3R - 394

2005 AGWMR

JAN 2006

XTO ENERGY INC.

ANNUAL GROUNDWATER REMEDIATION REPORT

2005

ARMENTA GC C #1E
(C) SECTION 27, T29N, R10W, NMPM
SAN JUAN COUNTY, NEW MEXICO

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

JANUARY 2006

PREPARED BY:
BLAGG ENGINEERING, INC.

Consulting Petroleum / Reclamation Services
P.O. Box 87
Bloomfield, New Mexico 87413

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XTO ENERGY INC.
Armenta GC C # 1E - Abandoned Blow Pit
NE/4 NW/4 Sec. 27, T29N, R10W

Pit Closure Dates: **4/14/03 and 8/01-06/03**

Monitor Well Installation Dates: **MW 2 - 4/22/03**
MW 1, 3 - 4/30/03
MW 4 - 3/17/04
MW 2R - 3/23/04

Monitor Well Sampling Dates: **5/12/03; 3/30/04; 6/16/04; 9/27/04; 12/29/04**

Historical Information:

- January 1998 - XTO Energy Inc. (XTO) acquires the Armenta GC C #1E from Amoco Production Company.
- April 2003 – Soil and groundwater impacts were discovered during work to close a historical blow pit. Approximately 75 cubic yards of soil were excavated and composted on site (Figure 1). A source area monitor well installed following backfill operations identified the presence of free product. Up and down gradient monitoring wells did not test water impacts in excess of New Mexico Water Quality Control Commission (NMWQCC) standards.
- August 2003 – Aggressive site remediaton was conducted by re-excavating the source area and removing all impacted soils (Figure 1A). Approximately 1,050 cubic yards of soil were removed and composted on site.
- March 2004 – Installation and sampling of a replacement source area well determined water impacts were below NMWQCC standards.
- March 2004 to December 2004 – Quarterly sampling and analysis determined site closure had been achieved.

Groundwater Monitor Well Sampling Procedures:

Groundwater samples were collected from site monitor wells (MW) following US EPA: SW-846 protocol. Samples were collected using new disposable bailers and placed in laboratory supplied containers and stored in a cooler on ice. The samples were delivered to an accredited environmental laboratory according to chain-of-custody procedures. The samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) per US EPA Method 8021B and general water chemistry per US EPA Method 600/4-79-020. Analytical results are summarized on Tables 1 - 3. Waste generated (groundwater) during monitor well sampling and development was placed in the produced water separator tank located on the well site.

Water Quality and Gradient Information:

The groundwater gradient at this site consistently appears to flow in a south to south west direction (Figures 2 - 6). Groundwater is found at a depth of approximately 13 feet below surface grade.

Analytical data indicates groundwater from MW 2, located in the center of the source area (named MW #2R following site remediation by excavation), is below NMWQCC closure standards. Initial testing of well MW2 found free phase product. Following aggressive remediation by excavation of impacted soils to below the water table and re-installation of this source area well no free phase product has been observed. Groundwater from up-gradient monitor well MW 1 exhibited no detectable levels of hydrocarbons and the down-gradient monitoring wells MW 3 and MW 4 exhibited no detectable levels or trace levels of BTEX constituents.

Summary:

XTO requests closure of this groundwater site according to the NMOCD approved Groundwater Management Plan. Analytical data from monitor well sampling indicates that water quality standards have been achieved in the source area and down-gradient wells. Permanent closure of this site is recommended. Following NMOCD approval for closure, all site monitor wells will be abandoned by placing a cement/bentonite grout mix in the well and cutting the casing to below surface grade.

TABLE 1

XTO ENERGY INC. GROUNDWATER LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

REVISED DATE: NOVEMBER 5, 2005

FILENAME: (C1E-4Q04.WK4) NJV

								BTEX EPA METHOD 8021B (ppb)			
SAMPLE DATE	WELL NAME or No.	D.T.W. (ft)	T.D. (ft)	TDS (mg/L)	COND. umhos	pH	PRODUCT (ft)	Benzene	Toluene	Ethyl Benzene	Total Xylene
12-May-03	MW #1	15.91	20.00	1,040	2,070	7.52		ND	ND	ND	ND
12-May-03	MW #2	13.49	20.00				**0.73**	NA	NA	NA	NA
23-Apr-03		13.61					**0.76**	NA	NA	NA	NA
06-May-03		13.64					**0.92**	NA	NA	NA	NA
20-May-03		13.52					**0.74**	NA	NA	NA	NA
28-May-03		13.46					**0.68**	NA	NA	NA	NA
06-Jun-03		13.52					**0.74**	NA	NA	NA	NA
19-Jun-03		13.43					**0.66**	NA	NA	NA	NA
27-Jun-03		13.42					**0.58**	NA	NA	NA	NA
30-Mar-04	MW #2R	15.23	25.00		2,100	7.13	-	**4.1**	**ND**	**15**	**47**
16-Jun-04		15.19			2,000	6.91	-	**0.65**	**ND**	**ND**	**4.1**
27-Sep-04		14.65			2,000	6.96	-	**ND**	**ND**	**1.0**	**0.68**
29-Dec-04								**ND**	**ND**	**0.55**	**0.66**
12-May-03	MW #3	12.16	19.00	912	1,820	7.57		ND	ND	ND	ND
30-Mar-04	MW #4	13.59	20.00		2,000	7.10		ND	ND	ND	ND
							NMWQCC GROUNDWATER STANDARDS	**10**	**750**	**750**	**620**

NOTES : **1) RESULTS IN BOLD RED TYPE INDICATE - EXCEEDING NMWQCC STANDARDS .**

2) RESULTS IN BOLD BLUE TYPE INDICATE - BELOW NMWQCC STANDARDS AFTER PROCEEDING RESULTS EXCEEDED .

3) NA - INDICATES NOT AVAILABLE .

TABLE 2

GENERAL WATER QUALITY

XTO ENERGY INC.

ARMENTA GC C # 1E

SAMPLE DATE : May 12 , 2003

PARAMETERS	MW # 1	MW # 3	Units
LAB pH	7.52	7.57	s. u.
LAB CONDUCTIVITY @ 25 C	2,070	1,820	umhos / cm
TOTAL DISSOLVED SOLIDS @ 180 C	1,040	912	mg / L
TOTAL DISSOLVED SOLIDS (Calc)	1,160	927	mg / L
SODIUM ABSORPTION RATIO	5.1	1.1	ratio
TOTAL ALKALINITY AS CaCO3	660	440	mg / L
TOTAL HARDNESS AS CaCO3	412	604	mg / L
BICARBONATE as HCO3	660	440	mg / L
CARBONATE AS CO3	< 0.1	< 0.1	mg / L
HYDROXIDE AS OH	< 0.1	< 0.1	mg / L
NITRATE NITROGEN	0.1	0.2	mg / L
NITRITE NITROGEN	0.007	0.004	mg / L
CHLORIDE	26.4	32.4	mg / L
FLUORIDE	0.46	1.09	mg / L
PHOSPHATE	1.4	0.6	mg / L
SULFATE	337	330	mg / L
IRON	0.003	0.081	mg / L
CALCIUM	142	195	mg / L
MAGNESIUM	13.7	28.3	mg / L
POTASSIUM	5.20	8.85	mg / L
SODIUM	236	63.6	mg / L
CATION / ANION DIFFERENCE	0.03	0.07	%

TABLE 3

GENERAL WATER QUALITY

XTO ENERGY INC.

ARMENTA GC C # 1E

SAMPLE DATE : November 8 , 2005

PARAMETERS	MW # 1	MW # 2R	MW # 3	MW # 4	Units
LAB pH	6.87	7.29	7.54	7.57	s. u.
LAB CONDUCTIVITY @ 25 C	1,150	2,710	3,010	2,580	umhos / cm
TOTAL DISSOLVED SOLIDS @ 180 C	972	1,930	2,120	1,870	mg / L
TOTAL DISSOLVED SOLIDS (Calc)	978	1,981	2,137	1,858	mg / L
SODIUM ABSORPTION RATIO	1.8	6.4	6.0	5.7	ratio
TOTAL ALKALINITY AS CaCO3	537	348	427	350	mg / L
TOTAL HARDNESS AS CaCO3	572	660	764	662	mg / L
BICARBONATE as HCO3	537	348	427	350	mg / L
CARBONATE AS CO3	< 0.1	< 0.1	< 0.1	< 0.1	mg / L
HYDROXIDE AS OH	< 0.1	< 0.1	< 0.1	< 0.1	mg / L
NITRATE NITROGEN	< 0.1	0.2	< 0.1	0	mg / L
NITRITE NITROGEN	0.005	0.012	0.010	0.006	mg / L
CHLORIDE	28.8	37.6	35.2	34.0	mg / L
FLUORIDE	0.61	0.85	1.17	0.82	mg / L
PHOSPHATE	0.10	0.80	0.30	0.5	mg / L
SULFATE	293	1,090	1,150	1,010	mg / L
IRON	< 0.01	0.251	0.402	< 0.01	mg / L
CALCIUM	229	264	306	265	mg / L
MAGNESIUM	< 0.1	< 0.1	< 0.1	< 0.1	mg / L
POTASSIUM	3.14	1.28	1.46	0.94	mg / L
SODIUM	97.5	375	384	334	mg / L
CATION / ANION DIFFERENCE	0.01	0.01	0.06	0.03	%

