1R – 1594

2007 - 2011 GWMR

03 / 30 / 2012

TETRA TECH

March 30, 2012

Mr. Glenn von Gonten
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87504

Re: Comprehensive Groundwater Sampling Report for the Celero Energy II, LP, Rock Queen Unit Saltwater Plant #1, Located in Unit Letter D, Section 26, Township 13 South, Range 31 East, Chaves County, New Mexico (NMOCD 1RP#1594).

Mr. Von Gonten:

This report details the results of the groundwater sampling events performed at the Celero Energy II, LP (Celero), Rock Queen Unit Saltwater Plant #1 (Site) for May 2007 through December 2011. The Site is located approximately 21-1/2 miles north of Maljamar, New Mexico. The Site location is shown on Figures 1 and 2.

FACILITY BACKGROUND

Pit Closure

On September 21, 2007, Highlander (Tetra Tech) submitted an Investigation and Characterization work plan (ICP) for an open pit at the Site. The ICP was subsequently approved by the New Mexico Oil Conservation Division (NMOCD).

The Rock Queen Saltwater Plant #1 pit was dewatered and the residual sludge, tank bottom materials, and liner were removed in August 2007. Removed fluids were placed into an existing SWD system or taken for disposal, while the sludge, tank bottom materials, and liner were disposed of at Gandy-Marley, Inc.'s landfill site in Lovington, New Mexico. Upon completion of the removal of the fluids, sludge, and liner, the underlying soils were visually inspected for obvious signs of impact. Approximately 2,200 cubic yards of soil were excavated and transported to Gandy-Marley, Inc. for disposal. The pit was

Tetra Tech
1910 Indian Bg Subdg, Midland TX 79705
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excavated to a point where the subsoil would support a soil boring rig.

On October 12, 2009, a report entitled *Assessment and Closure Report for a Pit located at the Rock Queen Unit Saltwater Plant #1* was submitted to the NMOCD. The report detailed the closure of the former pit along with proposed extension of liner at the facility.

Groundwater Investigation

Between May 2007 and December 2010, Celero installed seven 2-inch monitor wells (MW-1 through MW-7) and one 5-inch recovery well (RW-1) to assess the groundwater quality at the Site. The lithology at the Site was relatively consistent with limestone to approximately 10 to 20 feet bgs and with calcareous with medium to very fine grain sand to a depth of approximately 130 to 165 feet bgs. From approximately 130 feet bgs to the terminus (approximately 150 to 198 feet bgs) the soils were a gray/brown to red clay. See Appendix A for Boring Logs.

During the investigation, groundwater was encountered at depths of approximately 134 to 139 feet bgs. Monitor Well MW-1 was drilled into the surrounding underlying clay to 198 feet bgs and sealed with bentonite back to 145 feet. Afterwards, 40 feet of 0.01 inch slotted screen was installed to from 145 feet to 105 feet bgs. The remaining monitor wells were drilled to depths of 150 to 155 (MW-7) feet bgs and installed with 30 feet of 0.02 inch slotted screen. Recovery well RW-1 was drilled to a depth of 150 feet and installed with 20 feet of 0.035 inch slotted screen. From the top of the screen to the surface of the boring, the wells were completed with blank schedule 40 PVC casing. See Appendix B for monitor well installation diagrams.

During the investigation and subsequent sampling, the only constituents of concern which were detected in the groundwater above New Mexico Water Quality Control Commission (NMWQCC) standards was chlorides, TDS, SO4 and benzene in monitor well MW-1. No Phase Separated Hydrocarbons (PSH) has been measured in any of the onsite monitor wells. See Figure 3 detailing the monitor well locations.

Gauging and Monitor Well Sampling

On May 24, 2007, initial sampling began at the site. During 2010, additional monitor wells were installed and quarterly sampling initiated. During the sampling events, all monitor wells were gauged, purged, and sampled with no PSH measured. Utilizing the water level elevation calculations, groundwater gradient maps were generated for all the sampling events with the exception of May 24, 2007, which lacked sufficient points for development of a gradient map. The hydraulic gradient indicates a southeasterly direction. Groundwater gradient

maps for the sampling events are included as Figures 4 through 10. Gauging data is summarized in Table 1.

During the sampling events, each of the wells was purged utilizing either a submersible pump or by hand bailing and subsequently sampled for BTEX utilizing method SW8021B, chlorides and sulfates utilizing method E 300.0, total dissolved solids (TDS) utilizing method SM2540C and periodically for general chemistry using methods SM2320B, SW6010B, SM4500-H+. The samples were properly preserved and submitted under proper chain-of-custody control to Trace Analysis Inc. of Lubbock, Texas. One sample, MW-1 on January 18, 2011 (0.0116 mg/L) had a result which exceeded the NMWQCC standard of 0.01 milligrams per liter (mg/L) of benzene. The remainder of the samples were below the NMWQCC standards with a majority being at or below detection limits. All the samples collected and analyzed for chlorides were above the NMWQCC standard of 250 mg/L chlorides with samples ranging from 912 mg/L in MW-6 on July 29, 2011 to 174,000 mg/L in MW-1 on April 14, 2011. The general chemistry and BTEX analyses are shown in Tables 2 and 3, respectively. Chloride concentration maps for the sampling events are included as Figures 11 through 17. Copies of the laboratory analyses are enclosed in Appendix C.

During purging activities, it was noted that all seven monitor wells (MW-1 through MW-7) and recovery well RW-1 bail dry.

CONCLUSIONS

1. On May 24, 2007, initial sampling began at the site. During 2010, additional monitor wells were installed and quarterly sampling initiated. During the sampling events, all monitor wells were gauged, purged, and sampled. The samples were preserved, delivered to Trace Analysis, Inc. of Midland, Texas and analyzed for BTEX utilizing method SW8021B, chlorides and sulfates utilizing method E 300.0, total dissolved solids (TDS) utilizing method SM2540C and periodically for general chemistry using methods SM2320B, SW6010B, SM4500-H+.

2. The hydraulic gradient indicates a southeasterly direction.

3. One sample, MW-1 on January 18, 2011 (0.0116 mg/L) had a result which exceeded the NMWQCC standard of 0.01 milligrams per liter (mg/L) of benzene. The remainder of the samples were below the NMWQCC standards with a majority being at or below detection limits.

4. All the samples collected and analyzed for chlorides were above the NMWQCC standard of 250 mg/L chlorides with samples ranging from 912

mg/L in MW-6 on July 29, 2011 to 174,000 mg/L in MW-1 on April 14, 2011.

RECOMMENDATIONS

1. Quarterly groundwater monitoring and gauging will be continued throughout the year.

2. Additional monitor wells will be installed in order to further delineate the chloride plume at the site.

3. A remediation system consisting of either a low flow solar/electric pump or a windmill system will be installed in recovery well RW-1. The recovered fluids will be collected in an above ground tank and utilized for possible water flooding purposes in the surrounding oilfield.

If you have any question or comments concerning the assessment or the activities performed at the Site, please call me at (432) 682-4559.

Respectfully submitted,
Tetra Tech, Inc.

