		65	ND	82	56
1-Jul-08		33.08	38.34		15	ND	22	7.3
20-Jan-09		35.34	35.34		38	ND	85	49
8-Jul-09		33.23	35.34		7.5	ND	13	3
20-Oct-09		32.94	35.34		20	ND	31	29
6-Dec-06	MW #3				ND	ND	ND	ND
29-Mar-07		34.85	39.64		ND	ND	ND	ND
23-Jul-07		35.0	39.64		ND	ND	ND	ND
11-Oct-07		34.6	39.64		ND	ND	ND	ND
8-Jan-08		31.7	39.64		ND	ND	ND	ND
NMWQCC GROUNDWATER STANDARDS					10	750	750	620

Figure 1



Printed from TOPO! ©2001 National Geographic Holdings (www.topo.com)

Figure 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.

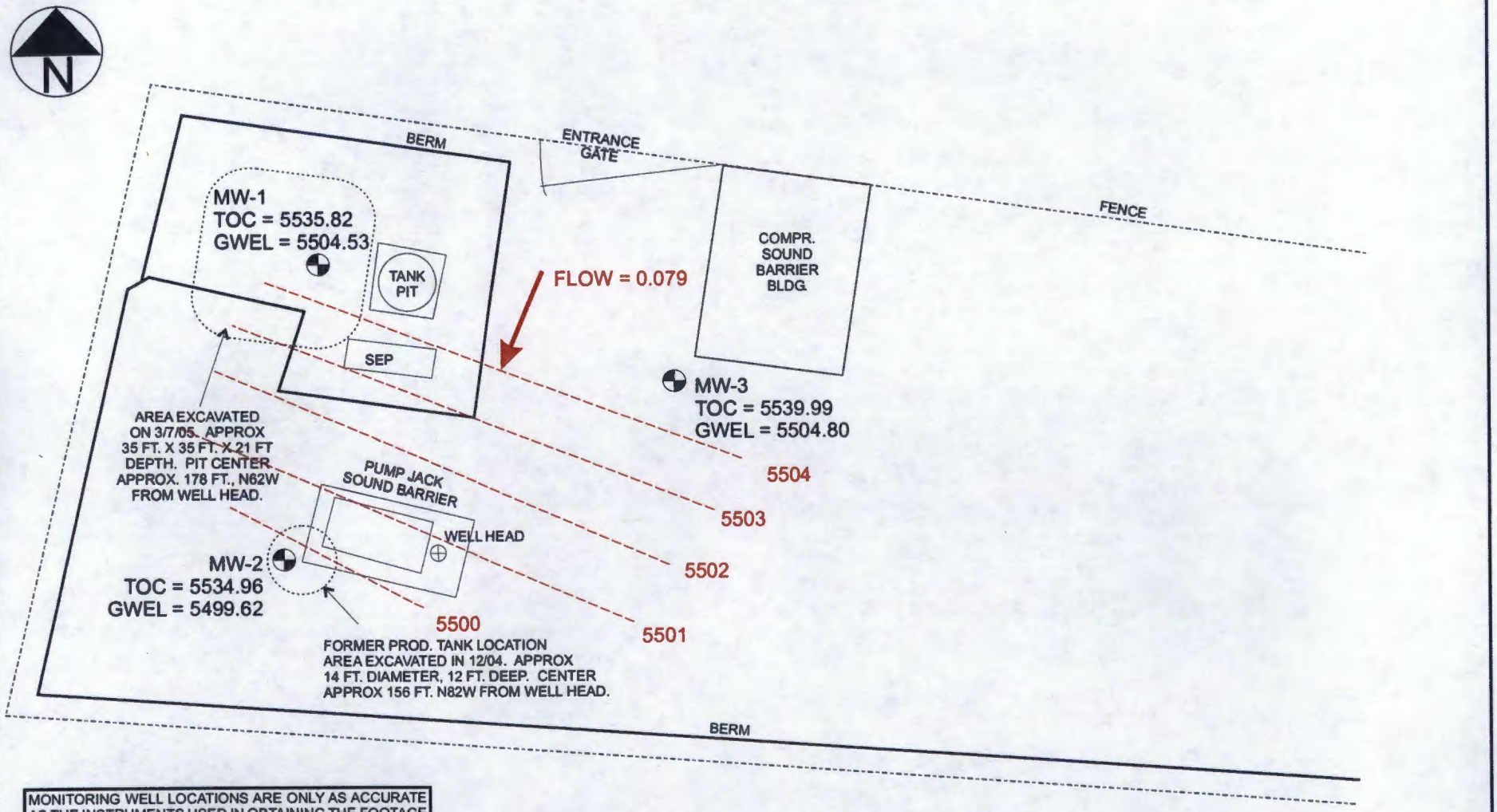
1 INCH = 30 FEET

0 30 60 FT.

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

Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	FEDERAL GAS COM H #1 NE/4 NW/4 SEC.31, T30N, R12W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ALA REVISED: 01/05/07	SITE MAP 12/06/2006

Figure 3



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.

