

3R - 105

REPORTS

DATE:

JAN 2006



3R0105
RECEIVED

January 30, 2006

JAN 31 2006

Oil Conservation Division
Environmental

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 Report 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:

- | | | | |
|--------------------------|--------|-------------------------|--------|
| • Abrams J #1 | 3R0100 | • Rowland Gas Com #1 | 3R0124 |
| • Bruington Gas Com B #1 | 3R0106 | • Sullivan Gas Com D #1 | 3R0131 |
| • EJ Johnson C #1E | 3R0385 | • Valdez A #1E | 3R0134 |
| • PO Pipken #3E | | | |
| • Romero Gas Com A #1 | 3R0123 | | |

Also enclosed in the third volume of our Annual Report are three sites that meet the closure requirements outlined in the GMP. XTO respectfully requests closure of:

- Armenta Gas Com #1E 3R0394
- Bergin Gas Com #1E 3R0105
- State Gas Com BS #1 3R0127

As we discussed this afternoon, several sites are being reviewed to make sure we have a comprehensive set of reports submitted. An extension will be allowed for reports on the remaining sites to be submitted by April 30, 2006.

Thank you for your review of the reports and allowing some flexibility with this years reporting schedule. If you have any questions please do not hesitate to contact me at (505) 566-7942.

Sincerely,

Lisa Winn
Environmental Specialist
San Juan Division

cc: Mr. Denny Foust, Environmental, NMOCD District III Office, Aztec, NM
Mr. Jeff Blagg, Blagg Engineering Inc.
File – San Juan Groundwater

3R0105
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JAN 31 2006

XTO ENERGY INC. Oil Conservation Division
Environmental Bureau

ANNUAL GROUNDWATER REMEDIATION REPORT

2005

**BERGIN GC #1E
(F) SECTION 21, T29N, R11W, 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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Field Sampling Data Summaries

Laboratory Reports

XTO ENERGY INC.
Bergin GC # 1E - Separator Pit
SE/4 NW/4 Sec. 21, T29N, R11W

Pit Closure Dates: 11/16/93 – 1/3/94

Monitor Well Installation Dates: MW 1, 2 & 3 – 4/22/96
MW 4 - 11/27/97
MW 3R - 6/5/98 (Replacement for MW 3)
MW 2R - 6/10/03 (Replacement for MW 2)

Monitor Well Sampling Dates: 6/5/96, 9/11/96, 12/27/96, 3/19/97, 6/23/97, 12/18/97, 6/12/98,
1/25/99, 5/13/99, 8/25/99, 6/30/00, 5/17/01, 9/24/01,
11/28/01, 2/19/02, 6/27/03, 8/25/03, 11/14/03, 3/25/04

Historical Information:

- November 1993 to January 1994 – An earthen separator pit was closed at this site by Amoco Production Company (Figure 1). Remediation included excavating approximately 1520 cubic yards of hydrocarbon impacted soil to beneath groundwater (found at approximately 10 – 12 feet below ground surface). Impacted soils were transported to the Amoco permitted waste management facility.
- April 1996 - Groundwater monitor wells were installed to evaluate impacts to groundwater.
- January 1998 - XTO Energy Inc. (XTO) acquires the Bergin GC #1E from Amoco Production Company.
- January 1998 to March 2004 – Continued Quarterly/Annual sampling to confirm closure.

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:

Groundwater elevation data consistently indicates the water gradient trends in a southern direction (Figures 2 – 7).

Groundwater monitor wells were installed and sampled to evaluate impacts to groundwater. Groundwater monitor well MW 1 is located up-gradient of the source area and exhibited no detectable levels of BTEX constituents. Trace levels of residual BTEX was detected in MW 2 (MW 2R) and MW 3 and elevated chloride levels were observed between 1999 and 2002 in monitor well MW 2R. Monitor well MW 4 is directly down-gradient from the original pit area and laboratory analysis show no detectable levels of BTEX.

Summary and Recommendations:

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.

BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

REVISED DATE: August 25, 1999
 FILENAME: (BE-3Q-99.WK4) NJV

SAMPLE DATE	MONITOR WELL No.	D.T.W. (ft)	T.D. (ft)	TDS mg/L	COND. umhos	pH	PERMEAT (in)	BTEX EPA METHOD 8020 (PPB)			
								Benzene	Toluene	Ethyl Benzene	Total Xylene
05-Jun-96	MW #1	11.65	15.00	2990	2400	7.0		ND	ND	ND	ND
13-May-99		12.73		2850	5700	7.0		NA	NA	NA	NA
05-Jun-96	MW #2	12.28	15.00	1230	1800	6.5		9.92	7.85	19.6	89.2
11-Sep-96		10.03			1600	6.9		5.86	7.57	11.8	24.6
27-Dec-96		10.30			5900	6.8		1.42	1.33	1.89	8.99
19-Mar-97		12.11			4600	7.2		2.54	ND	ND	ND
13-May-99		13.55		3485	6980	7.1		NA	NA	NA	NA
05-Jun-96	MW #3	13.24	15.00	1080	1700	6.7		11.8	23.1	12	137.9
11-Sep-96		11.00			1600	7.2		36.4	11.7	135	529
23-Jun-97		14.21			NA	NA		0.5	0.8	1.2	3.9
17-Sep-97		12.02			2000	6.9		ND	ND	52	305.6
18-Dec-97		11.41			1900	7.2		42.6	4	107	632
12-Jun-98		14.01	20.00		1900	7.1		ND	ND	ND	0.8
25-Jan-99		11.10			1700	7.2		ND	0.7	26.7	219.9
13-May-99		13.84		2134	4300	7.3		2.2	11.1	0.6	12.2
25-Aug-99		12.30			1900	7.1		8.6	2.3	4.5	24.8
18-Dec-97	MW #4	11.31	17.53		2100	7.0		ND	ND	ND	ND
13-May-99		14.28		2450	4900	7.4		NA	NA	NA	NA
25-Aug-99		12.74			1900	7.3		3.1	2.2	ND	1.7
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 APPLICABLE .

TABLE 2
GENERAL WATER QUALITY
XTO ENERGY INC. (CTOC)
BERGIN GC #1E

INITIAL SAMPLE DATE : MAY 13, 1999

PARAMETERS	MW # 1	MW # 2	MW # 3R	MW # 4	Units
LAB pH	6.95	7.12	7.29	7.35	s. u.
LAB CONDUCTIVITY @ 25 C	5,700	6,980	4,300	4,900	umhos / cm
TOTAL DISSOLVED SOLIDS @ 180 C	2,850	3,485	2,150	2,450	mg / L
TOTAL DISSOLVED SOLIDS (Calc)	2,825	3,453	2,134	2,447	mg / L
SODIUM ABSORPTION RATIO	3.9	11.7	3.0	2.7	ratio
TOTAL ALKALINITY AS CaCO ₃	284	780	328	324	mg / L
TOTAL HARDNESS AS CaCO ₃	1,365	920	1,085	1,330	mg / L
BICARBONATE as HCO ₃	284	780	328	324	mg / L
CARBONATE AS CO ₃	< 1	< 1	< 1	< 1	mg / L
HYDROXIDE AS OH	< 1	< 1	< 1	< 1	mg / L
NITRATE NITROGEN	15.0	6.0	6.1	12.5	mg / L
NITRITE NITROGEN	0.068	0.146	2.000	2.000	mg / L
CHLORIDE	18.5	503	9.0	10.5	mg / L
FLUORIDE	0.97	1.06	1.02	1.02	mg / L
PHOSPHATE	< 0.1	1.6	< 0.1	< 0.1	mg / L
SULFATE	1,740	1,290	1,250	1,470	mg / L
IRON	< 0.001	0.089	< 0.001	0.007	mg / L
CALCIUM	546	328	434	506	mg / L
MAGNESIUM	< 0.01	24.4	< 0.1	15.9	mg / L
POTASSIUM	2.5	10.0	2.5	2.5	mg / L
SODIUM	330	815	230	230	mg / L
CATION / ANION DIFFERENCE	0.08	0.08	0.39	0.32	%

CHLORIDE ONLY RESULTS

SAMP. PT.	DATE	RESULTS		mg / L	DTW (ft.)
MW # 2	08/25/99	632		"	12.02
	06/30/00	32.0		"	12.93
	05/17/01	148	DUPLICATE	"	12.41
	09/24/01	476	▼	"	12.31
	11/28/01	36.8	460	"	11.15
	02/19/02	304		"	12.06
MW # 2R	06/27/03	26.8		"	11.74
	08/25/03	17.6		"	11.75
	11/14/03	10.0		"	11.31
	03/25/04	10.4		"	13.00
MW # 3R	08/25/99	35.7		"	12.30
	06/30/00	22.5		"	13.10
	05/17/01	4.2		"	13.70

