

3R - 124

REPORTS

DATE:

2005



3R0124

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January 30, 2006

JAN 31 2006

Mr. Glenn von Gonten
Hydrologist – Groundwater Remediation
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Oil Conservation Division
Environmental

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

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XTO ENERGY INC. Oil Conservation Division
Environmental Bureau

ANNUAL GROUNDWATER REMEDIATION REPORT

2005

**ROWLAND GC #1
(P) SECTION 25, T30N, R12W, 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.
Rowland GC # 1 - Separator & Production Tank Pits
SE/4 SE/4 Sec. 25, T30N, R12W

Pit Closure Date: 8/2-3/93

Monitor Well Installation Dates: 5/30/96-6/3/96, 6/17/97, 6/19/98

Monitor Well Sampling Dates: 6/14/96, 6/24/97, 6/26/98, 5/26/99, 6/30/2000, 5/16/01, 9/25/01, 12/19/01, 2/19/02, 6/26/02, 6/30/03, 6/21/04, 6/27/05

Historical Information:

- June 1996 - Evidence of groundwater impacts were discovered by Amoco Production Company during closure of below grade production pits (Figure 1). Remediation of impacted soils and groundwater via excavation was immediately conducted and monitor wells were installed to assess potential impacts to groundwater.
- January 1998 - XTO Energy Inc. (XTO) acquires the Rowland GC #1 from Amoco Production Company.
- January 1998 to Present – Continued quarterly and/or annual monitoring conducted to assess water quality.

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 and 2. 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 trends east to south-east and is likely influenced by a nearby irrigation ditch located immediately west of the location (Figures 2 - 6).

Analytical data from groundwater sampling, summarized in Tables 1 and 2, suggests BTEX constituents are restricted to one monitoring well. A steady state condition is apparent with naturally attenuating hydrocarbon levels. Monitor wells numbered MW 1, 2, 3 and 6 have shown no detectable levels or trace levels of hydrocarbons since the wells were installed. Laboratory analysis of groundwater from MW 4 has been below equipment detection levels since June 2000. Analytical data from up-gradient monitor well MW 5 indicates elevated levels of hydrocarbons that exceed the NMWQCC closure standards.

Summary:

Pursuant to the NMOCD approved groundwater management plan, XTO respectfully requests sampling termination of BTEX in all monitor wells except well MW 5. XTO recommends annual testing of monitor well MW 5 until the groundwater is naturally attenuated below closure standards. MW 5 is located up-gradient of the impacted areas addressed by the operator. It is possible an additional source associated with gas purchasers meter house (a historical dehydrator unit with an associated pit) may have been used. The gas purchaser should be notified that impacts to groundwater may potentially be present in the area of the purchasers meter house.

TABLE 1

XTO ENERGY INC. GROUNDWATER LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

ROWLAND GC #1 - PROD. TANK & SEP. PITS
UNIT P, SEC. 25, T30N, R12W

REVISED DATE: JANUARY 12, 2006

FILENAME: (RW-2Q-05.WK4) NJV

SAMPLE DATE	WELL NAME or No.	D.T.W. (ft)	T.D. (ft)	TDS (mg/L)	COND. umhos	pH	PRODUCT (ft)	BTEX EPA METHOD 8021B (ppb)			
								Benzene	Toluene	Ethyl Benzene	Total Xylene
14-Jun-96	MW #1	16.11	25.00	19,200	10,200	7.5		ND	ND	ND	ND
14-Jun-96	MW #2	15.44	20.00	6,790	5,200	6.9		ND	1.19	ND	3.41
26-May-99		15.30		9,200	18,500	7.4		NA	NA	NA	NA
14-Jun-96	MW #3	14.39	20.00	2,740	2,600	6.7		ND	ND	ND	ND
26-May-99		15.29		1,550	3,200	7.1		NA	NA	NA	NA
30-Jun-00		15.51			2,400	7.1		ND	ND	ND	ND
14-Jun-96	MW #4	13.72	19.00	12,000	8,500	6.90		94.3	2.71	ND	106.4
24-Jun-97		14.02	19.00		6,800	6.90		44.7	0.5	0.4	3.0
26-Jun-98	MW #4R	11.52	19.09		1,700	6.7		13.4	ND	ND	0.6
26-May-99		11.28		1,110	2,250	7.1		16.4	0.9	2.1	72.2
30-Jun-00		11.69			1,900	7.0		ND	ND	ND	ND
16-May-01		13.07			2,000	7.08		ND	ND	ND	ND
25-Sep-01		11.81			1,500	6.85		ND	ND	ND	ND
19-Dec-01		12.66			1,600	6.89		ND	ND	ND	ND
19-Feb-02		13.97			1,600	7.01		ND	ND	ND	ND
14-Jun-96	MW #5	10.40	16.90	972	1,700	6.9		25.4	732	953	9,070
24-Jun-97		10.27	15.00		2,600	7.0		58.8	2.5	2.8	6,290
26-Jun-98		10.34	15.00		1,900	6.9		1,270	89	41.4	3,200
26-May-99		10.03		1,016	2,050	7.5		174	129	252	990
30-Jun-00		10.78			1,900	7.5		38	6.4	750	6,390
16-May-01		12.52			1,500	7.51		49	34	700	4,480
26-Jun-02		10.87			1,700	7.69		84	ND	630	3,460
30-Jun-03		10.96			1,100	7.24		51	ND	420	2,600
21-Jun-04		9.85			1,800	7.24		39	19	490	1,200
27-Jun-05		9.32			1,500	7.13		18	44	420	1,900
24-Jun-97	MW #6	15.55	25.00	8,390	5,100	7.6		ND	0.6	0.5	5.4
26-May-99		15.79		10,200	20,420	7.7		NA	NA	NA	NA
30-Jun-00		15.90			6,200	7.7		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.

TABLE 2

GENERAL WATER QUALITY

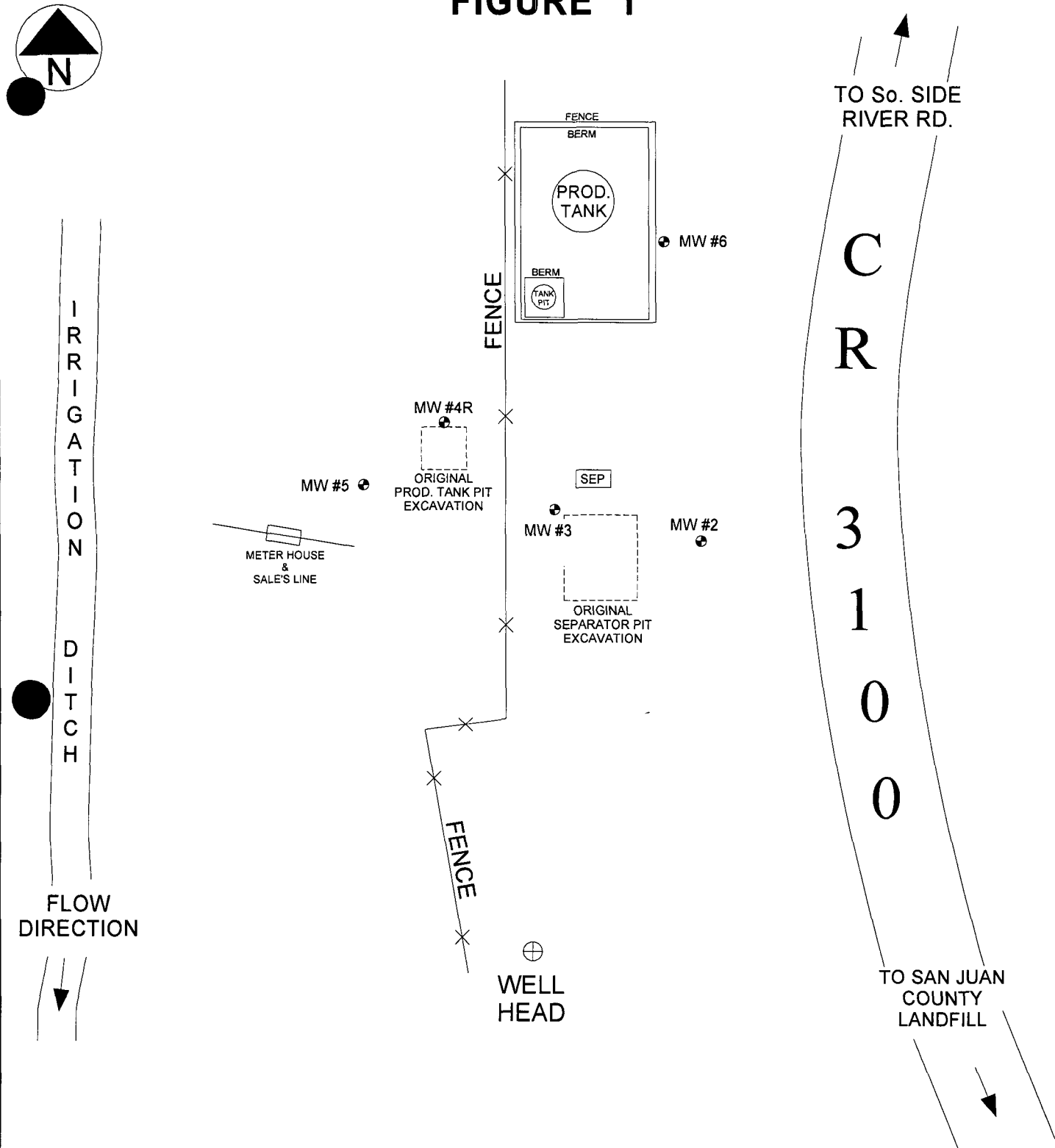
XTO ENERGY INC.

ROWLAND GC # 1

SAMPLE DATE : MAY 26, 1999

PARAMETERS	MW # 2	MW # 3	MW # 4R	MW # 5	MW # 6	Units
LAB pH	7.35	7.11	7.06	7.52	7.67	s. u.
LAB CONDUCTIVITY @ 25 C	18,500	3,200	2,250	2,050	20,420	umhos / cm
TOTAL DISSOLVED SOLIDS @ 180 C	9,200	1,550	1,110	1,016	10,200	mg / L
TOTAL DISSOLVED SOLIDS (Calc)	9,111	1,480	1,076	1,010	10,026	mg / L
SODIUM ABSORPTION RATIO	34.8	5.3	2.7	0.2	30.6	ratio
TOTAL ALKALINITY AS CaCO ₃	536	496	576	880	352	mg / L
TOTAL HARDNESS AS CaCO ₃	1,048	560	584	872	1,456	mg / L
BICARBONATE as HCO ₃	536	496	576	880	352	mg / L
CARBONATE AS CO ₃	< 1	< 1	< 1	< 1	< 1	mg / L
HYDROXIDE AS OH	< 1	< 1	< 1	< 1	< 1	mg / L
NITRATE NITROGEN	190	6.6	0.4	0.3	220	mg / L
NITRITE NITROGEN	0.214	0.083	0.027	0.016	0.940	mg / L
CHLORIDE	644	188	160	112	560	mg / L
FLUORIDE	1.43	0.48	0.67	0.36	1.54	mg / L
PHOSPHATE	0.5	0.7	0.1	2.0	0.4	mg / L
SULFATE	4,980	490	200	21.0	5800	mg / L
IRON	0.001	0.017	0.003	0.519	0.012	mg / L
CALCIUM	298	160	179	285	477	mg / L
MAGNESIUM	74.2	39.1	33.2	39.1	64.5	mg / L
POTASSIUM	7.5	4.0	3.0	1.1	7.5	mg / L
SODIUM	2590	290	150	14.8	2680	mg / L
CATION / ANION DIFFERENCE	0.03	0.54	0.56	0.02	0.07	%

FIGURE 1



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.

ONE INCH = 50 FEET

0 50 100 FT.

XTO ENERGY INC.

ROWLAND GC #1

NE/4 NW/4 SEC. 25, T30N. R12W, 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

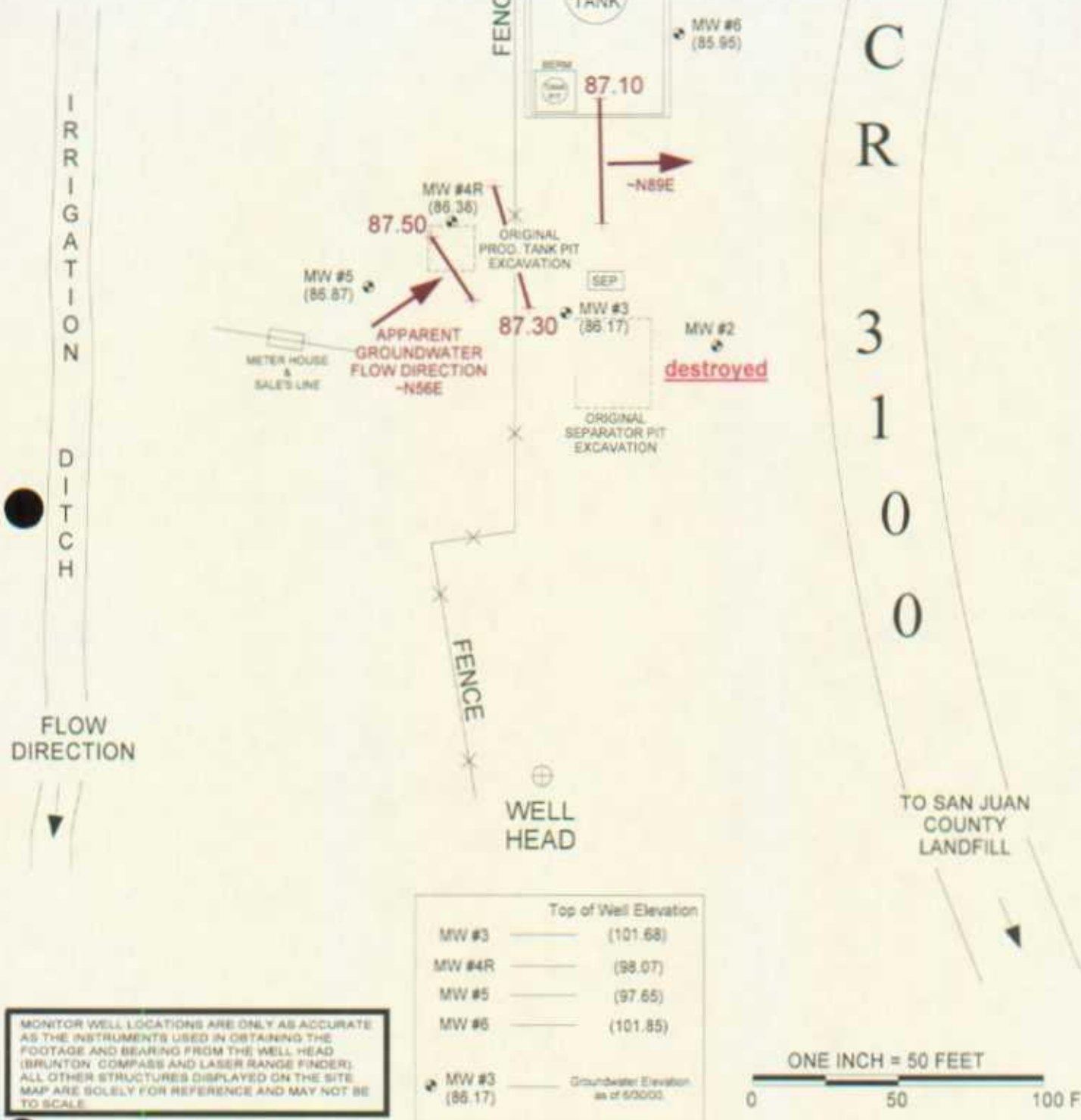
FILENAME: 05-26-99-SM.SKF

REVISED: 10/14/05 NJV

**SITE
MAP**

05/99

FIGURE 2
(2nd 1/4, 2000)



XTO ENERGY INC.