Jeffrey Kindley, P.G.
Senior Environmental Geologist

cc: Bruce Woodard – Celero Energy II, LP

FIGURES

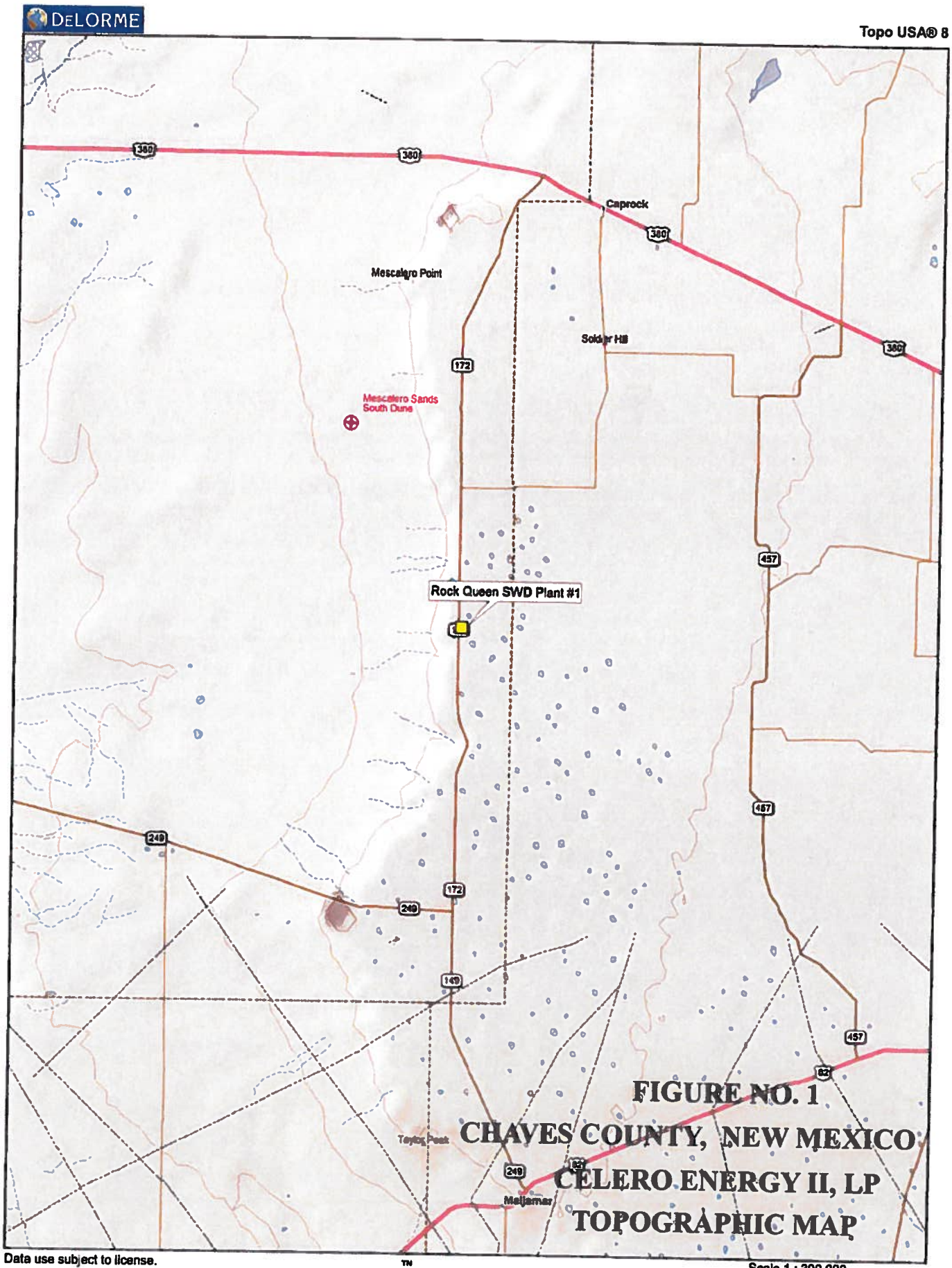


FIGURE NO. 1

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY II, LP

TOPOGRAPHIC MAP

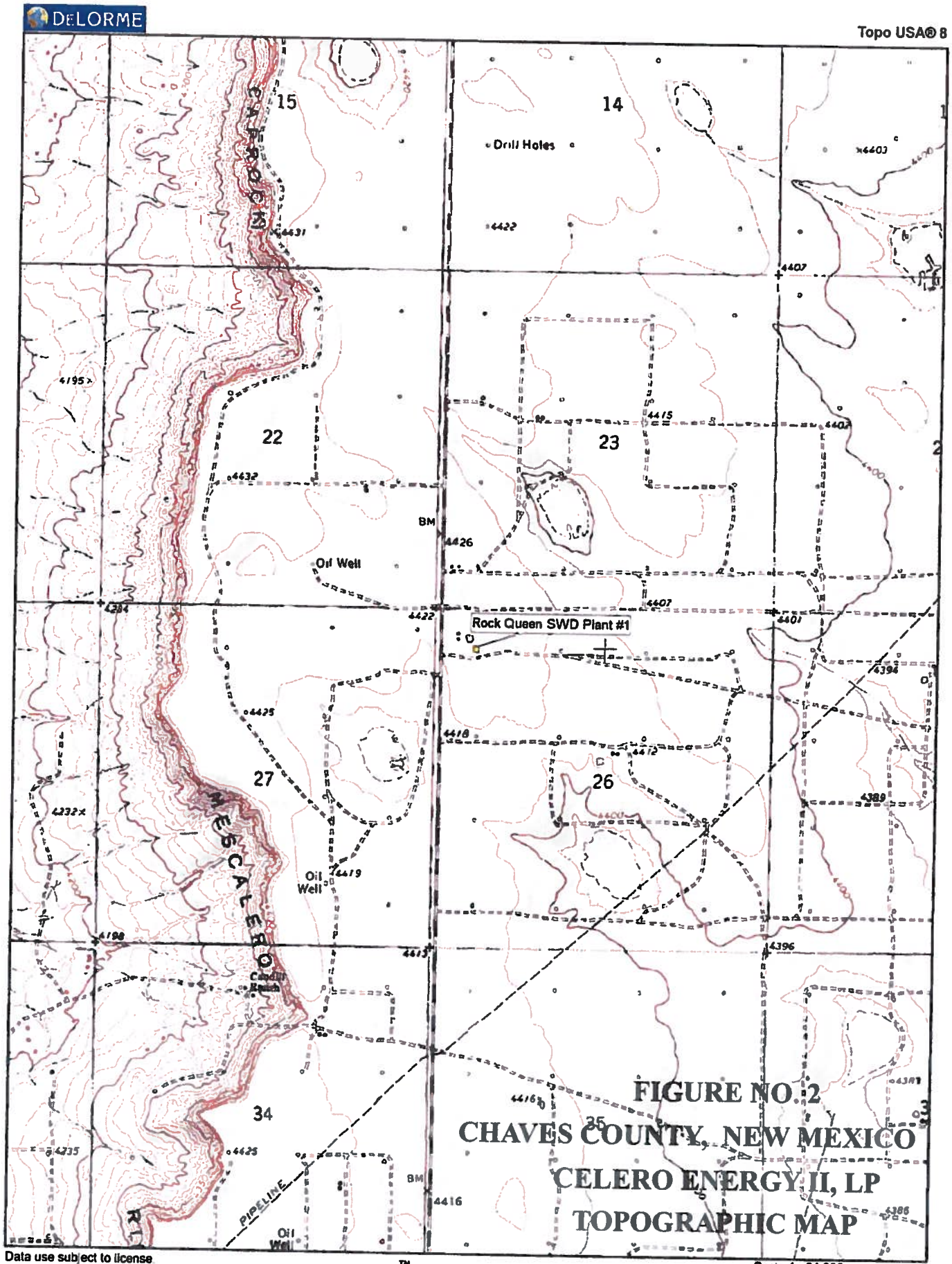


FIGURE NO. 2