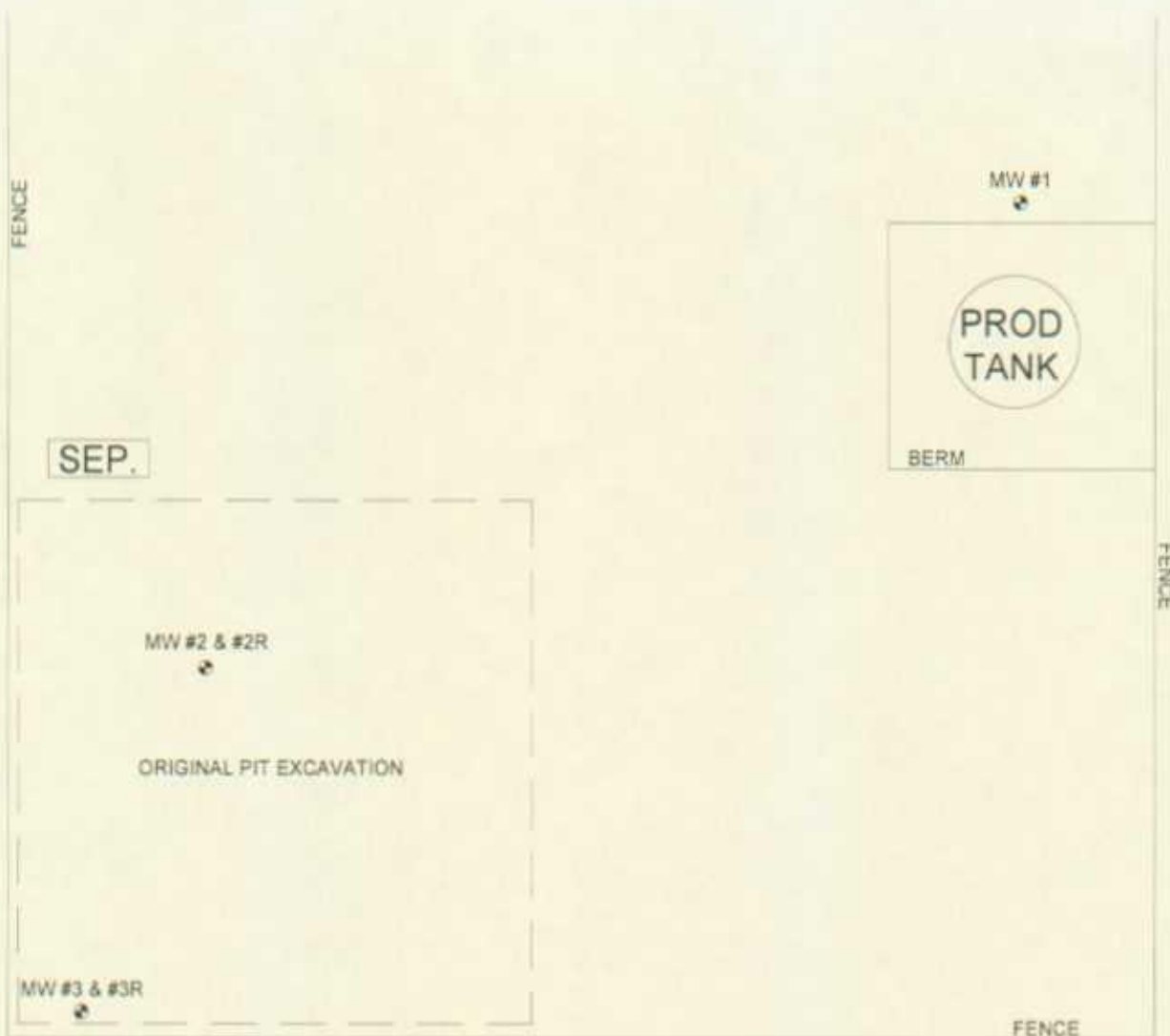
NMWQCC GROUNDWATER STANDARDS 250

NOTE : mg / L = milligrams per liter , DTW = depth to water .

FIGURE 1



WELL
HEAD



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

1 INCH = 25 FEET

0 25 50 FT.

CROSS TIMBERS OPERATING COMPANY

BERGIN GC 1E

SE/4 NW/4 SEC. 21, T29N, R11W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1190

PROJECT: 1/4ly Monitor

DRAWN BY: NJV

FILENAME: 08-25-99-SM-SKF

REVISED: 11/02/05 NJV

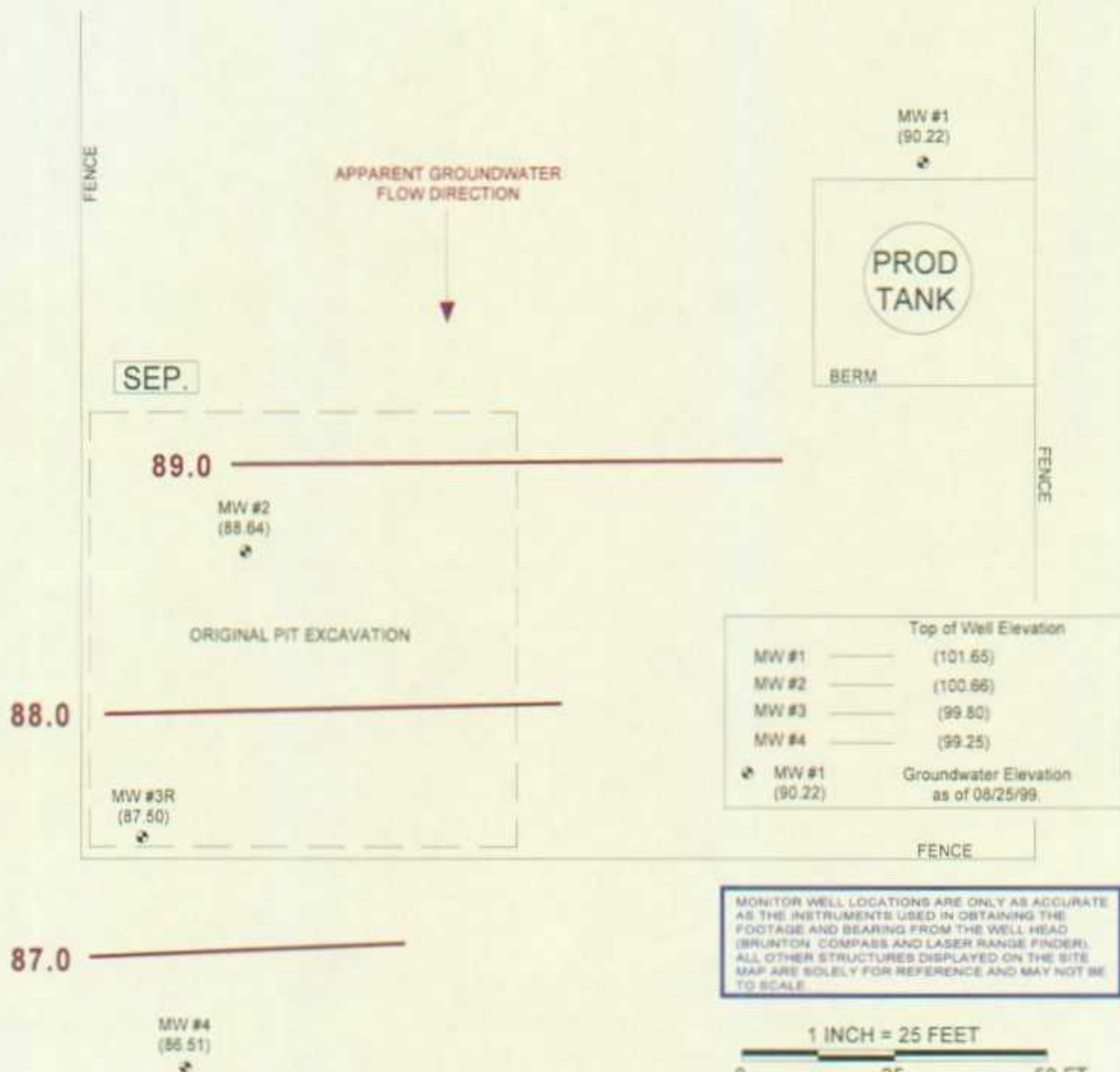
**SITE
MAP**

08/99

FIGURE 2
(3rd 1/4, 1999)



⊕ WELL
HEAD



MONITOR 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.

ROSS TIMBERS OPERATING COMPANY
BERGIN GC 1E
SE/4 NW/4 SEC. 21, T29N, R11W
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1139

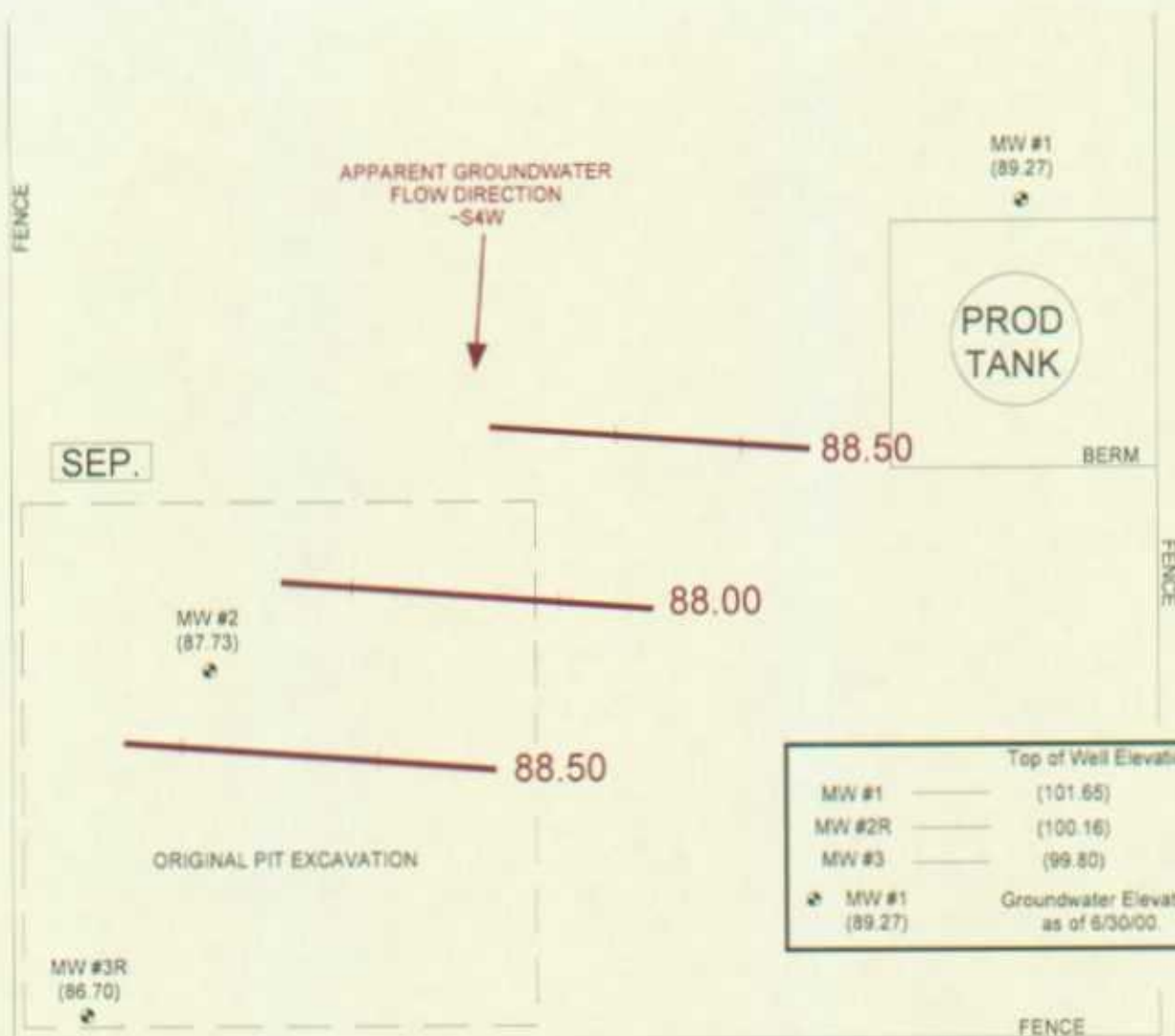
PROJECT: 1/4ly Monitoring
DRAWN BY: NJV
FILENAME: 08-25-99-GW-SKF
REVISED: 08/31/99 NJV

