# 3R - 130

# 2007 AGWMR

# JAN 2008

# XTO ENERGY INC.

***ANNUAL GROUNDWATER REPORT***

***2007***

***SULLIVAN FRAME A #1E***
***(A) SECTION 30 – T29N – R10W, NMPM***
***SAN JUAN COUNTY, NEW MEXICO***

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

***January 2008***

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# 2007 XTO GROUNDWATER REPORT

## SULLIVAN FRAME A #1E

**SITE DETAILS**

**LEGALS - TWN:** 29N **RNG:** 10W **SEC:** 30 **UNIT:** A
**NMOCD HAZARD RANKING:** 30 **LAND TYPE:** FEE

### PREVIOUS ACTIVITIES

**Excavation:** Jun-94 (160 CY)
**Quarterly Sampling Initiated:** Nov-99
**Monitoring Wells:** Oct-99
**Sampling Dates:** Jul-06, Oct-06

### SITE MAP

A site map is presented as Figure 1.

### SUMMARY TABLES

A summary of laboratory results from historical and current groundwater monitoring is presented as Table 1. A summary of General Water Quality from 1999 is presented as Table 2. Copies of the laboratory data sheets and associated quality assurance/quality control data for 2006 and 2007 are presented as Attachment 1.

### POTENTIOMETRIC SURFACE DIAGRAMS

Field data collected during site monitoring activities indicate a groundwater gradient that trends towards the north. In April 2007 the groundwater flow exhibited a northwest gradient. This change is attributed to the influence of increased flow of the adjacent San Juan River. Figures 2 - 5 illustrate the estimated groundwater gradients for 2006 and 2007.

### ANNUAL GROUNDWATER REMEDIATION REPORTS

Previous groundwater reports submitted to New Mexico Oil Conservation Division (NMOCD) in 2005 and 2006 recommended quarterly sampling of the groundwater monitoring wells, in accordance with the NMOCD approved Groundwater Management Plan.

### 2007 ACTIVITIES

Quarterly groundwater samples were collected from monitoring wells MW-1, MW-2 and MW-3 in 2007. Analytical results demonstrate no detectable levels of benzene, toluene, ethyl benzene and total xylenes (BTEX) constituents in groundwater.

### GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

Bore/Test Hole Reports are presented as Figures 6 - 8 representing drilling that occurred on site in October 1999.

### DISPOSITION OF GENERATED WASTES

Waste generated (groundwater) during monitoring well sampling and development was placed in the produced water tank located on the well site.

# 2007 XTO GROUNDWATER REPORT

## CONCLUSIONS

January 1998 XTO Energy Inc. (XTO) acquired the Sullivan Frame A #1E from Amoco Production Company. XTO understands the initial evaluation of groundwater impact came from samples collected from groundwater pooled in the bottom of a pit during pit closure activities. The initial samples demonstrated high levels of dissolved BTEX in the groundwater. In 1999 three groundwater monitoring wells were installed to delineate the extent of hydrocarbon impact to groundwater. Groundwater samples collected from the groundwater monitoring wells exhibited no detectable levels of BTEX constituents above the detection limits of laboratory equipment (0.2 ug/L). Site sampling was terminated and request for closure was submitted. NMOCD denied the request for closure until four consecutive quarters of groundwater samples demonstrated New Mexico Water Quality Control Commission (NMWQCC) standards were met.

Groundwater analytical data from MW-1, MW-2, and MW-3 have demonstrated no detectable levels of BTEX constituents indicating NMWQCC standards have been met. The quarterly sampling has confirmed no rebound of BTEX constituents has occurred, therefore, XTO requests closure of this site.

## RECOMMENDATIONS

- XTO requests closure of this site.
- Following OCD approval for closure, all monitoring well locations will be abandoned in accordance with the monitoring well abandonment plan.

**TABLE 1**

## XTO ENERGY INC. GROUNDWATER LAB RESULTS

**SULLIVAN FRAME A #1E- DEHY. PIT**
**UNIT A, SEC. 30, T29N, R10W**

| Sample Date | Monitor Well No. | DTW (ft) | TD (ft) | Product (ft) | Benzene ug/L | Toluene ug/L | Ethyl Benzene ug/L | Total Xylene ug/L |
|---|---|---|---|---|---|---|---|---|
| 3-Nov-99 | MW #1 | 17.1 | 30 | | ND | ND | ND | ND |
| 13-Jul-06 | | 18.86 | 26.9 | | ND | ND | ND | ND |
| 16-Oct-06 | | 17.17 | 26.9 | | ND | ND | ND | ND |
| 18-Jan-07 | | 16.89 | 26.9 | | ND | ND | ND | ND |
| 11-Apr-07 | | 17.53 | 26.9 | | ND | ND | ND | ND |
| | | | | | | | | |
| 3-Nov-99 | MW #2 | 14.04 | 25 | | ND | ND | ND | ND |
| 13-Jul-06 | | 5.7 | 7.44 | | ND | ND | ND | ND |
| 16-Oct-06 | | 16.27 | 7.44 | | ND | ND | ND | ND |
| 18-Jan-07 | | 15.93 | 25.47 | | ND | ND | ND | ND |
| 11-Apr-07 | | 16.48 | 25.47 | | ND | ND | ND | ND |
| | | | | | | | | |
| 3-Nov-99 | MW #3 | 16.8 | 30 | | ND | ND | ND | ND |
| 13-Jul-06 | | 15.27 | 22.39 | | ND | ND | ND | ND |
| 16-Oct-06 | | 16.73 | 22.39 | | ND | ND | ND | ND |
| 18-Jan-07 | | 16.29 | 22.39 | | ND | ND | ND | ND |
| 11-Apr-07 | | 16.81 | 22.39 | | ND | ND | ND | ND |
| | | | | | | | | |
| **NMWQCC GROUNDWATER STANDARDS** | | | | | 10 | 750 | 750 | 620 |

