3R - 414

ANNUAL MONITORING REPORT

03/07/2008

XTO ENERGY

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
- 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

3R414
- OGRID 5380
- BGT / SEPARATOR PIT

XTO ENERGY INC.

ANNUAL GROUNDWATER REPORT

2007

McCoy Gas Com D #1E
(E) SECTION 28 – T30N – R12W, NMPM
SAN JUAN COUNTY, NEW MEXICO

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

January 2008

TABLE OF CONTENTS

2007 XTO GROUNDWATER REPORT

McCoy GAS COM D #1E

SITE DETAILS

LEGALS - TWN: 30N **RNG:** 12W **SEC:** 28 **UNIT:** E
NMOCD HAZARD RANKING: 30 **LAND TYPE:** FEE

PREVIOUS ACTIVITIES

Excavation: Apr-92
Soil Borings: Sep-06
Sampled: Oct-06
Sampling Initiated: May-07
Additional Excavation: Feb-06 (750 cy)
Monitoring Wells: Sep-06
Additional Monitoring Wells: May-07

SITE MAP

A site map is presented as Figure 1.

SUMMARY TABLES

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

POTENTIOMETRIC SURFACE DIAGRAMS

The gradient map from May 2007 (Figure 2) represents the first contour map drawn for this site. Groundwater was expected to flow toward the irrigation ditch directly south of the well site. However, the data indicates flow in the opposite direction. The irrigation ditch, which was running at full capacity in May, appears to have exerted local control over groundwater at the site as it pushed water away from its course. Once the water level in the ditch leveled out (as shown in July), flow reversed direction and ran south, which is anticipated based on local topography. In September, groundwater flow shifted to an easterly direction and was much flatter as compared to July. Water levels in the ditch were relatively high because the ditch was being flushed out upstream. As a result, local groundwater was again being pushed away from the ditch. In November, groundwater flow was running towards the adjacent irrigation ditch, which was completely dry for the winter season. Figures 2 – 5 illustrate the estimated groundwater gradients for 2007.

ANNUAL GROUNDWATER REMEDIATION REPORTS

The 2006 annual groundwater report was submitted to New Mexico Oil Conservation Division (NMOCD) in February 2007, proposing the installation of two down gradient monitoring wells to further delineate impact to groundwater and sampling in accordance with NMOCD approved Groundwater Management Plan.

2007 ACTIVITIES

Monitoring wells MW-2 and MW-3 were installed (Figures 6-12) and sampled in May 2007. Laboratory results for groundwater samples revealed benzene, toluene, ethyl benzene and total xylenes (BTEX) constituents were not detected above the laboratory equipment detection limits (0.2 ug/L) in either of the two monitoring wells (Table 1). A

work plan for remediation by installation of oxygen release compound (ORC) filter socks was submitted to NMOCD dated October 31, 2007 (Attachment 2). The ORC socks, containing magnesium peroxide, were placed throughout the water column in November 2007 to supply oxygen for aerobic degradation of hydrocarbons.

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

Bore/Test Hole Reports are presented as Figures 6-12 representing drilling that occurred on site in September 2006 and May 2007.

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 McCoy Gas Com D #1E from Amoco Production Company. In February 2006, while removing a 95 barrel steel separator pit tank, XTO discovered a historical earthen separator pit that was included in a 1992 site assessment (Attachment 3). Approximately 750 cubic yards of impacted soil was excavated and sampled in February 2006 (Attachment 4). Monitoring well MW-1 was installed in September (Figures 6-8) and sampled in October 2006. Laboratory results for groundwater samples from MW-1 revealed BTEX constituents above New Mexico Water Quality Control Commission (NMWQCC) standards.

XTO installed two down gradient monitoring wells (MW-2 and MW-3) to further delineate any impact to groundwater. All three monitoring wells were sampled in May 2007. Laboratory results of groundwater samples revealed elevated BTEX concentrations in MW-1 (source area) but BTEX constituents were not detected above the laboratory equipment detection limits (0.2 ug/L) in monitoring wells MW-2 and MW-3.

In a remediation work plan dated October 31, 2007 and submitted to NMOCD XTO proposed installation of ORC socks in monitoring well MW-1 and was completed in November 2007. MW-1 will continue to be sampled annually to verify the effectiveness of the added oxidizer. MW-2 and MW-3 will also be sampled annually to assure no down gradient migration has occurred. Once the dissolved oxygen concentrations in MW-1 show a significant increase groundwater samples will be collected quarterly. When concentrations of BTEX are beneath NMWQCC standards the ORC socks will be removed and sampling in all three monitoring wells will continue for four consecutive quarters.

RECOMMENDATIONS

- Annual sampling of MW-1 to verify dissolved oxygen concentrations.
- Annual sampling of MW-2 and MW-3 to confirm no migration.
- Continue monitoring water levels to assess gradient.
- Begin quarterly sampling for closure in accordance with Groundwater Management Plan.

TABLE 1

XTO ENERGY INC. GROUNDWATER LAB RESULTS

MCCOY GC D #1E- SEPARATOR PIT
UNIT E, SEC. 28, T30N, R12W

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
16-Oct-06	MW #1	32.86	40.00		22	2500	2700	19000
16-May-07		30.69	39.75		30	760	1700	24000
16-May-07	MW #2	30.56	36.50		ND	ND	ND	ND
16-May-07	MW #3	21.55	32.85		ND	ND	ND	ND
NMWQCC GROUNDWATER STANDARDS					10	750	750	620