GROUNDWATER GRADIENT MAP
08/99

FIGURE 3
(2nd 1/4, 2000)



⊕ WELL
HEAD



Top of Well Elevation	
MW #1	(101.65)
MW #2R	(100.16)
MW #3	(99.80)
⊕ MW #1	Groundwater Elevation as of 6/30/00.

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

1 INCH = 25 FEET

0 25 50 FT.

CROSS TIMBERS OPERATING COMPANY

BERGIN GC 1E

SE/4 NW/4 SEC. 21, T29N, R11W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, Inc.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 832-1195

PROJECT: 1/4ly Monitoring

DRAWN BY: NJV

FILENAME: 06-30-00-GW.SKF

REVISED: 11/02/05 NJV

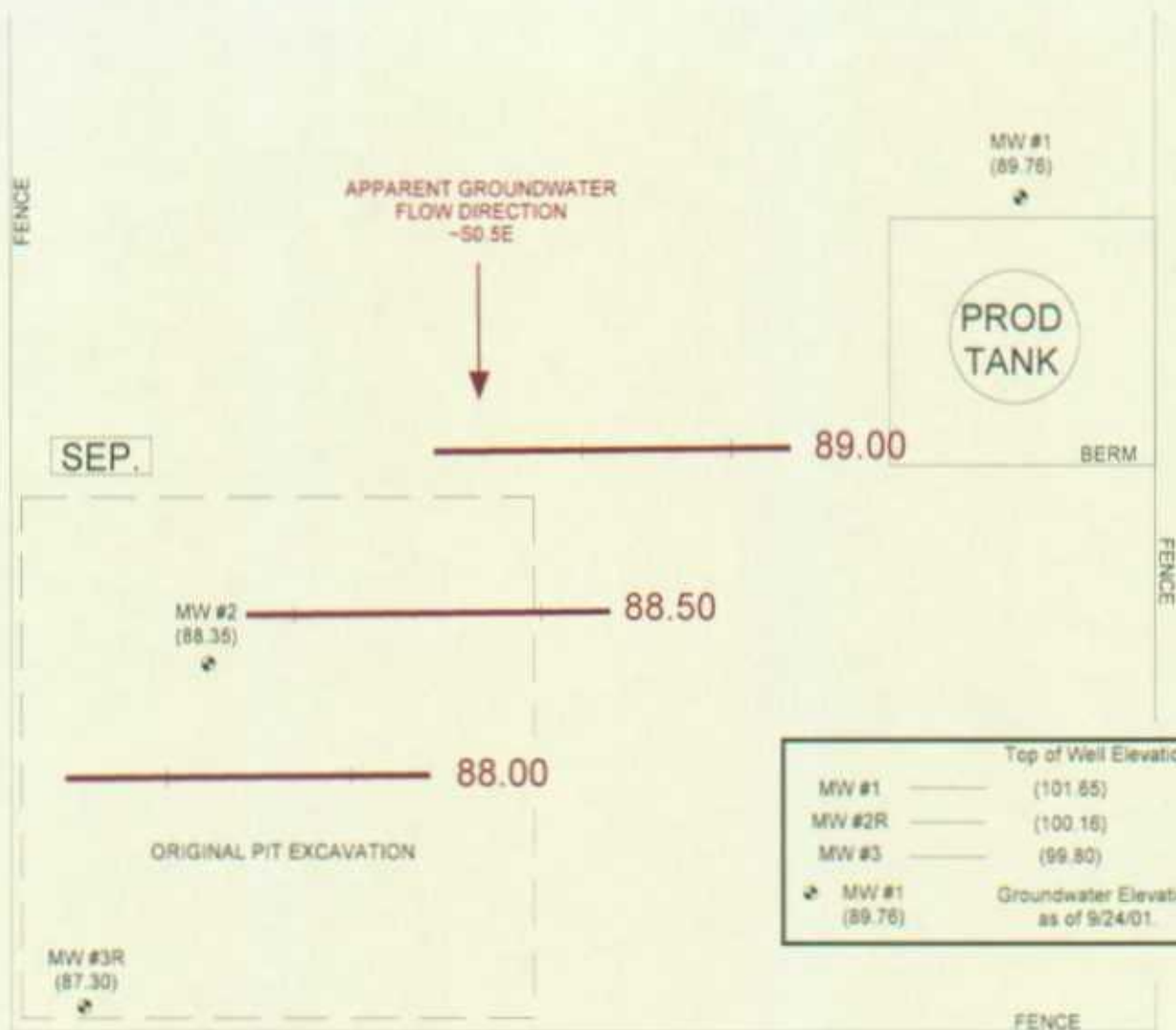
**GROUNDWATER
GRADIENT
MAP**

06/00

FIGURE 4
(3rd 1/4, 2001)



⊕ WELL
HEAD



Top of Well Elevation	
MW #1	(101.65)
MW #2R	(100.16)
MW #3	(99.80)
⊕ MW #1 (89.76)	Groundwater Elevation as of 9/24/01.

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

1 INCH = 25 FEET

0 25 50 FT.

ROSS TIMBERS OPERATING COMPANY
BERGIN GC 1E
SE4 NW14 SEC. 21, T29N, R11W
SAN JUAN COUNTY, NEW MEXICO

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

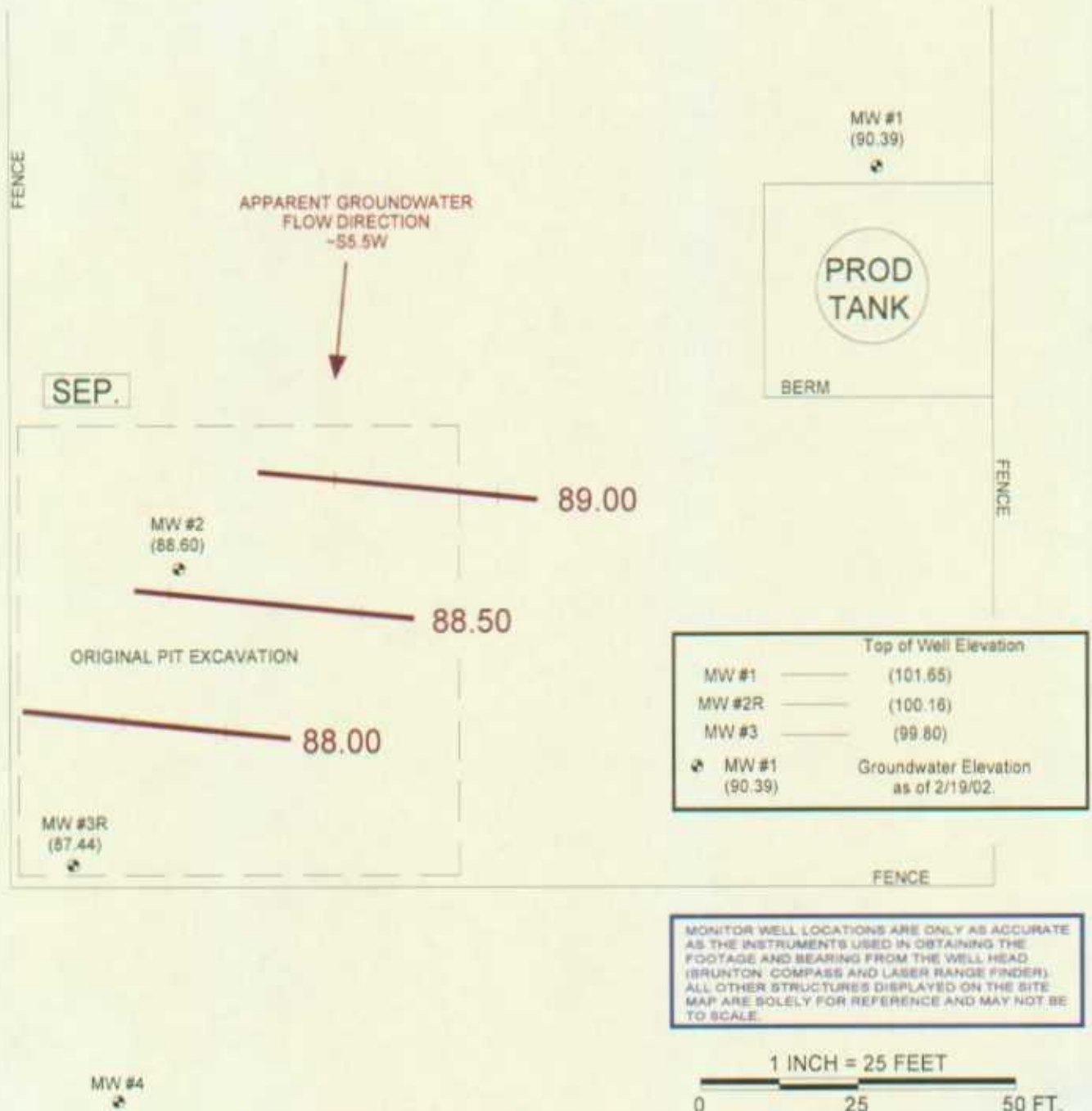
PROJECT: 1/4ly Monitoring
DRAWN BY: NJV
FILENAME: 09-24-01-GW.SKF
REVISED: 11/02/05 NJV