CHAVES COUNTY, NEW MEXICO
CELERO ENERGY II, LP
TOPOGRAPHIC MAP

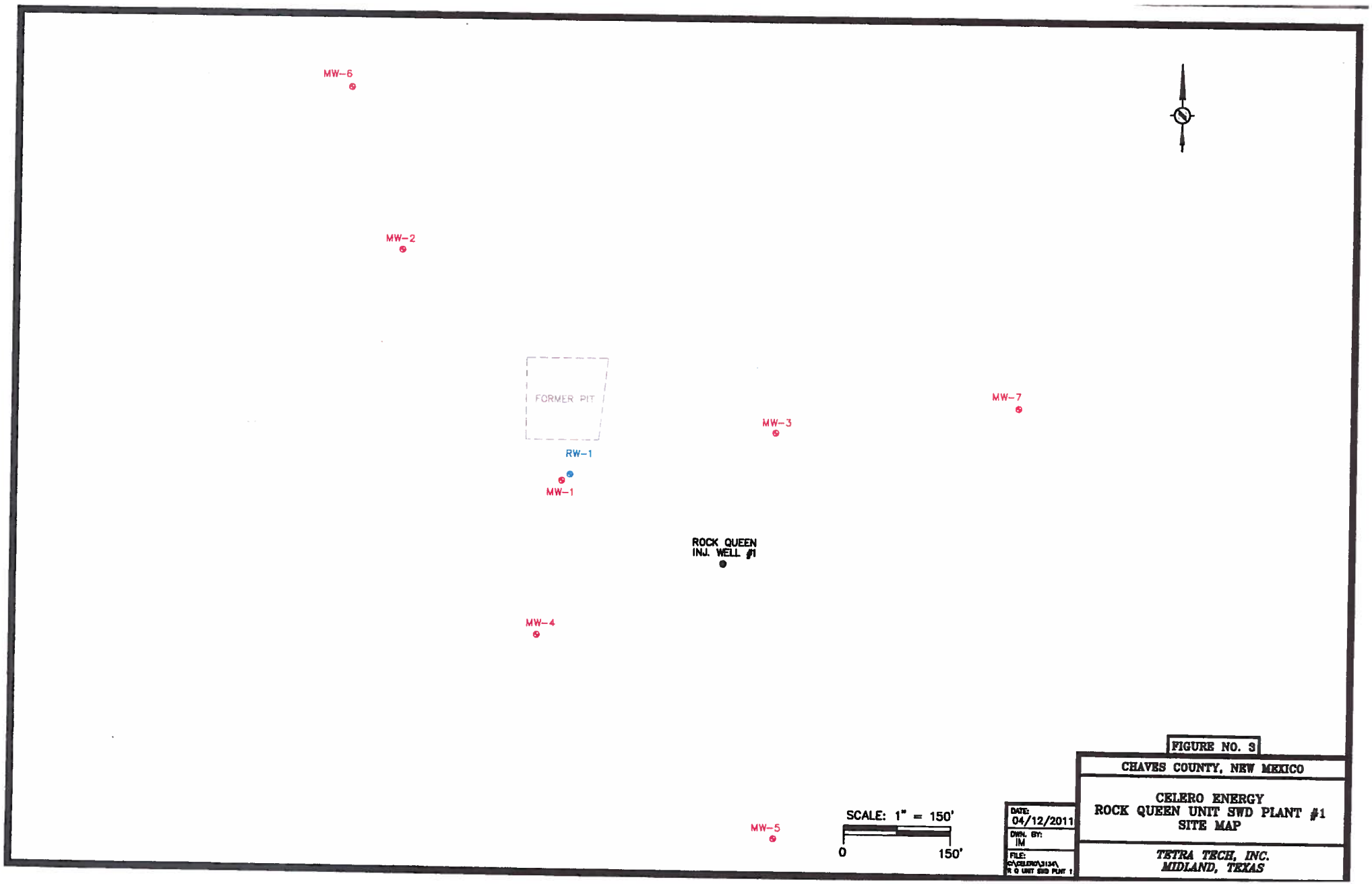
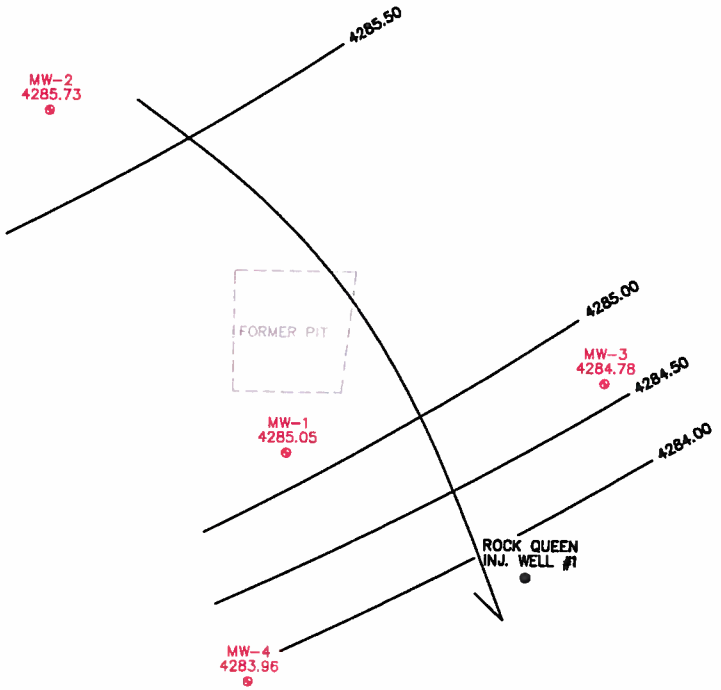


FIGURE NO. 3

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
SITE MAP

TETRA TECH, INC.
MIDLAND, TEXAS



C.I. = .50'

SCALE: 1" = 150'

0 150'