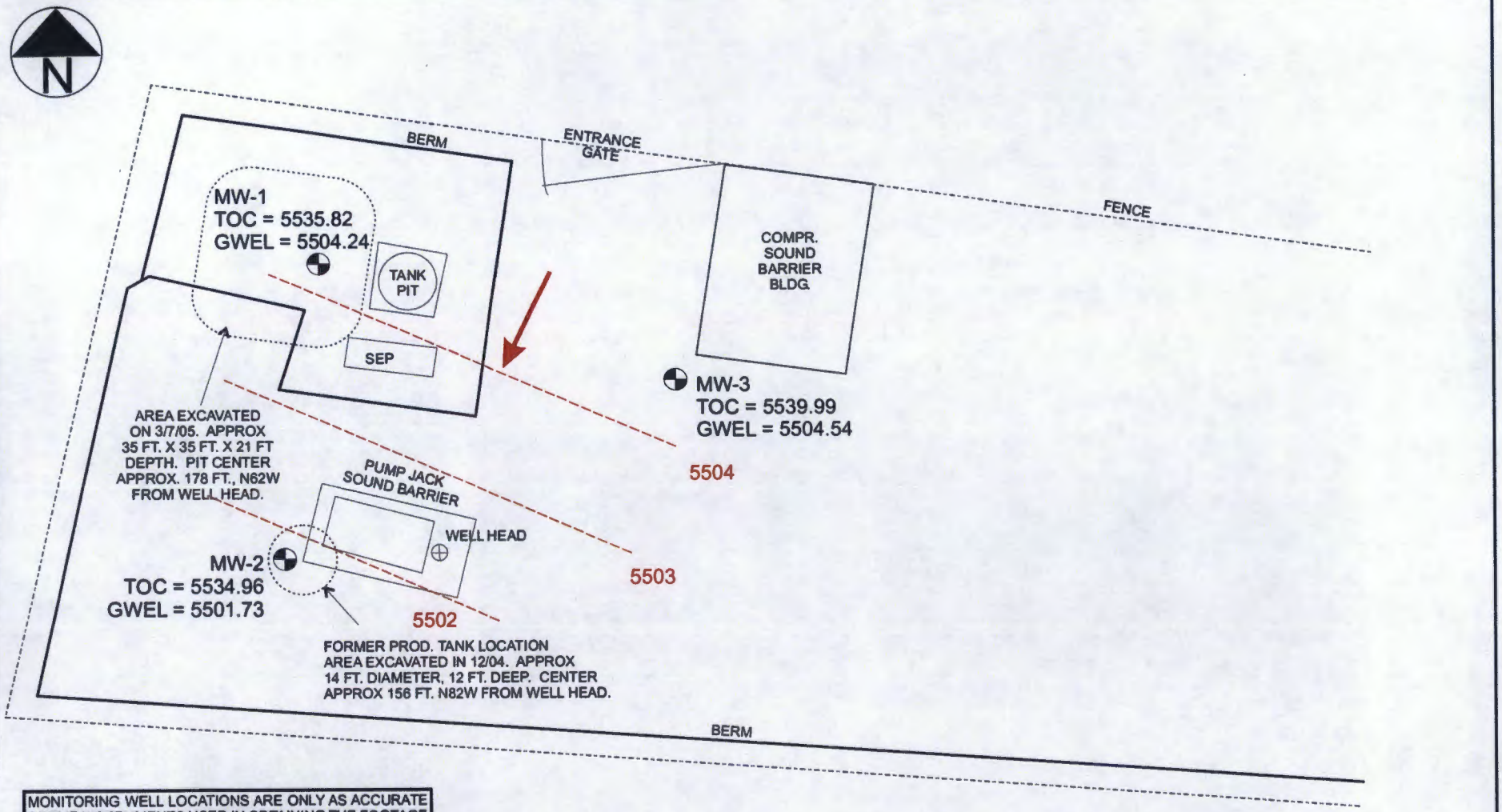
1 INCH = 30 FEET

0 30 60 FT.

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

Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	FEDERAL GAS COM H #1 NE/4 NW/4 SEC.31, T30N, R12W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ADH REVISED: 01/27/09	GROUNDWATER GRADIENT MAP 01/20/09

Figure 4



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.

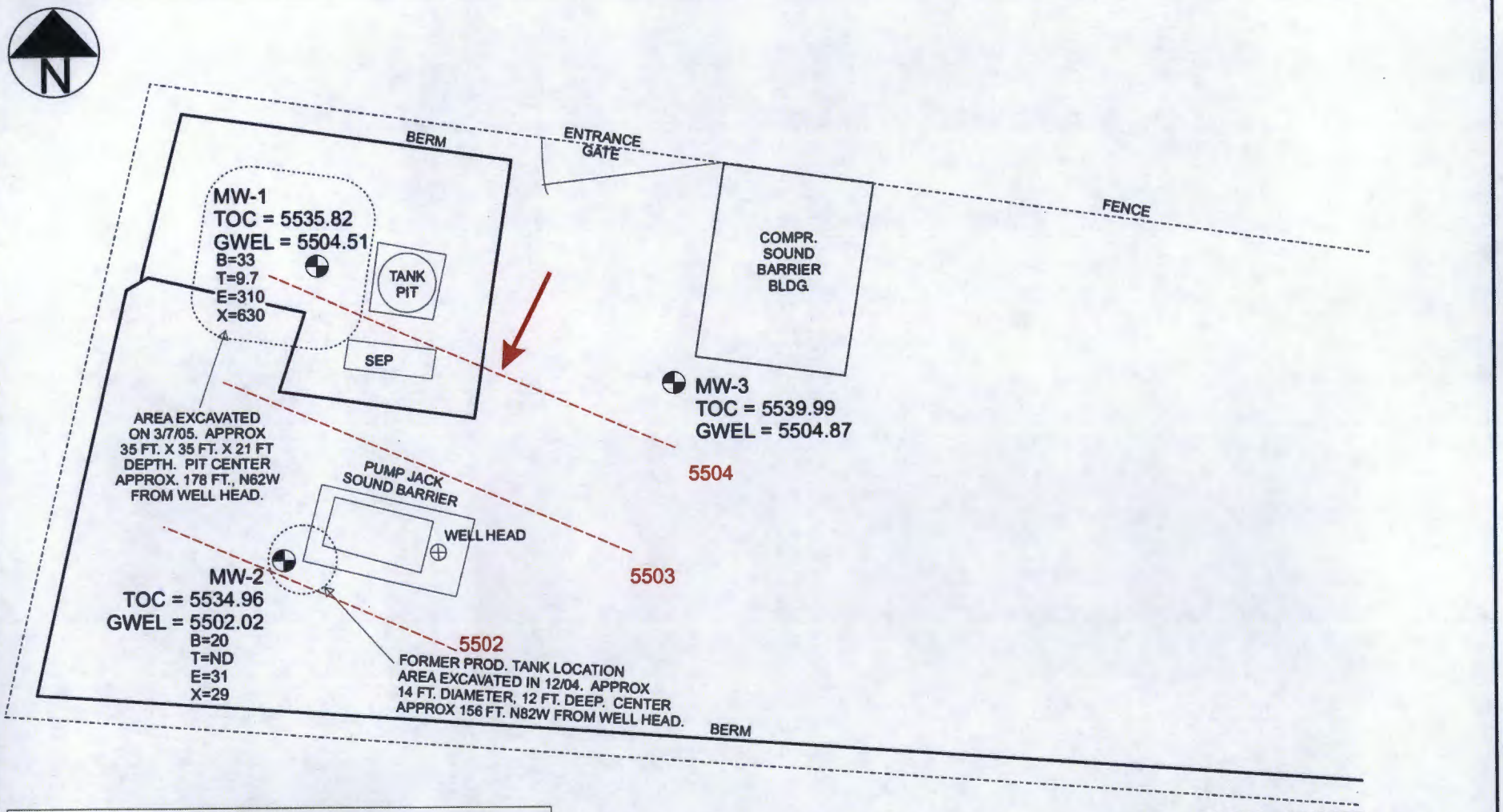
1 INCH = 30 FEET

0 30 60 FT.

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

Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	FEDERAL GAS COM H #1 NE/4 NW/4 SEC.31, T30N, R12W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ADH REVISED: 13Jul09	GROUNDWATER GRADIENT MAP 08Jul09

Figure 5



TOC	= TOP OF CASING ELEVATION
GWEL	= GROUNDWATER ELEVATION
----------	= INFERRED GROUNDWATER CONTOUR LINE
B	= BENZENE (ug/L)
T	= TOLUENE (ug/L)
E	= ETHYLBENZENE (ug/L)
X	= TOTAL XYLENES (ug/L)
ND	= NOT DETECTED

1 INCH = 30 FEET

0 30 60 FT.

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.

Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	FEDERAL GAS COM H #1 NE/4 NW/4 SEC.31, T30N, R12W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ADH REVISED: 22Oct09	GROUNDWATER GRADIENT MAP 20Oct09

Figure 6

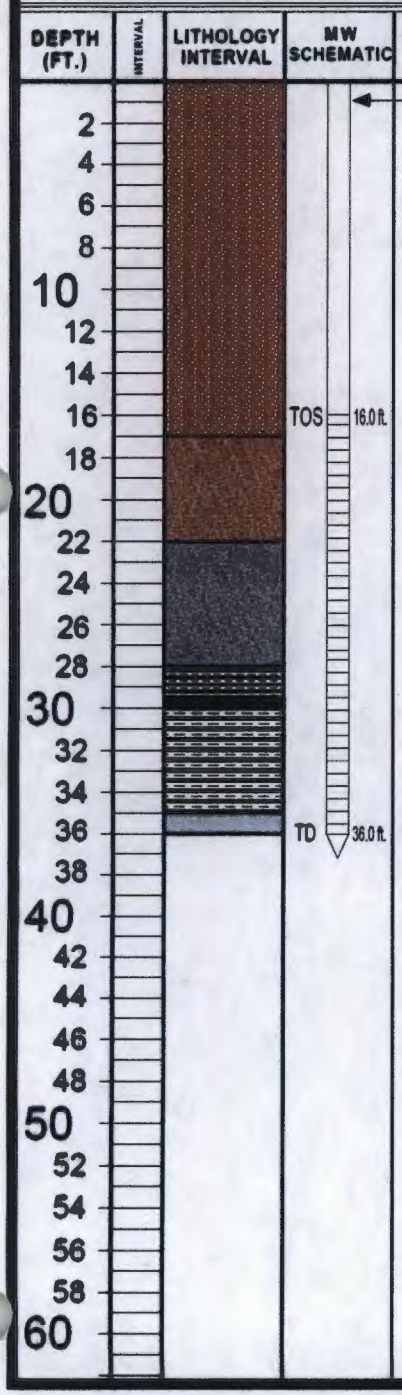
BLAGG ENGINEERING, Inc.