**GROUNDWATER
GRADIENT
MAP**
09/01

FIGURE 5
(1st 1/4, 2002)



⊕
WELL
HEAD



ROSS TIMBERS OPERATING COMPANY
BERGIN GC 1E
SE4 NW4 SEC. 21, T29N, R11W
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, Inc.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (888) 632-1199

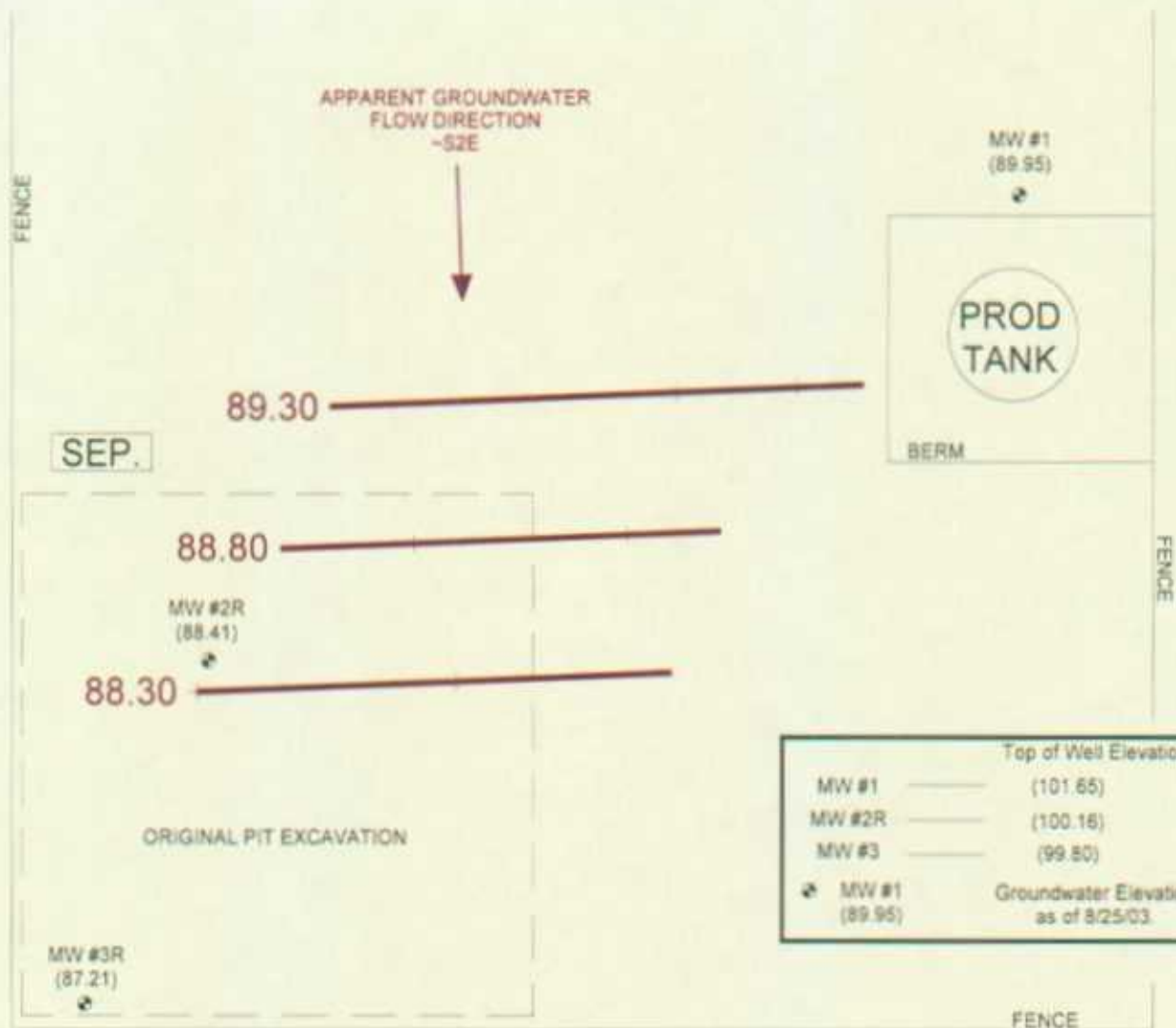
PROJECT: 1/4ly Monitoring
DRAWN BY: NJV
FILENAME: 02-19-02-GW-SKF
REVISED: 11/02/05 NJV

**GROUNDWATER
GRADIENT
MAP**
02/02

FIGURE 6
(3rd 1/4, 2003)



⊕ WELL
HEAD



Top of Well Elevation	
MW #1	(101.65)
MW #2R	(100.16)
MW #3	(99.80)
⊕ MW #1	Groundwater Elevation as of 8/25/03.
(89.95)	

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

1 INCH = 25 FEET

0 25 50 FT.

OSS TIMBERS OPERATING COMPANY

BERGIN GC 1E

SE1/4 NW1/4 SEC. 21, T29N, R11W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 822-1199

PROJECT: 1/4ly Monitoring

DRAWN BY: NJV

FILENAME: 08-25-03-GW SKF

REVISED: 11/02/05 NJV

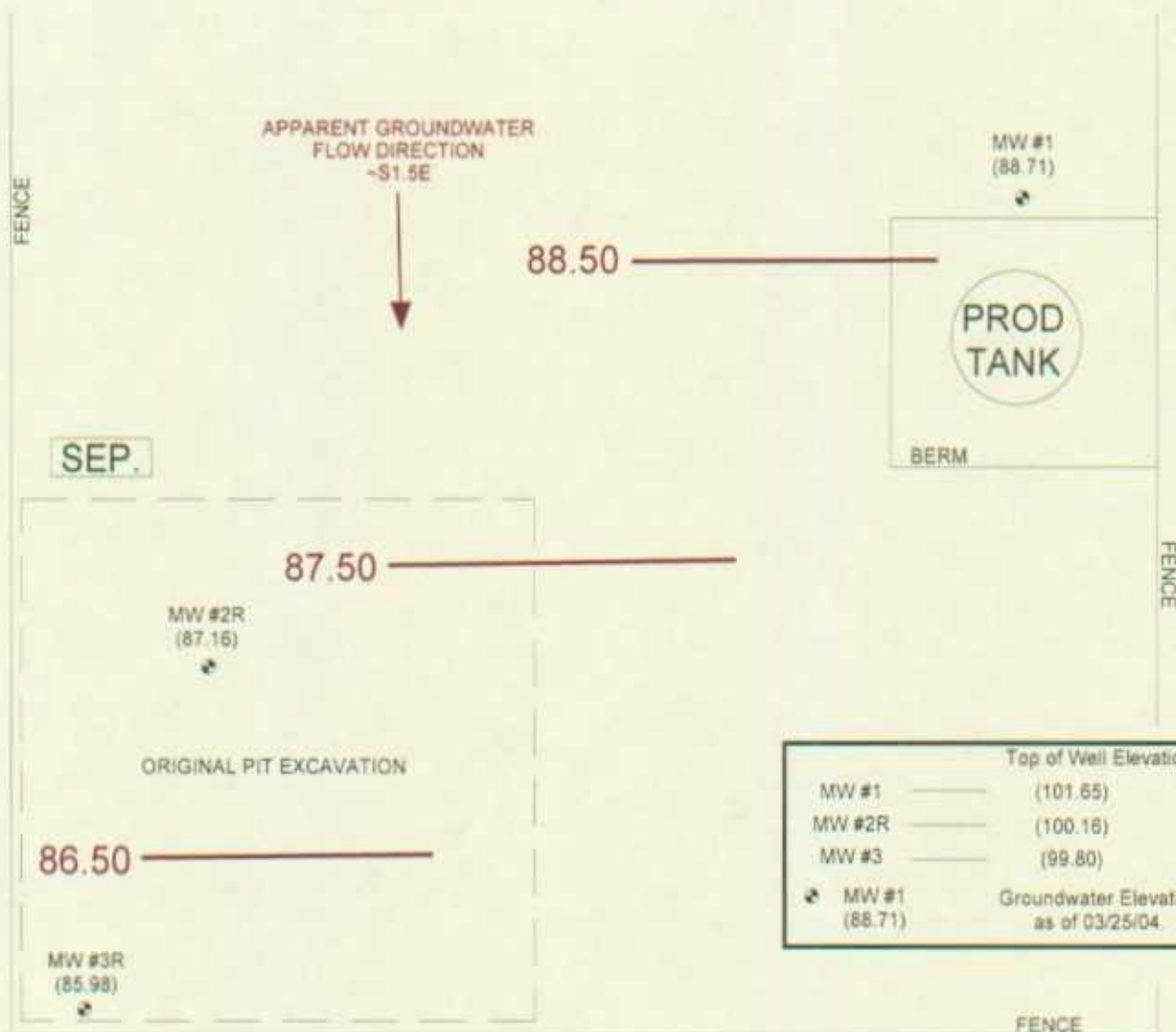
**GROUNDWATER
GRADIENT
MAP**

08/03

FIGURE 7
(1st 1/4, 2004)



⊕
WELL
HEAD



Top of Well Elevation	
MW #1	(101.65)
MW #2R	(100.16)
MW #3	(99.80)
⊕ MW #1 (88.71)	Groundwater Elevation as of 03/25/04.