TABLE 4
TRACE METALS RESULTS OF LABORATORY GROUNDWATER ANALYSIS

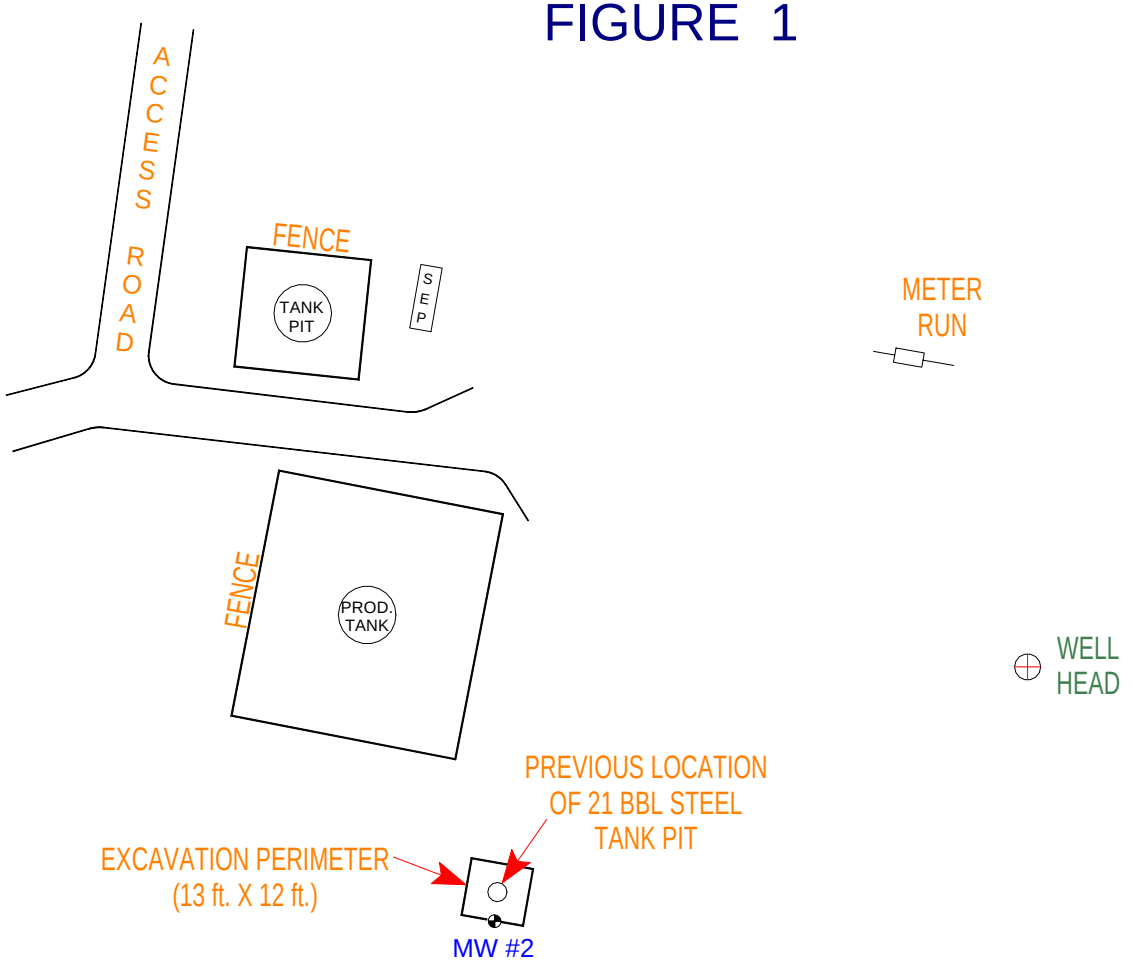
MW #	Sample Date	Mercury	Alum-inum	Arsenic	Barium	Boron	Cad-mium	Chro-mium	Cobalt	Copper
1	**11/08/05**	0.0016	0.51	ND	0.088	0.20	ND	ND	ND	ND
2R	**11/08/05**	0.0017	2.2	ND	0.078	0.18	ND	ND	0.016	ND
3	**11/08/05**	0.0015	0.64	ND	0.064	0.20	ND	ND	ND	ND
4	**11/08/05**	**0.0047**	1.8	ND	0.054	0.13	ND	ND	0.0078	0.0067
NMWQCC STANDARDS		***.002***	***5.0***	***0.1***	***1.0***	***0.75***	***0.01***	***0.05***	***0.05***	***1.0***

MW #	Sample Date	Iron	Lead	Man-ganese	Moly-bdenum	Nickel	Selenium	Silver	Zinc
1	**11/08/05**	0.25	ND	0.12	ND	ND	ND	ND	ND
2R	**11/08/05**	**10**	0.0077	**4.8**	ND	0.012	ND	ND	ND
3	**11/08/05**	**3.4**	ND	**3.1**	ND	ND	ND	ND	ND
4	**11/08/05**	**1.4**	0.0080	**5.6**	ND	ND	ND	ND	ND
NMWQCC STANDARDS		***1.0***	***0.05***	***0.2***	***1.0***	***0.2***	***0.05***	***0.05***	***10.0***

NOTES :

1) **MW = monitor well.**
2) **NMWQCC - New Mexico Water Quality Control Commission.**
3) **Unit of data is parts per million or mg/L.**
4) **ND = not detected at or above reporting limit.**

FIGURE 1



N

1 INCH = 40 FT.

0 40 80 FT.

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM WELL HEAD (LASER RANGE FINDER, TAPE MEASURE, AND BRUNTON COMPASS). ALL OTHER FEATURES AND/OR STRUCTURES DISPLAYED ARE SOLELY FOR REFERENCE AND MAY NOT REFLECT TRUE OR EXACT ACCURACY AND/OR SCALE. THIS MAP IS A GENERALIZATION OF THE WORK CONDUCTED AND SHOULD NOT BE USED FOR SURVEY INFORMATION.

XTO ENERGY, INC.

ARMENTA GC C # 1E

NE/4 NW/4 SEC. 27, T29N, R10W, NMPM

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: GW MONITORING

DRAWN BY: NJV

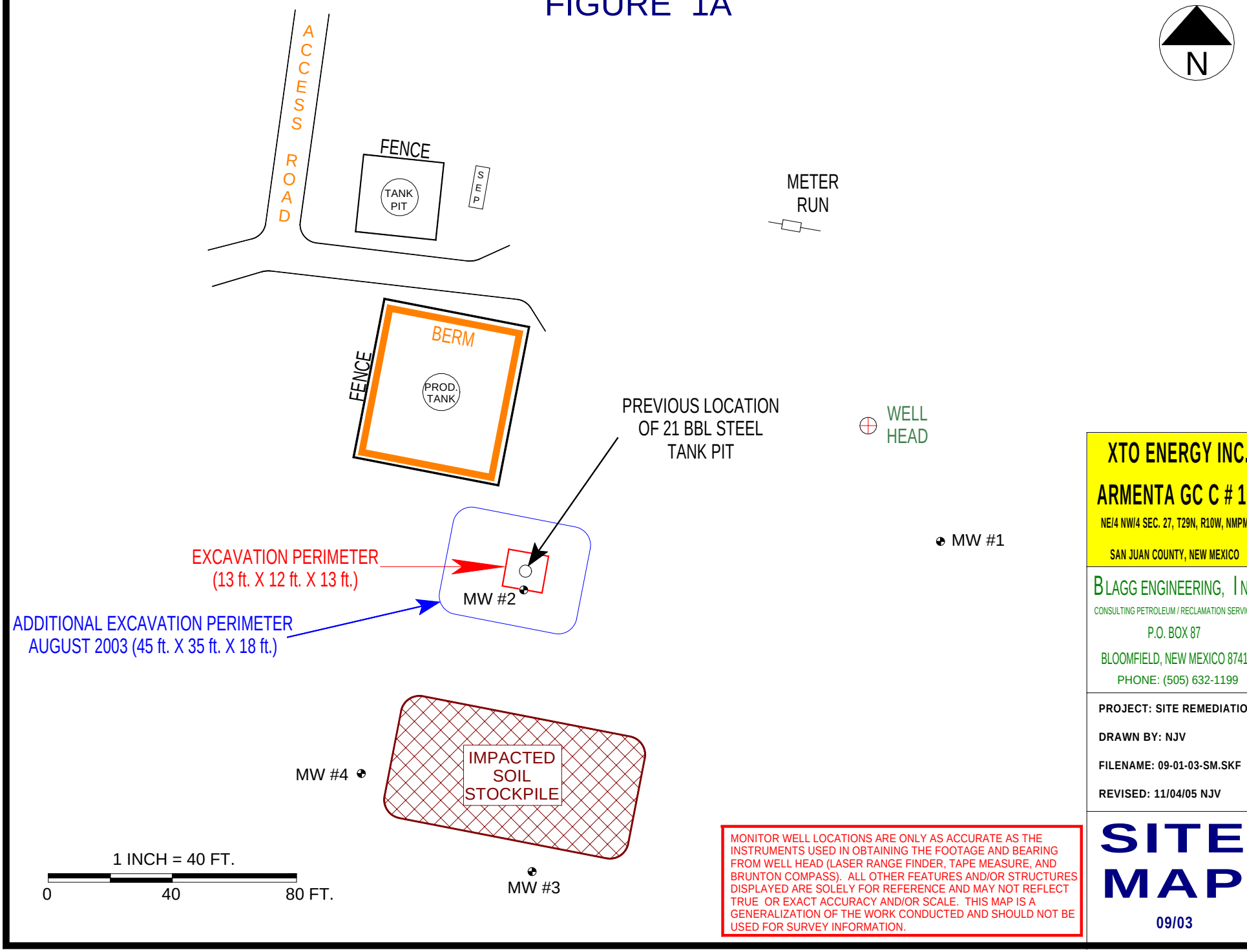
FILENAME: 04-24-03-SM2.SKF

REVISED: 4/29/03 NJV

SITE MAP

04/03

FIGURE 1A



XTO ENERGY INC.