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

BORE / TEST HOLE REPORT

CLIENT:	XTO ENERGY INC.
LOCATION NAME:	FEDERAL GC H # 1 UNIT C, SEC. 31, T30N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC./ENVIROTECH
EQUIPMENT USED:	MOBILE DRILL RIG SIMILAR TO CME 75
BORING LOCATION:	171 FEET, N61.5W FROM WELL HEAD.

BORING #.....	BH - 1
MW #.....	1
PAGE #.....	1
DATE STARTED	03/14/05
DATE FINISHED	03/14/05
OPERATOR.....	KP
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 4.00 FEET ABOVE GRADE.

MODERATE TO DARK YELLOWISH BROWN SAND & ROCK AGGREGATE, NON COHESIVE, SLIGHTLY MOIST, LOOSE TO FIRM, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (0.0 - 17.0 FT. BELOW GRADE).

DARK YELLOWISH BROWN SAND, NON COHESIVE, LOOSE TO FIRM, MOIST, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (17.0 - 22.0 FT. BELOW GRADE).

SAME AS ABOVE EXCEPT MEDIUM GRAY TO BLACK, WET (22.0 - 28.0 FT. BELOW GRADE).

LIGHT MEDIUM GRAY SILTY CLAY TO CLAY, MEDIUM PLASTIC, STIFF, MOIST TO WET, APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (30.5 - 35.0 FT. BELOW GRADE).

SAMPLE COLLECTED FROM SPLIT SPOON SAMPLER BH-2 @ 30.5 FT. OVM READING - 18.1 ppm, COLLECTED - 3/14/05, TIME - 9:30 am, blow count = 11/2 ft.

LIGHT MEDIUM GRAY SILTY CLAY TO CLAY, MEDIUM PLASTIC, STIFF, MOIST TO WET, APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (30.5 - 35.0 FT. BELOW GRADE).

LIGHT GRAY BEDROCK (SANDSTONE), DRY, FINE GRAIN, WELL CONSOLIDATED, WELL CEMENTED, COMPETENT, HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (35.0 - 36.0 FT. BELOW GRADE).

NOTES:

- IMPORTED SAND & ROCK AGGREGATE.
- SAND (IMPACTED).
- SILTY CLAY TO CLAY (IMPACTED).

TOS	- Top of screen of monitor well.
TD	- Total depth/bottom extent of monitor well.
OVM	- Organic Vapor Meter or Photoionization Detector (PID).
TPH	- Total Petroleum Hydrocarbon US EPA method modified 8015B.
ppm	- Parts per million or milligrams per liter (mg/L).

Monitor well consist of 2 inch PVC piping - casing from 4.0 ft. above grade to 16.0 ft. below grade, 0.010 slotted screen between 16.0 to 36.0 feet below grade, sand packed annular to 13 ft. below grade, bentonite plugged to 6 ft. below grade, then finished to surface with clean soil.

DRAWING: FED-GC-H1-MW1. SKF | DATE: 03/14/05 | DWN BY: NJV

Figure 7

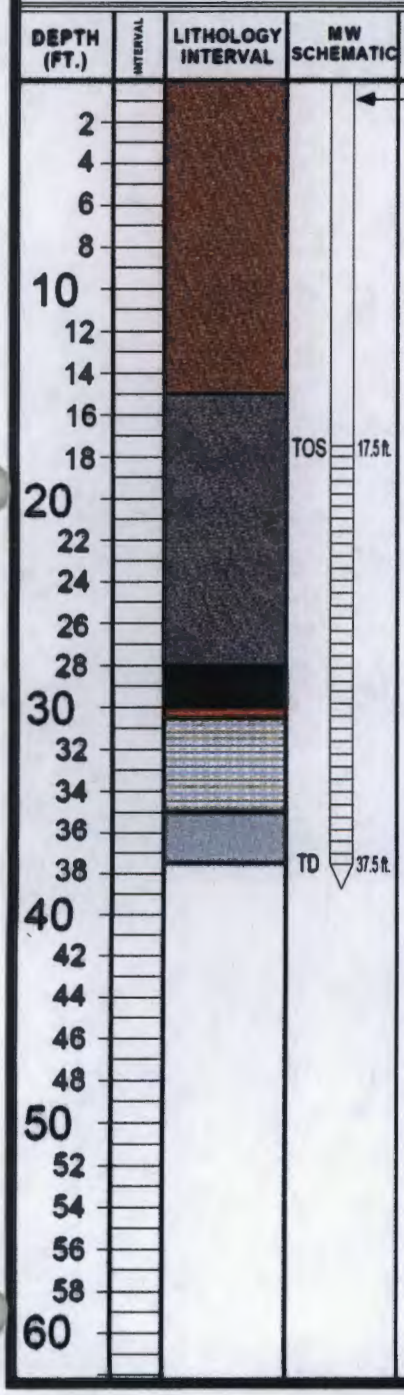
BLAGG ENGINEERING, Inc.

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

BORE / TEST HOLE REPORT

CLIENT:	XTO ENERGY INC.
LOCATION NAME:	FEDERAL GC H # 1 UNIT C, SEC. 31, T30N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC./ENVIROTECH
EQUIPMENT USED:	MOBILE DRILL RIG SIMILAR TO CME 75
BORING LOCATION:	156 FEET, N82W FROM WELL HEAD.

BORING #.....	BH - 2
MW #.....	2
PAGE #.....	2
DATE STARTED	03/14/05
DATE FINISHED	03/14/05
OPERATOR.....	KP
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.50 FEET ABOVE GRADE.

MODERATE TO DARK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, LOOSE TO FIRM, APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 15.0 FT. BELOW GRADE).

DARK YELLOWISH BROWN TO MEDIUM GRAY SAND, NON COHESIVE, MOIST, STRONG HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (15.0 - 28.0 FT. BELOW GRADE).

SAME AS ABOVE EXCEPT BLACK AND SATURATED (28.0 - 30.0 FT. BELOW GRADE).

SAME AS ABOVE EXCEPT DARK YELLOWISH ORANGE (30.0 - 30.5 FT. BELOW GRADE).

LIGHT MEDIUM GRAY SILTY CLAY TO CLAY, MEDIUM PLASTIC, STIFF, MOIST, APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (30.5 - 35.0 FT. BELOW GRADE).

LIGHT GRAY BEDROCK (SANDSTONE), DRY, FINE GRAIN, WELL CONSOLIDATED, WELL CEMENTED, COMPETENT, HC ODOR DETECTED PHYSICALLY WITHIN SPLIT SPOON SAMPLER (35.0 - 37.5 FT. BELOW GRADE).

NOTES:

- SAND.
- SAND (IMPACTED).
- SILTY CLAY TO CLAY (IMPACTED).

TOS - Top of screen of monitor well.
TD - Total depth/bottom extent of monitor well.

Monitor well consist of 2 inch PVC piping - casing from 2.5 ft. above grade to 17.5 ft. below grade, 0.010 slotted screen between 17.5 to 37.5 feet below grade, sand packed annular to 13 ft. below grade, bentonite plugged to 5 ft. below grade, then finished to surface with clean soil.