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

1 INCH = 25 FEET

0 25 50 FT.

CROSS TIMBERS OPERATING COMPANY

BERGIN GC 1E

SE/4 NW/4 SEC. 21, T29N, R11W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 832-1155

PROJECT: 1/4ly Monitoring

DRAWN BY: NJV

FILENAME: 03-25-04-GW-SKF

REVISED: 11/02/05 NJV

**GROUNDWATER
GRADIENT
MAP**

03/04

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: BERGIN GC # 1E
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION: S33W, 159 FEET FROM WELL HEAD.

BORING #..... BH - 2R
MW #..... 2R
PAGE #..... 2A
DATE STARTED 6/10/03
DATE FINISHED 6/10/03
OPERATOR..... JCB
PREPARED BY NJV

DEPTH FEET	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	FIELD CLASSIFICATION AND REMARKS
				GROUND SURFACE
				TOP OF CASING APPROX. 2.00 FT. ABOVE GROUND SURFACE.
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.00 FT. ABOVE GROUND SURFACE.

DARK YELLOWISH BROWN SAND TO SILTY SAND, NON COHESIVE, SLIGHTLY MOIST TO SATURATED (BELOW 10 FT. BELOW GRADE), FIRM, NO APPARENT HYDROCARBON ODOR OBSERVED (0.0 - 20.0 FT. BELOW GRADE).

TOS 8.00

▼ GW DEPTH ON 6/27/03 = 9.74 FT. (APPROX.) FROM GROUND SURFACE.

TD 18.00

NOTES:

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

REMOVED MW #2 VIA MOBILE DRILL RIG, THEN UTILIZED CASING FOR MW #2R.

FIGURE 9

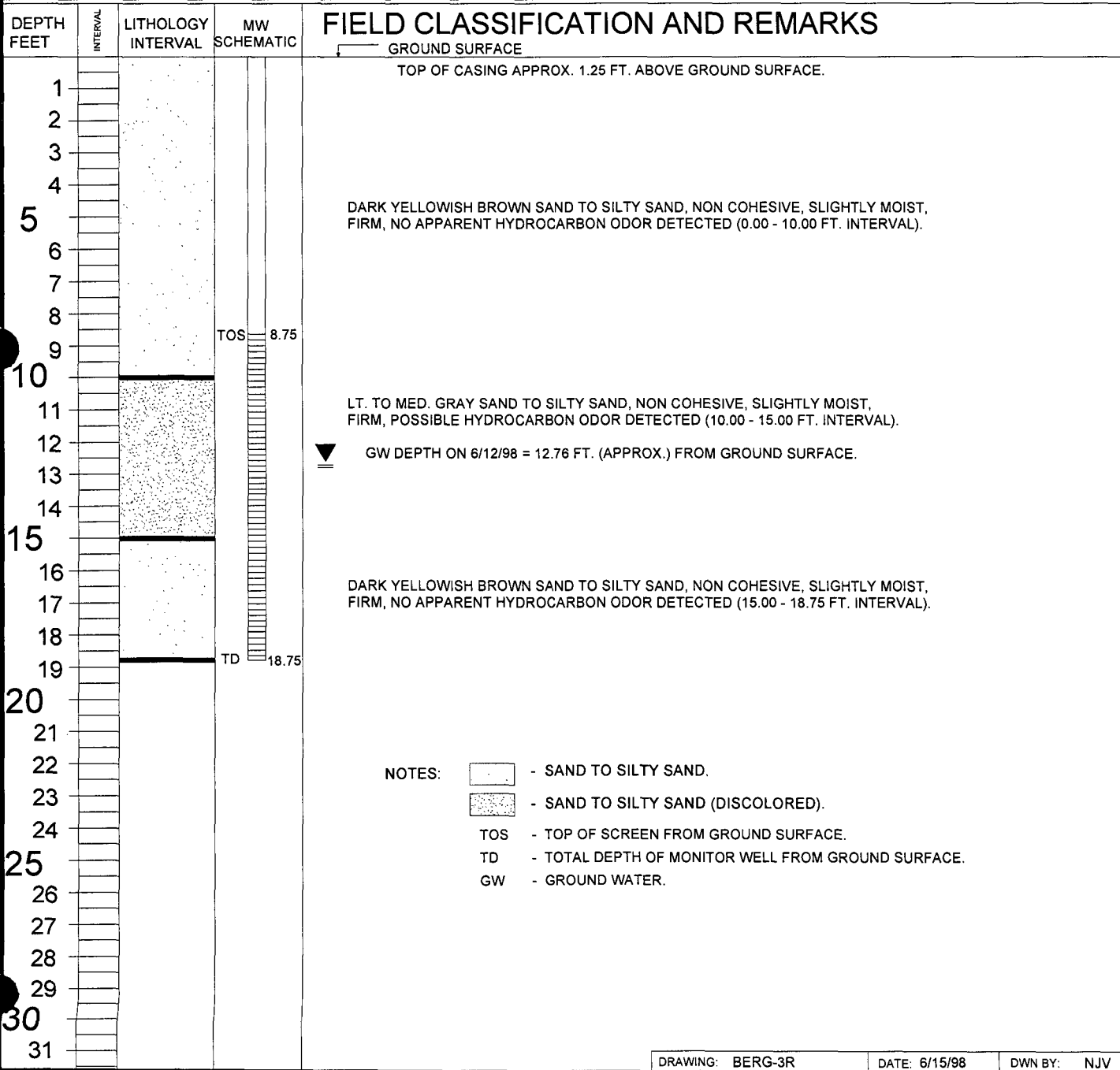
BLAGG ENGINEERING, Inc.

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

BORE / TEST HOLE REPORT

CLIENT: CROSS TIMBERS OIL COMPANY
LOCATION NAME: BERGIN GC # 1E
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION: S30W, 207 FEET FROM WELL HEAD.

BORING #..... BH - 3R
MW #..... 3R
PAGE #..... 3A
DATE STARTED 6/5/98
DATE FINISHED 6/5/98
OPERATOR..... JCB
PREPARED BY NJV



DRAWING: BERG-3R

DATE: 6/15/98

DWN BY: NJV

FIGURE 10

BLAGG ENGINEERING, Inc.

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

BORE / TEST HOLE REPORT

BORING #.....	BH - 4
MW #.....	4
PAGE #.....	4
DATE STARTED	11/26/97
DATE FINISHED	11/26/97
OPERATOR.....	JCB
PREPARED BY	NJV

CLIENT:	CROSS TIMBERS OIL COMPANY
LOCATION NAME:	BERGIN GC # 1E
CONTRACTOR:	BLAGG ENGINEERING, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION:	S24W, 237 FEET FROM WELL HEAD.

DEPTH FEET	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	FIELD CLASSIFICATION AND REMARKS
				GROUND SURFACE
				TOP OF CASING APPROX. 1.75 FT. ABOVE GROUND SURFACE.
1				
2				
3				
4				
5				DARK YELLOWISH BROWN SAND TO SILTY SAND, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED (0.00 - 20.00 FT. INTERVAL).
6				
7				
8			TOS 7.53	
9				▼ GW DEPTH ON 12/18/97 = 9.56 FT. (APPROX.) FROM GROUND SURFACE.
10				
11				
12				
13				
14				
15				
16				
17				
18			TD 17.53	
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

NOTES:

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

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : CROSS TIMBERS OIL CO.

CHAIN-OF-CUSTODY # : 6701

BERGIN GC # 1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

Date : August 25, 1999

SAMPLER : N J V

Filename : 08-25-99.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)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	101.65	90.22	11.43	15.00	-	-	-	-	-
2	100.66	88.64	12.02	15.00	0830	6.6	3,700	1.50	-
3	99.80	87.50	12.30	20.00	0815	7.1	1,900	3.75	-
4	99.25	86.51	12.74	17.53	0920	7.3	1,900	2.50	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft.}$ $h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft.}$ $h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

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

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Collected BTEX for MW #'s 3 & 4 . Collected chloride samples in MW #'s 2 & 3 .

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : CROSS TIMBERS OIL CO.

CHAIN-OF-CUSTODY # : 6941

BERGIN GC # 1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

Date : June 30, 2000

SAMPLER : N J V

Filename : 06-30-00.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)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	101.65	89.27	12.38	15.00	-	-	-	-	-
2	100.66	87.73	12.93	15.00	1030	6.8	3,000	1.00	-
3	99.80	86.70	13.10	20.00	1020	7.2	2,400	3.50	-
4	99.25		-	17.53	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft}$. $h = 1 \text{ ft}$.) (i.e. 4" MW $r = (2/12) \text{ ft}$. $h = 1 \text{ ft}$.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

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

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Collected chloride samples in MW #'s 2 & 3 .

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : CROSS TIMBERS OPER. CO.

CHAIN-OF-CUSTODY # : 8402

BERGIN GC # 1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

Date : May 17, 2001

SAMPLER : N J V

Filename : 05-17-01.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)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	101.65	89.25	12.40	15.00	-	-	-	-	-
2	100.66	88.25	12.41	15.00	1910	7.33	2,100	0.50	-
3	99.80	86.10	13.70	20.00	1610	7.07	2,000	1.50	-
4	99.25	-	-	17.53	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft. } h = 1 \text{ ft.}$ (i.e. 4" MW $r = (2/12) \text{ ft. } h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

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

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Collected chloride samples in MW #'s 2 & 3 . Very poor recovery in MW #2 , fair recovery in #3 .