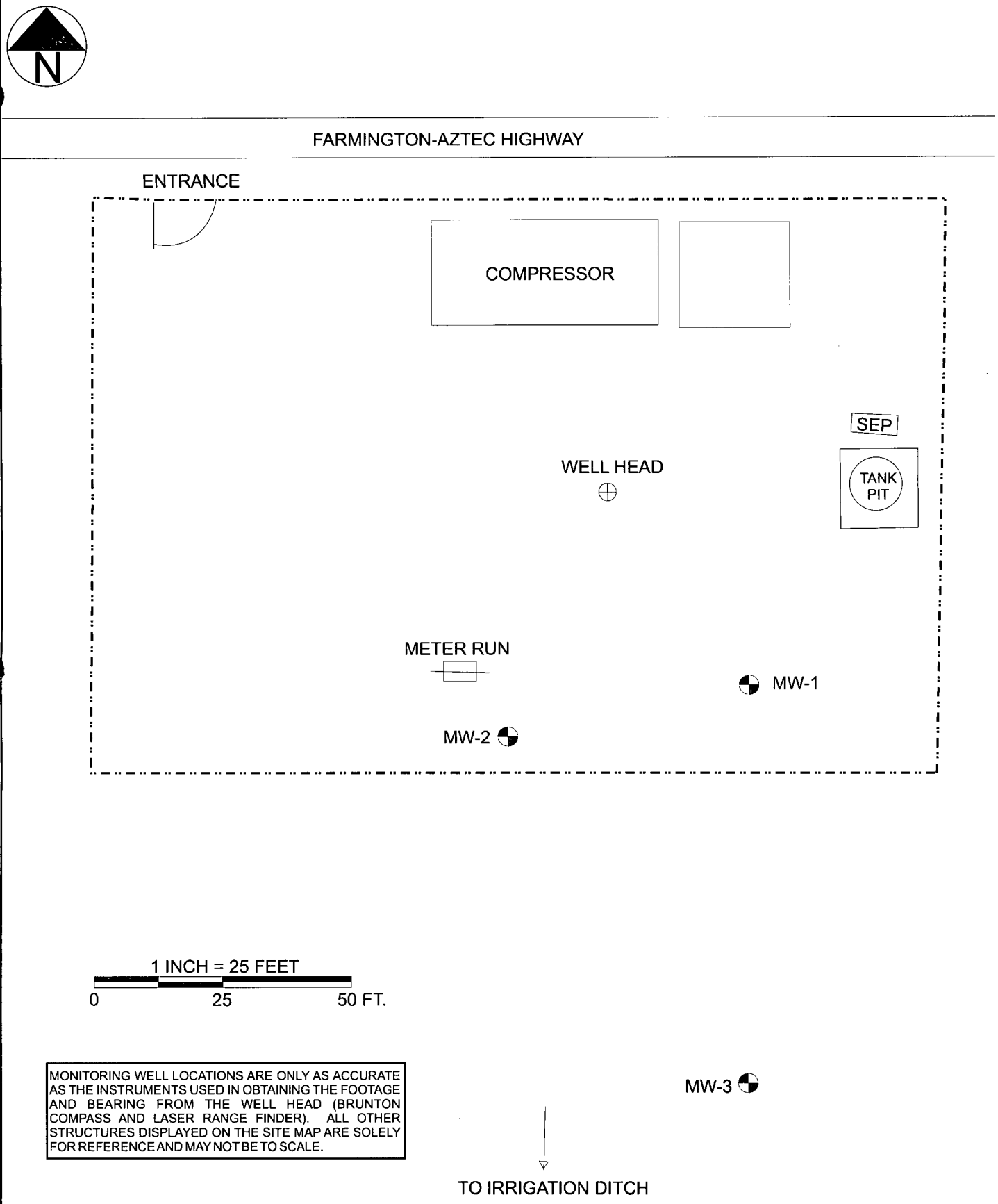
TABLE 2

XTO ENERGY INC. GROUNDWATER LAB RESULTS

McCOY GAS COM D #1E
UNIT E SEC. 28, T30N, R12W

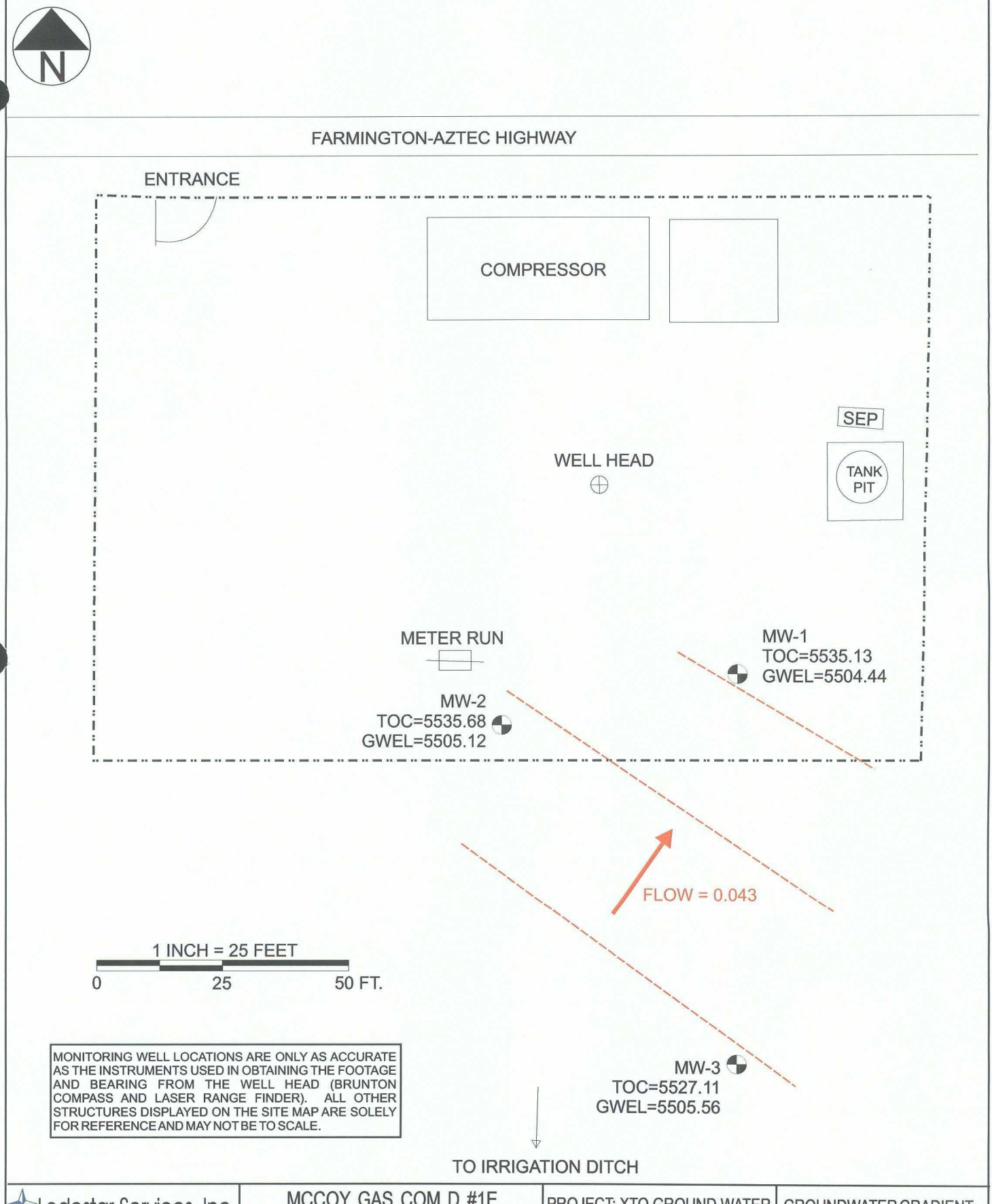
Sample Date: October 16, 2006

PARAMETERS	MW #1			UNITS
LAB Ph				s.u.
LAB CONDUCTIVITY @ 25 C	580			umhos/cm
TOTAL DISSOLVED SOLIDS @ 180 C	360			mg/L
TOTAL DISSOLVED SOLIDS (Calc)				mg/L
SODIUM ABSORPTION RATIO				ratio
TOTAL ALKALINITY AS CaCO3	290			mg/L
TOTAL HARDNESS AS CaCO3				mg/L
BICARBONATE AS HCO3	290			mg/L
CARBONATE AS CO3	ND			mg/L
HYDROXIDE AS OH				mg/L
NITRATE NITORGEN	ND			mg/L
NITRITE NITROGEN	ND			mg/L
CHLORIDE	14			mg/L
FLUORIDE	0.62			mg/L
PHOSPHATE	ND			mg/L
SULFATE	11			mg/L
IRON				mg/L
CALCIUM	77			mg/L
MAGNESIUM	13			mg/L
POTASSIUM	1.30			mg/L
SODIUM	20			mg/L
CATION/ANION DIFFERENCE				%

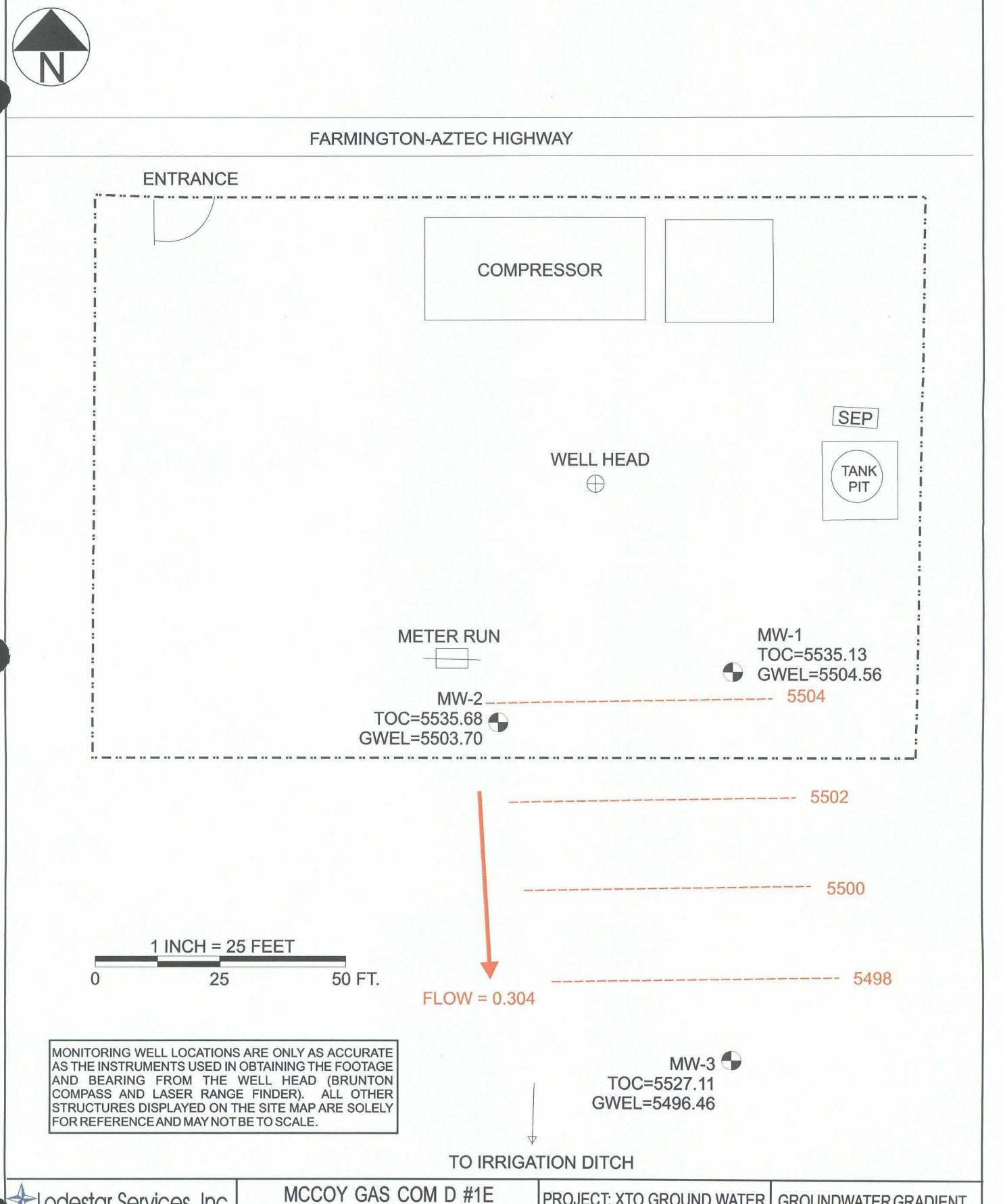


MONITORING WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGE FINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.

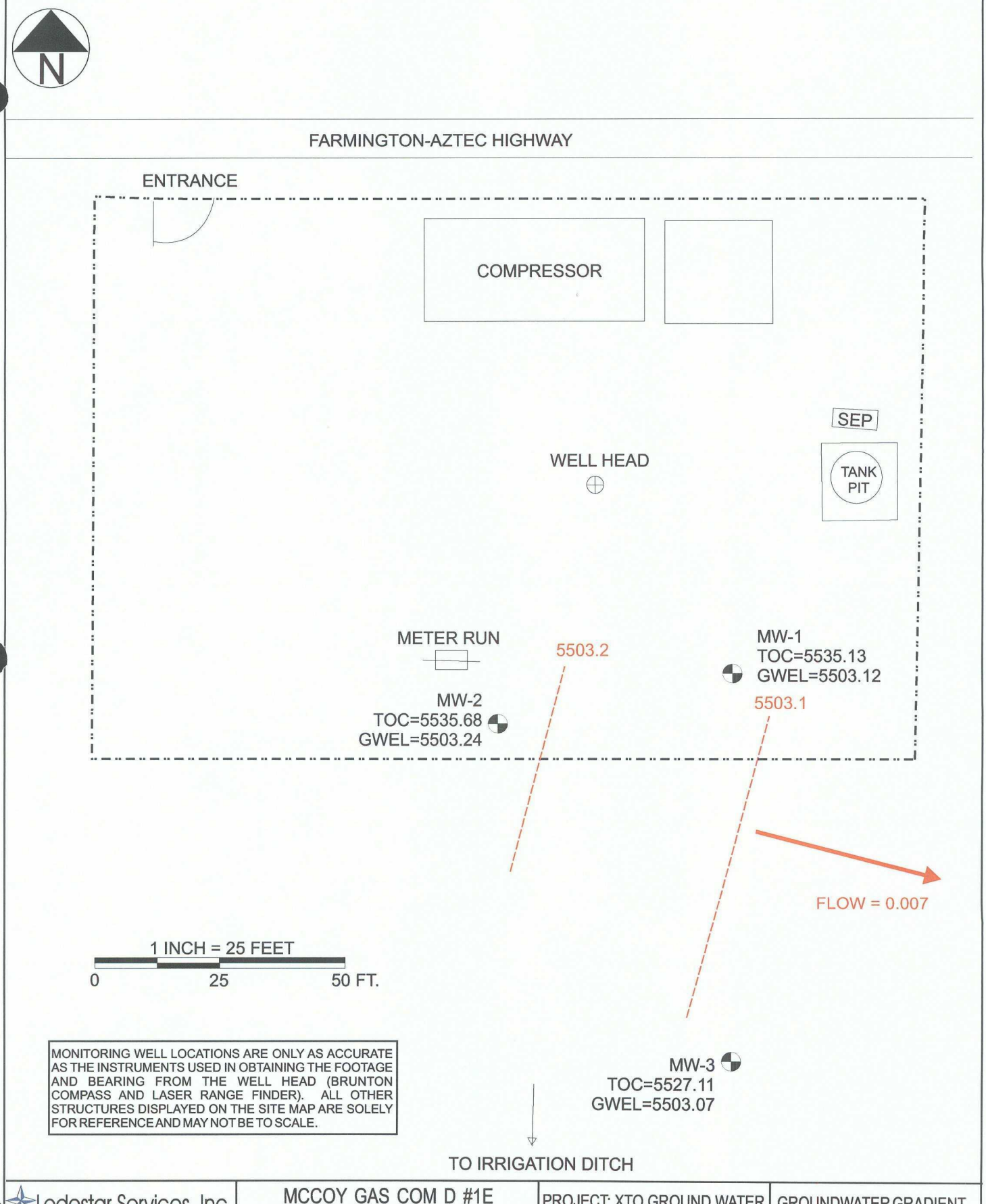
Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	MCCOY GAS COM D #1E SW/4 NW/4 SEC. 28, T30N, R12W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ALA REVISED: 09/28/07	SITE MAP FIGURE 1 09/27/07



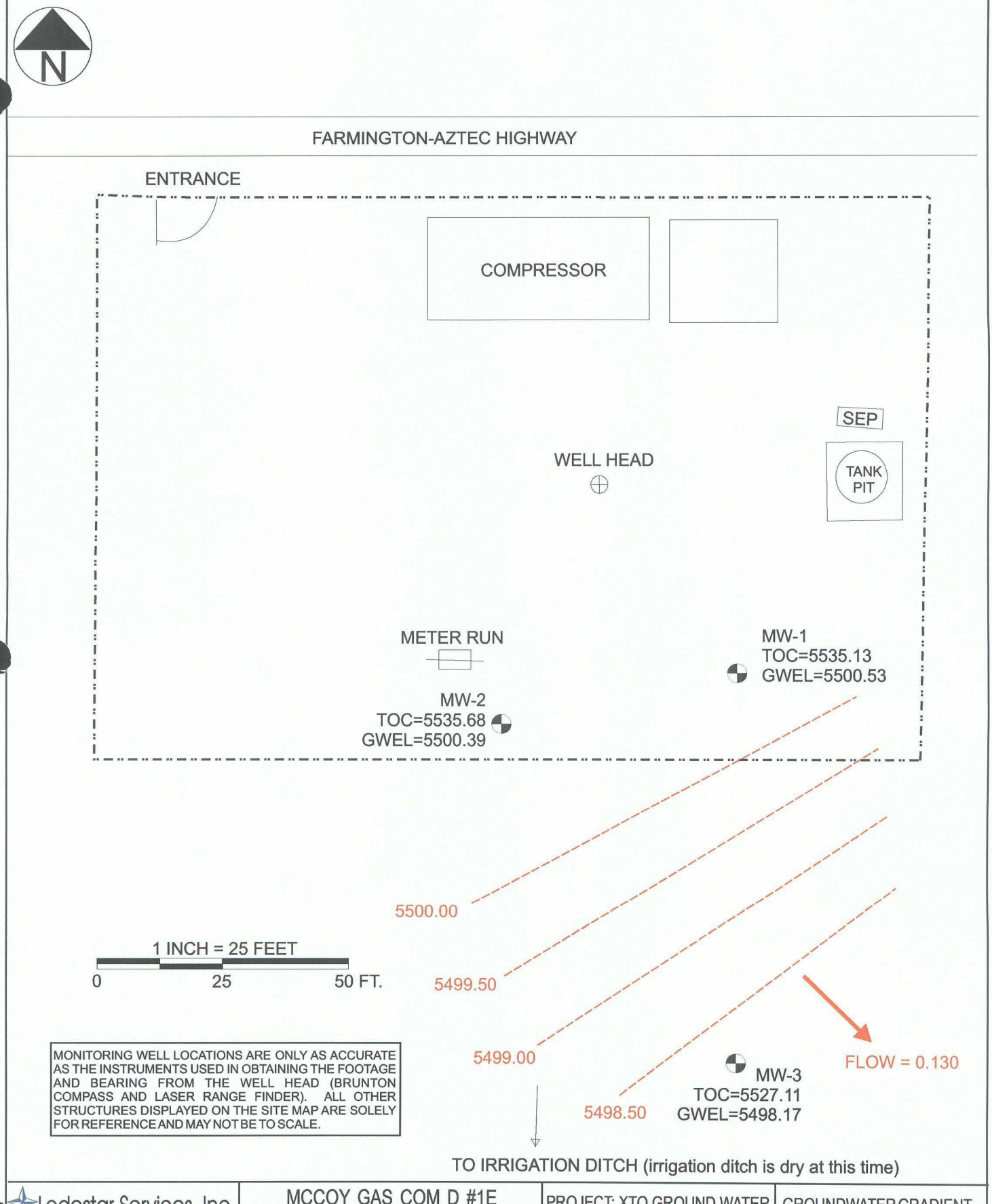
Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	MCCOY GAS COM D #1E SW/4 NW/4 SEC. 28, T30N, R12W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ALA REVISED: 05/31/07	GROUNDWATER GRADIENT MAP 05/16/07 FIGURE 2



Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	MCCOY GAS COM D #1E SW/4 NW/4 SEC. 28, T30N, R12W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ALA REVISED: 07/25/07	GROUNDWATER GRADIENT MAP 07/23/07 FIGURE 3



Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	MCCOY GAS COM D #1E SW/4 NW/4 SEC. 28, T30N, R12W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ALA REVISED: 09/28/07	GROUNDWATER GRADIENT MAP FIGURE 4 09/27/07



Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	MCCOY GAS COM D #1E SW/4 NW/4 SEC. 28, T30N, R12W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ALA REVISED: 11/29/07	GROUNDWATER GRADIENT MAP 11/27/07 FIGURE 5

FIGURE 6

RECORD OF SUBSURFACE EXPLORATION

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

Borehole #: 1
Well #: NA
Page: 1 of 2
Project Number:
Project Name: XTO McCoy
Project Location: McCoy Gas Com D 1E

Borehole Location: 36° 47.196' N, 108° 06.469' W
GWL Depth: NA
Drilled By: Envirotech
Well Logged By: Ashley Ager
Date Started: 9/21/2006
Date Completed: 9/21/2006

Drilling Method: Hollow Stem Auger and TUBEX
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
0		0-22'	cuttings	Brown, poorly sorted gravelly sand with occasional cobbles. Fill.	0	Fast
5		7.5-8'		Large cobble (able to get past with auger)		Slow
10						
15		18'	cuttings	increasing amounts of cobbles		Steady
20						

Comments: No samples collected in fill. Hole bored in center of pit. Previous notes and account from operator (Tony Espinoza) indicate fill to ~22'.

Geologist Signature: Ashley L. Ager

RECORD OF SUBSURFACE EXPLORATION

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

Borehole #: 1
Well #: NA
Page: 2 of 2
Project Number:
Project Name: XTO McCoy
Project Location: McCoy Gas Com D 1E

Borehole Location: 36° 47.196' N, 108° 06.469' W
GWL Depth: NA
Drilled By: Envirotech
Well Logged By: Ashley Ager
Date Started: 9/21/2006
Date Completed: 9/21/2006

Drilling Method: Hollow Stem Auger and TUBEX
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
20						Refusal at 20'. Switch to TUBEX
		22-26'	cuttings	Black, coarse, poorly sorted sand with 40% cobbles. Strong HC odor, dry	62.48	Steady Pounding
					208.5	
25					169.8	
		26-28'	cuttings	Gray, coarse, poorly sorted sand with 50% cobbles, dry		
					188.9	
		28-31.5'	cuttings	Brownish gray, coarse sand and cobble fragments		
30					83.2	
					71.2	Stop and sample
35						
40						

Comments: All samples warmed for at least 10 mins in truck prior to using PID for air monitoring

Geologist Signature: *Ashley L. Ager*

FIGURE 7

RECORD OF SUBSURFACE EXPLORATION

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

Borehole #: 2
Well #: NA
Page: 1 of 2
Project Number:
Project Name: XTO McCoy
Project Location: McCoy Gas Com D 1E

Borehole Location: 36° 47.196' N, 108° 06.468' W
GWL Depth: 34'
Drilled By: Envirotech
Well Logged By: Ashley Ager
Date Started: 9/21/2006
Date Completed: 9/22/2006

Drilling Method: TUBEX
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
0		0-5'	cuttings	Brown, poorly sorted gravelly sand, coarse grained, dry w/occasional cobbles (Fill)		Steady and Fast
5		5-5.5'	cuttings	Greenish-gray shale	0	
		5.5-10'	cuttings	Brown, poorly sorted gravelly sand, coarse grained, dry w/occasional cobbles (Fill)	0	
10		10-12'	cuttings	Reddish brown silty sand and gravel, still cobbly, damp, v. poorly sorted sand w/silty matrix	0	Fast
		12-30'	cuttings	Brown, coarse sand, mainly cobbles, damp, some odor, v. poorly sorted	89.2	
15					138.6	
20					296.8	

Comments:

Geologist Signature: *Ashley L. Ager*

RECORD OF SUBSURFACE EXPLORATION

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

Borehole #: 2
Well #: NA
Page: 2 of 2
Project Number:
Project Name: XTO McCoy
Project Location: McCoy Gas Com D 1E

Borehole Location: 36° 47.196' N, 108° 06.469' W
GWL Depth: 34'
Drilled By: Envirotech
Well Logged By: Ashley Ager
Date Started: 9/21/2006
Date Completed: 9/22/2006

Drilling Method: TUBEX
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
20						
					302.9	
					180.4	
25					136.5	
					202.3	
					219.0	
30					452.9	
					482.2	
		32.5-37'	cuttings	Grayish green coarse sand w/gravel, poorly sorted sub-rounded, very strong odor Wet soil at 34'.	429.7	Fast
35				Saturated cuttings at 35', water		Water spraying out of hole
		37-40'	cuttings	V. Coarse sand, poorly sorted, sub-rounded to sub-angular, wet, varying mineralogies, no cobbles	274	Fast
40						

Comments:

Geologist Signature: *Ashley L. Ager*

FIGURE 8
MONITORING WELL INSTALLATION RECORD

Lodestar Services, Inc
PO Box 3861
Farmington, New Mexico 87499
(505) 334-2791

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

Project Name XTO Ground Water
Project Number _____ Cost Code _____
Project Location McCoy Gas Com D 1E

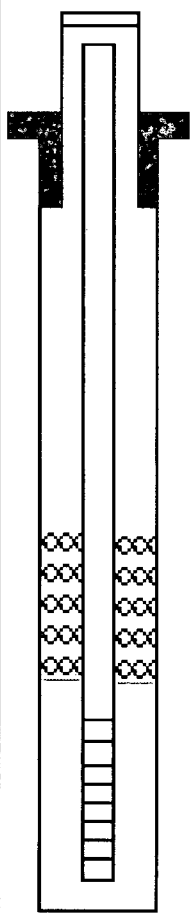
Elevation 5532
Well Location 36° 47.196' N, 108° 06.468' W
GWL Depth 34'
Installed By Envirotech

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

Date/Time Started 09/21/06, 15:23
Date/Time Completed 09/22/06, 10:35

Depths in Reference to Ground Surface

Item	Material	Depth (feet)
Top of Protective Casing		2.9
Bottom of Protective Casing		-0.9
Top of Permanent Borehole Casing	Sch. 40 PVC	2.8
Bottom of Permanent Borehole Casing		-40.40
Top of Concrete	Concrete	.25
Bottom of Concrete		-5.0
Top of Grout		-5.0
Bottom of Grout		-16.0
Top of Well Riser	Sch. 40 PVC	2.8
Bottom of Well Riser		-39.95
Top of Well Screen	Sch. 40 PVC	-19.9
Bottom of Well Screen		-39.9
Top of Peltonite Seal	Bentonite	-16.0
Bottom of Peltonite Seal		-18.0
Top of Gravel Pack	Sand	-18.0
Bottom of Gravel Pack		-39.95
Top of Natural Cave-In	Sand	-39.95
Bottom of Natural Cave-In		-40
Top of Groundwater		-34.0
Total Depth of Borehole		-40



Top of Protective Casing 2.9
Top of Riser 2.8
Ground Surface 0
Top of Seal -16
Top of Gravel Pack -18
Top of Screen -19.9
Bottom of Screen -39.9
Bottom of Borehole -40

Comments: 50 lb bags of sand used: 18 ea.
50 lb bags of bentontie used: 6 ea

Geologist Signature Ashley L. Ager

FIGURE 9

RECORD OF SUBSURFACE EXPLORATION

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

Borehole #: 3
Well #: MW-2
Page: 1 of 3
Project Number:
Project Name: XTO Ground Water
Project Location: McCoy Gas Com D #1E

Borehole Location: 36° 47.194' N, 108° 06.474' W
GWL Depth: 32.5
Drilled By: Enviro-Drill
Well Logged By: Ashley Ager
Date Started: 05/02/07
Date Completed: 05/08/07

Drilling Method: ODEX and Hollow Stem Auger
Air Monitoring Method: NA

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
0		0-9	cuttings	fine to very coarse fragments of cobbles in returns. Very slow progress, small amount of cuttings		Very Slow
5						
10		9'		increase in cutting volume, fine to very coarse fragments of cobbles, lighter color		slight increase in penetration rate
		12'		decrease in cutting volume		very slow
15						
20						

Comments: Penetration rate extremely slow trying to pound through cobbles

Geologist Signature: Ashley L. Ager

RECORD OF SUBSURFACE EXPLORATION

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

Borehole #: 3
Well #: MW-2
Page: 2 of 3
Project Number:
Project Name: XTO Ground Water
Project Location: McCoy Gas Com D #1E

Borehole Location: 36° 47.194' N, 108° 06.474' W
GWL Depth: 32.5
Drilled By: Enviro-Drill
Well Logged By: Ashley Ager
Date Started: 05/02/07
Date Completed: 05/08/07

Drilling Method: ODEX and Hollow Stem Auger
Air Monitoring Method: NA

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
20		20'	cuttings	finer particles in cuttings, more sand content		Very slow
				significantly more sand content (~40% sand, 60% cobble fragments)		Very slow
25		25'				
				no sand, only cobble fragments, extremely slow penetration rate - hardly any downward progress in 1 hour		Stop for day at 1730; leave equipment in hole on site; begin 05/03/07 at 0830: water in hole at startup, but quickly blown out
		29'				
30				wet sand covering cobble fragments, water coming out of hole		Very slow
		32.5'		no penetration for over 2 hours - removing pipe to assess equipment		1630: bit teeth worn completely down, pipe threads sheared in one section, one bent rod on inner tube.
		33.5'				
35				Use auger to drill out hole beneath cobbles. No cuttings, but occasionally some wet sand		Auger is relatively fast - rig chokes when can't turn on cobbles, but penetration is steady
		35-40'				
40						

Comments: Pulled all pipe at 13:30 on 05/03/07 and discovered damaged equipment. Worked rest of the day repairing equipment. Startup again at 28' on 05/04/07. Moved 1 foot, before fluted disc failed on drill rig - requires machine shop for repair. Leave site at 11:15 and return on 05/08/07: begin drilling at 33', some rod stuck in outer tubing. Inject 14 gallons of water to loosen. Pull all rod and outer tubing and begin augering to finish hole