DRAWING: FED-GC-H1-MW2, SKF | DATE: 03/14/05 | DWN BY: NJV

Figure 8

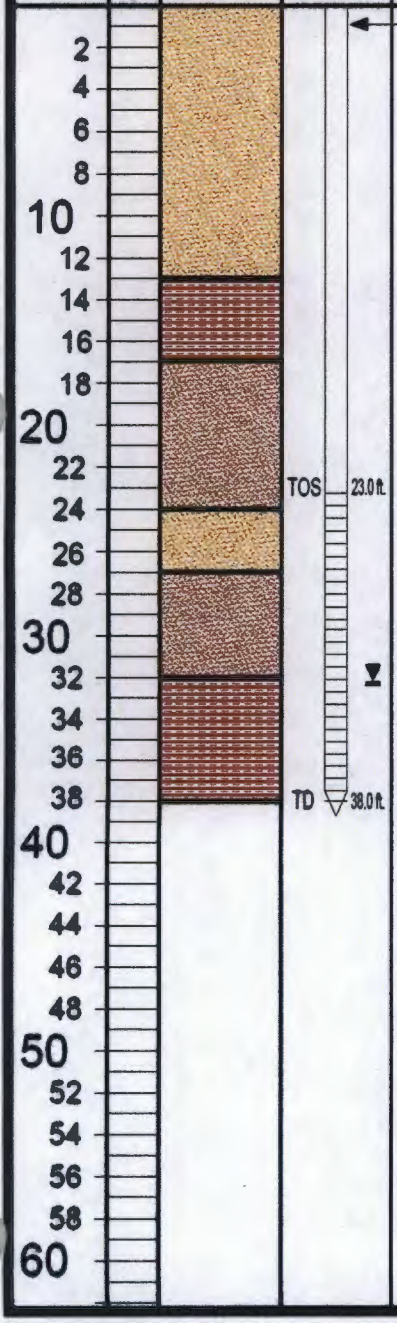
BLAGG ENGINEERING, Inc.

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

BORE / TEST HOLE REPORT

CLIENT:	XTO ENERGY INC.
LOCATION NAME:	FEDERAL GC H # 1 UNIT C, SEC. 31, T30N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC./ENVIROTECH
EQUIPMENT USED:	MOBILE DRILL RIG SIMILAR TO CME 75
BORING LOCATION:	96.5FEET, N53W FROM WELL HEAD.

BORING #.....	BH - 3
MW #.....	3
PAGE #.....	3
DATE STARTED	04/26/06
DATE FINISHED	04/26/06
OPERATOR.....	DP
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.50 FEET ABOVE GRADE.

MODERATE TO DARK YELLOWISH ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST, LOOSE TO FIRM, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS, (0.0 - 13.0 FT. BELOW GRADE).

DARK YELLOWISH BROWN SILTY CLAY, MEDIUM PLASTIC, FIRM TO STIFF, SLIGHTLY MOIST, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (13.0 - 17.0 FT. BELOW GRADE).

DARK YELLOWISH BROWN SAND, NON COHESIVE, FIRM, SLIGHTLY MOIST TO MOIST, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (17.0 - 24.0 FT. BELOW GRADE).

SAME AS ABOVE EXCEPT DARK YELLOWISH ORANGE (24.0 - 27.0 FT. BELOW GRADE).

SAME AS ABOVE EXCEPT DARK YELLOWISH BROWN, MOIST TO WET (27.0 - 32.0 FT. BELOW GRADE).

DEPTH TO WATER APPROX. 32.18 FT. BELOW GRADE, MEASURED 4/28/06.

DARK YELLOWISH BROWN SAND PHASING INTO SILTY CLAY, WET TO SATURATED, NON COHESIVE TO MEDIUM PLASTIC, FIRM TO STIFF, SATURATED, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (32.0 - 38.0 FT. BELOW GRADE).

NOTES:

- SAND.
- SILTY CLAY TO CLAY (IMPACTED).
- TOS - Top of screen of monitor well.
- TD - Total depth/bottom extent of monitor well.

Monitor well consist of 2 inch PVC piping - casing from 2.50 ft. above grade to 23.0 ft. below grade, 0.010 slotted screen between 23.0 to 38.0 feet below grade, sand packed annular to 21 ft. below grade, bentonite plugged between 18 to 21 ft. below grade, then finished to surface with clean soil.

DRAWING: FED-GC-H1-BH3-MW3. SKF | DATE: 04/26/06 | DWN BY: NJV

Attachment 1

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505) 632-1199 Fax: (505) 632-3903

January 28, 2000

Mr. Denny G. Foust -Environmental Geologist
New Mexico Oil Conservation Division - (NMOCD)
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Cross Timbers Oil Co. Federal GC H # 1 Spill Cleanup Report
Unit C, SEC. 31, T30N, R12W, San Juan County, New Mexico

Dear Mr. Foust:

On behalf of Cross Timbers Oil Company, Blagg Engineering, Inc. (BEI) respectfully submits the attached report affiliated with the Federal GC H # 1 spill release (approximately 69 barrels) which occurred on approximately November 25, 1999.

In briefly summarizing the cleanup effort which took place between November 26th and 29th, 1999, approximately 304 cubic yards of impacted soil was removed (refer to Figure 1) and transported to Envirotech, Inc.'s Soil Remediation Facility (NMOCD rule 7/11 permit for commercial facility - Landfarm #2) located in NW/4, Sec. 6, T26N, R10W, NMPM, San Juan County, NM. The excavation perimeter was arbitrarily and judgmentally sampled during and upon completion of the excavation activity (refer to Figure 2 for sample locations and result summary). In revicwing the field and analytical results, it appears that vertical extent has been established utilizing the PB @ 12 ft. and PB5 @ 14 ft. data and that lateral extent of contamination appears to have met state closure standards with the exception of the 2A sample point area (point of release). It was then suggested and agreed upon between BEI and NMOCD to remediate the remaining contamination passively (estimated to be 20-30 cubic yards) utilizing vertical vent piping (refer to Figure 3) and a 50% Nitrogen, 0% Phosphorus, 0% Potassium fertilizer application (installed and introduced on January 25, 2000 by BEI).

Based upon the attached information given, Cross Timbers Oil Company is requesting closure based on risk that the remaining soil contamination does not appear to pose a present or future threat to groundwater (estimated at a depth greater than 30 feet), health, or the environment.

If you have any questions or comments concerning this report, please contact myself or Jeff Blagg at the address or phone number listed above. Thank you for your cooperation.

Respectfully submitted,
Blagg Engineering, Inc.