ARMENTA GC C # 1E

NE/4 NW/4 SEC. 27, T29N, R10W, NMPM

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

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PHONE: (505) 632-1199

PROJECT: SITE REMEDIATION

DRAWN BY: NJV

FILENAME: 09-01-03-SM.SKF

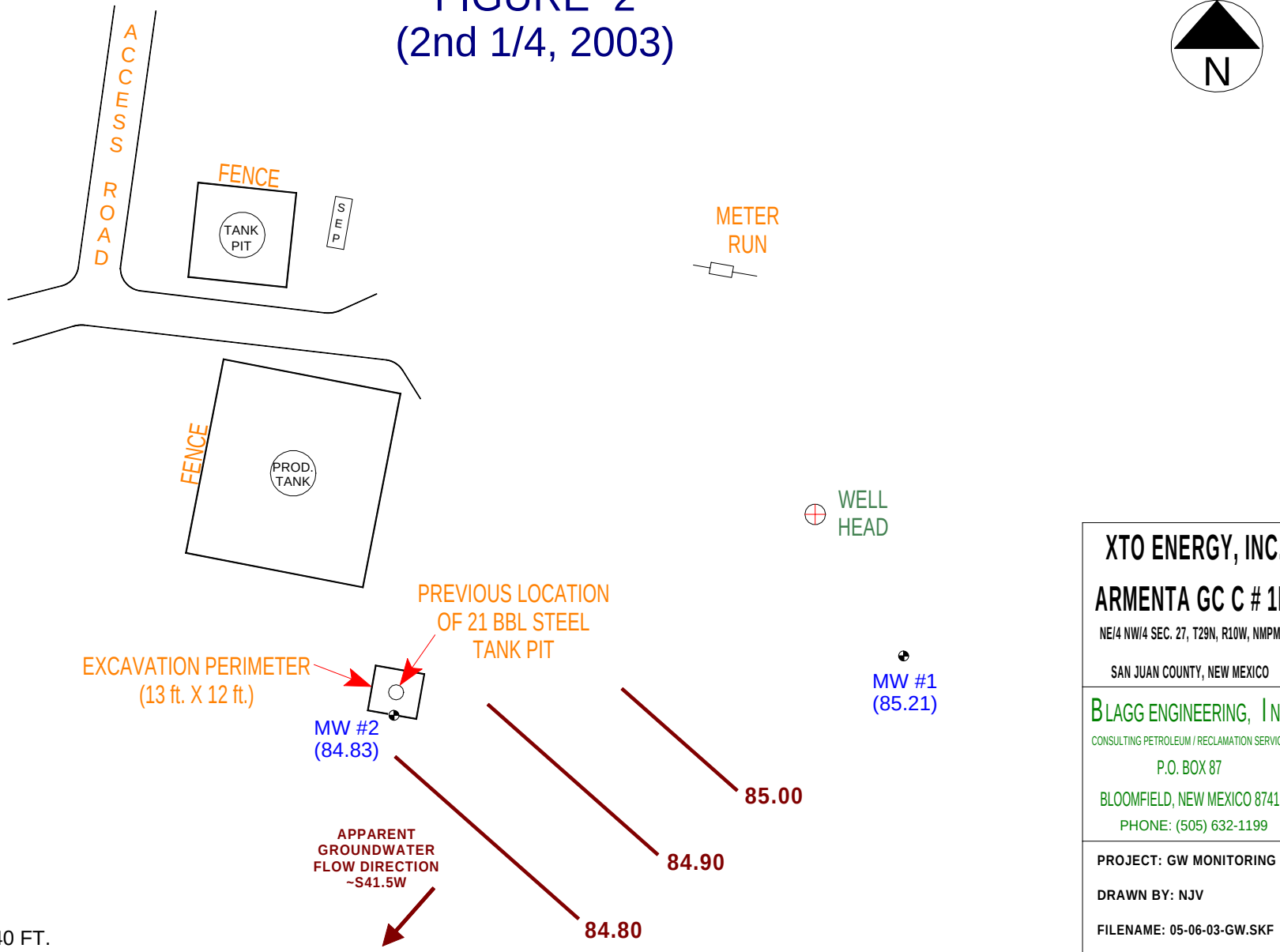
REVISED: 11/04/05 NJV

SITE MAP

09/03

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM WELL HEAD (LASER RANGE FINDER, TAPE MEASURE, AND BRUNTON COMPASS). ALL OTHER FEATURES AND/OR STRUCTURES DISPLAYED ARE SOLELY FOR REFERENCE AND MAY NOT REFLECT TRUE OR EXACT ACCURACY AND/OR SCALE. THIS MAP IS A GENERALIZATION OF THE WORK CONDUCTED AND SHOULD NOT BE USED FOR SURVEY INFORMATION.

FIGURE 2
(2nd 1/4, 2003)



MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM WELL HEAD (LASER RANGE FINDER, TAPE MEASURE, AND BRUNTON COMPASS). ALL OTHER FEATURES AND/OR STRUCTURES DISPLAYED ARE SOLELY FOR REFERENCE AND MAY NOT REFLECT TRUE OR EXACT ACCURACY AND/OR SCALE. THIS MAP IS A GENERALIZATION OF THE WORK CONDUCTED AND SHOULD NOT BE USED FOR SURVEY INFORMATION.

Top of Well Elevation	
MW #1	(101.25)
MW #2	(98.47)
MW #3	(96.86)

MW #1 (85.21) Groundwater Elevation as of 5/6/03.

XTO ENERGY, INC.

ARMENTA GC C # 1E

NE/4 NW/4 SEC. 27, T29N, R10W, NMPM

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: GW MONITORING

DRAWN BY: NJV

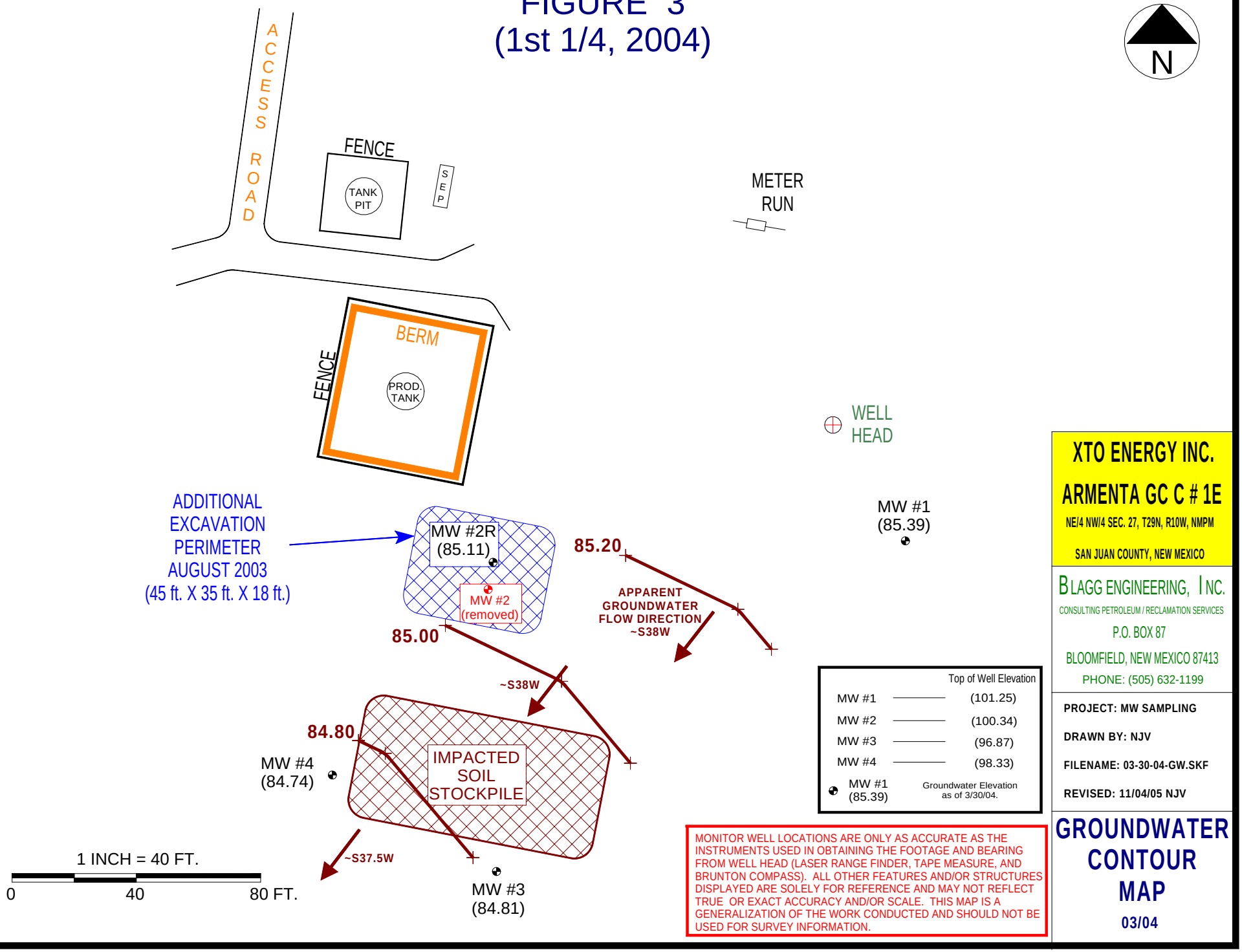
FILENAME: 05-06-03-GW.SKF

REVISED: 5/6/03 NJV

GROUNDWATER CONTOUR MAP

05/03

FIGURE 3
(1st 1/4, 2004)



Top of Well Elevation	
MW #1	(101.25)
MW #2	(100.34)
MW #3	(96.87)
MW #4	(98.33)

MW #1 (85.39) Groundwater Elevation as of 3/30/04.

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM WELL HEAD (LASER RANGE FINDER, TAPE MEASURE, AND BRUNTON COMPASS). ALL OTHER FEATURES AND/OR STRUCTURES DISPLAYED ARE SOLELY FOR REFERENCE AND MAY NOT REFLECT TRUE OR EXACT ACCURACY AND/OR SCALE. THIS MAP IS A GENERALIZATION OF THE WORK CONDUCTED AND SHOULD NOT BE USED FOR SURVEY INFORMATION.

XTO ENERGY INC.