Geologist Signature: *Ashley L. Ager*

RECORD OF SUBSURFACE EXPLORATION

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

Borehole #: 3
Well #: MW-2
Page: 3 of 3
Project Number:
Project Name: XTO Ground Water
Project Location: McCoy Gas Com D #1E

Borehole Location: 36° 47.194' N, 108° 06.474' W
GWL Depth: 32.5
Drilled By: Enviro-Drill
Well Logged By: Ashley Ager
Date Started: 05/02/07
Date Completed: 05/08/07

Drilling Method: ODEX and Hollow Stem Auger
Air Monitoring Method: NA

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
40 45 50 55 60		40-45	cuttings	Wet coarse sand and cobble fragments		Slow, but steady

Comments: TD reached at 45', auger bit missing all four teeth

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 # 3
Well # MW-2
Page 1 of 1

Project Name XTO Ground Water
Project Number _____ Cost Code _____
Project Location McCoy Gas Com D 1E

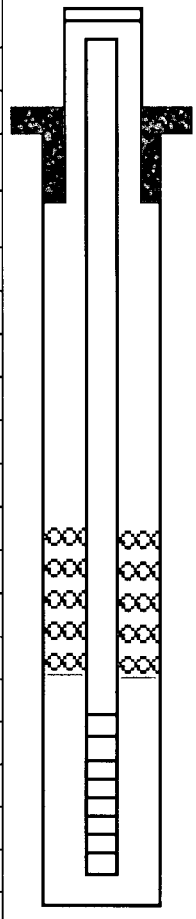
Elevation 5525
Well Location 36° 47.194' N, 108° 06.474' W
GWL Depth 32.5'
Installed By Enviro-Drill

On-Site Geologist Ashley Ager
Personnel On-Site
Contractors On-Site Shad Betts, Rodney Begay
Client Personnel On-Site

Date/Time Started 05/08/07, 12:27
Date/Time Completed 05/08/07, 13:55

Depths in Reference to Ground Surface

Item	Material	Depth (feet)
Top of Protective Casing		3
Bottom of Protective Casing	steel	-2
Top of Permanent Borehole Casing		NA
Bottom of Permanent Borehole Casing		NA
Top of Concrete	quikcrete	0.2
Bottom of Concrete		-0.8
Top of Grout	quikcrete and quikgrout	-0.8
Bottom of Grout		-23
Top of Well Riser	Sch. 40 PVC	2.5
Bottom of Well Riser		-42.4
Top of Well Screen	Sch. 40 PVC	-27.2
Bottom of Well Screen		-42.2
Top of Peltonite Seal	3/8" Bentonite hole plug	-23
Bottom of Peltonite Seal		-25
Top of Gravel Pack	10-20 grade silica sand	-25
Bottom of Gravel Pack		-42.4
Top of Natural Cave-In	Sand and cobbles	-42.4
Bottom of Natural Cave-In		-45
Top of Groundwater		-32.5
Total Depth of Borehole		-42.4



Top of Protective Casing 3
Top of Riser 2.5
Ground Surface 0
Top of Seal -23
Top of Gravel Pack -25
Top of Screen -27.2
Bottom of Screen -42.2
Bottom of Borehole -42.4

Comments: PVC riser pulled out of hole 2'8" while pulling auger.
50 lb bags of sand used: 6 ea., 50 lb bags of bentonite used: 1 ea., Grout: 1 bag bentonite, 1 bag quikcrete; concrete: 1 bag of quikcrete used

Geologist Signature *Ashley L. Ager*

FIGURE 11

RECORD OF SUBSURFACE EXPLORATION

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

Borehole #: 4
Well #: MW-3
Page: 1 of 2
Project Number:
Project Name: XTO Ground Water
Project Location: McCoy Gas Com D #1E

Borehole Location: 36° 47.181' N, 108° 06.462' W
GWL Depth: 24'
Drilled By: Enviro-Drill
Well Logged By: Ashley Ager
Date Started: 05/08/07
Date Completed: 05/09/07

Drilling Method: ODEX and Hollow Stem Auger
Air Monitoring Method: NA

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
0		0-7'	cuttings	Loose fine to coarse sand and cobbles, tan, poorly sorted, subangular to subrounded, damp		Begin with auger - penetration only to 7'. Switch to ODEX
5		7-12'		sand and cobble fragments in returns		steady, but very hard
10		12-15'		increase in sand content, damp sand		slow
15		15-17'		less sand content, mainly dark cobble fragments, very angular		very slow
20		17-23'		damp sand and cobble fragments. Sand content ~ 50%		slightly fast progress, through most of the cobble layer

Comments: Penetration rate is very slow trying to pound through cobbles

Geologist Signature: *Ashley L. Ager*

RECORD OF SUBSURFACE EXPLORATION

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

Borehole #: 4
Well #: MW-3
Page: 2 of 2
Project Number:
Project Name: XTO Ground Water
Project Location: McCoy Gas Com D #1E

Borehole Location: 36° 47.181' N, 108° 06.462' W
GWL Depth: 24'
Drilled By: Enviro-Drill
Well Logged By: Ashley Ager
Date Started: 05/08/07
Date Completed: 05/09/07

Drilling Method: ODEX and Hollow Stem Auger
Air Monitoring Method: NA

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
20		23-25'		wet sand and cobble fragments, water pouring out of hole at 24'		slow, but steady
25						
				lots of water and mud, few cobble fragments, mainly silty sand, completely saturated		faster penetration rate
30		30-32'				
35						
40						

Comments: TD at 32', but inner rod stuck in outer tubes. Lost part of hole to cave in while attempting to retrieve outer rod. Set up auger to repair hole. Auger down to 32' again - no cuttings

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 # 4
Well # MW-3
Page 1 of 1

Project Name XTO Ground Water
Project Number _____ Cost Code _____
Project Location McCoy Gas Com D 1E

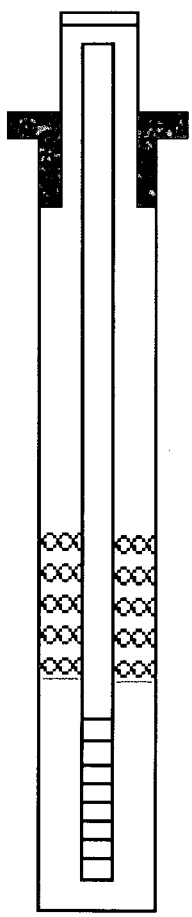
Elevation 5525
Well Location 36° 47.181' N, 108° 06.462' W
GWL Depth 24'
Installed By Enviro-Drill

On-Site Geologist Ashley Ager
Personnel On-Site
Contractors On-Site Shad Betts, Rodney Begay
Client Personnel On-Site

Date/Time Started 05/09/07, 1209
Date/Time Completed 05/09/07, 1740

Depths in Reference to Ground Surface

Item	Material	Depth (feet)
Top of Protective Casing		2.5
Bottom of Protective Casing	steel	-2.5
Top of Permanent Borehole Casing		NA
Bottom of Permanent Borehole Casing		NA
Top of Concrete	quikcrete	0.2
Bottom of Concrete		-1
Top of Grout	quikcrete and quikgrout	-1
Bottom of Grout		-17
Top of Well Riser	Sch. 40 PVC	2.2
Bottom of Well Riser		-32
Top of Well Screen	Sch. 40 PVC	-21.8
Bottom of Well Screen		-31.8
Top of Peltonite Seal	3/8" Bentonite hole plug	-17
Bottom of Peltonite Seal		-19
Top of Gravel Pack	10-20 grade silica sand	-19
Bottom of Gravel Pack		-32
Top of Natural Cave-In		NA
Bottom of Natural Cave-In		NA
Top of Groundwater		-24
Total Depth of Borehole		-32



Top of Protective Casing 2.5
Top of Riser 2.2
Ground Surface 0
Top of Seal -17
Top of Gravel Pack -19
Top of Screen -21.8
Bottom of Screen -31.8
Bottom of Borehole -32

Comments: Hole caved in while installing bentonite plug. Had to auger out cave in mixed with bentonite to reform seal. 50 lb bags of sand used: 4.5 ea. , 50 lb bags of bentonite used: 2 ea., Grout: 2 bags bentonite, 2 bags quikcrete; concrete: 1 bag of quikcrete

Geologist Signature *Ashley L. Ager*

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Nov-06*

CLIENT:	XTO Energy	Client Sample ID:	McCoy Gas COM DIE MW-1
Lab Order:	0610211	Collection Date:	10/16/2006 2:58:00 PM
Project:	XTO Ground Water	Date Received:	10/19/2006
Lab ID:	0610211-07	Matrix:	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	330	12		µg/L	5	11/4/2006 11:14:13 AM
1-Methylnaphthalene	140	12		µg/L	5	11/4/2006 11:14:13 AM
2-Methylnaphthalene	280	12		µg/L	5	11/4/2006 11:14:13 AM
Acenaphthylene	ND	2.5		µg/L	1	11/2/2006 1:46:19 AM
Acenaphthene	ND	2.5		µg/L	1	11/2/2006 1:46:19 AM
Fluorene	5.4	0.040		µg/L	1	11/2/2006 1:46:19 AM
Phenanthrene	4.7	0.020		µg/L	1	11/2/2006 1:46:19 AM
Anthracene	ND	0.020		µg/L	1	11/2/2006 1:46:19 AM
Fluoranthene	ND	0.30		µg/L	1	11/2/2006 1:46:19 AM
Pyrene	ND	0.30		µg/L	1	11/2/2006 1:46:19 AM
Benz(a)anthracene	ND	0.020		µg/L	1	11/2/2006 1:46:19 AM
Chrysene	ND	0.20		µg/L	1	11/2/2006 1:46:19 AM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	11/2/2006 1:46:19 AM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	11/2/2006 1:46:19 AM
Benzo(a)pyrene	ND	0.020		µg/L	1	11/2/2006 1:46:19 AM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	11/2/2006 1:46:19 AM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	11/2/2006 1:46:19 AM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	11/2/2006 1:46:19 AM
Surr: Benzo(e)pyrene	90.4	68-116		%REC	1	11/2/2006 1:46:19 AM
EPA METHOD 300.0: ANIONS						Analyst: TES
Fluoride	0.62	0.10		mg/L	1	10/20/2006 8:33:01 PM
Chloride	14	0.10		mg/L	1	10/20/2006 8:33:01 PM
Bromide	ND	0.10		mg/L	1	10/20/2006 8:33:01 PM
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	10/19/2006 8:59:42 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	10/20/2006 8:33:01 PM
Sulfate	11	0.50		mg/L	1	10/20/2006 8:33:01 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: NMO
Calcium	77	1.0		mg/L	1	10/24/2006 2:52:22 PM
Magnesium	13	1.0		mg/L	1	10/24/2006 2:52:22 PM
Potassium	1.3	1.0		mg/L	1	10/24/2006 2:52:22 PM
Sodium	20	1.0		mg/L	1	10/24/2006 2:52:22 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: SMP
Benzene	22	10		µg/L	10	10/23/2006
Toluene	2500	100		µg/L	100	10/21/2006
Ethylbenzene	2700	100		µg/L	100	10/21/2006
Xylenes, Total	19000	750		µg/L	250	10/23/2006

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		

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Nov-06*

CLIENT:	XTO Energy	**Client Sample ID:**	McCoy Gas COM DIE MW-1
Lab Order:	0610211	**Collection Date:**	10/16/2006 2:58:00 PM
Project:	XTO Ground Water	**Date Received:**	10/19/2006
Lab ID:	0610211-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **SMP**
Surr: 1,2-Dichloroethane-d4	85.1	69.9-130		%REC	100	10/21/2006
Surr: 4-Bromofluorobenzene	106	71.2-123		%REC	100	10/21/2006
Surr: Dibromofluoromethane	92.2	73.9-134		%REC	100	10/21/2006
Surr: Toluene-d8	99.7	81.9-122		%REC	100	10/21/2006
EPA METHOD 310.1: ALKALINITY						Analyst: **CMC**
Alkalinity, Total (As CaCO3)	290	2.0		mg/L CaCO3	1	10/24/2006
Carbonate	ND	2.0		mg/L CaCO3	1	10/24/2006
Bicarbonate	290	2.0		mg/L CaCO3	1	10/24/2006
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **CMC**
Specific Conductance	580	0.010		µmhos/cm	1	10/26/2006
EPA METHOD 160.1: TDS						Analyst: **KS**
Total Dissolved Solids	360	40		mg/L	1	10/23/2006