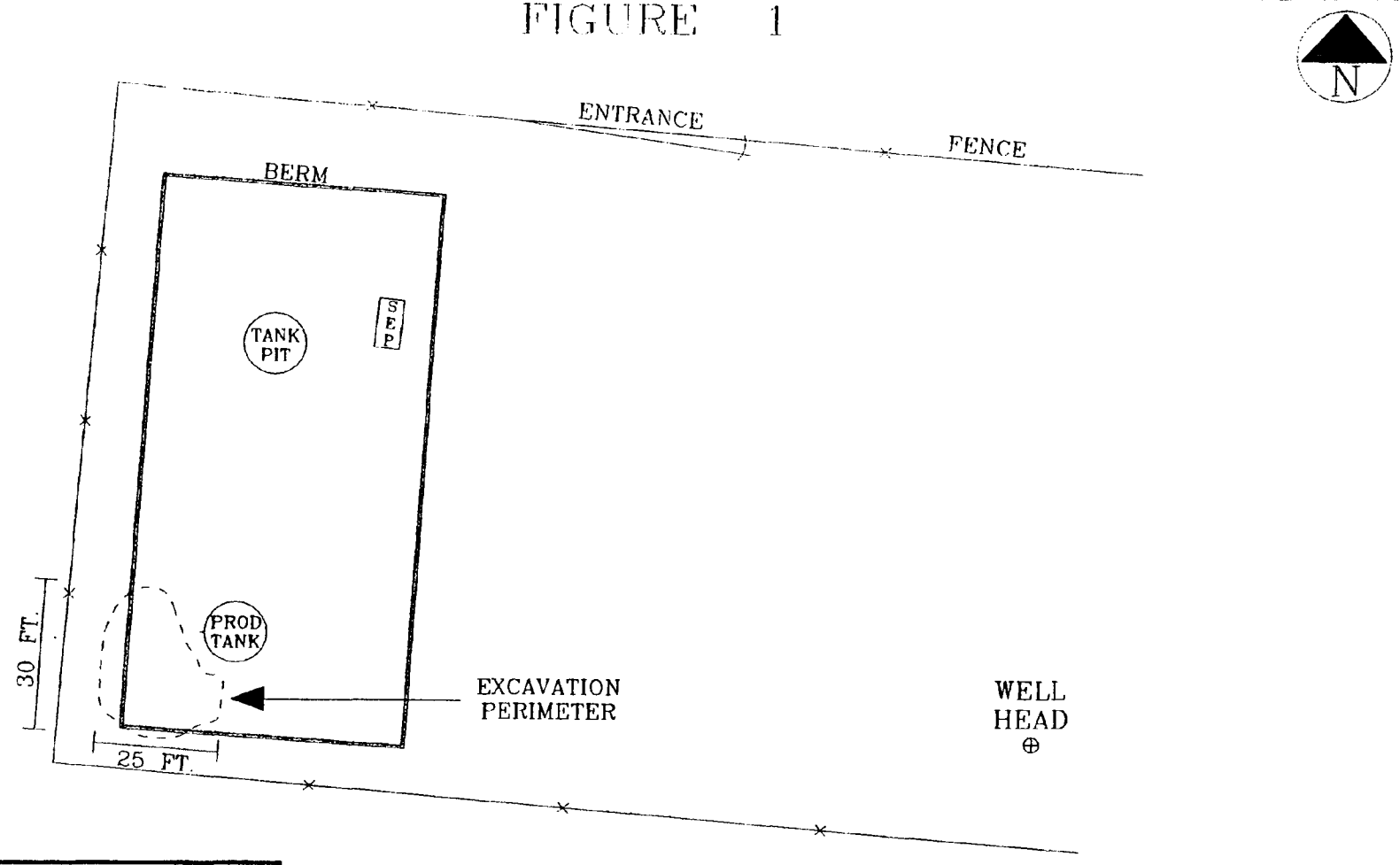
Nelson J. Velez
Staff Geologist

Attachments: Spill Cleanup Report

xc: Bill Olson, Hydrologist, NMOCD, Santa Fe Office, NM
Rueben Sanchez, Environmental Team Lead, BLM, Farmington, NM (2 copies)
Terry Matthews, Regional Supervisor, Cross Timbers Oil Co., Farmington, NM

NJV/njv FED-H1.CVL

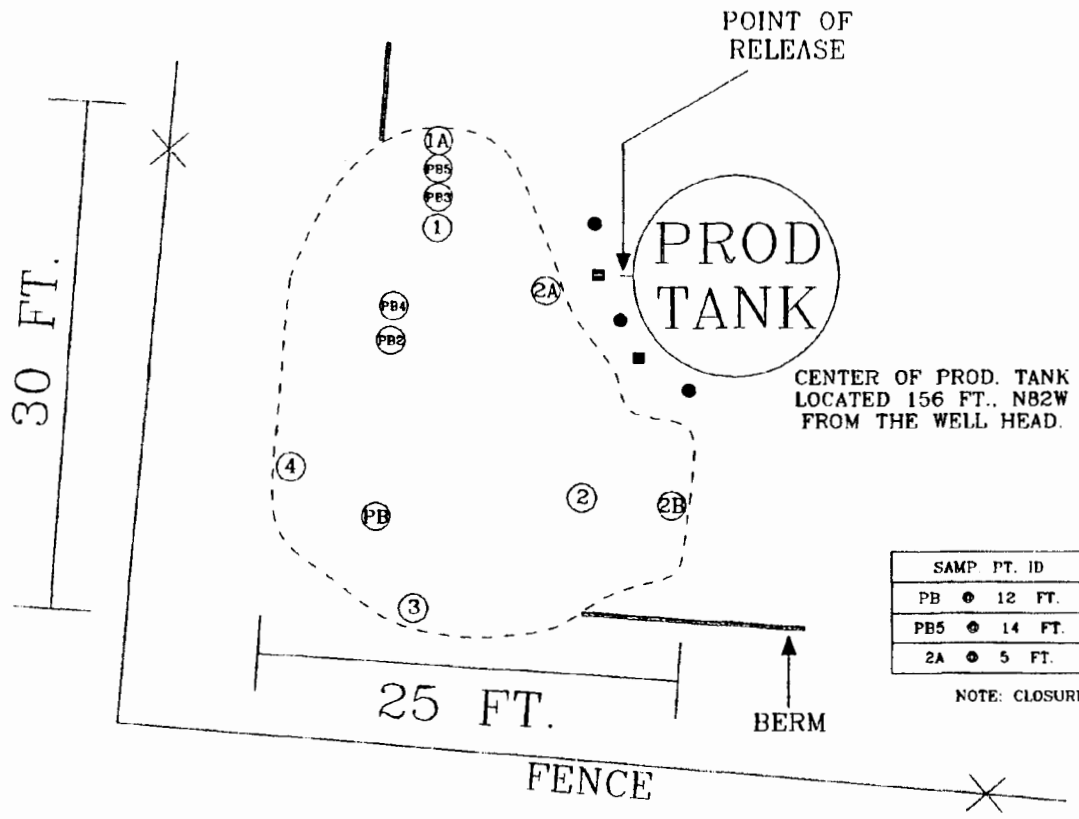
FIGURE 1



PRODUCTION TANK & SEPARATOR 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 ARE NOT TO SCALE.

CROSS TIMBERS OIL COMPANY FEDERAL GC H #1 NE/4 NW/4 SEC. 31, T30N, R12W SAN JUAN COUNTY, NEW MEXICO	BLAGG ENGINEERING, INC. CONSULTING PETROLEUM / RECLAMATION SERVICES P.O. BOX 87 BLOOMFIELD, NEW MEXICO 87413 PHONE: (505) 632-1199	PROJECT: SPILL CLEAN UP DRAWN BY: NJV FILENAME: FED-MAP.SKD	SITE MAP 11/99

FIGURE 2



NOV. 29, 1999

SAMP PT. ID	OVM READING (ppm)
1 @ 6 FT.	219
1A @ 6 FT.	131.6
2 @ 5 FT.	242
2A @ 5 FT.	248
2B @ 5 FT.	126.7
3 @ 6 FT.	115.2
4 @ 6 FT.	97.1
PB @ 12 FT.	78.3
PB2 @ 11 FT.	275
PB3 @ 11 FT.	510
PB4 @ 12 FT.	121.9
PB5 @ 14 FT.	142.1

NOTE: CLOSURE STANDARD - OVM < 100 ppm.

SAMP PT. ID	TPH (ppm)	BENZENE (ppb)	TOTAL BTEX (ppb)
PB @ 12 FT.	19.7	-	-
PB5 @ 14 FT.	12.0	820	5,240
2A @ 5 FT.	3,540	12,130	41,460

NOTE: CLOSURE STANDARDS - TPH < 100 ppm, benzene < 10,000 ppb, & total BTEX < 50,000 ppb.

LEGEND:
- ■ DENOTES BORING LOCATION OF FERTILIZER APPLICATION.
- ● DENOTES BORING LOCATION OF VERTICAL PASSIVE VENT PIPING.