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : XTO ENERGY, INC.

CHAIN-OF-CUSTODY # : 9428

BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

Date : Sept. 24, 2001

SAMPLER : N J V

Filename : 09-24-01.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)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	101.65	89.76	11.89	15.00	-	-	-	-	-
2	100.66	88.35	12.31	15.00	1455	6.87	2,200	0.75	-
3	99.80	87.30	12.50	20.00	-	-	-	-	-
4	99.25	-	-	17.53	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft.}$ $h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft.}$ $h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

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

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Collected chloride sample in MW # 2 only . Very poor recovery in MW # 2 .

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : XTO ENERGY, INC.

CHAIN-OF-CUSTODY # : 9441

73482

BERGIN GC # 1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

IML

Date : Nov. 28, 2001

SAMPLER : N J V

Filename : 11-28-01.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)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	101.65	91.16	10.49	15.00	-	-	-	-	-
2	100.66	89.51	11.15	15.00	1040	6.63	2,600	1.00	-
3	99.80	88.33	11.47	20.00	-	-	-	-	-
4	99.25	-	-	17.53	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft}$. $h = 1 \text{ ft}$.) (i.e. 4" MW $r = (2/12) \text{ ft}$. $h = 1 \text{ ft}$.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

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

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Collected chloride sample in MW # 2 only . Poor recovery in MW # 2 .

Bailed approx. 0.75 gallons @ time 0840 . Returned @ time 1035 ;

Depth to water measured @ 11.17 ft . , then sampled .

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : XTO ENERGY, INC.

CHAIN-OF-CUSTODY # : 9720

BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

Date : February 19, 2002

SAMPLER : N J V

Filename : 02-19-02.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)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	101.65	90.39	11.26	15.00	-	-	-	-	-
2	100.66	88.60	12.06	15.00	1330	6.94	2,200	0.75	-
3	99.80	87.44	12.36	20.00	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.

(i.e. 2" MW $r = (1/12) \text{ ft.}$ $h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft.}$ $h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

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

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 "

Collected chloride sample in MW # 2 only . Poor recovery in MW # 2 .

Bailed approx. 0.75 gallons @ time 1015 . Returned @ time 1327 ;

Depth to water measured @ 12.06 ft. , then sampled .

BLAGG ENGINEERING, INC.
MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : 9830

BERGIN GC # 1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

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	101.65	89.72	11.93	15.00	-	-	-	-	-
2R	100.16	88.42	11.74	20.00	0935	7.05	1,300	21.1	4.25
3	99.80	87.27	12.53	20.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =

7.00	2,800
06/27/03	06:45

DATE & TIME =

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft. } h = 1 \text{ ft.}$ (i.e. 4" MW $r = (2/12) \text{ ft. } h = 1 \text{ ft.}$)

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 "

Replaced MW # 2 with MW # 2R on 6/10/03 . 2 inch PVC - 10 ft. 0.010 slotted screen & 10 ft. casing .
Developed MW # 2R on 6/24/03 - excellent recovery . Collected chloride sample from MW # 2R only .

BLAGG ENGINEERING, INC.
MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : 11123

BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

Date : August 25, 2003

SAMPLER : N J V

Filename : 08-25-03.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	101.65	89.95	11.70	15.00	-	-	-	-	-
2R	100.16	88.41	11.75	20.00	1205	6.91	2,100	23.5	4.00
3	99.80	87.21	12.59	20.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =

DATE & TIME =

7.00	2,800
08/25/03	0910

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft. } h = 1 \text{ ft.}$ (i.e. 4" MW $r = (2/12) \text{ ft. } h = 1 \text{ ft.}$)

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 "

Replaced MW # 2 with MW # 2R on 6 / 10 / 03 . 2 inch PVC - 10 ft. 0.010 slotted screen & 10 ft. casing .
Developed MW # 2R on 6 / 24 / 03 - excellent recovery . Collected chloride sample from MW # 2R only .

BLAGG ENGINEERING, INC.
MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : 11143

BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

Date : November 14, 2003

SAMPLER : N J V

Filename : 11-14-03.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	101.65	90.42	11.23	15.00	-	-	-	-	-
2R	100.16	88.85	11.31	20.00	0833	7.03	2,400	12.0	4.25
3	99.80	87.67	12.13	20.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =

7.00 2,800

DATE & TIME =

11/11/03 0730

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft. } h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft. } h = 1 \text{ ft.}$)

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 "

Replaced MW # 2 with MW #2R on 6/10/03. 2 inch PVC - 10 ft. 0.010 slotted screen & 10 ft. casing.
Developed MW #2R on 6/24/03 - excellent recovery. Collected chloride sample from MW #2R only.

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : 11143

BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

Date : March 25, 2004

SAMPLER : N J V

Filename : 03-25-04.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	101.65	88.71	12.94	15.00	-	-	-	-	-
2R	100.16	87.16	13.00	20.00	1555	6.97	2,200	20.0	3.50
3R	99.80	85.98	13.82	20.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =

7.00 2,800

DATE & TIME =

03/25/04 1600

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft. } h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft. } h = 1 \text{ ft.}$)

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".

Replaced MW # 2 with MW # 2R on 6/10/03. 2 inch PVC - 10 ft. 0.010 slotted screen & 10 ft. casing.
Developed MW # 2R on 6/24/03 - excellent recovery. Collected chloride sample from MW # 2R only.

BLAGG ENGINEERING, INC.**MONITOR WELL SAMPLING DATA**CLIENT : **CROSS TIMBERS OIL CO.**

CHAIN-OF-CUSTODY # : 6701

**BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W**LABORATORY (S) USED : **ENVIROTECH, INC.**

Date : August 25, 1999

SAMPLER : NJV

Filename : 08-25-99.WK4

PROJECT MANAGER : NJV

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	101.65	90.22	11.43	15.00	-	-	-	-	-
2	100.66	88.64	12.02	15.00	0830	6.6	3,700	1.50	-
3	99.80	87.50	12.30	20.00	0815	7.1	1,900	3.75	-
4	99.25	86.51	12.74	17.53	0920	7.3	1,900	2.50	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$ (i.e. 2" MW $r = (1/12) \text{ ft. } h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft. } h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

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

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 "Collected BTEX for MW #'s 3 & 4 . Collected chloride samples in MW #'s 2 & 3 .

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW # 3	Date Reported:	08-27-99
Chain of Custody:	6701	Date Sampled:	08-25-99
Laboratory Number:	G000	Date Received:	08-26-99
Sample Matrix:	Water	Date Analyzed:	08-26-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	8.6	1	0.2
Toluene	2.3	1	0.2
Ethylbenzene	4.5	1	0.2
p,m-Xylene	21.0	1	0.2
o-Xylene	3.8	1	0.1
Total Xylene	24.8		
Total BTEX	40.2		

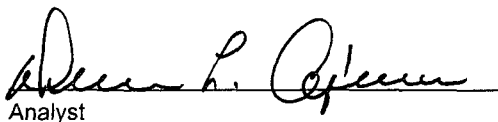
ND - Parameter not detected at the stated detection limit.

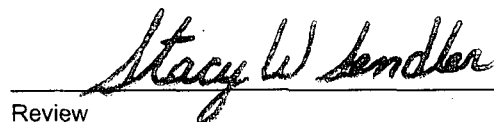
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	97 %
	Bromofluorobenzene	97 %

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

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: Bergin GC # 1E.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW # 4	Date Reported:	08-27-99
Chain of Custody:	6701	Date Sampled:	08-25-99
Laboratory Number:	G001	Date Received:	08-26-99
Sample Matrix:	Water	Date Analyzed:	08-26-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	3.1	1	0.2
Toluene	2.2	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	1.4	1	0.2
o-Xylene	0.3	1	0.1
Total Xylene	1.7		
Total BTEX	7.0		

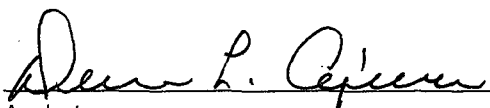
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	99 %
	Bromofluorobenzene	99 %

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

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: Bergin GC # 1E.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Total Chloride

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW # 2	Date Reported:	08-27-99
Lab ID#:	F999	Date Sampled:	08-25-99
Sample Matrix:	Water	Date Received:	08-26-99
Preservative:	Cool	Date Analyzed:	08-26-99
Condition:	Cool & Intact	Chain of Custody:	6701

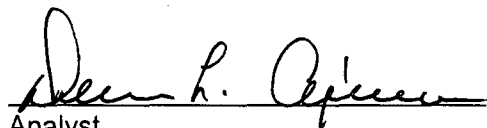
Parameter	Concentration (mg/L)
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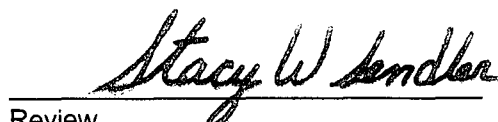
Total Chloride

632

Reference: Method 9077 Test Methods for Total Chlorine. USEPA SW-846, Sept. 1994.

Comments: Bergin GC # 1 E.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Total Chloride

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW # 3	Date Reported:	08-27-99
Lab ID#:	G000	Date Sampled:	08-25-99
Sample Matrix:	Water	Date Received:	08-26-99
Preservative:	Cool	Date Analyzed:	08-26-99
Condition:	Cool & Intact	Chain of Custody:	6701

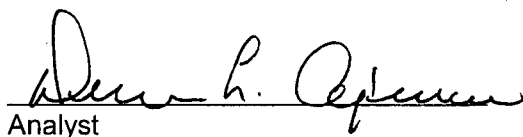
Parameter	Concentration (mg/L)
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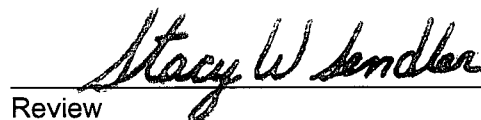
Total Chloride

35.7

Reference: Method 9077 Test Methods for Total Chlorine. USEPA SW-846, Sept. 1994.