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		

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Nov-06*

CLIENT:	XTO Energy	**Client Sample ID:**	16102006TB01
Lab Order:	0610211	**Collection Date:**	
Project:	XTO Ground Water	**Date Received:**	10/19/2006
Lab ID:	0610211-08	**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	10/23/2006
Toluene	ND	1.0		µg/L	1	10/23/2006
Ethylbenzene	ND	1.0		µg/L	1	10/23/2006
Xylenes, Total	ND	3.0		µg/L	1	10/23/2006
Surr: 1,2-Dichloroethane-d4	90.4	69.9-130		%REC	1	10/23/2006
Surr: 4-Bromofluorobenzene	103	71.2-123		%REC	1	10/23/2006
Surr: Dibromofluoromethane	97.7	73.9-134		%REC	1	10/23/2006
Surr: Toluene-d8	93.7	81.9-122		%REC	1	10/23/2006

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: XTO Ground Water **Work Order:** 0610211

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: E300									
Sample ID: MBLK		*MBLK*			Batch ID: **R21108**		Analysis Date: 10/19/2006 11:42:41 AM		
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MBLK		*MBLK*			Batch ID: **R21130**		Analysis Date: 10/20/2006 10:58:33 AM		
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS ST300-06008		*LCS*			Batch ID: **R21108**		Analysis Date: 10/19/2006 12:00:05 PM		
Fluoride	0.5223	mg/L	0.10	104	90	110			
Chloride	4.928	mg/L	0.10	98.6	90	110			
Bromide	2.561	mg/L	0.10	102	90	110			
Nitrate (As N)+Nitrite (As N)	3.444	mg/L	0.10	98.4	90	110			
Phosphorus, Orthophosphate (As P)	5.087	mg/L	0.50	102	90	110			
Sulfate	9.862	mg/L	0.50	98.6	90	110			
Sample ID: LCS ST300-06008		*LCS*			Batch ID: **R21130**		Analysis Date: 10/20/2006 11:15:58 AM		
Fluoride	0.5133	mg/L	0.10	103	90	110			
Chloride	4.818	mg/L	0.10	96.4	90	110			
Bromide	2.445	mg/L	0.10	97.8	90	110			
Nitrate (As N)+Nitrite (As N)	3.467	mg/L	0.10	99.1	90	110			
Phosphorus, Orthophosphate (As P)	4.875	mg/L	0.50	97.5	90	110			
Sulfate	9.612	mg/L	0.50	96.1	90	110			
Method: E310.1									
Sample ID: MB		*MBLK*			Batch ID: **R21146**		Analysis Date: 10/24/2006		
Alkalinity, Total (As CaCO3)	ND	mg/L CaC	2.0						
Carbonate	ND	mg/L CaC	2.0						
Bicarbonate	ND	mg/L CaC	2.0						

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:** 0610211

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8310									
Sample ID: 0610211-07BMSD		*MSD*			Batch ID:	11533	Analysis Date:	11/2/2006 6:34:13 AM	
Naphthalene	314.5	µg/L	2.5	15.2	33.9	87.9	6.44	37.6	SE
1-Methylnaphthalene	140.4	µg/L	2.5	36.5	35.2	85	3.49	35.4	E
2-Methylnaphthalene	266.5	µg/L	2.5	0.340	33.7	83.9	4.37	36.7	SE
Acenaphthylene	19.41	µg/L	2.5	48.4	47.8	85.4	2.36	30.5	
Acenaphthene	28.99	µg/L	2.5	72.5	42.2	86.6	5.45	29.7	
Fluorene	7.901	µg/L	0.040	63.3	47.3	85.1	4.74	25.2	
Phenanthrene	5.291	µg/L	0.020	31.7	53.5	97.3	6.58	19.2	S
Anthracene	1.648	µg/L	0.020	82.0	53.6	93.7	7.14	18.9	
Fluoranthene	3.290	µg/L	0.30	82.0	60.1	98.5	8.36	14.6	
Pyrene	3.399	µg/L	0.30	84.8	57.5	108	3.87	14.7	
Benz(a)anthracene	0.3570	µg/L	0.020	89.0	57.7	106	3.85	15.3	
Chrysene	1.739	µg/L	0.20	86.5	59.1	112	4.28	13.7	
Benzo(b)fluoranthene	0.4230	µg/L	0.050	79.6	58.8	102	11.6	15	
Benzo(k)fluoranthene	0.2210	µg/L	0.020	88.4	58.8	100	5.71	15.9	
Benzo(a)pyrene	0.2040	µg/L	0.020	81.3	49.7	109	8.45	20	
Dibenz(a,h)anthracene	0.4340	µg/L	0.040	86.6	54.1	111	2.73	14.3	
Benzo(g,h,i)perylene	0.4460	µg/L	0.030	89.2	51.3	111	3.74	14.3	
Indeno(1,2,3-cd)pyrene	0.7990	µg/L	0.080	79.7	55	99.9	6.42	15	
Sample ID: MB-11533		*MBLK*			Batch ID:	11533	Analysis Date:	11/1/2006 11:22:21 PM	
Naphthalene	ND	µg/L	2.5						
1-Methylnaphthalene	ND	µg/L	2.5						
2-Methylnaphthalene	ND	µg/L	2.5						
Acenaphthylene	ND	µg/L	2.5						
Acenaphthene	ND	µg/L	2.5						
Fluorene	ND	µg/L	0.040						
Phenanthrene	ND	µg/L	0.020						
Anthracene	ND	µg/L	0.020						
Fluoranthene	ND	µg/L	0.30						
Pyrene	ND	µg/L	0.30						
Benz(a)anthracene	ND	µg/L	0.020						
Chrysene	ND	µg/L	0.20						
Benzo(b)fluoranthene	ND	µg/L	0.050						
Benzo(k)fluoranthene	ND	µg/L	0.020						
Benzo(a)pyrene	ND	µg/L	0.020						
Dibenz(a,h)anthracene	ND	µg/L	0.040						
Benzo(g,h,i)perylene	ND	µg/L	0.030						
Indeno(1,2,3-cd)pyrene	ND	µg/L	0.060						
Sample ID: LCS-11533		*LCS*			Batch ID:	11533	Analysis Date:	11/2/2006 12:10:19 AM	
Naphthalene	27.49	µg/L	2.5	68.7	33.9	87.9			
1-Methylnaphthalene	25.61	µg/L	2.5	63.9	35.2	85			
2-Methylnaphthalene	26.61	µg/L	2.5	66.5	33.7	83.9			
Acenaphthylene	30.58	µg/L	2.5	76.3	55	97.9			
Acenaphthene	26.80	µg/L	2.5	67.0	42.2	86.6			
Fluorene	2.691	µg/L	0.040	67.1	47.3	85.1			

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:** 0610211

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8310									
Sample ID: LCS-11533		*LCS*			Batch ID:	11533	Analysis Date:	11/2/2006 12:10:19 AM	
Phenanthrene	1.462	µg/L	0.020	72.7	53.5	97.3			
Anthracene	1.446	µg/L	0.020	71.9	53.6	93.7			
Fluoranthene	3.060	µg/L	0.30	76.3	60.1	98.5			
Pyrene	3.216	µg/L	0.30	80.2	57.5	108			
Benz(a)anthracene	0.3600	µg/L	0.020	89.8	57.7	106			
Chrysene	1.681	µg/L	0.20	83.6	59.1	112			
Benzo(b)fluoranthene	0.4080	µg/L	0.050	81.4	67	110			
Benzo(k)fluoranthene	0.2110	µg/L	0.020	84.4	63.2	106			
Benzo(a)pyrene	0.2040	µg/L	0.020	81.3	49.7	109			
Dibenz(a,h)anthracene	0.4140	µg/L	0.040	82.6	54.1	111			
Benzo(g,h,i)perylene	0.4230	µg/L	0.030	84.6	51.3	111			
Indeno(1,2,3-cd)pyrene	0.7790	µg/L	0.080	77.7	52.3	103			
Sample ID: LCSD-11533		*LCSD*			Batch ID:	11533	Analysis Date:	11/2/2006 12:58:17 AM	
Naphthalene	29.15	µg/L	2.5	72.9	33.9	87.9	5.86	32.1	
1-Methylnaphthalene	26.76	µg/L	2.5	66.7	35.2	85	4.40	32.7	
2-Methylnaphthalene	28.00	µg/L	2.5	70.0	33.7	83.9	5.10	34	
Acenaphthylene	33.47	µg/L	2.5	83.5	55	97.9	9.02	38.8	
Acenaphthene	28.92	µg/L	2.5	72.3	42.2	86.6	7.60	38.6	
Fluorene	2.927	µg/L	0.040	73.0	47.3	85.1	8.40	29.3	
Phenanthrene	1.567	µg/L	0.020	78.0	53.5	97.3	6.93	25	
Anthracene	1.595	µg/L	0.020	79.4	53.6	93.7	9.80	23.9	
Fluoranthene	3.368	µg/L	0.30	84.0	60.1	98.5	9.58	15.7	
Pyrene	3.404	µg/L	0.30	84.9	57.5	108	5.68	15.3	
Benz(a)anthracene	0.3420	µg/L	0.020	85.3	57.7	106	5.13	19	
Chrysene	1.718	µg/L	0.20	85.5	59.1	112	2.18	16.6	
Benzo(b)fluoranthene	0.4210	µg/L	0.050	84.0	67	110	3.14	21.7	
Benzo(k)fluoranthene	0.2160	µg/L	0.020	86.4	63.2	106	2.34	19.4	
Benzo(a)pyrene	0.2170	µg/L	0.020	86.5	49.7	109	6.18	16.7	
Dibenz(a,h)anthracene	0.4510	µg/L	0.040	90.0	54.1	111	8.55	17.3	
Benzo(g,h,i)perylene	0.4430	µg/L	0.030	88.6	51.3	111	4.62	18	
Indeno(1,2,3-cd)pyrene	0.8340	µg/L	0.080	83.2	52.3	103	6.82	17.7	
Sample ID: 0610211-07BMS		*MS*			Batch ID:	11533	Analysis Date:	11/2/2006 5:46:15 AM	
Naphthalene	335.5	µg/L	2.5	67.6	33.9	87.9			E
1-Methylnaphthalene	145.3	µg/L	2.5	48.9	35.2	85			E
2-Methylnaphthalene	278.4	µg/L	2.5	30.1	33.7	83.9			SE
Acenaphthylene	19.88	µg/L	2.5	49.6	47.8	85.4			
Acenaphthene	30.62	µg/L	2.5	76.5	42.2	86.6			
Fluorene	8.285	µg/L	0.040	72.8	47.3	85.1			
Phenanthrene	4.954	µg/L	0.020	15.0	53.5	97.3			S
Anthracene	1.770	µg/L	0.020	88.1	53.6	93.7			
Fluoranthene	3.577	µg/L	0.30	89.2	60.1	98.5			
Pyrene	3.533	µg/L	0.30	88.1	57.5	108			
Benz(a)anthracene	0.3710	µg/L	0.020	92.5	57.7	106			
Chrysene	1.815	µg/L	0.20	90.3	59.1	112			

