2016 ANNUAL GROUNDWATER REPORT

Johnston Fed #6A
NMOCD Case#: 3RP-202-0
Meter Code: 89232
T31N, R9W, Sec35, Unit F

SITE DETAILS

Site Location: Latitude: 36.856422 N, Longitude: -107.753819 W
Land Type: Federal
Operator: Burlington Resources Oil & Gas Company, LP

SITE BACKGROUND

- **Site Assessment:** 8/94
- **Excavation:** 9/94 (80 cy)

Environmental Remediation activities at the Johnston Fed #6A (Site) are being managed pursuant to the procedures set forth in the document entitled, "Remediation Plan for Groundwater Encountered during Pit Closure Activities" (Remediation Plan, El Paso Natural Gas Company / El Paso Field Services Company, 1995). This Remediation Plan was conditionally approved by the New Mexico Oil Conservation Division (OCD) in correspondence dated November 30, 1995; and the OCD approval conditions were adopted into El Paso CGP Company (EPCGP's) program methods. Currently, the Site is operated by Burlington Resources Oil & Gas Company, LP and is active.

The Site is located on Federal land. Various site investigations have occurred from 1994 through 2015. Monitoring wells were installed in 1994 (MW-1 through MW-4), 1997 (temporary monitoring wells PZ-01 through PZ-07), 2000 (MW-5), 2006 (MW-6), and 2015 (MW-7 though MW-9). Free product recovery has been periodically conducted since 1997. Free product was observed and recovered in MW-1 in 2016. Currently, groundwater sampling is conducted on a semi-annual basis.

GROUNDWATER SAMPLING ACTIVITIES

On April 16 and October 13, 2016, water levels were gauged at MW-1, MW-2 MW-3, MW-4, MW-5, MW-6, MW-7, MW-8 and MW-9. Groundwater samples were collected from MW-3, MW-5, MW-7, MW-8, and MW-9 using HydraSleeve™ (HydraSleeve) no-purge groundwater sampling devices. The HydraSleeves were set during the previous sampling event approximately 0.5 foot above termination depth of the monitoring wells using a suspension tether and stainless steel weights to collect a sample from the screened interval. Groundwater samples were placed into laboratory-supplied sample containers, packed on ice, and shipped under standard chain-of-custody protocols to TestAmerica Laboratories, Inc. in Pensacola, Florida where they were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX). Additional field parameters are collected from the excess sample water recovered by the HydraSleeve. Excess sample water is poured into a YSI multi-parameter instrument sample cup and analyzed. Field parameters include dissolved oxygen, temperature, conductivity, pH, and oxidation-reduction potential ORP. Field parameters are not collected if free product is present. The unused sample water is combined in a waste container and taken to Basin Disposal, Inc. (Basin) for disposal.

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FREE PRODUCT RECOVERY

Free product is manually recovered monthly from MW-1. Since April 2016, 0.04 gallon has been recovered. The recovered product was transported to Basin for disposal.

A mobile dual phase extraction (MDPE) event was completed on November 29, 2016, by AcuVac Remediation, LLC, of Houston, Texas (AcuVac). The purpose of the MDPE event was to evaluate more aggressive free product recovery methods from monitoring well MW-1. MDPE is a process combining soil vapor extraction (SVE) with groundwater depression to enhance the removal of liquid and vapor phase hydrocarbons. A submersible pump is used to simultaneously remove dissolved-phase contaminated groundwater, inducing a hydraulic gradient toward the extraction well, and creating groundwater depression to expose the hydrocarbon smear zone to SVE. Recovered liquids were transferred to a portable storage tank for off-site disposal. Recovered vapors were used as fuel and burned in the MDPE internal combustion engine (ICE), resulting in little to no emissions. Power generated by the ICE is used to create the induced vacuum for SVE.

One, 7-hour MDPE event was completed, using MW-1 as an extraction well. Based on field data collected by AcuVac, approximately 5.05 gallons of hydrocarbons were recovered from MW-1. AcuVac's report summarizing the MDPE events at the Site is presented as Appendix A. Recovered fluids from the MDPE event where transported to Basin for disposal. Waste disposal documentation is included as Appendix B.

SUMMARY TABLES

Historic groundwater analytical results and well gauging data are summarized in Tables 1 and 2, respectively. When free product was present, static water level elevations were corrected for measurable thicknesses of free product (specific gravity of 0.75). Monthly free product recovery data is summarized in Table 3.

SITE MAPS

Groundwater analytical maps (Figures 1 and 3) and groundwater elevation contour maps (Figures 2 and 4) summarize results of the 2016 groundwater sampling and gauging events.

ANALYTICAL LAB REPORTS

The groundwater analytical lab report is included as Appendix C.

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GROUNDWATER RESULTS

- The groundwater flow direction at the Site is generally to the north-northeast (see Figures 2 and 4).
- Free product was observed in MW-1 in 2016. No groundwater samples were collected from MW-1.
- Monitoring wells MW-2, MW-4, and MW-6 were not selected to be sampled in 2016.
- Concentrations of benzene were not detected in any of the Site monitoring wells sampled in 2016.
- Concentrations of toluene were either below the New Mexico Water Quality Control Commission (NMWQCC) standard (750 µg/L) or not detected in the Site monitoring wells sampled in 2016.
- Concentrations of ethylbenzene were either below the NMWQCC standard (750 µg/L) or not detected in the Site monitoring wells sampled in 2016.
- Concentrations of total xylenes were not detected in the Site monitoring wells sampled in 2016.

PLANNED FUTURE ACTIVITIES

Groundwater monitoring events will be conducted on a semi-annual basis. Free product recovery will also be completed, if encountered. The 2017 Annual Report will be submitted in early 2018.

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TABLES

TABLE-1 GROUNDWATER ANALYTICAL RESULTS

Johnston Fed #6A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-1	08/10/95	605	1380	74.6	718
MW-1	12/13/95	1330	1610	235	1540
MW-1	04/11/96	775	1070	124	810
MW-1	07/23/96	676	1980	233	2090
MW-1	10/14/96	1790	8350	580	6200
MW-1	01/22/97	6420	19800	934	10700
MW-1	04/11/97	7310	23500	1010	10800
MW-1	06/18/01	NS	NS	NS	NS
MW-1	09/04/01	NS	NS	NS	NS
MW-1	03/04/02	NS	NS	NS	NS
MW-1	06/04/02	NS	NS	NS	NS
MW-1	09/10/02	NS	NS	NS	NS
MW-1	12/12/02	NS	NS	NS	NS
MW-1	03/14/03	NS	NS	NS	NS
MW-1	06/18/03	NS	NS	NS	NS
MW-1	09/16/03	NS	NS	NS	NS
MW-1	12/17/03	NS	NS	NS	NS
MW-1	03/16/04	NS	NS	NS	NS
MW-1	06/22/04	NS	NS	NS	NS
MW-1	09/22/04	NS	NS	NS	NS
MW-1	12/21/04	NS	NS	NS	NS
MW-1	03/23/05	NS	NS	NS	NS
MW-1	06/17/05	NS	NS	NS	NS
MW-1	09/20/05	NS	NS	NS	NS
MW-1	12/14/05	NS	NS	NS	NS
MW-1	03/25/06	NS	NS	NS	NS
MW-1	03/27/06	NS	NS	NS	NS
MW-1	06/06/06	NS	NS	NS	NS
MW-1	09/25/06	NS	NS	NS	NS
MW-1	12/07/06	NS	NS	NS	NS
MW-1	03/28/07	NS	NS	NS	NS

TABLE-1 GROUNDWATER ANALYTICAL RESULTS

Johnston Fed #6A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-1	06/18/07	NS	NS	NS	NS
MW-1	09/17/07	NS	NS	NS	NS
MW-1	12/17/07	NS	NS	NS	NS
MW-1	03/10/08	NS	NS	NS	NS
MW-1	06/17/08	NS	NS	NS	NS
MW-1	09/10/08	NS	NS	NS	NS
MW-1	12/02/08	NS	NS	NS	NS
MW-1	03/05/09	NS	NS	NS	NS
MW-1	06/02/09	NS	NS	NS	NS
MW-1	08/28/09	NS	NS	NS	NS
MW-1	11/04/09	NS	NS	NS	NS
MW-1	02/17/10	NS	NS	NS	NS
MW-1	05/24/10	NS	NS	NS	NS
MW-1	09/24/10	NS	NS	NS	NS
MW-1	11/02/10	NS	NS	NS	NS
MW-1	02/07/11	611	8260	1260	11600
MW-1	05/02/11	NS	NS	NS	NS
MW-1	09/23/11	NS	NS	NS	NS
MW-1	11/01/11	NS	NS	NS	NS
MW-1	02/21/12	577	5510	916	5420
MW-1	05/14/12	NS	NS	NS	NS
MW-1	06/09/13	510	17000	1400	15000
MW-1	09/09/13	NS	NS	NS	NS
MW-1	12/12/13	NS	NS	NS	NS
MW-1	04/02/14	NS	NS	NS	NS
MW-1	10/23/14	NS	NS	NS	NS
MW-1	05/30/15	NS	NS	NS	NS
MW-1	11/19/15	NS	NS	NS	NS
MW-1	04/16/16	NS	NS	NS	NS
MW-1	10/13/16	NS	NS	NS	NS

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Johnston Fed #6A					
Location	**Date**	**Benzene (µg/L)**	**Toluene (µg/L)**	**Ethylbenzene (µg/L)**	**Total Xylenes (µg/L)**
NMWQCC Standards:		10	750	750	620
MW-2	12/13/95	15.1	50.8	<2.5	53.8
MW-2	04/11/96	<1	<1	<1	3.13
MW-2	07/23/96	<1	1.15	<1	4.06
MW-2	10/14/96	<1	1.04	<1	4.85
MW-2	01/22/97	<1	<1	<1	<3
MW-2	04/11/97	<1	<1	<1	<3
MW-2	10/09/00	<0.5	<0.5	<0.5	<0.5
MW-2	06/18/01	<0.5	<0.5	<0.5	<0.5
MW-2	09/04/01	NS	NS	NS	NS
MW-2	06/03/02	<0.5	<0.5	<0.5	<1
MW-2	09/10/02	NS	NS	NS	NS
MW-2	12/12/02	NS	NS	NS	NS
MW-2	03/14/03	NS	NS	NS	NS
MW-2	06/18/03	NS	NS	NS	NS
MW-2	09/16/03	NS	NS	NS	NS
MW-2	12/17/03	NS	NS	NS	NS
MW-2	03/16/04	NS	NS	NS	NS
MW-2	06/22/04	NS	NS	NS	NS
MW-2	09/22/04	NS	NS	NS	NS
MW-2	12/21/04	NS	NS	NS	NS
MW-2	03/23/05	NS	NS	NS	NS
MW-2	06/17/05	NS	NS	NS	NS
MW-2	09/20/05	NS	NS	NS	NS
MW-2	12/14/05	NS	NS	NS	NS
MW-2	03/27/06	NS	NS	NS	NS
MW-2	06/06/06	NS	NS	NS	NS
MW-2	09/25/06	NS	NS	NS	NS
MW-2	12/07/06	NS	NS	NS	NS
MW-2	03/28/07	NS	NS	NS	NS
MW-2	06/18/07	NS	NS	NS	NS

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Johnston Fed #6A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-2	09/17/07	NS	NS	NS	NS
MW-2	12/17/07	NS	NS	NS	NS
MW-2	03/10/08	NS	NS	NS	NS
MW-2	06/17/08	NS	NS	NS	NS
MW-2	09/10/08	NS	NS	NS	NS
MW-2	12/02/08	NS	NS	NS	NS
MW-2	03/05/09	NS	NS	NS	NS
MW-2	06/02/09	NS	NS	NS	NS
MW-2	08/28/09	NS	NS	NS	NS
MW-2	11/04/09	NS	NS	NS	NS
MW-2	02/17/10	NS	NS	NS	NS
MW-2	05/24/10	NS	NS	NS	NS
MW-2	09/24/10	NS	NS	NS	NS
MW-2	11/02/10	NS	NS	NS	NS
MW-2	02/07/11	NS	NS	NS	NS
MW-2	05/02/11	NS	NS	NS	NS
MW-2	09/23/11	NS	NS	NS	NS
MW-2	11/01/11	NS	NS	NS	NS
MW-2	02/21/12	NS	NS	NS	NS
MW-2	05/14/12	NS	NS	NS	NS
MW-2	06/09/13	<0.14	<0.30	<0.20	<0.23
MW-2	09/09/13	<0.14	<0.30	<0.20	<0.23
MW-2	12/12/13	<0.20	<0.38	<0.20	<0.65
MW-2	04/02/14	<0.20	<0.38	<0.20	<0.65
MW-2	10/23/14	<0.38	<0.70	<0.50	<1.6
MW-2	05/30/15	<1.0	<5.0	<1.0	<5.0
MW-2	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-2	04/16/16	NS	NS	NS	NS
MW-2	10/13/16	NS	NS	NS	NS

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Johnston Fed #6A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-3	12/13/95	488	1020	104	1120
MW-3	04/11/96	772	231	113	379
MW-3	07/25/96	687	112	115	209
MW-3	10/14/96	900	240	140	340
MW-3	01/22/97	907	234	215	340
MW-3	04/11/97	944	209	223	322
MW-3	06/18/01	510	23	160	98
MW-3	09/04/01	NS	NS	NS	NS
MW-3	06/03/02	380	<5	110	29
MW-3	12/12/02	NS	NS	NS	NS
MW-3	03/14/03	NS	NS	NS	NS
MW-3	06/18/03	NS	NS	NS	NS
MW-3	09/16/03	NS	NS	NS	NS
MW-3	12/17/03	NS	NS	NS	NS
MW-3	03/16/04	NS	NS	NS	NS
MW-3	06/22/04	NS	NS	NS	NS
MW-3	09/22/04	NS	NS	NS	NS
MW-3	12/21/04	NS	NS	NS	NS
MW-3	03/23/05	NS	NS	NS	NS
MW-3	06/17/05	NS	NS	NS	NS
MW-3	09/20/05	NS	NS	NS	NS
MW-3	12/14/05	NS	NS	NS	NS
MW-3	03/25/06	NS	NS	NS	NS
MW-3	03/27/06	NS	NS	NS	NS
MW-3	06/06/06	NS	NS	NS	NS
MW-3	09/25/06	NS	NS	NS	NS
MW-3	12/07/06	NS	NS	NS	NS
MW-3	03/28/07	NS	NS	NS	NS
MW-3	06/18/07	NS	NS	NS	NS
MW-3	09/17/07	NS	NS	NS	NS

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Location	**Date**	**Benzene (µg/L)**	**Toluene (µg/L)**	**Ethylbenzene (µg/L)**	**Total Xylenes (µg/L)**
NMWQCC Standards:		10	750	750	620
MW-3	12/17/07	NS	NS	NS	NS
MW-3	03/10/08	NS	NS	NS	NS
MW-3	06/17/08	NS	NS	NS	NS
MW-3	09/10/08	NS	NS	NS	NS
MW-3	12/02/08	NS	NS	NS	NS
MW-3	03/05/09	1.2	17.9	9.4	59
MW-3	06/02/09	NS	NS	NS	NS
MW-3	08/28/09	NS	NS	NS	NS
MW-3	11/04/09	NS	NS	NS	NS
MW-3	02/17/10	3.2	4.5	3.4	25.9
MW-3	05/24/10	NS	NS	NS	NS
MW-3	09/24/10	NS	NS	NS	NS
MW-3	11/02/10	NS	NS	NS	NS
MW-3	02/07/11	8.6	1.3	6	13.1
MW-3	05/02/11	NS	NS	NS	NS
MW-3	09/23/11	NS	NS	NS	NS
MW-3	11/01/11	NS	NS	NS	NS
MW-3	02/21/12	4.7	7.6	23.1	19.1
MW-3	05/14/12	NS	NS	NS	NS
MW-3	06/09/13	<0.14	0.71 J	49	12
MW-3	09/09/13	0.78 J	0.48 J	30	2.2 J
MW-3	12/12/13	<0.20	51	23	5.4
MW-3	04/02/14	3.5	57	19	8.7
MW-3	10/23/14	<0.38	<0.70	6.2	<1.6
MW-3	05/30/15	<1.0	<5.0	4.6	17
MW-3	11/19/15	<1.0	2.5	2.1	<3.0
MW-3	04/16/16	<1.0	52	1.9	<5.0
MW-3	10/13/16	<1.0	61	1.9	<5.0

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Johnston Fed #6A					
Location	**Date**	**Benzene (µg/L)**	**Toluene (µg/L)**	**Ethylbenzene (µg/L)**	**Total Xylenes (µg/L)**
NMWQCC Standards:		10	750	750	620
MW-4	12/13/95	545	121	114	177
MW-4	04/11/96	591	160	133	193
MW-4	07/25/96	793	96.4	172	174
MW-4	10/14/96	800	100	130	235
MW-4	01/22/97	899	26.7	157	186
MW-4	04/11/97	703	20.1	149	138
MW-4	10/09/00	81	36	45	20
MW-4	06/18/01	490	70	91	96
MW-4	09/04/01	NS	NS	NS	NS
MW-4	06/03/02	16	<5	17	2.2
MW-4	09/10/02	NS	NS	NS	NS
MW-4	12/12/02	NS	NS	NS	NS
MW-4	03/14/03	NS	NS	NS	NS
MW-4	06/18/03	<1	<1	1.7	<3
MW-4	09/16/03	NS	NS	NS	NS
MW-4	12/17/03	NS	NS	NS	NS
MW-4	03/16/04	NS	NS	NS	NS
MW-4	06/22/04	0.56 J	1.1	2.8	<1
MW-4	09/22/04	NS	NS	NS	NS
MW-4	12/21/04	NS	NS	NS	NS
MW-4	03/23/05	<1	<1	<1	0.99
MW-4	06/17/05	NS	NS	NS	NS
MW-4	09/20/05	NS	NS	NS	NS
MW-4	12/14/05	NS	NS	NS	NS
MW-4	03/27/06	0.39 J	<1	<1	0.83 J
MW-4	06/06/06	NS	NS	NS	NS
MW-4	09/25/06	NS	NS	NS	NS
MW-4	12/07/06	NS	NS	NS	NS
MW-4	03/28/07	0.39 J	0.6 J	<1	1.7 J
MW-4	06/18/07	NS	NS	NS	NS

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Location	**Date**	**Benzene (µg/L)**	**Toluene (µg/L)**	**Ethylbenzene (µg/L)**	**Total Xylenes (µg/L)**
NMWQCC Standards:		10	750	750	620
MW-4	09/17/07	NS	NS	NS	NS
MW-4	12/17/07	NS	NS	NS	NS
MW-4	03/10/08	0.25 J	<1	<1	<2
MW-4	06/17/08	NS	NS	NS	NS
MW-4	09/10/08	NS	NS	NS	NS
MW-4	12/02/08	NS	NS	NS	NS
MW-4	03/05/09	NS	NS	NS	NS
MW-4	06/02/09	NS	NS	NS	NS
MW-4	08/28/09	NS	NS	NS	NS
MW-4	11/04/09	NS	NS	NS	NS
MW-4	02/17/10	NS	NS	NS	NS
MW-4	05/24/10	NS	NS	NS	NS
MW-4	09/24/10	NS	NS	NS	NS
MW-4	11/02/10	NS	NS	NS	NS
MW-4	02/07/11	NS	NS	NS	NS
MW-4	05/02/11	NS	NS	NS	NS
MW-4	09/23/11	NS	NS	NS	NS
MW-4	11/01/11	NS	NS	NS	NS
MW-4	02/21/12	NS	NS	NS	NS
MW-4	05/14/12	NS	NS	NS	NS
MW-4	06/09/13	<0.14	<0.30	<0.20	<0.23
MW-4	09/09/13	<0.14	<0.30	<0.20	<0.23
MW-4	12/12/13	<0.20	0.51 J	<0.20	<0.65
MW-4	04/02/14	<0.20	1.2 J	<0.20	<0.65
MW-4	10/23/14	<0.38	<0.70	<0.50	<1.6
MW-4	05/30/15	<1.0	<5.0	<1.0	<5.0
MW-4	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-4	04/16/16	NS	NS	NS	NS
MW-4	10/13/16	NS	NS	NS	NS

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Johnston Fed #6A					
Location	**Date**	**Benzene (µg/L)**	**Toluene (µg/L)**	**Ethylbenzene (µg/L)**	**Total Xylenes (µg/L)**
NMWQCC Standards:		10	750	750	620
MW-5	08/30/00	130	180	56	650
MW-5	06/18/01	170	300	68	630
MW-5	09/04/01	NS	NS	NS	NS
MW-5	06/04/02	43	87	31	360
MW-5	09/10/02	NS	NS	NS	NS
MW-5	12/12/02	NS	NS	NS	NS
MW-5	03/14/03	NS	NS	NS	NS
MW-5	06/18/03	NS	NS	NS	NS
MW-5	09/16/03	NS	NS	NS	NS
MW-5	12/17/03	NS	NS	NS	NS
MW-5	03/16/04	NS	NS	NS	NS
MW-5	06/22/04	NS	NS	NS	NS
MW-5	09/22/04	NS	NS	NS	NS
MW-5	12/21/04	NS	NS	NS	NS
MW-5	03/23/05	NS	NS	NS	NS
MW-5	06/17/05	NS	NS	NS	NS
MW-5	09/20/05	NS	NS	NS	NS
MW-5	12/14/05	NS	NS	NS	NS
MW-5	03/27/06	NS	NS	NS	NS
MW-5	06/06/06	NS	NS	NS	NS
MW-5	09/25/06	NS	NS	NS	NS
MW-5	12/07/06	NS	NS	NS	NS
MW-5	03/28/07	NS	NS	NS	NS
MW-5	06/18/07	NS	NS	NS	NS
MW-5	09/17/07	NS	NS	NS	NS
MW-5	12/17/07	NS	NS	NS	NS
MW-5	03/10/08	NS	NS	NS	NS

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Johnston Fed #6A					
Location	**Date**	**Benzene (µg/L)**	**Toluene (µg/L)**	**Ethylbenzene (µg/L)**	**Total Xylenes (µg/L)**
NMWQCC Standards:		10	750	750	620
MW-5	06/17/08	NS	NS	NS	NS
MW-5	09/10/08	NS	NS	NS	NS
MW-5	12/02/08	NS	NS	NS	NS
MW-5	03/05/09	1.9	9.8	44	120
MW-5	06/02/09	NS	NS	NS	NS
MW-5	08/28/09	NS	NS	NS	NS
MW-5	11/04/09	NS	NS	NS	NS
MW-5	02/17/10	1.7	2.6	2.7	19.2
MW-5	05/24/10	NS	NS	NS	NS
MW-5	09/24/10	NS	NS	NS	NS
MW-5	11/02/10	NS	NS	NS	NS
MW-5	02/07/11	11.9	920	177	1870
MW-5	05/02/11	NS	NS	NS	NS
MW-5	09/23/11	NS	NS	NS	NS
MW-5	11/01/11	NS	NS	NS	NS
MW-5	02/21/12	2.7	1.7	5.2	85.5
MW-5	05/14/12	NS	NS	NS	NS
MW-5	06/09/13	<0.14	<0.30	0.31 J	0.79 J
MW-5	09/09/13	<0.14	<0.30	<0.20	<0.23
MW-5	12/12/13	<0.20	<0.38	<0.20	<0.65
MW-5	04/02/14	<0.20	<0.38	<0.20	<0.65
MW-5	10/23/14	<0.38	0.96 J	<0.50	1.9 J
MW-5	05/30/15	<1.0	<5.0	<1.0	2.1 J
MW-5	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-5	04/16/16	<1.0	<5.0	<1.0	<5.0
MW-5	10/13/16	<1.0	<5.0	<1.0	<5.0

TABLE-1 GROUNDWATER ANALYTICAL RESULTS

Johnston Fed #6A					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-6	12/07/06	NS	NS	NS	NS
MW-6	03/28/07	<1	<1	<1	<2
MW-6	06/18/07	NS	NS	NS	NS
MW-6	09/17/07	NS	NS	NS	NS
MW-6	12/17/07	NS	NS	NS	NS
MW-6	03/10/08	9.4	<1	0.5 J	139
MW-6	03/05/09	<1	<1	<1	<2
MW-6	06/02/09	NS	NS	NS	NS
MW-6	08/28/09	NS	NS	NS	NS
MW-6	11/04/09	NS	NS	NS	NS
MW-6	05/24/10	NS	NS	NS	NS
MW-6	09/24/10	NS	NS	NS	NS
MW-6	11/02/10	NS	NS	NS	NS
MW-6	02/07/11	<1	<1	<1	<2
MW-6	05/02/11	NS	NS	NS	NS
MW-6	09/23/11	NS	NS	NS	NS
MW-6	11/01/11	NS	NS	NS	NS
MW-6	02/21/12	<1	<1	<1	<2
MW-6	05/14/12	NS	NS	NS	NS
MW-6	06/09/13	<0.14	<0.30	<0.20	<0.23
MW-6	09/09/13	<0.14	<0.30	<0.20	<0.23
MW-6	12/12/13	<0.20	<0.38	<0.20	<0.65
MW-6	10/23/14	<0.38	<0.70	<0.50	<1.6
MW-6	04/02/14	<0.20	<0.38	<0.20	<0.65
MW-6	05/30/15	<1.0	<5.0	<1.0	<5.0
MW-6	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-6	04/16/16	NS	NS	NS	NS
MW-6	10/13/16	NS	NS	NS	NS

TABLE-1 GROUNDWATER ANALYTICAL RESULTS

Johnston Fed #6A					
Location	**Date**	**Benzene (µg/L)**	**Toluene (µg/L)**	**Ethylbenzene (µg/L)**	**Total Xylenes (µg/L)**
NMWQCC Standards:		10	750	750	620
MW-7	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-7	04/16/16	<1.0	<5.0	<1.0	<5.0
MW-7	10/13/16	<1.0	<5.0	<1.0	<5.0
MW-8	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-8	04/16/16	<1.0	<5.0	<1.0	<5.0
MW-8	10/13/16	<1.0	<5.0	<1.0	<5.0
MW-9	11/19/15	<1.0	<1.0	<1.0	<3.0
MW-9	04/16/16	<1.0	<5.0	<1.0	<5.0
MW-9	10/13/16	<1.0	<5.0	<1.0	<5.0
PZ-1	08/28/97	991	2480	348	3740
PZ-2	08/28/97	3.82	<1	<1	3.59
PH(PZ)-3	08/29/97	44.3	129	20.8	184
GP-1	01/05/06	<1.0	0.55	<1.0	1.3
GP-2	01/05/06	<1.0	0.89	<1.0	2.2

Notes:
"µg/L" = micrograms per liter
Results highlighted yellow exceed their respective New Mexico Water Quality Control Commission (NMWQCC) standards.
"J" = Result is less than the reporting limit but greater than or equal to the method detection limit and the result in an approximate value.
"<" = analyte was not detected at the indicated reporting limit (some historic data were reported at the detection limit).
"NS" = Monitoring well not sampled

Geopobe points GP-3 and GP-4 were dry, and were not sampled.

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-1	08/10/95	6001.88	37.24	NR		5964.64
MW-1	12/13/95	6001.88	37.35	NR		5964.53
MW-1	04/11/96	6001.88	37.48	NR		5964.40
MW-1	07/23/96	6001.88	37.55	NR		5964.33
MW-1	10/14/96	6001.88	37.22	37.07	0.15	5964.78
MW-1	01/22/97	6001.88	38.26	37.43	0.83	5964.25
MW-1	04/11/97	6001.88	38.31	37.20	1.11	5964.41
MW-1	06/18/01	6001.88	38.21	37.34	0.87	5964.33
MW-1	09/04/01	6001.88	38.27	37.54	0.73	5964.16
MW-1	03/04/02	6001.88	38.35	37.74	0.61	5963.99
MW-1	06/04/02	6001.88	38.14	37.81	0.33	5963.99
MW-1	09/10/02	6001.88	38.24	38.00	0.23	5963.83
MW-1	12/12/02	6001.88	38.11	38.01	0.10	5963.85
MW-1	03/14/03	6001.88	38.08	37.95	0.13	5963.90
MW-1	06/18/03	6001.88	38.47	37.88	0.59	5963.86
MW-1	09/16/03	6001.88	38.25	38.17	0.08	5963.69
MW-1	12/17/03	6001.88	38.23	38.13	0.10	5963.73
MW-1	03/16/04	6001.88	38.57	37.90	0.67	5963.82
MW-1	06/22/04	6001.88	38.65	37.90	0.75	5963.80
MW-1	09/22/04	6001.88	38.60	38.21	0.39	5963.58
MW-1	12/21/04	6001.88	38.38	38.20	0.18	5963.64
MW-1	03/23/05	6001.88	38.50	37.95	0.55	5963.80
MW-1	06/17/05	6001.88	38.62	38.13	0.49	5963.63
MW-1	09/20/05	6001.88	38.83	38.40	0.43	5963.38
MW-1	12/14/05	6001.88	38.72	38.31	0.41	5963.47
MW-1	03/25/06	6001.88	38.66	38.15	0.51	5963.61
MW-1	03/27/06	6001.88	38.62	38.05	0.57	5963.69
MW-1	06/06/06	6001.88	38.84	38.29	0.55	5963.46
MW-1	09/25/06	6001.88	39.01	38.51	0.50	5963.25
MW-1	12/07/06	6001.88	38.33	ND		5963.55
MW-1	03/28/07	6001.88	38.09	38.02	0.07	5963.85
MW-1	06/18/07	6001.88	38.86	38.09	0.77	5963.60
MW-1	09/17/07	6001.88	39.32	38.40	0.92	5963.25

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-1	12/17/07	6001.88	39.13	38.42	0.71	5963.29
MW-1	03/10/08	6001.88	38.24	37.90	0.34	5963.90
MW-1	06/17/08	6001.88	37.71	37.38	0.33	5964.42
MW-1	09/10/08	6001.88	37.72	37.41	0.31	5964.40
MW-1	12/02/08	6001.88	37.89	37.51	0.38	5964.28
MW-1	03/05/09	6001.88	37.63	37.20	0.43	5964.58
MW-1	06/02/09	6001.88	37.83	37.49	0.34	5964.31
MW-1	08/28/09	6001.88	37.99	37.65	0.34	5964.15
MW-1	11/04/09	6001.88	37.77	ND		5964.11
MW-1	02/17/10	6001.88	38.11	37.60	0.51	5964.16
MW-1	05/24/10	6001.88	38.27	37.81	0.46	5963.96
MW-1	09/24/10	6001.88	38.46	38.05	0.41	5963.73
MW-1	11/02/10	6001.88	38.55	38.16	0.39	5963.63
MW-1	02/07/11	6001.88	38.37	37.93	0.44	5963.84
MW-1	05/02/11	6001.88	38.57	ND		5963.31
MW-1	09/23/11	6001.88	38.75	38.32	0.43	5963.46
MW-1	11/01/11	6001.88	38.80	ND		5963.08
MW-1	02/21/12	6001.88	38.65	38.21	0.44	5963.56
MW-1	05/14/12	6001.88	38.84	38.36	0.48	5963.40
MW-1	06/09/13	6001.88	39.22	38.41	0.81	5963.27
MW-1	09/09/13	6001.88	39.21	38.60	0.61	5963.13
MW-1	12/12/13	6001.88	39.01	38.65	0.36	5963.14
MW-1	04/02/14	6001.88	38.94	38.61	0.33	5963.19
MW-1	10/23/14	6001.88	39.03	38.82	0.21	5963.01
MW-1	05/30/15	6001.88	39.04	38.86	0.18	5962.98
MW-1	11/19/15	6001.88	38.70	38.58	0.12	5963.27
MW-1	04/16/16	6001.88	38.49	38.40	0.09	5963.46
MW-1	10/13/16	6001.88	38.61	38.60	0.01	5963.28

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-2	12/13/95	6001.82	37.39	NR		5964.43
MW-2	04/11/96	6001.82	37.47	NR		5964.35
MW-2	07/23/96	6001.82	37.60	NR		5964.22
MW-2	10/14/96	6001.82	37.70	NR		5964.12
MW-2	01/22/97	6001.82	37.66	NR		5964.16
MW-2	04/11/97	6001.82	37.58	NR		5964.24
MW-2	10/09/00	6001.82	37.56	NR		5964.26
MW-2	06/18/01	6001.82	37.58	NR		5964.24
MW-2	09/04/01	6001.82	37.75	NR		5964.07
MW-2	06/03/02	6001.82	37.88	NR		5963.94
MW-2	09/10/02	6001.82	38.02	NR		5963.80
MW-2	12/12/02	6001.82	38.01	NR		5963.81
MW-2	03/14/03	6001.82	37.97	ND		5963.85
MW-2	06/18/03	6001.82	38.01	ND		5963.81
MW-2	09/16/03	6001.82	38.18	ND		5963.64
MW-2	12/17/03	6001.82	38.13	ND		5963.69
MW-2	03/16/04	6001.82	38.04	ND		5963.78
MW-2	06/22/04	6001.82	38.05	ND		5963.77
MW-2	09/22/04	6001.82	38.26	ND		5963.56
MW-2	12/21/04	6001.82	38.20	ND		5963.62
MW-2	03/23/05	6001.82	38.07	ND		5963.75
MW-2	06/17/05	6001.82	38.07	ND		5963.75
MW-2	09/20/05	6001.82	38.33	ND		5963.49
MW-2	12/14/05	6001.82	38.24	ND		5963.58
MW-2	03/27/06	6001.82	38.16	ND		5963.66
MW-2	06/06/06	6001.82	38.22	ND		5963.60
MW-2	09/25/06	6001.82	38.42	ND		5963.40
MW-2	12/07/06	6001.82	38.35	ND		5963.47
MW-2	03/28/07	6001.82	38.13	ND		5963.69
MW-2	06/18/07	6001.82	38.14	ND		5963.68

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-2	09/17/07	6001.82	38.35	ND		5963.47
MW-2	12/17/07	6001.82	38.33	ND		5963.49
MW-2	03/10/08	6001.82	37.80	ND		5964.02
MW-2	06/17/08	6001.82	37.41	ND		5964.41
MW-2	09/10/08	6001.82	37.40	ND		5964.42
MW-2	12/02/08	6001.82	37.39	ND		5964.43
MW-2	03/05/09	6001.82	37.38	ND		5964.44
MW-2	06/02/09	6001.82	37.40	ND		5964.42
MW-2	08/28/09	6001.82	37.60	ND		5964.22
MW-2	11/04/09	6001.82	37.73	ND		5964.09
MW-2	02/17/10	6001.82	37.76	ND		5964.06
MW-2	05/24/10	6001.82	37.77	ND		5964.05
MW-2	09/24/10	6001.82	37.97	ND		5963.85
MW-2	11/02/10	6001.82	38.01	ND		5963.81
MW-2	02/07/11	6001.82	38.05	ND		5963.77
MW-2	05/02/11	6001.82	38.09	ND		5963.73
MW-2	09/23/11	6001.82	38.25	38.23	0.02	5963.59
MW-2	11/01/11	6001.82	38.26	ND		5963.56
MW-2	02/21/12	6001.82	38.31	ND		5963.51
MW-2	05/14/12	6001.82	38.36	ND		5963.46
MW-2	06/09/13	6001.82	38.56	ND		5963.26
MW-2	09/09/13	6001.82	38.68	ND		5963.14
MW-2	12/12/13	6001.82	38.67	ND		5963.15
MW-2	04/02/14	6001.82	38.63	ND		5963.19
MW-2	10/23/14	6001.82	38.79	ND		5963.03
MW-2	05/30/15	6001.82	38.82	ND		5963.00
MW-2	11/19/15	6001.82	38.56	ND		5963.26
MW-2	04/16/16	6001.82	38.39	ND		5963.43
MW-2	10/13/16	6001.82	38.58	ND		5963.24

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-3	12/13/95	6001.21	37.11	NR		5964.10
MW-3	04/11/96	6001.21	37.17	NR		5964.04
MW-3	07/25/96	6001.21	37.30	NR		5963.91
MW-3	10/14/96	6001.21	37.40	NR		5963.81
MW-3	01/22/97	6001.21	37.35	NR		5963.86
MW-3	04/11/97	6001.21	37.29	NR		5963.92
MW-3	06/18/01	6001.21	37.26	NR		5963.95
MW-3	09/04/01	6001.21	37.42	NR		5963.79
MW-3	06/03/02	6001.21	37.55	NR		5963.66
MW-3	12/12/02	6001.21	37.70	NR		5963.51
MW-3	03/14/03	6001.21	37.66	ND		5963.55
MW-3	06/18/03	6001.21	37.87	37.63	0.24	5963.52
MW-3	09/16/03	6001.21	37.89	37.87	0.02	5963.34
MW-3	12/17/03	6001.21	37.80	ND		5963.41
MW-3	03/16/04	6001.21	37.85	37.72	0.13	5963.46
MW-3	06/22/04	6001.21	37.88	37.72	0.16	5963.45
MW-3	09/22/04	6001.21	38.07	37.96	0.11	5963.23
MW-3	12/21/04	6001.21	37.96	37.93	0.03	5963.28
MW-3	03/23/05	6001.21	37.88	37.80	0.08	5963.39
MW-3	06/17/05	6001.21	37.92	ND		5963.29
MW-3	09/20/05	6001.21	38.16	ND		5963.05
MW-3	12/14/05	6001.21	38.09	ND		5963.12
MW-3	03/25/06	6001.21	38.09	ND		5963.12
MW-3	03/27/06	6001.21	37.88	ND		5963.33
MW-3	06/06/06	6001.21	37.98	ND		5963.23
MW-3	09/25/06	6001.21	38.16	ND		5963.05
MW-3	12/07/06	6001.21	38.06	ND		5963.15
MW-3	03/28/07	6001.21	37.87	ND		5963.34
MW-3	06/18/07	6001.21	37.86	ND		5963.35
MW-3	09/17/07	6001.21	38.10	ND		5963.11
MW-3	12/17/07	6001.21	38.09	ND		5963.12

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-3	03/10/08	6001.21	37.80	ND		5963.41
MW-3	06/17/08	6001.21	37.10	ND		5964.11
MW-3	09/10/08	6001.21	37.13	ND		5964.08
MW-3	12/02/08	6001.21	37.14	ND		5964.07
MW-3	03/05/09	6001.21	37.14	ND		5964.07
MW-3	06/02/09	6001.21	37.12	ND		5964.09
MW-3	08/28/09	6001.21	37.40	ND		5963.81
MW-3	11/04/09	6001.21	37.52	ND		5963.69
MW-3	02/17/10	6001.21	37.53	ND		5963.68
MW-3	05/24/10	6001.21	37.53	ND		5963.68
MW-3	09/24/10	6001.21	37.72	ND		5963.49
MW-3	11/02/10	6001.21	37.79	ND		5963.42
MW-3	02/07/11	6001.21	37.83	ND		5963.38
MW-3	05/02/11	6001.21	38.86	ND		5962.35
MW-3	09/23/11	6001.21	38.02	ND		5963.19
MW-3	11/01/11	6001.21	38.06	ND		5963.15
MW-3	02/21/12	6001.21	38.11	ND		5963.10
MW-3	05/14/12	6001.21	38.15	ND		5963.06
MW-3	06/09/13	6001.21	38.32	ND		5962.89
MW-3	09/09/13	6001.21	38.48	ND		5962.73
MW-3	12/12/13	6001.21	38.45	ND		5962.76
MW-3	04/02/14	6001.21	38.42	ND		5962.79
MW-3	10/23/14	6001.21	38.57	ND		5962.64
MW-3	05/30/15	6001.21	38.60	ND		5962.61
MW-3	11/19/15	6001.21	38.31	ND		5962.90
MW-3	04/16/16	6001.21	38.15	ND		5963.06
MW-3	10/13/16	6001.21	38.36	ND		5962.85

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-4	12/13/95	6001.26	37.34	NR		5963.92
MW-4	04/11/96	6001.26	37.42	NR		5963.84
MW-4	07/25/96	6001.26	37.54	NR		5963.72
MW-4	10/14/96	6001.26	37.64	NR		5963.62
MW-4	01/22/97	6001.26	37.60	NR		5963.66
MW-4	04/11/97	6001.26	37.47	NR		5963.79
MW-4	10/09/00	6001.26	37.56	NR		5963.70
MW-4	06/18/01	6001.26	37.53	NR		5963.73
MW-4	09/04/01	6001.26	37.66	NR		5963.60
MW-4	06/03/02	6001.26	37.80	NR		5963.46
MW-4	09/10/02	6001.26	37.95	NR		5963.32
MW-4	12/12/02	6001.26	38.95	NR		5962.31
MW-4	03/14/03	6001.26	37.91	ND		5963.36
MW-4	06/18/03	6001.26	37.95	ND		5963.31
MW-4	09/16/03	6001.26	38.17	ND		5963.09
MW-4	12/17/03	6001.26	38.06	ND		5963.20
MW-4	03/16/04	6001.26	38.00	ND		5963.26
MW-4	06/22/04	6001.26	38.04	ND		5963.22
MW-4	09/22/04	6001.26	38.27	ND		5962.99
MW-4	12/21/04	6001.26	38.23	ND		5963.03
MW-4	03/23/05	6001.26	38.11	ND		5963.15
MW-4	06/17/05	6001.26	38.08	ND		5963.18
MW-4	09/20/05	6001.26	38.35	ND		5962.91
MW-4	12/14/05	6001.26	38.24	ND		5963.02
MW-4	03/27/06	6001.26	38.16	ND		5963.10
MW-4	06/06/06	6001.26	38.24	ND		5963.02
MW-4	09/25/06	6001.26	38.45	ND		5962.81
MW-4	12/07/06	6001.26	38.34	ND		5962.92
MW-4	03/28/07	6001.26	38.16	ND		5963.10
MW-4	06/18/07	6001.26	38.14	ND		5963.12

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-4	09/17/07	6001.26	38.37	ND		5962.89
MW-4	12/17/07	6001.26	38.36	ND		5962.90
MW-4	03/10/08	6001.26	38.05	ND		5963.21
MW-4	06/17/08	6001.26	37.35	ND		5963.91
MW-4	09/10/08	6001.26	37.43	ND		5963.83
MW-4	12/02/08	6001.26	37.40	ND		5963.86
MW-4	03/05/09	6001.26	37.40	ND		5963.86
MW-4	06/02/09	6001.26	37.43	ND		5963.83
MW-4	08/28/09	6001.26	37.64	ND		5963.62
MW-4	11/04/09	6001.26	37.76	ND		5963.50
MW-4	02/17/10	6001.26	37.80	ND		5963.46
MW-4	05/24/10	6001.26	37.80	ND		5963.46
MW-4	09/24/10	6001.26	38.03	ND		5963.23
MW-4	11/02/10	6001.26	38.05	ND		5963.21
MW-4	02/07/11	6001.26	38.08	ND		5963.18
MW-4	05/02/11	6001.26	38.15	ND		5963.11
MW-4	09/23/11	6001.26	38.30	ND		5962.96
MW-4	11/01/11	6001.26	38.32	ND		5962.94
MW-4	02/21/12	6001.26	38.37	ND		5962.89
MW-4	05/14/12	6001.26	38.40	ND		5962.86
MW-4	06/09/13	6001.26	38.62	ND		5962.64
MW-4	09/09/13	6001.26	38.79	ND		5962.47
MW-4	12/12/13	6001.26	38.77	ND		5962.49
MW-4	04/02/14	6001.26	38.74	ND		5962.52
MW-4	10/23/14	6001.26	38.94	ND		5962.32
MW-4	05/30/15	6001.26	38.61	ND		5962.65
MW-4	11/19/15	6001.26	38.62	ND		5962.64
MW-4	04/16/16	6001.26	38.46	ND		5962.80
MW-4	10/13/16	6001.26	38.67	ND		5962.59

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-5	08/30/00	6001.96	38.11	NR		5963.85
MW-5	06/18/01	6001.96	38.13	NR		5963.83
MW-5	09/04/01	6001.96	38.33	NR		5963.63
MW-5	06/04/02	6001.96	38.51	NR		5963.45
MW-5	09/10/02	6001.96	39.13	NR		5962.84
MW-5	12/12/02	6001.96	38.83	NR		5963.13
MW-5	03/14/03	6001.96	38.70	ND		5963.26
MW-5	06/18/03	6001.96	38.85	ND		5963.11
MW-5	09/16/03	6001.96	38.88	ND		5963.08
MW-5	12/17/03	6001.96	38.75	ND		5963.21
MW-5	03/16/04	6001.96	38.72	ND		5963.24
MW-5	06/22/04	6001.96	38.74	ND		5963.22
MW-5	09/22/04	6001.96	38.74	ND		5963.22
MW-5	12/21/04	6001.96	38.93	ND		5963.03
MW-5	03/23/05	6001.96	38.72	ND		5963.24
MW-5	06/17/05	6001.96	38.72	ND		5963.24
MW-5	09/20/05	6001.96	39.06	ND		5962.90
MW-5	12/14/05	6001.96	38.94	ND		5963.02
MW-5	03/27/06	6001.96	38.86	ND		5963.10
MW-5	06/06/06	6001.96	38.97	ND		5962.99
MW-5	09/25/06	6001.96	37.20	ND		5964.76
MW-5	12/07/06	6001.96	39.07	ND		5962.89
MW-5	03/28/07	6001.96	38.83	ND		5963.13
MW-5	06/18/07	6001.96	38.84	ND		5963.12
MW-5	09/17/07	6001.96	39.09	ND		5962.87
MW-5	12/17/07	6001.96	39.04	ND		5962.92
MW-5	03/10/08	6001.96	38.48	ND		5963.48

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-5	06/17/08	6001.96	37.83	ND		5964.13
MW-5	09/10/08	6001.96	37.91	ND		5964.05
MW-5	12/02/08	6001.96	37.95	ND		5964.01
MW-5	03/05/09	6001.96	37.93	ND		5964.03
MW-5	06/02/09	6001.96	37.95	ND		5964.01
MW-5	08/28/09	6001.96	38.19	ND		5963.77
MW-5	11/04/09	6001.96	38.32	ND		5963.64
MW-5	02/17/10	6001.96	38.38	ND		5963.58
MW-5	05/24/10	6001.96	38.35	ND		5963.61
MW-5	09/24/10	6001.96	38.61	ND		5963.35
MW-5	11/02/10	6001.96	38.66	ND		5963.30
MW-5	02/07/11	6001.96	38.74	ND		5963.22
MW-5	05/02/11	6001.96	38.81	ND		5963.15
MW-5	09/23/11	6001.96	38.99	ND		5962.97
MW-5	11/01/11	6001.96	39.09	ND		5962.87
MW-5	02/21/12	6001.96	39.09	ND		5962.87
MW-5	05/14/12	6001.96	39.16	ND		5962.80
MW-5	06/09/13	6001.96	39.38	ND		5962.58
MW-5	09/09/13	6001.96	39.56	ND		5962.40
MW-5	12/12/13	6001.96	39.55	ND		5962.41
MW-5	04/02/14	6001.96	39.52	ND		5962.44
MW-5	10/23/14	6001.96	39.71	ND		5962.25
MW-5	05/30/15	6001.96	39.73	ND		5962.23
MW-5	11/19/15	6001.96	39.33	ND		5962.63
MW-5	04/16/16	6001.96	39.19	ND		5962.77
MW-5	10/13/16	6001.96	39.34	ND		5962.62

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-6	12/07/06	6001.33	39.62	ND		5961.71
MW-6	03/28/07	6001.33	39.43	ND		5961.90
MW-6	06/18/07	6001.33	39.43	ND		5961.90
MW-6	09/17/07	6001.33	39.43	ND		5961.90
MW-6	12/17/07	6001.33	38.65	ND		5962.68
MW-6	03/10/08	6001.33	39.21	ND		5962.12
MW-6	03/05/09	6001.33	37.61	ND		5963.72
MW-6	06/02/09	6001.33	37.46	ND		5963.87
MW-6	08/28/09	6001.33	37.89	ND		5963.44
MW-6	11/04/09	6001.33	38.03	ND		5963.30
MW-6	05/24/10	6001.33	38.07	ND		5963.26
MW-6	09/24/10	6001.33	38.30	ND		5963.03
MW-6	11/02/10	6001.33	38.36	ND		5962.97
MW-6	02/07/11	6001.33	38.39	ND		5962.94
MW-6	05/02/11	6001.33	36.42	ND		5964.91
MW-6	09/23/11	6001.33	38.65	ND		5962.68
MW-6	11/01/11	6001.33	38.70	ND		5962.63
MW-6	02/21/12	6001.33	38.75	ND		5962.58
MW-6	05/14/12	6001.33	38.79	ND		5962.54
MW-6	06/09/13	6001.33	39.08	ND		5962.25
MW-6	09/09/13	6001.33	39.28	ND		5962.05
MW-6	12/12/13	6001.33	39.26	ND		5962.07
MW-6	10/23/14	6001.33	39.43	ND		5961.90
MW-6	04/02/14	6001.33	39.24	ND		5962.09
MW-6	05/30/15	6001.33	39.45	ND		5961.88
MW-6	11/19/15	6001.33	39.02	ND		5962.31
MW-6	04/16/16	6001.33	38.92	ND		5962.41
MW-6	10/13/16	6001.33	39.16	ND		5962.17

TABLE 2 - GROUNDWATER ELEVATION RESULTS

Johnston Fed #6A						
Location	**Date**	**TOC**	**Depth to Water (ft.)**	**Depth to LNAPL (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
MW-7	11/19/15	6001.26	37.80	ND		5963.46
MW-7	04/16/16	6001.26	37.63	ND		5963.63
MW-7	10/13/16	6001.26	37.83	ND		5963.43
MW-8	11/19/15	6001.06	37.71	ND		5963.35
MW-8	04/16/16	6001.06	37.55	ND		5963.51
MW-8	10/13/16	6001.06	37.81	ND		5963.25
MW-8	11/19/15	6001.39	38.35	ND		5963.04
MW-9	04/16/16	6001.39	38.20	ND		5963.19
MW-9	10/13/16	6001.39	39.35	ND		5962.04
PZ-1	08/28/97	NS	34.8	NR		NS
PZ-2	08/28/97	NS	34.88	NR		NS
PZ(PH)-3	08/29/97	NS	34.9	NR		NS

Notes:
"ft" = feet
"TOC" = Top of casing
"LNAPL" - Light non-aqueous phase liquid
"ND" = LNAPL not detected
"NR" = LNAPL not recorded
"NS" = well points (PZ/PH) completed on August 28 and 29, 1997 were not surveyed.
No water level data was collected from Geoprobe points completed on January 5, 2006.

TABLE 3
FREE PRODUCT RECOVERY
Johnston Federal #6 - San Juan County, NM

WEll ID - MW-1	Depth to Product (Feet)	Depth to Water (Feet)	Measured Thickness (Feet)	Product Bailed (gal)	Water Bailed (gal)
Date					
4/13/2016	38.4	38.49	0.09	0.01	<0.01
5/25/2016	38.41	38.51	0.10	0.02	<0.01
6/20/2016	NM	NM	0.02	0.01	0.00
7/22/2016	NM	NM	0.00	0.00	0.00
8/17/2016	NM	NM	0.00	0.00	0.00
10/13/2016	38.6	38.61	0.01	<0.01	<0.01
11/15/2016	36.6	36.59	0.01	<0.01	<0.01
11/29/2016	38.61	38.65	0.04	4.38*	168.00
	11/29/2016 - Mobile Dual Phase Extraction Event				
12/13/2016	38.6	38.61	0.01	<0.01	0.00

NM= Not Measured. Measured thickness was obtained by measuring the thickness within the bailer.
* = Includes recovered vapors

FIGURES

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\JOHNSTON FED#6A\2016 MAPS\JFed6_GARM_1SA_2016.mxd

UNDERGROUND ELECTRIC BOX

ELECTRIC VAULT

6003

6002

6001

6000

OVHD

SMA BENCHMARK
ELEV. 5999.94'
NAD 83 NAVD 88
STATE PLANE COORDINATE SYSTEM
NEW MEXICO WEST

PUMPJACK

TANK

PIT

SEPARATOR

COMPRESSOR

5999

FORMER 300 BBL TANKS

JOHNSTON FED #6A WELLHEAD

MW-6
NS

FORMER SUMP

MW-9
B: <1.0
T: <5.0
E: <1.0
X: <5.0

MW-5
B: <1.0
T: <5.0
E: <1.0
X: <5.0

MW-4
NS

METER HOUSE

MW-3
B: <1.0
T: 52
E: 1.9
X: <5.0

MW-1
NS

MW-8
B: <1.0
T: <5.0
E: <1.0
X: <5.0

MW-2
NS

MW-7
B: <1.0
T: <5.0
E: <1.0
X: <5.0

AERIAL IMAGERY FROM GOOGLE EARTH, DATED 5/2/2013.

LEGEND:

- 6002 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- FENCE
- OVHD — OVERHEAD POWER LINE
- MONITORING WELL
- MONITORING WELL WITH MEASUREABLE FREE PRODUCT
- GAS VALVE
- OTHER MONITORING WELL
- SMA BENCHMARK
- RIG ANCHOR
- WELLHEAD

EXPLANATION OF ANALYTES AND APPLICABLE STANDARDS:

RESULTS IN **BOLDFACE** TYPE INDICATE CONCENTRATION IN EXCESS OF THE STANDARD FOR THAT ANALYTE.
NS = NOT SAMPLED
µg/L = MICROGRAMS PER LITER
<1 = BELOW METHOD DETECTION LIMIT

ANALYTE	NMWQCC STANDARDS
B = Benzene	10 µg/L
T = Toluene	750 µg/L
E = Ethylbenzene	750 µg/L
X = Total Xylenes	620 µg/L

N

SCALE IN FEET
0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
A	11/30/2016	SLG	SLG	SRV

TITLE:

GROUNWATER ANALYTICAL RESULTS
APRIL 16, 2016

PROJECT: *JOHNSTON FEDERAL #6A*
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

MWH

Figure No.: 1

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\JOHNSTON FED#6A\2016 MAPS\Fed6_GECM_1SA_2016.mxd

UNDERGROUND ELECTRIC BOX

ELECTRIC VAULT

6003

6002

6001

6000

OVHD

SMA BENCHMARK
ELEV. 5999.94'
NAD 83 NAVD 88
STATE PLANE COORDINATE SYSTEM
NEW MEXICO WEST

PUMPJACK

TANK

PIT

FORMER 300
BBL TANKS

JOHNSTON FED #6A
WELLHEAD

MW-6

MW-6
5962.41

SEPARATOR

5962.6

MW-5
5962.77

MW-5

MW-9

MW-9
5963.19

FORMER
SUMP

MW-4
5962.80

MW-4

5962.8

COMPRESSOR

METER
HOUSE

MW-3

MW-3
5963.06

5963

MW-1
5963.46

MW-1

MW-8

MW-8
5963.51

MW-2
5963.43

MW-2

5963.2

5963.6

FORMER EPC PIT
EXCAVATED TO 12 FEET

MW-7

MW-7
5963.63

5963.4

AERIAL IMAGERY FROM GOOGLE EARTH, DATED 5/2/2013.

LEGEND:

- 6002 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- FENCE
- OVERHEAD POWER LINE
- MONITORING WELL
- MONITORING WELL WITH MEASUREABLE FREE PRODUCT
- GAS VALVE
- OTHER MONITORING WELL
- SMA BENCHMARK
- RIG ANCHOR
- WELLHEAD

NOTES:

5962.23 — GROUNDWATER ELEVATION (CORRECTED FOR PRODUCT THICKNESS WHEN PRESENT) FEET ABOVE MEAN SEA LEVEL

5962.4 — CORRECTED WATER LEVEL ELEVATION CONTOUR DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL, 0.2 FOOT CONTOUR INTERVAL)

DIRECTION OF APPARENT GROUNDWATER FLOW

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
A	11/30/2016	SLG	SLG	SRV

TITLE:

GROUNWATER ELEVATION MAP
APRIL 16, 2016

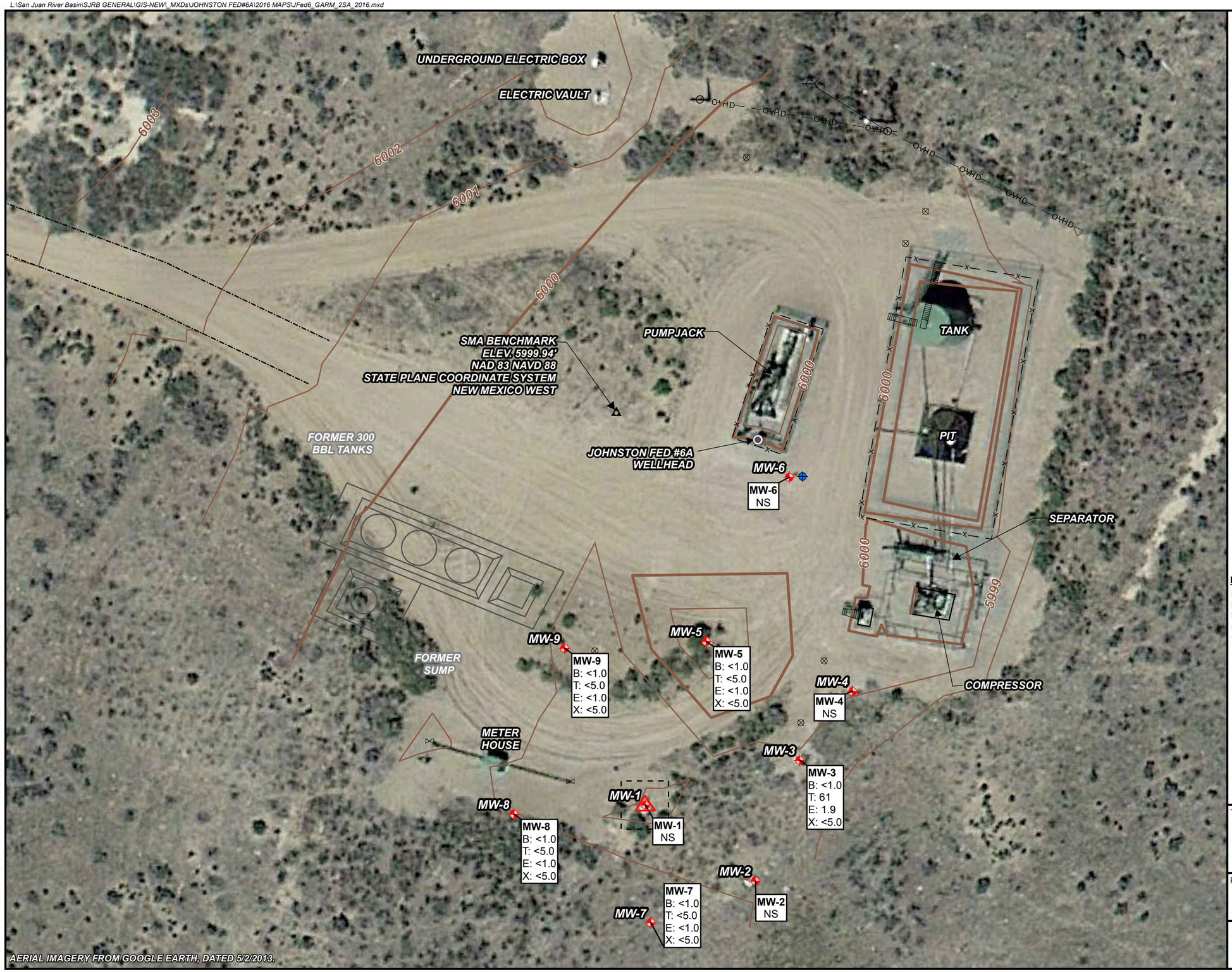
PROJECT:

JOHNSTON FEDERAL #6A
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

MWH

Figure No.: 2

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\JOHNSTON FED#6A\2016 MAPS\Fed6_GARM_2SA_2016.mxd



LEGEND:

- 6002 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- FENCE
- OVHD — OVERHEAD POWER LINE
- MONITORING WELL
- MONITORING WELL WITH MEASUREABLE FREE PRODUCT
- GAS VALVE
- OTHER MONITORING WELL
- SMA BENCHMARK
- RIG ANCHOR
- WELLHEAD

EXPLANATION OF ANALYTES AND APPLICABLE STANDARDS:

RESULTS IN **BOLDFACE** TYPE INDICATE CONCENTRATION IN EXCESS OF THE STANDARD FOR THAT ANALYTE.
NS = NOT SAMPLED
µg/L = MICROGRAMS PER LITER
<1 = BELOW METHOD DETECTION LIMIT

ANALYTE	NMWQCC STANDARDS
B = Benzene	10 µg/L
T = Toluene	750 µg/L
E = Ethylbenzene	750 µg/L
X = Total Xylenes	620 µg/L

N

SCALE IN FEET
0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
A	11/30/2016	SLG	SLG	SRV

TITLE:

GROUNWATER ANALYTICAL RESULTS
OCTOBER 13, 2016

PROJECT:
JOHNSTON FEDERAL #6A
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

MWH

Figure No.: 3

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\JOHNSTON FED#6A\2016 MAPS\Fed6_GECM_2SA_2016.mxd

UNDERGROUND ELECTRIC BOX

ELECTRIC VAULT

6003

6002

6001

6000

OVHD

SMA BENCHMARK
ELEV. 5999.94'
NAD 83 NAVD 88
STATE PLANE COORDINATE SYSTEM
NEW MEXICO WEST

PUMPJACK

TANK

PIT

FORMER 300
BBL TANKS

JOHNSTON FED #6A
WELLHEAD

MW-6
5962.17

MW-6

5962.3

5962.5

5962.7

5962.9

5963.1

5963.3

SEPARATOR

COMPRESSOR

MW-9
5962.93

MW-9

MW-5
5962.62

MW-5

MW-4
5962.59

MW-4

MW-3
5962.85

MW-3

MW-8
5963.25

MW-8

MW-1
5963.28

MW-1

MW-2
5963.24

MW-2

MW-7
5963.43

MW-7

FORMER
SUMP

METER
HOUSE

FORMER EPC PIT
EXCAVATED TO 12 FEET

AERIAL IMAGERY FROM GOOGLE EARTH, DATED 5/2/2013.

LEGEND:

- 6002 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- FENCE
- OVERHEAD POWER LINE
- MONITORING WELL
- MONITORING WELL WITH MEASUREABLE FREE PRODUCT
- GAS VALVE
- OTHER MONITORING WELL
- SMA BENCHMARK
- RIG ANCHOR
- WELLHEAD

NOTES:

5962.23 — GROUNDWATER ELEVATION (CORRECTED FOR PRODUCT THICKNESS WHEN PRESENT) FEET ABOVE MEAN SEA LEVEL

5962.4 — CORRECTED WATER LEVEL ELEVATION CONTOUR DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL, 0.2 FOOT CONTOUR INTERVAL)

DIRECTION OF APPARENT GROUNDWATER FLOW

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
A	11/30/2016	SLG	SLG	SRV

TITLE:

GROUNWATER ELEVATION MAP
OCTOBER 13, 2016

PROJECT:

JOHNSTON FEDERAL #6A
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

MWH

Figure No.: 4

APPENDICES

APPENDIX A – MOBILE DUAL PHASE EXTRACTION REPORT
APPENDIX B – WASTE DISPOSAL DOCUMENTATION
APPENDIX C – MAY 3, 2016 GROUNDWATER SAMPLING ANALYTICAL REPORT
OCTOBER 27, 2016 GROUNDWATER SAMPLING ANALYTICAL REPORT

APPENDIX A

AcuVac Remediation, LLC
1656-H Townhurst, Houston, Texas 77043
713.468.6688 • www.acuvac.com

December 22, 2016

Mr. Stephen Varsa
Supervising Hydrogeologist
MWH Americas, Inc.
11153 Aurora Avenue
Des Moines, IA 50322

Dear Stephen:

Re: Johnston Federal No. 6A, San Juan County, NM

At your request, we performed one 7.0-hour Mobile Dual Phase Extraction (MDPE) Event #1 on well MW-1 at the above referenced site on November 29, 2016. Following is the Report and a copy of the Operating Data collected during Event #1. Additionally, Table #1 contains the Summary Well Data and Table #2 contains the Summary Recovery Data.

The purpose of the MDPE events was to maximize recovery of Phase Separated Hydrocarbons (PSH). PSH is referred to as Non-Aqueous Phase Liquids (NAPL) which includes Light Non-Aqueous Phase Liquids (LNAPL). The source of the NAPL is a historical release of natural gas condensate.

OBJECTIVES

The Objectives of an MDPE Event are to:

- Evaluate the potential for removing liquid and vapor phase NAPL from the groundwater (GW) and soils in the subsurface formations within the influence of the extraction well.
- Expose the capillary fringe area and below to the extraction well induced vacuums.
- Increase the GW and contaminant specific yields with high induced vacuums.
- Provide an induced hydraulic gradient (IHG) to gain hydraulic control of the area during the event period.
- Select the groundwater depression and pump rates to accomplish the above objectives.

METHODS AND EQUIPMENT

AcuVac owns and maintains an inventory of equipment to perform MDPE events. No third party equipment is utilized. The events at the above referenced site were conducted using the AcuVac I-6 System, with Roots RAI-33 blower used as a vacuum pump and Roots RAI-22 positive displacement blower. The following table lists equipment and instrumentation employed in these events and the data captured by each.

Data Element	Measurement Equipment
Extraction Well Vacuum	Dwyer Magnehelic Gauges
Extractions Well Vapor Flow	Dwyer Averaging Pitot Tubes / Magnehelic Gauges
Observation Wells Induced Vacuum	Dwyer Digital Manometer
Extraction Well Non-Diluted Vapor Samples	V-1 vacuum box
Extraction Well Vapor TPH Content	HORIBA® Analyzer Model Mexa 554GE
Extraction Well Vapor Oxygen Content	Lumidor MicroMax Pro O_2 Monitor
Depth to NAPL and Depth to groundwater	Solinst Interface Probes Model 122
Liquid Flow and Total Volume	Blancett 1100 Turbine Flow Meter
Liquid Flow and Total Volume	Blancett B3000 Flow Monitor
Liquid Column in Extraction and Observation Wells	In-Situ Level Troll 700 Data Logger
Equalize Well Vacuum/Pressure	In-Situ Vented Cable with Chamber
Capture Readings from Data Logger Trolls	In-Situ Rugged Reader Data Logger Interface
In-Well Pump	Grundfos Redi-Flo 2 Total Fluids Pump
Pump Speed, Other Diagnostics	Grundfos/Baldor Electronic Pump Controller
Relative and Absolute Barometric Pressure	Testo Model 511

The vacuum extraction portion of the AcuVac System consists of a vacuum pump driven by an internal combustion (IC) engine. The vacuum pump is connected to the extraction well and the vacuum created on the extraction well causes light hydrocarbons in the soil and on the groundwater to volatilize and flow through a moisture knockout tank to the vacuum pump and the IC Engine where they are burned as part of the normal combustion process. Propane is used as auxiliary fuel to help power the engine if the well vapors do not provide the required energy.

The AcuVac IC Engine is fully loaded for the maximum power necessary to achieve and maintain high induced vacuums and/or high well vapor flows required to maximize the vacuum radius of influence (ROI) for pilot tests and short term event remediation.

Emissions from the engine are passed through three catalytic converters to ensure maximum destruction of removed hydrocarbon vapors. The engine's fuel to air ratio can be adjusted to maintain efficient combustion. Because the engine is the power source for all equipment, all systems stop when the engine stops. This eliminates any uncontrolled release of hydrocarbons. Since the AcuVac System is held entirely under vacuum, any leaks in the seals or connections are leaked into the System and not emitted into the atmosphere. The engine is automatically shut down by vacuum loss, low oil pressure, over speed or overheating.

Groundwater Extraction is provided by an in-well, Redi-Flo 2 total fluids pump that has the discharge line connected to a total volume meter. The discharge line from the volume meter is then connected to the stand-by tank. The electrical power for the groundwater pump was supplied from a 120v Honda generator. The groundwater flow rate can be adjusted to maintain a target level. Interface meters are used to collect depth to groundwater and depth to NAPL measurements. Groundwater samples were taken periodically in a graduated cylinder to determine the average NAPL percentages and volume.

The design of the AcuVac System enables independent control of both the induced well vacuum and the groundwater pumping functions such that the AcuVac team can control the IHG to increase exposure of the formation to SVE. The ability to separate the vacuum and liquid flows within the extraction well improves the NAPL recovery rates, and enables the AcuVac team to record data specific to each media.

SUMMARY OF MDPE EVENT #1- WELL MW-1

- The total Event time was 7.0 hours. The Event was conducted on November 29, 2016. This was the first event completed from well MW-1, and therefore there was no comparative data from this well.
- The total liquid volume recovered was 168 gals with no measureable liquid NAPL recovered.
- Based on the HORIBA® data, total vapor NAPL burned as IC engine fuel was 4.42 gals, for a total liquid and vapor NAPL recovery of 5.05 gals, or 0.63 gals per hour.
- Average HORIBA® Analytical Data from the influent vapor samples was: Total Petroleum Hydrocarbons (TPH) = 12,570 ppmv, Carbon dioxide (CO_2) = 7.97%, Carbon monoxide (CO) = 0.02%, Oxygen (O_2) = 10.7% and Hydrogen sulfide (H_2S) = 11 ppm.
- The maximum HORIBA® Analytical Data from the influent vapor samples for TPH was 15,190 ppmv.
- The average extraction well induced vacuum was 31.33 inches of water ("H_2O) with a maximum vacuum of 40.00"H_2O.
- The average extraction well vapor flow was 23.22 scfm with a maximum well vapor flow of 26.40 scfm.
- The groundwater pump inlet was set at 46.0 ft BTOC in well MW-1. The average groundwater pump rate during the course of Event #1 was 0.40 gpm, and the maximum groundwater pump rate was 0.40 gpm.
- The average groundwater depression, based on the positioning of the groundwater pump in well MW-1, was 7.25 ft below the hydro-equivalent static level.
- A NAPL thickness in well MW-1 of 0.04 ft was recorded prior to the start of Event #1 and no NAPL was recorded at the conclusion of the Event #1.

The total NAPL removed, including liquid and vapor, during the 7.0 hour Event #1, Well MW-1, was 5.05 gals.

ADDITIONAL INFORMATION

- The start of the Event was delayed by hazardous roads due to a larger than expected snowfall in the San Juan County area. The roads were covered with hard packed snow and ice. There was approximately 4.0 inches of snow at the site upon arrival.
- Well MW-1 produced a steady amount of liquid volume during the course of the Event #1A. However, no quantifiable liquid NAPL was recovered from well MW-1.
- All NAPL volume recovered, 5.05 gals, was burned as IC engine fuel.

- The depth to groundwater in well MW-7, 36.8 ft from extraction well MW-1, was monitored during Event #1. The depth to groundwater in MW-7 at the start of Event #1 was 37.81 ft BTOC and was 37.94 ft BTOC at the conclusion of Event #1 indicating that the groundwater pumping had an impact on well MW-1 by lowering the groundwater level by 0.13 ft.

METHOD OF CALIBRATION AND CALCULATIONS

The HORIBA® Analytical instrument is calibrated with Hexane, CO and CO_2.

The formula used to calculate the emission rate is:

$$ER = HC\ (ppmv) \times MW\ (Hexane) \times Flow\ Rate\ (scfm) \times 1.58E^{-7} \frac{(min)(lb\ mole)}{(hr)(ppmv)(ft^3)} = lbs/hr$$

INFORMATION INCLUDED WITH REPORT

- Table #1 Summary Well Data
- Table #2 Summary Recovery Data
- Recorded Data
- Photographs of the MDPE System, Well MW-1.

After you have reviewed the report and if you have any questions, please contact me. We appreciate you selecting AcuVac to provide this service.

Sincerely,
ACUVAC REMEDIATION, LLC

Paul D. Faucher
Vice President, Operations

Summary Well Data
Table #1

Event		1
WELL NO.		**MW-1**
Total Event Hours		7.0
TD	ft BGS	47.0
Well Screen	ft BGS	32.0 – 47.0
Well Size	in	4.0
Well Data		
DTGW - Static - Start Event	ft BTOC	38.65
DTNAPL - Static - Start Event	ft BTOC	38.61
NAPL	ft BTOC	0.04
Hydro-Equivalent- Beginning	ft BTOC	38.62
DTGW - End Event	ft BTOC	43.64
DTNAPL - End Event	ft BTOC	-
NAPL	ft BTOC	-
Hydro-Equivalent- Ending	ft BTOC	43.64
Extraction Data		
Average Extraction Well Vacuum	"H_2O	31.33
Maximum Extraction Well Vacuum	"H_2O	40.00
Average Extraction Well Vapor Flow	scfm	23.22
Maximum Extraction Well Vapor Flow	scfm	26.40
Average GW / NAPL Pump Rate	gpm	0.40
Maximum GW / NAPL Pump Rate	gpm	0.40
Influent Data		
Maximum TPH	ppmv	15,190
Average TPH	ppmv	12,570
Average CO_2	%	7.97
Average CO	%	0.02
Average O_2	%	10.7
Average H_2S	ppm	11

Summary Recovery Data
Table #2

Event		1
WELL NO.		**MW-1**
Recovery Data- Current Event		
Total Liquid Volume Recovered	gals	168
Total Liquid NAPL Recovered	gals	-
Total Liquid NAPL Recovered / Total Liquid	%	-
Total Liquid NAPL Recovered / Total NAPL	%	-
Total Vapor NAPL Recovered	gals	4.42
Total Vapor NAPL Recovered / Total NAPL	%	100.00
Total Vapor and Liquid NAPL Recovered	gals	4.42
Average NAPL Recovery	gals/hr	0.63
Total NAPL Recovered	lbs	35
Total Volume of Well Vapors	cu. ft	11,146
Recovery Data- Cumulative		
Total Liquid Volume Recovered	gals	168
Total Liquid NAPL Recovered	gals	-
Total Vapor NAPL Recovered	gals	4.42
Total Vapor and Liquid NAPL Recovered	gals	4.42
Average NAPL Recovery	gals/hr	0.63
Total NAPL Recovered	lbs	35
Total Volume of Well Vapors	cu. ft	11,146

AcuVac Remediation

OPERATING DATA – EVENT # 1 **PAGE # 1** **ACUVAC MDP SYSTEM**

Location: Johnston Federal #6A, San Juan County, NM **Project Managers: Faucher / George**

Well # MW-1		Date	11/29/16					
		Time	0900	0930	1000	1030	1100	1130
		Hr Meter	7668.0	7668.5	7669.0	7669.5	7670.0	7670.5
ENGINE / BLOWER	Engine Speed	RPM	2100	2100	2100	2100	2100	2100
	Oil Pressure	psi	50	50	50	50	50	50
	Water Temp	°F	120	120	120	120	120	120
	Alternator	Volts	14	14	14	14	14	14
	Intake Vacuum	"Hg	14	14	14	14	14	14
	Gas Flow Fuel/Propane	cfh	150	150	150	150	150	150
ATMOSPHERE VACUUM / AIR	Extraction Well Vac.	"H_2O	20	20	20	20	20	30
	Extraction Well Flow	scfm	18.49	18.49	18.49	18.49	18.49	24.25
	Influent Vapor Temp.	°F	50	50	50	50	50	50
	Air Temp	°F	27	29	30	31	31	31
	Barometric Pressure	"Hg	29.90	29.90	29.88	29.88	29.88	29.88
VAPOR / INFLUENT	TPH	ppmv	-	9030	-	13,970	-	10,870
	CO_2	%	-	8.68	-	8.16	-	8.30
	CO	%	-	0	-	.04	-	0
	O_2	%	-	8.9	-	10.3	-	11.8
	H_2S	ppm	-	6	-	8	-	12
NOTES	SEE PAGE 2 FOR NOTES.							
RECOVERY	GW Pump	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
	Pump Rate	gals/min	.40	.40	.40	.40	.40	.40
	Total Volume	gals	-	12	24	36	48	60
	NAPL	% Vol	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN
	NAPL	Gals	-	-	-	-	-	-
EW	Data Logger Head	ft	3.58	7.25	-	-	-	-
	GW Depression	ft	-	-	-7.25	-7.25	-7.25	-7.25
	Extraction Well	DTNAPL	38.61					
	Extraction Well	DTGW	38.65					

.04

AcuVac Remediation

OPERATING NOTES - EVENT # 1 **PAGE # 2** **ACUVAC MDP SYSTEM**

Location: Johnston Federal #6A, San Juan County, NM **Project Managers:** Faucher / George

Date: 11/29/16

NOTES

0700 Hrs HELD TAILGATE SAFETY MEETING WHILE WAITING ON THE WEATHER

0820 Hrs ARRIVED ON SITE. DELAY DUE TO ICY ROAD CONDITIONS. POSITIONED THE AcuVac SYSTEM NEAR WELL MW-1. UPDATED THE TAILGATE SAFETY MEETING FOR CONDITIONS AT SITE. APPROX 4" OF SNOW. MOBILIZED THE AcuVac EQUIPMENT. GAUGED THE WELL DTNAPL 38.61, DTGW 38.65, NAPL 0.04, HE 38.62. POSITIONED IN-WELL PUMP AT APPROX 42.50 FT BTOC TO YIELD A 4.0 FT GWD.

0900 Hrs EVENT STARTED. INITIAL WELL VAC 20" H_2O WITH A 18.49 SCFM WELL VAPOR FLOW RATE. GW PUMP STARTED, WITHIN MINUTES RAN OUT OF LIQUID. SANDY FORMATION DID NOT PRODUCE SUFFICIENT LIQUID TO MAINTAIN THE GW PUMP.

0930 Hrs LOWER GW PUMP INTAKE TO 46 FT BTOC OR 1.0 FT ABOVE THE WELL BOTTOM. WITHIN MINUTES THE LIQUID FLOW STOPPED. THE GW PUMP WAS CYCLED ON/OFF FROM THIS POINT. INITIAL WELL VAPOR SAMPLE OBTAINED. TPH VAPOR 9030 PPMV WHICH INDICATES A LOWER SATURATION OF NATURAL GAS CONDENSATE IN THE AREA SURROUNDING WELL MW-1. THIS IS CONSISTENT WITH THE LACK OF LIQUID WATER BEING RECOVERED.

1030 Hrs WELL VAPOR SAMPLE OBTAINED. TPH VAPORS ↑ 13,570 PPMV, CO_2 ↓, O_2 ↓.

1130 Hrs WELL VAPOR SAMPLE OBTAINED. TPH VAPORS ↓ 10,870 PPM. CO_2 ↑ O_2 ↑

AcuVac Remediation

OPERATING DATA – EVENT # 1 **PAGE # 3** **ACUVAC MDP SYSTEM**

Location: Johnston Federal #6A, San Juan County, NM **Project Managers: Faucher / George**

Well # MW-1		Date	11/29/16					
		Time	1200	1230	1300	1330	1400	1430
		Hr Meter	7671.0	7671.5	7672.0	7672.5	7673.0	7673.5
ENGINE / BLOWER	Engine Speed	RPM	2100	2100	2100	2100	2100	2100
	Oil Pressure	psi	50	50	50	50	50	50
	Water Temp	°F	120	120	120	120	120	120
	Alternator	Volts	14	14	14	14	14	14
	Intake Vacuum	"Hg	14	14	14	14	14	14
	Gas Flow Fuel/Propane	cfh	150	150	150	150	150	150
ATMOSPHERE VACUUM / AIR	Extraction Well Vac.	"H_2O	30	30	40	40	40	40
	Extraction Well Flow	scfm	24.25	24.25	24.70	26.40	26.40	26.40
	Influent Vapor Temp.	°F	50	50	50	50	50	50
	Air Temp	°F	32	34	36	36	36	36.
	Barometric Pressure	"Hg	29.87	29.87	29.86	29.86	29.86	29.85
VAPOR / INFLUENT	TPH	ppmv	-	-	-	-	15,190	-
	CO_2	%	-	-	-	-	7.38	-
	CO	%	-	-	-	-	0.01	-
	O_2	%	-	-	-	-	11.5	-
	H_2S	ppm	-	-	-	-	14	-
NOTES	AT 1300 HRS INCREASED THE WELL VAC TO 40" H_2O WHICH RESULTED IN A WVF OF 24.70 SCFM. WVF INCREASED AT 1330 TO 26.40 SCFM. 1400 HRS - WELL VAPOR SAMPLE TAKEN TPH 15,190 PPMV. WELL VAPORS ON AN OVERALL UPWARD TREND. AVERAGE PUMP RATE STEADY AT .40 GPM.							
RECOVERY	GW Pump	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
	Pump Rate	gals/min	.40	.40	.40	.40	.40	.40
	Total Volume	gals	72	84	96	108	120	132
	NAPL	% Vol	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN
	NAPL	Gals	-	-	-	-	-	-
EW	Data Logger Head	ft	-	-	-	-	-	-
	GW Depression	ft	-7.25	-7.25	-7.25	-7.25	-7.25	-7.25
	Extraction Well	DTNAPL						
	Extraction Well	DTGW						

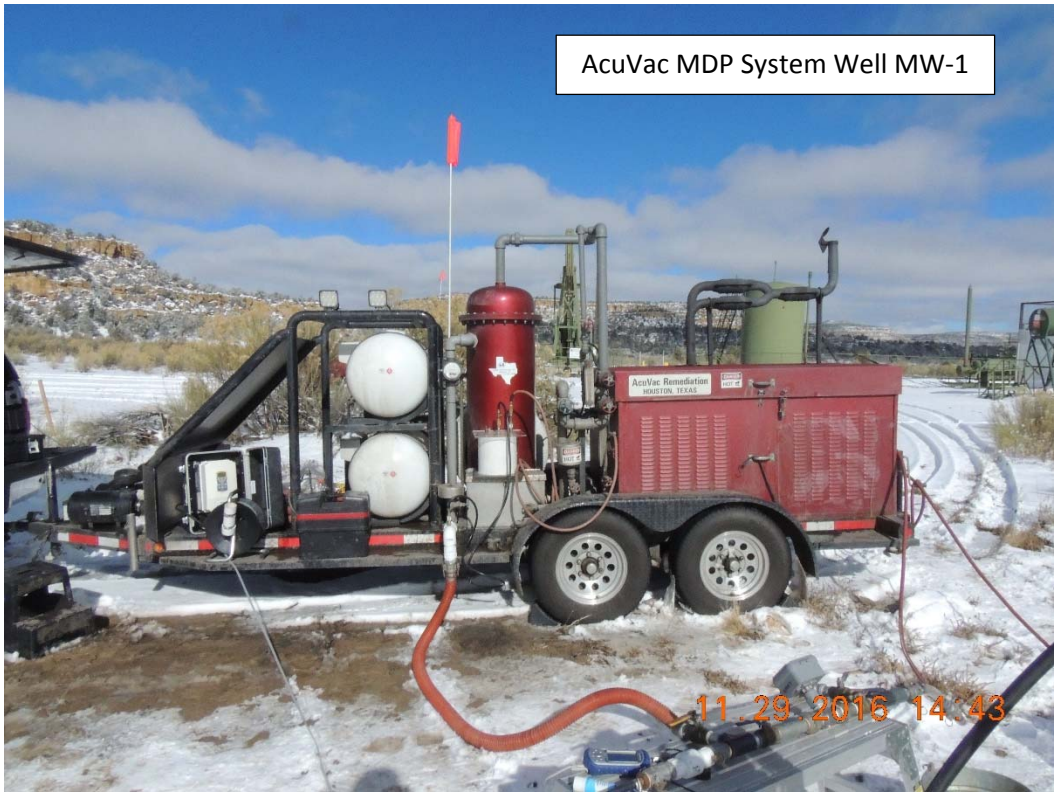
AcuVac Remediation

OPERATING DATA – EVENT # 1 **PAGE # 4** **ACUVAC MDP SYSTEM**

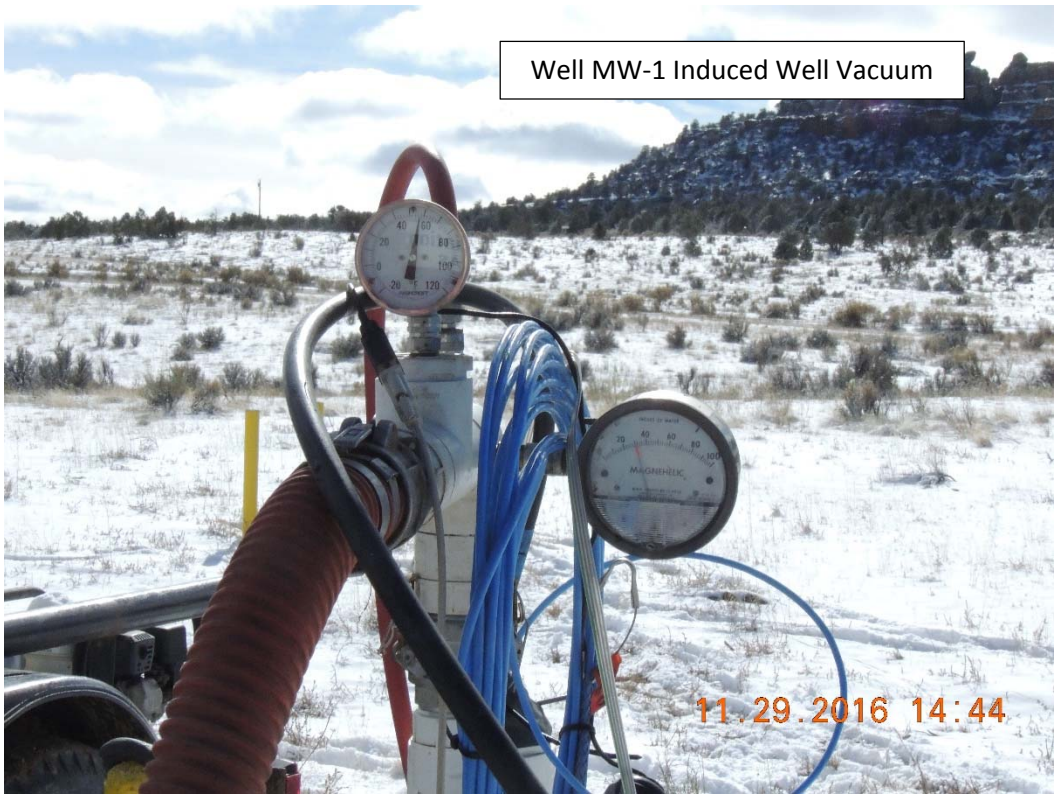
Location: Johnston Federal #6A, San Juan County, NM **Project Managers: Faucher / George**

Well # MW-1	Date	11/29/16						
	Time	1300	1530	1600				
	Hr Meter	7674.0	7674.5	7675.0				
ENGINE / BLOWER	Engine Speed	RPM	2100	2100	2100			
	Oil Pressure	psi	50	50	50			
	Water Temp	°F	120	120	120			
	Alternator	Volts	14	14	14			
	Intake Vacuum	"Hg	14	14	14			
	Gas Flow Fuel/Propane	cfh	150	150	150			
ATMOSPHERE VACUUM / AIR	Extraction Well Vac.	"H_2O	40	40	40			
	Extraction Well Flow	scfm	26.40	26.40	26.40			
	Influent Vapor Temp.	°F	50	50	50			
	Air Temp	°F	36	36	36			
	Barometric Pressure	"Hg	29.85	29.85	29.85			
VAPOR / INFLUENT	TPH	ppmv	13,790	–	–			
	CO_2	%	7.34	–	–			
	CO	%	0.04	–	–			
	O_2	%	11.1	–	–			
	H_2S	ppm	16	–	–			
NOTES	1300 HRS WELL VAPOR SAMPLE OBTAINED TPH VAPORS ↓ 13,790 PPMV, CO2 MOSTLY STEADY, O2 MOSTLY STEADY.							
	1600 HRS EVENT CONCLUDED. WELL GAUGED NO NAPL PRESENT. DEMOBILIZED SITE, MOVED ACUVAC SYSTEM TO JFED #4.							
RECOVERY	GW Pump	ON/OFF	ON/OFF	ON/OFF	OFF			
	Pump Rate	gals/min	.40	.40	.40			
	Total Volume	gals	144	156	168			
	NAPL	% Vol	SHEEN	SHEEN	SHEEN			
	NAPL	Gals	–	–	–			
EW	Data Logger Head	ft	–	–	–			
	GW Depression	ft	-7.25	-7.25	-7.25			
	Extraction Well	DTNAPL			–			
	Extraction Well	DTGW			43.64			

JOHNSTON FEDERAL #6A
SAN JUAN COUNTY, NM



JOHNSTON FEDERAL #6A
SAN JUAN COUNTY, NM



APPENDIX B

BASIN DISPOSAL

30 Years of Environmental Health and Safety Excellence

200 Montana, Bloomfield, NM 87413
505-632-8936 or 505-334-3013
OPEN 24 Hours per Day

NO. 675246

NMOCD PERMIT: NM-001-0005
Oil Field Waste Document, Form C138
INVOICE:

DATE 11/30/16

GENERATOR: El Paso

HAULING CO. Sierra

ORDERED BY: Joseph Valley

DEL. TKT#.

BILL TO: El Paso

DRIVER: Juan
(Print Full Name)

CODES:

WASTE DESCRIPTION: ☒ Exempt Oilfield Waste ☑ Produced Water ☐ Drilling/Completion Fluids ☐ Reserve Pit

STATE: ☑ NM ☐ CO ☐ AZ ☐ UT

TREATMENT/DISPOSAL METHODS: ☒ EVAPORATION ☒ INJECTION ☒ TREATING PLANT

NO.	TRUCK	LOCATION(S)	VOLUME	COST	H2S	COST	TOTAL	TIME
1	54	Various EPS sites	8	25			3 25	
2		Johnston Federal #6A					'16 NOV 30 10:03AM	
3		Juan Address						
4								
5								

I, _____ representitive or authorized agent for the above generator and hauler hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination that the above described waste is RCRA Exempt, Oil field wastes generated from oil and gas exploration and production operations and not mixed with non-exempt waste.

☑ Approved ☐ Denied

ATTENDANT SIGNATURE

san juan reproduction 165-5

APPENDIX C

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-120431-1
Client Project/Site: Johnston Federal #6A

For:
MWH Americas Inc
11153 Aurora Avenue
Des Moines, Iowa 50322-7904

Attn: Steve Varsa

Authorized for release by:
5/3/2016 5:08:07 PM

Marty Edwards, Manager of Project Management
(850)474-1001
marty.edwards@testamericainc.com

Table of Contents

Qualifiers

GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 400-120431-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-120431-1

Comments
No additional comments.

Receipt
The samples were received on 4/19/2016 9:43 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.0º C.

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: MW-3 (400-120431-2). Evidence of matrix interference is present.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: MWH Americas Inc
Project/Site: Johnston Federal #6A

TestAmerica Job ID: 400-120431-1

Client Sample ID: TRIP BLANK — Lab Sample ID: 400-120431-1

No Detections.

Client Sample ID: MW-3 — Lab Sample ID: 400-120431-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.9		1.0		ug/L	1		8021B	Total/NA
Toluene	52		5.0		ug/L	1		8021B	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 400-120431-3

No Detections.

Client Sample ID: MW-7 — Lab Sample ID: 400-120431-4

No Detections.

Client Sample ID: MW-8 — Lab Sample ID: 400-120431-5

No Detections.

Client Sample ID: MW-9 — Lab Sample ID: 400-120431-6

No Detections.

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: MWH Americas Inc
Project/Site: Johnston Federal #6A

TestAmerica Job ID: 400-120431-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-120431-1	TRIP BLANK	Water	04/16/16 06:00	04/19/16 09:43
400-120431-2	MW-3	Water	04/16/16 10:35	04/19/16 09:43
400-120431-3	MW-5	Water	04/16/16 10:40	04/19/16 09:43
400-120431-4	MW-7	Water	04/16/16 10:45	04/19/16 09:43
400-120431-5	MW-8	Water	04/16/16 10:50	04/19/16 09:43
400-120431-6	MW-9	Water	04/16/16 10:55	04/19/16 09:43

Client: MWH Americas Inc
Project/Site: Johnston Federal #6A

TestAmerica Job ID: 400-120431-1

Client Sample ID: TRIP BLANK
Date Collected: 04/16/16 06:00
Date Received: 04/19/16 09:43

Lab Sample ID: 400-120431-1
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/28/16 15:21	1
Ethylbenzene	<1.0		1.0		ug/L			04/28/16 15:21	1
Toluene	<5.0		5.0		ug/L			04/28/16 15:21	1
Xylenes, Total	<5.0		5.0		ug/L			04/28/16 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*92*		*78 - 124*		*04/28/16 15:21*	*1*

Client: MWH Americas Inc
Project/Site: Johnston Federal #6A

TestAmerica Job ID: 400-120431-1

Client Sample ID: MW-3
Date Collected: 04/16/16 10:35
Date Received: 04/19/16 09:43

Lab Sample ID: 400-120431-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/29/16 12:23	1
Ethylbenzene	**1.9**		1.0		ug/L			04/29/16 12:23	1
Toluene	**52**		5.0		ug/L			04/29/16 12:23	1
Xylenes, Total	<5.0		5.0		ug/L			04/29/16 12:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*128*	*X*	*78 - 124*		*04/29/16 12:23*	*1*

Client: MWH Americas Inc
Project/Site: Johnston Federal #6A

TestAmerica Job ID: 400-120431-1

Client Sample ID: MW-5
Date Collected: 04/16/16 10:40
Date Received: 04/19/16 09:43

Lab Sample ID: 400-120431-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/28/16 17:38	1
Ethylbenzene	<1.0		1.0		ug/L			04/28/16 17:38	1
Toluene	<5.0		5.0		ug/L			04/28/16 17:38	1
Xylenes, Total	<5.0		5.0		ug/L			04/28/16 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*93*		*78 - 124*		*04/28/16 17:38*	*1*

Client: MWH Americas Inc
Project/Site: Johnston Federal #6A

TestAmerica Job ID: 400-120431-1

Client Sample ID: MW-7
Date Collected: 04/16/16 10:45
Date Received: 04/19/16 09:43

Lab Sample ID: 400-120431-4
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/28/16 18:12	1
Ethylbenzene	<1.0		1.0		ug/L			04/28/16 18:12	1
Toluene	<5.0		5.0		ug/L			04/28/16 18:12	1
Xylenes, Total	<5.0		5.0		ug/L			04/28/16 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*90*		*78 - 124*		*04/28/16 18:12*	*1*

Client: MWH Americas Inc
Project/Site: Johnston Federal #6A

TestAmerica Job ID: 400-120431-1

Client Sample ID: MW-8
Date Collected: 04/16/16 10:50
Date Received: 04/19/16 09:43

Lab Sample ID: 400-120431-5
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/29/16 15:33	1
Ethylbenzene	<1.0		1.0		ug/L			04/29/16 15:33	1
Toluene	<5.0		5.0		ug/L			04/29/16 15:33	1
Xylenes, Total	<5.0		5.0		ug/L			04/29/16 15:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*94*		*78 - 124*		*04/29/16 15:33*	*1*

Client: MWH Americas Inc
Project/Site: Johnston Federal #6A

TestAmerica Job ID: 400-120431-1

Client Sample ID: MW-9
Date Collected: 04/16/16 10:55
Date Received: 04/19/16 09:43

Lab Sample ID: 400-120431-6
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/28/16 14:47	1
Ethylbenzene	<1.0		1.0		ug/L			04/28/16 14:47	1
Toluene	<5.0		5.0		ug/L			04/28/16 14:47	1
Xylenes, Total	<5.0		5.0		ug/L			04/28/16 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*88*		*78 - 124*		*04/28/16 14:47*	*1*

QC Association Summary

Client: MWH Americas Inc
Project/Site: Johnston Federal #6A

TestAmerica Job ID: 400-120431-1

GC VOA

Analysis Batch: 303805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-120431-1	TRIP BLANK	Total/NA	Water	8021B	
400-120431-3	MW-5	Total/NA	Water	8021B	
400-120431-4	MW-7	Total/NA	Water	8021B	
400-120431-6	MW-9	Total/NA	Water	8021B	
400-120431-6 MS	MW-9	Total/NA	Water	8021B	
400-120431-6 MSD	MW-9	Total/NA	Water	8021B	
LCS 400-303805/1002	Lab Control Sample	Total/NA	Water	8021B	
MB 400-303805/4	Method Blank	Total/NA	Water	8021B	

Analysis Batch: 304029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-120431-5	MW-8	Total/NA	Water	8021B	
400-120432-A-10 MS	Matrix Spike	Total/NA	Water	8021B	
400-120432-A-10 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	
LCS 400-304029/1003	Lab Control Sample	Total/NA	Water	8021B	
MB 400-304029/5	Method Blank	Total/NA	Water	8021B	

Analysis Batch: 304034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-120431-2	MW-3	Total/NA	Water	8021B	
400-120437-A-5 MS	Matrix Spike	Total/NA	Water	8021B	
400-120437-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	
LCS 400-304034/1001	Lab Control Sample	Total/NA	Water	8021B	
MB 400-304034/2	Method Blank	Total/NA	Water	8021B	

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 400-303805/4
Matrix: Water
Analysis Batch: 303805

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/28/16 12:59	1
Ethylbenzene	<1.0		1.0		ug/L			04/28/16 12:59	1
Toluene	<5.0		5.0		ug/L			04/28/16 12:59	1
Xylenes, Total	<5.0		5.0		ug/L			04/28/16 12:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*91*		*78 - 124*		*04/28/16 12:59*	*1*

Lab Sample ID: LCS 400-303805/1002
Matrix: Water
Analysis Batch: 303805

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	45.0		ug/L		90	85 - 115		
Ethylbenzene			50.0	44.1		ug/L		88	85 - 115		
Toluene			50.0	44.6		ug/L		89	85 - 115		
Xylenes, Total			150	129		ug/L		86	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*96*		*78 - 124*

Lab Sample ID: 400-120431-6 MS
Matrix: Water
Analysis Batch: 303805

Client Sample ID: MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<1.0		50.0	48.4		ug/L		97	44 - 150		
Ethylbenzene	<1.0		50.0	47.0		ug/L		94	70 - 142		
Toluene	<5.0		50.0	47.3		ug/L		95	69 - 136		
Xylenes, Total	<5.0		150	139		ug/L		93	68 - 142		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*95*		*78 - 124*

Lab Sample ID: 400-120431-6 MSD
Matrix: Water
Analysis Batch: 303805

Client Sample ID: MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<1.0		50.0	47.9		ug/L		96	44 - 150	1	16
Ethylbenzene	<1.0		50.0	46.0		ug/L		92	70 - 142	2	16
Toluene	<5.0		50.0	46.3		ug/L		93	69 - 136	2	16
Xylenes, Total	<5.0		150	136		ug/L		90	68 - 142	2	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*94*		*78 - 124*

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 400-304029/5
Matrix: Water
Analysis Batch: 304029

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/29/16 11:33	1
Ethylbenzene	<1.0		1.0		ug/L			04/29/16 11:33	1
Toluene	<5.0		5.0		ug/L			04/29/16 11:33	1
Xylenes, Total	<5.0		5.0		ug/L			04/29/16 11:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*91*		*78 - 124*		*04/29/16 11:33*	*1*

Lab Sample ID: LCS 400-304029/1003
Matrix: Water
Analysis Batch: 304029

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	48.2		ug/L		96	85 - 115		
Ethylbenzene			50.0	43.6		ug/L		87	85 - 115		
Toluene			50.0	44.4		ug/L		89	85 - 115		
Xylenes, Total			150	130		ug/L		87	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*99*		*78 - 124*

Lab Sample ID: 400-120432-A-10 MS
Matrix: Water
Analysis Batch: 304029

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<1.0		50.0	51.7		ug/L		102	44 - 150		
Ethylbenzene	<1.0		50.0	51.5		ug/L		103	70 - 142		
Toluene	<5.0		50.0	52.7		ug/L		105	69 - 136		
Xylenes, Total	<5.0		150	154		ug/L		103	68 - 142		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*100*		*78 - 124*

Lab Sample ID: 400-120432-A-10 MSD
Matrix: Water
Analysis Batch: 304029

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<1.0		50.0	55.7		ug/L		110	44 - 150	7	16
Ethylbenzene	<1.0		50.0	52.1		ug/L		104	70 - 142	1	16
Toluene	<5.0		50.0	53.3		ug/L		107	69 - 136	1	16
Xylenes, Total	<5.0		150	155		ug/L		104	68 - 142	1	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*100*		*78 - 124*

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 400-304034/2
Matrix: Water
Analysis Batch: 304034

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/29/16 11:06	1
Ethylbenzene	<1.0		1.0		ug/L			04/29/16 11:06	1
Toluene	<5.0		5.0		ug/L			04/29/16 11:06	1
Xylenes, Total	<5.0		5.0		ug/L			04/29/16 11:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*104*		*78 - 124*		*04/29/16 11:06*	*1*

Lab Sample ID: LCS 400-304034/1001
Matrix: Water
Analysis Batch: 304034

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	47.3		ug/L		95	85 - 115		
Ethylbenzene			50.0	46.2		ug/L		92	85 - 115		
Toluene			50.0	47.0		ug/L		94	85 - 115		
Xylenes, Total			150	141		ug/L		94	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*102*		*78 - 124*

Lab Sample ID: 400-120437-A-5 MS
Matrix: Water
Analysis Batch: 304034

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<1.0		50.0	44.5		ug/L		89	44 - 150		
Ethylbenzene	<1.0		50.0	43.7		ug/L		87	70 - 142		
Toluene	<5.0		50.0	44.4		ug/L		89	69 - 136		
Xylenes, Total	<5.0		150	134		ug/L		89	68 - 142		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*102*		*78 - 124*

Lab Sample ID: 400-120437-A-5 MSD
Matrix: Water
Analysis Batch: 304034

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<1.0		50.0	45.5		ug/L		91	44 - 150	2	16
Ethylbenzene	<1.0		50.0	45.6		ug/L		91	70 - 142	4	16
Toluene	<5.0		50.0	45.4		ug/L		91	69 - 136	2	16
Xylenes, Total	<5.0		150	137		ug/L		91	68 - 142	2	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*102*		*78 - 124*

Lab Chronicle

Client: MWH Americas Inc
Project/Site: Johnston Federal #6A

TestAmerica Job ID: 400-120431-1

Client Sample ID: TRIP BLANK
Lab Sample ID: 400-120431-1
Date Collected: 04/16/16 06:00
Matrix: Water
Date Received: 04/19/16 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	303805	04/28/16 15:21	GRK	TAL PEN
	Instrument ID: CH_JOAN									

Client Sample ID: MW-3
Lab Sample ID: 400-120431-2
Date Collected: 04/16/16 10:35
Matrix: Water
Date Received: 04/19/16 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	304034	04/29/16 12:23	MKA	TAL PEN
	Instrument ID: ETHYL									

Client Sample ID: MW-5
Lab Sample ID: 400-120431-3
Date Collected: 04/16/16 10:40
Matrix: Water
Date Received: 04/19/16 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	303805	04/28/16 17:38	GRK	TAL PEN
	Instrument ID: CH_JOAN									

Client Sample ID: MW-7
Lab Sample ID: 400-120431-4
Date Collected: 04/16/16 10:45
Matrix: Water
Date Received: 04/19/16 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	303805	04/28/16 18:12	GRK	TAL PEN
	Instrument ID: CH_JOAN									

Client Sample ID: MW-8
Lab Sample ID: 400-120431-5
Date Collected: 04/16/16 10:50
Matrix: Water
Date Received: 04/19/16 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	304029	04/29/16 15:33	MKA	TAL PEN
	Instrument ID: CH_JOAN									

Client Sample ID: MW-9
Lab Sample ID: 400-120431-6
Date Collected: 04/16/16 10:55
Matrix: Water
Date Received: 04/19/16 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	303805	04/28/16 14:47	GRK	TAL PEN
	Instrument ID: CH_JOAN									

Lab Chronicle

Client: MWH Americas Inc
Project/Site: Johnston Federal #6A

TestAmerica Job ID: 400-120431-1

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Certification Summary

Client: MWH Americas Inc
Project/Site: Johnston Federal #6A

TestAmerica Job ID: 400-120431-1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-16
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	05-31-16 *
Kentucky (UST)	State Program	4	53	06-30-16
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-16
Maryland	State Program	3	233	09-30-16
Massachusetts	State Program	1	M-FL094	06-30-16
Michigan	State Program	5	9912	06-30-16
New Jersey	NELAP	2	FL006	06-30-16
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16
Tennessee	State Program	4	TN02907	06-30-16
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-13-00193	07-01-16
Virginia	NELAP	3	460166	06-14-16
West Virginia DEP	State Program	3	136	06-30-16

* Certification renewal pending - certification considered valid.

Method Summary

Client: MWH Americas Inc
Project/Site: Johnston Federal #6A

TestAmerica Job ID: 400-120431-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	TAL PEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

400-120431 COC

Client Information	Sampler: Brad Bartz / Clint Okesbroeckl...	Lab PM: Edwards, Marty P	Carrier Tracking No(s):	COC No: 400-54329-21704.1
Client Contact: Ms. Sarah Gardner	Phone: 316 634 1738	E-Mail: marty.edwards@testamericainc.com		Page: Page 1 of 1
Company: MWH Americas Inc		**Analysis Requested**		Job #:
Address: 1560 Broadway Suite 1800	Due Date Requested: Per ARF			**Preservation Codes:** A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
City: Denver	TAT Requested (days): Per ARF			
State, Zip: CO, 80202				Other:
Phone: 303-291-2239(Tel)	PO #: Purchase Order Requested			
Email: sarah.gardner@mwhglobal.com	WO#: ARF ERG-MWH-03-30-16-CWO-01			
Project Name: Johnston Fed #6A	Project #: 40005479			
Site: Johnston Federal #6A	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code	8021B - BTEX 0021																		Special Instructions/Note:
Trip Blank	4/16/16	0600	-	Water	N	N	Z																		Per ARF
MW-3	4/16/16	1035	G	Water	N	N	Z																		
MW-5	4/16/16	1040	G	Water	N	N	Z																		
MW-7	4/16/16	1045	G	Water	N	N	Z																		
MW-8	4/16/16	1050	G	Water	N	N	Z																		
MW-9	4/16/16	1055	G	Water	N	N	Z																		

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Per ARF

Special Instructions/QC Requirements: Per ARF

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time:	Company	Received by: Date/Time: 4/19/16 Company TA
Relinquished by: Brad Bartz	Date/Time: 4/18/16 1530	Company MWH	Received by: Fed Ex office Date/Time: 4/18/16 1530 Company Fed Ex
Relinquished by: Fed Ex	Date/Time: 4/19/16 -	Company Fed Ex	Received by: Date/Time: 4/19/16 943 Company
Custody Seals Intact: [ ] Yes [ ] No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 1.6 °C

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5/3/2016

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 400-120431-1

Login Number: 120431

List Source: TestAmerica Pensacola

List Number: 1

Creator: Crawford, Lauren E

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-128741-1
Client Project/Site: Johnson Federal #6A

For:
MWH Americas Inc
1560 Broadway
Suite 1800
Denver, Colorado 80202

Attn: Ms. Sarah Gardner

Carol M Webb

Authorized for release by:
10/27/2016 11:09:18 AM

Carol Webb, Project Manager II
(850)471-6250
carol.webb@testamericainc.com

Table of Contents

Definitions/Glossary

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 400-128741-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-128741-1

Comments
No additional comments.

Receipt
The samples were received on 10/15/2016 9:13 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6º C.

Receipt Exceptions

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: MW-3 (400-128741-6). Evidence of matrix interference due to non-target analytes is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

Client Sample ID: MW-5 — Lab Sample ID: 400-128741-1

No Detections.

Client Sample ID: MW-7 — Lab Sample ID: 400-128741-2

No Detections.

Client Sample ID: MW-8 — Lab Sample ID: 400-128741-3

No Detections.

Client Sample ID: MW-9 — Lab Sample ID: 400-128741-4

No Detections.

Client Sample ID: TB — Lab Sample ID: 400-128741-5

No Detections.

Client Sample ID: MW-3 — Lab Sample ID: 400-128741-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.9		1.0		ug/L	1		8021B	Total/NA
Toluene	61		5.0		ug/L	1		8021B	Total/NA

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-128741-1	MW-5	Water	10/13/16 15:07	10/15/16 09:13
400-128741-2	MW-7	Water	10/13/16 15:13	10/15/16 09:13
400-128741-3	MW-8	Water	10/13/16 15:16	10/15/16 09:13
400-128741-4	MW-9	Water	10/13/16 15:20	10/15/16 09:13
400-128741-5	TB	Water	10/13/16 00:00	10/15/16 09:13
400-128741-6	MW-3	Water	10/13/16 15:04	10/18/16 09:11

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

Client Sample ID: MW-5
Date Collected: 10/13/16 15:07
Date Received: 10/15/16 09:13

Lab Sample ID: 400-128741-1
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			10/20/16 16:21	1
Ethylbenzene	<1.0		1.0		ug/L			10/20/16 16:21	1
Toluene	<5.0		5.0		ug/L			10/20/16 16:21	1
Xylenes, Total	<5.0		5.0		ug/L			10/20/16 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*107*		*78 - 124*		*10/20/16 16:21*	*1*

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

Client Sample ID: MW-7
Date Collected: 10/13/16 15:13
Date Received: 10/15/16 09:13

Lab Sample ID: 400-128741-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			10/20/16 05:17	1
Ethylbenzene	<1.0		1.0		ug/L			10/20/16 05:17	1
Toluene	<5.0		5.0		ug/L			10/20/16 05:17	1
Xylenes, Total	<5.0		5.0		ug/L			10/20/16 05:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*107*		*78 - 124*		*10/20/16 05:17*	*1*

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

Client Sample ID: MW-8
Date Collected: 10/13/16 15:16
Date Received: 10/15/16 09:13

Lab Sample ID: 400-128741-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			10/20/16 06:16	1
Ethylbenzene	<1.0		1.0		ug/L			10/20/16 06:16	1
Toluene	<5.0		5.0		ug/L			10/20/16 06:16	1
Xylenes, Total	<5.0		5.0		ug/L			10/20/16 06:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*108*		*78 - 124*		*10/20/16 06:16*	*1*

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

Client Sample ID: MW-9
Date Collected: 10/13/16 15:20
Date Received: 10/15/16 09:13

Lab Sample ID: 400-128741-4
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			10/20/16 07:16	1
Ethylbenzene	<1.0		1.0		ug/L			10/20/16 07:16	1
Toluene	<5.0		5.0		ug/L			10/20/16 07:16	1
Xylenes, Total	<5.0		5.0		ug/L			10/20/16 07:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*107*		*78 - 124*		*10/20/16 07:16*	*1*

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

Client Sample ID: TB
Date Collected: 10/13/16 00:00
Date Received: 10/15/16 09:13

Lab Sample ID: 400-128741-5
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			10/20/16 08:14	1
Ethylbenzene	<1.0		1.0		ug/L			10/20/16 08:14	1
Toluene	<5.0		5.0		ug/L			10/20/16 08:14	1
Xylenes, Total	<5.0		5.0		ug/L			10/20/16 08:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*108*		*78 - 124*		*10/20/16 08:14*	*1*

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

Client Sample ID: MW-3
Date Collected: 10/13/16 15:04
Date Received: 10/18/16 09:11

Lab Sample ID: 400-128741-6
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			10/25/16 18:36	1
Ethylbenzene	**1.9**		1.0		ug/L			10/25/16 18:36	1
Toluene	**61**		5.0		ug/L			10/25/16 18:36	1
Xylenes, Total	<5.0		5.0		ug/L			10/25/16 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*128*	*X*	*78 - 124*		*10/25/16 18:36*	*1*

QC Association Summary

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

GC VOA

Analysis Batch: 327414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128741-2	MW-7	Total/NA	Water	8021B	
400-128741-3	MW-8	Total/NA	Water	8021B	
400-128741-4	MW-9	Total/NA	Water	8021B	
400-128741-5	TB	Total/NA	Water	8021B	
MB 400-327414/2	Method Blank	Total/NA	Water	8021B	
LCS 400-327414/1001	Lab Control Sample	Total/NA	Water	8021B	
400-128704-A-21 MS	Matrix Spike	Total/NA	Water	8021B	
400-128704-B-21 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	

Analysis Batch: 327612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128741-1	MW-5	Total/NA	Water	8021B	
MB 400-327612/2	Method Blank	Total/NA	Water	8021B	
LCS 400-327612/1001	Lab Control Sample	Total/NA	Water	8021B	
400-128741-1 MS	MW-5	Total/NA	Water	8021B	
400-128741-1 MSD	MW-5	Total/NA	Water	8021B	

Analysis Batch: 328189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-128741-6	MW-3	Total/NA	Water	8021B	
MB 400-328189/26	Method Blank	Total/NA	Water	8021B	
LCS 400-328189/1025	Lab Control Sample	Total/NA	Water	8021B	
400-128739-A-7 MS	Matrix Spike	Total/NA	Water	8021B	
400-128739-A-7 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 400-327414/2
Matrix: Water
Analysis Batch: 327414

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			10/19/16 12:30	1
Ethylbenzene	<1.0		1.0		ug/L			10/19/16 12:30	1
Toluene	<5.0		5.0		ug/L			10/19/16 12:30	1
Xylenes, Total	<5.0		5.0		ug/L			10/19/16 12:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*110*		*78 - 124*		*10/19/16 12:30*	*1*

Lab Sample ID: LCS 400-327414/1001
Matrix: Water
Analysis Batch: 327414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	54.3		ug/L		109	85 - 115		
Ethylbenzene			50.0	53.5		ug/L		107	85 - 115		
Toluene			50.0	54.7		ug/L		109	85 - 115		
Xylenes, Total			150	162		ug/L		108	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*107*		*78 - 124*

Lab Sample ID: 400-128704-A-21 MS
Matrix: Water
Analysis Batch: 327414

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<1.0		50.0	53.9		ug/L		108	44 - 150		
Ethylbenzene	<1.0		50.0	52.5		ug/L		103	70 - 142		
Toluene	<5.0		50.0	53.6		ug/L		107	69 - 136		
Xylenes, Total	<5.0		150	158		ug/L		106	68 - 142		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*107*		*78 - 124*

Lab Sample ID: 400-128704-B-21 MSD
Matrix: Water
Analysis Batch: 327414

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<1.0		50.0	47.0		ug/L		94	44 - 150	14	16
Ethylbenzene	<1.0		50.0	44.9		ug/L		88	70 - 142	16	16
Toluene	<5.0		50.0	46.2		ug/L		92	69 - 136	15	16
Xylenes, Total	<5.0		150	137		ug/L		91	68 - 142	15	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*108*		*78 - 124*

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 400-327612/2
Matrix: Water
Analysis Batch: 327612

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			10/20/16 10:12	1
Ethylbenzene	<1.0		1.0		ug/L			10/20/16 10:12	1
Toluene	<5.0		5.0		ug/L			10/20/16 10:12	1
Xylenes, Total	<5.0		5.0		ug/L			10/20/16 10:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*108*		*78 - 124*		*10/20/16 10:12*	*1*

Lab Sample ID: LCS 400-327612/1001
Matrix: Water
Analysis Batch: 327612

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	51.6		ug/L		103	85 - 115		
Ethylbenzene			50.0	50.4		ug/L		101	85 - 115		
Toluene			50.0	51.2		ug/L		102	85 - 115		
Xylenes, Total			150	153		ug/L		102	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*107*		*78 - 124*

Lab Sample ID: 400-128741-1 MS
Matrix: Water
Analysis Batch: 327612

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<1.0		50.0	47.7		ug/L		95	44 - 150		
Ethylbenzene	<1.0		50.0	47.4		ug/L		95	70 - 142		
Toluene	<5.0		50.0	47.5		ug/L		95	69 - 136		
Xylenes, Total	<5.0		150	143		ug/L		95	68 - 142		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*107*		*78 - 124*

Lab Sample ID: 400-128741-1 MSD
Matrix: Water
Analysis Batch: 327612

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<1.0		50.0	48.8		ug/L		98	44 - 150	2	16
Ethylbenzene	<1.0		50.0	48.3		ug/L		97	70 - 142	2	16
Toluene	<5.0		50.0	48.7		ug/L		97	69 - 136	2	16
Xylenes, Total	<5.0		150	146		ug/L		97	68 - 142	3	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*106*		*78 - 124*

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 400-328189/26
Matrix: Water
Analysis Batch: 328189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			10/25/16 13:40	1
Ethylbenzene	<1.0		1.0		ug/L			10/25/16 13:40	1
Toluene	<5.0		5.0		ug/L			10/25/16 13:40	1
Xylenes, Total	<5.0		5.0		ug/L			10/25/16 13:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*104*		*78 - 124*		*10/25/16 13:40*	*1*

Lab Sample ID: LCS 400-328189/1025
Matrix: Water
Analysis Batch: 328189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	49.6		ug/L		99	85 - 115		
Ethylbenzene			50.0	48.3		ug/L		97	85 - 115		
Toluene			50.0	49.3		ug/L		99	85 - 115		
Xylenes, Total			150	148		ug/L		99	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*102*		*78 - 124*

Lab Sample ID: 400-128739-A-7 MS
Matrix: Water
Analysis Batch: 328189

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	1.4		50.0	64.6		ug/L		126	44 - 150		
Ethylbenzene	<1.0		50.0	52.1		ug/L		104	70 - 142		
Toluene	<5.0		50.0	60.0		ug/L		120	69 - 136		
Xylenes, Total	<5.0		150	179		ug/L		118	68 - 142		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*101*		*78 - 124*

Lab Sample ID: 400-128739-A-7 MSD
Matrix: Water
Analysis Batch: 328189

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	1.4		50.0	66.7		ug/L		130	44 - 150	3	16
Ethylbenzene	<1.0		50.0	53.3		ug/L		107	70 - 142	2	16
Toluene	<5.0		50.0	61.8		ug/L		124	69 - 136	3	16
Xylenes, Total	<5.0		150	182		ug/L		120	68 - 142	2	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (pid)	*100*		*78 - 124*

Lab Chronicle

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

Client Sample ID: MW-5
Date Collected: 10/13/16 15:07
Date Received: 10/15/16 09:13

Lab Sample ID: 400-128741-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	327612	10/20/16 16:21	GRK	TAL PEN
	Instrument ID: ETHYL									

Client Sample ID: MW-7
Date Collected: 10/13/16 15:13
Date Received: 10/15/16 09:13

Lab Sample ID: 400-128741-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	327414	10/20/16 05:17	GRK	TAL PEN
	Instrument ID: ETHYL									

Client Sample ID: MW-8
Date Collected: 10/13/16 15:16
Date Received: 10/15/16 09:13

Lab Sample ID: 400-128741-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	327414	10/20/16 06:16	GRK	TAL PEN
	Instrument ID: ETHYL									

Client Sample ID: MW-9
Date Collected: 10/13/16 15:20
Date Received: 10/15/16 09:13

Lab Sample ID: 400-128741-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	327414	10/20/16 07:16	GRK	TAL PEN
	Instrument ID: ETHYL									

Client Sample ID: TB
Date Collected: 10/13/16 00:00
Date Received: 10/15/16 09:13

Lab Sample ID: 400-128741-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	327414	10/20/16 08:14	GRK	TAL PEN
	Instrument ID: ETHYL									

Client Sample ID: MW-3
Date Collected: 10/13/16 15:04
Date Received: 10/18/16 09:11

Lab Sample ID: 400-128741-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	328189	10/25/16 18:36	MKA	TAL PEN
	Instrument ID: ETHYL									

Lab Chronicle

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Certification Summary

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.

Method Summary

Client: MWH Americas Inc
Project/Site: Johnson Federal #6A

TestAmerica Job ID: 400-128741-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	TAL PEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

SERIAL NUMBER: 80992

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10/27/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001
Fax: 850-478-2671
Website: www.testamericainc.com

QUOTE NO.:

BOTTLE ORDER NO.:

ORDER - LOG-IN NO.: C

CLIENT: EPCGPC

ADDRESS:

PAGE: 1 OF 1

PROJECT NAME: Johnston Fed 6

PROJECT NO.: 10508834

CLIENT PROJECT MANAGER: Clint Oberbroeckling

PROJECT LOC. (STATE): NM

SAMPLED BY: Clint Oberbroeckling

CONTRACT / P.O. NO.: ARF# ELG-MW11-09-23-16-CWO-01

CLIENT PHONE: 515-210 4299

CLIENT E-MAIL OR FAX:

TAT REQUESTED: RUSH NEEDS LAB PREAPPROVAL ☐ NORMAL ☒ 10 BUSINESS DAYS
☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ 5 DAYS ☐ 20 DAYS (Package) ☐ OTHER:

SAMPLE DISPOSAL: ☐ RETURN TO CLIENT ☒ DISPOSAL BY LAB
☐ SEE CONTRACT ☐ OTHER:

REQUESTED ANALYSIS: BTEX by 8021B

400-128741 COC

POSSIBLE HAZARD IDENTIFICATION
☒ NON-HAZARD
△ FLAMMABLE
△ RADIOACTIVE
△ POISON B
△ UNKNOWN
△ OTHER:

NO. OF COOLERS PER SHIPMENT:

SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT

LAB USE ONLY - SAMPLE NUMBER

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	PRESERVATIVE: No Preservative	HCL - Hydrochloric Acid	HNO3 - Nitric Acid	H2SO4 - Sulfuric Acid or H3PO4	NAOH - Sodium Hydroxide	CH3OH - Methanol	NAHSO4 - Sodium Bisulfate	NA2S2O3 - Sodium Thiosulfate	Other:	MATRIX: Drinking Water	Aqueous GW, SW, WW	Solid, Semisolid, Sediment	Air	NonAqueous (Oil, Solvent, etc.)	NUMBER OF CONTAINERS SUBMITTED
10/13/16	1504	MW-3		2									X				X
	1507	MW-5		2									X				X
	1513	MW-7		2									X				X
	1516	MW-8		2									X				X
	1520	MW-9		2									X				X
—	—	TB		2									X				X

Atlanta
681

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS				10/14/16	1600			
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS							10/15/16	0913

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	CUSTODY INTACT? △ YES △ NO	CUSTODY SEAL NO.	REMARKS:
					1.6°C IR5

TAL-8251 (1207)

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 400-128741-1

Login Number: 128741
List Number: 1
Creator: Chambers, Cheryle A

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6°C IR5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	