Comments: Bergin GC # 1 E.


Analyst


Review

671

ENVIROTECH INC.

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	08-26-PM-BTEX QA/QC	Date Reported:	08-27-99
Laboratory Number:	F994	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-26-99
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	C-Cal RF	%Diff	Blank Conc	Detect Limit
		Accept. Range 0 - 15%			
Benzene	3.6219E-001	3.6335E-001	0.32%	ND	0.2
Toluene	2.7867E-002	2.7872E-002	0.02%	ND	0.2
Ethylbenzene	4.1931E-002	4.1981E-002	0.12%	ND	0.2
p,m-Xylene	3.6569E-002	3.6576E-002	0.02%	ND	0.2
o-Xylene	3.1955E-002	3.2051E-002	0.30%	ND	0.1

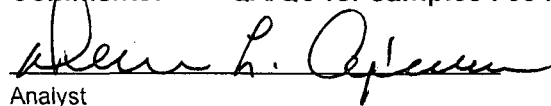
Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff	Accept Limit
Benzene	1.5	1.4	6.7%	0 - 30%
Toluene	2.1	2.0	4.8%	0 - 30%
Ethylbenzene	0.2	0.2	0.0%	0 - 30%
p,m-Xylene	2.8	2.8	0.0%	0 - 30%
o-Xylene	0.7	0.7	0.0%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	1.5	50.0	51.5	100%	39 - 150
Toluene	2.1	50.0	52.1	100%	46 - 148
Ethylbenzene	0.2	50.0	50.2	100%	32 - 160
p,m-Xylene	2.8	100.0	103	100%	46 - 148
o-Xylene	0.7	50.0	50.7	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

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

Comments: QA/QC for samples F994 - F998 and G000 - G004.


Analyst


Review

BLAGG ENGINEERING, INC.**MONITOR WELL SAMPLING DATA**CLIENT : CROSS TIMBERS OIL CO.CHAIN-OF-CUSTODY # : 6941

BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.Date : June 30, 2000SAMPLER : N J VFilename : 06-30-00.WK4PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	101.65	89.27	12.38	15.00	-	-	-	-	-
2	100.66	87.73	12.93	15.00	1030	6.8	3,000	1.00	-
3	99.80	86.70	13.10	20.00	1020	7.2	2,400	3.50	-
4	99.25		-	17.53	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.(i.e. 2" MW $r = (1/12) \text{ ft. } h = 1 \text{ ft.}$ (i.e. 4" MW $r = (2/12) \text{ ft. } h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

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

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 "Collected chloride samples in MW #'s 2 & 3 .

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Water Analysis

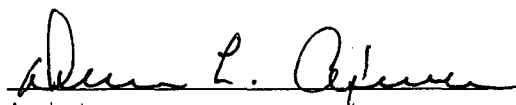
Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW # 2	Date Reported:	06-30-00
Laboratory Number:	H638	Date Sampled:	06-30-00
Sample Matrix:	Water	Date Received:	06-30-00
Preservative:	Cool	Date Analyzed:	06-30-00
Condition:	Cool & Intact	Chain of Custody:	6941

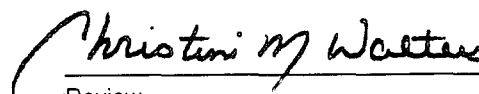
Parameter	Analytical Result	Units
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Chloride	32.0	mg/L
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Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Water And Waste Water", 18th ed., 1992.

Comments: **Bergin GC # 1E.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Water Analysis

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW # 3	Date Reported:	06-30-00
Laboratory Number:	H639	Date Sampled:	06-30-00
Sample Matrix:	Water	Date Received:	06-30-00
Preservative:	Cool	Date Analyzed:	06-30-00
Condition:	Cool & Intact	Chain of Custody:	6941

Parameter	Analytical Result	Units
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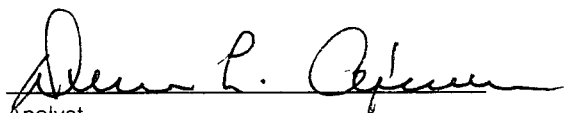
Chloride

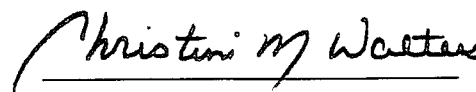
22.5

mg/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Water And Waste Water", 18th ed., 1992.

Comments: Bergin GC # 1E.


Analyst


Review

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ENVIROTECH INC.

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

BLAGG ENGINEERING, INC.**MONITOR WELL SAMPLING DATA**CLIENT : CROSS TIMBERS OPER. CO.CHAIN-OF-CUSTODY # : 8402

BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.Date : May 17, 2001SAMPLER : N J VFilename : 05-17-01.WK4PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	101.65	89.25	12.40	15.00	-	-	-	-	-
2	100.66	88.25	12.41	15.00	1910	7.33	2,100	0.50	-
3	99.80	86.10	13.70	20.00	1610	7.07	2,000	1.50	-
4	99.25	-	-	17.53	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.(i.e. 2" MW $r = (1/12) \text{ ft}$. $h = 1 \text{ ft}$.) (i.e. 4" MW $r = (2/12) \text{ ft}$. $h = 1 \text{ ft}$.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

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

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 "Collected chloride samples in MW #'s 2 & 3 . Very poor recovery in MW #2 , fair recovery in #3 .

ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

Total Chloride

Client:	Blagg / CTOC	Project #:	94034-010
Sample ID:	MW # 2	Date Reported:	05-18-01
Lab ID#:	19868	Date Sampled:	05-17-01
Sample Matrix:	Water	Date Received:	05-18-01
Preservative:	Cool	Date Analyzed:	05-18-01
Condition:	Cool and Intact	Chain of Custody:	8402

Parameter	Concentration (mg/L)
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Total Chloride

148

Reference: Method 9077 Test Methods for Total Chlorine. USEPA SW-846, Sept. 1994.

Comments: Bergin GC #1E.

Christine M. Waters
Analyst

Debra L. O'Brien
Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Total Chloride

Client:	Blagg / CTOC	Project #:	94034-010
Sample ID:	MW # 3R	Date Reported:	05-18-01
Lab ID#:	19869	Date Sampled:	05-17-01
Sample Matrix:	Water	Date Received:	05-18-01
Preservative:	Cool	Date Analyzed:	05-18-01
Condition:	Cool and Intact	Chain of Custody:	8402

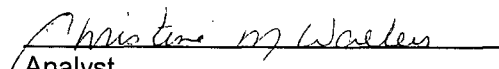
Parameter	Concentration (mg/L)
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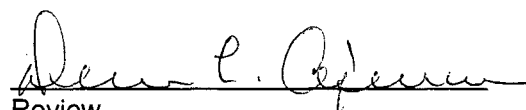
Total Chloride

4.2

Reference: Method 9077 Test Methods for Total Chlorine. USEPA SW-846, Sept. 1994.

Comments: Bergin GC #1E.


Analyst


Review

0840

[illegible]

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : XTO ENERGY, INC.

CHAIN-OF-CUSTODY # : 9428

BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

Date : Sept. 24, 2001

SAMPLER : N J V

Filename : 09-24-01.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)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	101.65	89.76	11.89	15.00	-	-	-	-	-
2	100.66	88.35	12.31	15.00	1455	6.87	2,200	0.75	-
3	99.80	87.30	12.50	20.00	-	-	-	-	-
4	99.25	-	-	17.53	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling; $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft.}$ $h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft.}$ $h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

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

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 "

Collected chloride sample in MW # 2 only . Very poor recovery in MW # 2 .

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Water Analysis

Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	MW # 2	Date Reported:	09-25-01
Laboratory Number:	21071	Date Sampled:	09-24-01
Sample Matrix:	Water	Date Received:	09-24-01
Preservative:	Cool	Date Analyzed:	09-25-01
Condition:	Cool & Intact	Chain of Custody:	9428

Parameter	Analytical Result	Units
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Chloride

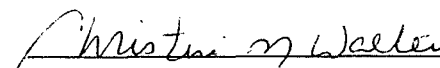
476

mg/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Bergin GC #1E.**


Analyst


Review

0942●

ENVIROTECH INC.

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

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : XTO ENERGY, INC.

CHAIN-OF-CUSTODY # : 9441

73482

BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

IML

Date : Nov. 28, 2001

SAMPLER : N J V

Filename : 11-28-01.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)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	101.65	91.16	10.49	15.00	-	-	-	-	-
2	100.66	89.51	11.15	15.00	1040	6.63	2,600	1.00	-
3	99.80	88.33	11.47	20.00	-	-	-	-	-
4	99.25	-	-	17.53	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.

(i.e. 2" MW $r = (1/12) \text{ ft. } h = 1 \text{ ft.}$ (i.e. 4" MW $r = (2/12) \text{ ft. } h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

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

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Collected chloride sample in MW # 2 only . Poor recovery in MW # 2 .

Bailed approx. 0.75 gallons @ time 0840 . Returned @ time 1035 ;

Depth to water measured @ 11.17 ft. , then sampled .

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

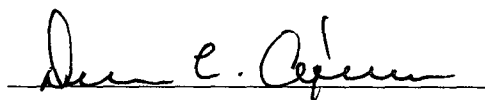
Water Analysis

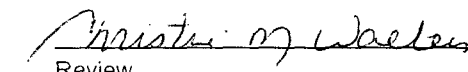
Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	MW #2	Date Reported:	11-28-01
Laboratory Number:	21561	Date Sampled:	11-28-01
Sample Matrix:	Water	Date Received:	11-28-01
Preservative:	Cool	Date Analyzed:	11-28-01
Condition:	Cool & Intact	Chain of Custody:	9441

Parameter	Analytical Result	Units
Chloride	36.8	mg/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Bergin GC #1E.