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:** 0610211

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8310									
Sample ID: 0610211-07BMS		*MS*			Batch ID: 11533		Analysis Date: 11/2/2006 5:46:15 AM		
Benzo(b)fluoranthene	0.4750	µg/L	0.050	90.0	58.8	102			
Benzo(k)fluoranthene	0.2340	µg/L	0.020	93.6	58.8	100			
Benzo(a)pyrene	0.2220	µg/L	0.020	88.4	49.7	109			
Dibenz(a,h)anthracene	0.4460	µg/L	0.040	89.0	54.1	111			
Benzo(g,h,i)perylene	0.4630	µg/L	0.030	92.6	51.3	111			
Indeno(1,2,3-cd)pyrene	0.8520	µg/L	0.080	85.0	55	99.9			
Method: SW6010A									
Sample ID: 0610211-07C MSD		*MSD*			Batch ID: R21153		Analysis Date: 10/24/2006 2:56:51 PM		
Magnesium	57.93	mg/L	1.0	88.5	75	125	5.78	20	
Potassium	53.50	mg/L	1.0	94.9	75	125	2.77	20	
Sodium	67.85	mg/L	1.0	94.3	75	125	6.01	20	
Sample ID: 0610211-07C MSD		*MSD*			Batch ID: R21153		Analysis Date: 10/24/2006 3:09:54 PM		
Calcium	115.5	mg/L	2.0	85.9	75	125	3.08	20	
Sample ID: MB		*MBLK*			Batch ID: R21153		Analysis Date: 10/24/2006 2:34:31 PM		
Calcium	ND	mg/L	1.0						
Magnesium	ND	mg/L	1.0						
Potassium	ND	mg/L	1.0						
Sodium	ND	mg/L	1.0						
Sample ID: LCS		*LCS*			Batch ID: R21153		Analysis Date: 10/24/2006 2:37:37 PM		
Calcium	49.33	mg/L	1.0	97.7	80	120			
Magnesium	49.66	mg/L	1.0	98.3	80	120			
Potassium	53.75	mg/L	1.0	97.7	80	120			
Sodium	53.37	mg/L	1.0	106	80	120			
Sample ID: 0610211-07C MS		*MS*			Batch ID: R21153		Analysis Date: 10/24/2006 2:54:38 PM		
Magnesium	61.38	mg/L	1.0	95.3	75	125			
Potassium	55.00	mg/L	1.0	97.6	75	125			
Sodium	72.06	mg/L	1.0	103	75	125			
Sample ID: 0610211-07C MS		*MS*			Batch ID: R21153		Analysis Date: 10/24/2006 3:12:56 PM		
Calcium	119.1	mg/L	2.0	93.1	75	125	0	0	
Method: E160.1									
Sample ID: MB-11549		*MBLK*			Batch ID: 11549		Analysis Date: 10/23/2006		
Total Dissolved Solids	ND	mg/L	20						
Sample ID: LCS-11549		*LCS*			Batch ID: 11549		Analysis Date: 10/23/2006		
Total Dissolved Solids	1000	mg/L	20	100	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

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: XTO Ground Water **Work Order:** 0610211

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8260B									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R21123**		Analysis Date:		10/20/2006
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: bk2		*MBLK*			Batch ID: **R21129**		Analysis Date:		10/23/2006
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	3.0						
Sample ID: 100ng lcs b		*LCS*			Batch ID: **R21123**		Analysis Date:		10/20/2006
Benzene	20.72	µg/L	1.0	104	74.9	113			
Toluene	18.95	µg/L	1.0	94.7	77	121			
Sample ID: 100ng lcs b		*LCS*			Batch ID: **R21129**		Analysis Date:		10/24/2006
Benzene	19.92	µg/L	1.0	99.6	74.9	113			
Toluene	17.79	µg/L	1.0	88.9	77	121			
Sample ID: 100ng lcsd b		*LCSD*			Batch ID: **R21123**		Analysis Date:		10/21/2006
Benzene	20.15	µg/L	1.0	101	74.9	113	2.78	20	

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

Hall Environmental Analysis Laboratory, Inc.

Date: *29-May-07*

CLIENT: XTO Energy
Project: Ground Water
Lab Order: 0705289

Lab ID: 0705289-10 **Collection Date:** 5/17/2007 2:42:00 PM
Client Sample ID: Baca GCA #1A MW-4 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	5/24/2007 2:07:31 AM
Toluene	ND	1.0		µg/L	1	5/24/2007 2:07:31 AM
Ethylbenzene	ND	1.0		µg/L	1	5/24/2007 2:07:31 AM
Xylenes, Total	ND	2.0		µg/L	1	5/24/2007 2:07:31 AM
Surr: 4-Bromofluorobenzene	85.1	70.2-105		%REC	1	5/24/2007 2:07:31 AM

Lab ID: 0705289-11 **Collection Date:** 5/17/2007 3:13:00 PM
Client Sample ID: McCoy GCD #1E MW-2 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	5/24/2007 5:32:21 PM
Toluene	ND	1.0		µg/L	1	5/24/2007 5:32:21 PM
Ethylbenzene	ND	1.0		µg/L	1	5/24/2007 5:32:21 PM
Xylenes, Total	3.1	2.0		µg/L	1	5/24/2007 5:32:21 PM
Surr: 4-Bromofluorobenzene	87.8	70.2-105		%REC	1	5/24/2007 5:32:21 PM

Lab ID: 0705289-12 **Collection Date:** 5/17/2007 3:32:00 PM
Client Sample ID: McCoy GCD #1E 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	5/24/2007 6:02:34 PM
Toluene	ND	1.0		µg/L	1	5/24/2007 6:02:34 PM
Ethylbenzene	ND	1.0		µg/L	1	5/24/2007 6:02:34 PM
Xylenes, Total	ND	2.0		µg/L	1	5/24/2007 6:02:34 PM
Surr: 4-Bromofluorobenzene	88.0	70.2-105		%REC	1	5/24/2007 6:02:34 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

Hall Environmental Analysis Laboratory, Inc.

Date: *29-May-07*

CLIENT: XTO Energy
Project: Ground Water
Lab Order: 0705289

Lab ID: 0705289-13 **Collection Date:** 5/16/2007 10:42:00 AM
Client Sample ID: McCoy GCD #1E MW-1 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	30	10		µg/L	10	5/24/2007 7:07:56 PM
Toluene	760	10		µg/L	10	5/24/2007 7:07:56 PM
Ethylbenzene	1700	100		µg/L	100	5/24/2007 6:35:15 PM
Xylenes, Total	24000	200		µg/L	100	5/24/2007 6:35:15 PM
Surr: 4-Bromofluorobenzene	91.2	70.2-105		%REC	10	5/24/2007 7:07:56 PM

Lab ID: 0705289-14 **Collection Date:** 5/16/2007 2:20:00 PM
Client Sample ID: Masden GC #1E 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	5/25/2007 11:03:08 AM
Toluene	ND	1.0		µg/L	1	5/25/2007 11:03:08 AM
Ethylbenzene	ND	1.0		µg/L	1	5/25/2007 11:03:08 AM
Xylenes, Total	ND	2.0		µg/L	1	5/25/2007 11:03:08 AM
Surr: 4-Bromofluorobenzene	86.0	70.2-105		%REC	1	5/25/2007 11:03:08 AM

Lab ID: 0705289-15 **Collection Date:** 5/16/2007 2:44:00 PM
Client Sample ID: Masden GC #1E MW-2 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	5/24/2007 10:38:08 PM
Toluene	ND	1.0		µg/L	1	5/24/2007 10:38:08 PM
Ethylbenzene	ND	1.0		µg/L	1	5/24/2007 10:38:08 PM
Xylenes, Total	ND	2.0		µg/L	1	5/24/2007 10:38:08 PM
Surr: 4-Bromofluorobenzene	85.9	70.2-105		%REC	1	5/24/2007 10:38:08 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:** 0705289

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 0705289-02A MSD		*MSD*			Batch ID:	**R23705**	Analysis Date:		5/23/2007 9:34:21 PM
Benzene	19.06	µg/L	1.0	95.3	85.9	113	0.794	27	
Toluene	19.13	µg/L	1.0	95.7	86.4	113	0.812	19	
Ethylbenzene	19.00	µg/L	1.0	95.0	83.5	118	0.462	10	
Xylenes, Total	56.16	µg/L	2.0	93.6	83.4	122	0.901	13	
Sample ID: 0705289-16A MSD		*MSD*			Batch ID:	**R23752**	Analysis Date:		5/25/2007 10:32:54 AM
Benzene	20.43	µg/L	1.0	102	85.9	113	1.85	27	
Toluene	20.97	µg/L	1.0	105	86.4	113	1.52	19	
Ethylbenzene	20.81	µg/L	1.0	104	83.5	118	2.27	10	
Xylenes, Total	61.35	µg/L	2.0	102	83.4	122	1.79	13	
Sample ID: 5ML RB-II		*MBLK*			Batch ID:	**R23705**	Analysis Date:		5/23/2007 10:03:56 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:	**R23736**	Analysis Date:		5/24/2007 8:33:09 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:	**R23752**	Analysis Date:		5/25/2007 8:32:19 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:	**R23705**	Analysis Date:		5/23/2007 11:04:02 AM
Benzene	18.93	µg/L	1.0	94.6	85.9	113			
Toluene	19.74	µg/L	1.0	98.7	86.4	113			
Ethylbenzene	19.87	µg/L	1.0	99.3	83.5	118			
Xylenes, Total	60.16	µg/L	2.0	100	83.4	122			
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R23736**	Analysis Date:		5/24/2007 9:38:17 PM
Benzene	19.56	µg/L	1.0	97.8	85.9	113			
Toluene	19.93	µg/L	1.0	99.7	86.4	113			
Ethylbenzene	19.97	µg/L	1.0	99.9	83.5	118			
Xylenes, Total	59.82	µg/L	2.0	99.7	83.4	122			
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R23752**	Analysis Date:		5/25/2007 2:03:57 PM
Benzene	19.64	µg/L	1.0	98.2	85.9	113			
Toluene	20.09	µg/L	1.0	100	86.4	113			
Ethylbenzene	19.98	µg/L	1.0	99.9	83.5	118			
Xylenes, Total	59.73	µg/L	2.0	99.5	83.4	122			
Sample ID: 0705289-02A MS		*MS*			Batch ID:	**R23705**	Analysis Date:		5/23/2007 9:04:25 PM
Benzene	19.21	µg/L	1.0	96.0	85.9	113			
Toluene	19.29	µg/L	1.0	96.4	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:** 0705289

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 0705289-02A MS		*MS*			Batch ID: **R23705**		Analysis Date:	5/23/2007 9:04:25 PM	
Ethylbenzene	19.09	µg/L	1.0	95.4	83.5	118			
Xylenes, Total	56.66	µg/L	2.0	94.4	83.4	122			
Sample ID: 0705289-16A MS		*MS*			Batch ID: **R23752**		Analysis Date:	5/25/2007 10:02:41 AM	
Benzene	20.05	µg/L	1.0	100	85.9	113			
Toluene	20.66	µg/L	1.0	103	86.4	113			
Ethylbenzene	20.34	µg/L	1.0	102	83.5	118			
Xylenes, Total	60.26	µg/L	2.0	99.8	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

Lodestar Services, Inc.
P.O. Box 3861, Farmington, NM 87499-3861, 505-334-2791

October 31, 2007

Mr. Glenn Von Gonten
New Mexico Oil Conservation Division
1220 South Francis Drive
Santa Fe, New Mexico 87505

Certified Mail: 7006 2150 0001 7643 8516

RE: McCoy Gas Com D #1E

Dear Mr. Von Gonten,

On behalf of XTO Energy, Inc. (XTO), Lodestar Services, Incorporated (Lodestar) is pleased to present this work plan for installation of oxygen release compound (ORC©) into groundwater monitoring well MW-1 at the McCoy Gas Com D #1E. The site is located in Unit F of Section 28 of Township 30N, Range 12W and includes three groundwater monitoring wells.

Attached for your review is documentation of previous work completed at the site, as well as a current site map. In February 2006, XTO discovered a former earthen production pit while removing a 95-barrel steel tank. Approximately 750 cubic yards of impacted soil were excavated, and a confirmation sample collected from the excavation indicated that total benzene, toluene, ethyl benzene, and xylenes (BTEX) were beneath the New Mexico Oil Conservation Division's (NMOCD) 50 milligrams per kilogram (mg/kg) standard. However, the concentration of Total Petroleum Hydrocarbons (TPH) was above the NMOCD's 100 mg/kg guideline (see attached laboratory reports). In September 2006, XTO completed two soil borings on the downgradient edge of the former pit to investigate the extent of impact. Groundwater was encountered in the second boring, and XTO installed groundwater monitoring well MW-1. Groundwater samples were collected and analyzed for BTEX by USEPA method 8021. Results are shown in the table below and indicate concentrations of BTEX above New Mexico Water Quality Control Commission (NMWQCC) standards.