ROWLAND GC #1

NE/4 NW/4 SEC. 25, T30N. R12W, NMPM

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 832-1199

PROJECT: MW SAMPLING

DRAWN BY: NJV

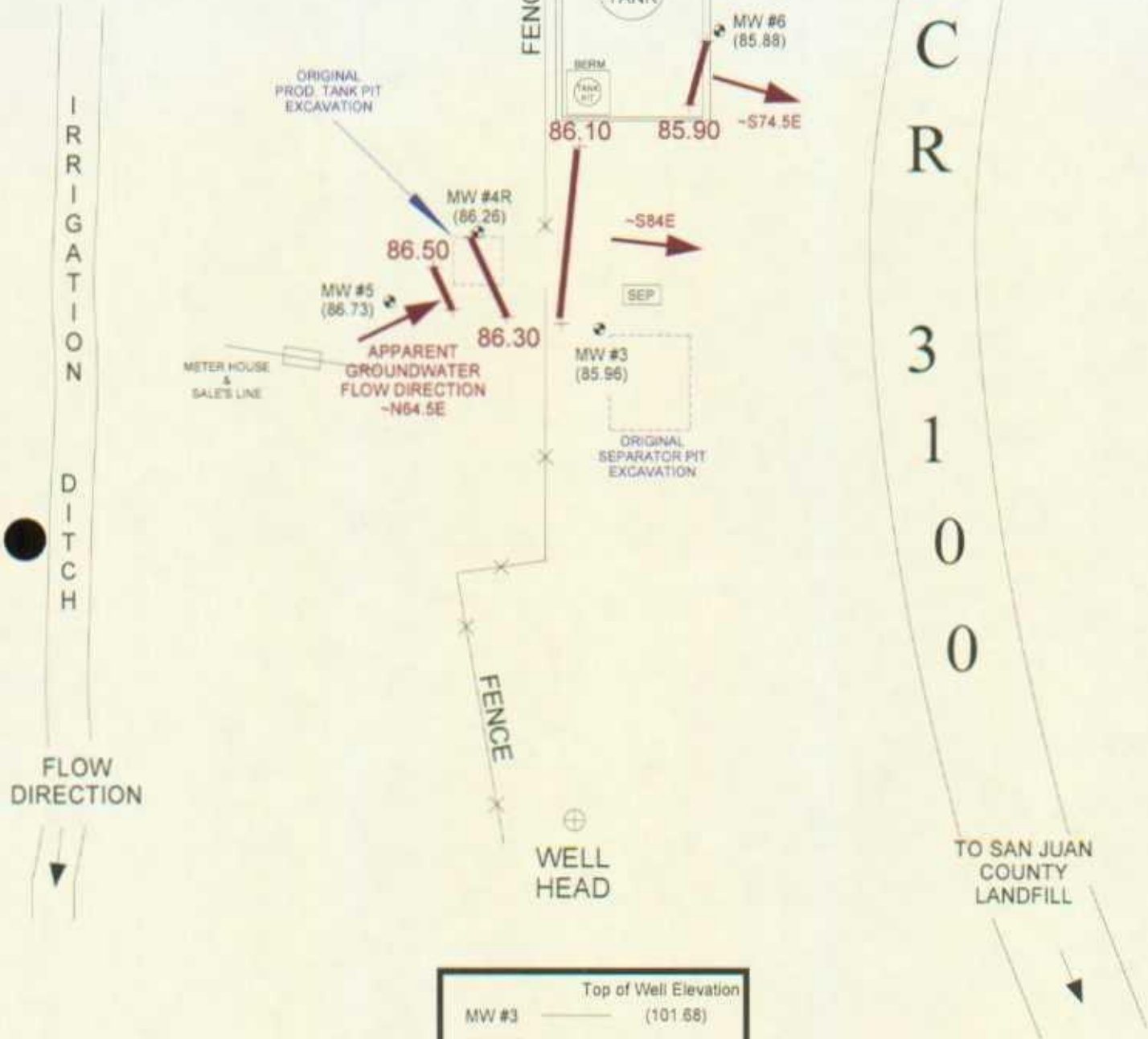
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REVISED: 10/15/05 NJV

**GROUNDWATER
GRADIENT
MAP**

05/99

FIGURE 3
(3rd 1/4, 2001)



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.

Top of Well Elevation	
MW #3	(101.68)
MW #4R	(98.07)
MW #5	(97.65)
MW #6	(101.85)
MW #3 (85.96)	Groundwater Elevation as of 9/25/01

ONE INCH = 50 FEET

0 50 100 FT.

XTO ENERGY INC.

ROWLAND GC #1

NE/4 NW/4 SEC. 25, T30N, R12W, NMPM
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1189

PROJECT: MW SAMPLING

DRAWN BY: NJV

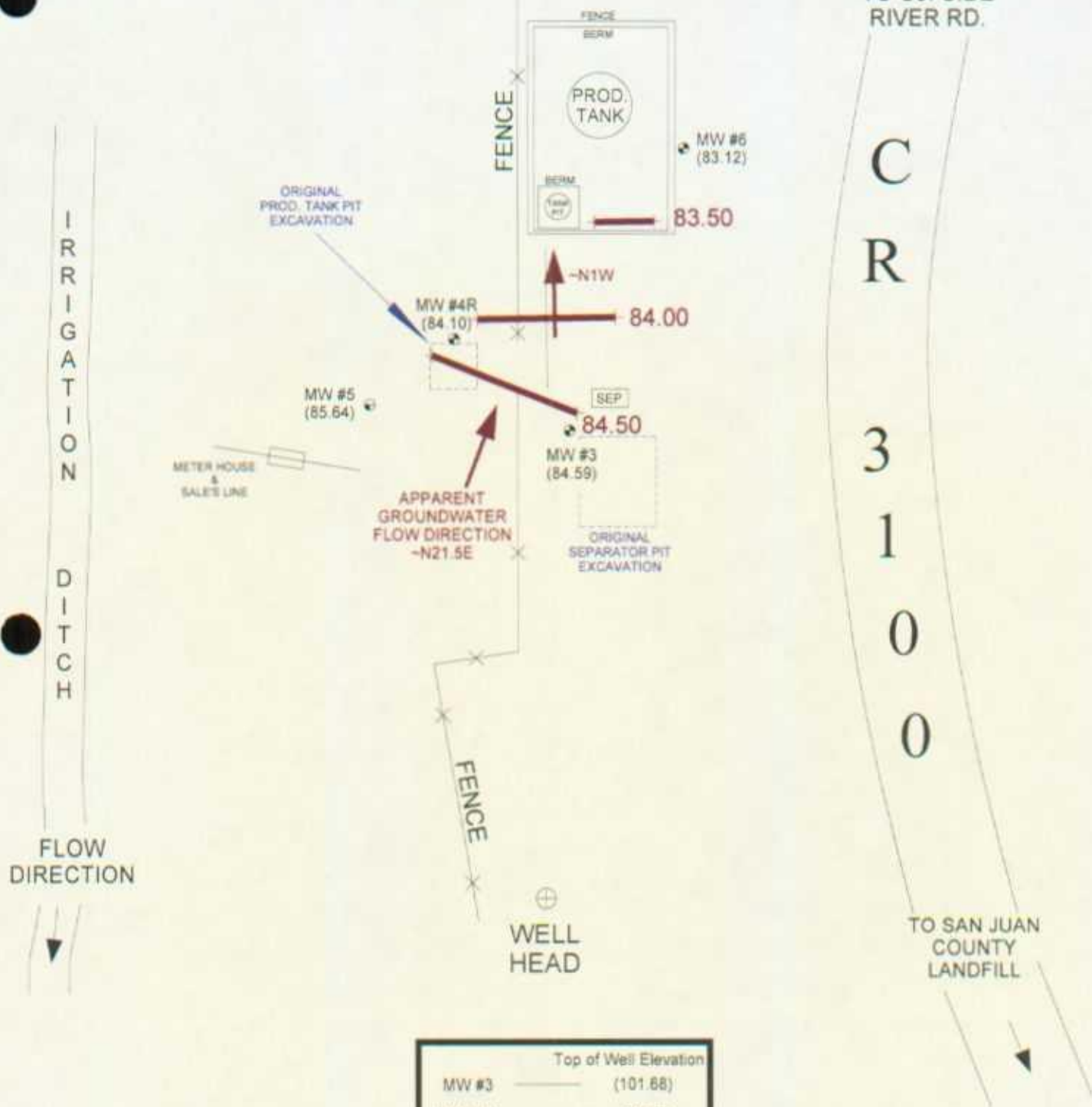
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REVISED: 10/15/05 NJV

**GROUNDWATER
GRADIENT
MAP**

09/01

FIGURE 4
(1st 1/4, 2002)



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

Top of Well Elevation	
MW #3	(101.68)
MW #4R	(98.07)
MW #5	(97.65)
MW #6	(101.85)
MW #3 (84.59)	Groundwater Elevation as of 2/19/02

ONE INCH = 50 FEET

0 50 100 FT.

XTO ENERGY INC.

ROWLAND GC #1

NE 1/4 NW 1/4 SEC. 25, T30N, R12W, NMPM

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413

PHONE: (808) 832-1198

PROJECT: MW SAMPLING

DRAWN BY: NJV

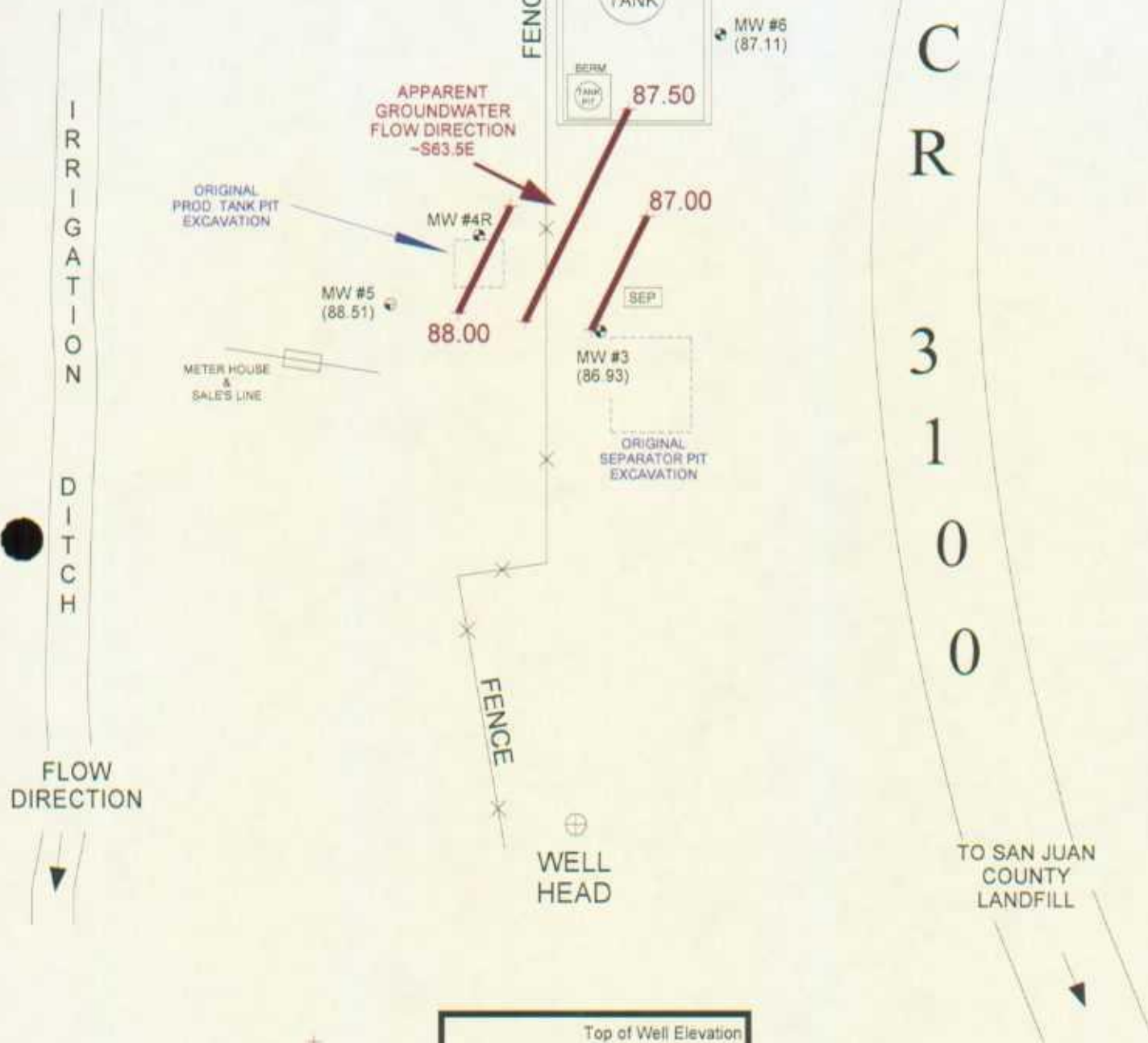
FILENAME: 02-19-02-GW-SKF

REVISED: 10/15/05 NJV

**GROUNDWATER
GRADIENT
MAP**

02/02

FIGURE 5
(2nd 1/4, 2003)



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.

Top of Well Elevation	
MW #3	(101.68)
MW #5	(97.65)
MW #6	(101.85)
MW #3 (86.93)	Groundwater Elevation as of 6/27/03

ONE INCH = 50 FEET

0 50 100 FT.

XTO ENERGY INC.

ROWLAND GC #1

NE/4 NW/4 SEC. 25, T30N. R12W, NMPM

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 833-1199

PROJECT: MW SAMPLING

DRAWN BY: NJV

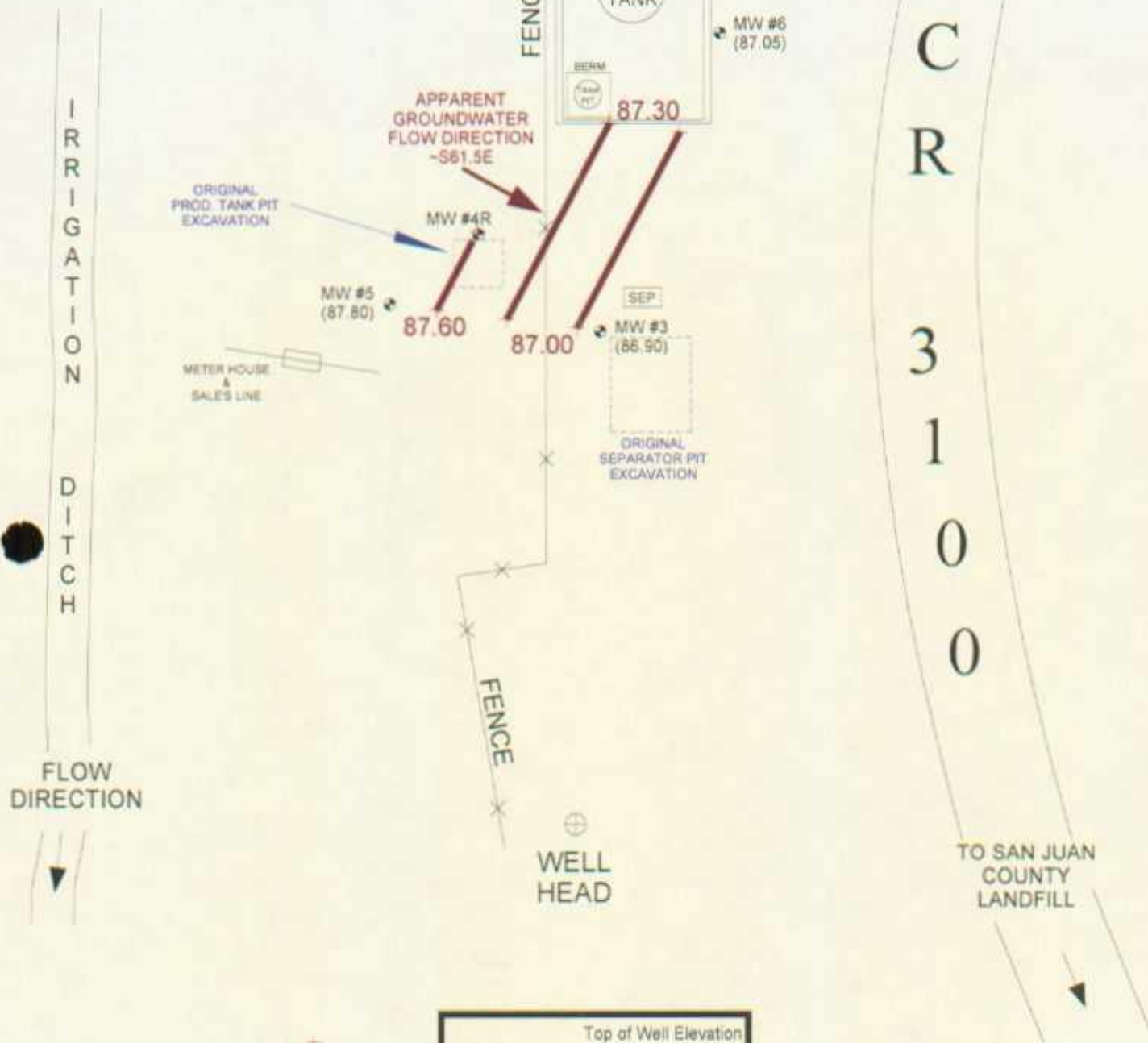
FILENAME: 06-27-03-GW.SKF

REVISED: 10/15/05 NJV

**GROUNDWATER
GRADIENT
MAP**

06/03

FIGURE 6
(2nd 1/4, 2004)



XTO ENERGY INC.