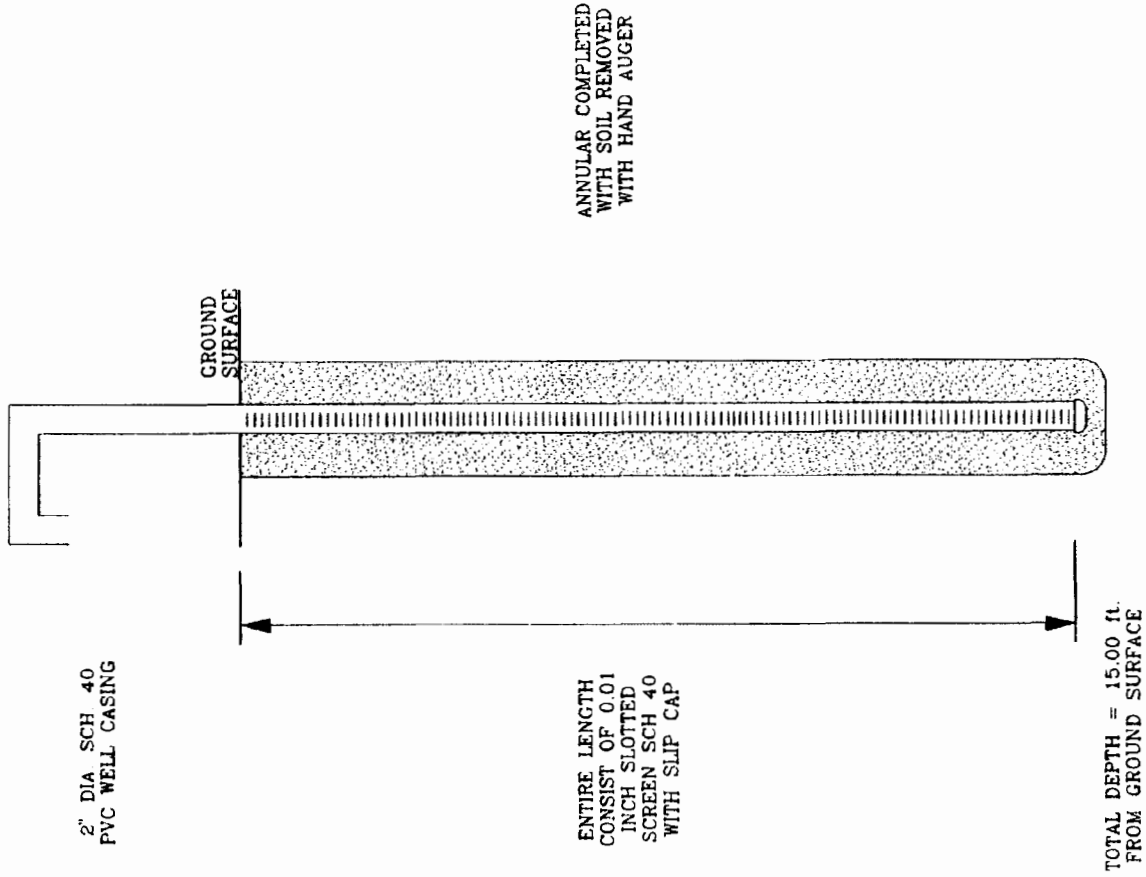
CROSS TIMBERS OIL COMPANY
FEDERAL GC H #1
NE/4 NW/4 SEC. 31, T30N, R12W
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: SPILL CLEAN UP
DRAWN BY: NJV
FILENAME: FED-MAP2.SKD

SITE MAP
11/99

FIGURE 3



CROSS TIMBERS OIL COMPANY

FEDERAL GC H # 1

MONITOR WELL CONSTRUCTION & COMPLETION

INSTALLED WITH HAND AUGER

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

VENT PIPING SCHEMATIC

DRAFTED BY: NJV

DATE: JAN. '00

FILENAME: FED-PVP.SKD

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	PB @ 12'	Date Reported:	11-30-99
Laboratory Number:	G509	Date Sampled:	11-29-99
Chain of Custody No:	7443	Date Received:	11-30-99
Sample Matrix:	Soil	Date Extracted:	11-30-99
Preservative:	Cool	Date Analyzed:	11-30-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**0.6**	**0.2**
Diesel Range (C10 - C28)	**19.1**	**0.1**
Total Petroleum Hydrocarbons	**19.7**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Federal GC H #1 Tank Spill.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	PB5 @ 14'	Date Reported:	11-30-99
Laboratory Number:	G510	Date Sampled:	11-29-99
Chain of Custody No:	7443	Date Received:	11-30-99
Sample Matrix:	Soil	Date Extracted:	11-30-99
Preservative:	Cool	Date Analyzed:	11-30-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**8.2**	**0.2**
Diesel Range (C10 - C28)	**3.8**	**0.1**
Total Petroleum Hydrocarbons	**12.0**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Federal GC H #1 Tank Spill.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	2A @ 5'	Date Reported:	11-30-99
Laboratory Number:	G511	Date Sampled:	11-29-99
Chain of Custody No:	7443	Date Received:	11-30-99
Sample Matrix:	Soil	Date Extracted:	11-30-99
Preservative:	Cool	Date Analyzed:	11-30-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**3,170**	**0.2**
Diesel Range (C10 - C28)	**372**	**0.1**
Total Petroleum Hydrocarbons	**3,540**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Federal GC H #1 Tank Spill.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	PB5 @ 14'	Date Reported:	11-30-99
Laboratory Number:	G510	Date Sampled:	11-29-99
Chain of Custody:	7443	Date Received:	11-30-99
Sample Matrix:	Soil	Date Analyzed:	11-30-99
Preservative:	Cool	Date Extracted:	11-30-99
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**820**	**10.4**
Toluene	**506**	**10.4**
Ethylbenzene	**159**	**10.4**
p,m-Xylene	**3,280**	**10.4**
o-Xylene	**475**	**5.2**
Total BTEX	**5,240**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**100 %**
	Bromofluorobenzene	**100 %**

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Federal GC H #1 Tank Spill.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	2A @ 5'	Date Reported:	11-30-99
Laboratory Number:	G511	Date Sampled:	11-29-99
Chain of Custody:	7443	Date Received:	11-30-99
Sample Matrix:	Soil	Date Analyzed:	11-30-99
Preservative:	Cool	Date Extracted:	11-30-99
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**12,130**	**10.4**
Toluene	**4,690**	**10.4**
Ethylbenzene	**15,590**	**10.4**
p,m-Xylene	**5,860**	**10.4**
o-Xylene	**3,190**	**5.2**
Total BTEX	**41,460**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**100 %**
	Bromofluorobenzene	**100 %**

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Federal GC H #1 Tank Spill.**