In May 2007, XTO installed two additional groundwater monitoring wells estimated to be downgradient of MW-1 to determine extent of impact to groundwater. Groundwater samples were collected from the three wells just after installation, and results indicated MW-2 and MW-3 contain very low or no detectable concentrations of BTEX.

MCCOY GAS COM D #1E
GROUNDWATER SAMPLING RESULTS

Sample Date	Groundwater Monitoring Well Number	Benzene µg/L	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)
10/16/2006	MW-1	22	2500	2700	19,000
05/16/2007	MW-1	30	760	1700	24,000
	MW-2	ND	ND	ND	3.1
	MW-3	ND	ND	ND	ND

ND: Not Detected

To reduce concentrations of BTEX in MW-1, XTO will install ORC filter socks, containing magnesium peroxide, throughout the water column to supply oxygen for aerobic degradation of hydrocarbons. The ORC socks will be replaced annually as necessary. MW-1R will continue to be sampled on an annual basis to verify effectiveness of the added nutrients. The ORC socks will be removed at least 24 hours prior to sampling to allow for restoration of static water conditions. Dissolved oxygen will be monitored in MW-1R bi-monthly. Once the dissolved oxygen concentration in MW-1R shows a significant increase, groundwater samples will be collected quarterly. When concentrations of BTEX are beneath NMWQCC standards, the ORC socks will be removed and quarterly sampling will continue for four consecutive quarters. Following four consecutive quarters of clean analytical results, XTO will submit a closure report for the site.

Should you have any questions or require additional information, please do not hesitate to contact Lisa Winn of XTO at (505) 333-3196 or you can call me at (970) 946-1093.

Sincerely,
LODESTAR SERVICES, INC

Ashley Ager

Cc: Lisa Winn, XTO
Kim Champlin, XTO
Martin Nee, Lodestar Services
Brandon Powell, NMOCD
File

Attachments: Site Map
Previous Excavation Files
Soil Boring Logs
Groundwater Monitoring Well Completion Diagrams
Groundwater Sampling Laboratory Results

ENVIROTECH Inc.

5796 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0615

94022

FIELD REPORT: SITE ASSESSMENT

JOB No: 92140
PAGE No: 1 of 1

PROJECT: PIT ASSESSMENTS & CLOSURE
CLIENT: AMOCO PRODUCTION COMPANY
CONTRACTOR: ENVIROTECH, INC.
EQUIPMENT USED: EXTENDAHOE

DATE STARTED: 4-24-92
DATE FINISHED: 4-24-92
ENVIRO. SPCLT: MKL
OPERATOR: MS
ASSISTANT: PV

LOCATION: LSE: McCOY G.C. WELL: "D" 1E QD: SW/4 NW/4 (E)
SEC: 28 TWP: 30N RNG: 12W PM: NM CNTY: SJ ST: NM PIT: SEP. PIT

LAND USE: RURAL RESIDENTIAL & COMMERCIAL (FLEA MARKET TO EAST)
SURFACE CONDITIONS: STEEL DOUBLE LINED TANK W/COVER (12'DIAX5') BELOW GRADE

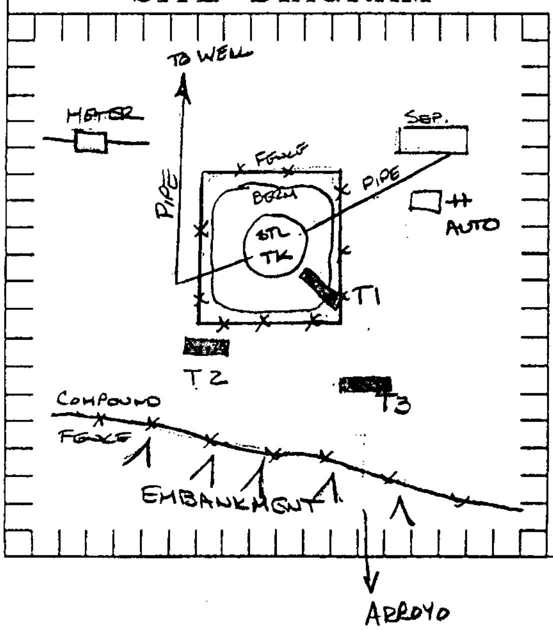
FIELD NOTES & REMARKS: LOCATED 70' SOUTH & 30' EAST OF WELL HEAD. SOIL CONDITIONS: BROWN SILTY SAND TO GRAVEL, MOIST, DENSE (POSSIBLE FILL). PIT LOCATED @ SOUTH EAST CORNER OF LOCATION ABOVE DRAINAGE TO SOUTH. APPEARS THAT WELL LOCATION HAS 20 ± FEET OF FILL. IRRIGATION DITCH UNLINED FLOWING WEST, 150' SOUTH OF LOCATION. TANK BEDDED IN PEA GRAVEL.

SAMPLE INVENTORY:

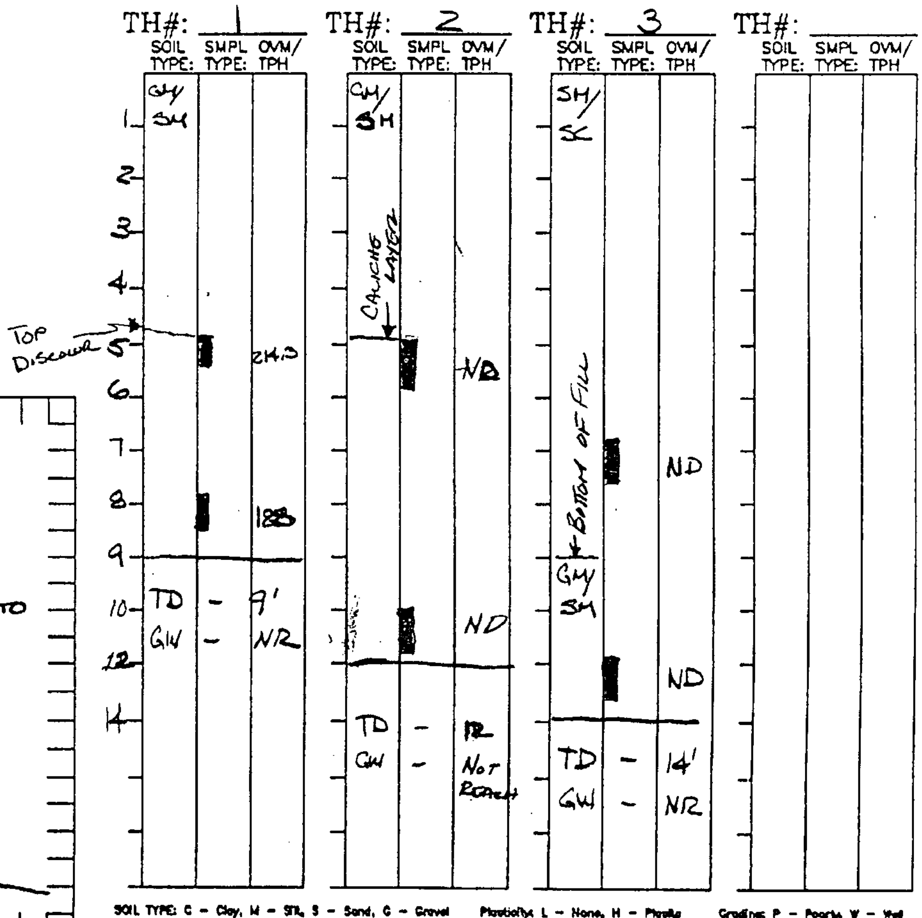
SMPL ID:	SMPL TYPE:	LABORATORY ANALYSIS:
T1@5'	SOIL	HEAD
T1@5'	SOIL	8020/TPH

SCALE 0 10 20 FEET

SITE DIAGRAM



TEST HOLE LOGS:



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

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	AMOCO	Project #:	92140
Sample ID:	T-1 @ 5' NV	Date Reported:	06-16-92
Laboratory Number:	0179	Date Sampled:	04-24-92
Sample Matrix:	Soil	Date Received:	NA
Preservative:	Cool	Date Analyzed:	05-26-92
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	780	5.0

Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: McCoy D 1E Separator Pit 94022

Tony Trustano
Analyst

Review

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T 1 @ 6'	Date Reported:	09-24-92
Laboratory Number:	0178	Date Sampled:	04-24-92
Sample Matrix:	Soil	Date Received:	04-24-92
Preservative:	Cool	Date Extracted:	05-26-92
Condition:	Cool & Intact	Date Analyzed:	09-20-92
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	12,100	129
Toluene	33,600	198
Ethylbenzene	ND	49.6
p,m-Xylene	219,800	129
o-Xylene	40,700	109

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	101 %
	Bromfluorobenzene	116 %

Method: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

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: McCoy GC D 1E Separator Pit 94022

Analyst

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
HEADSPACE EXTRACTION

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ 6'	Date Reported:	08-05-92
Laboratory Number:	0178	Date Sampled:	04-24-92
Sample Matrix:	Soil	Date Received:	04-24-92
Preservative:	Cool	Date Analyzed:	05-26-92
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	1,890	2.0
Toluene	8,000	2.0
Ethylbenzene	ND	2.0
p,m-Xylene	239,300	2.0
o-Xylene	33,400	2.0

Method: Method 3810, Headspace, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

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: McCoy D 1E---Separator Pit---94022.

Robert M Young
Analyst

David D Young
Review

1115

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
AMOCO / 92140	McCoy D 1E Sep. Pit	94022
Sampler: (Signature)	Chain of Custody Tape No.	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	EPA 3810 BTEX	EPA 8020 BTEX	EPA 418.1 TPH				Remarks
TI @ 6'	4/24/92	1040	178	Soil	1	✓	✓	✓				
TI @ 11'	"	1040	179	Soil	1		✓	✓				

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	4/24/92	1540	Tony Tristano	4/24/92	1540
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

FLORA VISTA (MV). MV 30045 24873 36.78677 / 108.10784

CLIENT: XTO	**BLAGG ENGINEERING, INC.** **P.O. BOX 87, BLOOMFIELD, NM 87413** **(505) 632-1199**	LOCATION NO: COCR NO: HALL

FIELD REPORT: PIT CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: McCoy GC D WELL #: 1E TYPE: SEP.
QUAD/UNIT: E SEC: 28 TWP: 30N RNG: 12W PM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: 1600'N/1230'W SW/NW CONTRACTOR: HDI (HERGE)

DATE STARTED: 2/17/06
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 30 FT. x 30 FT. x 23 FT. DEEP. CUBIC YARDAGE: 750

DISPOSAL FACILITY: JFJ LF - CROUCH MESA REMEDIATION METHOD: LANDFARM

LAND USE: INDUSTRIAL LEASE: FEE FORMATION: DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 80 FT. S24E FROM WELLHEAD.

DEPTH TO GROUNDWATER: <100' NEAREST WATER SOURCE: >1,000' NEAREST SURFACE WATER: <200

NMOCD RANKING SCORE: 30 NMOCD TPH CLOSURE STD: 100 PPM

OVM CALIB. READ. = 53.3 ppm
OVM CALIB. GAS = 100 ppm RF = 0.52
TIME: 3:20 am/pm DATE: 2/16/06

SOIL AND EXCAVATION DESCRIPTION:

ELEV. - 5,524'

SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER
SOIL COLOR: DK. YELL. ORANGE TO BLACK
COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE
CONSISTENCY (NON COHESIVE SOILS): LOOSE FIRM / DENSE / VERY DENSE
~~PLASTICITY (CLAYS)~~: NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC
~~DENSITY (COHESIVE CLAYS & SILTS)~~: SOFT / FIRM / STIFF / VERY STIFF / HARD
MOISTURE: DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED
DISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - VARYING GRAY TO BLACK STARTING @ 1' BELOW GRADE
HC ODOR DETECTED: YES / NO EXPLANATION - DISCOLORED PORTION ONLY. AROUND TANK PERIMETER
SAMPLE TYPE: GRAB / COMPOSITE - # OF PTS.
ADDITIONAL COMMENTS: ORIGINAL PIT DIMENSION 17'x19' W/ STEEL TANK ~ 5' BELOW GRADE.

