2016 ANNUAL GROUNDWATER REPORT

Canada Mesa #2
NMOCD Case#: 3RP-155-0
Meter Code: 87640
T24N, R6W, Sec 24, Unit I

SITE DETAILS

Site Location: Latitude: 36.296081 N, Longitude: -107.414109 W
Land Type: Federal
Former Operator: Merrion Oil & Gas (well P&A'd)

SITE BACKGROUND

- **Site Assessment:** 7/94
- **Excavation:** 8/94

Environmental Remediation activities at the Canada Mesa #2 (Site) are managed pursuant to the procedures set forth in the document entitled, "Remediation Plan for Groundwater Encountered during Pit Closure Activities" (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's (EPCGP's) program methods. Formerly, the Site was operated by Marion Oil & Gas Company and is no longer active.

Canada Mesa #2 is located on Federal land. Various site investigations have occurred since 1994. Monitoring wells were installed in 1995 (MW-1) and 2000 (MW-2 and MW-3). Monitoring wells MW-2 and MW-3 were abandoned in May 2016, ahead of Merrion Oil and Gas Company's reclamation activities.

GROUNDWATER SAMPLING ACTIVITIES

Monitoring wells MW-1, MW-2, and MW-3 were gauged on April 14, 2016. Groundwater samples were collected from MW-2 and MW-3 using HydraSleeve™ (HydraSleeve) no-purge groundwater sampling devices. A groundwater sample was not collected from MW-1 due to the presence of free product. 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. for disposal.

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FREE PRODUCT RECOVERY ACTIVITIES

Free product was observed in monitoring well MW-1 in 2016. Approximately 0.86 gallons of product were recovered via hand-bailing methods in 2016. During the initial free product recovery event conducted in April 2016, a specific gravity measurement of 0.76 was recorded from the recovered free product using a hydrometer in the field. Based on the data collected, a transmissivity estimate of 0.1 to 0.2 ft^2/ day was obtained using Bouwer and Rice, and Cooper, Bredehoeff, and Papadopulos models.

MONITORING WELL ABANDONMENT ACTIVITIES

Monitoring wells MW-2 and MW-3 were abandoned in May 2016 in accordance with Subsection C of 19.27.4.30 of the New Mexico Administrative Code and the conditions outlined in the New Mexico Office of the State Engineer approved Plugging Plan. The monitoring wells were abandoned to accommodate site reclamation activities being completed at the site by Merrion Oil and Gas Company.

SUMMARY TABLES

Historic analytical and water level data are summarized in Table 1 and Table 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 April 2016 groundwater analytical lab report is included as Appendix A. No groundwater samples were collected for analysis during the October 2016 monitoring event.

GROUNDWATER RESULTS

- Groundwater elevations recorded on April 14, 2016 indicate a flow direction to the southeast (see Figures 2). An insufficient number of monitoring points were present during the October 2016 monitoring event to determine an apparent groundwater flow direction.
- As free product was observed in MW-1 during both 2016 groundwater sample events, no groundwater samples were collected from this well.
- The groundwater sample collected in 2016 from MW-3 exceeded the New Mexico Water Quality Control Commission (NMWQCC) standard (10 µg/L)

for benzene in groundwater. Benzene was not detected in the groundwater sample monitoring well MW-2.

- Toluene was not detected in groundwater samples collected from monitoring wells MW-2 and MW-3 in 2016.
- Ethylbenzene was not detected in groundwater samples collected from monitoring wells MW-2 and MW-3 in 2016.
- Total Xylenes were not detected in groundwater samples collected from monitoring wells MW-2 and MW-3 in 2016.

PLANNED FUTURE ACTIVITIES

Future installation of additional monitoring wells is planned for the Site. The wells will be used to further assess the extent of dissolved-phase hydrocarbons and to confirm and/or further define the groundwater gradient at the Site. Replacement wells for MW-2 and MW-3 will also be installed as part of the scope of work. Groundwater monitoring events will be conducted on a semi-annual basis. The 2017 Annual Report will be submitted in early 2018.

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TABLE

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Canada Mesa #2					
Location	**Date**	**Benzene (µg/L)**	**Toluene (µg/L)**	**Ethylbenzene (µg/L)**	**Total Xylenes (µg/L)**
NMWQCC Standards:		10	750	750	620
MW-1	11/04/96	5520	8880	469	3920
MW-1	02/05/97	3450	5200	214	1770
MW-1	05/07/97	4650	8440	317	2580
MW-1	01/09/00	NS	NS	NS	NS
MW-1	01/26/00	NS	NS	NS	NS
MW-1	02/15/00	NS	NS	NS	NS
MW-1	10/06/00	NS	NS	NS	NS
MW-1	11/14/00	NS	NS	NS	NS
MW-1	01/03/01	NS	NS	NS	NS
MW-1	01/15/01	NS	NS	NS	NS
MW-1	01/22/01	NS	NS	NS	NS
MW-1	01/30/01	NS	NS	NS	NS
MW-1	02/13/01	NS	NS	NS	NS
MW-1	02/20/01	NS	NS	NS	NS
MW-1	02/28/01	NS	NS	NS	NS
MW-1	06/04/01	NS	NS	NS	NS
MW-1	07/03/01	NS	NS	NS	NS
MW-1	08/06/01	NS	NS	NS	NS
MW-1	08/20/01	NS	NS	NS	NS
MW-1	08/31/01	NS	NS	NS	NS
MW-1	09/14/01	NS	NS	NS	NS
MW-1	09/26/01	NS	NS	NS	NS
MW-1	10/02/01	NS	NS	NS	NS
MW-1	10/10/01	NS	NS	NS	NS
MW-1	12/05/01	NS	NS	NS	NS
MW-1	12/14/01	NS	NS	NS	NS
MW-1	12/21/01	NS	NS	NS	NS
MW-1	12/28/01	NS	NS	NS	NS
MW-1	01/02/02	NS	NS	NS	NS
MW-1	01/07/02	NS	NS	NS	NS
MW-1	01/23/02	NS	NS	NS	NS
MW-1	01/30/02	NS	NS	NS	NS
MW-1	02/07/02	NS	NS	NS	NS
MW-1	02/14/02	NS	NS	NS	NS
MW-1	02/20/02	NS	NS	NS	NS
MW-1	02/26/02	NS	NS	NS	NS
MW-1	03/07/02	NS	NS	NS	NS
MW-1	03/12/02	NS	NS	NS	NS
MW-1	03/28/02	NS	NS	NS	NS
MW-1	04/03/02	NS	NS	NS	NS
MW-1	04/25/02	NS	NS	NS	NS
MW-1	05/21/02	NS	NS	NS	NS
MW-1	06/10/02	NS	NS	NS	NS
MW-1	09/23/02	NS	NS	NS	NS
MW-1	03/25/03	NS	NS	NS	NS
MW-1	06/22/03	NS	NS	NS	NS

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Canada Mesa #2					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-1	09/15/03	NS	NS	NS	NS
MW-1	12/15/03	NS	NS	NS	NS
MW-1	03/17/04	NS	NS	NS	NS
MW-1	03/22/04	NS	NS	NS	NS
MW-1	06/03/04	NS	NS	NS	NS
MW-1	06/04/04	NS	NS	NS	NS
MW-1	09/13/04	NS	NS	NS	NS
MW-1	09/14/04	NS	NS	NS	NS
MW-1	12/15/04	NS	NS	NS	NS
MW-1	03/22/05	NS	NS	NS	NS
MW-1	06/24/05	NS	NS	NS	NS
MW-1	09/14/05	NS	NS	NS	NS
MW-1	12/14/05	NS	NS	NS	NS
MW-1	03/28/06	NS	NS	NS	NS
MW-1	06/07/06	NS	NS	NS	NS
MW-1	09/29/06	NS	NS	NS	NS
MW-1	12/26/06	NS	NS	NS	NS
MW-1	03/26/07	NS	NS	NS	NS
MW-1	06/13/07	NS	NS	NS	NS
MW-1	09/28/07	NS	NS	NS	NS
MW-1	12/18/07	NS	NS	NS	NS
MW-1	03/05/08	NS	NS	NS	NS
MW-1	06/16/08	NS	NS	NS	NS
MW-1	09/10/08	NS	NS	NS	NS
MW-1	12/10/08	NS	NS	NS	NS
MW-1	03/02/09	NS	NS	NS	NS
MW-1	06/10/09	NS	NS	NS	NS
MW-1	08/25/09	NS	NS	NS	NS
MW-1	11/03/09	1970	6020	359	6110
MW-1	02/16/10	NS	NS	NS	NS
MW-1	06/02/10	NS	NS	NS	NS
MW-1	09/27/10	NS	NS	NS	NS
MW-1	11/08/10	571	9070	1370	27200
MW-1	02/01/11	NS	NS	NS	NS
MW-1	05/02/11	NS	NS	NS	NS
MW-1	09/23/11	NS	NS	NS	NS
MW-1	11/10/11	1340	9510	1260	20800
MW-1	02/22/12	NS	NS	NS	NS
MW-1	05/15/12	NS	NS	NS	NS
MW-1	06/05/13	720	2200	92	4000
MW-1	09/10/13	570	1700	63	2900
MW-1	12/10/13	190	740	40	1000
MW-1	04/04/14	NS	NS	NS	NS
MW-1	10/22/14	NS	NS	NS	NS
MW-1	05/28/15	NS	NS	NS	NS
MW-1	11/21/15	NS	NS	NS	NS
MW-1	04/14/16	NS	NS	NS	NS
MW-1	10/13/16	NS	NS	NS	NS

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Canada Mesa #2					
Location	**Date**	**Benzene (µg/L)**	**Toluene (µg/L)**	**Ethylbenzene (µg/L)**	**Total Xylenes (µg/L)**
NMWQCC Standards:		10	750	750	620
MW-2	11/16/00	3200	330	1200	1100
MW-2	06/04/01	NS	NS	NS	NS
MW-2	07/03/01	NS	NS	NS	NS
MW-2	08/06/01	NS	NS	NS	NS
MW-2	08/31/01	NS	NS	NS	NS
MW-2	09/14/01	NS	NS	NS	NS
MW-2	03/19/02	22	<5	150	14
MW-2	12/24/02	12.1	2.1	129	16.4
MW-2	03/25/03	NS	NS	NS	NS
MW-2	06/22/03	NS	NS	NS	NS
MW-2	09/15/03	NS	NS	NS	NS
MW-2	12/15/03	10	11.7	55.3	29.7
MW-2	03/22/04	NS	NS	NS	NS
MW-2	06/04/04	NS	NS	NS	NS
MW-2	09/14/04	NS	NS	NS	NS
MW-2	12/15/04	6.3	3.8	8	5.9
MW-2	03/22/05	NS	NS	NS	NS
MW-2	06/24/05	NS	NS	NS	NS
MW-2	09/14/05	NS	NS	NS	NS
MW-2	12/14/05	NS	NS	NS	NS
MW-2	12/15/05	12.1	30.9	5.6	61.9
MW-2	03/28/06	NS	NS	NS	NS
MW-2	06/07/06	NS	NS	NS	NS
MW-2	09/29/06	NS	NS	NS	NS
MW-2	12/26/06	5.3	5	1.8	7.1
MW-2	03/26/07	NS	NS	NS	NS
MW-2	06/13/07	NS	NS	NS	NS
MW-2	09/28/07	NS	NS	NS	NS
MW-2	12/18/07	<2	<2	<2	<6
MW-2	03/05/08	NS	NS	NS	NS
MW-2	06/16/08	NS	NS	NS	NS
MW-2	09/10/08	NS	NS	NS	NS
MW-2	12/10/08	1.2	2.7	1.7	4.9
MW-2	03/02/09	NS	NS	NS	NS
MW-2	06/10/09	NS	NS	NS	NS
MW-2	08/25/09	NS	NS	NS	NS
MW-2	11/03/09	0.68 J	<1	<1	1.5 J
MW-2	02/16/10	NS	NS	NS	NS
MW-2	06/02/10	NS	NS	NS	NS
MW-2	09/27/10	NS	NS	NS	NS
MW-2	11/08/10	<2	<2	<2	<6
MW-2	02/01/11	NS	NS	NS	NS
MW-2	09/23/11	NS	NS	NS	NS
MW-2	11/10/11	1.1	<1	<1	1.4 J
MW-2	02/22/12	NS	NS	NS	NS
MW-2	05/15/12	NS	NS	NS	NS
MW-2	06/05/13	<0.140	<0.30	<0.20	<0.23
MW-2	09/10/13	0.22	<0.30	<0.020	<0.23
MW-2	12/10/13	0.24 J	<0.38	<0.20	<0.65
MW-2	04/04/14	0.46 J	<0.38	<0.20	<0.65
MW-2	10/22/14	<0.38	<0.70	<0.50	<1.6
MW-2	05/28/15	0.57 J	<5.0	<1.0	<5.0
MW-2	11/21/15	<1.0	<1.0	<1.0	<3.0
MW-2	04/14/16	<1.0	<5.0	<1.0	<5.0
MW-2 abandoned on May 22, 2016					

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS

Canada Mesa #2					
Location	**Date**	**Benzene (µg/L)**	**Toluene (µg/L)**	**Ethylbenzene (µg/L)**	**Total Xylenes (µg/L)**
NMWQCC Standards:		10	750	750	620
MW-3	11/16/00	880	1300	420	3700
MW-3	06/04/01	NS	NS	NS	NS
MW-3	07/03/01	NS	NS	NS	NS
MW-3	08/06/01	NS	NS	NS	NS
MW-3	08/31/01	NS	NS	NS	NS
MW-3	09/14/01	NS	NS	NS	NS
MW-3	03/19/02	1100	29	360	3700
MW-3	06/10/02	NS	NS	NS	NS
MW-3	09/23/02	NS	NS	NS	NS
MW-3	12/24/02	1430	95	483	2359
MW-3	03/25/03	NS	NS	NS	NS
MW-3	06/22/03	NS	NS	NS	NS
MW-3	09/15/03	NS	NS	NS	NS
MW-3	12/15/03	503 J	79.7 J	148 J	891 J
MW-3	03/22/04	NS	NS	NS	NS
MW-3	06/04/04	NS	NS	NS	NS
MW-3	09/14/04	NS	NS	NS	NS
MW-3	12/15/04	410	54.9	88.7	420
MW-3	03/22/05	NS	NS	NS	NS
MW-3	06/24/05	NS	NS	NS	NS
MW-3	09/14/05	NS	NS	NS	NS
MW-3	12/15/05	482	32.7	74.1	399
MW-3	03/28/06	NS	NS	NS	NS
MW-3	06/07/06	NS	NS	NS	NS
MW-3	09/29/06	NS	NS	NS	NS
MW-3	12/26/06	679	78.9	106	565
MW-3	03/26/07	NS	NS	NS	NS
MW-3	06/13/07	NS	NS	NS	NS
MW-3	09/28/07	NS	NS	NS	NS
MW-3	12/18/07	412	39.4	31.5	207
MW-3	03/05/08	NS	NS	NS	NS
MW-3	06/16/08	NS	NS	NS	NS
MW-3	09/10/08	NS	NS	NS	NS
MW-3	12/10/08	653	63.2	55.5	253
MW-3	03/02/09	NS	NS	NS	NS
MW-3	06/10/09	NS	NS	NS	NS
MW-3	08/25/09	NS	NS	NS	NS
MW-3	11/03/09	715	220	80	570
MW-3	02/16/10	NS	NS	NS	NS
MW-3	06/02/10	NS	NS	NS	NS
MW-3	09/27/10	NS	NS	NS	NS
MW-3	11/08/10	426	15	22.1	85.1
MW-3	02/01/11	NS	NS	NS	NS
MW-3	09/23/11	NS	NS	NS	NS
MW-3	11/10/11	167	5.3	16.5	54.3
MW-3	02/22/12	NS	NS	NS	NS
MW-3	05/15/12	NS	NS	NS	NS
MW-3	06/05/13	340	1.3	31	47
MW-3	09/10/13	340	0.9	12	4.2 J
MW-3	12/10/13	220	13	6.3	2.6 J
MW-3	04/04/14	320	5.4 J	<0.80	<2.6
MW-3	10/22/14	240	<0.70	0.52 J	<1.6
MW-3	05/28/15	390	<25	<5.0	26
MW-3	11/21/15	380	1.5	1.3	8.8
MW-3	04/14/16	370	<25	<5.0	<25
MW-3 abandoned on May 22, 2016					

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

TABLE 2- GROUNDWATER ELEVATION RESULTS

Canada Mesa #2						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-1	11/04/96	6503.37	34.42	33.67	0.75	6469.51
MW-1	02/05/97	6503.37	34.35	33.64	0.71	6469.55
MW-1	05/07/97	6503.37	34.24	33.61	0.63	6469.60
MW-1	01/09/00	6503.37	33.93	33.79	0.14	6469.54
MW-1	01/26/00	6503.37	35.22	35.03	0.19	6468.29
MW-1	02/15/00	6503.37	35.11	34.93	0.18	6468.39
MW-1	10/06/00	6503.37	34.11	33.82	0.29	6469.47
MW-1	11/14/00	6503.37	33.98	33.81	0.17	6469.51
MW-1	01/03/01	6503.37	33.96	33.83	0.13	6469.50
MW-1	01/15/01	6503.37	33.93	33.78	0.15	6469.55
MW-1	01/22/01	6503.37	33.81	NR		6469.56
MW-1	01/30/01	6503.37	33.83	33.82	0.01	6469.54
MW-1	02/13/01	6503.37	33.80	NR		6469.57
MW-1	02/20/01	6503.37	33.81	NR		6469.56
MW-1	02/28/01	6503.37	33.81	NR		6469.56
MW-1	06/04/01	6503.37	34.13	33.81	0.32	6469.48
MW-1	07/03/01	6503.37	34.09	33.96	0.13	6469.37
MW-1	08/06/01	6503.37	34.08	34.07	0.01	6469.29
MW-1	08/20/01	6503.37	34.10	34.09	0.01	6469.27
MW-1	08/31/01	6503.37	34.17	NR		6469.20
MW-1	09/14/01	6503.37	34.14	34.13	0.01	6469.23
MW-1	09/26/01	6503.37	34.15	34.14	0.01	6469.22
MW-1	10/02/01	6503.37	34.17	34.15	0.02	6469.21
MW-1	10/10/01	6503.37	34.18	34.16	0.02	6469.20
MW-1	12/05/01	6503.37	34.26	34.25	0.01	6469.11
MW-1	12/14/01	6503.37	34.27	NR		6469.10
MW-1	12/21/01	6503.37	34.24	NR		6469.13
MW-1	12/28/01	6503.37	34.22	NR		6469.15
MW-1	01/02/02	6503.37	34.23	NR		6469.14
MW-1	01/07/02	6503.37	34.25	34.23	0.02	6469.13
MW-1	01/23/02	6503.37	34.42	34.37	0.05	6468.98
MW-1	01/30/02	6503.37	34.51	34.50	0.01	6468.86
MW-1	02/07/02	6503.37	34.50	34.49	0.01	6468.87
MW-1	02/14/02	6503.37	34.42	34.41	0.01	6468.95
MW-1	02/20/02	6503.37	35.00	34.99	0.01	6468.37
MW-1	02/26/02	6503.37	34.25	NR		6469.12
MW-1	03/07/02	6503.37	34.25	34.24	0.01	6469.12
MW-1	03/12/02	6503.37	34.25	34.24	0.01	6469.12
MW-1	03/28/02	6503.37	34.27	NR		6469.10
MW-1	04/03/02	6503.37	34.26	NR		6469.11
MW-1	04/25/02	6503.37	34.45	NR		6468.92
MW-1	05/21/02	6503.37	34.30	NR		6469.07
MW-1	06/10/02	6503.37	34.32	NR		6469.05
MW-1	09/23/02	6503.37	34.50	NR		6468.87
MW-1	03/25/03	6503.37	34.50	ND		6468.87
MW-1	06/22/03	6503.37	34.55	34.48	0.07	6468.87

TABLE 2- GROUNDWATER ELEVATION RESULTS

Canada Mesa #2						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-1	09/15/03	6503.37	34.97	34.65	0.32	6468.64
MW-1	12/15/03	6503.37	34.98	34.41	0.57	6468.81
MW-1	03/17/04	6503.37	34.80	34.24	0.56	6468.99
MW-1	03/22/04	6503.37	34.49	34.29	0.20	6469.03
MW-1	06/03/04	6503.37	34.44	34.30	0.14	6469.03
MW-1	06/04/04	6503.37	34.30	34.20	0.10	6469.14
MW-1	09/13/04	6503.37	35.30	34.64	0.66	6468.56
MW-1	09/14/04	6503.37	34.95	34.65	0.30	6468.64
MW-1	12/15/04	6503.37	35.32	34.74	0.58	6468.48
MW-1	03/22/05	6503.37	35.01	34.36	0.65	6468.84
MW-1	06/24/05	6503.37	34.97	34.39	0.58	6468.83
MW-1	09/14/05	6503.37	35.65	34.60	1.05	6468.50
MW-1	12/14/05	6503.37	35.05	34.74	0.31	6468.55
MW-1	03/28/06	6503.37	35.14	34.59	0.55	6468.64
MW-1	06/07/06	6503.37	35.11	34.52	0.59	6468.70
MW-1	09/29/06	6503.37	35.14	34.85	0.29	6468.44
MW-1	12/26/06	6503.37	34.85	34.44	0.41	6468.82
MW-1	03/26/07	6503.37	34.60	34.35	0.25	6468.95
MW-1	06/13/07	6503.37	35.39	34.20	1.19	6468.87
MW-1	09/28/07	6503.37	35.12	34.86	0.26	6468.44
MW-1	12/18/07	6503.37	34.34	34.18	0.16	6469.15
MW-1	03/05/08	6503.37	34.17	34.15	0.02	6469.21
MW-1	06/16/08	6503.37	34.17	ND		6469.20
MW-1	09/10/08	6503.37	34.35	ND		6469.02
MW-1	12/10/08	6503.37	34.30	ND		6469.07
MW-1	03/02/09	6503.37	34.22	ND		6469.15
MW-1	06/10/09	6503.37	35.14	ND		6468.23
MW-1	08/25/09	6503.37	34.50	ND		6468.87
MW-1	11/03/09	6503.37	34.57	ND		6468.80
MW-1	02/16/10	6503.37	34.57	34.54	0.03	6468.82
MW-1	06/02/10	6503.37	34.58	34.34	0.24	6468.97
MW-1	09/27/10	6503.37	35.26	34.71	0.55	6468.52
MW-1	11/08/10	6503.37	34.98	34.73	0.25	6468.57
MW-1	02/01/11	6503.37	34.97	34.63	0.34	6468.65
MW-1	05/02/11	6503.37	0.00	35.52		
MW-1	09/23/11	6503.37	35.40	34.93	0.47	6468.32
MW-1	11/10/11	6503.37	35.21	34.95	0.26	6468.35
MW-1	02/22/12	6503.37	34.98	ND		6468.39
MW-1	05/15/12	6503.37	35.04	ND		6468.33
MW-1	06/05/13	6503.37	39.13	ND		6464.24
MW-1	09/10/13	6503.37	36.50	ND		6466.87
MW-1	12/10/13	6503.37	35.45	35.35	0.10	6467.99
MW-1	04/04/14	6503.37	35.78	35.00	0.78	6468.17
MW-1	10/22/14	6503.37	36.25	35.37	0.88	6467.78
MW-1	05/28/15	6503.37	35.42	34.80	0.62	6468.41
MW-1	11/21/15	6503.37	35.55	35.01	0.54	6468.22
MW-1	04/14/16	6503.37	35.17	34.74	0.43	6468.52
MW-1	05/23/16	6503.37	34.77	ND		6468.60
MW-1	06/17/16	6503.37	NM	NM	0.22	NM
MW-1	07/17/16	6503.37	NM	NM	0.11	NM
MW-1	08/19/16	6503.37	NM	NM	0.11	NM
MW-1	09/24/16	6503.37	NM	NM	0.06	NM
MW-1	12/14/16	6503.37	35.41	35.32	0.09	6468.02
MW-1	11/15/16	6503.37	36.50	36.49	0.01	6466.87
MW-1	12/14/16	6503.37	36.40	36.37	0.03	6466.99

TABLE 2- GROUNDWATER ELEVATION RESULTS

Canada Mesa #2						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-2	11/16/00	6504.34	34.90	NR		6469.44
MW-2	06/04/01	6504.34	34.97	NR		6469.37
MW-2	07/03/01	6504.34	35.07	NR		6469.27
MW-2	08/06/01	6504.34	35.14	NR		6469.20
MW-2	08/31/01	6504.34	35.19	NR		6469.15
MW-2	09/14/01	6504.34	35.21	NR		6469.13
MW-2	03/19/02	6504.34	35.36	NR		6468.98
MW-2	12/24/02	6504.34	35.52	NR		6468.82
MW-2	03/25/03	6504.34	35.54	ND		6468.80
MW-2	06/22/03	6504.34	35.60	ND		6468.74
MW-2	09/15/03	6504.34	35.60	ND		6468.74
MW-2	12/15/03	6504.34	35.63	ND		6468.71
MW-2	03/22/04	6504.34	35.41	ND		6468.93
MW-2	06/04/04	6504.34	35.31	ND		6469.03
MW-2	09/14/04	6504.34	35.80	ND		6468.54
MW-2	12/15/04	6504.34	35.79	ND		6468.55
MW-2	03/22/05	6504.34	35.63	ND		6468.71
MW-2	06/24/05	6504.34	35.60	ND		6468.74
MW-2	09/14/05	6504.34	35.92	ND		6468.42
MW-2	12/14/05	6504.34	35.85	ND		6468.49
MW-2	12/15/05	6504.34	35.85	ND		6468.49
MW-2	03/28/06	6504.34	35.73	ND		6468.61
MW-2	06/07/06	6504.34	35.73	ND		6468.61
MW-2	09/29/06	6504.34	35.91	ND		6468.43
MW-2	12/26/06	6504.34	35.63	ND		6468.71
MW-2	03/26/07	6504.34	35.41	ND		6468.93
MW-2	06/13/07	6504.34	35.32	ND		6469.02
MW-2	09/28/07	6504.34	35.93	ND		6468.41
MW-2	12/18/07	6504.34	35.32	ND		6469.02
MW-2	03/05/08	6504.34	35.22	ND		6469.12
MW-2	06/16/08	6504.34	35.15	ND		6469.19
MW-2	09/10/08	6504.34	35.45	ND		6468.89
MW-2	12/10/08	6504.34	35.37	ND		6468.97
MW-2	03/02/09	6504.34	35.27	ND		6469.07
MW-2	06/10/09	6504.34	35.23	ND		6469.11
MW-2	08/25/09	6504.34	35.58	ND		6468.76
MW-2	11/03/09	6504.34	35.65	ND		6468.69
MW-2	02/16/10	6504.34	35.65	ND		6468.69
MW-2	06/02/10	6504.34	35.48	ND		6468.86
MW-2	09/27/10	6504.34	35.85	ND		6468.49
MW-2	11/08/10	6504.34	35.85	ND		6468.49
MW-2	02/01/11	6504.34	35.75	ND		6468.59
MW-2	09/23/11	6504.34	36.07	ND		6468.27
MW-2	11/10/11	6504.34	36.08	ND		6468.26
MW-2	02/22/12	6504.34	36.97	ND		6467.37
MW-2	05/15/12	6504.34	36.10	ND		6468.24
MW-2	06/05/13	6504.34	36.18	ND		6468.16
MW-2	09/10/13	6504.34	36.58	ND		6467.76
MW-2	12/10/13	6504.34	36.44	ND		6467.90
MW-2	04/04/14	6504.34	35.25	ND		6469.09
MW-2	10/22/14	6504.34	36.65	ND		6467.69
MW-2	05/28/15	6504.34	36.02	ND		6468.32
MW-2	11/21/15	6504.34	36.20	ND		6468.14
MW-2	04/14/16	6504.34	35.91	ND		6468.43
MW-2 abandoned on May 22, 2016						

TABLE 2- GROUNDWATER ELEVATION RESULTS

Canada Mesa #2						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-3	11/16/00	6503.67	34.46	NR		6469.21
MW-3	06/04/01	6503.67	34.64	NR		6469.03
MW-3	07/03/01	6503.67	34.66	NR		6469.01
MW-3	08/06/01	6503.67	34.74	NR		6468.93
MW-3	08/31/01	6503.67	34.79	NR		6468.88
MW-3	09/14/01	6503.67	34.81	NR		6468.86
MW-3	03/19/02	6503.67	34.92	NR		6468.75
MW-3	06/10/02	6503.67	34.98	NR		6468.69
MW-3	09/23/02	6503.67	35.11	NR		6468.56
MW-3	12/24/02	6503.67	35.15	NR		6468.52
MW-3	03/25/03	6503.67	35.12	ND		6468.55
MW-3	06/22/03	6503.67	35.17	ND		6468.50
MW-3	09/15/03	6503.67	35.41	ND		6468.26
MW-3	12/15/03	6503.67	35.17	ND		6468.50
MW-3	03/22/04	6503.67	34.95	ND		6468.72
MW-3	06/04/04	6503.67	34.88	ND		6468.79
MW-3	09/14/04	6503.67	35.39	ND		6468.28
MW-3	12/15/04	6503.67	35.17	ND		6468.50
MW-3	03/22/05	6503.67	35.17	ND		6468.50
MW-3	06/24/05	6503.67	35.21	ND		6468.46
MW-3	09/14/05	6503.67	35.51	ND		6468.16
MW-3	12/15/05	6503.67	35.40	ND		6468.27
MW-3	03/28/06	6503.67	35.27	ND		6468.40
MW-3	06/07/06	6503.67	35.32	ND		6468.35
MW-3	09/29/06	6503.67	35.47	ND		6468.20
MW-3	12/26/06	6503.67	35.16	ND		6468.51
MW-3	03/26/07	6503.67	34.96	ND		6468.71
MW-3	06/13/07	6503.67	34.88	ND		6468.79
MW-3	09/28/07	6503.67	35.51	ND		6468.16
MW-3	12/18/07	6503.67	34.88	ND		6468.79
MW-3	03/05/08	6503.67	34.79	ND		6468.88

TABLE 2- GROUNDWATER ELEVATION RESULTS

Canada Mesa #2						
Location	Date	TOC	Depth to Water (ft.)	Depth to LNAPL (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-3	06/16/08	6503.67	34.75	ND		6468.92
MW-3	09/10/08	6503.67	35.13	ND		6468.54
MW-3	12/10/08	6503.67	34.95	ND		6468.72
MW-3	03/02/09	6503.67	34.83	ND		6468.84
MW-3	06/10/09	6503.67	34.83	ND		6468.84
MW-3	08/25/09	6503.67	35.18	ND		6468.49
MW-3	11/03/09	6503.67	35.23	ND		6468.44
MW-3	02/16/10	6503.67	35.23	ND		6468.44
MW-3	06/02/10	6503.67	35.05	ND		6468.62
MW-3	09/27/10	6503.67	35.43	ND		6468.24
MW-3	11/08/10	6503.67	35.43	ND		6468.24
MW-3	02/01/11	6503.67	35.31	ND		6468.36
MW-3	09/23/11	6503.67	35.70	ND		6467.97
MW-3	11/10/11	6503.67	35.66	ND		6468.01
MW-3	02/22/12	6503.67	35.60	ND		6468.07
MW-3	05/15/12	6503.67	35.67	ND		6468.00
MW-3	06/05/13	6503.67	35.79	ND		6467.88
MW-3	09/10/13	6503.67	36.20	ND		6467.47
MW-3	12/10/13	6503.67	36.00	ND		6467.67
MW-3	04/04/14	6503.67	35.81	ND		6467.86
MW-3	10/22/14	6503.67	36.20	ND		6467.47
MW-3	05/28/15	6503.67	35.55	ND		6468.12
MW-3	11/21/15	6503.67	35.74	ND		6467.93
MW-3	04/14/16	6503.67	35.46	ND		6468.21
MW-3 abandoned on May 22, 2016						

Notes:
"ft" = feet
"TOC" = Top of casing
"LNAPL" = Light non-aqueous phase liquid
"ND" = LNAPL not detected
"NR" = LNAPL not recorded
"NM" = Not Measured (Free Product thickness determined from bailer thickness)

TABLE 3
FREE PRODUCT RECOVERY
Canada Mesa #2 - Rio Arriba, NM

Well ID - MW-1 Date	Depth to Water (Feet)	Depth to Product (Feet)	Measured Thickness (Feet)	Product Bailed (gal)	Water Bailed (gal)
4/14/2016	35.17	34.74	0.43	0.61	0.00
5/23/2016	34.77	-	sheen	0.00	0.00
6/17/2016	NM	NM	0.22	0.08	0.01
7/17/2016	NM	NM	0.11	0.05	0.00
8/19/2016	NM	NM	0.11	0.08	0.01
9/24/2016	NM	NM	0.06	<0.01	<0.01
10/13/2016	35.41	35.32	0.09	0.01	0.00
11/15/2016	36.50	36.49	0.01	<0.01	<0.01
12/14/2016	36.40	36.37	0.03	<0.01	<0.01

NM= Not Measured. Measured thickness was obtained by measuring the thickness within the bailer.

FIGURES

\\usden1s01\Projects\WRI\Clients_A-H\EPC\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\CANADA MESA #2\2016 MAPS\Canada_Mesa#2_GARM_1SA_2016.mxd

AERIAL IMAGERY FROM GOOGLE EARTH, DATED 9/17/2012

LEGEND:

- 6503 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- GAS — NATURAL GAS LINE
- FORMER WELLHEAD
- MONITORING WELL
- MONITORING WELL WITH MEASUREABLE FREE PRODUCT
- SMA BENCHMARK

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	10/6/2016	SLG	SLG	SRV

TITLE:

GROUNDWATER ANALYTICAL RESULTS
APRIL 14, 2016

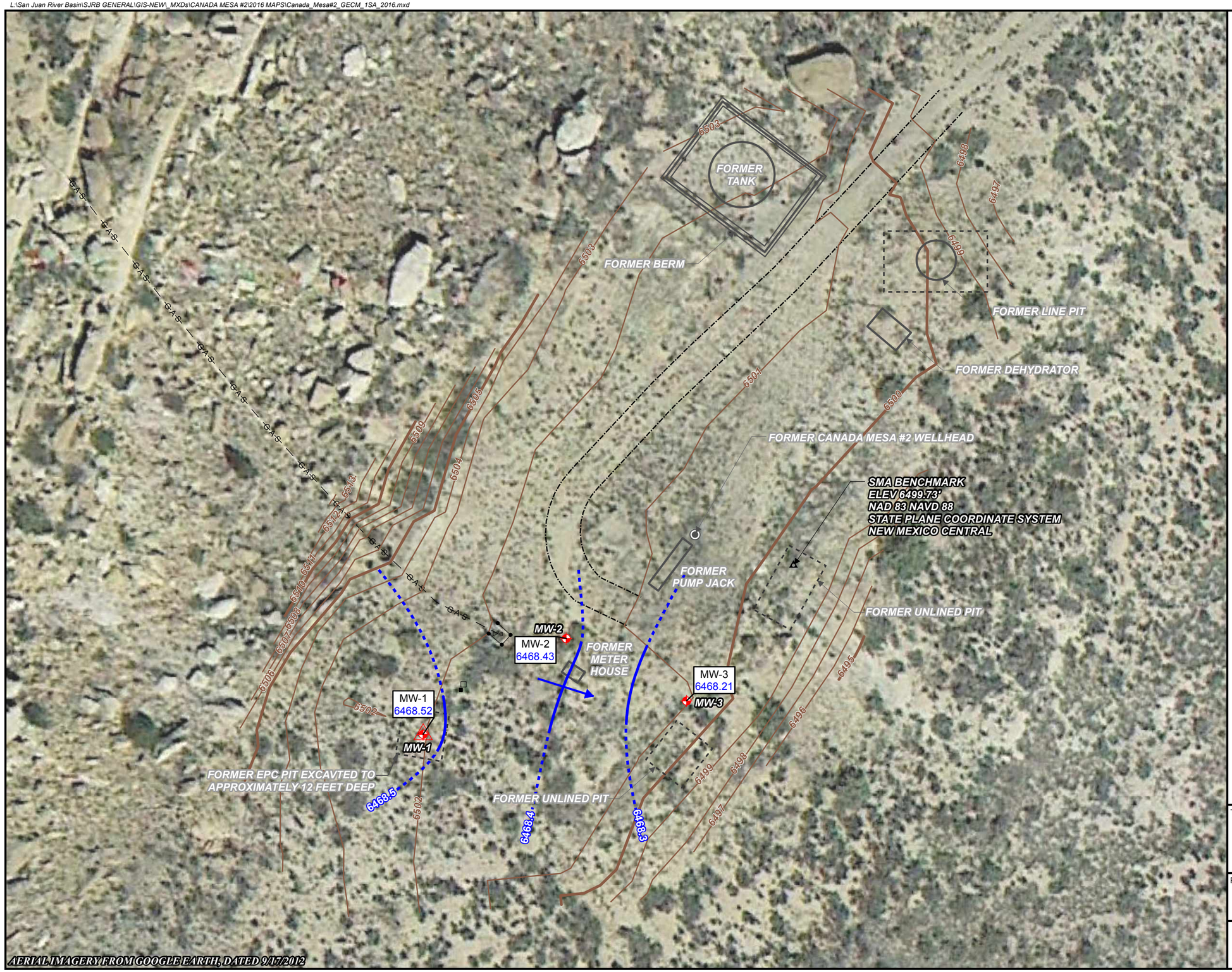
PROJECT:

CANADA MESA #2
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

MWH

Figure No.: 1

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\CANADA MESA #2\2016 MAPS\Canada_Mesa#2_GECM_1SA_2016.mxd



LEGEND:

- 6503 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- GAS — NATURAL GAS LINE
- FORMER WELLHEAD
- MONITORING WELL
- MONITORING WELL WITH MEASUREABLE FREE PRODUCT
- SMA BENCHMARK

NOTES:

6467.93 GROUNDWATER ELEVATION (CORRECTED FOR PRODUCT THICKNESS WHEN PRESENT) FEET ABOVE MEAN SEA LEVEL

6468.15 CORRECTED WATER LEVEL ELEVATION CONTOUR DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL, 0.05 FOOT CONTOUR INTERVAL)

DIRECTION OF GROUNDWATER FLOW

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	4/29/2016	SLG	SLG	SRV

TITLE:

GROUNDWATER ELEVATION MAP
APRIL 14, 2016

PROJECT:

CANADA MESA #2
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

MWH

Figure No.: 2

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\CANADA MESA #2\2016 MAPS\Canada_Mesa#2_GARM_2SA_2016.mxd

LEGEND:

- 6503 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- GAS — NATURAL GAS LINE
- FORMER WELLHEAD
- MONITORING WELL
- MONITORING WELL WITH MEASUREABLE FREE PRODUCT
- SMA BENCHMARK
- ABANDONED MONITORING WELL

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

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:

GROUNDWATER ANALYTICAL RESULTS
OCTOBER 13, 2016

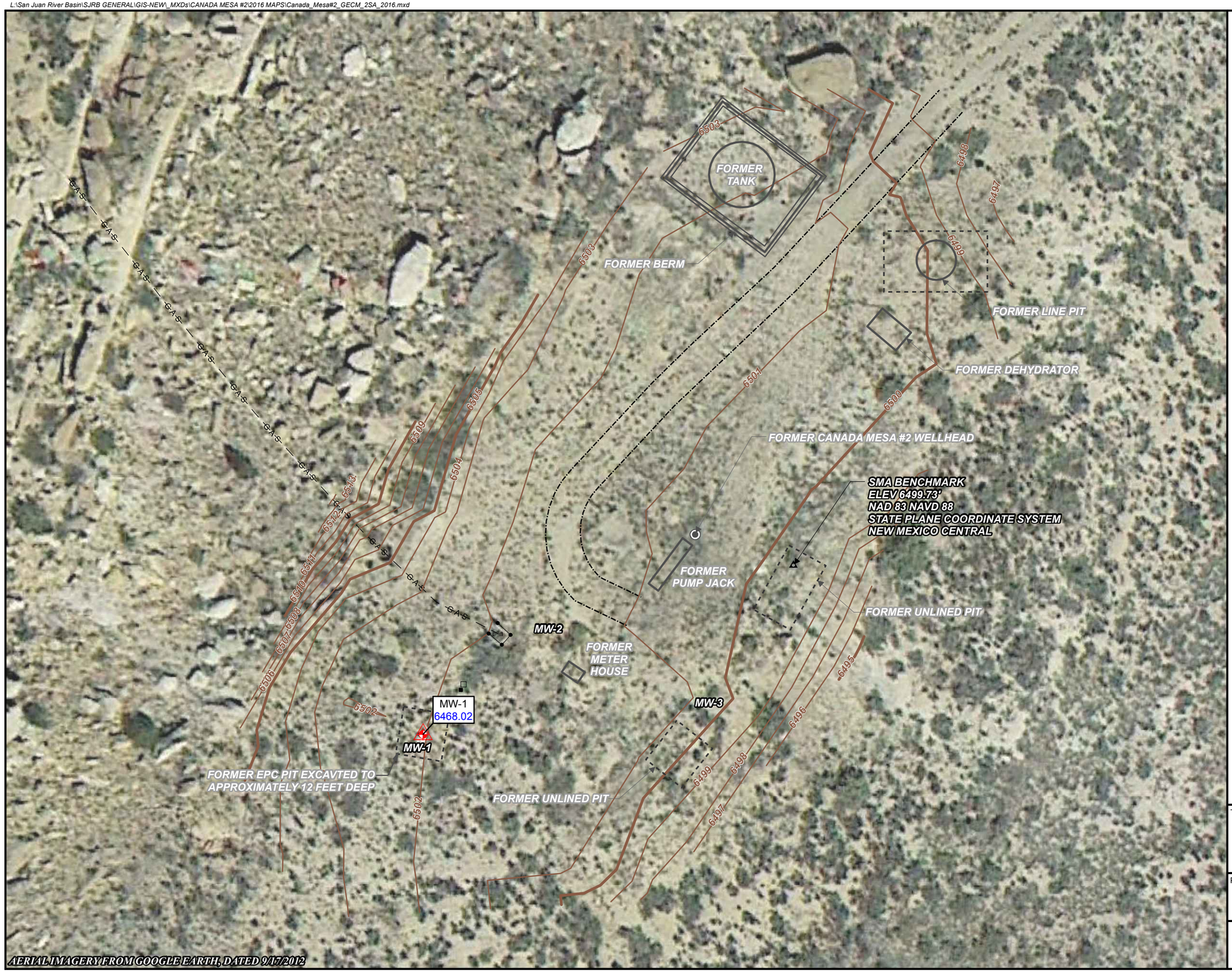
PROJECT:

CANADA MESA #2
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

MWH

Figure No.: 3

L:\San Juan River Basin\SJRB GENERAL\GIS-NEW_MXDs\CANADA MESA #2\2016 MAPS\Canada_Mesa#2_GECM_2SA_2016.mxd



AERIAL IMAGERY FROM GOOGLE EARTH, DATED 9/17/2012

LEGEND:

- 6503 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- GAS — NATURAL GAS LINE
- FORMER WELLHEAD
- MONITORING WELL
- MONITORING WELL WITH MEASUREABLE FREE PRODUCT
- SMA BENCHMARK
- ABANDONED MONITORING WELL

NOTES:

6054.71 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	11/9/2016	SLG	SLG	SRV

TITLE:

GROUNDWATER ELEVATION MAP
OCTOBER 13, 2016

PROJECT:

CANADA MESA #2
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

MWH

Figure No.: 4

APPENDIX A

APRIL 29, 2016 GROUNDWATER SAMPLING ANALYTICAL REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

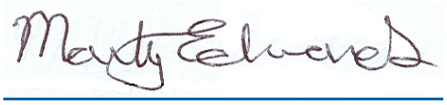
ANALYTICAL REPORT

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

TestAmerica Job ID: 400-120371-1
Client Project/Site: Canada Mesa #2

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

Attn: Steve Varsa



Authorized for release by:
4/29/2016 9:43:40 AM

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

Table of Contents

Client: MWH Americas Inc
Project/Site: Canada Mesa #2

TestAmerica Job ID: 400-120371-1

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)

Detection Summary

Client: MWH Americas Inc
Project/Site: Canada Mesa #2

TestAmerica Job ID: 400-120371-1

Client Sample ID: TRIP BLANK — Lab Sample ID: 400-120371-1

No Detections.

Client Sample ID: MW-2 — Lab Sample ID: 400-120371-2

No Detections.