ARMENTA GC C # 1E

NE/4 NW/4 SEC. 27, T29N, R10W, NMPM

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: MW SAMPLING

DRAWN BY: NJV

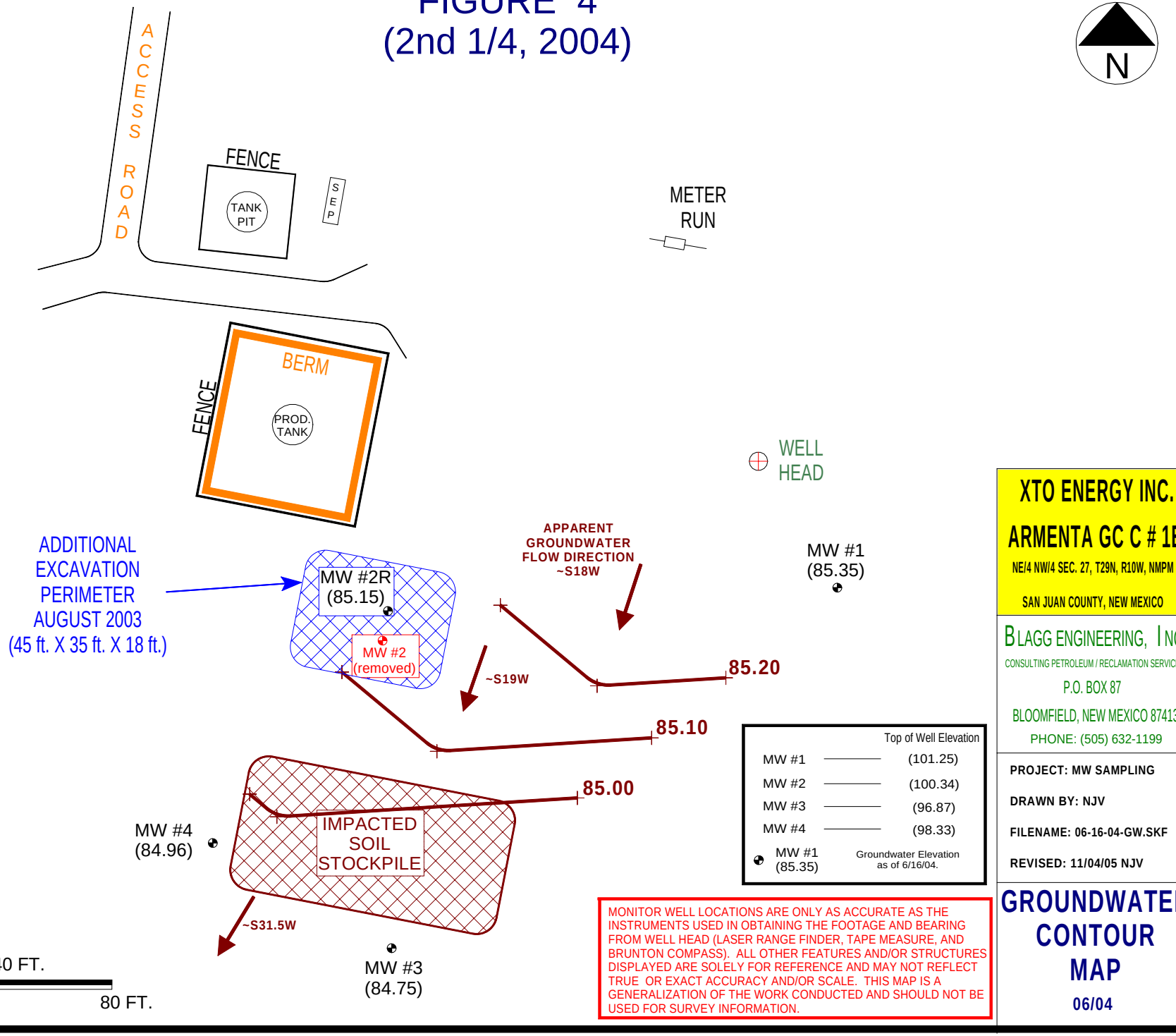
FILENAME: 03-30-04-GW.SKF

REVISED: 11/04/05 NJV

GROUNDWATER CONTOUR MAP

03/04

FIGURE 4
(2nd 1/4, 2004)



Top of Well Elevation	
MW #1	(101.25)
MW #2	(100.34)
MW #3	(96.87)
MW #4	(98.33)
MW #1 (85.35)	Groundwater Elevation as of 6/16/04.

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM WELL HEAD (LASER RANGE FINDER, TAPE MEASURE, AND BRUNTON COMPASS). ALL OTHER FEATURES AND/OR STRUCTURES DISPLAYED ARE SOLELY FOR REFERENCE AND MAY NOT REFLECT TRUE OR EXACT ACCURACY AND/OR SCALE. THIS MAP IS A GENERALIZATION OF THE WORK CONDUCTED AND SHOULD NOT BE USED FOR SURVEY INFORMATION.

XTO ENERGY INC.

ARMENTA GC C # 1E

NE/4 NW/4 SEC. 27, T29N, R10W, NMPM

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: MW SAMPLING

DRAWN BY: NJV

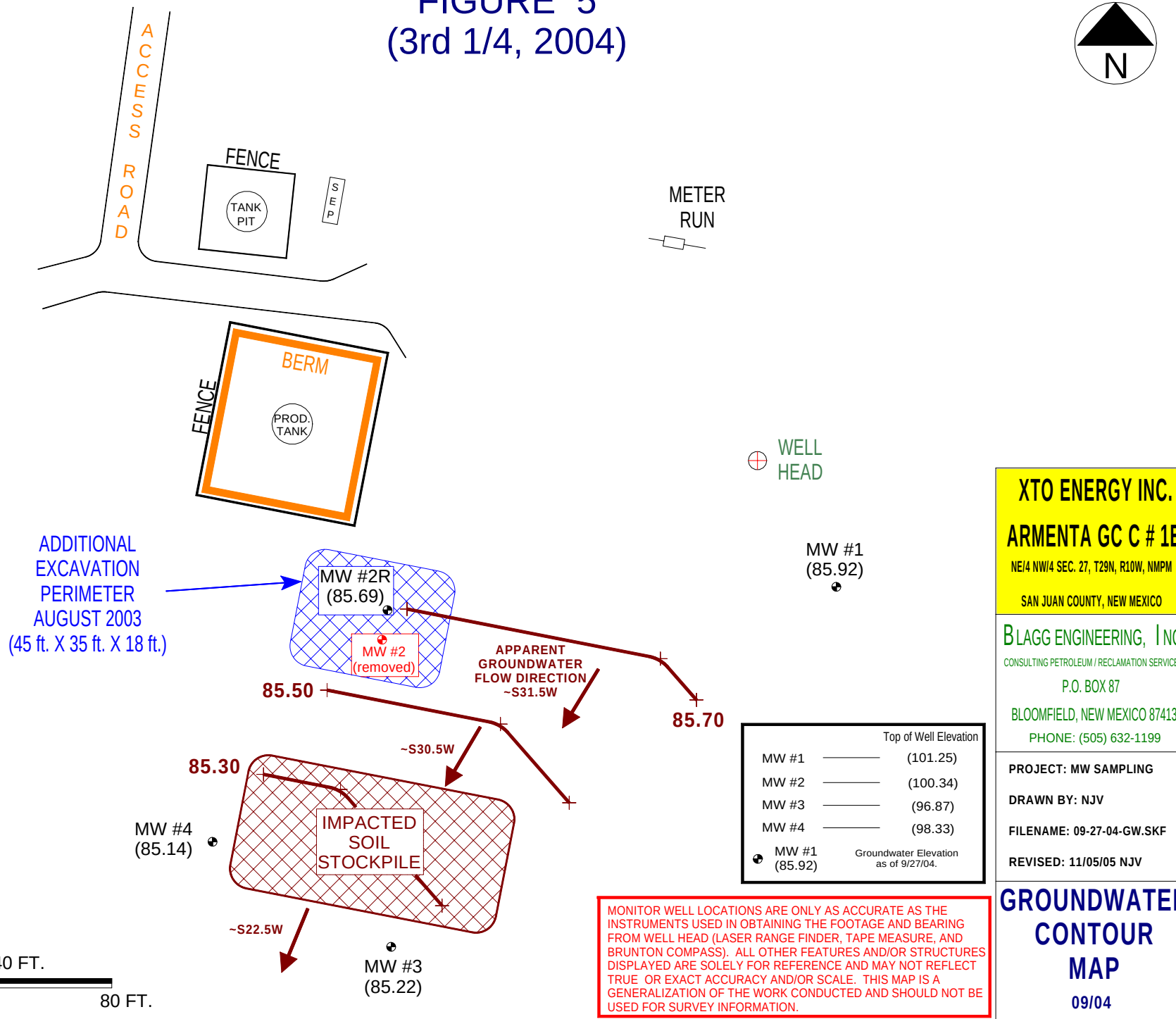
FILENAME: 06-16-04-GW.SKF

REVISED: 11/04/05 NJV

GROUNDWATER CONTOUR MAP

06/04

FIGURE 5
(3rd 1/4, 2004)



Top of Well Elevation	
MW #1	(101.25)
MW #2	(100.34)
MW #3	(96.87)
MW #4	(98.33)

MW #1 (85.92) Groundwater Elevation as of 9/27/04.

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM WELL HEAD (LASER RANGE FINDER, TAPE MEASURE, AND BRUNTON COMPASS). ALL OTHER FEATURES AND/OR STRUCTURES DISPLAYED ARE SOLELY FOR REFERENCE AND MAY NOT REFLECT TRUE OR EXACT ACCURACY AND/OR SCALE. THIS MAP IS A GENERALIZATION OF THE WORK CONDUCTED AND SHOULD NOT BE USED FOR SURVEY INFORMATION.

XTO ENERGY INC.