ROWLAND GC #1

NE/4 NW/4 SEC. 25, T30N, R12W, NMPM

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 822-1111

PROJECT: MW SAMPLING

DRAWN BY: NJV

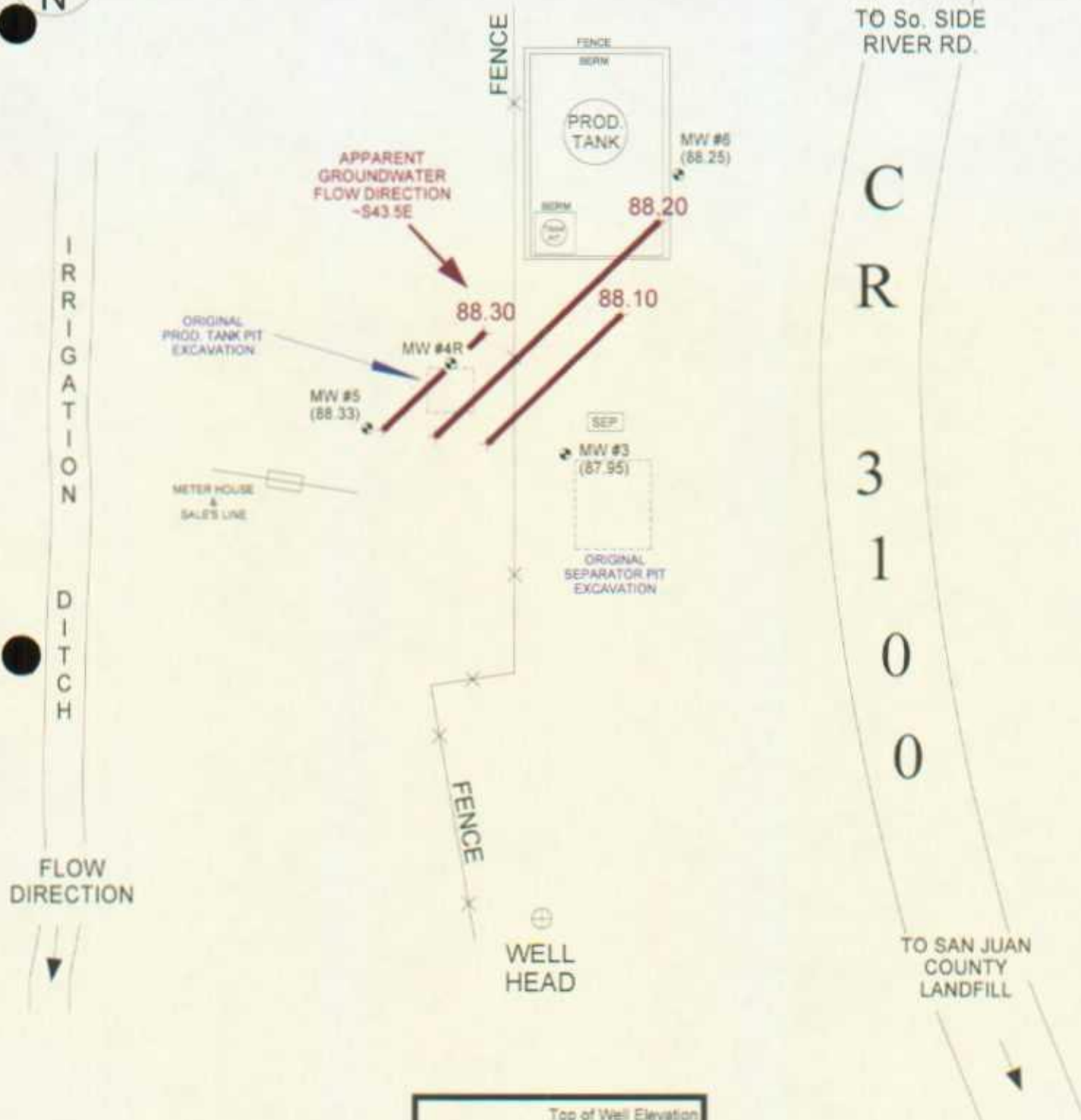
FILENAME: 06-21-04-GW.SKF

REVISED: 10/15/05 NJV

**GROUNDWATER
GRADIENT
MAP**

06/04

FIGURE 7
(2nd 1/4, 2005)



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.

Top of Well Elevation	
MW #3	(101.68)
MW #5	(97.65)
MW #6	(101.85)
MW #3 (87.95)	Groundwater Elevation as of 6/27/05

ONE INCH = 50 FEET

0 50 100 FT.

XTO ENERGY INC.
ROWLAND GC #1
NE 1/4 NW 1/4 SEC. 25, T30N. R12W, NMPM
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 822-1188

PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 06-27-05-GW.SKF
REVISED: 10/15/05 NJV

GROUNDWATER GRADIENT MAP
06/05

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : CROSS TIMBERS OIL CO.

CHAIN-OF-CUSTODY # : 10764

ROWLAND GC # 1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : ON - SITE TECH.

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)
2	well apparently destroyed during pad clearing .								
3	101.68	86.17	15.51	20.00	1215	7.1	2,400	2.25	-
4R	98.07	86.38	11.69	19.09	1300	7.0	1,900	3.75	-
5	97.65	86.87	10.78	15.00	1310	7.5	1,900	2.00	-
6	101.85	85.95	15.90	25.00	1230	7.7	6,200	4.50	-

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 from all MW's listed above.

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : CROSS TIMBERS OPER. CO.

CHAIN-OF-CUSTODY # : 11050

ROWLAND GC #1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : ON - SITE TECH.

Date : May 16, 2001

SAMPLER : N J V

Filename : 05-16-01.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)
2	well apparently destroyed during pad clearing .								
3	101.68	84.64	17.04	20.00	-	-	-	-	-
4R	98.07	85.00	13.07	19.09	1440	7.08	2,000	3.00	-
5	97.65	85.13	12.52	15.00	1505	7.51	1,500	1.25	-
6	101.85	84.60	17.25	25.00	-	-	-	-	-

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 BTEX from MW's 4R & 5 only . Good recovery in both MW's .

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : XTO ENERGY, INC.

CHAIN-OF-CUSTODY # : 11157

ROWLAND GC # 1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : ON - SITE TECH.

Date : Sept. 25, 2001

SAMPLER : N J V

Filename : 09-25-01.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)
3	101.68	85.96	15.72	20.00	-	-	-	-	-
4R	98.07	86.26	11.81	19.09	0840	6.85	1,500	3.50	-
5	97.65	86.73	10.92	15.00	-	-	-	-	-
6	101.85	85.88	15.97	25.00	-	-	-	-	-

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:

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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 from MW # 4R only . Good recovery .

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : XTO ENERGY, INC.

CHAIN-OF-CUSTODY # : 11161

ROWLAND GC #1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : ON - SITE TECH.

Date : December 19, 2001

SAMPLER : N J V

Filename : 12-19-01.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)
3	101.68	85.66	16.02	20.00	-	-	-	-	-
4R	98.07	85.41	12.66	19.09	1450	6.89	1,600	3.25	-
5	97.65	85.19	12.46	15.00	-	-	-	-	-
6	101.85	86.70	15.15	25.00	-	-	-	-	-

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 BTEX from MW # 4R only . Good recovery .

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : XTO ENERGY, INC.

CHAIN-OF-CUSTODY # : 11993

ROWLAND GC #1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : ON - SITE TECH.

Date : June 26, 2002

SAMPLER : N J V

Filename : 06-26-02.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)
3	101.68	86.89	14.79	20.00	-	-	-	-	-
5	97.65	86.78	10.87	15.00	1120	7.69	1,700	1.25	-
6	101.85	87.95	13.90	25.00	-	-	-	-	-

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 BTEX from MW # 5 only . Poor / fair recovery . DTW measured 11.25 ft. @
time of sampling .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & /OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : N / A

ROWLAND GC #1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

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.)
3	101.68	86.93	14.75	20.00	-	-	-	-	-
5	97.65	88.51	9.14	15.00	1345	7.24	1,100	22.6	1.50
6	101.85	87.11	14.74	25.00	-	-	-	-	-

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 "

Collected BTEX from MW # 5 only . Poor / fair recovery . DTW measured 10.99 ft. @
time of sampling .

BLAGG ENGINEERING, INC.**MONITOR WELL DEVELOPMENT & /OR SAMPLING DATA**CLIENT : XTO ENERGY INC.CHAIN-OF-CUSTODY # : N / A

ROWLAND GC # 1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTALDate : June 21, 2004SAMPLER : N J VFilename : 06-21-04.WK4PROJECT 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.)
3	101.68	86.90	14.78	20.00	-	-	-	-	-
5	97.65	87.80	9.85	15.00	1345	7.24	1,800	20.5	1.75
6	101.85	87.05	14.80	25.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =

DATE & TIME =

7.00	2,800
06/21/04	1330

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 "

Collected BTEX from MW # 5 only . Good / fair recovery . DTW measured 9.90 ft. @
time 1343 hrs.

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : N / A

ROWLAND GC # 1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : June 27, 2005

SAMPLER : N J V

Filename : 06-27-05.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.)
3	101.68	87.95	13.73	20.00	-	-	-	-	-
5	97.65	88.33	9.32	15.00	1515	7.13	1,500	22.3	2.00
6	101.85	88.25	13.60	25.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =

7.00 2,800

DATE & TIME =

06/27/05 1500

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 "

Collected BTEX from MW # 5 only . Fair recovery .

BLAGG ENGINEERING, INC.**MONITOR WELL SAMPLING DATA**CLIENT : CROSS TIMBERS OIL CO.CHAIN-OF-CUSTODY # : 10764

ROWLAND GC # 1 - SEPARATOR PIT

LABORATORY (S) USED : ON - SITE TECH.

UNIT P, SEC. 25, T30N, R12W

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)
2	well apparently destroyed during pad clearing.								
3	101.68	86.17	15.51	20.00	1215	7.1	2,400	2.25	-
4R	98.07	86.38	11.69	19.09	1300	7.0	1,900	3.75	-
5	97.65	86.87	10.78	15.00	1310	7.5	1,900	2.00	-
6	101.85	85.95	15.90	25.00	1230	7.7	6,200	4.50	-

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 from all MW's listed above.

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 18-Jul-00

Client:	Blagg Engineering	Client Sample Info:	Rowland GC #1
Work Order:	0006074	Client Sample ID:	MW #3
Lab ID:	0006074-01A	Matrix:	AQUEOUS
Project:	Cross Timbers - Rowland GC #1	Collection Date:	6/30/2000 12:15:00 PM
		COC Record:	10764

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DM		
Benzene	ND	0.5		µg/L	1	7/11/2000
Toluene	ND	0.5		µg/L	1	7/11/2000
Ethylbenzene	ND	0.5		µg/L	1	7/11/2000
m,p-Xylene	ND	1		µg/L	1	7/11/2000
o-Xylene	ND	0.5		µg/L	1	7/11/2000

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Suit: - Surrogate

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 18-Jul-00

Client:	Blagg Engineering	Client Sample Info:	Rowland GC #1
Work Order:	0006074	Client Sample ID:	MW #4R
Lab ID:	0006074-02A	Matrix:	AQUEOUS
Project:	Cross Timbers - Rowland GC #1	Collection Date:	6/30/2000 1:00:00 PM
		COC Record:	10764

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DM		
Benzene	ND	0.5		µg/L	1	7/11/2000
Toluene	ND	0.5		µg/L	1	7/11/2000
Ethylbenzene	ND	0.5		µg/L	1	7/11/2000
m,p-Xylene	ND	1		µg/L	1	7/11/2000
o-Xylene	ND	0.5		µg/L	1	7/11/2000

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 18-Jul-00

Client:	Blagg Engineering	Client Sample Info:	Rowland GC #1
Work Order:	0006074	Client Sample ID:	MW #5
Lab ID:	0006074-03A	Matrix:	AQUEOUS
Project:	Cross Timbers - Rowland GC #1	Collection Date:	6/30/2000 1:10:00 PM
		COC Record:	10764

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DC
m,p-Xylene	6100	50		µg/L	50	7/12/2000
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DM
Benzene	38	5		µg/L	10	7/11/2000
Toluene	6.4	5		µg/L	10	7/11/2000
Ethylbenzene	750	5		µg/L	10	7/11/2000
o-Xylene	290	5		µg/L	10	7/11/2000

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 18-Jul-00

Client:	Blagg Engineering	Client Sample Info:	Rowland GC #1
Work Order:	0006074	Client Sample ID:	MW #6
Lab ID:	0006074-04A	Matrix:	AQUEOUS
Project:	Cross Timbers - Rowland GC #1	Collection Date:	6/30/2000 12:30:00 PM
		COC Record:	10764

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DM		
Benzene	ND	0.5		µg/L	1	7/11/2000
Toluene	ND	0.5		µg/L	1	7/11/2000
Ethylbenzene	ND	0.5		µg/L	1	7/11/2000
m,p-Xylene	ND	1		µg/L	1	7/11/2000
o-Xylene	ND	0.5		µg/L	1	7/11/2000

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Sur: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



Page:

Purchase Order No.:	Project No.
---------------------	-------------

SEND INVOICE TO	
Name	John Doe
Company	ABC Corp.
Address	123 Main St. City, State, Zip
Dept.	

St. Louis, Mo. - June 2, 1892

1

SAMPLE IDENTIFICATION	SAMPLE			
	DATE	TIME	MATRIX	PRES.
Run # 3	1/20/00	12:15	Water	100%
Run # 4/2	1/20/00	12:20	Water	100%
Run # 5	1/20/00	12:10	Water	100%
Run # 6	1/20/00	12:20	Water	100%

1000

(Client Signature Must Accompany Request)

Name	Title
Company	
Mailing Address	
City, State, Zip	
Telephone No.	Telefax No.

ANALYSIS REQUESTED

[illegible]

Date/Time

Special Instructions / Remarks:

On Site Technologies, LTD.