DATE: 11/24/2009

DWN. BY: IM

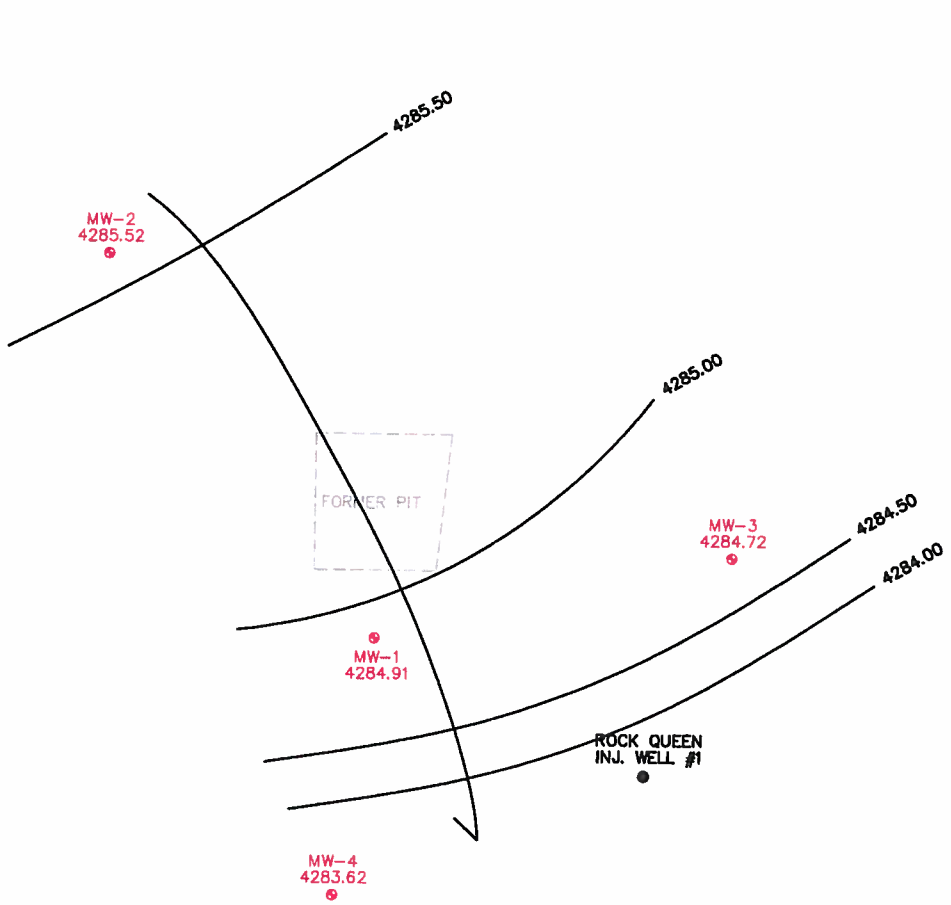
FILE: C:\CELERO\3134\R G UNIT SWD PLNT 1

FIGURE NO. 4

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
GROUNDWATER GRADIENT MAP
11/24/09

TETRA TECH, INC.
MIDLAND, TEXAS



SCALE: 1" = 150'

C.I. = .50'

0 150'

DATE: 07/13/2010

DWN. BY: IM

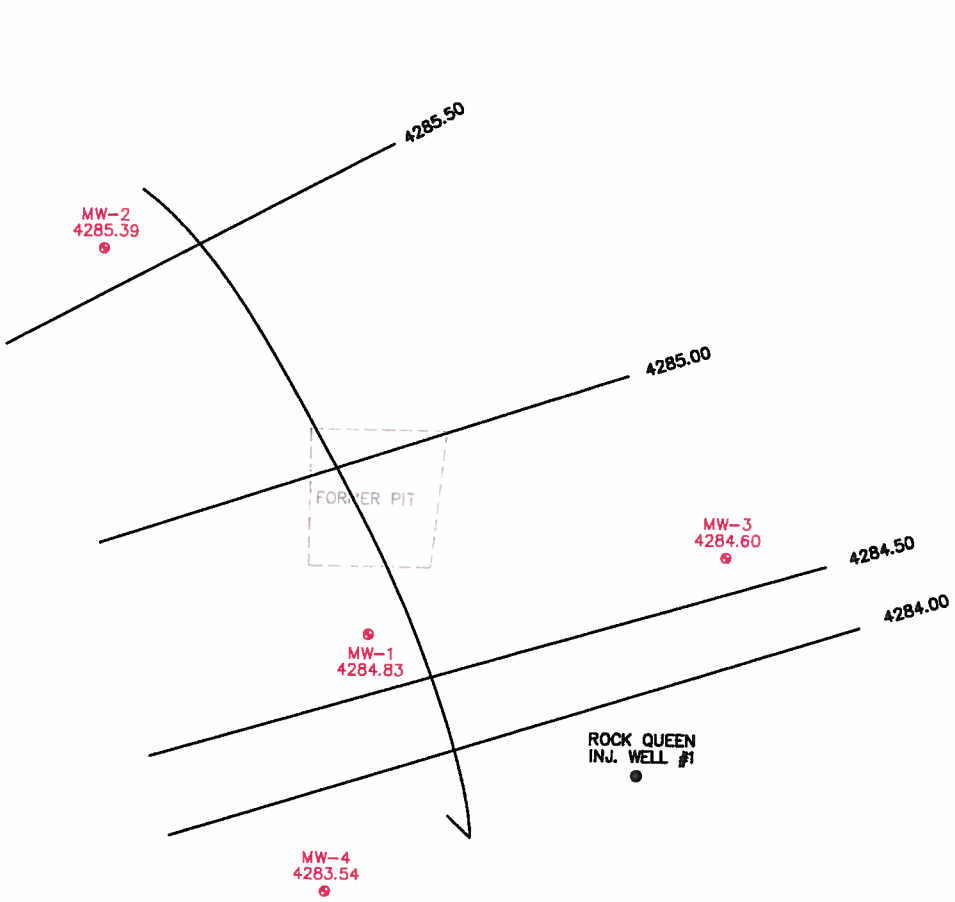
FILE: G:\CELERO\2134\R Q UNIT SWD PLNT 1

FIGURE NO. 5

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
GROUNDWATER GRADIENT MAP
07/13/10

TETRA TECH, INC.
MIDLAND, TEXAS



C.I. = .50'

SCALE: 1" = 150'

0 150'

DATE: 10/11/2010
DRN. BY: TM
FILE:

FIGURE NO. 6

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
GROUNDWATER GRADIENT MAP
10/11/2010