Client Sample ID: MW-3 — Lab Sample ID: 400-120371-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Benzene	370		5.0		ug/L	5		8021B	Total/NA

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: MWH Americas Inc
Project/Site: Canada Mesa #2

TestAmerica Job ID: 400-120371-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-120371-1	TRIP BLANK	Water	04/14/16 08:00	04/16/16 09:09
400-120371-2	MW-2	Water	04/14/16 15:25	04/16/16 09:09
400-120371-3	MW-3	Water	04/14/16 15:35	04/16/16 09:09

Client: MWH Americas Inc
Project/Site: Canada Mesa #2

TestAmerica Job ID: 400-120371-1

Client Sample ID: TRIP BLANK
Date Collected: 04/14/16 08:00
Date Received: 04/16/16 09:09

Lab Sample ID: 400-120371-1
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			04/21/16 22:41	1
Ethylbenzene	<1.0		1.0		ug/L			04/21/16 22:41	1
Toluene	<5.0		5.0		ug/L			04/21/16 22:41	1
Xylenes, Total	<5.0		5.0		ug/L			04/21/16 22:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*111*		*78 - 124*		*04/21/16 22:41*	*1*

Client: MWH Americas Inc
Project/Site: Canada Mesa #2

TestAmerica Job ID: 400-120371-1

Client Sample ID: MW-2
Date Collected: 04/14/16 15:25
Date Received: 04/16/16 09:09

Lab Sample ID: 400-120371-2
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			04/22/16 01:39	1
Ethylbenzene	<1.0		1.0		ug/L			04/22/16 01:39	1
Toluene	<5.0		5.0		ug/L			04/22/16 01:39	1
Xylenes, Total	<5.0		5.0		ug/L			04/22/16 01:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*110*		*78 - 124*		*04/22/16 01:39*	*1*

Client: MWH Americas Inc
Project/Site: Canada Mesa #2

TestAmerica Job ID: 400-120371-1

Client Sample ID: MW-3
Date Collected: 04/14/16 15:35
Date Received: 04/16/16 09:09

Lab Sample ID: 400-120371-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**370**		5.0		ug/L			04/21/16 13:08	5
Ethylbenzene	<5.0		5.0		ug/L			04/21/16 13:08	5
Toluene	<25		25		ug/L			04/21/16 13:08	5
Xylenes, Total	<25		25		ug/L			04/21/16 13:08	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*107*		*78 - 124*		*04/21/16 13:08*	*5*

QC Association Summary

Client: MWH Americas Inc
Project/Site: Canada Mesa #2

TestAmerica Job ID: 400-120371-1

GC VOA

Analysis Batch: 302837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-120371-1	TRIP BLANK	Total/NA	Water	8021B	
400-120371-2	MW-2	Total/NA	Water	8021B	
400-120371-2 MS	MW-2	Total/NA	Water	8021B	
400-120371-2 MSD	MW-2	Total/NA	Water	8021B	
400-120371-3	MW-3	Total/NA	Water	8021B	
LCS 400-302837/1001	Lab Control Sample	Total/NA	Water	8021B	
MB 400-302837/2	Method Blank	Total/NA	Water	8021B	

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 400-302837/2
Matrix: Water
Analysis Batch: 302837

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			04/21/16 11:39	1
Ethylbenzene	<1.0		1.0		ug/L			04/21/16 11:39	1
Toluene	<5.0		5.0		ug/L			04/21/16 11:39	1
Xylenes, Total	<5.0		5.0		ug/L			04/21/16 11:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (pid)	*110*		*78 - 124*		*04/21/16 11:39*	*1*

Lab Sample ID: LCS 400-302837/1001
Matrix: Water
Analysis Batch: 302837

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	54.4		ug/L		109	85 - 115		
Ethylbenzene			50.0	54.1		ug/L		108	85 - 115		
Toluene			50.0	53.9		ug/L		108	85 - 115		
Xylenes, Total			150	164		ug/L		109	85 - 115		

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

Lab Sample ID: 400-120371-2 MS
Matrix: Water
Analysis Batch: 302837

Client Sample ID: MW-2
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	42.7		ug/L		85	44 - 150		
Ethylbenzene	<1.0		50.0	42.8		ug/L		86	70 - 142		
Toluene	<5.0		50.0	43.4		ug/L		84	69 - 136		
Xylenes, Total	<5.0		150	132		ug/L		85	68 - 142		

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

Lab Sample ID: 400-120371-2 MSD
Matrix: Water
Analysis Batch: 302837

Client Sample ID: MW-2
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	41.8		ug/L		84	44 - 150	2	16
Ethylbenzene	<1.0		50.0	42.5		ug/L		85	70 - 142	1	16
Toluene	<5.0		50.0	42.5		ug/L		82	69 - 136	2	16
Xylenes, Total	<5.0		150	130		ug/L		84	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: Canada Mesa #2

TestAmerica Job ID: 400-120371-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 400-120371-1

Date Collected: 04/14/16 08:00

Matrix: Water

Date Received: 04/16/16 09:09

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	302837	04/21/16 22:41	MKA	TAL PEN
	Instrument ID: ETHYL									

Client Sample ID: MW-2

Lab Sample ID: 400-120371-2

Date Collected: 04/14/16 15:25

Matrix: Water

Date Received: 04/16/16 09:09

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	302837	04/22/16 01:39	MKA	TAL PEN
	Instrument ID: ETHYL									

Client Sample ID: MW-3

Lab Sample ID: 400-120371-3

Date Collected: 04/14/16 15:35

Matrix: Water

Date Received: 04/16/16 09:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		5	5 mL	5 mL	302837	04/21/16 13:08	MKA	TAL PEN
	Instrument ID: ETHYL									

Laboratory References:

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

Certification Summary

Client: MWH Americas Inc
Project/Site: Canada Mesa #2

TestAmerica Job ID: 400-120371-1

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: Canada Mesa #2

TestAmerica Job ID: 400-120371-1

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

Client Information	Sampler: Brad Barton / Clint Oberbrackling	Lab PM: Edwards, Marty P	Carrier Tracking No(s):	COC No: 400-54739-21695.1
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:
City: Denver	TAT Requested (days): Per ARF	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)
State, Zip: CO, 80202		
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: Canada Mesa #2	Project #: 40005479	Other:
Site: Canada Mesa #2	SSOW#:	

400-120371 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	8021B - BTEX 8021		Perform MS/MSD (Yes or No)	Special Instructions/Note:
				Preservation Code:		N			
Trip Blank	4/14/16	0800	-	Water	N	N	2		
MW-2	4/14/16	1525	G	Water	N	N	2		
MW-3	4/14/16	1535	G	Water	N	N	2		

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:	Company
Brad Barton	4/15/16 1530	MWH	Fed Ex office	4/15/16 1530	Fed Ex
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: Fed Ex	Date/Time: 4/16/16 -	Company Fed Ex	Received by:	Date/Time: 4/16/16 0909	Company TA

Custody Seals Intact: [ ] Yes [ ] No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.1°C IR6

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 400-120371-1

Login Number: 120371

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	2.1°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	