Date: 18-Jul-00

CLIENT: Blagg Engineering
Work Order: 0006074
Project: Cross Timbers - Rowland GC #1

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_000711	Test Code: SW8021B	Units: µg/L	Analysis Date: 7/11/2000	Prep Date:						
Client ID:	0006074	Run ID: GC-1_000711A		SeqNo: 29854							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0595	0.5									J
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.0916	0.5									J

Sample ID: MB1	Batch ID: GC-1_000712	Test Code: SW8021B	Units: µg/L	Analysis Date: 7/12/2000	Prep Date:						
Client ID:	0006074	Run ID: GC-1_000712A		SeqNo: 29926							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									J
Ethylbenzene	.1388	0.5									J
m,p-Xylene	.4757	1									
Methyl tert-Butyl Ether	ND	1									J
o-Xylene	.1557	0.5									J
Toluene	.2024	0.5									J

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 18-Jul-00

CLIENT: Blagg Engineering
Work Order: 0006074
Project: Cross Timbers - Rowland GC #1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0006072-29AMS		Batch ID: GC-1_000711		Test Code: SW8021B		Units: µg/L		Analysis Date: 7/11/2000		Prep Date:	
Client ID:		0006074		Run ID: GC-1_000711A				SeqNo: 29855			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	10880	100	8000	2621	103.3%	73	126				
Ethylbenzene	9217	100	8000	919.5	103.7%	88	113				
m,p-Xylene	16530	200	16000	844.8	98.1%	83	112				
Methyl tert-Butyl Ether	37240	200	8000	30020	90.2%	81	125				
o-Xylene	8424	100	8000	62.34	104.5%	93	110				
Toluene	8474	100	8000	86.84	104.8%	76	126				

Sample ID: 0006072-29AMSD		Batch ID: GC-1_000711		Test Code: SW8021B		Units: µg/L		Analysis Date: 7/11/2000			Prep Date:	
Client ID:		0006074		Run ID: GC-1_000711A				SeqNo: 29856				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	10610	100	8000	2621	99.9%	73	126	10880	2.5%	6		
Ethylbenzene	8993	100	8000	919.5	100.9%	88	113	9217	2.5%	5		
m,p-Xylene	16140	200	16000	844.8	95.6%	83	112	16530	2.4%	7		
Methyl tert-Butyl Ether	36330	200	8000	30020	78.8%	81	125	37240	2.5%	9	S	
o-Xylene	8255	100	8000	62.34	102.4%	93	110	8424	2.0%	6		
Toluene	8278	100	8000	86.84	102.4%	76	126	8474	2.4%	6		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
Work Order: 0006074
Project: Cross Timbers - Rowland GC #1

QC SUMMARY REPORT
 Sample Matrix Spike

Sample ID: 0006074-03AMS		Batch ID: GC-1_000712		Test Code: SW8021B		Units: µg/L		Analysis Date: 7/12/2000		Prep Date:	
Client ID: MW #5		0006074		Run ID: GC-1_000712A				SeqNo: 29927			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2059	25	2000	46.08	100.7%	88	112				
Ethylbenzene	2805	25	2000	776.7	101.4%	86	113				
m,p-Xylene	9997	50	4000	6132	96.6%	85	108				
Methyl tert-Butyl Ether	2166	50	2000	46.08	106.0%	86	117				
o-Xylene	2352	25	2000	299.2	102.6%	92	110				
Toluene	2130	25	2000	38.93	104.5%	88	116				

Sample ID: 0006074-03AMSD			Batch ID: GC-1_000712		Test Code: SW8021B		Units: µg/L		Analysis Date: 7/12/2000		Prep Date:	
Client ID: MW #5		0006074		Run ID: GC-1_000712A				SeqNo: 29928				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	2001	25	2000	46.08	97.8%	88	112	2059	2.9%	6		
Ethylbenzene	2725	25	2000	776.7	97.4%	86	113	2805	2.9%	6		
m,p-Xylene	9715	50	4000	6132	89.6%	85	108	9997	2.9%	6		
Methyl tert-Butyl Ether	2137	50	2000	46.08	104.6%	86	117	2166	1.3%	7		
o-Xylene	2285	25	2000	299.2	99.3%	92	110	2352	2.9%	6		
Toluene	2040	25	2000	38.93	100.1%	88	116	2130	4.3%	6		

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: Blagg Engineering
Work Order: 0006074
Project: Cross Timbers - Rowland GC #1

Date: 18-Jul-00

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER		Batch ID: GC-1_000711	Test Code: SW8021B	Units: µg/L	Analysis Date: 7/11/2000	Prep Date:					
Client ID:		0006074	Run ID: GC-1_000711A		SeqNo: 29853						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.66	0.5	40	0.0595	104.0%	89	112				
Ethylbenzene	41.39	0.5	40	0	103.5%	93	112				
m,p-Xylene	78.06	1	80	0	97.6%	88	108				
Methyl tert-Butyl Ether	41.46	1	40	0	103.7%	87	115				
o-Xylene	41.44	0.5	40	0	103.6%	93	112				
Toluene	41.62	0.5	40	0.0916	103.8%	92	111				

Sample ID: LCS WATER		Batch ID: GC-1_000712	Test Code: SW8021B	Units: µg/L	Analysis Date: 7/12/2000		Prep Date:				
Client ID:		0006074	Run ID: GC-1_000712A		SeqNo: 29925						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.32	0.5	40	0	100.8%	96	111				
Ethylbenzene	40.29	0.5	40	0.1388	100.4%	96	111				
m,p-Xylene	76.04	1	80	0.4757	94.4%	92	105				
Methyl tert-Butyl Ether	40.39	1	40	0	101.0%	93	113				
o-Xylene	40.55	0.5	40	0.1557	101.0%	97	110				
Toluene	40.52	0.5	40	0.2024	100.8%	97	109				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 18-Jul-00

CLIENT: Blagg Engineering
Work Order: 0006074
Project: Cross Timbers - Rowland GC #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 BTEX_0007		Batch ID: GC-1_000711		Test Code: SW8021B		Units: µg/L		Analysis Date: 7/11/2000		Prep Date:	
Client ID:		0006074		Run ID: GC-1_000711A				SeqNo: 29850			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.97	0.5	20	0	109.8%	85	115				
Ethylbenzene	21.8	0.5	20	0	109.0%	85	115				
m,p-Xylene	41.3	1	40	0	103.2%	85	115				
Methyl tert-Butyl Ether	21.84	1	20	0	109.2%	85	115				
o-Xylene	21.96	0.5	20	0	109.8%	85	115				
Toluene	21.9	0.5	20	0	109.5%	85	115				
1,4-Difluorobenzene	89.22	0	100	0	89.2%	80	105				
4-Bromochlorobenzene	85.5	0	100	0	85.5%	78	108				
Fluorobenzene	87.73	0	100	0	87.7%	78	108				

Sample ID: CCV2 BTEX_0007		Batch ID: GC-1_000711		Test Code: SW8021B		Units: µg/L		Analysis Date: 7/11/2000				Prep Date:	
Client ID:		0006074		Run ID: GC-1_000711A				SeqNo: 29851					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Benzene	21.06	0.5	20	0	105.3%	85	115						
Ethylbenzene	20.8	0.5	20	0	104.0%	85	115						
m,p-Xylene	39.43	1	40	0	98.6%	85	115						
Methyl tert-Butyl Ether	21.51	1	20	0	107.5%	85	115						
o-Xylene	21.03	0.5	20	0	105.2%	85	115						
Toluene	21.03	0.5	20	0	105.1%	85	115						
1,4-Difluorobenzene	89.09	0	100	0	89.1%	80	105						
4-Bromochlorobenzene	85.09	0	100	0	85.1%	78	108						
Fluorobenzene	87.47	0	100	0	87.5%	78	108						

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
Work Order: 0006074
Project: Cross Timbers - Rowland GC #1

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID: CCV3 BTEX_0007		Batch ID: GC-1_000711	Test Code: SW8021B	Units: µg/L	Analysis Date: 7/11/2000				Prep Date:			
Client ID: 0006074		Run ID: GC-1_000711A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result											
Benzene	41.47		0.5	40	0	103.7%	85	115				
Ethylbenzene	41.06		0.5	40	0	102.7%	85	115				
m,p-Xylene	77.66		1	80	0	97.1%	85	115				
Methyl tert-Butyl Ether	43.51		1	40	0	108.8%	85	115				
o-Xylene	41.46		0.5	40	0	103.6%	85	115				
Toluene	41.6		0.5	40	0	104.0%	85	115				
1,4-Difluorobenzene	88.8		0	100	0	88.8%	80	105				
4-Bromochlorobenzene	84.38		0	100	0	84.4%	78	108				
Fluorobenzene	87.12		0	100	0	87.1%	78	108				

Sample ID: CCV1 BTEX_0007		Batch ID: GC-1_000712	Test Code: SW8021B	Units: µg/L		Analysis Date: 7/12/2000			Prep Date:			
Client ID: 0006074		Run ID: GC-1_000712A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result											
Benzene	21.07		0.5	20	0	105.4%	85	115				
Ethylbenzene	21.12		0.5	20	0	105.6%	85	115				
m,p-Xylene	40.04		1	40	0	100.1%	85	115				
Methyl tert-Butyl Ether	20.54		1	20	0	102.7%	85	115				
o-Xylene	21.16		0.5	20	0	105.8%	85	115				
Toluene	21.21		0.5	20	0	106.1%	85	115				
1,4-Difluorobenzene	89.52		0	100	0	89.5%	79	101				
4-Bromochlorobenzene	85.38		0	100	0	85.4%	78	99				
Fluorobenzene	87.65		0	100	0	87.6%	76	103				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
Work Order: 0006074
Project: Cross Timbers - Rowland GC #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV2 BTEX_0007		Batch ID: GC-1_000712	Test Code: SW8021B	Units: µg/L	Analysis Date: 7/12/2000		Prep Date:	
Client ID: 0006074		Run ID: GC-1_000712A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	20.82		0.5	20	0	104.1%	85	115
Ethylbenzene	20.84		0.5	20	0	104.2%	85	115
m,p-Xylene	39.65		1	40	0	99.1%	85	115
Methyl tert-Butyl Ether	21.62		1	20	0	108.1%	85	115
o-Xylene	21.03		0.5	20	0	105.2%	85	115
Toluene	20.94		0.5	20	0	104.7%	85	115
1,4-Difluorobenzene	89.55		0	100	0	89.6%	79	101
4-Bromochlorobenzene	84.58		0	100	0	84.6%	78	99
Fluorobenzene	87.93		0	100	0	87.9%	76	103

Sample ID: CCV3 BTEX_0007		Batch ID: GC-1_000712	Test Code: SW8021B	Units: µg/L	Analysis Date: 7/12/2000		Prep Date:	
Client ID: 0006074		Run ID: GC-1_000712A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	40.54		0.5	40	0	101.3%	85	115
Ethylbenzene	40.45		0.5	40	0	101.1%	85	115
m,p-Xylene	77.29		1	80	0	96.6%	85	115
Methyl tert-Butyl Ether	35.83		1	40	0	89.6%	85	115
o-Xylene	40.94		0.5	40	0	102.3%	85	115
Toluene	40.74		0.5	40	0	101.8%	85	115
1,4-Difluorobenzene	90.08		0	100	0	90.1%	79	101
4-Bromochlorobenzene	88.66		0	100	0	88.7%	78	99
Fluorobenzene	88.92		0	100	0	88.9%	76	103

CLIENT: Blagg Engineering
Work Order: 0006074
Project: Cross Timbers - Rowland GC #1
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ					
0006066-03A	87.7	83.5	86.2					
0006066-04A	87.5	81.9	85.6					
0006066-06A	89.8	85.5	88.2					
0006066-07A	89.7	84.9	88.1					
0006069-01A	90	84.6	88.7					
0006069-02A	89.7	85.2	88.1					
0006069-03A	89.7	85.4	88.1					
0006070-01A	86.4	83.8	85.7					
0006070-02A	88.2	83.4	86.8					
0006072-29A	89	84.6	87.4					
0006072-29AMS	88.1	85.5	86.5					
0006072-29AMSD	88.4	86	86.8					
0006072-30A	88.6	84.3	86.9					
0006072-32A	89.4	85.6	87.9					
0006072-34A	88.8	85.6	87					
0006073-01A	89.1	84.5	87.9					
0006073-02A	90	84.8	88.6					
0006074-01A	89.4	84.4	88.2					
0006074-02A	89.7	84.9	88.2					
0006074-03A	89.8	83.4	88.2					
0006074-03AMS	87.5	84.5	86.8					
0006074-03AMSD	87.5	85.4	86.6					
0006074-04A	89.7	85.4	88.5					
0007003-01A	89.9	84.9	88.4					
0007005-01A	89.4	84.7	88.5					
0007006-01A	90.4	83.9	88.6					
0007006-02A	89.9	83.2	88.9					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	80-105
14FBZ	= 1,4-Difluorobenzene	79-101
4BCBZ	= 4-Bromochlorobenzene	78-99
4BCBZ	= 4-Bromochlorobenzene	78-108
FLBZ	= Fluorobenzene	78-108
FLBZ	= Fluorobenzene	76-103

* Surrogate recovery outside acceptance limits

CLIENT: Blagg Engineering
Work Order: 0006074
Project: Cross Timbers - Rowland GC #1
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ					
0007006-03A	90.1	85.1	88.5					
0007006-05A	90.4	85.1	88.5					
0007006-06A	89.6	85.4	88.8					
0007006-07A	89.7	84.8	88.6					
0007007-01A	89.3	84.8	88.7					
0007007-02A	107 *	86.4	88.8					
0007007-03A	90	84.9	88.8					
0007007-04A	149 *	85.4	103 *					
0007007-05A	89.7	84.6	88.6					
0007007-06A	89.8	84.8	88.4					
0007007-07A	89.3	85	88.4					
CCV1 BTEX_00070	89.5	85.4	87.6					
CCV2 BTEX_00070	89.6	84.6	87.9					
CCV3 BTEX_00070	90.1	88.7	88.9					
LCS WATER	88.9	85.5	87					
MB1	89.8	84.3	88.5					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	80-105
14FBZ	= 1,4-Difluorobenzene	79-101
4BCBZ	= 4-Bromochlorobenzene	78-99
4BCBZ	= 4-Bromochlorobenzene	78-108
FLBZ	= Fluorobenzene	78-108
FLBZ	= Fluorobenzene	76-103

* Surrogate recovery outside acceptance limits

BLAGG ENGINEERING, INC.**MONITOR WELL SAMPLING DATA**CLIENT : CROSS TIMBERS OPER. CO.CHAIN-OF-CUSTODY # : 11050

ROWLAND GC # 1 - SEPARATOR PIT

LABORATORY (S) USED : ON - SITE TECH.

UNIT P, SEC. 25, T30N, R12W

Date : May 16, 2001SAMPLER : N J VFilename : 05-16-01.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)
2	well apparently destroyed during pad clearing.								
3	101.68	84.64	17.04	20.00	-	-	-	-	-
4R	98.07	85.00	13.07	19.09	1440	7.08	2,000	3.00	-
5	97.65	85.13	12.52	15.00	1505	7.51	1,500	1.25	-
6	101.85	84.60	17.25	25.00	-	-	-	-	-

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 BTEX from MW's 4R & 5 only. Good recovery in both MW's.

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 31-May-01

Client:	Blagg Engineering	Client Sample Info:	Rowland GC #1
Work Order:	0105026	Client Sample ID:	MW #4R
Lab ID:	0105026-01A	Matrix:	AQUEOUS
Project:	Cross Timbers; Rowland GC #1	Collection Date:	5/16/2001 2:40:00 PM
		COC Record:	11050

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: HR		
Benzene	ND	0.5		µg/L	1	5/27/2001
Toluene	ND	0.5		µg/L	1	5/27/2001
Ethylbenzene	ND	0.5		µg/L	1	5/27/2001
m,p-Xylene	ND	1		µg/L	1	5/27/2001
o-Xylene	ND	0.5		µg/L	1	5/27/2001

Qualifiers:

PQL - Practical Quantitation Limit

S - Spike Recovery outside accepted recovery limits

ND - Not Detected at Practical Quantitation Limit

R - RPD outside accepted recovery limits

J - Analyte detected below Practical Quantitation Limit

E - Value above quantitation range

B - Analyte detected in the associated Method Blank

Surrogate - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

EMAIL: ONSITE@ONSITELTD.COM

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 31-May-01

Client:	Blagg Engineering	Client Sample Info:	Rowland GC #1
Work Order:	0105026	Client Sample ID:	MW #5
Lab ID:	0105026-02A	Matrix:	AQUEOUS
Project:	Cross Timbers; Rowland GC #1	Collection Date:	5/16/2001 3:05:00 PM
		COC Record:	11050

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: HR		
Benzene	49	25		µg/L	50	5/27/2001
Toluene	34	25		µg/L	50	5/27/2001
Ethylbenzene	700	25		µg/L	50	5/27/2001
m,p-Xylene	4300	50		µg/L	50	5/27/2001
o-Xylene	180	25		µg/L	50	5/27/2001

Qualifiers:

PQL - Practical Quantitation Limit

S - Spike Recovery outside accepted recovery limits

ND - Not Detected at Practical Quantitation Limit

R - RPD outside accepted recovery limits

J - Analyte detected below Practical Quantitation Limit

E - Value above quantitation range

B - Analyte detected in the associated Method Blank

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

EMAIL: ONSITE@ONSITELTD.COM

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 31-May-01

CLIENT: Blagg Engineering

Work Order: 0105026

Project: Cross Timbers; Rowland GC #1

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_010527	Test Code: SW8021B	Units: µg/L	Analysis Date: 5/27/2001	Prep Date:
Client ID:	0105026	Run ID: GC-1_010527A		SeqNo: 38441	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	ND	0.5			
Ethylbenzene	ND	0.5			
m,p-Xylene	ND	1			
Methyl tert-Butyl Ether	ND	1			
o-Xylene	ND	0.5			
Toluene	ND	0.5			

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 31-May-01

CLIENT: Blagg Engineering

Work Order: 0105026

Project: Cross Timbers; Rowland GC #1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0105046-06AMS		Batch ID: GC-1_010527	Test Code: SW8021B	Units: µg/L	Analysis Date 5/27/2001		Prep Date:						
Client ID:		0105026	Run ID: GC-1_010527A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result												
Benzene	1017			10	800	248.2	96.1%	70	130				
Ethylbenzene	812.9			10	800	35.36	97.2%	70	130				
m,p-Xylene	1501			20	1600	7.708	93.3%	70	130				
Methyl tert-Butyl Ether	5000			20	800	4283	89.6%	70	130				E
o-Xylene	767.1			10	800	0	95.9%	70	130				
Toluene	771.6			10	800	3.318	96.0%	70	130				

Sample ID: 0105046-06AMSD		Batch ID: GC-1_010527		Test Code: SW8021B		Units: µg/L		Analysis Date 5/27/2001		Prep Date:	
Client ID:		0105026		Run ID:		GC-1_010527A		SeqNo: 38443			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	975.8	10	800	248.2	90.9%	70	130	1017	4.1%	8	
Ethylbenzene	782.6	10	800	35.36	93.4%	70	130	812.9	3.8%	7	
m,p-Xylene	1444	20	1600	7.708	89.8%	70	130	1501	3.9%	7	
Methyl tert-Butyl Ether	4886	20	800	4283	75.4%	70	130	5000	2.3%	6	E
o-Xylene	741.7	10	800	0	92.7%	70	130	767.1	3.4%	6	
Toluene	743.4	10	800	3.318	92.5%	70	130	771.6	3.7%	6	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 31-May-01

CLIENT: Blagg Engineering
Work Order: 0105026
Project: Cross Timbers; Rowland GC #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER			Batch ID: GC-1_010527		Test Code: SW8021B		Units: µg/L		Analysis Date: 5/27/2001		Prep Date:	
Client ID:		0105026		Run ID:		GC-1_010527A		SeqNo:		38440		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	38.84	0.5	40	0	97.1%	80	120					
Ethylbenzene	38.92	0.5	40	0	97.3%	80	120					
m,p-Xylene	75.2	1	80	0	94.0%	80	120					
Methyl tert-Butyl Ether	40.14	1	40	0	100.4%	80	120					
o-Xylene	38.43	0.5	40	0	96.1%	80	120					
Toluene	38.23	0.5	40	0	95.6%	80	120					

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 31-May-01

CLIENT: Blagg Engineering
Work Order: 0105026
Project: Cross Timbers; Rowland GC #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID:	CCV1 BTEX_0105	Batch ID:	GC-1_010527	Test Code:	SW8021B	Units:	µg/L	Analysis Date	5/27/2001	Prep Date:
Client ID:	0105026	Run ID:	GC-1_010527A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	SeqNo:
Analyte	Result									
Benzene	19.6	0.5	20	0	0	98.0%	85	115		
Ethylbenzene	19.72	0.5	20	0	0	98.6%	85	115		
m,p-Xylene	37.9	1	40	0	0	94.7%	85	115		
Methyl tert-Butyl Ether	20.28	1	20	0	0	101.4%	85	115		
o-Xylene	19.4	0.5	20	0	0	97.0%	85	115		
Toluene	19.44	0.5	20	0	0	97.2%	85	115		
1,4-Difluorobenzene	75.27	0	80	0	0	94.1%	70	130		
4-Bromochlorobenzene	82.76	0	80	0	0	103.5%	70	130		
Fluorobenzene	76.11	0	80	0	0	95.1%	70	130		

Sample ID:	CCV2 BTEX_0105	Batch ID:	GC-1_010527	Test Code:	SW8021B	Units:	µg/L	Analysis Date	5/27/2001	Prep Date:
Client ID:	0105026	Run ID:	GC-1_010527A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	SeqNo:
Analyte	Result									
Benzene	37.34	0.5	40	0	0	93.4%	85	115		
Ethylbenzene	37.68	0.5	40	0	0	94.2%	85	115		
m,p-Xylene	72.16	1	80	0	0	90.2%	85	115		
Methyl tert-Butyl Ether	39.4	1	40	0	0	98.5%	85	115		
o-Xylene	37.08	0.5	40	0	0	92.7%	85	115		
Toluene	37.28	0.5	40	0	0	93.2%	85	115		
1,4-Difluorobenzene	74.17	0	80	0	0	92.7%	70	130		
4-Bromochlorobenzene	79.99	0	80	0	0	100.0%	70	130		
Fluorobenzene	75.27	0	80	0	0	94.1%	70	130		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
Work Order: 0105026
Project: Cross Timbers; Rowland GC #1

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID: CCV3 BTEX_0105		Batch ID: GC-1_010527	Test Code: SW8021B		Units: µg/L		Analysis Date 5/27/2001		Prep Date:		
Client ID:		0105026	Run ID:	GC-1_010527A		SeqNo: 38439					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.36	0.5	20	0	96.8%	85	115				
Ethylbenzene	19.41	0.5	20	0	97.1%	85	115				
m,p-Xylene	37.26	1	40	0	93.2%	85	115				
Methyl tert-Butyl Ether	20.35	1	20	0	101.7%	85	115				
o-Xylene	19.24	0.5	20	0	96.2%	85	115				
Toluene	19.19	0.5	20	0	96.0%	85	115				
1,4-Difluorobenzene	75.07	0	80	0	93.8%	70	130				
4-Bromochlorobenzene	82.07	0	80	0	102.6%	70	130				
Fluorobenzene	75.65	0	80	0	94.6%	70	130				

CLIENT: Blagg Engineering
Work Order: 0105026
Project: Cross Timbers; Rowland GC #1
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0105026-01A	95.3	100	95.8
0105026-02A	93.1	94.9	95.7
0105045-01A	86.9	91.5	88.4
0105045-02A	92.8	97.3	94.3
0105045-03A	93.2	98.4	94.6
0105046-06AMS	92.6	99.5	94.5
0105046-06AMSD	92.5	100	93.8
0105046-14A	94.4	101	101
0105046-15A	96	99.5	99.2
0105046-16A	95	95.4	122
0105046-17A	93.4	99.1	94.9
0105046-23A	104	98	101
0105046-24A	94.6	98.6	95.8
0105046-25A	95.2	97.5	97.5
0105046-26A	93.1	97.4	94.4
0105046-27A	92.4	97.2	93.8
0105046-28A	94.3	91.4	95.6
0105046-29A	94.8	103	95.9
0105046-30A	94.7	102	95.6
CCV1 BTEX_01052	94.1	103	95.1
CCV2 BTEX_01052	92.7	100	94.1
CCV3 BTEX_01052	93.8	102	94.6
LCS WATER	94.1	103	94.5
MBI	94.4	104	95.3

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

BLAGG ENGINEERING, INC.**MONITOR WELL SAMPLING DATA**CLIENT : XTO ENERGY, INC.CHAIN-OF-CUSTODY # : 11157

ROWLAND GC #1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : ON - SITE TECH.Date : Sept. 25, 2001SAMPLER : N J VFilename : 09-25-01.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)
3	101.68	85.96	15.72	20.00	-	-	-	-	-
4R	98.07	86.26	11.81	19.09	0840	6.85	1,500	3.50	-
5	97.65	86.73	10.92	15.00	-	-	-	-	-
6	101.85	85.88	15.97	25.00	-	-	-	-	-

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 BTEX from MW # 4R only . Good recovery .

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 05-Oct-01

Client:	Blagg Engineering	Client Sample Info:	Rowland GC #1
Work Order:	0109036	Client Sample ID:	MW #4R
Lab ID:	0109036-01A	Matrix:	AQUEOUS
Project:	XTO Energy; Rowland GC #1	Collection Date:	09/25/2001 8:40:00 AM
		COC Record:	11157

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: HR		
Benzene	ND	0.5		µg/L	1	09/29/2001
Toluene	ND	0.5		µg/L	1	09/29/2001
Ethylbenzene	ND	0.5		µg/L	1	09/29/2001
m,p-Xylene	ND	1		µg/L	1	09/29/2001
o-Xylene	ND	0.5		µg/L	1	09/29/2001

Qualifiers:

PQL - Practical Quantitation Limit

S - Spike Recovery outside accepted recovery limits

ND - Not Detected at Practical Quantitation Limit

R - RPD outside accepted recovery limits

J - Analyte detected below Practical Quantitation Limit

E - Value above quantitation range

IB - Analyte detected in the associated Method Blank

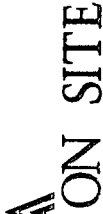
Surrogate - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 1



ON SITE

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

[illegible]

On Site Technologies, LTD.

Date: 05-Oct-01

CLIENT: Blagg Engineering
Work Order: 0109036
Project: XTO Energy; Rowland GC #1

QC SUMMARY REPORT

Method Blank

Sample ID: MB_010928A	Batch ID: GC-1_010928	Test Code: SW8021B	Units: µg/L	Analysis Date 09/28/2001	Prep Date: 09/28/2001						
Client ID:	0109036	Run ID: GC-1_010928A		SeqNo: 42834							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0938	0.5									J
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	.1731	1									J
o-Xylene	ND	0.5									
Toluene	.1909	0.5									J

Sample ID: MB_010929A	Batch ID: GC-1_010929	Test Code: SW8021B	Units: µg/L	Analysis Date 09/29/2001	Prep Date: 09/29/2001						
Client ID:	0109036	Run ID: GC-1_010929A		SeqNo: 42928							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									J
Ethylbenzene	.1312	0.5									
m,p-Xylene	ND	1									J
Methyl tert-Butyl Ether	.4032	1									
o-Xylene	ND	0.5									J
Toluene	.1718	0.5									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 03-Oct-01

CLIENT: Blagg Engineering
 Work Order: 0109036
 Project: XTO Energy; Rowland GC #1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0109039-09AMS		Batch ID: GC-1_010928		Test Code: SW8021B		Units: µg/L		Analysis Date 09/28/2001		Prep Date: 09/28/2001	
Client ID:		0109036		Run ID:		GC-1_010928A		SeqNo: 42835			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	960.8	5	400	562	99.7%	78	117				
Ethylbenzene	679.2	5	400	265.7	103.4%	79	121				
m,p-Xylene	962.8	10	800	141.3	102.7%	80	115				
Methyl tert-Butyl Ether	461	10	400	35.45	106.4%	84	114				
o-Xylene	474.3	5	400	50.33	106.0%	88	116				
Toluene	455.5	5	400	26.31	107.3%	88	113				

Sample ID: 0109039-09AMSD		Batch ID: GC-1_010928		Test Code: SW8021B		Units: µg/L		Analysis Date 09/28/2001		Prep Date: 09/28/2001	
Client ID:		0109036		Run ID: GC-1_010928A				SeqNo: 42836			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	936.2	5	400	562	93.6%	78	117	960.8	2.6%	6	
Ethylbenzene	665.7	5	400	265.7	100.0%	79	121	679.2	2.0%	7	
m,p-Xylene	943	10	800	141.3	100.2%	80	115	962.8	2.1%	6	
Methyl tert-Butyl Ether	456.8	10	400	35.45	105.3%	84	114	461	0.9%	5	
o-Xylene	468.9	5	400	50.33	104.6%	88	116	474.3	1.2%	5	
Toluene	444.9	5	400	26.31	104.7%	88	113	455.5	2.4%	6	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering

Work Order: 0109036

Project: XTO Energy, Rowland GC #1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0109039-18AMS	Batch ID: GC-1_010929	Test Code: SW8021B	Units: µg/L	Analysis Date 09/29/2001	Prep Date: 09/29/2001
Client ID: 0109036	Run ID: GC-1_010929A	PQL	SPK value	SeqNo: 42905	
Analyte	Result		SPK Ref Val	LowLimit	HighLimit
Benzene	203.2	2.5	200	78	117
Ethylbenzene	208.4	2.5	200	79	121
m,p-Xylene	408.6	5	400	80	115
Methyl tert-Butyl Ether	583.5	5	400	84	114
o-Xylene	207.7	2.5	200	88	116
Toluene	204.7	2.5	200	88	113
				%REC	%RPD
				101.6%	
				104.2%	
				102.1%	
				91.7%	
				103.9%	
				102.0%	

Sample ID: 0109039-18AMSD	Batch ID: GC-1_010929	Test Code: SW8021B	Units: µg/L	Analysis Date 09/29/2001	Prep Date: 09/29/2001
Client ID: 0109036	Run ID: GC-1_010929A	PQL	SPK value	SeqNo: 42907	
Analyte	Result		SPK Ref Val	LowLimit	HighLimit
Benzene	206.6	2.5	200	78	117
Ethylbenzene	212.2	2.5	200	79	121
m,p-Xylene	415.7	5	400	80	115
Methyl tert-Butyl Ether	585.4	5	400	84	114
o-Xylene	211.1	2.5	200	88	116
Toluene	208.4	2.5	200	88	113
				%REC	%RPD
				103.3%	1.7%
				106.1%	1.8%
				103.9%	1.7%
				92.7%	0.3%
				105.6%	1.6%
				103.8%	1.8%

Qualifiers:

NID - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 05-Oct-01

CLIENT: Blagg Engineering
Work Order: 0109036
Project: XTO Energy; Rowland GC #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS_010928A		Batch ID: GC-1_010928		Test Code: SW8021B		Units: µg/L		Analysis Date 09/28/2001		Prep Date: 09/28/2001	
Client ID:		0109036		Run ID: GC-1_010928A				SeqNo: 42833			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.17	0.5	40	0.0938	105.2%	92	113				
Ethylbenzene	43.02	0.5	40	0	107.6%	94	114				
m,p-Xylene	84.6	1	80	0	105.7%	92	111				
Methyl tert-Butyl Ether	41.28	1	40	0.1731	102.8%	91	112				
o-Xylene	42.75	0.5	40	0	106.9%	97	112				
Toluene	42.22	0.5	40	0.1909	105.1%	95	111				

Sample ID: LCS_010929A		Batch ID: GC-1_010929		Test Code: SW8021B		Units: µg/L		Analysis Date 09/29/2001		Prep Date: 09/29/2001	
Client ID: 0109036		Run ID: GC-1_010929A						SeqNo: 42927			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.09	0.5	40	0	105.2%	92	113				
Ethylbenzene	43.4	0.5	40	0.1312	108.2%	94	114				
m,p-Xylene	85.42	1	80	0	106.8%	92	111				
Methyl tert-Butyl Ether	41.5	1	40	0.4032	102.7%	91	112				
o-Xylene	43.15	0.5	40	0	107.9%	97	112				
Toluene	42.52	0.5	40	0.1718	105.9%	95	111				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 05-Oct-01

CLIENT: Blagg Engineering
Work Order: 0109036
Project: XTO Energy; Rowland GC #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1_010928A		Batch ID: GC-1_010928		Test Code: SW8021B		Units: µg/L		Analysis Date 09/28/2001		Prep Date: 09/28/2001	
Client ID:		0109036		Run ID: GC-1_010928A				SeqNo: 42830			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.97	0.5	20	0	109.8%	85	115				
Ethylbenzene	22.41	0.5	20	0	112.1%	85	115				
m,p-Xylene	44.35	1	40	0	110.9%	85	115				
Methyl tert-Butyl Ether	21.26	1	20	0	106.3%	85	115				
o-Xylene	22.33	0.5	20	0	111.6%	85	115				
Toluene	22.04	0.5	20	0	110.2%	85	115				
1,4-Difluorobenzene	115.2	0	120	0	96.0%	77	112				
4-Bromochlorobenzene	125.5	0	120	0	104.6%	88	116				
Fluorobenzene	116.2	0	120	0	96.8%	87	102				

Sample ID: CCV2_010928A	Batch ID: GC-1_010928	Test Code: SW8021B	Units: µg/L	Analysis Date 09/28/2001		Prep Date: 09/28/2001					
Client ID: 0109036	Run ID: GC-1_010928A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result										
Benzene	21.45	0.5	20	0	107.3%	85	115				
Ethylbenzene	21.91	0.5	20	0	109.6%	85	115				
m,p-Xylene	43.54	1	40	0	108.9%	85	115				
Methyl tert-Butyl Ether	20.68	1	20	0	103.4%	85	115				
o-Xylene	22.01	0.5	20	0	110.0%	85	115				
Toluene	21.63	0.5	20	0	108.1%	85	115				
1,4-Difluorobenzene	115.2	0	120	0	96.0%	77	112				
4-Bromochlorobenzene	122.6	0	120	0	102.2%	88	116				
Fluorobenzene	115.5	0	120	0	96.2%	87	102				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
Work Order: 0109036
Project: XTO Energy; Rowland GC #1

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID: CCV3_010928A		Batch ID: GC-1_010928		Test Code: SW8021B		Units: µg/L		Analysis Date 09/28/2001		Prep Date: 09/28/2001	
Client ID:		0109036		Run ID:		GC-1_010928A		SeqNo: 42832			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.17	0.5	40	0	102.9%	85	115				
Ethylbenzene	42.01	0.5	40	0	105.0%	85	115				
m,p-Xylene	82.7	1	80	0	103.4%	85	115				
Methyl tert-Butyl Ether	40.89	1	40	0	102.2%	85	115				
o-Xylene	42.02	0.5	40	0	105.1%	85	115				
Toluene	41.44	0.5	40	0	103.6%	85	115				
1,4-Difluorobenzene	114.8	0	120	0	95.7%	77	112				
4-Bromochlorobenzene	124.8	0	120	0	104.0%	88	116				
Fluorobenzene	115.4	0	120	0	96.2%	87	102				

Sample ID: CCV1_010929A	Batch ID: GC-1_010929	Test Code: SW8021B	Units: µg/L	Analysis Date	09/29/2001	Prep Date: 09/29/2001					
Client ID:	0109036	Run ID:	GC-1_010929A	SeqNo:	42924						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.12	0.5	20	0	105.6%	85	115				
Ethylbenzene	21.84	0.5	20	0	109.2%	85	115				
m,p-Xylene	43.29	1	40	0	108.2%	85	115				
Methyl tert-Butyl Ether	21.24	1	20	0	106.2%	85	115				
o-Xylene	21.77	0.5	20	0	108.8%	85	115				
Toluene	21.37	0.5	20	0	106.8%	85	115				
1,4-Difluorobenzene	114.8	0	120	0	95.6%	77	112				
4-Bromochlorobenzene	125.6	0	120	0	104.6%	88	116				
Fluorobenzene	115.3	0	120	0	96.1%	87	102				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering

Work Order: 0109036

Project: XTO Energy; Rowland GC #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV2_010929A		Batch ID: GC-1_010929		Test Code: SW8021B		Units: µg/L		Analysis Date 09/29/2001		Prep Date: 09/29/2001	
Client ID: 0109036		Run ID: GC-1_010929A		SeqNo: 42925							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.63	0.5	20	0	108.1%	85	115				
Ethylbenzene	22.29	0.5	20	0	111.4%	85	115				
m,p-Xylene	44.25	1	40	0	110.6%	85	115				
Methyl tert-Butyl Ether	20.9	1	20	0	104.5%	85	115				
o-Xylene	22.27	0.5	20	0	111.3%	85	115				
Toluene	21.9	0.5	20	0	109.5%	85	115				
1,4-Difluorobenzene	114.9	0	120	0	95.8%	77	112				
4-Bromochlorobenzene	120.8	0	120	0	100.7%	88	116				
Fluorobenzene	116	0	120	0	96.7%	87	102				

Sample ID: CCV3_010929A		Batch ID: GC-1_010929		Test Code: SW8021B		Units: µg/L		Analysis Date 09/29/2001		Prep Date: 09/29/2001	
Client ID: 0109036		Run ID: GC-1_010929A		SeqNo: 42926							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.12	0.5	40	0	102.8%	85	115				
Ethylbenzene	42.14	0.5	40	0	105.4%	85	115				
m,p-Xylene	82.96	1	80	0	103.7%	85	115				
Methyl tert-Butyl Ether	38.69	1	40	0	96.7%	85	115				
o-Xylene	42.32	0.5	40	0	105.8%	85	115				
Toluene	41.6	0.5	40	0	104.0%	85	115				
1,4-Difluorobenzene	114.6	0	120	0	95.5%	77	112				
4-Bromochlorobenzene	118.7	0	120	0	98.9%	88	116				
Fluorobenzene	114.9	0	120	0	95.8%	87	102				

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
Work Order: 0109036
Project: XTO Energy; Rowland GC #1
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0109034-01A	95.8	101	96
0109035-01A	94.7	100	95.8
0109035-02A	96.3	103	97.3
0109036-01A	97	104	97.8
0109039-01A	96.8	106	98.1
0109039-02A	96.7	102	97.5
0109039-03A	96.2	104	97.3
0109039-04A	96.8	104	97.7
0109039-05A	96.1	104	97.4
0109039-06A	97	104	97.7
0109039-07A	96	101	97.2
0109039-08A	94.6	98.2	95.9
0109039-09A	96.1	106	95.6
0109039-09AMS	94.6	103	94.1
0109039-09AMSD	95.5	104	94.8
0109039-10A	95.5	101	96.6
0109039-11A	96.8	105	97.3
0109039-12A	96.9	104	97.2
0109039-13A	96.8	104	97.5
0109039-14A	96.7	103	97.4
0109039-15A	96.5	105	97.3
0109039-16A	96.7	103	97.4
0109039-17A	96.4	103	97.7
0109039-18A	95.6	104	100
0109039-18AMS	95.6	104	99.7
0109039-18AMSD	95.6	103	99.8
0109039-19A	96.6	104	100

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	77-112
4BCBZ	= 4-Bromochlorobenzene	88-116
FLBZ	= Fluorobenzene	87-102

* Surrogate recovery outside acceptance limits

CLIENT: Blagg Engineering
Work Order: 0109036
Project: XTO Energy; Rowland GC #1
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0109039-20A	97.2	103	97.8
0109039-21A	96.9	103	97.9
0109039-22A	96.6	102	97.9
0109039-23A	98.1	100	98.4
0109039-24A	96	99.8	101
0109039-25A	97.1	105	97.8
0109039-26A	95.6	101	96.6
0109039-27A	96.1	105	97.3
0109039-28A	97.3	100	97.7
0109039-29A	96.2	101	97.7
0109039-30A	97	104	97.5
0109039-31A	96.5	105	97.4
CCV1_010928A	96	105	96.8
CCV1_010929A	95.6	105	96.1
CCV2_010928A	96	102	96.2
CCV2_010929A	95.8	101	96.7
CCV3_010928A	95.7	104	96.2
CCV3_010929A	95.5	98.9	95.8
LCS_010928A	95.4	105	96
LCS_010929A	95.1	104	96
MB_010928A	96.1	103	96.6
MB_010929A	96.1	104	97.3

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	77-112
4BCBZ	= 4-Bromochlorobenzene	88-116
FLBZ	= Fluorobenzene	87-102

* Surrogate recovery outside acceptance limits

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : XTO ENERGY, INC.

CHAIN-OF-CUSTODY # : 11161

ROWLAND GC #1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : ON - SITE TECH.

Date : December 19, 2001

SAMPLER : N J V

Filename : 12-19-01.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)
3	101.68	85.66	16.02	20.00	-	-	-	-	-
4R	98.07	85.41	12.66	19.09	1450	6.89	1,600	3.25	-
5	97.65	85.19	12.46	15.00	-	-	-	-	-
6	101.85	86.70	15.15	25.00	-	-	-	-	-

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 BTEX from MW # 4R only . Good recovery .

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ANALYTICAL REPORT

Date: 20-Dec-01

Client:	Blagg Engineering	Client Sample Info:	Rowland GC #1
Work Order:	0112022	Client Sample ID:	MW #4R
Lab ID:	0112022-01A	Matrix:	AQUEOUS
Project:	XTO Energy; Rowland GC #1	Collection Date:	12/19/2001 2:50:00 PM
		COC Record:	11161

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DDM		
Benzene	ND	0.5		µg/L	1	12/19/2001
Toluene	ND	0.5		µg/L	1	12/19/2001
Ethylbenzene	ND	0.5		µg/L	1	12/19/2001
m,p-Xylene	ND	1		µg/L	1	12/19/2001
o-Xylene	ND	0.5		µg/L	1	12/19/2001

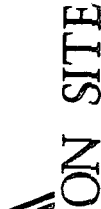
Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surrogate - Surrogate

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On Site Technologies, LTD.

Date: 20-Dec-01

CLIENT: Blagg Engineering
Work Order: 0112022
Project: XTO Energy; Rowland GC #1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0112021-02AMS	Batch ID: GC-1_011219	Test Code: SW8021B	Units: µg/L	Analysis Date 12/19/2001	Prep Date:						
Client ID:	0112022	Run ID:	GC-1_011219A	SeqNo: 45951							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	779.8	5	400	400	94.9%	70	130				
Ethylbenzene	534.6	5	400	160	93.6%	70	130				
m,p-Xylene	1629	10	800	790	104.9%	70	130				
o-Xylene	485.2	5	400	95	97.6%	70	130				
Toluene	410.1	5	400	30	95.0%	70	130				
1,4-Difluorobenzene	980.7	0	1100	0	89.2%	77	112				
4-Bromochlorobenzene	1165	0	1100	0	105.9%	88	116				
Fluorobenzene	996.2	0	1100	0	90.6%	87	102				

Sample ID: 0112021-02AMSD	Batch ID: GC-1_011219	Test Code: SW8021B	Units: µg/L	Analysis Date 12/19/2001		Prep Date:					
Client ID:	0112022	Run ID:	GC-1_011219A	SeqNo:	45952						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	793	5	400	400	98.3%	70	130	779.8	1.7%	6	
Ethylbenzene	532.5	5	400	160	93.1%	70	130	534.6	0.4%	7	
m,p-Xylene	1616	10	800	790	103.3%	70	130	1629	0.8%	6	
o-Xylene	488.5	5	400	95	98.4%	70	130	485.2	0.7%	5	
Toluene	401.6	5	400	30	92.9%	70	130	410.1	2.1%	6	
1,4-Difluorobenzene	1005	0	1100	0	91.3%	77	112	0	0.0%	0	
4-Bromochlorobenzene	1150	0	1100	0	104.5%	88	116	0	0.0%	0	
Fluorobenzene	1010	0	1100	0	91.8%	87	102	0	0.0%	0	

Qualifiers:

NID - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

1 of 1

On Site Technologies, LTD.

Date: 20-Dec-01

CLIENT: Blagg Engineering

Work Order: 0112022

Project: XTO Energy: Rowland GC #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS_011219	Batch ID: GC-1_011219	Test Code: SW8021B	Units: µg/L	Analysis Date 12/19/2001	Prep Date:						
Client ID:	0112022	Run ID: GC-1_011219A		SeqNo: 45949							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.24	0.5	40	0	93.1%	80	120				
Ethylbenzene	37.52	0.5	40	0	93.8%	80	120				
m,p-Xylene	77.72	1	80	0	97.2%	80	120				
o-Xylene	39.09	0.5	40	0	97.7%	80	120				
Toluene	37.35	0.5	40	0.2	92.9%	80	120				
1,4-Difluorobenzene	100	0	110	0	90.9%	77	112				
4-Bromochlorobenzene	114.1	0	110	0	103.8%	88	116				
Fluorobenzene	101	0	110	0	91.8%	87	102				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 20-Dec-01

CLIENT: Blagg Engineering

Work Order: 0112022

Project: XTO Energy; Rowland GC #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1_011219	Batch ID: GC-1_011219	Test Code: SW8021B	Units: µg/L	Analysis Date 12/19/2001		Prep Date:					
Client ID:	0112022	Run ID: GC-1_011219A		SeqNo: 45946							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.08	0.5	20	0	95.4%	85	115				
Ethylbenzene	19.61	0.5	20	0	98.1%	85	115				
m,p-Xylene	40.03	1	40	0	100.1%	85	115				
o-Xylene	20.34	0.5	20	0	101.7%	85	115				
Toluene	19.64	0.5	20	0	98.2%	85	115				
1,4-Difluorobenzene	101.8	0	110	0	92.6%	77	112				
4-Bromochlorobenzene	114.2	0	110	0	103.8%	88	116				
Fluorobenzene	101.4	0	110	0	92.2%	87	102				

Sample ID: CCV2_011219		Batch ID: GC-1_011219		Test Code: SW8021B		Units: µg/L		Analysis Date 12/19/2001		Prep Date:	
Client ID:		0112022		Run ID: GC-1_011219A				SeqNo: 45947			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.35	0.5	20	0	91.7%	85	115				
Ethylbenzene	17.96	0.5	20	0	89.8%	85	115				
m,p-Xylene	37.12	1	40	0	92.8%	85	115				
o-Xylene	19.3	0.5	20	0	96.5%	85	115				
Toluene	18.69	0.5	20	0	93.5%	85	115				
1,4-Difluorobenzene	101.8	0	110	0	92.5%	77	112				
4-Bromochlorobenzene	113	0	110	0	102.7%	88	116				
fluorobenzene	101.9	0	110	0	92.7%	87	102				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
Work Order: 0112022
Project: XTO Energy: Rowland GC #1

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID: CCV3_011219		Batch ID: GC-1_011219		Test Code: SW8021B		Units: µg/L		Analysis Date 12/19/2001		Prep Date:	
Client ID:		0112022		Run ID: GC-1_011219A				SeqNo: 45948			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.27	0.5	20	0	96.4%	85	115				
Ethylbenzene	19.51	0.5	20	0	97.6%	85	115				
m,p-Xylene	40.07	1	40	0	100.2%	85	115				
o-Xylene	20.6	0.5	20	0	103.0%	85	115				
Toluene	19.94	0.5	20	0	99.7%	85	115				
1,4-Difluorobenzene	102.1	0	110	0	92.8%	77	112				
4-Bromochlorobenzene	114.2	0	110	0	103.8%	88	116				
Fluorobenzene	101.2	0	110	0	92.0%	87	102				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

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CLIENT: Blagg Engineering
Work Order: 0112022
Project: XTO Energy; Rowland GC #1
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0112021-01A	91.4	104	91.3
0112021-02A	92.3	107	92.6
0112021-02AMS	89.2	106	90.6
0112021-02AMSD	91.3	104	91.8
0112021-03A	93.5	104	92.8
0112021-04A	92.4	105	93.1
0112021-05A	93.2	104	93
0112021-06A	94.4	105	93.2
0112021-07A	90.7	103	91.1
0112021-08A	93.8	105	93.8
0112021-09A	94.3	106	93.8
0112022-01A	93.6	104	93.6
0112023-01A	92.9	101	92.6
0112023-02A	87	105	90.4
0112023-03A	96.2	112	96.9
0112023-04A	93	106	92.7
CCV1_011219	92.6	104	92.2
CCV2_011219	92.5	103	92.7
CCV3_011219	92.8	104	92
LCS_011219	90.9	104	91.8
MB_011219	94.5	102	93.5

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	77-112
4BCBZ	= 4-Bromochlorobenzene	88-116
FLBZ	= Fluorobenzene	87-102

* Surrogate recovery outside acceptance limits

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : XTO ENERGY, INC.

CHAIN-OF-CUSTODY # : 11165

ROWLAND GC #1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : ON - SITE TECH.

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)
3	101.68	84.59	17.09	20.00	-	-	-	-	-
4R	98.07	84.10	13.97	19.09	1435	7.01	1,600	1.25	-
5	97.65	85.64	12.01	15.00	-	-	-	-	-
6	101.85	83.12	18.73	25.00	-	-	-	-	-

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 BTEX from MW # 4R only . Fair recovery .

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ANALYTICAL REPORT

Date: 28-Feb-02

Client:	Blagg Engineering	Client Sample Info:	Rowland GC #1
Work Order:	0202018	Client Sample ID:	MW #4R
Lab ID:	0202018-01A	Matrix:	AQUEOUS
		Collection Date:	02/19/2002 2:35:00 PM
Project:	XTO Energy; Rowland GC #1	COC Record:	

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DDM		
Benzene	ND	0.5		µg/L	1	02/27/2002
Toluene	ND	0.5		µg/L	1	02/27/2002
Ethylbenzene	ND	0.5		µg/L	1	02/27/2002
m,p-Xylene	ND	1		µg/L	1	02/27/2002
o-Xylene	ND	0.5		µg/L	1	02/27/2002

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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CHAIN OF CUSTODY RECORD

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Fax No.		Fax No.	
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SAMPLER'S SIGNATURE:		LAB ID	
SAMPLE IDENTIFICATION		Number of Containers	
DATE	TIME	MATRIX	PRES.
1/19/93	1435	WATER	GROUND
Relinquished by:		Received by:	
Relinquished by:		Received by:	
Relinquished by:		Received by:	
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(Client Signature Must Accompany Request)		Date	

On Site Technologies, LTD.

Date: 28-Feb-02

QC SUMMARY REPORT

Method Blank

CLIENT: Blagg Engineering
 Work Order: 0202018
 Project: XTO Energy; Rowland GC #1

Sample ID: MB_020227	Batch ID: GC-1_020227	Test Code: SW8021B	Units: µg/L	Analysis Date: 02/27/2002	Prep Date:
Client ID:	0202018	Run ID: GC-1_020227A		SeqNo: 48119	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	1097	0.5			J
Ethylbenzene	1164	0.5			J
m,p-Xylene	1601	1			J
Methyl tert-Butyl Ether	ND	1			
o-Xylene	ND	0.5			J
Toluene	2605	0.5			
1,4-Difluorobenzene	106.7	0			
4-Bromochlorobenzene	120.8	0			
Fluorobenzene	108.2	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 28-Feb-02

CLIENT: Blagg Engineering
Work Order: 0202018
Project: XTO Energy; Rowland GC #1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0202029-05AMS		Batch ID: GC-1_020227		Test Code: SW8021B		Units: µg/L		Analysis Date: 02/27/2002				Prep Date:	
Client ID:		0202018		Run ID:		GC-1_020227A		SeqNo: 48120					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Benzene	376.1	5	400	1.114	93.7%	70	130						
Ethylbenzene	388.1	5	400	7.019	95.3%	70	130						
m,p-Xylene	798.9	10	800	35.75	95.4%	70	130						
Methyl tert-Butyl Ether	404.4	10	400	0	101.1%	70	130						
o-Xylene	394.2	5	400	17.62	94.2%	70	130						
Toluene	388.8	5	400	20.22	92.2%	70	130						
1,4-Difluorobenzene	1050	0	1100	0	95.4%	70	130						
4-Bromochlorobenzene	1178	0	1100	0	107.1%	70	130						
fluorobenzene	1067	0	1100	0	97.0%	70	130						

Sample ID: 0202029-05AMSD		Batch ID: GC-1_020227		Test Code: SW8021B		Units: µg/L		Analysis Date: 02/27/2002				Prep Date:	
Client ID:		0202018		Run ID:		GC-1_020227A		SeqNo: 48121					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Benzene	367.1	5	400	1.114	91.5%	70	130	376.1	2.4%	15			
Ethylbenzene	379.2	5	400	7.019	93.0%	70	130	388.1	2.3%	15			
m,p-Xylene	781.4	10	800	35.75	93.2%	70	130	798.9	2.2%	15			
Methyl tert-Butyl Ether	401.4	10	400	0	100.3%	70	130	404.4	0.8%	15			
o-Xylene	386.5	5	400	17.62	92.2%	70	130	394.2	2.0%	15			
Toluene	379.7	5	400	20.22	89.9%	70	130	388.8	2.4%	15			
1,4-Difluorobenzene	1052	0	1100	0	95.6%	70	130	0	0.0%	0			
4-Bromochlorobenzene	1178	0	1100	0	107.1%	70	130	0	0.0%	0			
Fluorobenzene	1066	0	1100	0	97.0%	70	130	0	0.0%	0			

Qualifiers: NID - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: Blagg Engineering
 Work Order: 0202018
 Project: XTO Energy, Rowland GC #1

Date: 28-Feb-02

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS_020227		Batch ID: GC-1_020227		Test Code: SW8021B		Units: µg/L		Analysis Date: 02/27/2002		Prep Date:	
Client ID:		0202018		Run ID: GC-1_020227A		SeqNo:		48118			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.3	0.5	40	0.1097	95.5%	80	120				
Ethylbenzene	39.34	0.5	40	0.1164	98.1%	80	120				
m,p-Xylene	78.72	1	80	0.1601	98.2%	80	120				
Methyl tert-Butyl Ether	40.62	1	40	0	101.6%	80	120				
o-Xylene	38.65	0.5	40	0	96.6%	80	120				
Toluene	37.77	0.5	40	0.2605	93.8%	80	120				
1,4-Difluorobenzene	105.3	0	110	0	95.7%	70	130				
4-Bromochlorobenzene	120.6	0	110	0	109.6%	70	130				
Fluorobenzene	107.2	0	110	0	97.5%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 28-Feb-02

CLIENT: Blagg Engineering
Work Order: 0202018
Project: XTO Energy; Rowland GC #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1_020227		Batch ID: GC-1_020227		Test Code: SW8021B		Units: µg/L		Analysis Date: 02/27/2002		Prep Date:	
Client ID: 0202018		Run ID: GC-1_020227A		PQL		SPK value		SeqNo: 48114			
Analyte	Result					SPK Ref Val		LowLimit	HighLimit	RPD Ref Val	RPDLimit
Benzene	19.72	0.5				0		85	115		
Ethylbenzene	20.11	0.5				0		85	115		
m,p-Xylene	40.48	1				0		85	115		
Methyl tert-Butyl Ether	20.14	1				0		85	115		
o-Xylene	19.62	0.5				0		85	115		
Toluene	19.44	0.5				0		85	115		
1,4-Difluorobenzene	106.5	0				0		70	130		
4-Bromochlorobenzene	120.7	0				0		70	130		
Fluorobenzene	107.8	0				0		70	130		

Sample ID: CCV2_020227		Batch ID: GC-1_020227		Test Code: SW8021B		Units: µg/L		Analysis Date: 02/27/2002		Prep Date:	
Client ID: 0202018		Run ID: GC-1_020227A		PQL		SPK value		SeqNo: 48115			
Analyte	Result					SPK Ref Val		LowLimit	HighLimit	RPD Ref Val	RPDLimit
Benzene	19.57	0.5				0		85	115		
Ethylbenzene	19.72	0.5				0		85	115		
m,p-Xylene	39.64	1				0		85	115		
Methyl tert-Butyl Ether	20.6	1				0		85	115		
o-Xylene	19.34	0.5				0		85	115		
Toluene	19.18	0.5				0		85	115		
1,4-Difluorobenzene	105.9	0				0		70	130		
4-Bromochlorobenzene	119.3	0				0		70	130		
Fluorobenzene	107.4	0				0		70	130		

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering

Work Order: 0202018

Project: XTO Energy; Rowland GC #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV3_020227	Batch ID: GC-1_020227	Test Code: SW8021B	Units: µg/L	Analysis Date: 02/27/2002	Prep Date:
Client ID: 0202018	Run ID: GC-1_020227A	PQL	SPK value	SeqNo: 48116	
Analyte	Result	PQL	SPK value	LowLimit	HighLimit
Benzene	37.68	0.5	40	85	115
Ethylbenzene	38.16	0.5	40	85	115
m,p-Xylene	76.15	1	80	85	115
Methyl tert-Butyl Ether	40.35	1	40	85	115
o-Xylene	37.6	0.5	40	85	115
Toluene	37.02	0.5	40	85	115
1,4-Difluorobenzene	105	0	110	70	130
4-Bromochlorobenzene	117.2	0	110	70	130
Fluorobenzene	106.8	0	110	70	130
				%REC	%RPD
				94.2%	
				95.4%	
				95.2%	
				100.9%	
				94.0%	
				92.6%	
				95.4%	
				106.6%	
				97.1%	
				RPD Ref Val	RPDLimit
					Qual

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
Work Order: 0202018
Project: XTO Energy; Rowland GC #1
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0202016-01A	95.6	107	97.8
0202017-01A	95.9	107	98.1
0202017-02A	93.8	107	96.1
0202017-03A	94.1	106	95.7
0202017-05A	96.4	113	98.3
0202017-06A	95.3	110	97
0202018-01A	97.1	110	98.9
0202029-01A	96.4	110	98.9
0202029-02A	97.1	109	98.8
0202029-03A	96.5	105	98.6
0202029-04A	96.5	108	99
0202029-05A	97	107	98.6
0202029-05AMS	95.4	107	97
0202029-05AMSD	95.6	107	97
0202029-06A	96.8	108	99.5
0202029-07A	97.5	108	98.7
0202029-08A	96.5	109	98.7
0202029-09A	96.8	109	98.9
0202029-10A	96.6	108	98.3
0202029-11A	95.4	107	97.6
0202029-12A	96.2	107	98.5
CCV1_020227	96.8	110	98
CCV2_020227	96.2	108	97.6
CCV3_020227	95.4	106	97.1
LCS_020227	95.7	110	97.5
MB_020227	97	110	98.4

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

BLAGG ENGINEERING, INC.**MONITOR WELL SAMPLING DATA**CLIENT : XTO ENERGY, INC.CHAIN-OF-CUSTODY # : 11993

ROWLAND GC #1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : ON - SITE TECH.Date : June 26, 2002SAMPLER : N J VFilename : 06-26-02.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)
3	101.68	86.89	14.79	20.00	-	-	-	-	-
5	97.65	86.78	10.87	15.00	1120	7.69	1,700	1.25	-
6	101.85	87.95	13.90	25.00	-	-	-	-	-

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 BTEX from MW # 5 only . Poor / fair recovery . DTW measured 11.25 ft. @time of sampling .

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 10-Jul-02

Client:	Blagg Engineering	Client Sample Info:	XTO - Rowland GC #1
Work Order:	0206052	Client Sample ID:	MW #5
Lab ID:	0206052-01A	Matrix:	AQUEOUS
Project:	XTO - Rowland GC #1	Collection Date:	06/26/2002 11:20:00 AM
		COC Record:	11993

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DWC		
Benzene	84	10		µg/L	20	06/27/2002
Toluene	ND	10		µg/L	20	06/27/2002
Ethylbenzene	630	10		µg/L	20	06/27/2002
m,p-Xylene	3300	20		µg/L	20	06/27/2002
o-Xylene	160	10		µg/L	20	06/27/2002

Qualifiers:

PQL - Practical Quantitation Limit

S - Spike Recovery outside accepted recovery limits

ND - Not Detected at Practical Quantitation Limit

R - RPD outside accepted precision limits

J - Analyte detected below Practical Quantitation Limit

E - Value above quantitation range

B - Analyte detected in the associated Method Blank

Surrogate - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

EMAIL: ONSITE@ONSITELTD.COM

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



CHAIN OF CUSTODY RECORD

11993

Date: 6/26/92
Page: 1 of 1

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Purchase Order No.:		Project No.	
SEND INVOICE TO		Name: <u>JOHN BLAKE</u>	
Company: <u>BLAKE ENGINEERING INC</u>		Dept.:	
Address:		City, State, Zip:	
PROJECT LOCATION:		Telephone No.:	
SAMPLER'S SIGNATURE: <u>[Signature]</u>		Telex No.:	
SAMPLE IDENTIFICATION		ANALYSIS REQUESTED	
DATE	TIME	MATRIX	PRES.
6/26/92	11:20	WATER	FIELD
7700 AS		LAB ID	
7700 AS		07667-01A	
Relinquished by: <u>[Signature]</u>		Received by: <u>[Signature]</u>	
Relinquished by:		Received by:	
Relinquished by:		Received by:	
Method of Shipment:		Rush	
Authorized by: _____		24-48 Hours	
(Client Signature <u>Must</u> Accompany Request)		10 Working Days	
Date: _____		By Date	
Special Instructions / Remarks:		Date/Time	

On Site Technologies, LTD.

Date: 10-Jul-02

CLIENT: Blagg Engineering
Work Order: 0206052
Project: XTO - Rowland GC #1

QC SUMMARY REPORT

Method Blank

Sample ID: MB_020627	Batch ID: GC-1_020627	Test Code: SW8021B	Units: µg/L	Analysis Date: 06/27/2002	Prep Date: 06/27/2002
Client ID:	0206052	Run ID: GC-1_020627A		SeqNo: 52887	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	ND	0.5			
Ethylbenzene	ND	0.5			
m,p-Xylene	ND	1			
Methyl tert-Butyl Ether	ND	1			
o-Xylene	ND	0.5			
Toluene	1054	0.5			
1,4-Difluorobenzene	107.6	0			
4-Bromochlorobenzene	118.6	0			
Fluorobenzene	109.7	0			J

Qualifiers: NID - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Jul-02

CLIENT: Blagg Engineering
Work Order: 0206052
Project: XTO - Rowland GC #1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0206041-01AMS		Batch ID: GC-1_020627		Test Code: SW8021B		Units: µg/L		Analysis Date: 06/27/2002		Prep Date: 06/27/2002	
Client ID: 0206052		Run ID: GC-1_020627A		SeqNo: 52888							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1171	5	400	769.1	100.6%	70	130				
Ethylbenzene	763.9	5	400	352.2	102.9%	70	130				
m,p-Xylene	1554	10	800	774.5	97.4%	70	130				
Methyl tert-Butyl Ether	601.3	10	400	205	99.1%	70	130				
o-Xylene	474.6	5	400	88.25	96.6%	70	130				
Toluene	597.6	5	400	204.9	98.2%	70	130				
1,4-Difluorobenzene	1065	0	1100	0	96.8%	70	130				
4-Bromochlorobenzene	1210	0	1100	0	110.0%	70	130				
Fluorobenzene	1087	0	1100	0	98.8%	70	130				

Sample ID: 0206041-01AMSD		Batch ID: GC-1_020627		Test Code: SW8021B		Units: µg/L		Analysis Date: 06/27/2002		Prep Date: 06/27/2002	
Client ID: 0206052		Run ID: GC-1_020627A		SeqNo: 52889							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1127	5	400	769.1	89.6%	70	130	1171	3.8%	15	
Ethylbenzene	735.7	5	400	352.2	95.9%	70	130	763.9	3.8%	15	
m,p-Xylene	1498	10	800	774.5	90.5%	70	130	1554	3.6%	15	
Methyl tert-Butyl Ether	591.9	10	400	205	96.7%	70	130	601.3	1.6%	15	
o-Xylene	460.1	5	400	88.25	93.0%	70	130	474.6	3.1%	15	
Toluene	574.8	5	400	204.9	92.5%	70	130	597.6	3.9%	15	
1,4-Difluorobenzene	1054	0	1100	0	95.9%	70	130	0	0.0%	0	
4-Bromochlorobenzene	1208	0	1100	0	109.8%	70	130	0	0.0%	0	
Fluorobenzene	1084	0	1100	0	98.5%	70	130	0	0.0%	0	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Jul-02

CLIENT: Blagg Engineering
Work Order: 0206052
Project: XTO - Rowland GC #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS_020627		Batch ID: GC-1_020627		Test Code: SW8021B		Units: µg/L		Analysis Date: 06/27/2002			Prep Date: 06/27/2002	
Client ID:		0206052		Run ID:		GC-1_020627A		SeqNo: 52886				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	38.85	0.5	40	0	97.1%	80	120					
Ethylbenzene	39.46	0.5	40	0	98.7%	80	120					
m,p-Xylene	78.4	1	80	0	98.0%	80	120					
Methyl tert-Butyl Ether	39.58	1	40	0	99.0%	80	120					
o-Xylene	38.05	0.5	40	0	95.1%	80	120					
Toluene	37.88	0.5	40	0.1054	94.4%	80	120					
1,4-Difluorobenzene	106.6	0	110	0	97.0%	70	130					
4-Bromochlorobenzene	120.1	0	110	0	109.2%	70	130					
Fluorobenzene	108.9	0	110	0	99.0%	70	130					

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Jul-02

QC SUMMARY REPORT

Continuing Calibration Verification Standard

CLIENT: Blagg Engineering

Work Order: 0206052

Project: XTO - Rowland GC #1

Sample ID: CCV1_020627	Batch ID: GC-1_020627	Test Code: SW8021B	Units: µg/L	Analysis Date: 06/27/2002	Prep Date: 06/27/2002
Client ID: 0206052	Run ID: GC-1_020627A	PQL	SPK value	SeqNo: 52883	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Benzene	20.08	0.5	20	0	100.4%
Ethylbenzene	20.33	0.5	20	0	101.6%
m,p-Xylene	40.7	1	40	0	101.7%
Methyl tert-Butyl Ether	19.9	1	20	0	99.5%
o-Xylene	19.56	0.5	20	0	97.8%
Toluene	19.51	0.5	20	0	97.5%
1,4-Difluorobenzene	106.7	0	110	0	97.0%
4-Bromochlorobenzene	117.7	0	110	0	107.0%
Fluorobenzene	109.6	0	110	0	99.6%