TETRA TECH, INC.
MIDLAND, TEXAS

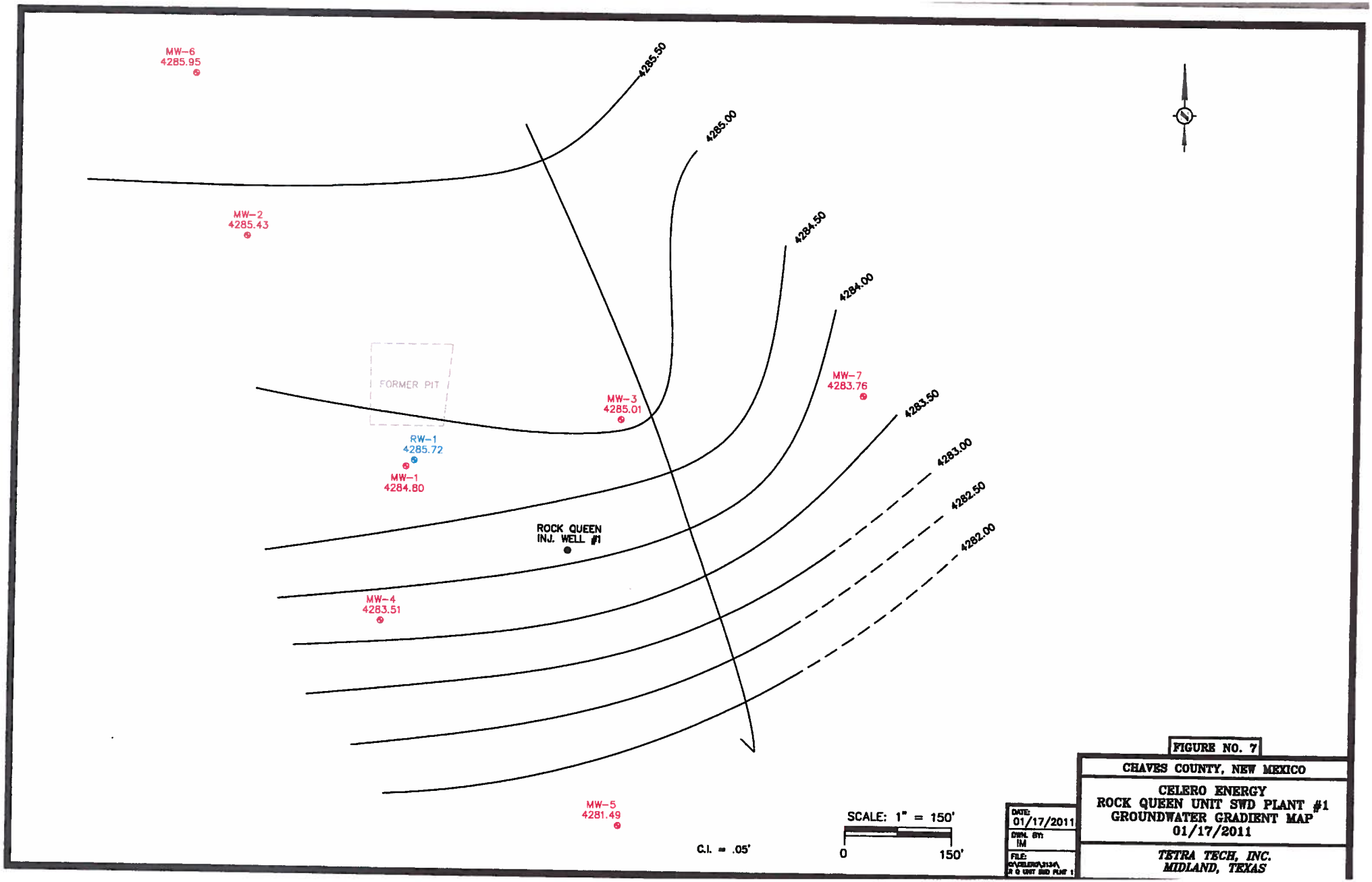
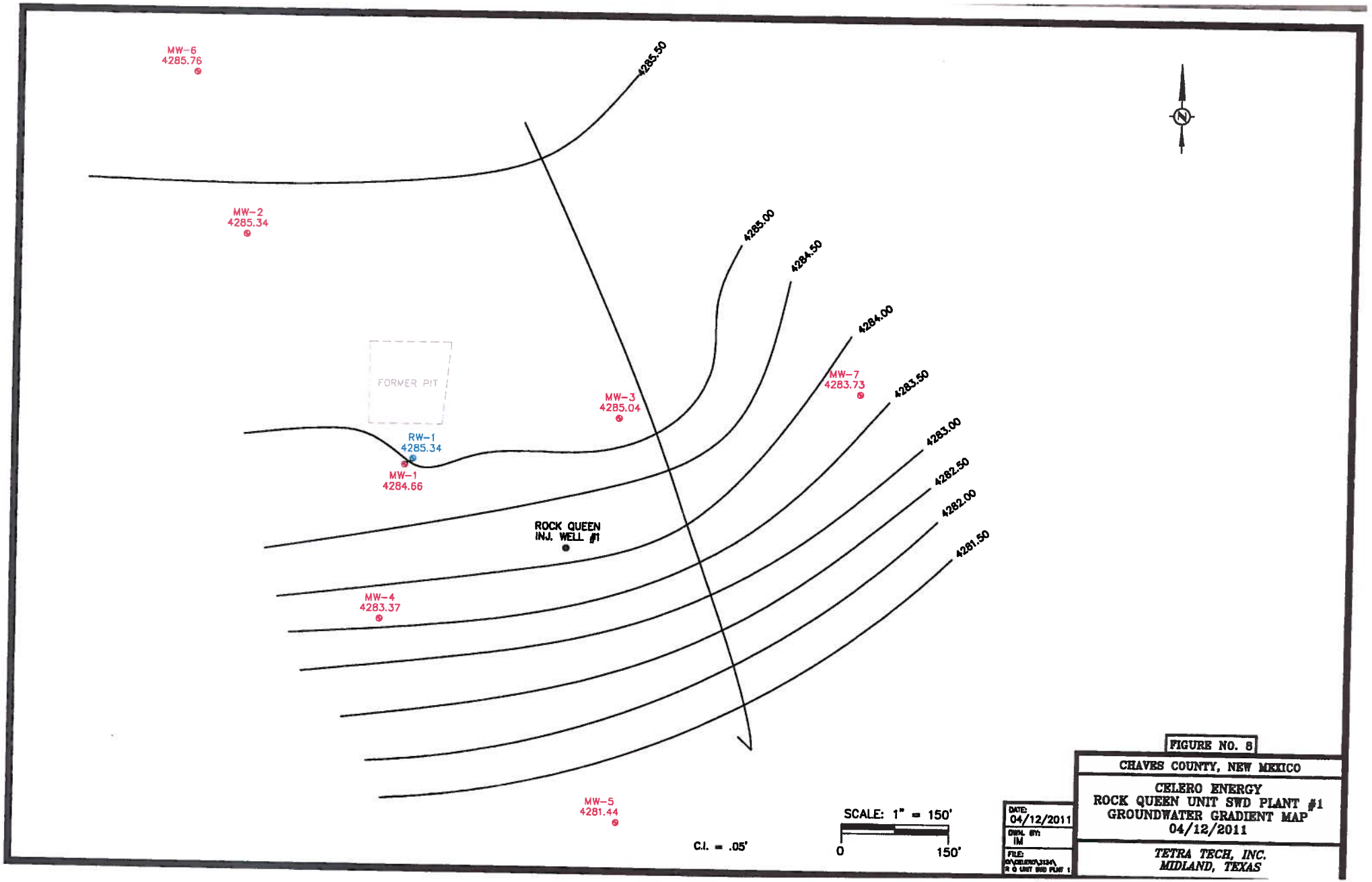


FIGURE NO. 7

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
GROUNDWATER GRADIENT MAP
01/17/2011

TETRA TECH, INC.
MIDLAND, TEXAS


MW-6
4285.76
MW-2
4285.34
4285.50
4285.00
4284.50
4284.00
4283.50
4283.00
4282.50
4282.00
4281.50
FORMER PIT
MW-3
4285.04
MW-7
4283.73
RW-1
4285.34
MW-1
4284.66
ROCK QUEEN
INJ. WELL #1
MW-4
4283.37
MW-5
4281.44
C.I. = .05'
SCALE: 1" = 150'
0
150'
DATE:
04/12/2011
DWN. BY:
IM
FILE:
G:\CELERO\2134\
R O UNIT SWD PLNT 1
FIGURE NO. 8
CHAVES COUNTY, NEW MEXICO
CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
GROUNDWATER GRADIENT MAP
04/12/2011
TETRA TECH, INC.
MIDLAND, TEXAS

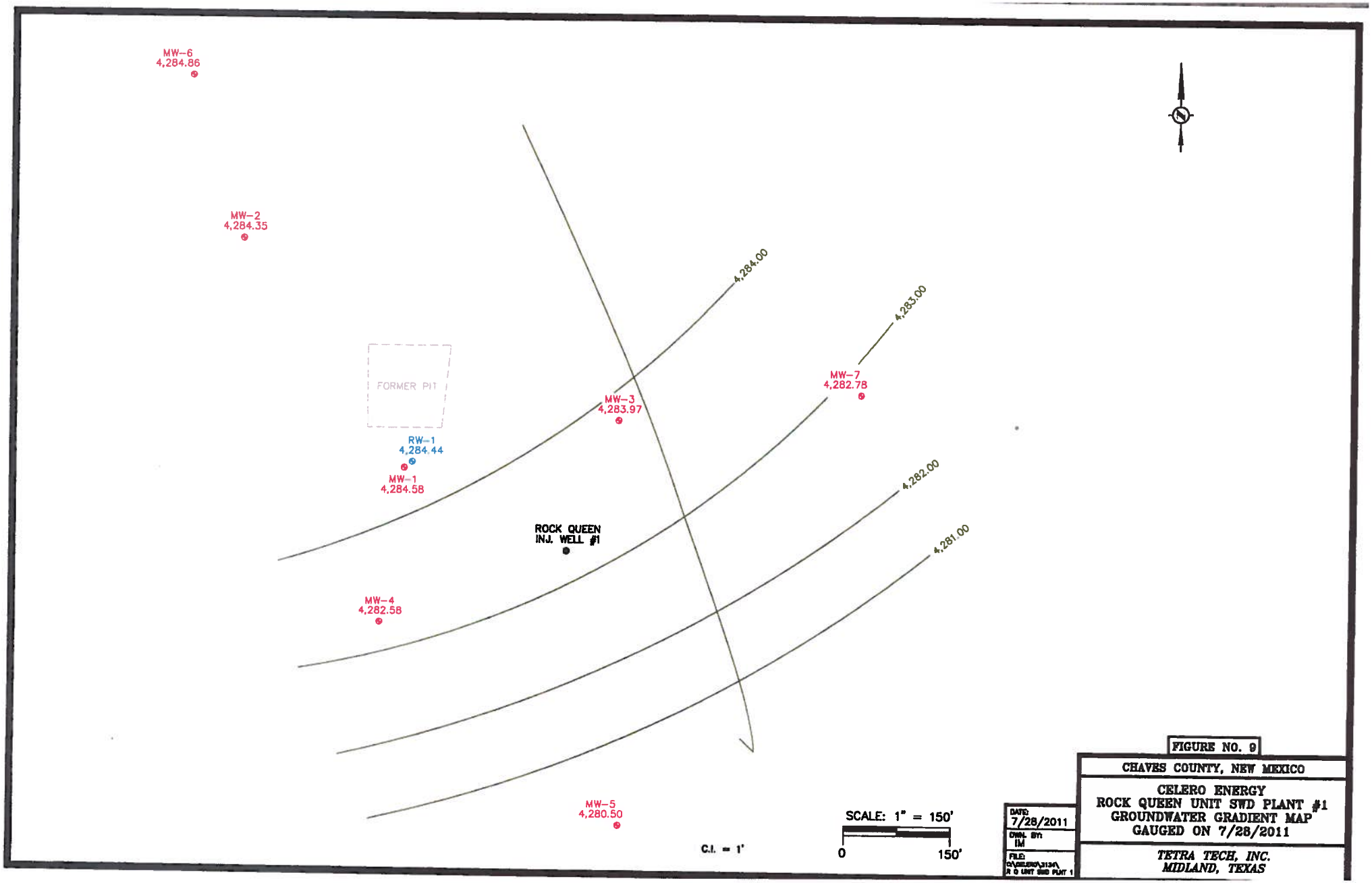


FIGURE NO. 9

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
GROUNDWATER GRADIENT MAP
GAUGED ON 7/28/2011

TETRA TECH, INC.
MIDLAND, TEXAS

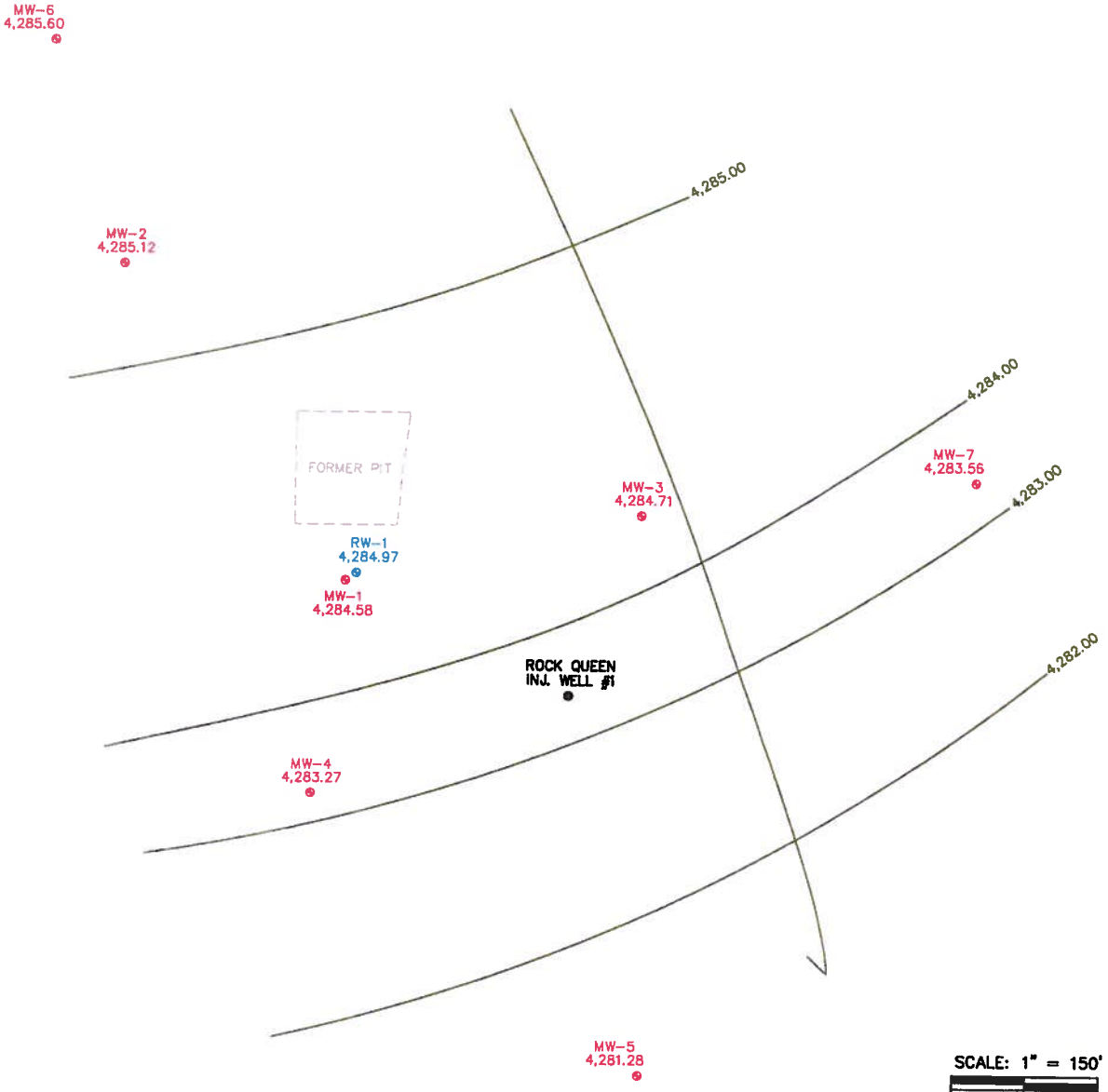


FIGURE NO. 10

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
GROUNDWATER GRADIENT MAP
GAUGED ON 10/24/2011

DATE: 10/24/2011
DWN. BY: IM
FILE:

TETRA TECH, INC.
MIDLAND, TEXAS

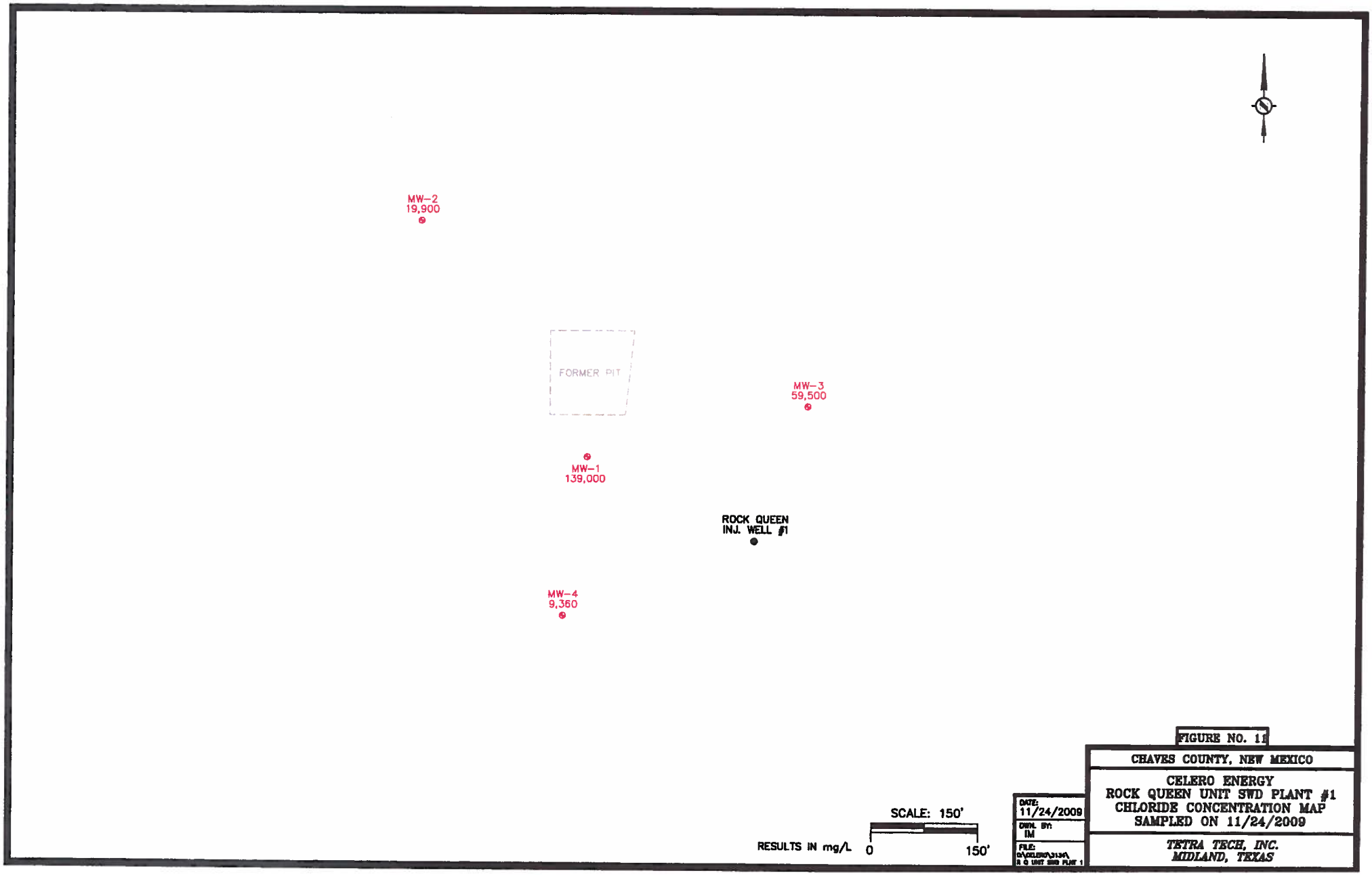


FIGURE NO. 11

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
CHLORIDE CONCENTRATION MAP
SAMPLED ON 11/24/2009