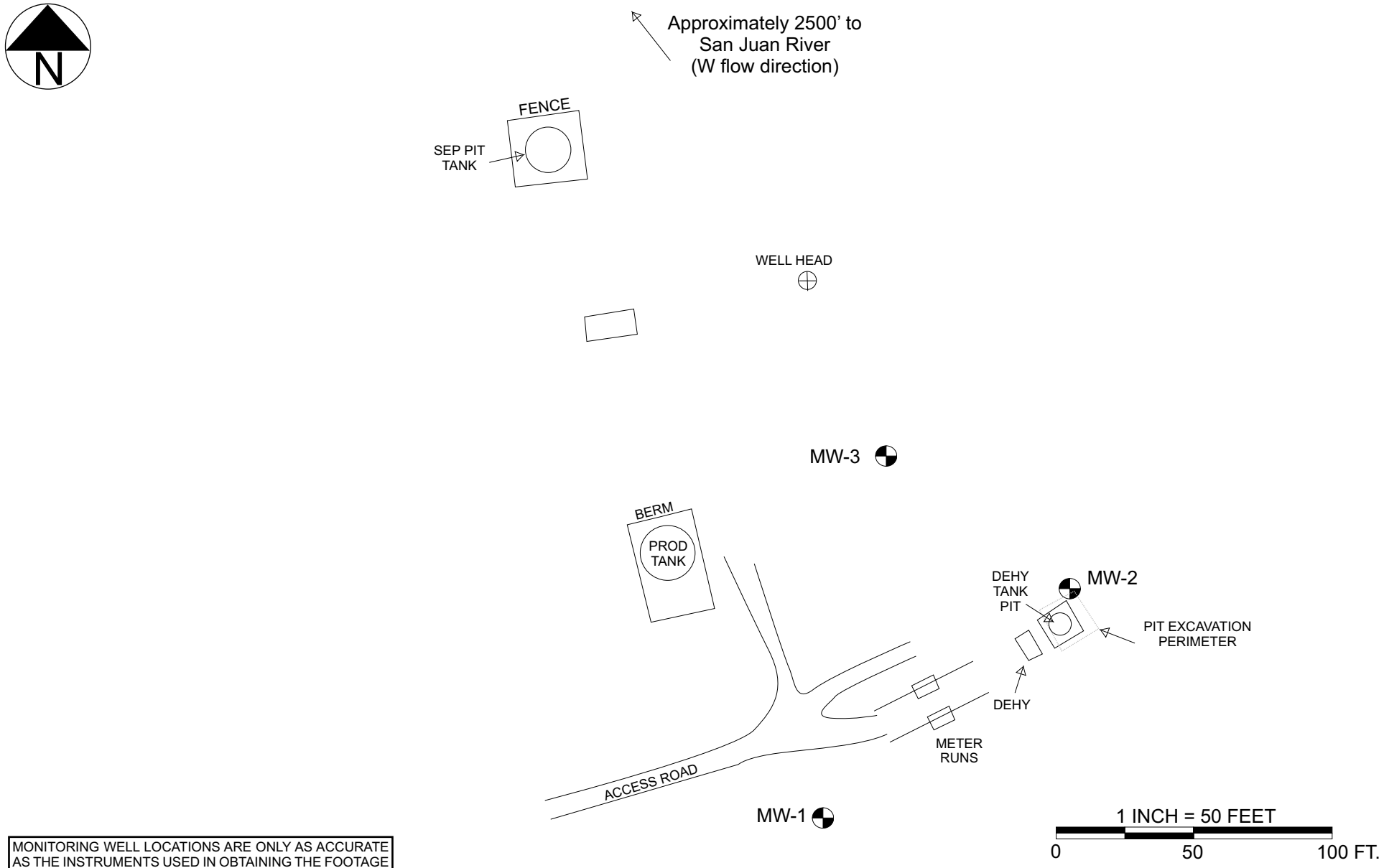
**TABLE 2**

## XTO ENERGY INC. GROUNDWATER LAB RESULTS

**SULLIVAN FRAME A #1E- DEHY. PIT**
**UNIT A, SEC. 30, T29N, R10W**

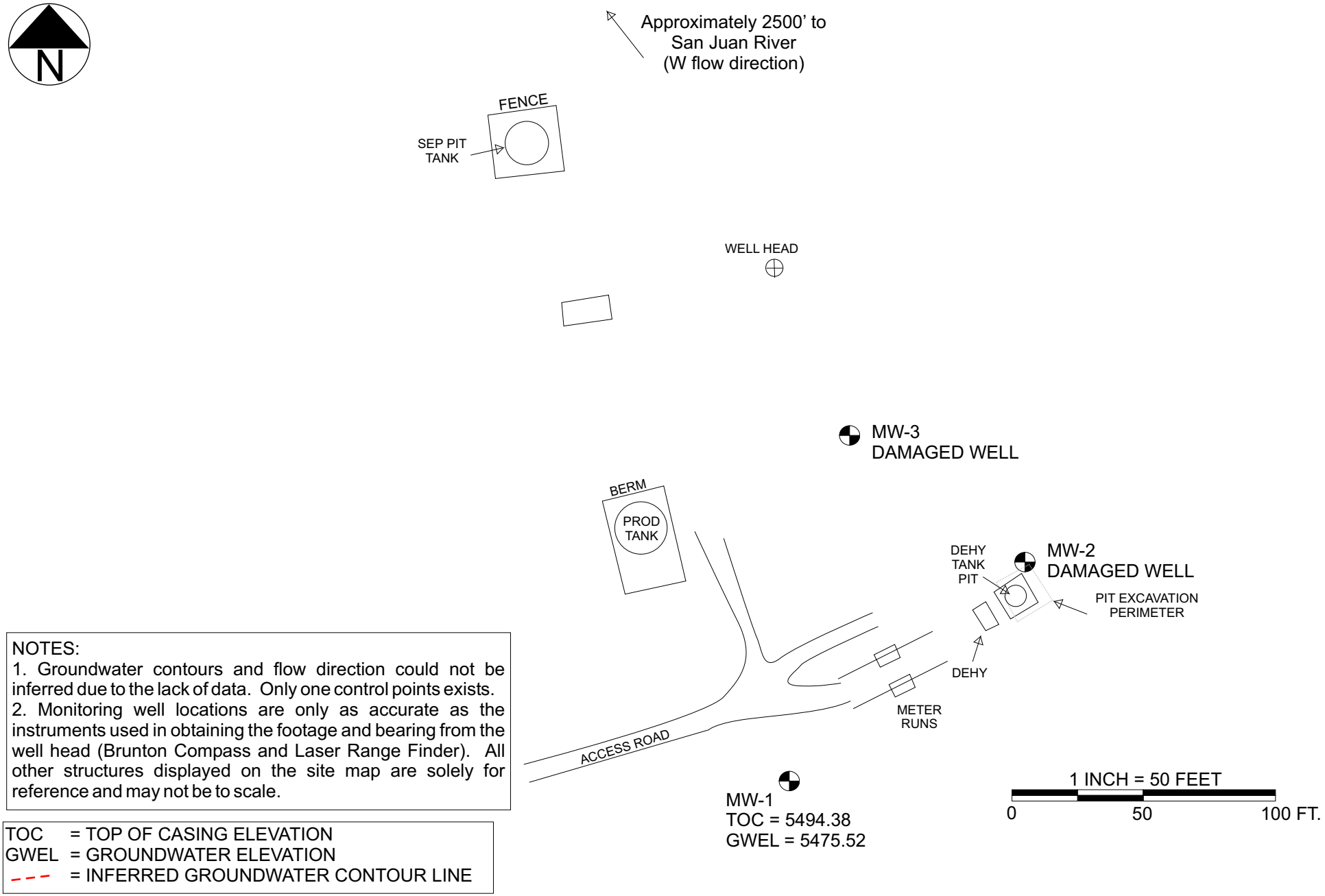
Sample Date: November 3, 1999

| PARAMETERS | MW #1 | MW #2 | MW #3 | UNITS |
|---|---|---|---|---|
| LAB Ph | 7.11 | 7.04 | 7.65 | s.u. |
| LAB CONDUCTIVITY @ 25 C | 3,840 | 2,445 | 1,988 | umhos/cm |
| TOTAL DISSOLVED SOLIDS @ 180 C | 1,910 | 1,220 | 995 | mg/L |
| TOTAL DISSOLVED SOLIDS (Calc) | 1,860 | 1,209 | 971 | mg/L |
| SODIUM ABSORPTION RATIO | 16 | 7.9 | 7.2 | ratio |
| TOTAL ALKALINITY AS CaCO3 | 192 | 304 | 422 | mg/L |
| TOTAL HARDNESS AS CaCO3 | 202 | 265 | 217 | mg/L |
| BICARBONATE AS HCO3 | 192 | 304 | 422 | mg/L |
| CARBONATE AS CO3 | < 1 | < 1 | < 1 | mg/L |
| HYDROXIDE AS OH | < 1 | < 1 | < 1 | mg/L |
| NITRATE NITORGEN | 4.2 | 0.2 | 0.1 | mg/L |
| NITRITE NITROGEN | 0.05 | 0.005 | 0.01 | mg/L |
| CHLORIDE | 1.4 | 4.2 | 6.7 | mg/L |
| FLUORIDE | 1.91 | 1.03 | 1.7 | mg/L |
| PHOSPHATE | 0.3 | 0.3 | 1.6 | mg/L |
| SULFATE | 1,133 | 625 | 373 | mg/L |
| IRON | < 0.001 | < 0.001 | < 0.001 | mg/L |
| CALCIUM | 66.6 | 83.2 | 81.4 | mg/L |
| MAGNESIUM | 8.78 | 14 | 3.24 | mg/L |
| POTASSIUM | 3.72 | 1.7 | 5.6 | mg/L |
| SODIUM | 524 | 295 | 242 | mg/L |
| CATION/ANION DIFFERENCE | 0.03 | 0.01 | 0.03 | % |




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

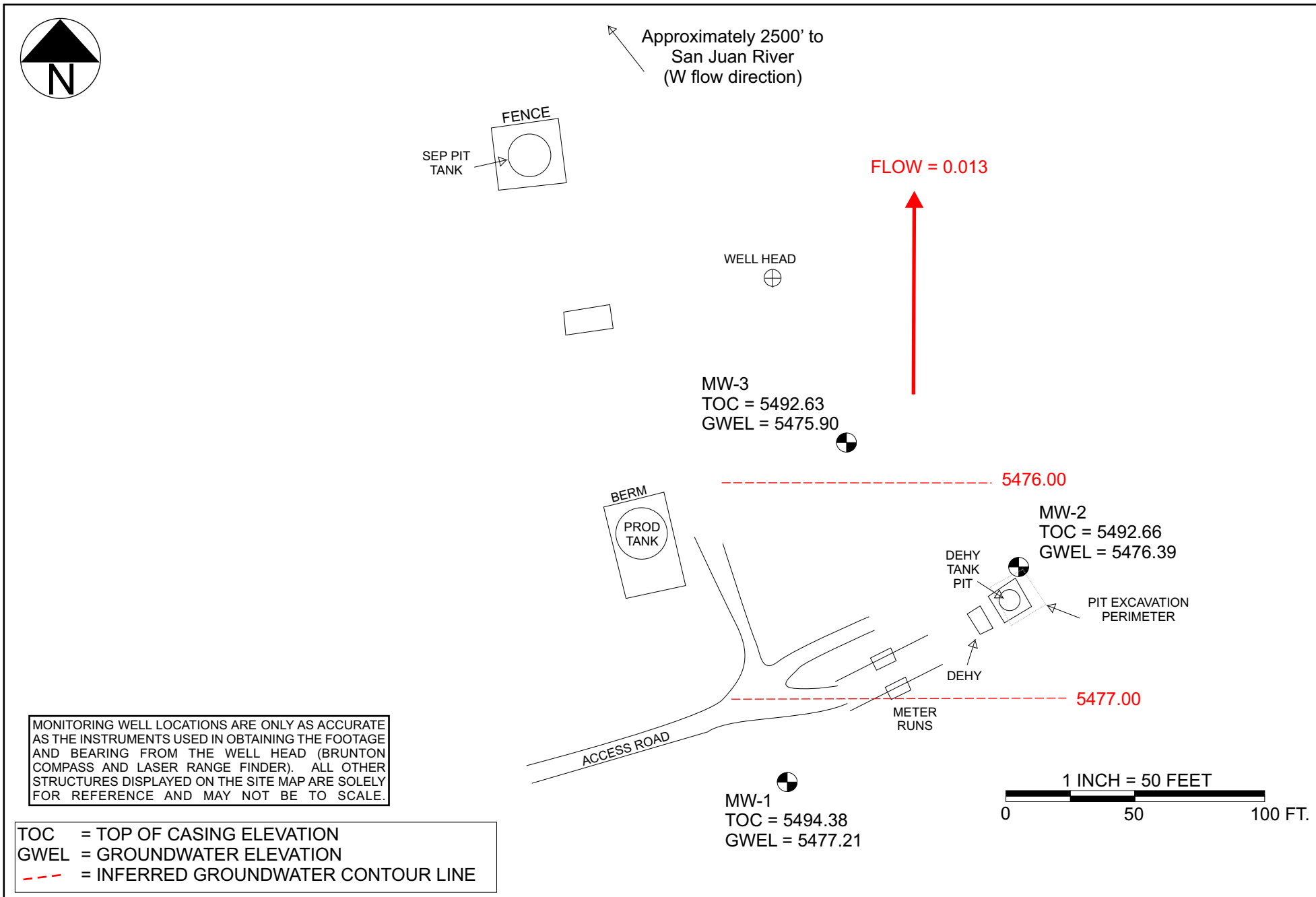
| | | | |
|---|---|---|---|
| Lodestar Services, Inc<br>PO Box 3861<br>Farmington, NM 87499 | SULLIVAN FRAME A #1E<br>NE/4 NE/4 SEC. 30, T29N, R10W<br>SAN JUAN COUNTY, NEW MEXICO | PROJECT: XTO GROUND WATER<br>DRAWN BY: ALA<br>REVISED: 01/30/08 | SITE MAP<br>FIGURE 1 |




NOTES:
1. Groundwater contours and flow direction could not be inferred due to the lack of data. Only one control points exists.
2. Monitoring well locations are only as accurate as the instruments used in obtaining the footage and bearing from the well head (Brunton Compass and Laser Range Finder). All other structures displayed on the site map are solely for reference and may not be to scale.

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

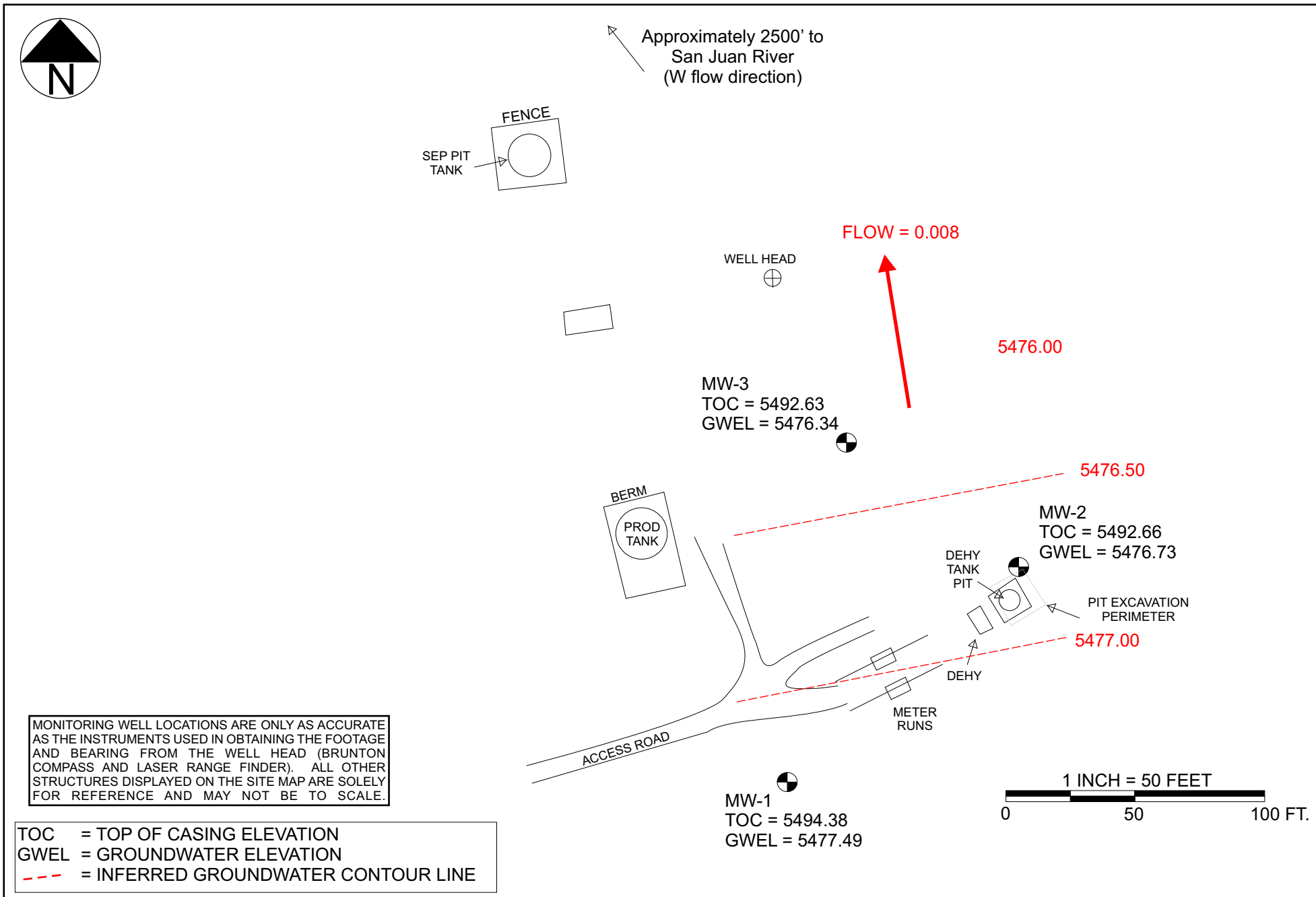
| | | | |
|---|---|---|---|
| Lodestar Services, Inc<br>PO Box 3861<br>Farmington, NM 87499 | SULLIVAN FRAME A #1E<br>NE/4 NE/4 SEC. 30, T29N, R10W<br>SAN JUAN COUNTY, NEW MEXICO | PROJECT: XTO GROUND WATER<br>DRAWN BY: ALA<br>REVISED: 12/01/06 | GROUNDWATER GRADIENT MAP<br>07/13/2006<br>FIGURE 2 |




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

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

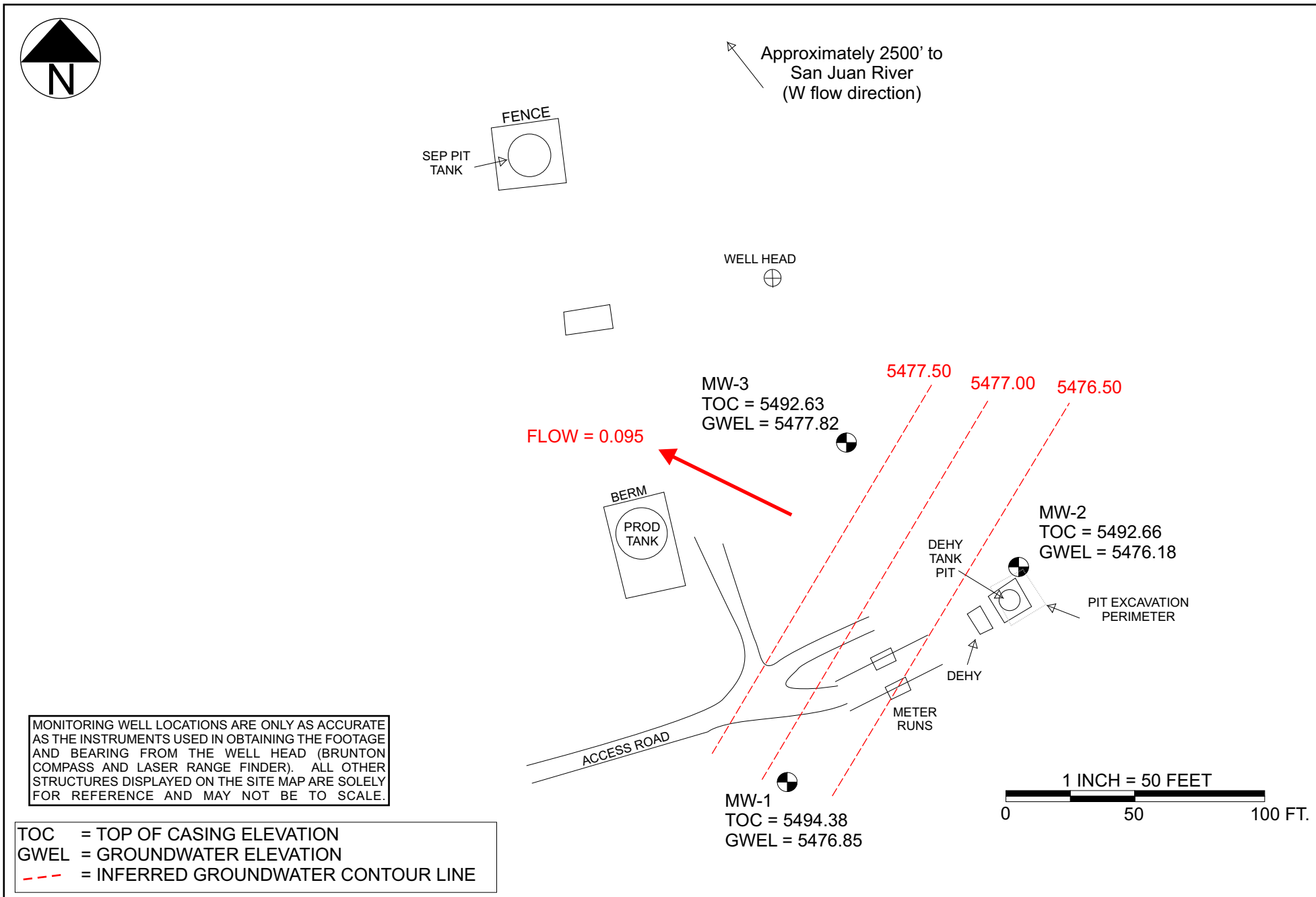
| | | | |
|---|---|---|---|
| Lodestar Services, Inc<br>PO Box 3861<br>Farmington, NM 87499 | SULLIVAN FRAME A #1E<br>NE/4 NE/4 SEC. 30, T29N, R10W<br>SAN JUAN COUNTY, NEW MEXICO | PROJECT: XTO GROUND WATER<br>DRAWN BY: ALA<br>REVISED: 12/01/06 | GROUNDWATER GRADIENT MAP<br>10/16/2006<br>FIGURE 3 |




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

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

| | | | |
|---|---|---|---|
| Lodestar Services, Inc<br>PO Box 3861<br>Farmington, NM 87499 | SULLIVAN FRAME A #1E<br>NE/4 NE/4 SEC. 30, T29N, R10W<br>SAN JUAN COUNTY, NEW MEXICO | PROJECT: XTO GROUND WATER<br>DRAWN BY: ALA<br>REVISED: 01/19/07 | GROUNDWATER GRADIENT MAP<br>01/18/2007<br>FIGURE 4 |




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

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

| | | | |
|---|---|---|---|
| Lodestar Services, Inc<br>PO Box 3861<br>Farmington, NM 87499 | SULLIVAN FRAME A #1E<br>NE/4 NE/4 SEC. 30, T29N, R10W<br>SAN JUAN COUNTY, NEW MEXICO | PROJECT: XTO GROUND WATER<br>DRAWN BY: ALA<br>REVISED: 04/12/07 | GROUNDWATER GRADIENT MAP<br>04/11/2007<br>FIGURE 5 |

FIGURE 6

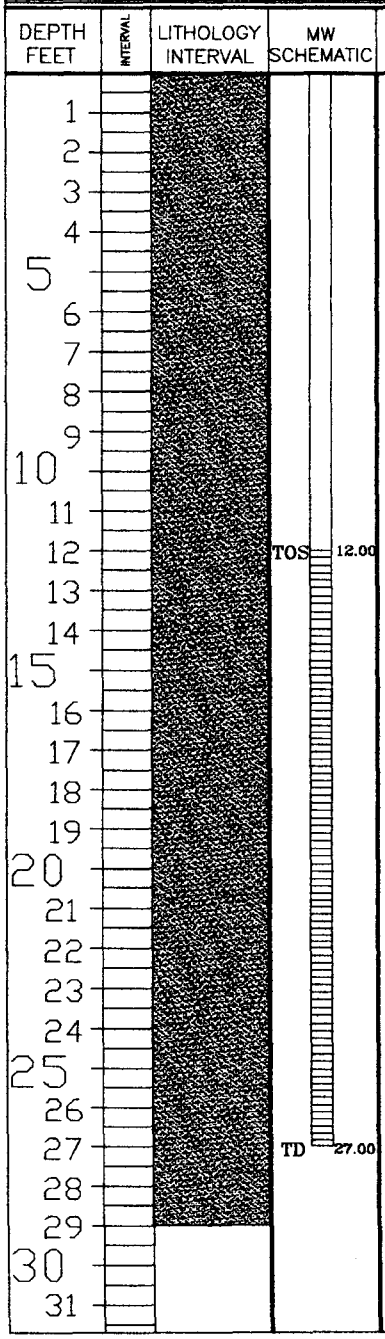
# BLAGG ENGINEERING, Inc.