ARMENTA GC C # 1E

NE/4 NW/4 SEC. 27, T29N, R10W, NMPM

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: MW SAMPLING

DRAWN BY: NJV

FILENAME: 09-27-04-GW.SKF

REVISED: 11/05/05 NJV

GROUNDWATER CONTOUR MAP

09/04

FIGURE 6
(4th 1/4, 2004)

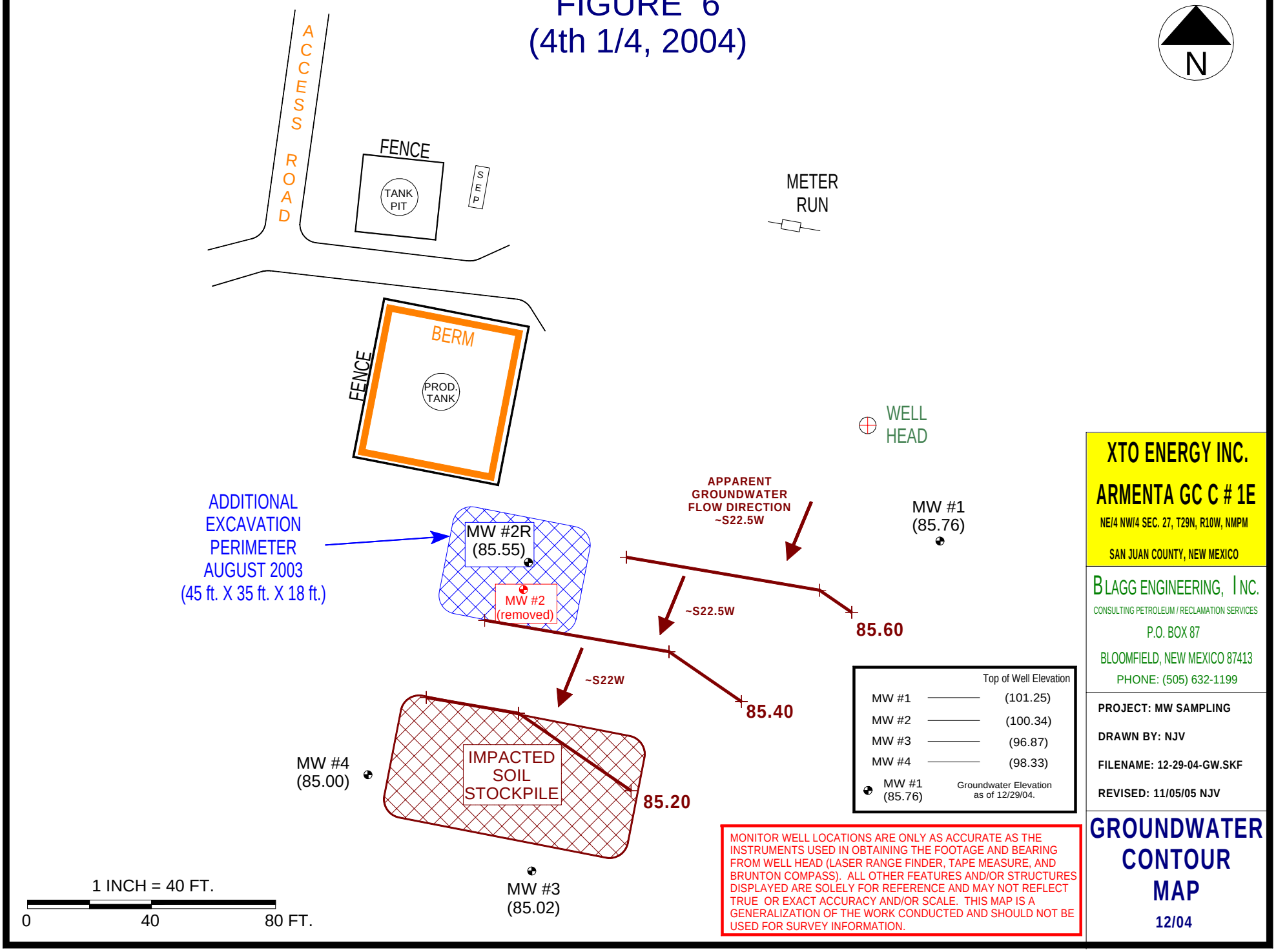


FIGURE 7

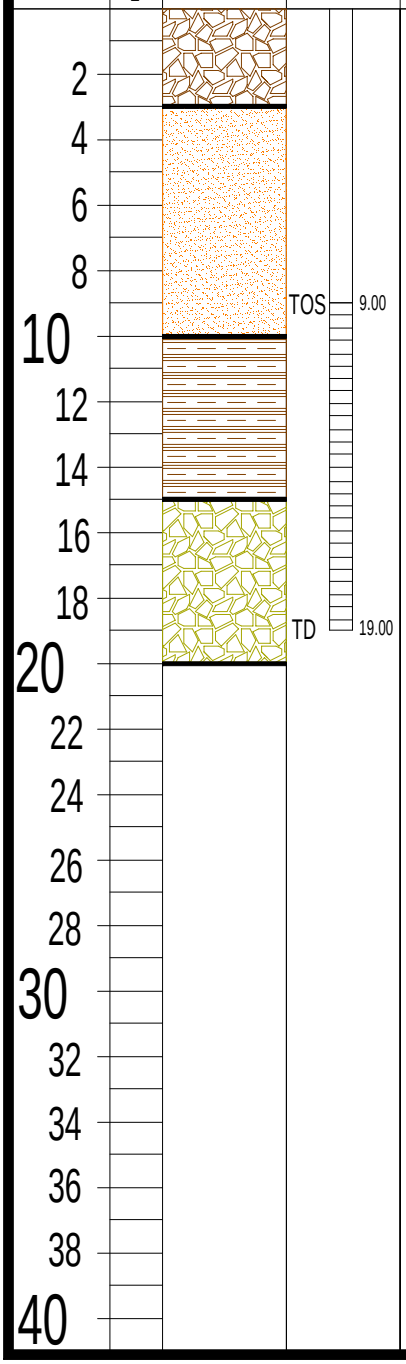
BLAGG ENGINEERING, INC.

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

BORE / TEST HOLE REPORT

CLIENT:	XTO ENERGY INC.
LOCATION NAME:	ARMENTA GC C #1E - BLOW PIT, UNIT C, SEC. 27, T29N, R10W
CONTRACTOR:	BLAGG ENGINEERING, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (EARTHPROBE 200)
BORING LOCATION:	44 FT., S32E FEET FROM WELL HEAD.

BORING #.....	BH - 2
MW #.....	1
PAGE #.....	1
DATE STARTED	4/30/03
DATE FINISHED	4/30/03
OPERATOR.....	JCB
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 0.85 FT. ABOVE GROUND SURFACE.

DARK YELLOWISH BROWN SAND AND GRAVEL, NON COHESIVE, FIRM TO LOOSE, DRY TO SLIGHTLY MOIST, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 3.0 FT. BELOW GRADE).

DARK YELLOWISH ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (3.0 - 10.0 FT. BELOW GRADE).

DARK YELLOWISH BROWN SILTY CLAY TO CLAY, SLIGHTLY PLASTIC, FIRM, SLIGHTLY MOIST, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (10.0 - 15.0 FT. BELOW GRADE).

GW DEPTH ON 5/06/03 = 15.19 FT. (APPROX.) FROM GROUND SURFACE.

OLIVE GRAY SAND AND GRAVEL, NON COHESIVE, FIRM TO LOOSE, SATURATED, NO APPARENT HC ODOR DETECTED PHYSICALLY ITHIN CUTTINGS (15.0 - 20.0 FT. BELOW GRADE).

OLIVE GRAY SAND AND GRAVEL, NON COHESIVE, FIRM TO LOOSE, WET TO SATURATED, STRONG APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (20.0 - 25.0 FT. BELOW GRADE).

NOTE:

- SAND.
- SILTY CLAY TO CLAY.
- SAND AND GRAVEL.

TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

Monitor well consist of 2 inch PVC piping - casing from 0.85 ft. above grade to 9 ft. below grade, 0.010 slotted screen between 9.00 to 19.00 feet below grade, sand packed annular to 5 ft. below grade, then with clean native fill material to grade.

DRAWING: ARMENTA GC C 1E-MW1.SKF | DATE: 11/05/05 | DWN BY: NJV

FIGURE 8

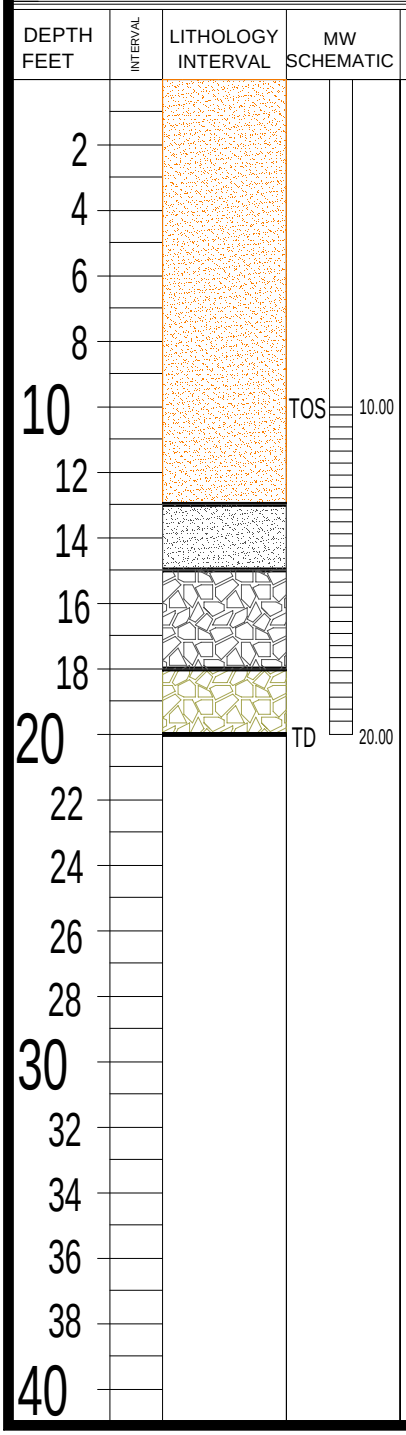
BLAGG ENGINEERING, INC.

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

BORE / TEST HOLE REPORT

CLIENT:	XTO ENERGY INC.
LOCATION NAME:	ARMENTA GC C #1E - BLOW PIT, UNIT C, SEC. 27, T29N, R10W
CONTRACTOR:	BLAGG ENGINEERING, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION:	123 FT., S64.5W FEET FROM WELL HEAD.

BORING #.....	BH - 1
MW #.....	2
PAGE #.....	2
DATE STARTED	4/22/03
DATE FINISHED	4/22/03
OPERATOR.....	JCB
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING AT GROUND SURFACE.

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

GW DEPTH ON 4/23/03 = 13.61 FT. (APPROX.) FROM GROUND SURFACE.

LIGHT TO MEDIUM GRAY SAND, NON COHESIVE, FIRM TO LOOSE, SATURATED, STRONG HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTING (13.0 - 15.0 FT. BELOW GRADE).

LIGHT TO MEDIUM GRAY SAND AND GRAVEL, NON COHESIVE, FIRM TO LOOSE, WET TO SATURATED, STRONG APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (15.0 - 18.0 FT. BELOW GRADE).