Sample ID: CCV2_020627	Batch ID: GC-1_020627	Test Code: SW8021B	Units: µg/L	Analysis Date: 06/27/2002	Prep Date: 06/27/2002
Client ID: 0206052	Run ID: GC-1_020627A	PQL	SPK value	SeqNo: 52884	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Benzene	19.17	0.5	20	0	95.9%
Ethylbenzene	19.37	0.5	20	0	96.9%
m,p-Xylene	38.18	1	40	0	95.4%
Methyl tert-Butyl Ether	18.95	1	20	0	94.7%
o-Xylene	18.69	0.5	20	0	93.5%
Toluene	18.54	0.5	20	0	92.7%
1,4-Difluorobenzene	109.1	0	110	0	99.2%
4-Bromochlorobenzene	123.6	0	110	0	112.4%
Fluorobenzene	111.7	0	110	0	101.6%

Qualifiers:

NID - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
Work Order: 0206052
Project: XTO - Rowland GC #1

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID: CCV3_020627	Batch ID: GC-1_020627	Test Code: SW8021B	Units: µg/L	Analysis Date: 06/27/2002	Prep Date: 06/27/2002						
Client ID:	0206052	Run ID:	GC-1_020627A	SeqNo: 52885							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.74	0.5	40	0	96.8%	85	115				
Ethylbenzene	38.89	0.5	40	0	97.2%	85	115				
m,p-Xylene	76.38	1	80	0	95.5%	85	115				
Methyl tert-Butyl Ether	38.49	1	40	0	96.2%	85	115				
o-Xylene	37.42	0.5	40	0	93.5%	85	115				
Toluene	37.56	0.5	40	0	93.9%	85	115				
1,4-Difluorobenzene	107.9	0	110	0	98.1%	70	130				
4-Bromochlorobenzene	119.1	0	110	0	108.3%	70	130				
Fluorobenzene	111.5	0	110	0	101.4%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
Work Order: 0206052
Project: XTO - Rowland GC #1
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0206028-01A	88	100	105
0206029-01A	99.2	109	102
0206030-01A	90.1	103	102
0206030-03A	96.5	111	100
0206031-02A	98.4	110	102
0206031-04A	92.1	107	95.5
0206039-01A	91.8	112	95.2
0206041-01A	96.6	110	99
0206041-01AMS	96.8	110	98.8
0206041-01AMSD	95.8	110	98.5
0206041-02A	98.1	112	101
0206048-01A	97.7	109	101
0206049-01A	97.6	106	100
0206049-02A	95.9	107	99.7
0206050-02A	99.5	113	102
0206052-01A	96.3	106	100
CCV1_020627	97	107	99.6
CCV2_020627	99.2	112	102
CCV3_020627	98.1	108	101
LCS_020627	97	109	99
MB_020627	97.8	108	99.8

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : N / A

ROWLAND GC #1 - SEPARATOR PIT

LABORATORY (S) USED : HALL ENVIRONMENTAL

UNIT P, SEC. 25, T30N, R12W

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.)
3	101.68	86.93	14.75	20.00	-	-	-	-	-
5	97.65	88.51	9.14	15.00	1345	7.24	1,100	22.6	1.50
6	101.85	87.11	14.74	25.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =

DATE & TIME =

7.00	2,800
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 ".

Collected BTEX from MW # 5 only . Poor / fair recovery . DTW measured 10.99 ft. @
 time of sampling .

Hall Environmental Analysis Laboratory

Date: 11-Jul-03

CLIENT: Blagg Engineering
Lab Order: 0306210
Project: Rowland GC #1
Lab ID: 0306210-01

Client Sample ID: MW #5
Collection Date: 6/27/2003 1:45:00 PM

Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Benzene	51	50		µg/L	50	7/9/2003
Toluene	ND	50		µg/L	50	7/9/2003
Ethylbenzene	420	50		µg/L	50	7/9/2003
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	7/9/2003
1,2,4-Trimethylbenzene	260	50		µg/L	50	7/9/2003
1,3,5-Trimethylbenzene	200	50		µg/L	50	7/9/2003
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	7/9/2003
Xylenes, Total	2600	50		µg/L	50	7/9/2003
Surr: 1,2-Dichloroethane-d4	93.0	82.1-124		%REC	50	7/9/2003
Surr: 4-Bromofluorobenzene	113	76.2-122		%REC	50	7/9/2003
Surr: Dibromofluoromethane	92.2	67.2-131		%REC	50	7/9/2003
Surr: Toluene-d8	107	82.1-123		%REC	50	7/9/2003

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 11-Jul-03

CLIENT: Blagg Engineering
 Work Order: 0306210
 Project: Rowland GC #1

QC SUMMARY REPORT
 Method Blank

Sample ID	5ml rb	Batch ID: R8829	Test Code: SW8260B	Units: µg/L	Analysis Date 7/9/2003		Prep Date				
Client ID:		Run ID: THOR_030708B			SeqNo: 199356						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1.0									
Toluene	ND	1.0									
Ethylbenzene	ND	1.0									
Xylenes, Total	ND	1.0									
Surr: 1,2-Dichloroethane-d4	9.738	0	10	0	97.4	82.1	124	0			
Surr: 4-Bromofluorobenzene	10.52	0	10	0	105	76.2	122	0			
Surr: Dibromofluoromethane	9.234	0	10	0	92.3	67.2	131	0			
Surr: Toluene-d8	10.72	0	10	0	107	82.1	123	0			

Sample ID	5ml rb	Batch ID: R8785	Test Code: SW8260B	Units: µg/L	Analysis Date 7/8/2003	Prep Date					
Client ID:		Run ID: THOR_030708A		SeqNo: 199421							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1.0									
Toluene	ND	1.0									
Ethylbenzene	ND	1.0									
Xylenes, Total	ND	1.0									
Surr: 1,2-Dichloroethane-d4	10.03	0	10	0	100	82.1	124	0			
Surr: 4-Bromofluorobenzene	11.28	0	10	0	113	76.2	122	0			
Surr: Dibromofluoromethane	9.57	0	10	0	95.7	67.2	131	0			
Surr: Toluene-d8	10.56	0	10	0	106	82.1	123	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 11-Jul-03

CLIENT: Blagg Engineering

Work Order: 0306210

Project: Rowland GC #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: 100ng ccv-b	Batch ID: R8829	Test Code: SW8260B	Units: µg/L	Analysis Date: 7/9/2003	Prep Date:
Client ID:	Run ID:	THOR_030708B	SeqNo:	199357	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	21.61	1.0	20	0	108 85.3 120 0
Toluene	22.6	1.0	20	0	113 82.5 120 0

Sample ID: 50ng ccv	Batch ID: R8785	Test Code: SW8260B	Units: µg/L	Analysis Date: 7/8/2003	Prep Date:
Client ID:	Run ID:	THOR_030708A	SeqNo:	199422	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	9.914	1.0	10	0	99.1 85.3 120 0
Toluene	10.71	1.0	10	0	107 82.5 120 0
Ethylbenzene	10.38	1.0	10	0	104 80 120 0
Xylenes, Total	31.28	1.0	30	0	104 80 120 0

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name **BLAGG**

Date and Time Receive

6/30/03

Work Order Number **0306210**

Received by **AT**

Checklist completed by

Signature

Date

Matrix:

Carrier name: Greyhound

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
Container/Temp Blank temperature?	2°	4° C ± 2 Acceptable	

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

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

Project Name: Rowland GC #1

Project #:	
Project Manager:	Nelson Velez

Sampler: NELSON VELEZ
Samples Col'd?: 2 ☒ Yes ☐ No

[illegible]

Date: 10/30/03	Time: 0825	Relinquished By: (Signature) <i>Edison Key</i>	Received By: (Signature) <i>Edison Key</i>
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

ANALYSIS REQUEST

[illegible]

Remarks:

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : N / A

OWLAND GC # 1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : June 21, 2004

SAMPLER : N J V

Filename : 06-21-04.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.)
3	101.68	86.90	14.78	20.00	-	-	-	-	-
5	97.65	87.80	9.85	15.00	1345	7.24	1,800	20.5	1.75
6	101.85	87.05	14.80	25.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =

DATE & TIME =

7.00	2,800
06/21/04	1330

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 "

Collected BTEX from MW # 5 only . Good / fair recovery . DTW measured 9.90 ft. @
time 1343 hrs.

Hall Environmental Analysis Laboratory

Date: 29-Jun-04

CLIENT: Blagg Engineering
Lab Order: 0406213
Project: Rowland GC #1
Lab ID: 0406213-01

Client Sample ID: MW #5
Collection Date: 6/21/2004 1:45:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	39	2.5		µg/L	5	6/25/2004 4:37:46 PM
Toluene	19	2.5		µg/L	5	6/25/2004 4:37:46 PM
Ethylbenzene	490	2.5		µg/L	5	6/25/2004 4:37:46 PM
Xylenes, Total	1200	2.5		µg/L	5	6/25/2004 4:37:46 PM
Surr: 4-Bromofluorobenzene	111	74-118		%REC	5	6/25/2004 4:37:46 PM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level 1 / 4

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

ANALYSIS LABORATORY

BLAGG/XTO
P.O. BOX 87
BLFO. NM 87413

P.O. BOX 87

BLFO. NM 87413

Fax #: 505-632-3903

Sample I.D. No.

water

5 # MW

2-40m

Preservative

$$\text{HgCl}_2 \quad \text{HNO}_3$$

HEAL No.

210213-1

Accreditation Applied:

NELAC

ACE

Other:

Project Name:

Rowland GC #1

Project #:

Project Manager:

NTV

Sampler:

✓

Sample Temperature:

<	(BTEX + MTBE + TMB's (80218))	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F ⁻ , Cl ⁻ , NO ₃ ⁻ , PO ₄ ³⁻ , SO ₄ ²⁻)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)			Air Bubbles or Headspace (Y or N)
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Remarks:

Time: _____

Relinquished By: (Signature)

Time: _____

Relinquished By: (Signature)

Received By: (Signature)

Received By: (Signature)

Hall Environmental Analysis Laboratory

Date: 29-Jun-04

CLIENT: Blagg Engineering
Work Order: 0406213
Project: Rowland GC #1

QC SUMMARY REPORT
Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R12276	Test Code: SW8021	Units: µg/L	Analysis Date	6/25/2004 8:13:54 AM	Prep Date				
Client ID:		Run ID: PIDFID_040625A			SeqNo:	282684					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20.13	0	20	0	101	74	118	0			

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	

Hall Environmental Analysis Laboratory

Date: 29-Jun-04

CLIENT: Blagg Engineering
Work Order: 0406213
Project: Rowland GC #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	BTEX std 100ng	Batch ID: R12276	Test Code: SW8021	Units: µg/L	Analysis Date	6/25/2004 9:15:51 AM	Prep Date					
Client ID:	Run ID:	PIDFID_040625A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result											
Benzene	20.97	0.5	20	0	0	105	81.3	121	0			
Toluene	20.98	0.5	20	0	0	105	84.9	118	0			
Ethylbenzene	21.03	0.5	20	0	0	105	53.8	149	0			
Xylenes, Total	64.11	0.5	60	0	0	107	83.1	122	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name **BLAGG**

Date and Time Received:

6/22/2004

Work Order Number **0406213**

Received by **GT**

Checklist completed by

Signature

Date

Matrix

Carrier name **Greyhound**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒ Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
Container/Temp Blank temperature?	1°	4° C ± 2 Acceptable If given sufficient time to cool.	

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : XTO ENERGY INC.

CHAIN-OF-CUSTODY # : N / A

OWLAND GC #1 - SEPARATOR PIT
UNIT P, SEC. 25, T30N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : June 27, 2005

SAMPLER : N J V

Filename : 06-27-05.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.)
3	101.68	87.95	13.73	20.00	-	-	-	-	-
5	97.65	88.33	9.32	15.00	1515	7.13	1,500	22.3	2.00
6	101.85	88.25	13.60	25.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =

DATE & TIME =

7.00	2,800
06/27/05	1500

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 "

Collected BTEX from MW # 5 only . Fair recovery .

Hall Environmental Analysis Laboratory

Date: 05-Jul-05

CLIENT: Blagg Engineering
Lab Order: 0506269
Project: Rowland GC #1
Lab ID: 0506269-01

Client Sample ID: MW #5
Collection Date: 6/27/2005 3:15:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: KTM
Benzene	18	5.0		µg/L	10	6/30/2005 12:02:36 AM
Toluene	44	5.0		µg/L	10	6/30/2005 12:02:36 AM
Ethylbenzene	420	5.0		µg/L	10	6/30/2005 12:02:36 AM
Xylenes, Total	1900	10		µg/L	20	6/30/2005 1:16:50 PM
Surr: 4-Bromofluorobenzene	106	83.3-121		%REC	10	6/30/2005 12:02:36 AM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

CHAIN-OF-CUSTODY RECORD

Client: BLAKE ENCL. / XTO ENERGY

Address: P.O. BOX 87

BED. NM 87413

Phone #: (505) 632-1199

Fax #: (505) 632-3903

Date

Time

Matrix

Sample I.D. No.

Number/Volume

Preservative

HgCl₂ HNO₃

HEAL No.

6/27/05

1515

WATER

MW #5

2-40ml

✓

0506269-1

Date:

Time:

Relinquished By: (Signature)

Received By: (Signature)

6/28/05

5:00

Date:

Time:

Relinquished By: (Signature)

Received By: (Signature)

Accreditation Applied:

NEIAC ☐ SAGE ☐

Other:

Project Name:

Rowland GC #1

Project #:

NV

Project Manager:

NV

Sampler:

NV

Sample Temperature:

6.0

(BTEX + MTBE + TMB's (80218))

✓

BTEX + MTBE + TPH (Gasline Only)

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8021)

8310 (PNA or PAH)

RCRA 8 Metals

Anions (F, Cl, NO₂, NO₃, PO₄, SO₄)

8081 Pesticides / PCB's (8082)

8260B (VOA)

8270 (Semi-VOA)

Air Bubbles or Headspace (Y or N)

ANALYSIS REQUEST

HALL ENVIRONMENTAL
ANALYSIS LABORATORY

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

Remarks:

Hall Environmental Analysis Laboratory

Date: 05-Jul-05

QC SUMMARY REPORT

Method Blank

CLIENT: Blagg Engineering

Work Order: 0506269

Project: Rowland GC #1

Sample ID	Reagent Blank 5m	Batch ID: R15847	Test Code: SW8021	Units: µg/L	Analysis Date	6/29/2005 10:41:34 AM	Prep Date				
Client ID:		Run ID: PIDFID_050629A			SeqNo:	375749					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	18.31	0	20	0	91.6	83.3	121	0			

Sample ID	Reagent Blank 5m	Batch ID: R15863	Test Code: SW8021	Units: µg/L	Analysis Date	6/30/2005 10:30:22 AM	Prep Date				
Client ID:		Run ID: PIDFID_050630A			SeqNo:	376231					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	17.44	0	20	0	87.2	83.3	121	0			

2 / 4

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	
			/

Hall Environmental Analysis Laboratory

Date: 05-Jul-05

CLIENT: Blagg Engineering
Work Order: 0506269
Project: Rowland GC #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	BTEX LCS 100ng	Batch ID: R15847	Test Code: SW8021	Units: µg/L	Analysis Date	6/29/2005 1:30:53 PM	Prep Date				
Client ID:			Run ID: PIDFID_050629A		SeqNo:	375788					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.22	0.5	20	0	96.1	88.7	114	0			
Toluene	19.77	0.5	20	0	98.9	89.3	112	0			
Ethylbenzene	19.48	0.5	20	0	97.4	88.6	113	0			
Xylenes, Total	59.2	0.5	60	0	98.7	89.4	112	0			

Sample ID	BTEX LCS 100ng	Batch ID: R15863	Test Code: SW8021	Units: µg/L	Analysis Date	6/30/2005 12:03:37 PM	Prep Date				
Client ID:			Run ID: PIDFID_050630A		SeqNo:	376239					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.58	0.5	20	0	92.9	88.7	114	0			
Toluene	18.93	0.5	20	0	94.6	89.3	112	0			
Ethylbenzene	18.79	0.5	20	0	93.9	88.6	113	0			
Xylenes, Total	57.41	0.5	60	0	95.7	89.4	112	0			

3 / 4

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

/

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name **BLAGG**

Date and Time Received:

6/29/2005

Order Number **0506269**

Received by **AMG**

Checklist completed by

Signature

Date

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Present ☒

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

6°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____