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

## BORE / TEST HOLE REPORT

BORING #..... BH - 1
MW #..... 1
PAGE #..... 1
DATE STARTED 10/14/99
DATE FINISHED 10/14/99
OPERATOR..... DE
PREPARED BY NJV

CLIENT: XTO ENERGY INC.
LOCATION NAME: SULLIVAN FRAME A #1E
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG ( ENVIROTECH CME61 )
BORING LOCATION: 202 FT., S1.5E FEET FROM WELL HEAD.




FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 3.00 FT. ABOVE GROUND SURFACE.

MODERATE YELLOWISH BROWN SAND CONTINUOUS THROUGHOUT ENTIRE BORING, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM, NO APPARENT DISCOLORATION OBSERVED OR HYDROCARBON ODOR DETECTED PHYSICALLY (0.00 – 29.00 FT. INTERVAL).

▼ GW DEPTH ON 11/3/99 = 13.80 FT. (APPROX.) FROM GROUND SURFACE.

NOTE: ▒ – SAND.
TOS – TOP OF SCREEN FROM GROUND SURFACE.
TD – TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW – GROUND WATER.

DRAWING: BH-1.SKD | DATE: 1/28/00 | DWN BY: NJV

FIGURE 7

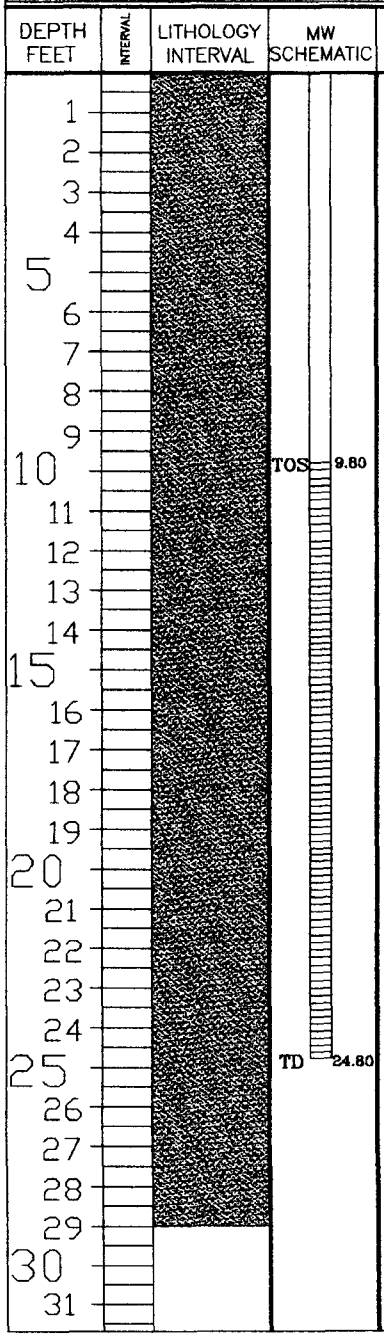
# BLAGG ENGINEERING, Inc.

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

## BORE / TEST HOLE REPORT

BORING #..... BH - 2
MW #..... 2
PAGE #..... 2
DATE STARTED 10/14/99
DATE FINISHED 10/14/99
OPERATOR..... DE
PREPARED BY NJV

CLIENT: XTO ENERGY INC.
LOCATION NAME: SULLIVAN FRAME A #1E
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG ( ENVIROTECH CME61 )
BORING LOCATION: 156 FT., S40E FEET FROM WELL HEAD.




FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 0.20 FT. ABOVE GROUND SURFACE.

MODERATE YELLOWISH BROWN SAND CONTINUOUS THROUGHOUT ENTIRE BORING, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM, NO APPARENT DISCOLORATION OBSERVED OR HYDROCARBON ODOR DETECTED PHYSICALLY (0.00 - 29.00 FT. INTERVAL).

▼ GW DEPTH ON 11/3/99 = 13.84 FT. (APPROX.) FROM GROUND SURFACE.

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

DRAWING: BH-2.SKD | DATE: 1/28/00 | DWN BY: NJV

FIGURE 8

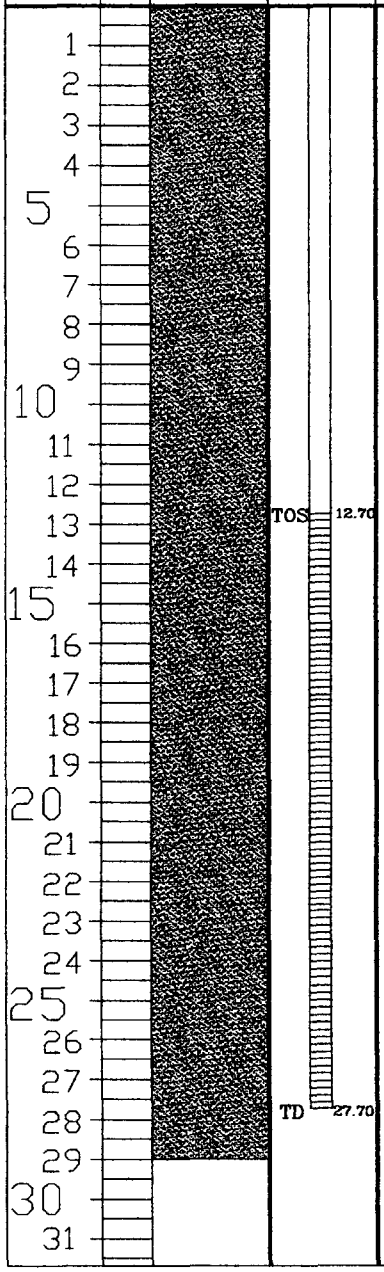
# BLAGG ENGINEERING, Inc.

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

## BORE / TEST HOLE REPORT

BORING #..... BH - 3
MW #..... 3
PAGE #..... 3
DATE STARTED 10/14/99
DATE FINISHED 10/14/99
OPERATOR..... DE
PREPARED BY NJV

CLIENT: XTO ENERGY INC.
LOCATION NAME: SULLIVAN FRAME A #1E
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG ( ENVIROTECH CME61 )
BORING LOCATION: 75 FT., S24.5E FEET FROM WELL HEAD.




FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.80 FT. ABOVE GROUND SURFACE.

MODERATE YELLOWISH BROWN SAND CONTINUOUS THROUGHOUT ENTIRE BORING, NON COHESIVE, SLIGHTLY MOIST TO SATURATED, FIRM, NO APPARENT DISCOLORATION OBSERVED OR HYDROCARBON ODOR DETECTED PHYSICALLY (0.00 – 29.00 FT. INTERVAL).

▼ GW DEPTH ON 11/3/99 = 14.30 FT. (APPROX.) FROM GROUND SURFACE.

NOTE: ▒ – SAND.
TOS – TOP OF SCREEN FROM GROUND SURFACE.
TD – TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW – GROUND WATER.

DRAWING: BH-3.SKD | DATE: 1/28/00 | DWN BY: NJV

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *25-Jul-06*

**CLIENT:** XTO Energy
**Project:** Ground Water
**Lab Order:** 0607176

**Lab ID:** 0607176-01 **Collection Date:** 7/13/2006 8:51:00 AM
**Client Sample ID:** Sullivan Frame AIE MW-1 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** |
| Benzene | ND | 1.0 | | µg/L | 1 | 7/24/2006 2:48:54 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 7/24/2006 2:48:54 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 7/24/2006 2:48:54 PM |
| Xylenes, Total | ND | 3.0 | | µg/L | 1 | 7/24/2006 2:48:54 PM |
| Surr: 4-Bromofluorobenzene | 102 | 72.2-125 | | %REC | 1 | 7/24/2006 2:48:54 PM |

**Lab ID:** 0607176-02 **Collection Date:** 7/13/2006 9:18:00 AM
**Client Sample ID:** Sullivan Frame AIE MW-3 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** |
| Benzene | ND | 1.0 | | µg/L | 1 | 7/24/2006 3:17:56 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 7/24/2006 3:17:56 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 7/24/2006 3:17:56 PM |
| Xylenes, Total | ND | 3.0 | | µg/L | 1 | 7/24/2006 3:17:56 PM |
| Surr: 4-Bromofluorobenzene | 94.8 | 72.2-125 | | %REC | 1 | 7/24/2006 3:17:56 PM |

**Lab ID:** 0607176-03 **Collection Date:** 7/13/2006 9:36:00 AM
**Client Sample ID:** Sullivan Frame AIE MW-2 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** |
| Benzene | ND | 1.0 | | µg/L | 1 | 7/24/2006 3:46:54 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 7/24/2006 3:46:54 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 7/24/2006 3:46:54 PM |
| Xylenes, Total | ND | 3.0 | | µg/L | 1 | 7/24/2006 3:46:54 PM |
| Surr: 4-Bromofluorobenzene | 93.6 | 72.2-125 | | %REC | 1 | 7/24/2006 3:46:54 PM |

**Qualifiers:**

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

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *25-Jul-06*

**CLIENT:** XTO Energy
**Project:** Ground Water
**Lab Order:** 0607176

**Lab ID:** 0607176-04
**Client Sample ID:** 130706TB001
**Collection Date:**
**Matrix:** TRIP BLANK

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** |
| Benzene | ND | 1.0 | | µg/L | 1 | 7/24/2006 4:15:50 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 7/24/2006 4:15:50 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 7/24/2006 4:15:50 PM |
| Xylenes, Total | ND | 3.0 | | µg/L | 1 | 7/24/2006 4:15:50 PM |
| Surr: 4-Bromofluorobenzene | 98.5 | 72.2-125 | | %REC | 1 | 7/24/2006 4:15:50 PM |

**Qualifiers:**

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

# QA/QC SUMMARY REPORT

**Client:** XTO Energy
**Project:** Ground Water
**Work Order:** 0607176

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method: SW8021** | | | | | | | | | |
| **Sample ID: 5ML REAGENT BLA** | | *MBLK* | | | Batch ID: **R20010** | | Analysis Date: | 7/24/2006 9:17:45 AM | |
| Benzene | ND | µg/L | 1.0 | | | | | | |
| Toluene | ND | µg/L | 1.0 | | | | | | |
| Ethylbenzene | ND | µg/L | 1.0 | | | | | | |
| Xylenes, Total | ND | µg/L | 3.0 | | | | | | |
| **Sample ID: 100NG BTEX LCS** | | *LCS* | | | Batch ID: **R20010** | | Analysis Date: | 7/24/2006 7:38:34 PM | |
| Benzene | 20.42 | µg/L | 1.0 | 102 | 85 | 115 | | | |
| Toluene | 19.93 | µg/L | 1.0 | 99.7 | 85 | 118 | | | |
| Ethylbenzene | 19.22 | µg/L | 1.0 | 96.1 | 85 | 116 | | | |
| Xylenes, Total | 58.45 | µg/L | 3.0 | 97.4 | 85 | 119 | | | |
| **Sample ID: 100NG BTEX LCSD** | | *LCSD* | | | Batch ID: **R20010** | | Analysis Date: | 7/24/2006 8:07:32 PM | |
| Benzene | 20.28 | µg/L | 1.0 | 101 | 85 | 115 | 0.727 | 27 | |
| Toluene | 19.96 | µg/L | 1.0 | 99.8 | 85 | 118 | 0.110 | 19 | |
| Ethylbenzene | 19.75 | µg/L | 1.0 | 98.8 | 85 | 116 | 2.71 | 10 | |
| Xylenes, Total | 60.35 | µg/L | 3.0 | 101 | 85 | 119 | 3.21 | 13 | |

**Qualifiers:**

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

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *07-Nov-06*

| | | | |
|---|---|---|---|
| **CLIENT:** | XTO Energy | **Client Sample ID:** | Sullivan Frame AIE MW-3 |
| **Lab Order:** | 0610211 | **Collection Date:** | 10/16/2006 10:22:00 AM |
| **Project:** | XTO Ground Water | **Date Received:** | 10/19/2006 |
| **Lab ID:** | 0610211-04 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: SMP |
| Benzene | ND | 1.0 | | µg/L | 1 | 10/21/2006 |
| Toluene | ND | 1.0 | | µg/L | 1 | 10/21/2006 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 10/21/2006 |
| Xylenes, Total | ND | 3.0 | | µg/L | 1 | 10/21/2006 |
| Surr: 1,2-Dichloroethane-d4 | 91.9 | 69.9-130 | | %REC | 1 | 10/21/2006 |
| Surr: 4-Bromofluorobenzene | 98.5 | 71.2-123 | | %REC | 1 | 10/21/2006 |
| Surr: Dibromofluoromethane | 99.9 | 73.9-134 | | %REC | 1 | 10/21/2006 |
| Surr: Toluene-d8 | 95.9 | 81.9-122 | | %REC | 1 | 10/21/2006 |

**Qualifiers:**

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

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *07-Nov-06*

| | | | |
|---|---|---|---|
| **CLIENT:** | XTO Energy | **Client Sample ID:** | Sullivan Frame AIE MW-2 |
| **Lab Order:** | 0610211 | **Collection Date:** | 10/16/2006 10:54:00 AM |
| **Project:** | XTO Ground Water | **Date Received:** | 10/19/2006 |
| **Lab ID:** | 0610211-05 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **SMP** |
| Benzene | ND | 1.0 | | µg/L | 1 | 10/21/2006 |
| Toluene | ND | 1.0 | | µg/L | 1 | 10/21/2006 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 10/21/2006 |
| Xylenes, Total | ND | 3.0 | | µg/L | 1 | 10/21/2006 |
| Surr: 1,2-Dichloroethane-d4 | 91.0 | 69.9-130 | | %REC | 1 | 10/21/2006 |
| Surr: 4-Bromofluorobenzene | 101 | 71.2-123 | | %REC | 1 | 10/21/2006 |
| Surr: Dibromofluoromethane | 99.9 | 73.9-134 | | %REC | 1 | 10/21/2006 |
| Surr: Toluene-d8 | 96.0 | 81.9-122 | | %REC | 1 | 10/21/2006 |

**Qualifiers:**

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

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *07-Nov-06*

| | | | |
|---|---|---|---|
| **CLIENT:** | XTO Energy | **Client Sample ID:** | Sullivan Frame AIE MW-1 |
| **Lab Order:** | 0610211 | **Collection Date:** | 10/16/2006 11:23:00 AM |
| **Project:** | XTO Ground Water | **Date Received:** | 10/19/2006 |
| **Lab ID:** | 0610211-06 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: SMP |
| Benzene | ND | 1.0 | | µg/L | 1 | 10/21/2006 |
| Toluene | ND | 1.0 | | µg/L | 1 | 10/21/2006 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 10/21/2006 |
| Xylenes, Total | ND | 3.0 | | µg/L | 1 | 10/21/2006 |
| Surr: 1,2-Dichloroethane-d4 | 92.4 | 69.9-130 | | %REC | 1 | 10/21/2006 |
| Surr: 4-Bromofluorobenzene | 101 | 71.2-123 | | %REC | 1 | 10/21/2006 |
| Surr: Dibromofluoromethane | 98.5 | 73.9-134 | | %REC | 1 | 10/21/2006 |
| Surr: Toluene-d8 | 96.0 | 81.9-122 | | %REC | 1 | 10/21/2006 |

**Qualifiers:**

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

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *07-Nov-06*

| | | | |
|---|---|---|---|
| **CLIENT:** | XTO Energy | **Client Sample ID:** | 16102006TB01 |
| **Lab Order:** | 0610211 | **Collection Date:** | |
| **Project:** | XTO Ground Water | **Date Received:** | 10/19/2006 |
| **Lab ID:** | 0610211-08 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **SMP** |
| Benzene | ND | 1.0 | | µg/L | 1 | 10/23/2006 |
| Toluene | ND | 1.0 | | µg/L | 1 | 10/23/2006 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 10/23/2006 |
| Xylenes, Total | ND | 3.0 | | µg/L | 1 | 10/23/2006 |
| Surr: 1,2-Dichloroethane-d4 | 90.4 | 69.9-130 | | %REC | 1 | 10/23/2006 |
| Surr: 4-Bromofluorobenzene | 103 | 71.2-123 | | %REC | 1 | 10/23/2006 |
| Surr: Dibromofluoromethane | 97.7 | 73.9-134 | | %REC | 1 | 10/23/2006 |
| Surr: Toluene-d8 | 93.7 | 81.9-122 | | %REC | 1 | 10/23/2006 |

**Qualifiers:**

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

# QA/QC SUMMARY REPORT

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

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

**Qualifiers:**

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

# QA/QC SUMMARY REPORT

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

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

**Qualifiers:**

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

# QA/QC SUMMARY REPORT

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

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

**Qualifiers:**

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

# QA/QC SUMMARY REPORT

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

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

**Qualifiers:**

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

# QA/QC SUMMARY REPORT

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

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

**Qualifiers:**

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

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *23-Jan-07*

**CLIENT:** XTO Energy
**Project:** Ground Water
**Lab Order:** 0701243

**Lab ID:** 0701243-04 **Collection Date:** 1/18/2007 11:19:00 AM
**Client Sample ID:** Sullivan Frame AIE MW-1 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: LMM |
| Benzene | ND | 1.0 | | µg/L | 1 | 1/19/2007 5:08:52 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 1/19/2007 5:08:52 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 1/19/2007 5:08:52 PM |
| Xylenes, Total | ND | 3.0 | | µg/L | 1 | 1/19/2007 5:08:52 PM |
| Surr: 4-Bromofluorobenzene | 88.5 | 70.2-105 | | %REC | 1 | 1/19/2007 5:08:52 PM |

**Lab ID:** 0701243-05 **Collection Date:** 1/18/2007 11:50:00 AM
**Client Sample ID:** Sullivan Frame AIE MW-2R **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: LMM |
| Benzene | ND | 1.0 | | µg/L | 1 | 1/19/2007 5:41:26 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 1/19/2007 5:41:26 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 1/19/2007 5:41:26 PM |
| Xylenes, Total | ND | 3.0 | | µg/L | 1 | 1/19/2007 5:41:26 PM |
| Surr: 4-Bromofluorobenzene | 90.5 | 70.2-105 | | %REC | 1 | 1/19/2007 5:41:26 PM |

**Lab ID:** 0701243-06 **Collection Date:** 1/18/2007 12:22:00 PM
**Client Sample ID:** Sullivan Frame AIE MW-3 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: LMM |
| Benzene | ND | 1.0 | | µg/L | 1 | 1/19/2007 7:41:58 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 1/19/2007 7:41:58 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 1/19/2007 7:41:58 PM |
| Xylenes, Total | ND | 3.0 | | µg/L | 1 | 1/19/2007 7:41:58 PM |
| Surr: 4-Bromofluorobenzene | 90.5 | 70.2-105 | | %REC | 1 | 1/19/2007 7:41:58 PM |

**Qualifiers:**

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

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *23-Jan-07*

**CLIENT:** XTO Energy
**Project:** Ground Water
**Lab Order:** 0701243

**Lab ID:** 0701243-10
**Client Sample ID:** Trip Blank
**Collection Date:**
**Matrix:** TRIP BLANK

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **LMM** |
| Benzene | ND | 1.0 | | µg/L | 1 | 1/19/2007 9:42:17 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 1/19/2007 9:42:17 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 1/19/2007 9:42:17 PM |
| Xylenes, Total | ND | 3.0 | | µg/L | 1 | 1/19/2007 9:42:17 PM |
| Surr: 4-Bromofluorobenzene | 90.2 | 70.2-105 | | %REC | 1 | 1/19/2007 9:42:17 PM |

**Qualifiers:**

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

# QA/QC SUMMARY REPORT

**Client:** XTO Energy
**Project:** Ground Water **Work Order:** 0701243

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method: SW8021** | | | | | | | | | |
| **Sample ID: 0701243-05A MSD** | | *MSD* | | | Batch ID: **R22202** | | Analysis Date: | 1/19/2007 7:11:56 PM | |
| Benzene | 18.34 | µg/L | 1.0 | 91.7 | 85.9 | 113 | 1.76 | 27 | |
| Toluene | 18.78 | µg/L | 1.0 | 93.9 | 86.4 | 113 | 0.912 | 19 | |
| Ethylbenzene | 18.82 | µg/L | 1.0 | 94.1 | 83.5 | 118 | 1.70 | 10 | |
| Xylenes, Total | 55.94 | µg/L | 3.0 | 93.2 | 83.4 | 122 | 1.91 | 13 | |
| **Sample ID: 5ML RB** | | *MBLK* | | | Batch ID: **R22202** | | Analysis Date: | 1/19/2007 10:19:43 AM | |
| Benzene | ND | µg/L | 1.0 | | | | | | |
| Toluene | ND | µg/L | 1.0 | | | | | | |
| Ethylbenzene | ND | µg/L | 1.0 | | | | | | |
| Xylenes, Total | ND | µg/L | 3.0 | | | | | | |
| **Sample ID: 5ML RB** | | *MBLK* | | | Batch ID: **R22217** | | Analysis Date: | 1/22/2007 10:28:43 AM | |
| Benzene | ND | µg/L | 1.0 | | | | | | |
| Toluene | ND | µg/L | 1.0 | | | | | | |
| Ethylbenzene | ND | µg/L | 1.0 | | | | | | |
| Xylenes, Total | ND | µg/L | 3.0 | | | | | | |
| **Sample ID: 100NG BTEX LCS** | | *LCS* | | | Batch ID: **R22202** | | Analysis Date: | 1/19/2007 11:50:06 AM | |
| Benzene | 18.37 | µg/L | 1.0 | 91.8 | 85.9 | 113 | | | |
| Toluene | 18.84 | µg/L | 1.0 | 94.2 | 86.4 | 113 | | | |
| Ethylbenzene | 18.96 | µg/L | 1.0 | 94.8 | 83.5 | 118 | | | |
| Xylenes, Total | 56.97 | µg/L | 3.0 | 95.0 | 83.4 | 122 | | | |
| **Sample ID: 100NG BTEX LCS** | | *LCS* | | | Batch ID: **R22217** | | Analysis Date: | 1/22/2007 11:29:07 AM | |
| Benzene | 18.52 | µg/L | 1.0 | 92.6 | 85.9 | 113 | | | |
| Toluene | 19.07 | µg/L | 1.0 | 95.4 | 86.4 | 113 | | | |
| Ethylbenzene | 19.43 | µg/L | 1.0 | 97.1 | 83.5 | 118 | | | |
| Xylenes, Total | 57.94 | µg/L | 3.0 | 96.6 | 83.4 | 122 | | | |
| **Sample ID: 0701243-05A MS** | | *MS* | | | Batch ID: **R22202** | | Analysis Date: | 1/19/2007 6:41:45 PM | |
| Benzene | 18.66 | µg/L | 1.0 | 93.3 | 85.9 | 113 | | | |
| Toluene | 18.95 | µg/L | 1.0 | 94.8 | 86.4 | 113 | | | |
| Ethylbenzene | 19.14 | µg/L | 1.0 | 95.7 | 83.5 | 118 | | | |
| Xylenes, Total | 57.01 | µg/L | 3.0 | 95.0 | 83.4 | 122 | | | |