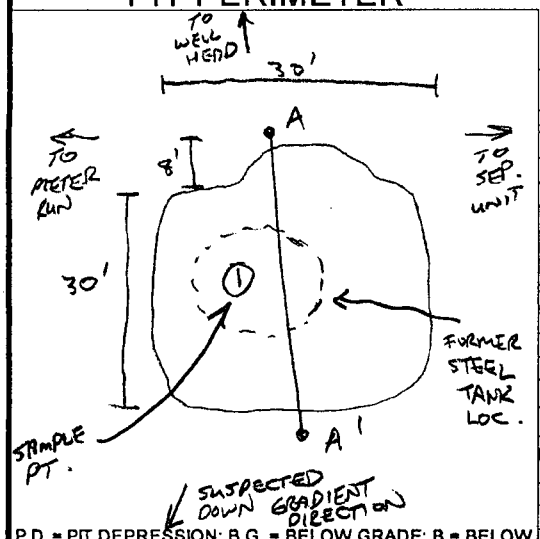
NEED TO ESTABLISH HORIZ. & VERT. EXTENT

FIELD 418.1 CALCULATIONS

SAMP. TIME	SAMP. ID	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. (ppm)

SCALE 0 FT

PIT PERIMETER



P.D. = PIT DEPRESSION; B.G. = BELOW GRADE; B = BELOW
T.H. = TEST HOLE; ~ = APPROX.; T.B. = TANK BOTTOM

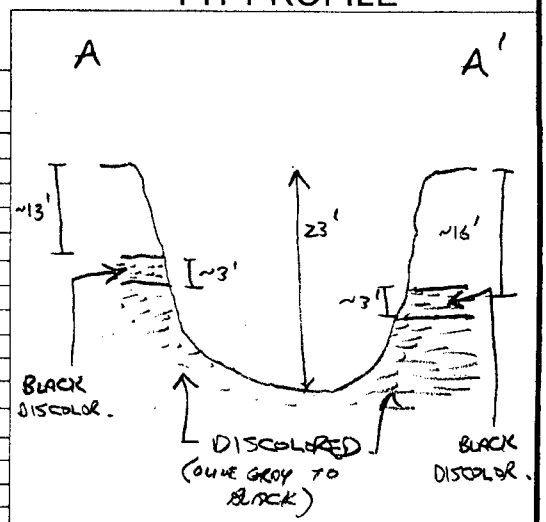
OVM READING

SAMPLE ID	FIELD HEADSPACE (ppm)
1 @ 23'	768
2 @	
3 @	
4 @	
5 @	

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
① @ 23'	TPH (8015B)	1043
"	BTEX (8021B)	"
"	CHLORIDE	"

PIT PROFILE



TRAVEL NOTES: CALLOUT: 2/16/06 - MORN. ONSITE: 2/16/06 - NOON 2/17/06 - MORN. 9am

revised: 09/04/02 bei1005C.skf

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address	2. Destination Name:
XTO Energy Inc. **2700 Farmington Ave., Bldg. K, Suite 1** **Farmington, NM 87401**	J.F.J. Landfarm c/o Industrial Ecosystems Inc. 420 CR 3100 Aztec, NM 87410
3. Originating Site (name): McCoy GC D #1E attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): E-28-30-12
4. Source and Description of Waste PRODUCTION TANK STEEL PIT	WATER &/OR CONDENSATE

I, **Nelson Velez** representative for :
Print Name

Blagg Engineering, Inc. c/o XTO Energy Inc. do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July,1988, regulatory determination, the above described waste is: (Check appropriate classification)

√ EXEMPT oilfield waste

___ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non –hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate items):

___ MSDS Information
___ RCRA Hazardous Waste Analysis
___ Chain of Custody
___ Other (description

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Nelson Velez 320-3489

Title: **Staff Geologist / AGENT for XTO Energy**

Date: 2/16/06

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, March 06, 2006

Nelson Velez
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413

TEL: (505) 632-1199
FAX (505) 632-3903

RE: McCoy GC D #1E - Separator Pit

Order No.: 0602202

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/21/2006 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

AZ license # AZ0682
ORELAP Lab # NM100001

Hall Environmental Analysis Laboratory

Date: *06-Mar-06*

CLIENT: Blagg Engineering
Project: McCoy GC D #1E - Separator Pit
Lab Order: 0602202

CASE NARRATIVE

Analytical Comments for METHOD 8015GRO_S, SAMPLE 0602202-01A: Elevated surrogate due to matrix interference. Analytical Comments for METHOD 8021BTEX_S, SAMPLE 0602202-01A: Low surrogate due to matrix interference. Sample analyzed twice to confirm.

Hall Environmental Analysis Laboratory

Date: *06-Mar-06*

CLIENT:	Blagg Engineering	**Client Sample ID:**	1 @ 23'
Lab Order:	0602202	**Collection Date:**	2/20/2006 10:43:00 AM
Project:	McCoy GC D #1E - Separator Pit	**Date Received:**	2/21/2006
Lab ID:	0602202-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	100	10		mg/Kg	1	2/27/2006 2:14:11 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/27/2006 2:14:11 PM
Surr: DNOP	117	60-124		%REC	1	2/27/2006 2:14:11 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	1600	100		mg/Kg	20	2/27/2006 3:39:42 PM
Surr: BFB	209	79-128	S	%REC	20	2/27/2006 3:39:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	2/27/2006 3:39:42 PM
Toluene	1.3	1.0		mg/Kg	20	2/27/2006 3:39:42 PM
Ethylbenzene	5.6	1.0		mg/Kg	20	2/27/2006 3:39:42 PM
Xylenes, Total	76	1.0		mg/Kg	20	2/27/2006 3:39:42 PM
Surr: 4-Bromofluorobenzene	68.6	87.5-115	S	%REC	20	2/27/2006 3:39:42 PM
EPA METHOD 9056A: ANIONS						Analyst: MAP
Chloride	310	6.0		mg/Kg	20	3/1/2006

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	ND	Not Detected at the Reporting Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory

Date: *06-Mar-06*

CLIENT: Blagg Engineering
Work Order: 0602202
Project: McCoy GC D #1E - Separator Pit

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_S

Sample ID: MB-9880	SampType: MBLK	TestCode: 300_S	Units: mg/Kg	Prep Date: 2/27/2006	RunNo: 18443
Client ID: ZZZZZ	Batch ID: 9880	TestNo: E300		Analysis Date: 3/1/2006	SeqNo: 454928

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.30									

Sample ID: LCS-9880	SampType: LCS	TestCode: 300_S	Units: mg/Kg	Prep Date: 2/27/2006	RunNo: 18443
Client ID: ZZZZZ	Batch ID: 9880	TestNo: E300		Analysis Date: 3/1/2006	SeqNo: 454929

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	13.33	0.30	14.29	0	93.3	90	110				

317

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

CLIENT: Blagg Engineering
Work Order: 0602202
Project: McCoy GC D #1E - Separator Pit

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015DRO_S

Sample ID: MB-9841	SampType: MBLK	TestCode: 8015DRO_S	Units: mg/Kg	Prep Date: 2/23/2006	RunNo: 18412
Client ID: ZZZZZ	Batch ID: 9841	TestNo: SW8015		Analysis Date: 2/27/2006	SeqNo: 454242

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									

Sample ID: LCS-9841	SampType: LCS	TestCode: 8015DRO_S	Units: mg/Kg	Prep Date: 2/23/2006	RunNo: 18412
Client ID: ZZZZZ	Batch ID: 9841	TestNo: SW8015		Analysis Date: 2/27/2006	SeqNo: 454243

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56.58	10	50	0	113	67.4	117				

Sample ID: LCSD-9841	SampType: LCSD	TestCode: 8015DRO_S	Units: mg/Kg	Prep Date: 2/23/2006	RunNo: 18412
Client ID: ZZZZZ	Batch ID: 9841	TestNo: SW8015		Analysis Date: 2/27/2006	SeqNo: 454244

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58.00	10	50	0	116	67.4	117	56.58	2.49	17.4	

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

CLIENT: Blagg Engineering
Work Order: 0602202
Project: McCoy GC D #1E - Separator Pit

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GRO_S

Sample ID: MB-9854	SampType: MBLK	TestCode: 8015GRO_S	Units: mg/Kg	Prep Date: 2/23/2006	RunNo: 18401
Client ID: ZZZZZ	Batch ID: 9854	TestNo: SW8015	(SW5035)	Analysis Date: 2/24/2006	SeqNo: 454039

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0									

Sample ID: LCS-9854	SampType: LCS	TestCode: 8015GRO_S	Units: mg/Kg	Prep Date: 2/23/2006	RunNo: 18401
Client ID: ZZZZZ	Batch ID: 9854	TestNo: SW8015	(SW5035)	Analysis Date: 2/24/2006	SeqNo: 454040

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23.40	5.0	25	0	93.6	84	120				

5 / 7

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

CLIENT: Blagg Engineering
Work Order: 0602202
Project: McCoy GC D #1E - Separator Pit

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021BTEX_S

Sample ID: MB-9854	SampType: MBLK	TestCode: 8021BTEX_S	Units: mg/Kg	Prep Date: 2/23/2006	RunNo: 18401
Client ID: ZZZZZ	Batch ID: 9854	TestNo: SW8021	(SW5035)	Analysis Date: 2/24/2006	SeqNo: 453994

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.050									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.050									

Sample ID: LCS-9854	SampType: LCS	TestCode: 8021BTEX_S	Units: mg/Kg	Prep Date: 2/23/2006	RunNo: 18401
Client ID: ZZZZZ	Batch ID: 9854	TestNo: SW8021	(SW5035)	Analysis Date: 2/24/2006	SeqNo: 453996

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.4480	0.050	0.449	0	99.8	85.6	116				
Toluene	1.614	0.050	1.62	0	99.6	82.4	120				
Ethylbenzene	0.4985	0.050	0.508	0	98.1	86.4	111				
Xylenes, Total	1.443	0.050	1.48	0	97.5	78.4	125				

Sample ID: LCSD 9854	SampType: LCSD	TestCode: 8021BTEX_S	Units: mg/Kg	Prep Date: 2/23/2006	RunNo: 18401
Client ID: ZZZZZ	Batch ID: 9854	TestNo: SW8021	(SW5035)	Analysis Date: 2/24/2006	SeqNo: 453997

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.4441	0.050	0.449	0	98.9	85.6	116	0.448	0.874	27	
Toluene	1.594	0.050	1.62	0	98.4	82.4	120	1.614	1.23	19	
Ethylbenzene	0.4984	0.050	0.508	0	98.1	86.4	111	0.4985	0.0201	10	
Xylenes, Total	1.429	0.050	1.48	0	96.6	78.4	125	1.443	0.940	13	

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

Sample Receipt Checklist

Client Name BLAGG | Date and Time Received: 2/21/2006

Work Order Number 0602202 | Received by LMM

Checklist completed by Lisa Hedrick 2/21/06
Signature Date

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 - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	

Container/Temp Blank temperature? 5° *4° C ± 2 Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level 4 ☐
Other:

Client: BLAGG ENER. / XTO ENERGY
Project Name: McCoy GC D #1E - SEPARATOR PIT
Address: P.O. BOX 87 BLFD., NM 87413
Project #:
Project Manager: NV
Phone #: 632-1199
Sampler: NV
Fax #:
Sample Temperature: 5°

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative cool	HEAL No.
				1-4 oz.				0602202
2/20/06	1043	SOIL	① @ 23'	~~5012~~ 4			✓	-1

ANALYSIS REQUEST

(BTEX + MTBE + TMB's (8021B))	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)		Chloride			Air Bubbles or Headspace (Y or N)
✓		✓											✓			

Date	Time	Relinquished By: (Signature)	Received By: (Signature)
2/21/06	~~0730~~ 1045	Nelson Velez	Lisa Hall 2/21/06 1614
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks: