LT Environmental, Inc.
848 East 2nd Avenue
Durango, Colorado 81301
970.385.1096

November 30, 2017

Mr. Randolph Bayliss
Hydrologist, Districts III and IV
New Mexico Oil Conservation Division
1220 South Street Francis Drive
Santa Fe, New Mexico 87505

RE: 2017 Annual Groundwater Report and Request for No Further Action
Administrative / Environmental Order #3RP-134
XTO Energy, Inc.
Valdez A #1E
Bloomfield, New Mexico
SWNE Section 24, Township 29N, Range 11W

Dear Mr. Bayliss:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), is providing this report to the New Mexico Oil Conservation Division (NMOCD) summarizing groundwater sampling results for quarterly monitoring activities at the Valdez A #1E, a natural gas production well located in the southwest quarter of the northeast quarter of Section 24 in Township 29 North, Range 11 West of San Juan County, New Mexico (Figure 1). Groundwater sampling data collected from December 2016 through September 2017 indicated benzene, toluene, ethylbenzene, and total xylenes (BTEX) concentrations in groundwater monitoring well MW-7 have been in compliance with the applicable New Mexico Water Quality Control Commission (NMWQCC) standards for four consecutive quarters. Based on the data presented in this report, XTO requests a No Further Action determination be assigned to Administrative/Environmental Order #3RP-134.

BACKGROUND

Tenneco Oil Company (Tenneco) was the original owner/operator of this well site. XTO acquired the Valdez A #1E natural gas production well from Amoco Production Company (Amoco) in January 1998. This is an active gas producing well in the Dakota Sandstone Formation and Otero Chacra Formation. The San Juan River flows in a general west/southwest direction approximately 1,000 feet from the well pad site.

In September 1987, the NMOCD augured four exploratory borings between 10.5 feet and 18 feet below ground surface (bgs) at the site. Sampling results of the borings indicated impact to groundwater in the vicinity of a former produced water tank and separator. A letter documenting the NMOCD findings is included as Attachment 1. The NMOCD required Tenneco to install a series of monitoring wells to delineate the vertical and lateral extent of groundwater impact and to monitor concentrations of BTEX.

In June 1988, Tenneco installed monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6. Completion diagrams and borehole logs are included in previous annual reports submitted to the NMOCD. The monitoring wells were sampled during 1988 and laboratory analytical results indicated elevated BTEX concentrations existed in groundwater from monitoring wells MW-4 and MW-6. Tenneco submitted a groundwater report to the NMOCD in September 1988 documenting activities and laboratory results.

In January 1989, the site was acquired by Amoco. In 1992, based on available historical analytical data, it is assumed that additional monitoring wells MW-7, MW-8, MW-9, and MW-10 were installed during the first quarter. The site was included in Amoco's *Remediation Plan for Groundwater Encountered During Pit Closure Activities*, October 18, 1996. This field wide remediation plan was approaching NMOCD four consecutive sampling events compliant with the NMWQCC standards for any individual sampling point would satisfy closure of that sampling point.

XTO acquired the site in 1998 and adopted the existing Amoco Remediation Plan. The *1998 Annual Groundwater Report* submitted to the NMOCD by XTO presented data collected from 1996 through 1998. That report and every annual report thereafter included Amoco's original scope of work, including documentation of four consecutive quarters of BTEX concentrations below NMWQCC standards prior to closure. The report indicated monitoring well MW-2 was dry from 1996 through 1998 and no BTEX concentrations in groundwater sampled from monitoring wells MW-1, MW-3, and MW-9 exceeded NMWQCC standards. Elevated concentrations of BTEX were documented during one sampling event between 1996 and 1998 at monitoring wells MW-4, MW-5, and MW-10 and BTEX concentrations consistently exceeded the NMWQCC standards in groundwater sampled from monitoring wells MW-6, MW-7, and MW-8. In June and September of 1998, phase-separated hydrocarbons (PSH) were detected in monitoring well MW-7.

Former monitoring well MW-8, located upgradient of former monitoring wells MW-9 and MW-10 (Figures 2 through 4), was destroyed by the land owner between October 1998 and January 1999 per a Blagg Engineering letter dated July 26, 2001, addressed to the NMOCD. Laboratory analytical results from the last monitoring event (September 25, 1998) prior to the destruction of former monitoring well MW-8 indicated groundwater exhibited concentrations that were compliant with the NMWQCC standards for BTEX (Table 2).

From 1999 to 2005, XTO sampled groundwater from monitoring wells MW-6, MW-7, MW-9, and MW-10 to monitor natural degradation and confirm PSH was not migrating. Detection of PSH continued in monitoring well MW-7 into January 2000, when the PSH was thickest at 1.80 feet. Blagg Engineering conducted six product recovery events in January 2000. Beginning in February 2000, PSH was no longer detected in monitoring well MW-7. In April 2002, monitoring wells MW-2 and MW-5 were plugged and abandoned and sampling of MW-3 was discontinued per the surface owner's request and NMOCD approval. In 2005, monitoring wells MW-9 and MW-10

were removed by the property owner. Laboratory analytical results from their final monitoring events (March 20, 2001 and August 25, 1996, respectively) indicated compliance with the NMWQCC standards (Table 2).

From 2006 through 2009, XTO conducted annual or semi-annual sampling of groundwater monitoring wells MW-6 and MW-7 to monitor natural degradation of BTEX constituents. In 2010, XTO implemented quarterly sampling of monitoring wells MW-6 and MW-7 and added chemical oxygenate to monitoring well MW-7 via Oxygen Release Compound® (ORC) socks. In the *2010 Annual Groundwater Report* submitted to the NMOCD, XTO proposed cessation of sampling of monitoring well MW-6 after the NMWQCC standards for BTEX concentrations were met for four consecutive quarters. Sampling of monitoring well MW-6 was discontinued in 2011. XTO removed monitoring well MW-6 following the second quarter 2016 monitoring event at the request of the property owner.

XTO continued to apply chemical oxygenate to groundwater in monitoring well MW-7 and sampled the monitoring well quarterly through 2016. A summary of groundwater elevation data and laboratory results from historical and current groundwater monitoring is presented in Table 1 and Table 2, respectively.

2017 GROUNDWATER MONITORING

XTO utilized ORC socks in monitoring well MW-7 throughout 2017, and groundwater samples were collected in March, June, and September for submittal to Environmental Science Corporation (ESC) of Mount Juliet, Tennessee, for laboratory analysis of BTEX by United States Environmental Protection Agency (EPA) Method 8021B. The ORC socks were removed from monitoring well MW-7 at least seven days prior to sampling to allow groundwater to equilibrate; after sampling, the ORC socks were replaced.

Depth to groundwater was measured quarterly at monitoring wells MW-1, MW-3, and MW-7 during 2017. Static groundwater level monitoring included measuring depth to groundwater with a Keck oil/water interface probe. Presence of PSH was also investigated using the interface probe. The interface probe was decontaminated with Alconox™ soap and rinsed with de-ionized water prior to each measurement. Groundwater elevations obtained from monitoring wells during site visits were used to draft groundwater contour maps. Contours were inferred based on depth to groundwater measurements and physical characteristics at the site (topography, proximity to irrigation ditches, etc.).

RESULTS

Field data collected during site monitoring activities in 2017 indicated the groundwater continues to flow to the south-southwest, toward the San Juan River, which is consistent with historical observations. Figures 2, 3, and 4 illustrate the estimated groundwater potentiometric surface for 2017. Depth to groundwater and groundwater elevation data are summarized in Table 1.

Laboratory analytical results indicated the BTEX concentrations in monitoring well MW-7 were compliant with the NMWQCC standards throughout 2017 (March, June, and September). Laboratory analytical results are summarized in Table 2, laboratory analytical reports from 2017 are included as Attachment 2, and copies of the field notes are provided as Attachment 3.

NO FURTHER ACTION REQUEST

Laboratory analytical results indicate concentrations of BTEX in monitoring well MW-7 have been compliant with the NMWQCC standards for four consecutive quarters (December 2016 through September 2017). Per the original Amoco *Remediation Plan for Groundwater Encountered During Pit Closure Activities*, October 18, 1996, four consecutive sampling events that are compliant with the NMWQCC standards for any individual sampling point will satisfy closure of that sampling point. Therefore, LTE on behalf of XTO, requests the NMOCD assign a No Further Action determination to Administrative/Environmental Order #3RP-134 and approve the plugging and abandonment of the remaining monitoring wells (MW-1, MW-3, and MW-7) on site.

Sincerely,

LT ENVIRONMENTAL, INC.

Michael A. Wicker
Staff Geologist

Ashley L. Ager, M.S., P.G.
Senior Geologist

Attachments

Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation and Analytical Results (March 2017)
Figure 3 – Groundwater Elevation and Analytical Results (June 2017)
Figure 4 – Groundwater Elevation and Analytical Results (September 2017)

Table 1 – Groundwater Elevation Summary
Table 2 – Groundwater Analytical Results

Attachment 1 – NMOCD Letter to Tenneco Oil Company (1988)
Attachment 2 – 2017 Laboratory Analytical Reports
Attachment 3 – 2017 Groundwater Monitoring Field Forms

FIGURES

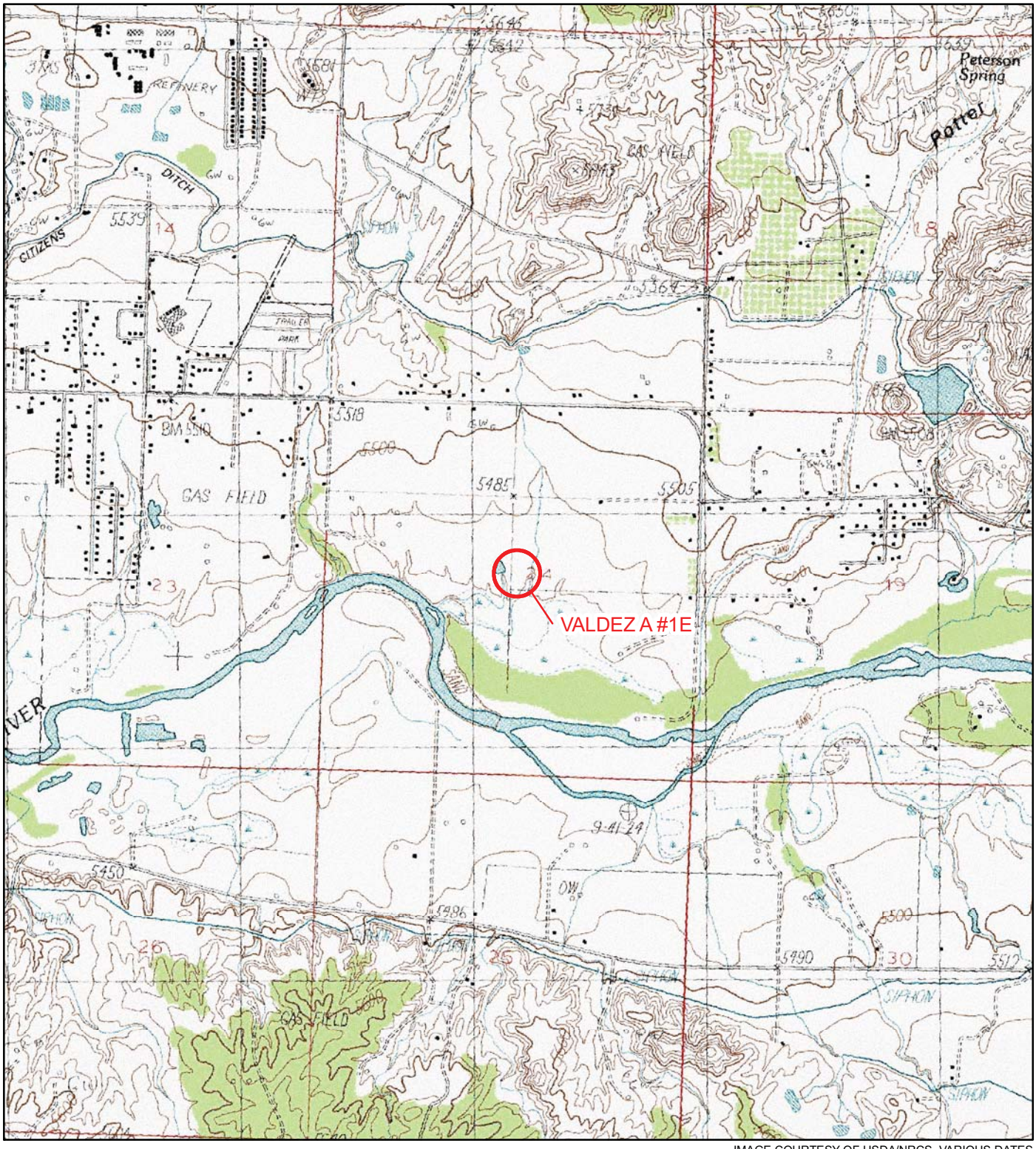

IMAGE COURTESY OF USDA/NRCS, VARIOUS DATES

LEGEND

○ SITE LOCATION

0 2,000 4,000

Feet

N

FIGURE 1
SITE LOCATION MAP
VALDEZ A #1E
SWNE SEC 24 T29N R11W
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

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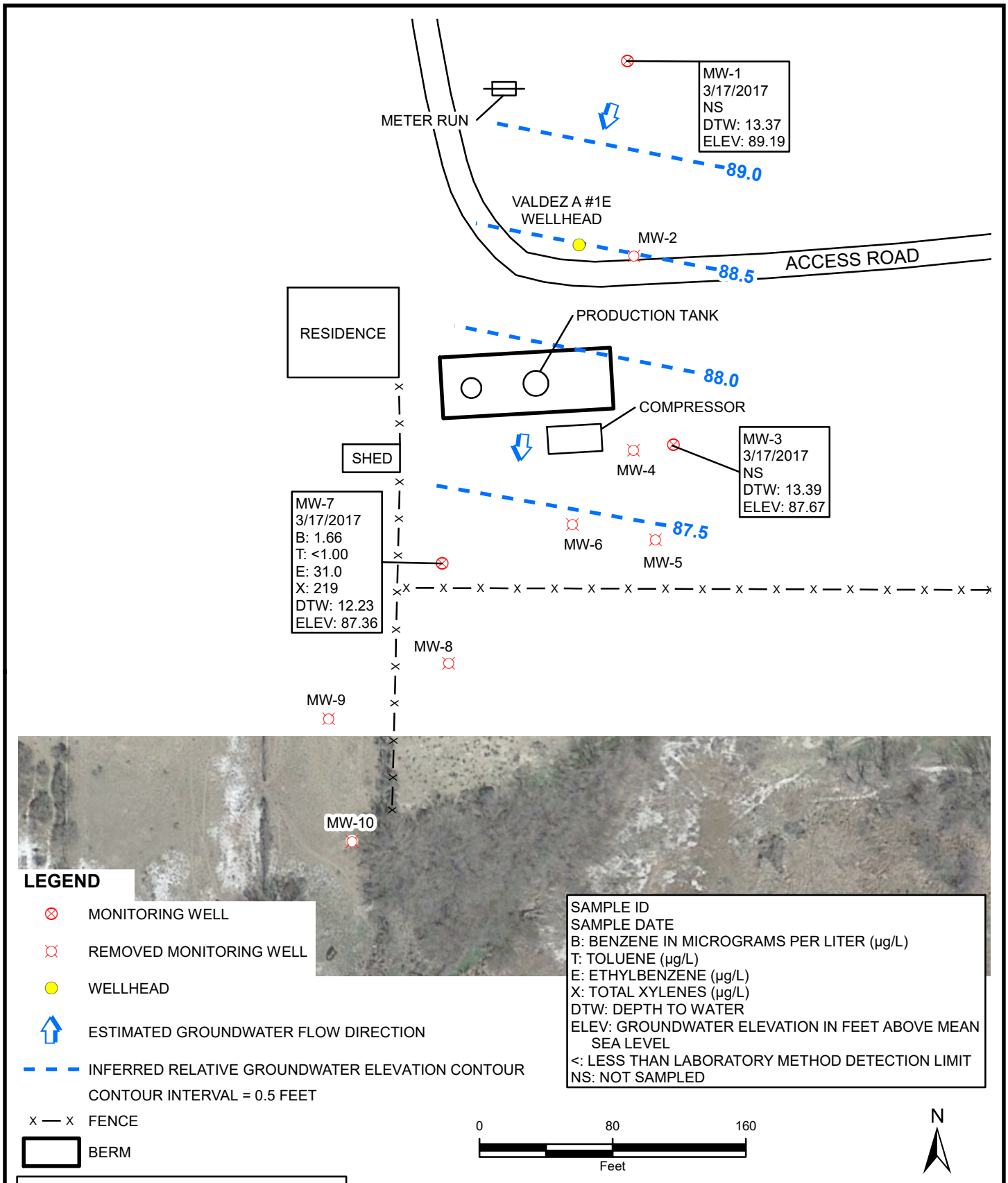

NOTE: MONITORING WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGE FINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.

FIGURE 2
GROUNDWATER ELEVATION AND ANALYTICAL RESULTS (MARCH 2017)
VALDEZ A #1E
SWNE SEC 24 T29N R11W
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

[redacted]

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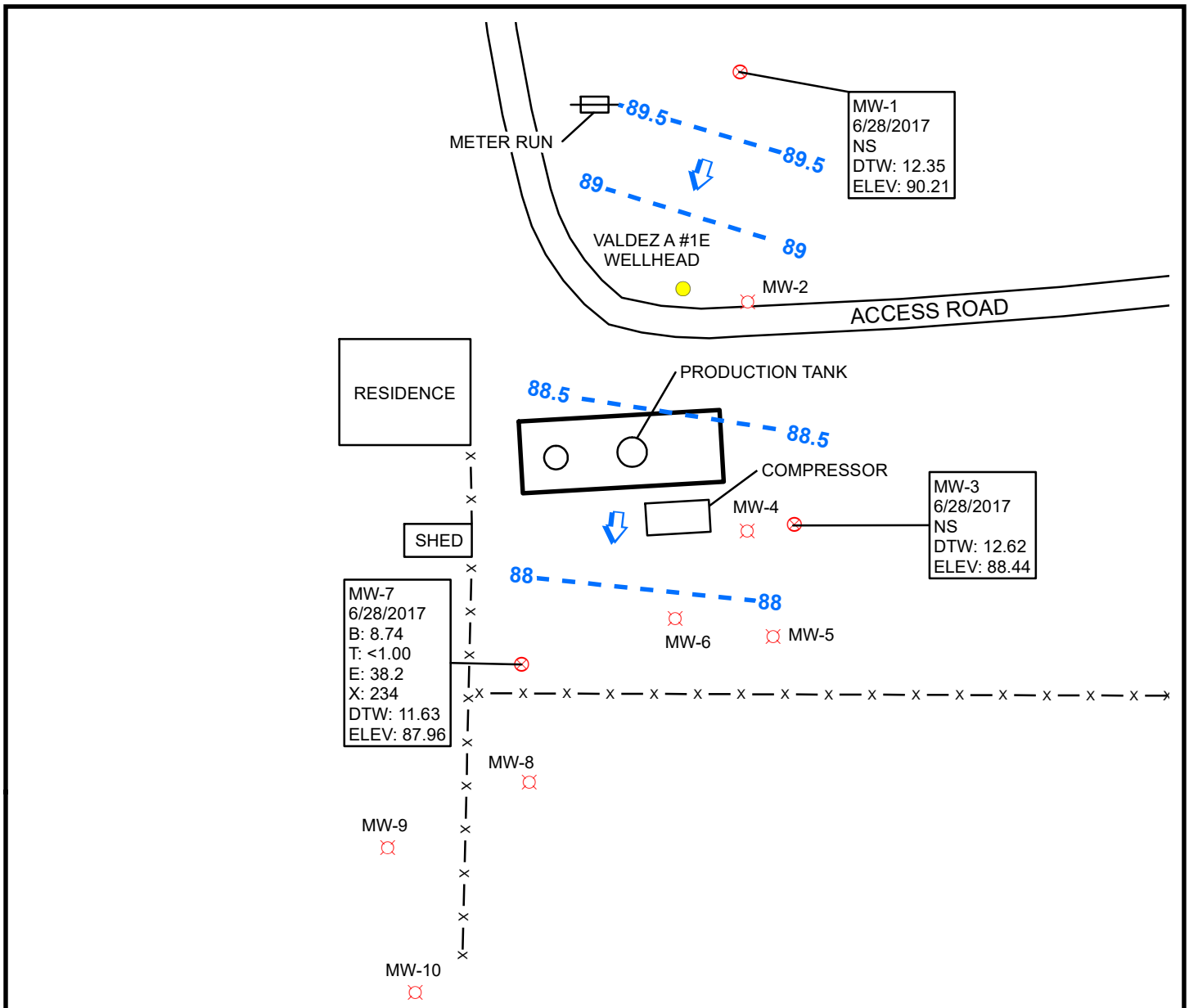

LEGEND

- MONITORING WELL
- REMOVED MONITORING WELL
- WELLHEAD
- ESTIMATED GROUNDWATER FLOW DIRECTION
- x — x FENCE
- INFERRED RELATIVE GROUNDWATER ELEVATION CONTOUR
  CONTOUR INTERVAL = 0.5 FEET
- BERM

SAMPLE ID
SAMPLE DATE
B: BENZENE IN MICROGRAMS PER LITER (µg/L)
T: TOLUENE (µg/L)
E: ETHYLBENZENE (µg/L)
X: TOTAL XYLENES (µg/L)
DTW: DEPTH TO WATER
ELEV: GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
<: LESS THAN LABORATORY METHOD DETECTION LIMIT
NS: NOT SAMPLED

0 80 160
Feet

N

NOTE: 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.

FIGURE 3
GROUNDWATER ELEVATION AND ANALYTICAL RESULTS (JUNE 2017)
VALDEZ A #1E
SWNE SEC 24 T29N R11W
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

[redacted]

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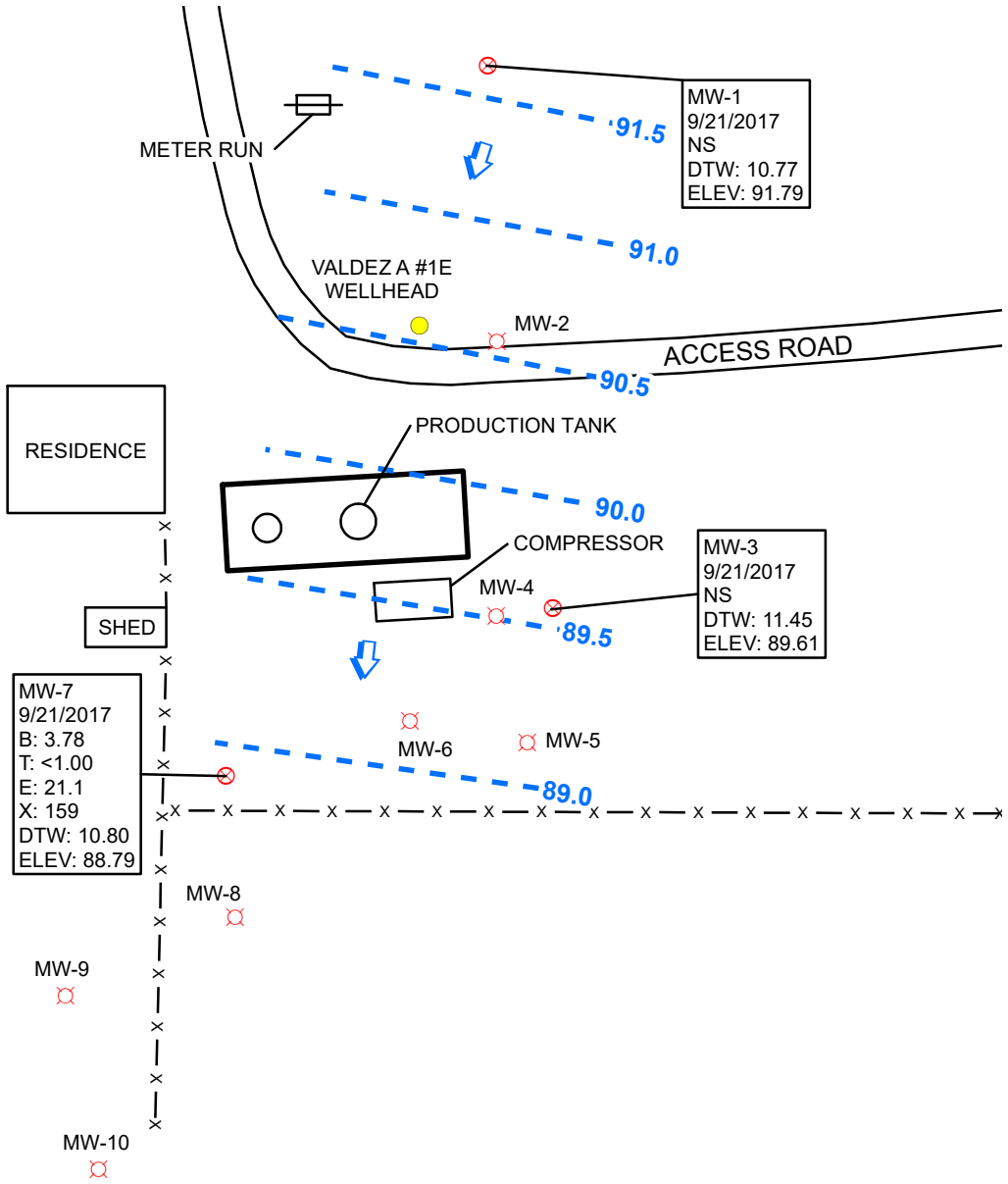

LEGEND

- MONITORING WELL
- REMOVED MONITORING WELL
- WELLHEAD
- ESTIMATED GROUNDWATER FLOW DIRECTION
- x — x FENCE
- INFERRED RELATIVE GROUNDWATER ELEVATION CONTOUR
  CONTOUR INTERVAL = 0.5 FEET
- BERM

SAMPLE ID
SAMPLE DATE
B: BENZENE IN MICROGRAMS PER LITER (µg/L)
T: TOLUENE (µg/L)
E: ETHYLBENZENE (µg/L)
X: TOTAL XYLENES (µg/L)
DTW: DEPTH TO WATER
ELEV: GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
<: LESS THAN LABORATORY METHOD DETECTION LIMIT
NS: NOT SAMPLED

0 80 160
Feet

N

NOTE: 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.

FIGURE 3
GROUNDWATER ELEVATION AND ANALYTICAL RESULTS (SEPTEMBER 2017)
VALDEZ A #1E
SWNE SEC 24 T29N R11W
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

[redacted]

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TABLES

TABLE 1
GROUNDWATER ELEVATION SUMMARY

VALDEZ A #1E
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

Well ID	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet relative to site)
MW-1	7/1/1988	NM	NM
MW-1	8/31/1988	NM	NM
MW-1	3/5/1992	NM	NM
MW-1	2/23/1993	13.59	88.97
MW-1	6/7/1993	12.92	89.64
MW-1	9/8/1993	12.06	90.50
MW-1	3/9/1994	14.20	88.36
MW-1	6/24/1994	12.39	90.17
MW-1	9/23/1994	11.35	91.21
MW-1	12/9/1994	12.35	90.21
MW-1	3/13/1995	13.71	88.85
MW-1	6/3/2008	12.95	89.61
MW-1	12/7/2009	12.37	90.19
MW-1	6/21/2010	13.23	89.33
MW-1	9/15/2010	12.14	90.42
MW-1	12/13/2010	12.89	89.67
MW-1	3/10/2011	14.29	88.27
MW-1	6/16/2011	13.10	89.46
MW-1	9/13/2011	11.66	90.90
MW-1	12/14/2011	12.41	90.15
MW-1	3/8/2012	13.90	88.66
MW-1	6/14/2012	12.63	89.93
MW-1	9/12/2012	11.12	91.44
MW-1	12/21/2012	12.25	90.31
MW-1	3/14/2013	13.69	88.87
MW-1	6/17/2013	12.58	89.98
MW-1	9/11/2013	11.16	91.40
MW-1	12/16/2013	12.29	90.27
MW-1	3/12/2014	13.69	88.87
MW-1	6/11/2014	12.85	89.71
MW-1	9/22/2014	11.00	91.56
MW-1	12/9/2014	11.67	90.89
MW-1	3/12/2015	13.34	89.22
MW-1	6/11/2015	12.49	90.07

TABLE 1
GROUNDWATER ELEVATION SUMMARY

VALDEZ A #1E
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

Well ID	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet relative to site)
MW-1	9/21/2015	11.02	91.54
MW-1	10/1/2015	10.99	91.57
MW-1	12/21/2015	12.08	90.48
MW-1	3/24/2016	13.68	88.88
MW-1	6/20/2016	12.62	89.94
MW-1	9/30/2016	10.93	91.63
MW-1	12/15/2016	11.74	90.82
MW-1	3/17/2017	13.37	89.19
MW-1	6/28/2017	12.35	90.21
MW-1	9/21/2017	10.77	91.79
MW-3	7/1/1988	NM	NM
MW-3	8/31/1988	NM	NM
MW-3	3/5/1992	NM	NM
MW-3	2/23/1993	14.02	87.04
MW-3	6/7/1993	13.66	87.40
MW-3	9/8/1993	13.16	87.90
MW-3	3/9/1994	14.54	86.52
MW-3	6/24/1994	12.95	88.11
MW-3	9/23/1994	12.24	88.82
MW-3	12/9/1994	12.94	88.12
MW-3	3/13/1995	13.88	87.18
MW-3	6/3/2008	13.21	87.85
MW-3	12/7/2009	12.78	88.28
MW-3	6/21/2010	13.47	87.59
MW-3	9/15/2010	12.54	88.52
MW-3	12/13/2010	13.16	87.90
MW-3	3/10/2011	14.23	86.83
MW-3	6/16/2011	13.32	87.74
MW-3	9/13/2011	12.20	88.86
MW-3	12/14/2011	12.76	88.30
MW-3	3/8/2012	13.94	87.12
MW-3	6/14/2012	12.97	88.09
MW-3	9/12/2012	11.78	89.28

TABLE 1
GROUNDWATER ELEVATION SUMMARY

VALDEZ A #1E
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

Well ID	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet relative to site)
MW-3	12/21/2012	12.64	88.42
MW-3	3/14/2013	13.77	87.29
MW-3	6/17/2013	12.91	88.15
MW-3	9/11/2013	11.79	89.27
MW-3	12/16/2013	12.60	88.46
MW-3	3/12/2014	13.69	87.37
MW-3	6/11/2014	13.05	88.01
MW-3	9/22/2014	11.59	89.47
MW-3	12/9/2014	12.12	88.94
MW-3	3/12/2015	13.42	87.64
MW-3	6/11/15	12.79	88.27
MW-3	9/21/2015	11.63	89.43
MW-3	10/1/15	11.61	89.45
MW-3	12/21/15	12.37	88.69
MW-3	3/24/2016	13.67	87.39
MW-3	6/20/2016	12.90	88.16
MW-3	9/30/16	11.63	89.43
MW-3	12/15/16	12.12	88.94
MW-3	3/17/2017	13.39	87.67
MW-3	6/28/2017	12.62	88.44
MW-3	9/21/2017	11.45	89.61
MW-6	7/1/1988	NM	NM
MW-6	8/31/1988	NM	NM
MW-6	3/5/1992	NM	NM
MW-6	2/23/1993	15.06	82.03
MW-6	6/7/1993	14.72	82.37
MW-6	9/8/1993	14.27	82.82
MW-6	12/2/1993	14.69	82.40
MW-6	3/9/1994	15.49	81.60
MW-6	6/24/1994	14.05	83.04
MW-6	9/23/1994	13.40	83.69
MW-6	12/9/1994	14.02	83.07
MW-6	1/10/1995	14.28	82.81

TABLE 1
GROUNDWATER ELEVATION SUMMARY

VALDEZ A #1E
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

Well ID	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet relative to site)
MW-6	2/9/1995	14.58	82.51
MW-6	3/13/1995	14.85	82.24
MW-6	4/10/1995	15.00	82.09
MW-6	6/19/1995	14.48	82.61
MW-6	8/7/1995	14.08	83.01
MW-6	9/12/1995	13.89	83.20
MW-6	10/10/1995	13.74	83.35
MW-6	11/15/1995	13.98	83.11
MW-6	12/7/1995	14.12	82.97
MW-6	3/7/1996	15.07	82.02
MW-6	6/18/1996	14.40	82.69
MW-6	6/17/1997	14.97	82.12
MW-6	6/12/1998	14.92	82.17
MW-6	9/25/1998	14.36	82.73
MW-6	5/26/1999	15.12	81.97
MW-6	6/26/2000	14.53	82.56
MW-6	5/15/2001	14.91	82.18
MW-6	6/25/2002	13.72	83.37
MW-6	5/20/2003	14.47	82.62
MW-6	6/19/2004	14.07	83.02
MW-6	9/27/2004	8.27	88.82
MW-6	6/29/2005	9.13	87.96
MW-6	6/28/2006	8.78	88.31
MW-6	6/15/2007	9.76	87.33
MW-6	12/20/2007	9.16	87.93
MW-6	6/3/2008	9.58	87.51
MW-6	12/4/2008	9.85	87.24
MW-6	6/10/2009	9.75	87.34
MW-6	12/7/2009	9.15	87.94
MW-6	6/21/2010	9.77	87.32
MW-6	9/15/2010	9.01	88.08
MW-6	12/13/2010	9.50	87.59
MW-6	3/10/2011	10.45	86.64
MW-6	6/16/2011	9.66	87.43

TABLE 1
GROUNDWATER ELEVATION SUMMARY

VALDEZ A #1E
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

Well ID	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet relative to site)
MW-6	9/13/2011	8.79	88.30
MW-6	12/14/2011	9.17	87.92
MW-6	3/8/2012	10.18	86.91
MW-6	6/14/2012	Dry	Dry
MW-6	9/12/2012	8.27	88.82
MW-6	12/21/2012	9.02	88.07
MW-6	3/14/2013	10.01	87.08
MW-6	6/17/2013	9.31	87.78
MW-6	9/11/2013	8.34	88.75
MW-6	12/16/2013	9.18	87.91
MW-6	3/12/2014	9.50	87.59
MW-6	6/11/2014	9.32	87.77
MW-6	9/22/2014	9.52	87.57
MW-6	12/9/2014	8.43	88.66
MW-6	3/12/2015	9.51	87.58
MW-6	6/11/2015	8.97	88.12
MW-6	9/21/2015	8.25	88.84
MW-6	10/1/2015	8.26	88.83
MW-6	12/21/2015	8.70	88.39
MW-6	3/24/2016	9.82	87.27
*MW-6	6/20/2016	9.12	87.97
MW-7	3/5/1992	NM	NM
MW-7	2/23/1993	13.37	86.22
MW-7	6/7/1993	14.54	85.05
MW-7	9/8/1993	14.15	85.44
MW-7	12/2/1993	14.56	85.03
MW-7	3/9/1994	15.30	84.29
MW-7	6/24/1994	14.04	85.55
MW-7	9/23/1994	13.51	86.08
MW-7	12/9/1994	13.94	85.65
MW-7	1/10/1995	14.23	85.36
MW-7	2/9/1995	14.50	85.09
MW-7	3/13/1995	14.73	84.86

TABLE 1
GROUNDWATER ELEVATION SUMMARY

VALDEZ A #1E
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

Well ID	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet relative to site)
MW-7	4/10/1995	14.87	84.72
MW-7	6/19/1995	14.39	85.20
MW-7	8/7/1995	14.04	85.55
MW-7	9/12/1995	13.85	85.74
MW-7	10/10/1995	13.73	85.86
MW-7	11/15/1995	13.94	85.65
MW-7	12/7/1995	14.05	85.54
MW-7	3/7/1996	14.94	84.65
MW-7	6/18/1996	14.34	85.25
MW-7	6/17/1997	14.83	84.76
MW-7	6/12/1998	14.83	84.76
MW-7	9/25/1998	NM	NM
MW-7	5/26/1999	NM	NM
MW-7	8/25/1999	NM	NM
MW-7	11/30/1999	NM	NM
MW-7	6/26/2000	14.46	85.13
MW-7	5/15/2001	14.87	84.72
MW-7	6/25/2002	13.72	85.87
MW-7	5/20/2003	14.43	85.16
MW-7	6/19/2004	13.97	85.62
MW-7	6/29/2005	13.81	85.78
MW-7	6/28/2006	13.37	86.22
MW-7	6/15/2007	15.00	84.59
MW-7	12/20/2007	13.65	85.94
MW-7	6/3/2008	14.03	85.56
MW-7	12/4/2008	13.46	86.13
MW-7	6/10/2009	14.20	85.39
MW-7	12/7/2009	13.61	85.98
MW-7	6/21/2010	14.19	85.40
MW-7	9/15/2010	13.76	85.83
MW-7	12/13/2010	13.98	85.61
MW-7	3/10/2011	14.81	84.78
MW-7	6/16/2011	14.10	85.49
MW-7	9/13/2011	13.21	86.38

TABLE 1
GROUNDWATER ELEVATION SUMMARY

VALDEZ A #1E
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

Well ID	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet relative to site)
MW-7	12/14/2011	13.68	85.91
MW-7	3/8/2012	14.62	84.97
MW-7	6/14/2012	13.88	85.71
MW-7	9/12/2012	12.89	86.70
MW-7	12/21/2012	13.59	86.00
MW-7	3/14/2013	14.49	85.10
MW-7	6/17/2013	13.83	85.76
MW-7	9/11/2013	12.93	86.66
MW-7	12/16/2013	13.56	86.03
MW-7	3/12/2014	14.54	85.05
MW-7	6/11/2014	13.92	85.67
MW-7	9/22/2014	12.75	86.84
MW-7	12/9/2014	13.18	86.41
MW-7	3/12/2015	14.22	85.37
MW-7	6/11/2015	11.75	87.84
MW-7	9/21/2015	10.83	88.76
MW-7	10/1/2015	10.81	88.78
MW-7	12/21/2015	11.43	88.16
MW-7	3/24/2016	12.45	87.14
MW-7	6/20/2016	12.03	87.56
MW-7	9/30/2016	10.80	88.79
MW-7	12/15/2016	11.19	88.40
MW-7	3/17/2017	12.23	87.36
MW-7	6/28/2017	11.63	87.96
MW-7	9/21/2017	10.80	88.79

Notes:

*monitor well removed by XTO between sampling events

BTOC - below top of casing

NM - not measured

TABLE 2
GROUNDWATER ANALYTICAL RESULTS

VALDEZ A #1E
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Groundwater Standard		**10**	**750**	**750**	**620**
MW-1	7/1/1988	ND	ND	ND	ND
MW-1	8/31/1988	ND	ND	ND	ND
MW-1	3/5/1992	ND	ND	ND	ND
MW-1	2/23/1993	ND	ND	ND	ND
MW-1	6/7/1993	ND	0.5	ND	1
MW-1	9/8/1993	ND	ND	ND	ND
MW-1	3/9/1994	ND	ND	ND	ND
MW-1	6/24/1994	ND	ND	ND	ND
MW-1	9/23/1994	0.9	0.2	ND	3.8
MW-1	12/9/1994	0.8	ND	ND	ND
MW-1	3/13/1995	ND	ND	ND	ND
MW-3	7/1/1988	ND	ND	ND	ND
MW-3	8/31/1988	ND	ND	ND	ND
MW-3	3/5/1992	3	6.9	0.3	7.8
MW-3	2/23/1993	ND	ND	ND	ND
MW-3	6/7/1993	ND	ND	ND	0.6
MW-3	9/8/1993	ND	0.6	ND	11.7
MW-3	3/9/1994	ND	ND	ND	ND
MW-3	6/24/1994	ND	ND	ND	ND
MW-3	9/23/1994	ND	ND	ND	ND
MW-3	12/9/1994	ND	ND	ND	ND
MW-3	3/13/1995	ND	ND	ND	ND
MW-6	7/1/1988	**1,500**	**3,300**	550	**4,560**
MW-6	8/31/1988	**1,700**	**1,600**	340	**1,300**
MW-6	3/5/1992	**65**	44.1	20.3	82.7
MW-6	2/23/1993	**2,090**	**7,800**	578	**4,080**
MW-6	6/7/1993	**1,300**	444	293	**840**
MW-6	9/8/1993	**770**	**980**	174	**783**
MW-6	12/2/1993	**540**	**1,140**	144	**867**
MW-6	3/9/1994	**580**	**1,520**	130	**888**
MW-6	6/24/1994	**542**	**1,923**	164	**1,172**
MW-6	9/23/1994	**484**	**1,696**	170	**1,300**
MW-6	12/9/1994	**593**	**2,242**	183	**1,707**

TABLE 2
GROUNDWATER ANALYTICAL RESULTS

VALDEZ A #1E
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Groundwater Standard		**10**	**750**	**750**	**620**
MW-6	1/10/1995	**450**	**1,380**	153	**1,248**
MW-6	2/9/1995	**710**	**2,160**	271	**2,297**
MW-6	3/13/1995	**19.8**	**2,471**	289	**2,460**
MW-6	4/10/1995	**525**	**1,840**	222	**1,502**
MW-6	6/19/1995	**299.3**	**998.8**	114.5	**1,045.4**
MW-6	8/7/1995	**593**	**1,650**	247	**2,111**
MW-6	9/12/1995	**412**	**1,390**	259	**1,549**
MW-6	10/10/1995	**176**	**970**	191	**1,552**
MW-6	11/15/1995	**598**	**1,370**	339	**2,819**
MW-6	12/7/1995	**599**	**1,310**	304	**2,322**
MW-6	3/7/1996	**426**	467	234	**1,876**
MW-6	6/18/1996	**462**	773	305	**2,540**
MW-6	6/17/1997	**110**	19.6	37.6	288.9
MW-6	6/12/1998	**55.6**	25.2	45.9	296.1
MW-6	9/25/1998	**42.7**	17.7	68.3	**469**
MW-6	5/26/1999	**78.9**	22	51.6	273.9
MW-6	6/26/2000	**26**	2.5	100	**670**
MW-6	5/15/2001	**13**	0.5	74	490
MW-6	6/25/2002	**20**	ND	200	**1,740**
MW-6	5/20/2003	**14**	1.1	190	**1,400**
MW-6	6/19/2004	7.5	ND	79	530
MW-6	9/27/2004	8.4	ND	140	**1,100**
MW-6	6/29/2005	6.9	ND	150	**1,100**
MW-6	6/28/2006	6.7	ND	190	**790**
MW-6	6/15/2007	2.1	ND	76	470
MW-6	12/20/2007	2.9	ND	130	**750**
MW-6	6/3/2008	1.5	ND	88	**680**
MW-6	12/4/2008	1.6	3.6	98	**640**
MW-6	6/10/2009	1.6	1.4	140	**810**
MW-6	12/7/2009	< 1.0	< 1.0	7.2	29
MW-6	6/21/2010	< 1.0	< 1.0	1.5	3.7
MW-6	9/15/2010	< 0.5	< 5.0	< 0.5	1.6
MW-6	12/13/2010	0.6	<5.0	1.1	3.1

TABLE 2
GROUNDWATER ANALYTICAL RESULTS

VALDEZ A #1E
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Groundwater Standard		**10**	**750**	**750**	**620**
MW-7	3/5/1992	**1,160**	**1,110**	302	**1,972**
MW-7	2/23/1993	ND	1	ND	2
MW-7	6/7/1993	**640**	**2,270**	330	**2,430**
MW-7	9/8/1993	**820**	**1,660**	306	**1,780**
MW-7	12/2/1993	**319**	366	35.1	**242**
MW-7	3/9/1994	**103**	88	10.3	74
MW-7	6/24/1994	**569**	**2,090**	288	**3,094**
MW-7	9/23/1994	**627**	**1,805**	189	**1,755**
MW-7	12/9/1994	**707**	**1,220**	161	**1,342**
MW-7	1/10/1995	**298**	394	54.8	365.4
MW-7	2/9/1995	**465**	624	92	582
MW-7	3/13/1995	**997.8**	**813.2**	168.4	**1,015.9**
MW-7	4/10/1995	**648**	456	104	**623**
MW-7	6/19/1995	**366.7**	414.7	66.1	602.2
MW-7	8/7/1995	**869**	**1,000**	171	**1,431**
MW-7	9/12/1995	**1725**	**846**	141	**1,035**
MW-7	10/10/1995	**143**	**689**	93.6	**925**
MW-7	11/15/1995	**710**	**1,000**	178	**1,642**
MW-7	12/7/1995	**1,050**	**606**	167	**996**
MW-7	3/7/1996	**101**	10.3	8.69	42.27
MW-7	6/18/1996	**128**	65.5	11.5	175.3
MW-7	6/17/1997	**360**	16.3	16.5	127.5
MW-7	6/26/2000	**220**	63	94	**4,080**
MW-7	5/15/2001	**190**	ND	76	**880**
MW-7	6/25/2002	**92**	14	32	264
MW-7	5/20/2003	**99**	ND	40	230
MW-7	6/19/2004	**170**	4.1	120	**780**
MW-7	6/29/2005	**100**	14	68	470
MW-7	6/28/2006	**48**	14	69	580
MW-7	6/15/2007	**86**	ND	67	97
MW-7	12/20/2007	**310**	ND	220	**1,300**
MW-7	6/3/2008	**34**	ND	63	490
MW-7	12/4/2008	**100**	31	430	**3,600**
MW-7	6/10/2009	**43**	25	160	**1,100**
MW-7	12/7/2009	**62**	33	320	**2,400**
MW-7	6/21/2010	8.2	5.6	30	180

TABLE 2
GROUNDWATER ANALYTICAL RESULTS

VALDEZ A #1E
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Groundwater Standard		**10**	**750**	**750**	**620**
MW-7	9/15/2010	**36**	< 100	78	**660**
MW-7	12/13/2010	**22**	<5.0	60	420
MW-7	3/10/2011	7	<50	72	260
MW-7	6/16/2011	4.7	<5.0	11	78
MW-7	9/13/2011	**13**	<25	67	**890**
MW-7	12/14/2011	**39**	<50	350	**1,900**
MW-7	3/8/2012	0.91	5.4	2.7	19
MW-7	6/14/2012	2.3	<5	8.8	70
MW-7	9/12/2012	**10**	<50	28	260
MW-7	12/21/2012	7.3	5.3	27	250
MW-7	3/14/2013	7.4	<5.0	<0.5	1.9
MW-7	6/17/2013	2.7	<5.0	<0.5	3.3
MW-7	9/11/2013	**70**	<100	310	**2,800**
MW-7	12/16/2013	<5.0	<50	77	570
MW-7	3/12/2014	3.7	<5.0	30	190
MW-7	6/11/2014	1.8	<5.0	16	120
MW-7	9/22/2014	**17**	56	57	300
MW-7	12/9/2014	5.4	<5.0	58	260
MW-7	3/12/2015	6.8	<50	37	110
MW-7	6/11/2015	3.7	<5.0	21	93
MW-7	9/21/2015	**123**	<250	391	**3,950**
MW-7	10/1/2015	**25.6**	<25	110	**961**
MW-7	12/21/2015	**31**	<125	124	**1,010**
MW-7	6/20/2016	**35.8**	<50.0	94.5	**824**
MW-7	9/30/2016	<5.0	<5.0	90	**830**
MW-7	12/15/2016	3.57	<1.00	21.4	61.1
MW-7	3/17/2017	1.66	<1.00	31.0	219
MW-7	6/28/2017	8.74	<1.00	38.2	234
MW-7	9/21/2017	3.78	<1.00	21.1	159
MW-8	2/23/1993	**2,830**	**25,500**	**1,680**	**5,430**
MW-8	6/8/1993	**3,220**	**1,940**	**1,110**	**4,960**
MW-8	9/9/1993	**245**	**2,040**	135	**1,499**
MW-8	12/2/1993	**307**	**2,520**	119	**1,388**
MW-8	3/9/1994	**223**	340	61	232.9
MW-8	6/24/1994	**375**	**1,750**	108	**1,001**

TABLE 2
GROUNDWATER ANALYTICAL RESULTS

VALDEZ A #1E
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Groundwater Standard		**10**	**750**	**750**	**620**
MW-8	9/23/1994	**236**	**1,827**	90	**864**
MW-8	12/9/1994	**307**	**1,608**	105	**734**
MW-8	1/10/1995	**320**	**2,410**	119	**1,016**
MW-8	2/9/1995	**183**	**760**	90.9	452
MW-8	3/13/1995	**415**	**3,943**	202	**2,037**
MW-8	4/10/1995	**239**	**2,780**	128	**1,245**
MW-8	6/19/1995	**148.9**	**1,448.2**	72.8	**681.2**
MW-8	8/7/1995	**168**	**1,590**	92.7	**893**
MW-8	9/12/1995	**499**	**1,420**	74.1	**788**
MW-8	10/10/1995	**88.1**	**817**	52.1	614
MW-8	11/15/1995	**158**	**2,110**	150	**1,488**
MW-8	12/7/1995	**156**	**1,920**	135	**1,277**
MW-8	3/7/1996	**98.1**	**1,320**	82.5	**778**
MW-8	6/18/1996	5.45	2.25	ND	3.5
MW-8	12/27/1996	**105.0**	569	51.0	421
MW-8	6/17/1997	**45.4**	83.0	29.8	88.9
MW-8	6/12/1998	5.4	5.1	1.1	9.1
MW-8	9/25/1998	0.3	0.3	0.2	2.4
MW-9	9/25/1992	ND	1.0	ND	2.0
MW-9	6/8/1993	ND	2.1	0.3	2.3
MW-9	9/9/1993	0.9	0.6	ND	0.4
MW-9	3/9/1994	ND	2.1	0.7	7.0
MW-9	6/24/1994	1.6	5.5	4.1	3.1
MW-9	9/25/1998	0.6	0.2	ND	1.1
MW-9	5/26/1999	**25.1**	13.7	4.3	47.0
MW-9	8/25/1999	0.7	2.0	ND	2.7
MW-9	11/30/1999	4.2	2.9	0.3	4.6
MW-9	6/26/2000	ND	ND	ND	ND
MW-9	3/20/2001	ND	ND	ND	ND
MW-10	2/23/1993	ND	ND	ND	1.0
MW-10	6/8/1993	ND	0.7	ND	0.9
MW-10	9/9/1993	ND	0.3	ND	1.1

TABLE 2
GROUNDWATER ANALYTICAL RESULTS

VALDEZ A #1E
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Groundwater Standard		**10**	**750**	**750**	**620**
MW-10	3/9/1994	ND	2.3	ND	0.4
MW-10	6/24/1994	2.2	ND	ND	ND
MW-10	9/23/1994	0.7	0.7	ND	ND
MW-10	12/9/1994	ND	0.2	ND	ND
MW-10	3/13/1995	ND	ND	ND	ND
MW-10	6/19/1995	ND	ND	ND	ND
MW-10	9/12/1995	ND	ND	ND	ND
MW-10	12/7/1995	ND	ND	ND	ND
MW-10	3/7/1996	ND	ND	ND	ND
MW-10	6/18/1996	ND	ND	ND	ND
MW-10	8/25/1996	1.7	0.9	ND	1.2

Notes:

< - indicates the result was less than the laboratory detection limit

BOLD values exceed the NMWQCC Standard

µg/L - micrograms per liter

ND - not detected

NMWQCC - New Mexico Water Quality Control Commission

ATTACHMENT 1

NMOCD LETTER TO TENNECO OIL COMPANY (1988)

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

June 6, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Martin W. Buys
Tenneco Oil Company
P. O. Box 3249
Englewood, Colorado 80155

RE: Ground Water Contamination Sites: Tenneco Valdez A1E
Tenneco Riddle F LS 3A

Dear Mr. Buys:

On September 17, 1987, the Oil Conservation Division (OCD) personnel augered four 10½'-18' holes at the Valdez A1E well site and discovered ground water contamination in the vicinity of the produced water tank and the separator. You have been sent laboratory analyses and a field map of the well site.

On October 27, 1987, the OCD augered five 13'-16' holes at the Riddle F LS #3A well site and discovered ground water contamination in the vicinity of the dehydrator and tank drain pit. Copies of the laboratory analysis of fluids found in Auger Hole #2 and a field map locating the auger holes in relation to the well site are enclosed.

Because ground water contamination has been found at these well sites, Tenneco is required to install a series of monitor wells at the sites to define the contamination plume and to monitor contaminant concentration levels. At this time remedial action is not being required. The need for such action will be reevaluated after review of information and data collected at these sites.

OCD staff will be available the week of June 27 to supervise installation of the monitor wells and to split samples of fluids found in the wells. Monitor well installation requirements have been discussed with you by phone.

If you have any questions, please contact me at (505) 827-5812 or Jami Bailey at (505) 827-5884.

Sincerely,

David G. Boyer
Environmental Bureau Chief

DGB:JB:sl

Enclosure

cc: OCD - Aztec

ATTACHMENT 2

2017 LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

March 27, 2017

XTO Energy - San Juan Division

Sample Delivery Group:	L896956
Samples Received:	03/18/2017
Project Number:	30-045-24445
Description:	Quarterly GW
Site:	VALDEZ A #1E
Report To:	James McDaniel 382 County Road 3100 Aztec, NM 87410

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Technical Service Representative

TABLE OF CONTENTS

FARMW-031717-1230 L896956-01 GW

Collected by	Collected date/time	Received date/time
	03/17/17 12:30	03/18/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8021B	WG962489	1	03/27/17 16:17	03/27/17 16:17	ACG

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00166		0.000500	1	03/27/2017 16:17	WG962489
Toluene	ND		0.00100	1	03/27/2017 16:17	WG962489
Ethylbenzene	0.0310		0.000500	1	03/27/2017 16:17	WG962489
Total Xylene	0.219		0.00150	1	03/27/2017 16:17	WG962489
(S) a,a,a-Trifluorotoluene(PID)	*100*		*80.0-121*		*03/27/2017 16:17*	WG962489

Method Blank (MB)

(MB) R3205938-3 03/24/17 13:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	0.000576	J	0.000412	0.00100
Ethylbenzene	0.000201	J	0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	*104*			*80.0-121*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3205938-1 03/24/17 12:07 • (LCSD) R3205938-2 03/24/17 12:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0492	0.0485	98.4	96.9	71.0-121			1.52	20
Toluene	0.0500	0.0485	0.0470	96.9	93.9	72.0-120			3.14	20
Ethylbenzene	0.0500	0.0480	0.0470	96.0	94.0	75.0-122			2.06	20
Total Xylene	0.150	0.147	0.143	98.2	95.3	74.0-124			3.03	20
(S) a,a,a-Trifluorotoluene(PID)				*102*	*103*	*80.0-121*				

L896940-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L896940-16 03/24/17 18:56 • (MS) R3205938-4 03/24/17 21:28 • (MSD) R3205938-5 03/24/17 21:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	ND	0.0418	0.0406	83.1	80.8	1	29.0-146			2.79	20
Toluene	0.0500	ND	0.0408	0.0398	80.1	78.1	1	35.0-140			2.48	20
Ethylbenzene	0.0500	ND	0.0405	0.0397	80.5	79.0	1	39.0-143			1.96	20
Total Xylene	0.150	ND	0.123	0.120	81.0	79.3	1	42.0-142			2.15	20
(S) a,a,a-Trifluorotoluene(PID)					*102*	*102*		*80.0-121*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

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State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
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Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
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Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

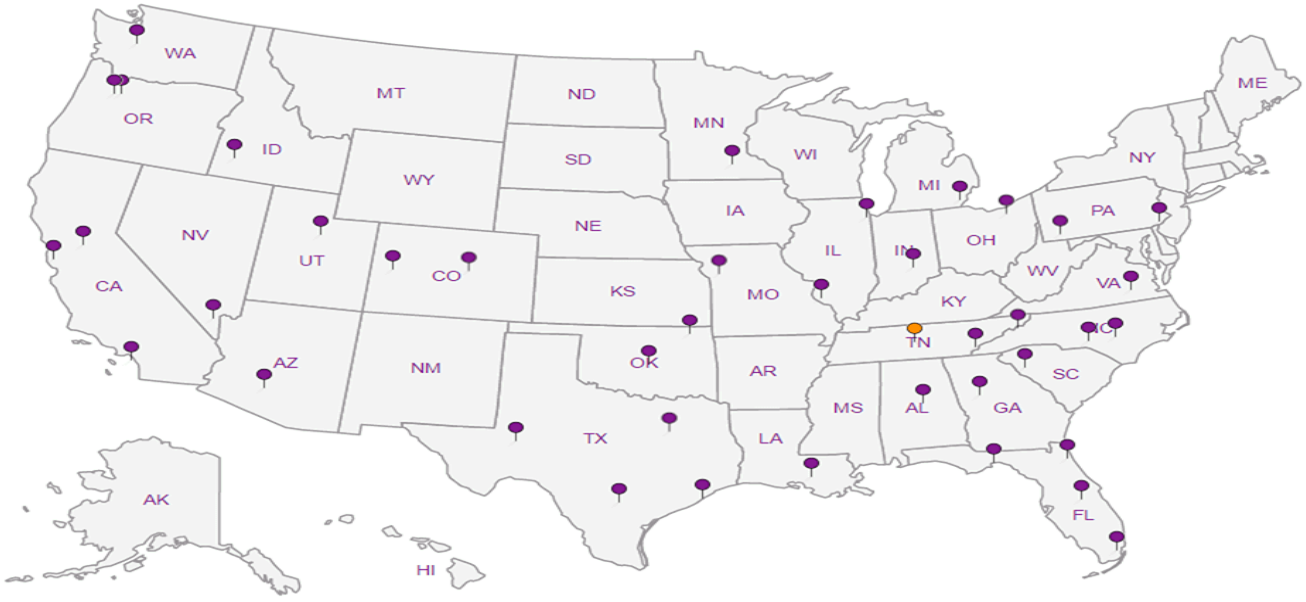
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



XTO ENERGY
Western Division

Quote Number XTO	Page _1_ of _1_	
XTO Contact: James McDaniel	XTO Contact Phone #: 505-333-3701	
Email Results to: James_McDaniel@XTOenergy.com MWicker@LTEnv.com		
Well Site/Location Valdez A #1E	API Number 30-045-24445	Test Reason Quarterly GW
Collected By	Samples on Ice (Y / N)	Turnaround ___ 24-Hour ___ Next Day ___ Two Day ___ Three Day _X_ Std.5 Bus. Days(by contract) Date Needed _____
Company LT Environmental, Inc.	QA/QC Requested Standard	
Signature	Gray Areas for Lab Use Only!	

Analysis: BTEX

Lab Information
B036

Office Abbreviations
Farmington = FAR
Durango = DUR
Bakken = BAK
Raton = RAT
Piceance = PC
Roosevelt = RSV
La Barge = LB
Orangeville = OV

Sample ID	Sample Name	Media	Date	Time	Preservative	No. of Conts.	BTEX	Sample Number
FARMW-031717-1230	MW-7	GW	3/17/2017	1230	HCl	3	X	L8969560 1
				3/16 DW				

Media : Filter = F Soil = S Wastewater = WW Groundwater = GW Drinking Waster = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT

Relinquished By: (Signature)	Date: 3/17/17	Time: 1400	Received By: (Signature)	Number of Bottles: 3 = VPclr	Sample Condition: OK
Relinquished By: (Signature)	Date:	Time:	Received By: (Signature) 5597 0240 3/20	Temperature: 3.3 ML	Other Information
Relinquished By: (Signature)	Date:	Time:	Received for Lab by: (Signature)	Date: 3/18/17 0900	

Comments

* Sample ID will be the office and sampler-date-military time-sampler initials FARJM-MMDDYY-1200

ESC LAB SCIENCES
Cooler Receipt Form

Client: XTOSMT	SDG#	L896956	
Cooler Received/Opened On: 3/18/17	Temperature:	3.3	
Received By: Don Wright			
Signature:			

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?		✓	
Preservation Correct / Checked?			

ANALYTICAL REPORT

July 10, 2017

XTO Energy - San Juan Division

Sample Delivery Group:	L919603
Samples Received:	06/30/2017
Project Number:	
Description:	Valdez A #1E

Report To: James McDaniel
382 County Road 3100
Aztec, NM 87410

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Technical Service Representative

TABLE OF CONTENTS

FARKH-062817-MW-7 L919603-01 GW

Collected by: Katherine Howe
Collected date/time: 06/28/17 15:04
Received date/time: 06/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8021B	WG995687	1	07/08/17 06:00	07/08/17 06:00	LRL

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00874		0.000500	1	07/08/2017 06:00	WG995687
Toluene	ND		0.00100	1	07/08/2017 06:00	WG995687
Ethylbenzene	0.0382		0.000500	1	07/08/2017 06:00	WG995687
Total Xylene	0.234		0.00150	1	07/08/2017 06:00	WG995687
(S) a,a,a-Trifluorotoluene(PID)	*91.5*		*80.0-121*		*07/08/2017 06:00*	WG995687

Method Blank (MB)

(MB) R3231696-3 07/07/17 00:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	*103*			*80.0-121*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231696-1 07/06/17 23:20 • (LCSD) R3231696-2 07/06/17 23:42

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Benzene	0.0500	0.0373	0.0388	74.6	77.6	71.0-121			3.98	20
Toluene	0.0500	0.0380	0.0392	76.1	78.5	72.0-120			3.10	20
Ethylbenzene	0.0500	0.0409	0.0423	81.8	84.6	75.0-122			3.32	20
Total Xylene	0.150	0.125	0.129	83.1	86.3	74.0-124			3.78	20
(S) a,a,a-Trifluorotoluene(PID)				*102*	*102*	*80.0-121*				

L919489-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919489-21 07/07/17 00:48 • (MS) R3231696-4 07/07/17 08:50 • (MSD) R3231696-5 07/07/17 09:16

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Benzene	0.0500	0.000748	0.0355	0.0388	69.6	76.0	1	29.0-146			8.72	20
Toluene	0.0500	0.00167	0.0375	0.0408	71.7	78.2	1	35.0-140			8.41	20
Ethylbenzene	0.0500	0.0719	0.140	0.147	136	150	1	39.0-143		J5	4.76	20
Total Xylene	0.150	0.136	0.298	0.314	108	119	1	42.0-142			5.26	20
(S) a,a,a-Trifluorotoluene(PID)					*102*	*102*		*80.0-121*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

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Florida	E87487	North Carolina [2]	41
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Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
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Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

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A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

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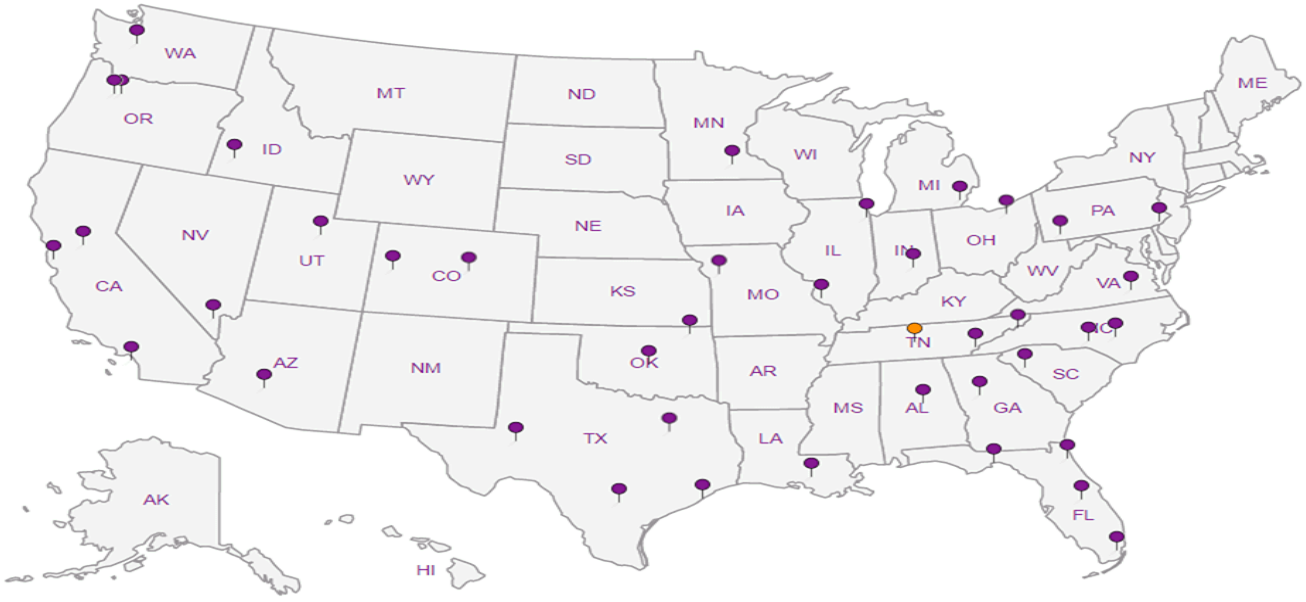

XTO ENERGY
Western Division

Quote Number XTO	**Page** _1_ **of** _1_	
XTO Contact: James McDaniel	**XTO Contact Phone #:** 505-333-3701	
Email Results to: james_mcdaniel@ltenv.com mwicker@ltenv.com		
Well Site/Location Valdez A #1E	**API Number**	**Test Reason** Quarterly GW
Collected By Katherine Howe	**Samples on Ice (Y / N)**	**Turnaround**
Company LT Environmental, Inc.	**QA/QC Requested** Standard	___ 24-Hour ___ Next Day ___ Two Day ___ Three Day _X_ Std.5 Bus. Days(by contract)
Signature	**Gray Areas for Lab Use Only!**	**Date Needed** _____

Analysis

Lab Information 1919603

Office Abbreviations
Farmington = FAR
Durango = DUR
Bakken = BAK
Raton = RAT
Piceance = PC
Roosevelt = RSV
La Barge = LB
Orangeville = OV

B163

Sample ID	Sample Name	Media	Date	Time	Preservative	No. of Conts.	BTEX						Sample Number
FARKH-062817-MW-7	MW-7	AQ	6/28/2017	1504	HCl	3	X						-01

Media : Filter = F Soil = S Wastewater = WW Groundwater = GW Drinking Waster = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT

Relinquished By: (Signature)	**Date:** 6/29/17	**Time:**	**Received By: (Signature)** 5435 5571 4462	**Number of Bottles** 3	**Sample Condition**
Relinquished By: (Signature)	**Date:**	**Time:**	**Received By: (Signature)**	**Temperature:** 2.6	**Other Information** OK
Relinquished By: (Signature)	**Date:**	**Time:**	**Received for Lab by: (Signature)** Marina Malone	**Date:** 6-30-17 0845	

Comments

* Sample ID will be the office and sampler-date-military time-sampler initials FARJM-MMDDYY-1200

ESC LAB SCIENCES
Cooler Receipt Form

Client: ~~XTO OT~~ XTORVM		SDG#	L919603
Cooler Received/Opened On: 6/30/2017	Temperature:	2.6	
Received By: Marina Malone			
Signature: Marina Malone			

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?		✓	
Preservation Correct / Checked?			

ANALYTICAL REPORT

September 29, 2017

XTO Energy - San Juan Division

Sample Delivery Group:	L938828
Samples Received:	09/23/2017
Project Number:	30-045-24445
Description:	Valdez A #1E

Report To: James McDaniel
382 County Road 3100
Aztec, NM 87410

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Technical Service Representative

TABLE OF CONTENTS

FARAC-092117-1300 L938828-01 GW

	Collected by	Collected date/time	Received date/time
		09/21/17 13:00	09/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8021B	WG1025034	1	09/28/17 22:51	09/28/17 22:51	LRL

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00378		0.000500	1	09/28/2017 22:51	WG1025034
Toluene	ND		0.00100	1	09/28/2017 22:51	WG1025034
Ethylbenzene	0.0211		0.000500	1	09/28/2017 22:51	WG1025034
Total Xylene	0.159		0.00150	1	09/28/2017 22:51	WG1025034
(S) a,a,a-Trifluorotoluene(PID)	*117*		*80.0-121*		*09/28/2017 22:51*	WG1025034

Method Blank (MB)

(MB) R3253462-3 09/28/17 19:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	0.000202	J	0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	*117*			*80.0-121*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3253462-1 09/28/17 18:25 • (LCSD) R3253462-2 09/28/17 18:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0485	0.0487	97.0	97.4	71.0-121			0.410	20
Toluene	0.0500	0.0500	0.0498	100	99.6	72.0-120			0.390	20
Ethylbenzene	0.0500	0.0523	0.0516	105	103	75.0-122			1.38	20
Total Xylene	0.150	0.157	0.155	104	103	74.0-124			1.09	20
(S) a,a,a-Trifluorotoluene(PID)				*115*	*116*	*80.0-121*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

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Kansas	E-10277	South Carolina	84004
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Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
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Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
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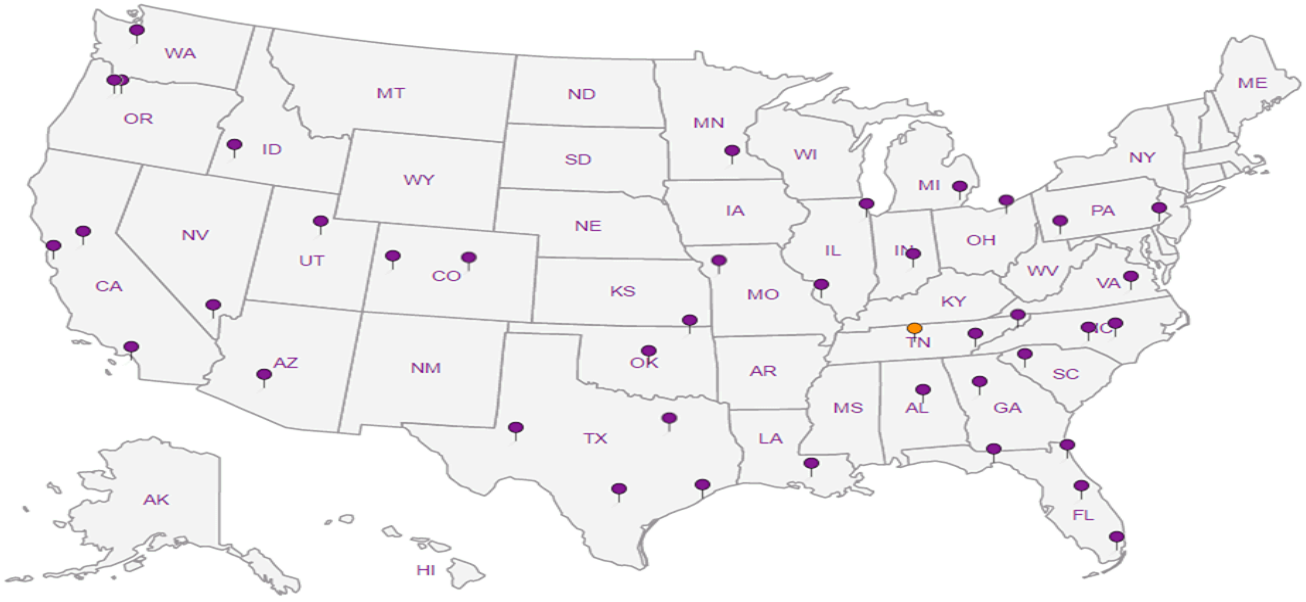
Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



XTO ENERGY
Western Division

Quote Number XTO	**Page** _1_ of _1_	
XTO Contact: James McDaniel	**XTO Contact Phone #:** 505-333-3701	
Email Results to: James_McDaniel@XTOenergy.com MWicker@LTEnv.com		
Well Site/Location Valdez A #1E	**API Number** 30-045-24445	**Test Reason** Quarterly GW
Collected By Alexandria Crooks	**Samples on Ice (Y / N)**	**Turnaround**
Company LT Environmental, Inc.	**QA/QC Requested** Standard	___ 24-Hour ___ Next Day ___ Two Day ___ Three Day _X_ Std.5 Bus. Days(by contract)
Signature AC	**Gray Areas for Lab Use Only!**	**Date Needed** _____

Analysis

Lab Information
G226

Office Abbreviations
Farmington = FAR
Durango = DUR
Bakken = BAK
Raton = RAT
Piceance = PC
Roosevelt = RSV
La Barge = LB
Orangeville = OV

L938828

Sample ID	Sample Name	Media	Date	Time	Preservative	No. of Conts.	BTEX	Sample Number
FARAC-092117-1300	MW-7	GW	9/21/2017	1304	HCl	3	X	-01

Media : Filter = F Soil = S Wastewater = WW Groundwater = GW Drinking Waster = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT

Relinquished By: (Signature) Alex Crooke	**Date:** 9/22/17	**Time:** 1100	**Received By: (Signature)**	**Number of Bottles** 3-40ml	**Sample Condition**
Relinquished By: (Signature)	**Date:**	**Time:**	**Received By: (Signature)**	**Temperature:** 2.4 uncorr 2.0	**Other Information**
Relinquished By: (Signature)	**Date:**	**Time:**	**Received for Lab by: (Signature)**	**Date:** 9/23/17 0845	

Comments
TRK# 7305 8952 3192
OK

* Sample ID will be the office and sampler-date-military time-sampler initials FARJM-MMDDYY-1200

ESC LAB SCIENCES
Cooler Receipt Form

Client: XTOR	SDG#	1938828	
Cooler Received/Opened On: 9/23/17	Temperature: 2.4		
Received by: Kate Moffitt			
Signature:			

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable		✓	
VOA Zero headspace?			
Preservation Correct / Checked?			

ATTACHMENT 3

2017 GROUNDWATER MONITORING FIELD FORMS

COMPLIANCE / ENGINEERING / REMEDIATION

LT Environmental, Inc.
848 East 2nd Avenue
Durango, Colorado 81301
T 970.385.1096 / F 970.385.1873

Water Sample Collection Form

Project Name XTO Groundwater Monitoring
Project Number 012911009.6A

Site Name Valdez A #1E
Sampler Michael A Wicker
Sample Date 3/17/2017
Matrix Groundwater
Analyses 8021 BTEX
Laboratory ESC
Turn Around Time Standard
Shipping FedEx
Trip Blank No
Method of Purging Dedicated bailer
Method of Sampling Purge 3 volumes or bail dry

Sample ID	Depth to Water (ft)	Total Depth (ft)	Vol to Purge (gal)*	Actual Vol Purged (gal)	Sample Time	Comments
MW-1	13.37	19.99	--	--	NS	Not Sampled
MW-3	13.39	16.14	--	--	NS	Not Sampled
MW-6	Well Removed by XTO					
MW-7	12.23	17.23	2.45	2.50	1230	Obstruction in well

*(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols

Comments
Bail 2.5 bailers down to obstruction, fast recharge, repeat

Signature: [signature] Date: 3/17/2017

COMPLIANCE / ENGINEERING / REMEDIATION

LT Environmental, Inc.
848 East 2nd Avenue
Durango, Colorado 81301
T 970.385.1096 F
970.385.1873

Water Sample Collection Form

Project Name XTO Groundwater Monitoring
Project Number 012911009

Site Name Valdez A #1E
Sampler Katherine Howe
Sample Date 28-Jun-17
Matrix Groundwater
Analyses 8021 BTEX
Laboratory ESC
Turn Around Time Standard
Shipping FedEx
Trip Blank No
Method of Purging Dedicated bailer
Method of Sampling Purge 3 volumes or bail dry

Sample ID	Depth to Water (ft)	Total Depth (ft)	Vol to Purge (gal)*	Actual Vol Purged (gal)	Sample Time	Comments
MW-1	12.35	NA	NA	NA	NA	
MW-3	12.42	NA	NA	NA	NA	
MW-7	11.63	16.77	2.55	0.5	1504	blocked below water level

*(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols

Comments

MW-7 blocked just below water level, IFP able to get through, bailer cannot. Collected sample after purging 0.5 gal due to obstruction. Previously noted (obstruction) in field book.

Signature: Katherine Howe Date: 6/28/17

COMPLIANCE / ENGINEERING / REMEDIATION

LT Environmental, Inc.
[illegible]

1.2
10
2.4
6.7
20.3 mi

Water Sample Collection Form

Project Name XTO Groundwater Monitoring
Project Number 012911009.6A

Site Name Valdez A #1E
Sampler Alexandria Crooks
Sample Date 9/21/2017
Matrix Groundwater
Analyses 8021 BTEX
Laboratory ESC
Turn Around Time Standard
Shipping FedEx
Trip Blank No
Method of Purging Dedicated bailer
Method of Sampling Purge 3 volumes or bail dry

Sample ID	Depth to Water (ft)	Total Depth (ft)	Vol to Purge (gal)*	Actual Vol Purged (gal)	Sample Time	Comments
MW-1	10.77	19.94	--	--	NS	Not Sampled
MW-3	11.45	16.13	--	--	NS	Not Sampled
MW-6	Well Removed by XTO					
MW-7	10.80	19.13	3.12	4.00	1300	Bailed dry, Recharged, Bailed 1.5 more gal

*(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols

Comments

Signature: Alex Crooks Date: 9/21/2017