Analyst

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CHAIN OF CUSTODY RECORD

7443

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG/CROSS TIMBERS	TANK SPILL FEDERAL GC H #1	
Sampler: NJV	Client No. 403410	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)	BTEX (8021)					Remarks
PB @ 12'	11/29/99	1205	G509	SOIL	1	✓						PRESERV. - COOL
PB5 @ 14'	11/29/99	1540	G510	SOIL	1	✓	✓					PRESERV. - COOL
ZA @ 5'	11/29/99	1520	G511	SOIL	1	✓	✓					PRESERV. - COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	11/30/99	0722	Denise L. Ojeman	11.30.99	0722
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	11-30-TPH QA/QC	Date Reported:	11-30-99
Laboratory Number:	G509	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-30-99
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	06-17-99	2.6810E-002	2.6783E-002	0.10%	0 - 15%
Diesel Range C10 - C28	06-17-99	2.6962E-002	2.6908E-002	0.20%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	0.6	0.6	0.0%	0 - 30%
Diesel Range C10 - C28	19.1	19.1	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	0.6	250	250	100%	75 - 125%
Diesel Range C10 - C28	19.1	250	269	100%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples G509 - G511.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	11-30-BTEX QA/QC	Date Reported:	11-30-99
Laboratory Number:	G503	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-30-99
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc.	Detect. Limit
Benzene	7.0291E-002	7.0516E-002	0.32%	ND	0.2
Toluene	6.3951E-002	6.3963E-002	0.02%	ND	0.2
Ethylbenzene	5.2614E-002	5.2677E-002	0.12%	ND	0.2
p,m-Xylene	3.9700E-002	3.9708E-002	0.02%	ND	0.2
o-Xylene	6.5791E-003	6.5989E-003	0.30%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept. Limit
Benzene	ND	ND	0.0%	0 - 30%
Toluene	ND	ND	0.0%	0 - 30%
Ethylbenzene	ND	ND	0.0%	0 - 30%
p,m-Xylene	ND	ND	0.0%	0 - 30%
o-Xylene	ND	ND	0.0%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept. Limits
Benzene	ND	50.0	50.1	100%	39 - 150
Toluene	ND	50.0	50.0	100%	46 - 148
Ethylbenzene	ND	50.0	50.0	100%	32 - 160
p,m-Xylene	ND	100.0	100	100%	46 - 148
o-Xylene	ND	50.0	50.0	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

* - Administrative level set at 80 - 120.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for samples G503 - G508 and G510 - G511.**

Analyst

Review

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Attachment 2

Hall Environmental Analysis Laboratory, Inc.

Date: *27-Jan-09*

CLIENT: XTO Energy
Project: XTO Water Sampling
Lab Order: 0901306

Lab ID: 0901306-01 **Collection Date:** 1/20/2009 2:13:00 PM
Client Sample ID: ~~Eaton Gas Com MW-1~~ **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	1/24/2009 2:26:30 AM
Toluene	ND	1.0		µg/L	1	1/24/2009 2:26:30 AM
Ethylbenzene	ND	1.0		µg/L	1	1/24/2009 2:26:30 AM
Xylenes, Total	ND	2.0		µg/L	1	1/24/2009 2:26:30 AM
Surr: 4-Bromofluorobenzene	75.1	65.9-130		%REC	1	1/24/2009 2:26:30 AM

Lab ID: 0901306-02 **Collection Date:** 1/20/2009 3:57:00 PM
Client Sample ID: Federal GC H#1 MW-1 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	30	10		µg/L	10	1/27/2009 12:52:17 AM
Toluene	22	10		µg/L	10	1/27/2009 12:52:17 AM
Ethylbenzene	370	10		µg/L	10	1/27/2009 12:52:17 AM
Xylenes, Total	910	20		µg/L	10	1/27/2009 12:52:17 AM
Surr: 4-Bromofluorobenzene	94.2	65.9-130		%REC	10	1/27/2009 12:52:17 AM

Lab ID: 0901306-03 **Collection Date:** 1/20/2009 12:31:00 PM
Client Sample ID: ~~P.O. Pipkin 3G MW-2~~ **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	6.4	1.0		µg/L	1	1/24/2009 3:27:21 AM
Toluene	ND	1.0		µg/L	1	1/24/2009 3:27:21 AM
Ethylbenzene	ND	1.0		µg/L	1	1/24/2009 3:27:21 AM
Xylenes, Total	ND	2.0		µg/L	1	1/24/2009 3:27:21 AM
Surr: 4-Bromofluorobenzene	76.5	65.9-130		%REC	1	1/24/2009 3:27:21 AM

Lab ID: 0901306-04 **Collection Date:** 1/20/2009 4:14:00 PM
Client Sample ID: Federal GC H#1 MW-2 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	38	1.0		µg/L	1	1/24/2009 3:57:40 AM
Toluene	ND	1.0		µg/L	1	1/24/2009 3:57:40 AM
Ethylbenzene	85	1.0		µg/L	1	1/24/2009 3:57:40 AM
Xylenes, Total	49	2.0		µg/L	1	1/24/2009 3:57:40 AM
Surr: 4-Bromofluorobenzene	88.1	65.9-130		%REC	1	1/24/2009 3:57:40 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *27-Jan-09*

CLIENT: XTO Energy
Project: XTO Water Sampling
Lab Order: 0901306

Lab ID: 0901306-05 **Collection Date:**
Client Sample ID: TRIP BLANK **Matrix:** TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	1/24/2009 4:58:31 AM
Toluene	ND	1.0		µg/L	1	1/24/2009 4:58:31 AM
Ethylbenzene	ND	1.0		µg/L	1	1/24/2009 4:58:31 AM
Xylenes, Total	ND	2.0		µg/L	1	1/24/2009 4:58:31 AM
Surr: 4-Bromofluorobenzene	86.0	65.9-130		%REC	1	1/24/2009 4:58:31 AM

Qualifiers:

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

QA/QC SUMMARY REPORT

lient: XTO Energy
roject: XTO Water Sampling **Work Order:** 0901306

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			**Batch ID: R32139**		**Analysis Date:**	**1/23/2009 9:48:37 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						

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name XTO ENERGY | Date Received: 1/22/2009

Work Order Number 0901306 | Received by: TLS

Checklist completed by: _____ Signature 1/22/09 Date | Sample ID labels checked by: _____ Initials

Matrix: | Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☐		Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	4°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: XTO Energy
Kim Chaplin
Mailing Address: 382 CR 3100
Aztec NM 87410
Phone #: 505.333.3207
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: XTO Water Sampling
Project #:
Project Manager: Martin Nee
Sampler: Alex Hutt 303.319.9906
On Ice: ☒ Yes ☐ No
Sample Temperature:

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)		8021 (BTEX)			Air Bubbles (Y or N)
20Jan09	1413	Aq	Eaton Gas Com MW1	glass/3	HCl	1													X			
20Jan09	1557		Federal GC #1 MW1	glass/3	HCl	2													X			
20Jan09	1231		P.O Ripken 3E MW-2	glass/3	HCl	3													X			
20Jan09	1614		Federal GC #1 MW-2	glass/3	HCl	4													X			
			Trip Blank	glass/2		5																

Date	Time	Relinquished by:	Received by:	Date	Time
22Jan09	0700			1/22/09	1410
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:
please email results to
ala@lodestarservices.com
adh@lodestarservices.com
and KimChaplin thank you!

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT: XTO Energy
Project: Ground Water
Lab Order: 0907183

Lab ID: 0907183-01 **Collection Date:** 7/8/2009 3:20:00 PM
Client Sample ID: Federal GCH #1 MW-2 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						**Analyst: NSB**
Benzene	7.5	1.0		µg/L	1	7/13/2009 11:29:15 PM
Toluene	ND	1.0		µg/L	1	7/13/2009 11:29:15 PM
Ethylbenzene	13	1.0		µg/L	1	7/13/2009 11:29:15 PM
Xylenes, Total	3.0	2.0		µg/L	1	7/13/2009 11:29:15 PM
Surr: 4-Bromofluorobenzene	93.3	65.9-130		%REC	1	7/13/2009 11:29:15 PM

Lab ID: 0907183-02 **Collection Date:** 7/8/2009 3:09:00 PM
Client Sample ID: Federal GCH #1 MW-1 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						**Analyst: NSB**
Benzene	16	10		µg/L	10	7/14/2009 12:02:24 AM
Toluene	ND	10		µg/L	10	7/14/2009 12:02:24 AM
Ethylbenzene	280	10		µg/L	10	7/14/2009 12:02:24 AM
Xylenes, Total	530	20		µg/L	10	7/14/2009 12:02:24 AM
Surr: 4-Bromofluorobenzene	100	65.9-130		%REC	10	7/14/2009 12:02:24 AM