Analyst


Review

Client: Blagg Engineering, Inc.
Project: BERGIN GC#1E
Sample ID: MW#2
Lab ID: 0301W05006
Matrix: Water
Condition: Cool/Intact

Date Received: 11/28/01
Date Reported: 12/17/01
Date Sampled: 11/28/01
Time Sampled: 1040

Parameter	Analytical		Units	PQL	Method	Analysis		
	Result					Date	Time	Init.
Chloride	460		mg/L	5	EPA 300.0	12/06/01	1824	ZW

Reference: EPA - "Methods for Chemical Analysis of Water and Wastes (MCAWW)" - EPA/600/4-79-020 - March, 1983.

Reviewed By:





CHAIN OF CUSTODY RECORD

00757

094

[illegible]

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : XTO ENERGY, INC.

CHAIN-OF-CUSTODY # : 9720

BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

Date : February 19, 2002

SAMPLER : N J V

Filename : 02-19-02.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)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	101.65	90.39	11.26	15.00	-	-	-	-	-
2	100.66	88.60	12.06	15.00	1330	6.94	2,200	0.75	-
3	99.80	87.44	12.36	20.00	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.

(i.e. 2" MW $r = (1/12) \text{ ft}$. $h = 1 \text{ ft}$.) (i.e. 4" MW $r = (2/12) \text{ ft}$. $h = 1 \text{ ft}$.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

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

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Collected chloride sample in MW # 2 only . Poor recovery in MW # 2 .

Bailed approx. 0.75 gallons @ time 1015 . Returned @ time 1327 ;

Depth to water measured @ 12.06 ft . , then sampled .

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Total Chloride

Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	MW #2	Date Reported:	02-19-02
Lab ID#:	22062	Date Sampled:	02-19-02
Sample Matrix:	Water	Date Received:	02-19-02
Preservative:	Cool	Date Analyzed:	02-19-02
Condition:	Cool and Intact	Chain of Custody:	9720

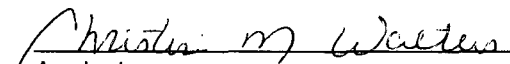
Parameter	Concentration (mg/L)
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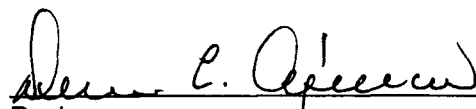
Total Chloride

304

Reference: Method 9077 Test Methods for Total Chlorine. USEPA SW-846, Sept. 1994.

Comments: Bergin GC #1E.


Analyst


Review

09720

ENVIROTECH INC.

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

BLAGG ENGINEERING, INC.
MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY, INC.

CHAIN-OF-CUSTODY # : 9830

**BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W**

LABORATORY (S) USED : ENVIROTECH, INC.

Date : June 27, 2003

SAMPLER : NJV

Filename : 06-27-03.WK4

PROJECT MANAGER : NJV

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	101.65	89.72	11.93	15.00	-	-	-	-	-
2R		-	11.74	20.00	0935	7.05	1,300	21.1	4.25
3	99.80	87.27	12.53	20.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =

7.00 2,800

DATE & TIME =

06/27/03 06:45

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft.}$ $h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft.}$ $h = 1 \text{ ft.}$)

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"

Replaced MW #2 with MW #2R on 6/10/03. 2 inch PVC - 10 ft. 0.010 slotted screen & 10 ft. casing.
Developed MW #2R on 6/24/03 - excellent recovery. Collected chloride sample from MW #2R only.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Total Chloride

Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	MW #2R	Date Reported:	06-27-03
Lab ID#:	26004	Date Sampled:	06-27-03
Sample Matrix:	Water	Date Received:	06-27-03
Preservative:	Cool	Date Analyzed:	06-27-03
Condition:	Cool and Intact	Chain of Custody:	9830

Parameter	Concentration (mg/L)
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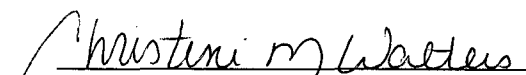
Total Chloride

26.8

Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Bergin GC #1E.


Analyst


Review

098

ENVIROTECH INC.

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

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : 11123

BERGIN GC # 1E - SEPARATOR PIT

LABORATORY (S) USED : ENVIROTECH, INC.

UNIT F, SEC. 21, T29N, R11W

Date : August 25, 2003

SAMPLER : N J V

Filename : 08-25-03.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	101.65	89.95	11.70	15.00	-	-	-	-	-
2R	100.16	88.41	11.75	20.00	1205	6.91	2,100	23.5	4.00
3	99.80	87.21	12.59	20.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =

7.00 2,800

DATE & TIME =

08/25/03 0910

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft}$. $h = 1 \text{ ft}$.) (i.e. 4" MW $r = (2/12) \text{ ft}$. $h = 1 \text{ ft}$.)

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 "

Replaced MW # 2 with MW # 2R on 6 / 10 / 03 . 2 inch PVC - 10 ft. 0.010 slotted screen & 10 ft. casing
Developed MW # 2R on 6 / 24 / 03 - excellent recovery . Collected chloride sample from MW # 2R only .

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Total Chloride

Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	MW #2R	Date Reported:	08-26-03
Lab ID#:	26424	Date Sampled:	08-25-03
Sample Matrix:	Water	Date Received:	08-26-03
Preservative:	Cool	Date Analyzed:	08-26-03
Condition:	Cool and Intact	Chain of Custody:	11123

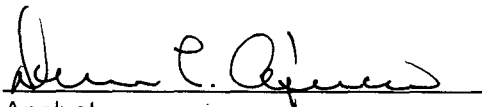
Parameter	Concentration (mg/L)
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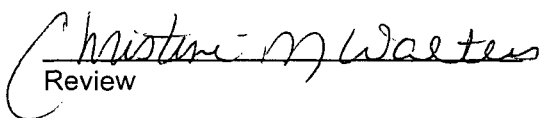
Total Chloride

17.6

Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Bergin GC #1E.


Analyst


Review

11123

[illegible]

BLAGG ENGINEERING INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : 11143

BERGIN GC # 1E - SEPARATOR PIT

LABORATORY (S) USED : ENVIROTECH, INC.

UNIT F, SEC. 21, T29N, R11W

Date : November 14, 2003

SAMPLER : N J V

Filename : 11-14-03.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	101.65	90.42	11.23	15.00	-	-	-	-	-
2R	100.16	88.85	11.31	20.00	0833	7.03	2,400	12.0	4.25
3	99.80	87.67	12.13	20.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =

7.00 2,800

DATE & TIME =

11/11/03 0730

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
 (i.e. 2" MW $r = (1/12) \text{ ft.}$ $h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft.}$ $h = 1 \text{ ft.}$)

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"

Replaced MW # 2 with MW # 2R on 6/10/03. 2 inch PVC - 10 ft. 0.010 slotted screen & 10 ft. casing.
Developed MW # 2R on 6/24/03 - excellent recovery. Collected chloride sample from MW # 2R only.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Total Chloride

Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	MW #2R	Date Reported:	11-14-03
Lab ID#:	27220	Date Sampled:	11-14-03
Sample Matrix:	Water	Date Received:	11-14-03
Preservative:	Cool	Date Analyzed:	11-14-03
Condition:	Cool and Intact	Chain of Custody:	11143

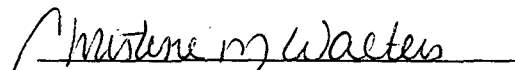
Parameter	Concentration (mg/L)
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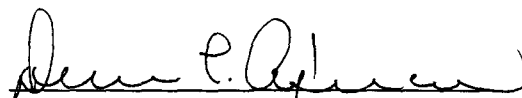
Total Chloride

10.0

Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Bergin GC #1E Grab Sample.


Analyst


Review

100

ENVIROTECH INC.

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

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY, INC.

CHAIN-OF-CUSTODY # : 11143

**BERGIN GC #1E - SEPARATOR PIT
UNIT F, SEC. 21, T29N, R11W**

LABORATORY (S) USED : ENVIROTECH, INC.

Date : March 25, 2004

SAMPLER : N J V

Filename : 03-25-04.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	101.65	88.71	12.94	15.00	-	-	-	-	-
2R	100.16	87.16	13.00	20.00	1555	6.97	2,200	20.0	3.50
3R	99.80	85.98	13.82	20.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =

DATE & TIME =

7.00	2,800
03/25/04	1600

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft.}$ $h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft.}$ $h = 1 \text{ ft.}$)

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"

Replaced MW #2 with MW #2R on 6/10/03. 2 inch PVC - 10 ft. 0.010 slotted screen & 10 ft. casing.
Developed MW #2R on 6/24/03 - excellent recovery. Collected chloride sample from MW #2R only.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Total Chloride

Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	MW #2R	Date Reported:	03-29-04
Lab ID#:	28224	Date Sampled:	03-25-04
Sample Matrix:	Water	Date Received:	03-26-04
Preservative:	Cool	Date Analyzed:	03-29-04
Condition:	Cool and Intact	Chain of Custody:	11675

Parameter

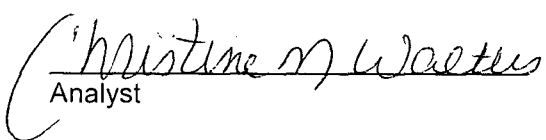
Concentration (mg/L)

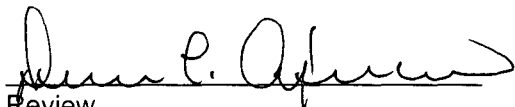
Total Chloride

10.4

Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Bergin GC #1E Grab Sample.


Analyst


Review

ENVIROTECH INC.

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