SAME AS ABOVE EXCEPT OLIVE GRAY IN COLOR AND SLIGHT TO NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (18.0 - 20.0 FT. BELOW GRADE).

NOTE:

- SAND.
- SAND AND GRAVEL.

TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

Monitor well consist of 2 inch PVC piping - casing from surface grade to 10.00 ft. below grade, 0.010 slotted screen between 10.00 to 20.00 feet below grade, sand packed annular to 5 ft. below grade, then with clean native fill material to grade.

DRAWING: ARMENTA GC C 1E-MW2.SKF | DATE: 11/05/05 | DWN BY: NJV

FIGURE 9

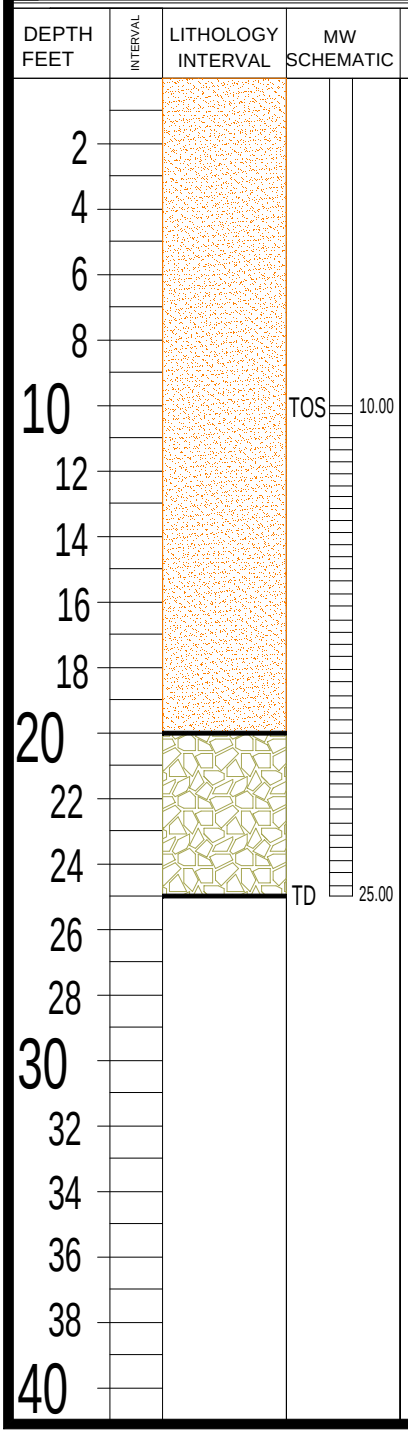
BLAGG ENGINEERING, INC.

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

BORE / TEST HOLE REPORT

CLIENT:	XTO ENERGY INC.
LOCATION NAME:	ARMENTA GC C #1E - BLOW PIT, UNIT C, SEC. 27, T29N, R10W
CONTRACTOR:	BLAGG ENGINEERING, INC. / ENVIROTECH
EQUIPMENT USED:	MOBILE DRILL RIG (SIMILAR TO CME 75)
BORING LOCATION:	118 FT., S68W FEET FROM WELL HEAD.

BORING #.....	BH - 5
MW #.....	2R
PAGE #.....	3
DATE STARTED	3/23/04
DATE FINISHED	3/23/04
OPERATOR.....	KP
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 1.50 FT. ABOVE GROUND SURFACE.

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

▼ GW DEPTH ON 3/30/04 = 13.73 FT. (APPROX.) FROM GROUND SURFACE.

OLIVE GRAY SAND AND GRAVEL, NON COHESIVE, FIRM TO LOOSE, WET TO SATURATED, STRONG APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (20.0 - 25.0 FT. BELOW GRADE).

NOTE:

- SAND.
- SAND AND GRAVEL.

TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

Monitor well consist of 2 inch PVC piping - casing from 1.50 ft. above grade to 10.00 ft. below grade, 0.010 slotted screen between 10.00 to 25.00 feet below grade, sand packed annular to 8 ft. below grade, bentonite pellets between 5 to 8 ft. blow grade, then with clean native fill material to grade.

DRAWING: ARMENTA GC C 1E-MW2R.SKF | DATE: 11/05/05 | DWN BY: NJV

FIGURE 10

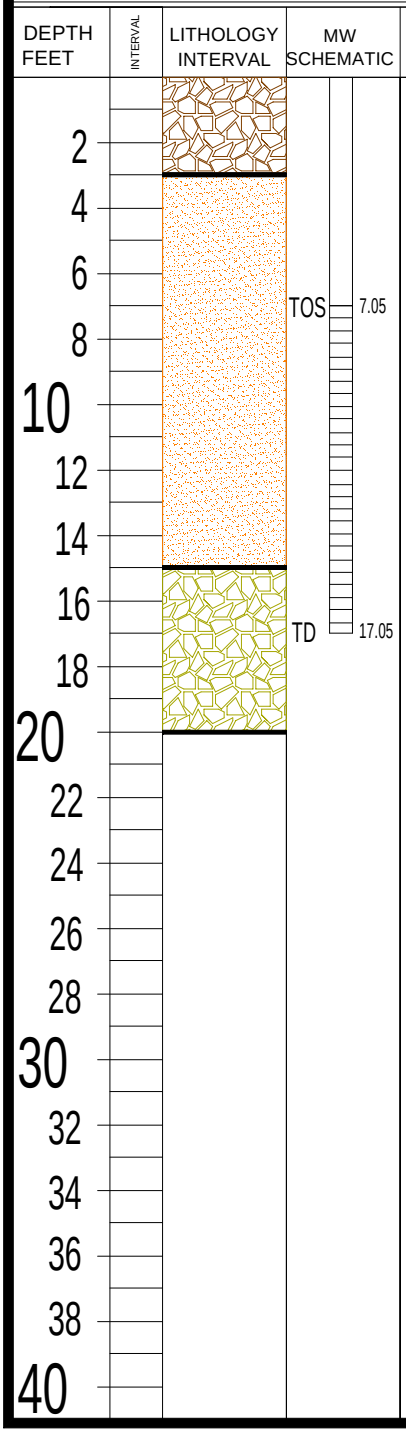
BLAGG ENGINEERING, INC.

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

BORE / TEST HOLE REPORT

CLIENT:	XTO ENERGY INC.
LOCATION NAME:	ARMENTA GC C #1E - BLOW PIT, UNIT C, SEC. 27, T29N, R10W
CONTRACTOR:	BLAGG ENGINEERING, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (EARTHPROBE 200)
BORING LOCATION:	180 FT., S37W FEET FROM WELL HEAD.

BORING #.....	BH - 3
MW #.....	3
PAGE #.....	4
DATE STARTED	4/30/03
DATE FINISHED	4/30/03
OPERATOR.....	JCB
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 1.95 FT. ABOVE GROUND SURFACE.

DARK YELLOWISH BROWN SAND AND GRAVEL, NON COHESIVE, FIRM TO LOOSE, DRY TO SLIGHTLY MOIST, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (0.0 - 3.0 FT. BELOW GRADE).

DARK YELLOWISH ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM TO LOOSE, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (3.0 - 15.0 FT. BELOW GRADE).

GW DEPTH ON 5/06/03 = 10.33 FT. (APPROX.) FROM GROUND SURFACE.

OLIVE GRAY SAND AND GRAVEL, NON COHESIVE, FIRM TO LOOSE, SATURATED, NO APPARENT HC ODOR DETECTED PHYSICALLY ITHIN CUTTINGS (15.0 - 20.0 FT. BELOW GRADE).

NOTE:

- SAND.
- SAND AND GRAVEL.

TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

Monitor well consist of 2 inch PVC piping - casing from 1.95 ft. above grade to 7.05 ft. below grade, 0.010 slotted screen between 7.05 to 17.05 feet below grade, sand packed annular to 5 ft. below grade, then with clean native fill material to grade.

DRAWING: ARMENTA GC C 1E-MW3.SKF | DATE: 11/05/05 | DWN BY: NJV

FIGURE 11

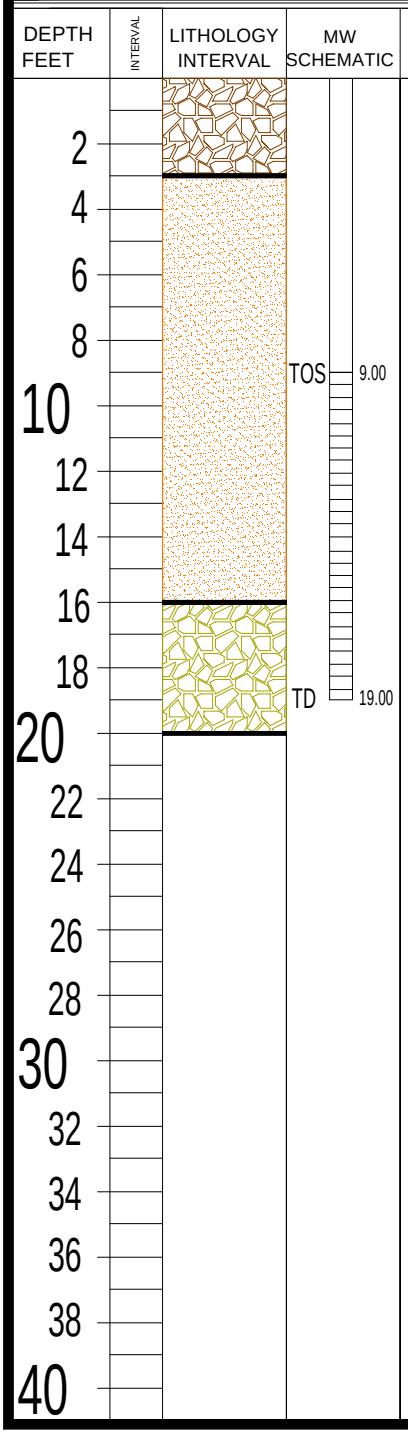
BLAGG ENGINEERING, INC.

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

BORE / TEST HOLE REPORT

CLIENT:	XTO ENERGY INC.
LOCATION NAME:	ARMENTA GC C #1E - BLOW PIT, UNIT C, SEC. 27, T29N, R10W
CONTRACTOR:	BLAGG ENGINEERING, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (EARTHPROBE 200)
BORING LOCATION:	196 FT., S55W FEET FROM WELL HEAD.

BORING #.....	BH - 4
MW #.....	4
PAGE #.....	5
DATE STARTED	3/17/04
DATE FINISHED	3/17/04
OPERATOR.....	JCB
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 1.00 FT. ABOVE GROUND SURFACE.

DARK YELLOWISH BROWN SAND AND GRAVEL, NON COHESIVE, FIRM TO LOOSE, DRY TO SLIGHTLY MOIST, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (0.0 - 3.0 FT. BELOW GRADE).

DARK YELLOWISH ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM TO LOOSE, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (3.0 - 16.0 FT. BELOW GRADE).

GW DEPTH ON 3/30/04 = 12.59 FT. (APPROX.) FROM GROUND SURFACE.

OLIVE GRAY SAND AND GRAVEL, NON COHESIVE, FIRM TO LOOSE, SATURATED, NO APPARENT HC ODOR DETECTED PHYSICALLY ITHIN CUTTINGS (16.0 - 20.0 FT. BELOW GRADE).

NOTE:

- SAND.
- SAND AND GRAVEL.

TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

Monitor well consist of 2 inch PVC piping - casing from 1.00 ft. above grade to 9.00 ft. below grade, 0.010 slotted screen between 9.00 to 19.00 feet below grade, sand packed annular to 5 ft. below grade, then with clean native fill material to grade.

DRAWING: ARMENTA GC C 1E-MW4.SKF | DATE: 11/05/05 | DWN BY: NJV

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY , INC.

CHAIN-OF-CUSTODY # : _____

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

LABORATORY (S) USED : _____

Date : **April 23, 2003**

SAMPLER : N J V

Filename : **04-23-03.WK4**

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
2	-	-	13.61 *	20.00	-	-	-	-	1.50
DEPTH TO PRODUCT (FT.) =			13.34			**PRODUCT THICKNESS (FT.) =**			0.76

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

BAILED MW TO TOTAL DEPTH - COMPLETED @ TIME 1408 . REMEASURED DEPTH TO PRODUCT = 13.38 FT. , DEPTH TO WATER = 13.90 FT. @ TIME 1518 .

*** INDICATES PRODUCT SPECIFIC GRAVITY ASSUMED TO = 0.65 .**

Top of casing approx. @ grade .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY , INC.

CHAIN-OF-CUSTODY # :

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

LABORATORY (S) USED :

Date : May 6, 2003

SAMPLER : N J V

Filename : 05-06-03.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	101.25	85.21	16.04	20.00	-	-	-	-	1.00
2	98.47	84.83	13.64 *	20.00	-	-	-	-	1.00
DEPTH TO PRODUCT (FT.) =			13.32			**PRODUCT THICKNESS (FT.) =**			0.92
3	96.86	84.58	12.28	19.00	-	-	-	-	4.00
INSTRUMENT CALIBRATIONS =						7.01	2,800		
DATE & TIME =						05/07/03	09:15 AM		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

SURVEYED MW TOPS & COLLECTED DEPTH TO WATER INFO. IN THE MORNING .
MW # 1 RECOVERY RATE = 0.1 ft. / 19.05 sec. FULL RECOVERY ~ 12.6 MINUTES . MW # 3 -
EXCELLENT RECOVERY . REMOVED FREE PRODUCT FROM MW # 2 - ~ 1.00 GALLON OF
FLUID PURGED .
*** INDICATES PRODUCT SPECIFIC GRAVITY ASSUMED TO = 0.65 .**
Top of casings (approx.) MW # 1 - 0.85 ft. , MW # 2 - @ grade , MW # 3 - 1.95 ft.

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY , INC.

CHAIN-OF-CUSTODY # : N / A & 10873

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL
ENVIROTECH

Date : May 12, 2003

SAMPLER : N J V

Filename : 05-12-03.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	101.25	85.34	15.91	20.00	935	7.07	1,100	15.7	1.00
2	98.47	84.98	13.49 *	20.00	-	-	-	-	-
DEPTH TO PRODUCT (FT.) =			13.23			**PRODUCT THICKNESS (FT.) =**			0.73
3	96.86	84.70	12.16	19.00	0915	7.06	1,200	15.3	3.50
INSTRUMENT CALIBRATIONS =						7.00	2,800		
DATE & TIME =						05/12/03	08:55		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

BAILED APPROX. 0.50 GAL. OF FLUID FROM MW # 2 . COLLECTED BTEX & MAJOR ANION / CATION SA
FROM MW # 1 & # 2 .

*** INDICATES PRODUCT SPECIFIC GRAVITY ASSUMED TO = 0.65 .**
Top of casings (approx.) MW # 1 - 0.85 ft. , MW # 2 - @ grade , MW # 3 - 1.95 ft.

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY , INC.

CHAIN-OF-CUSTODY # :

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

LABORATORY (S) USED :

Date : **May 20, 2003**

SAMPLER : N J V

Filename : **05-20-03.WK4**

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	101.25	-	-	20.00	-	-	-	-	-
2	98.47		13.52 *	20.00	-	-	-	-	-
DEPTH TO PRODUCT (FT.) =			13.26			**PRODUCT THICKNESS (FT.) =**			0.74
3	96.86	-	-	19.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	-	-		
					DATE & TIME =	-	-		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

BAILED APPROX. 0.50 GAL. OF FLUID FROM MW # 2 .

*** INDICATES PRODUCT SPECIFIC GRAVITY ASSUMED TO = 0.65 .**

Top of casings (approx.) MW # 1 - 0.85 ft. , MW # 2 - @ grade , MW # 3 - 1.95 ft.

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # :

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

LABORATORY (S) USED :

Date : May 28, 2003

SAMPLER : N J V

Filename : 05-28-03.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	101.25	-	-	20.00	-	-	-	-	-
2	98.47		13.46 *	20.00	-	-	-	-	-
DEPTH TO PRODUCT (FT.) =			13.22			**PRODUCT THICKNESS (FT.) =**			0.68
3	96.86	-	-	19.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	-	-		
					DATE & TIME =	-	-		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

BAILED APPROX. 0.50 - 0.75 GAL. OF FLUID FROM MW # 2 .

*** INDICATES PRODUCT SPECIFIC GRAVITY ASSUMED TO = 0.65 .**

Top of casings (approx.) MW # 1 - 0.85 ft. , MW # 2 - @ grade , MW # 3 - 1.95 ft.

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # :

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

LABORATORY (S) USED :

Date : **June 6, 2003**

SAMPLER : N J V

Filename : **06-06-03.WK4**

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	101.25	-	-	20.00	-	-	-	-	-
2	98.47		13.52 *	20.00	-	-	-	-	-
DEPTH TO PRODUCT (FT.) =			13.26			**PRODUCT THICKNESS (FT.) =**			0.74
3	96.86	-	-	19.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	-	-		
					DATE & TIME =	-	-		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

BAILED APPROX. 0.50 - 0.75 GAL. OF FLUID FROM MW # 2 .

*** INDICATES PRODUCT SPECIFIC GRAVITY ASSUMED TO = 0.65 .**

Top of casings (approx.) MW # 1 - 0.85 ft. , MW # 2 - @ grade , MW # 3 - 1.95 ft.

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # :

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

LABORATORY (S) USED :

Date : **June 19, 2003**

SAMPLER : N J V

Filename : **06-19-03.WK4**

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	101.25	-	-	20.00	-	-	-	-	-
2	98.47		13.43 *	20.00	-	-	-	-	-
DEPTH TO PRODUCT (FT.) =			13.20			**PRODUCT THICKNESS (FT.) =**			0.66
3	96.86	-	-	19.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	-	-		
					DATE & TIME =	-	-		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

BAILED APPROX. 2.50 - 3.00 GAL. OF FLUID FROM MW # 2 .

*** INDICATES PRODUCT SPECIFIC GRAVITY ASSUMED TO = 0.65 .**

Top of casings (approx.) MW # 1 - 0.85 ft. , MW # 2 - @ grade , MW # 3 - 1.95 ft.

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # :

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

LABORATORY (S) USED :

Date : **June 27, 2003**

SAMPLER : N J V

Filename : **06-27-03.WK4**

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	101.25	-	-	20.00	-	-	-	-	-
2	98.47		13.42 *	20.00	-	-	-	-	-
DEPTH TO PRODUCT (FT.) =			13.22			**PRODUCT THICKNESS (FT.) =**			0.58
3	96.86	-	-	19.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	-	-		
					DATE & TIME =	-	-		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

BAILED APPROX. 2.50 - 3.00 GAL. OF FLUID FROM MW # 2 .

*** INDICATES PRODUCT SPECIFIC GRAVITY ASSUMED TO = 0.65 .**

Top of casings (approx.) MW # 1 - 0.85 ft. , MW # 2 - @ grade , MW # 3 - 1.95 ft.

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # :

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

LABORATORY (S) USED :

Date : July 3, 2003

SAMPLER : N J V

Filename : 07-03-03.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	101.25	-	-	20.00	-	-	-	-	-
2	98.47		13.48 *	20.00	-	-	-	-	-
DEPTH TO PRODUCT (FT.) =			13.25			PRODUCT THICKNESS (FT.) =			0.66
3	96.86	-	-	19.00	-	-	-	-	-
INSTRUMENT CALIBRATIONS =						-	-		
DATE & TIME =						-	-		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

BAILED APPROX. 2.50 - 3.00 GAL. OF FLUID FROM MW # 2 .

*** INDICATES PRODUCT SPECIFIC GRAVITY ASSUMED TO = 0.65 .**

Top of casings (approx.) MW # 1 - 0.85 ft. , MW # 2 - @ grade , MW # 3 - 1.95 ft.