**Qualifiers:**

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

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *18-Apr-07*

**CLIENT:** XTO Energy
**Project:** Ground Water
**Lab Order:** 0704208

**Lab ID:** 0704208-04 **Collection Date:** 4/11/2007 11:46:00 AM
**Client Sample ID:** Sullivan Frame AIE MW-1 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| EPA METHOD 8021B: VOLATILES | | | | | | Analyst: NSB |
| Benzene | ND | 1.0 | | µg/L | 1 | 4/17/2007 2:28:19 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/17/2007 2:28:19 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/17/2007 2:28:19 PM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/17/2007 2:28:19 PM |
| Surr: 4-Bromofluorobenzene | 87.3 | 70.2-105 | | %REC | 1 | 4/17/2007 2:28:19 PM |

**Lab ID:** 0704208-05 **Collection Date:** 4/11/2007 12:22:00 PM
**Client Sample ID:** Sullivan Frame AIE MW-2 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| EPA METHOD 8021B: VOLATILES | | | | | | Analyst: NSB |
| Benzene | ND | 1.0 | | µg/L | 1 | 4/17/2007 2:58:29 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/17/2007 2:58:29 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/17/2007 2:58:29 PM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/17/2007 2:58:29 PM |
| Surr: 4-Bromofluorobenzene | 86.9 | 70.2-105 | | %REC | 1 | 4/17/2007 2:58:29 PM |

**Lab ID:** 0704208-06 **Collection Date:** 4/11/2007 12:43:00 PM
**Client Sample ID:** Sullivan Frame AIE MW-3 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| EPA METHOD 8021B: VOLATILES | | | | | | Analyst: NSB |
| Benzene | ND | 1.0 | | µg/L | 1 | 4/17/2007 3:28:26 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/17/2007 3:28:26 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/17/2007 3:28:26 PM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/17/2007 3:28:26 PM |
| Surr: 4-Bromofluorobenzene | 87.3 | 70.2-105 | | %REC | 1 | 4/17/2007 3:28:26 PM |

**Qualifiers:**

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

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# Hall Environmental Analysis Laboratory, Inc.

**Date:** *18-Apr-07*

**CLIENT:** XTO Energy
**Project:** Ground Water
**Lab Order:** 0704208

**Lab ID:** 0704208-10
**Client Sample ID:** Trip Blank
**Collection Date:**
**Matrix:** TRIP BLANK

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** |
| Benzene | ND | 1.0 | | µg/L | 1 | 4/17/2007 7:59:06 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/17/2007 7:59:06 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/17/2007 7:59:06 PM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/17/2007 7:59:06 PM |
| Surr: 4-Bromofluorobenzene | 87.1 | 70.2-105 | | %REC | 1 | 4/17/2007 7:59:06 PM |

**Qualifiers:**

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

# QA/QC SUMMARY REPORT

**Client:** XTO Energy
**Project:** Ground Water
**Work Order:** 0704208

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method: SW8021** | | | | | | | | | |
| **Sample ID: 0704208-07A MSD** | | *MSD* | | | Batch ID: | **R23257** | Analysis Date: | | 4/17/2007 4:58:25 PM |
| Benzene | 19.19 | µg/L | 1.0 | 96.0 | 85.9 | 113 | 0.219 | 27 | |
| Toluene | 19.51 | µg/L | 1.0 | 97.6 | 86.4 | 113 | 0.668 | 19 | |
| Ethylbenzene | 19.63 | µg/L | 1.0 | 98.2 | 83.5 | 118 | 0.183 | 10 | |
| Xylenes, Total | 58.33 | µg/L | 2.0 | 97.2 | 83.4 | 122 | 0.209 | 13 | |
| **Sample ID: 5ML REAGENT BLA** | | *MBLK* | | | Batch ID: | **R23257** | Analysis Date: | | 4/17/2007 8:27:16 AM |
| Benzene | ND | µg/L | 1.0 | | | | | | |
| Toluene | ND | µg/L | 1.0 | | | | | | |
| Ethylbenzene | ND | µg/L | 1.0 | | | | | | |
| Xylenes, Total | ND | µg/L | 2.0 | | | | | | |
| **Sample ID: 5ML RB-II** | | *MBLK* | | | Batch ID: | **R23257** | Analysis Date: | | 4/18/2007 12:32:06 AM |
| Benzene | ND | µg/L | 1.0 | | | | | | |
| Toluene | ND | µg/L | 1.0 | | | | | | |
| Ethylbenzene | ND | µg/L | 1.0 | | | | | | |
| Xylenes, Total | ND | µg/L | 2.0 | | | | | | |
| **Sample ID: 100NG BTEX LCS** | | *LCS* | | | Batch ID: | **R23257** | Analysis Date: | | 4/17/2007 5:28:34 PM |
| Benzene | 19.51 | µg/L | 1.0 | 97.6 | 85.9 | 113 | | | |
| Toluene | 19.75 | µg/L | 1.0 | 98.8 | 86.4 | 113 | | | |
| Ethylbenzene | 19.94 | µg/L | 1.0 | 99.7 | 83.5 | 118 | | | |
| Xylenes, Total | 59.17 | µg/L | 2.0 | 98.6 | 83.4 | 122 | | | |
| **Sample ID: 100NG BTEX LCS-II** | | *LCS* | | | Batch ID: | **R23257** | Analysis Date: | | 4/18/2007 1:02:03 AM |
| Benzene | 19.87 | µg/L | 1.0 | 99.4 | 85.9 | 113 | | | |
| Toluene | 20.20 | µg/L | 1.0 | 101 | 86.4 | 113 | | | |
| Ethylbenzene | 20.35 | µg/L | 1.0 | 102 | 83.5 | 118 | | | |
| Xylenes, Total | 60.60 | µg/L | 2.0 | 101 | 83.4 | 122 | | | |
| **Sample ID: 100NG BTEX LCSD-I** | | *LCSD* | | | Batch ID: | **R23257** | Analysis Date: | | 4/18/2007 1:32:05 AM |
| Benzene | 19.20 | µg/L | 1.0 | 96.0 | 85.9 | 113 | 3.42 | 27 | |
| Toluene | 19.53 | µg/L | 1.0 | 97.6 | 86.4 | 113 | 3.37 | 19 | |
| Ethylbenzene | 19.67 | µg/L | 1.0 | 98.4 | 83.5 | 118 | 3.38 | 10 | |
| Xylenes, Total | 58.58 | µg/L | 2.0 | 97.6 | 83.4 | 122 | 3.39 | 13 | |
| **Sample ID: 0704208-07A MS** | | *MS* | | | Batch ID: | **R23257** | Analysis Date: | | 4/17/2007 4:28:32 PM |
| Benzene | 19.15 | µg/L | 1.0 | 95.8 | 85.9 | 113 | | | |
| Toluene | 19.38 | µg/L | 1.0 | 96.9 | 86.4 | 113 | | | |
| Ethylbenzene | 19.67 | µg/L | 1.0 | 98.3 | 83.5 | 118 | | | |
| Xylenes, Total | 58.20 | µg/L | 2.0 | 97.0 | 83.4 | 122 | | | |

**Qualifiers:**

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