Lab ID: 0907183-03 **Collection Date:** 7/8/2009 10:40:00 AM
Client Sample ID: ~~OH Randel #7 MW-8~~ **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						**Analyst: NSB**
Benzene	ND	1.0		µg/L	1	7/14/2009 12:32:56 AM
Toluene	ND	1.0		µg/L	1	7/14/2009 12:32:56 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2009 12:32:56 AM
Xylenes, Total	ND	2.0		µg/L	1	7/14/2009 12:32:56 AM
Surr: 4-Bromofluorobenzene	81.5	65.9-130		%REC	1	7/14/2009 12:32:56 AM

Lab ID: 0907183-04 **Collection Date:** 7/8/2009 10:00:00 AM
Client Sample ID: ~~OH Randel #7 MW-7~~ **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						**Analyst: NSB**
Benzene	9800	100		µg/L	100	7/14/2009 2:04:21 AM
Toluene	8200	100		µg/L	100	7/14/2009 2:04:21 AM
Ethylbenzene	ND	100		µg/L	100	7/14/2009 2:04:21 AM
Xylenes, Total	12000	200		µg/L	100	7/14/2009 2:04:21 AM
Surr: 4-Bromofluorobenzene	98.3	65.9-130		%REC	100	7/14/2009 2:04:21 AM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Ground Water **Work Order:** 0907183

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R34504**	Analysis Date:	7/13/2009 9:16:57 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:	**R34522**	Analysis Date:	7/14/2009 9:32:33 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:	**R34504**	Analysis Date:	7/13/2009 7:55:26 PM	
Benzene	19.53	µg/L	1.0	97.7	85.9	113			
Toluene	19.16	µg/L	1.0	95.8	86.4	113			
Ethylbenzene	19.44	µg/L	1.0	97.2	83.5	118			
Xylenes, Total	57.95	µg/L	2.0	96.6	83.4	122			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **XTO ENERGY** Date Received: **7/10/2009**

Work Order Number **0907183** Received by: **TLS**

Checklist completed by: _____ Signature 7/16/09 Date Sample ID labels checked by: _____ Initials

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**2.8°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

_____

_____

_____

_____

Corrective Action _____

_____

_____

Chain-of-Custody Record

Client: XTO Energy
Kim Champlin
Mailing Address: 382 CR 3100
Aztec NM 87410
Phone #: 505·333·3207
email or Fax#:

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

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Groundwater

Project #: ~~Ashley~~ /

Project Manager: Ashley Ager

Sampler:

Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8021 BTEX				Air Bubbles (Y or N)
8Jul09	15:20	AQ	Federal GC #1 MW-2	glass/3	HCl	1												✓				
8Jul09	1509	AQ	Federal GC #1 MW-1	glass/3	HCl	2												✓				
8Jul09	10:40	AQ	OH Randel #7 MW-8	glass/3	HCl	3												✓				
8Jul09	10:00	AQ	OH Randel #7 MW-7	glass/3	HCl	4												✓				
8Jul09	1157	AQ	OH Randel #7 MW-9	glass/1	HCl	5												✓				
8Jul09	1257	AQ	P.O. Pipkin 3E MW-2	glass/3	HCl	6												✓				

Date	Time	Relinquished by	Received by	Date	Time
9Jul09	1700	[signature]	[signature]	7/10/09	930

Remarks: OH Randel MW 9 - well went dry before more samples could be taken.
Please cc results to: ala@lodestarservices.com
adh@lodestarservices.com
Thank you!

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Hall Environmental Analysis Laboratory, Inc.

Date: *23-Oct-09*

CLIENT: XTO Energy
Project: Ground Water
Lab Order: 0910381

Lab ID: 0910381-01 **Collection Date:** 10/20/2009 4:10:00 PM
Client Sample ID: Federal GC H1-MW-1 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	33	5.0		µg/L	5	10/23/2009 3:31:43 AM
Toluene	9.7	5.0		µg/L	5	10/23/2009 3:31:43 AM
Ethylbenzene	310	5.0		µg/L	5	10/23/2009 3:31:43 AM
Xylenes, Total	630	10		µg/L	5	10/23/2009 3:31:43 AM
Surr: 4-Bromofluorobenzene	99.0	65.9-130		%REC	5	10/23/2009 3:31:43 AM

Lab ID: 0910381-02 **Collection Date:** 10/20/2009 3:40:00 PM
Client Sample ID: Federal GC H1-MW2 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	20	1.0		µg/L	1	10/23/2009 4:32:21 AM
Toluene	ND	1.0		µg/L	1	10/23/2009 4:32:21 AM
Ethylbenzene	31	1.0		µg/L	1	10/23/2009 4:32:21 AM
Xylenes, Total	29	2.0		µg/L	1	10/23/2009 4:32:21 AM
Surr: 4-Bromofluorobenzene	90.7	65.9-130		%REC	1	10/23/2009 4:32:21 AM

Lab ID: 0910381-03 **Collection Date:** 10/20/2009 12:52:00 PM
Client Sample ID: ~~PO Pipkin 3E MW2~~ **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	10/22/2009 3:29:39 AM
Toluene	ND	1.0		µg/L	1	10/22/2009 3:29:39 AM
Ethylbenzene	ND	1.0		µg/L	1	10/22/2009 3:29:39 AM
Xylenes, Total	ND	2.0		µg/L	1	10/22/2009 3:29:39 AM
Surr: 4-Bromofluorobenzene	85.2	65.9-130		%REC	1	10/22/2009 3:29:39 AM

Qualifiers:

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

QA/QC SUMMARY REPORT

lient: XTO Energy
Project: Ground Water **Work Order:** 0910381

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R35834**	Analysis Date:	10/21/2009 9:47:21 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:	**R35851**	Analysis Date:	10/22/2009 9:39:24 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:	**R35834**	Analysis Date:	10/21/2009 8:55:24 PM		
Benzene	19.31	µg/L	1.0	20	0	96.6	85.9	113			
Toluene	19.64	µg/L	1.0	20	0	98.2	86.4	113			
Ethylbenzene	19.35	µg/L	1.0	20	0	96.8	83.5	118			
Xylenes, Total	56.92	µg/L	2.0	60	0	94.9	83.4	122			
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID:	**R35851**	Analysis Date:	10/22/2009 8:57:15 PM		
Benzene	18.14	µg/L	1.0	20	0	90.7	85.9	113			
Toluene	18.42	µg/L	1.0	20	0	92.1	86.4	113			
Ethylbenzene	18.04	µg/L	1.0	20	0	90.2	83.5	118			
Xylenes, Total	54.09	µg/L	2.0	60	0	90.2	83.4	122			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **XTO ENERGY** Date Received: **10/21/2009**

Work Order Number **0910381** Received by: **ARS**

Checklist completed by: _____ 10/21/09 Sample ID labels checked by: _____

Signature Date Initials

Matrix: Carrier name: Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**6.8°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: XTO Energy
Kim Champlin
Mailing Address: 382 CR 3100
Aztec NM
Phone #: 505-333-3207
email or Fax#:
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name:
* Ground water
Project #:
Project Manager:
Ashley Ager
Sampler: Devin Hennemann
On Ice: ☒ Yes ☐ No
Sample Temperature: 6.8

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0910381	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8021 BTEX				Air Bubbles (Y or N)
10-20-09	16:10	aq	Federal GC H1-MW-1	glass/3	$HgCl_2$	1												X				N
10-20-09	15:40	aq	Federal GC H1-MW2	glass/3	$HgCl_2$	2												X				N
10-20-09	12:52	aq	POPIPKIN 3E MW2	glass/3	HCl	3												X				N

Date:	Time:	Relinquished by:	Received by:	Date	Time
10-20-09	19:42			10/21	09:45
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Please forward results to: ala@lodestarservices.com

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