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : N / A

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : March 30, 2004

SAMPLER : N J V

Filename : 03-30-04.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	101.25	85.39	15.86	20.00	-	-	-	-	-
2R	100.34	85.11	15.23	25.00	1107	7.13	2,100	15.5	4.75
3	96.87	84.81	12.06	19.00	-	-	-	-	-
4	98.33	84.74	13.59	20.00	1010	7.10	2,000	14.4	3.25
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	03/27/04	0800		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

MW # 4 installed 2 / 27 / 04 , MW # 2R installed 3 / 23 / 04 . MW # 4 - 10 ft. , MW # 2R - 15 ft. slotted screen . Both developed on 3 / 29 / 04 . Excellent recovery in both wells . Collected BTEX samples from MW # 2R & # 4 only . MW # 3 contained abundant amount of organic (root) material , therefore all depth to water measurement collected on 4 / 01 / 04 after clearing out MW # 3 . MW # 2R - 118 ft. , S 68 W from well head ; MW # 4 - 78 ft. , S 40 W from MW # 2R . Top of casings (approx.) MW # 1 - 0.85 ft. , MW # 2 - 1.50 ft. , MW # 3 - 1.95 ft. , MW # 4 - 1.00 ft. above grade .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : N / A

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : June 16, 2004

SAMPLER : N J V

Filename : 06-16-04.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	101.25	85.35	15.9	20.00	-	-	-	-	-
2R	100.34	85.15	15.19	25.00	1420	6.91	2,000	21.6	4.75
3	96.87	84.75	12.12	19.00	-	-	-	-	-
4	98.33	84.96	13.37	20.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	06/16/04	1130		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW # 2R . Collected BTEX sample from MW # 2R only .

Top of casings (approx.) MW # 1 - 0.85 ft. , MW # 2 - 1.50 ft. , MW # 3 - 1.95 ft. , MW # 4 - 1.00 ft. above grade .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : N / A

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : September 27, 2004

SAMPLER : N J V

Filename : 09-27-04.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	101.25	85.92	15.33	20.00	-	-	-	-	-
2R	100.34	85.69	14.65	25.00	1250	6.96	2,000	20.3	5.00
3	96.87	85.22	11.65	19.00	-	-	-	-	-
4	98.33	85.14	13.19	20.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	09/27/04	1025		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW # 2R . Collected BTEX sample from MW # 2R only .

Top of casings (approx.) MW # 1 - 0.85 ft. , MW # 2 - 1.50 ft. , MW # 3 - 1.95 ft. , MW # 4 - 1.00 ft. above grade .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : N / A

ARMENTA GC C # 1E - BLOW PIT II
UNIT C, SEC. 27, T29N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : December 29, 2004

SAMPLER : N J V

Filename : 12-29-04.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	101.25	85.76	15.49	20.00	-	-	-	-	-
2R	100.34	85.55	14.79	25.00	1540	6.98	2,100	15.2	5.00
3	96.87	85.02	11.85	19.00	-	-	-	-	-
4	98.33	85.00	13.33	20.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	12/29/04	1025		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW # 2R . Collected BTEX sample from MW # 2R only .

Top of casings (approx.) MW # 1 - 0.85 ft. , MW # 2 - 1.50 ft. , MW # 3 - 1.95 ft. , MW # 4 - 1.00 ft. above grade .

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐
Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: XTO ENERGY INC. Telephone: (505)-324-1090 e-mail address: _____
Address: 2700 FARMINGTON AVE.. BLDG. K. SUITE 1. FARMINGTON. NM 87401
Facility or well name: ARMENTA GAS COM C #1E API #: 30-045- 23856 U/L or Qtr/Qtr C Sec 27 T 29N R 10
County: SAN JUAN Latitude 36.70320 Longitude 107.87558 NAD: 1927 ☐ 1983 ☒ Surface Owner Federal ☐ State ☐ Private ☒ Indian ☐

Pit	**Below-grade tank**	
Type: Drilling ☐ Production ☒ Disposal ☐ BLOW Workover ☐ Emergency ☐ Lined ☒ Unlined ☒ STEEL TANK Liner type: Synthetic ☐ Thickness _____mil Clay ☐ Pit Volume _____bbl	Volume: _____bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not. N/A _____	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points) **20**
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points) **0**
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points) **10**
	Ranking Score (Total Points)	**30**

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☒ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☒ If yes, show depth below ground surface 14 ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: **PIT LOCATED APPROXIMATELY 123 FT. S64W FROM WELL HEAD.**
PIT EXCAVATION: WIDTH 45 ft., LENGTH 35 ft., DEPTH 18 ft. .
PIT REMEDIATION: CLOSE AS IS: ☐, LANDFARM: ☐, COMPOST: ☒, STOCKPILE: ☐, OTHER ☐ (explain)
Cubic yards: 600
Groundwater impacted. Implemented XTO's Groundwater Mangagement Plan (GMP).

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an alternative OCD-approved plan ☒.**

Date: 11/14/05

PrintedName/Title Jeff Blagg – P.E. # 11607 Signature Jeffrey C. Blagg

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title_____ Signature_____ Date: _____

VUL 3004523856

CLIENT: XTO

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

LOCATION NO:

COCR NO:

FIELD REPORT: PIT CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: ALAMO GC C WELL #: 1E TYPE: BLOW

QUAD/UNIT: C SEC: 27 TWP: 29N RNG: 10W PM: NM CNTY: SJ ST: NM

QTR/FOOTAGE: 435'N/1590'W NE(NW) CONTRACTOR: HDE (JACK)

DATE STARTED: 4/14/03

DATE FINISHED:

ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 12 FT. x 13 FT. x 13 FT. DEEP. CUBIC YARDAGE: 75

DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM

LAND USE: OPEN PASTURE LEASE: FEE FORMATION: MV

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 120 FT. 567W FROM WELLHEAD.

DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: <1000'

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

SOIL AND EXCAVATION DESCRIPTION: 5506' ELEV.

OVM CALIB. READ. = _____ ppm
OVM CALIB. GAS = _____ ppm RF = 0.52
TIME: _____ am/pm DATE: _____

SOIL TYPE: (SAND) / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER

SOIL COLOR: LT. GRAY TO BROWN

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 -

HC ODOR DETECTED: (YES) / NO EXPLANATION -

SAMPLE TYPE: GRAB / COMPOSITE - # OF PTS.

ADDITIONAL COMMENTS: NO SAMPLES COLLECTED. GROUNDWATER ~13' BELOW GRADE. OLIVE GRAY SAND OBSERVED W/NO TEST HOLE ADVANCED BELOW 13' BEFORE COLLAPSING DUE TO GROUNDWATER. WILL BACKFILL & LATER INSTALL MONITOR WELL.

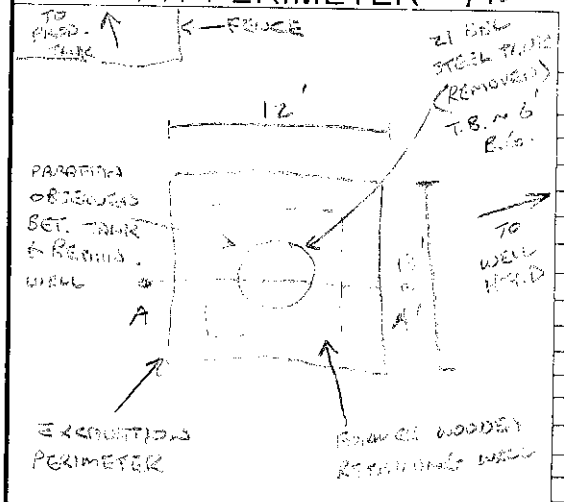
(GW IMPACTED)

SCALE 0 FT

FIELD 418.1 CALCULATIONS

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

PIT PERIMETER



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

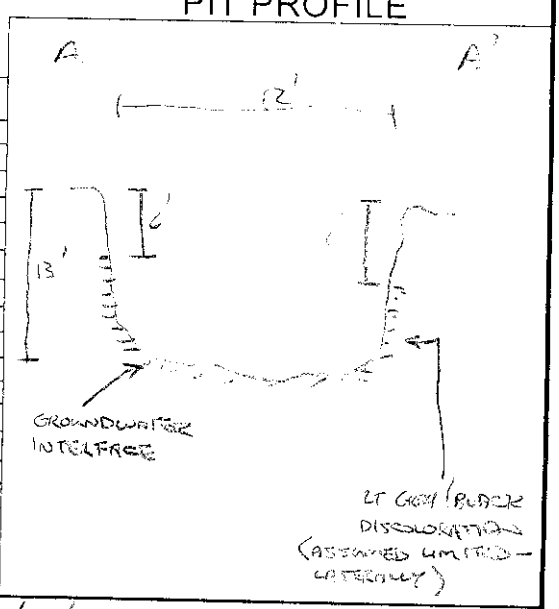
OVM READING

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

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE



TRAVEL NOTES: CALLOUT: 4/14/03 - MORNING. ONSITE: 4/14/03 - AFTER.

revised: 09/04/02

bei1005C.skf

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413

April 25, 2003

Mr. Roger Anderson
Chief of Environmental Bureau
State of New Mexico Oil Conservation Division (**NMOCD**)
1220 St. Francis Drive
Santa Fe, New Mexico 87505

RE: Groundwater Impact
XTO Energy, Inc.

Armenta GC C # 1E Well site
Legal Description: Unit C, Sec. 27, T29N, R10W
San Juan County, New Mexico

Dear Mr. Anderson:

Physical observation of groundwater at the above referenced well site indicates approximately 0.76 ft. or 9.12 inches of free phase product on April 23, 2003. Monitor well installation and construction was completed on April 22, 2003. The monitor well is located within an abandoned blow pit excavated on April 18, 2003 to approximately the groundwater interface (thirteen [13] feet below grade). XTO Energy will adhere to its NMOCD approved groundwater management plan during further assessment of the apparent hydrocarbon contamination encountered. Depth to free phase product in the monitor well was approximately 13.34 ft. below grade.

If you have any questions concerning this information, please do not hesitate to contact Nelson Velez or myself at (505) 632-1199. Thank you for your cooperation.

Respectfully submitted,
Blagg Engineering, Inc.

Jeffrey C. Blagg, P.E.
President

cc: Denny Foust, Environmental Geologist, NMOCD, Aztec, NM
Terry Matthews, Production Superintendent, XTO Energy, Inc., Farmington, NM
Darrin Steed, Environmental & Safety Manager, XTO Energy, Inc., Farmington, NM

NJV/njv

ARMENTA-C1E.LTR