TETRA TECH, INC.
MIDLAND, TEXAS

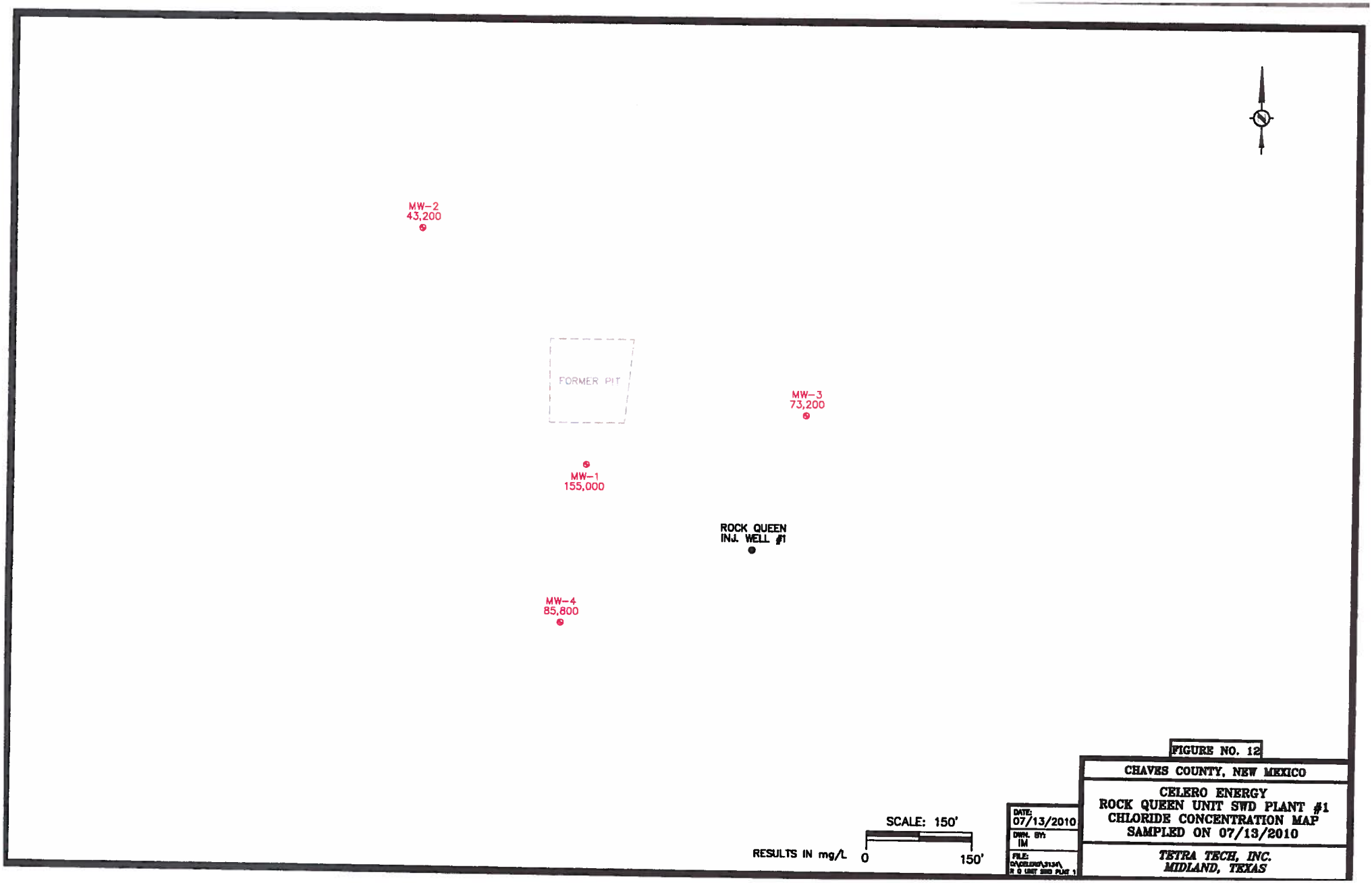


FIGURE NO. 12

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
CHLORIDE CONCENTRATION MAP
SAMPLED ON 07/13/2010

TETRA TECH, INC.
MIDLAND, TEXAS

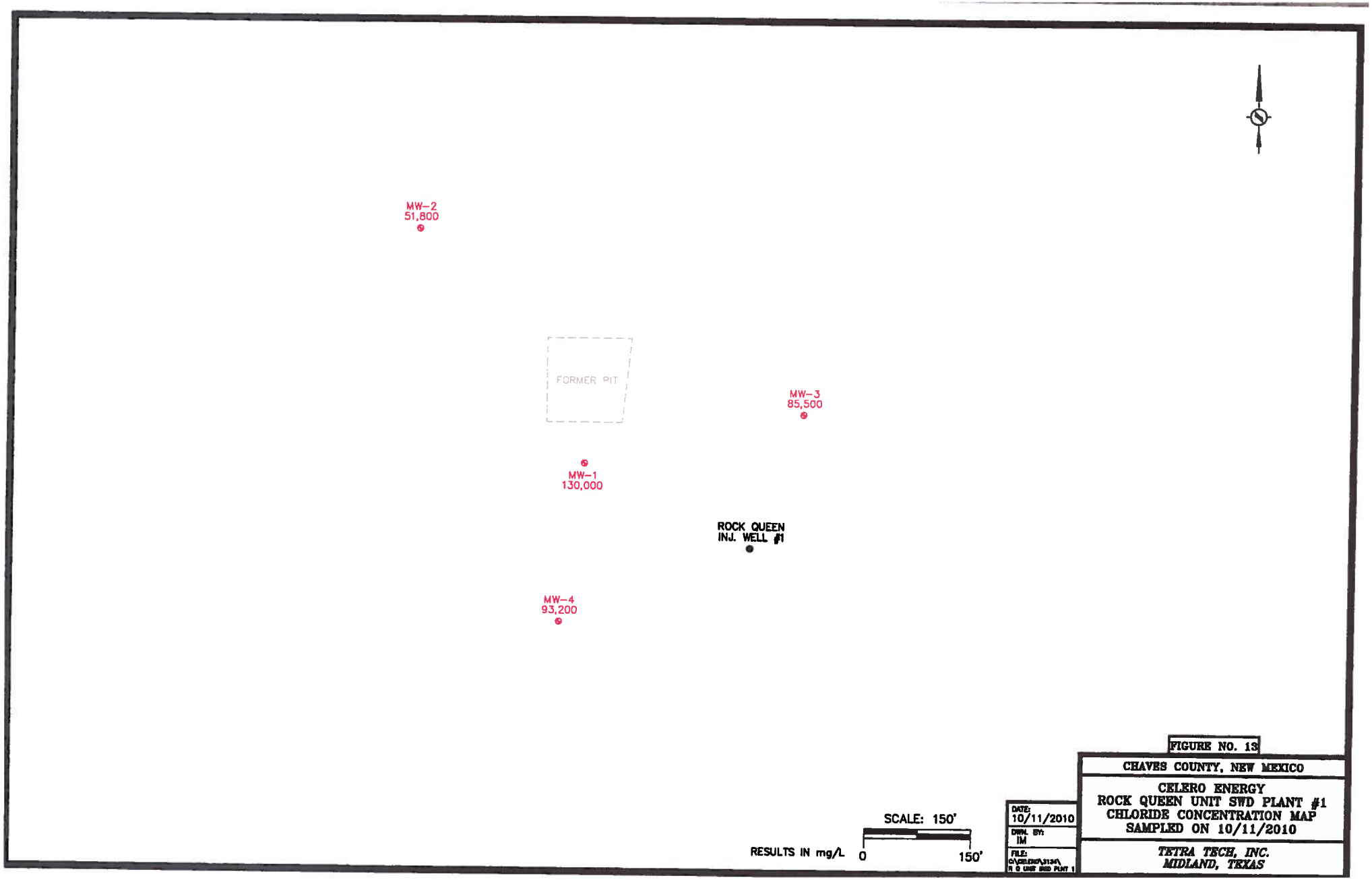


FIGURE NO. 13

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
CHLORIDE CONCENTRATION MAP
SAMPLED ON 10/11/2010

TETRA TECH, INC.
MIDLAND, TEXAS

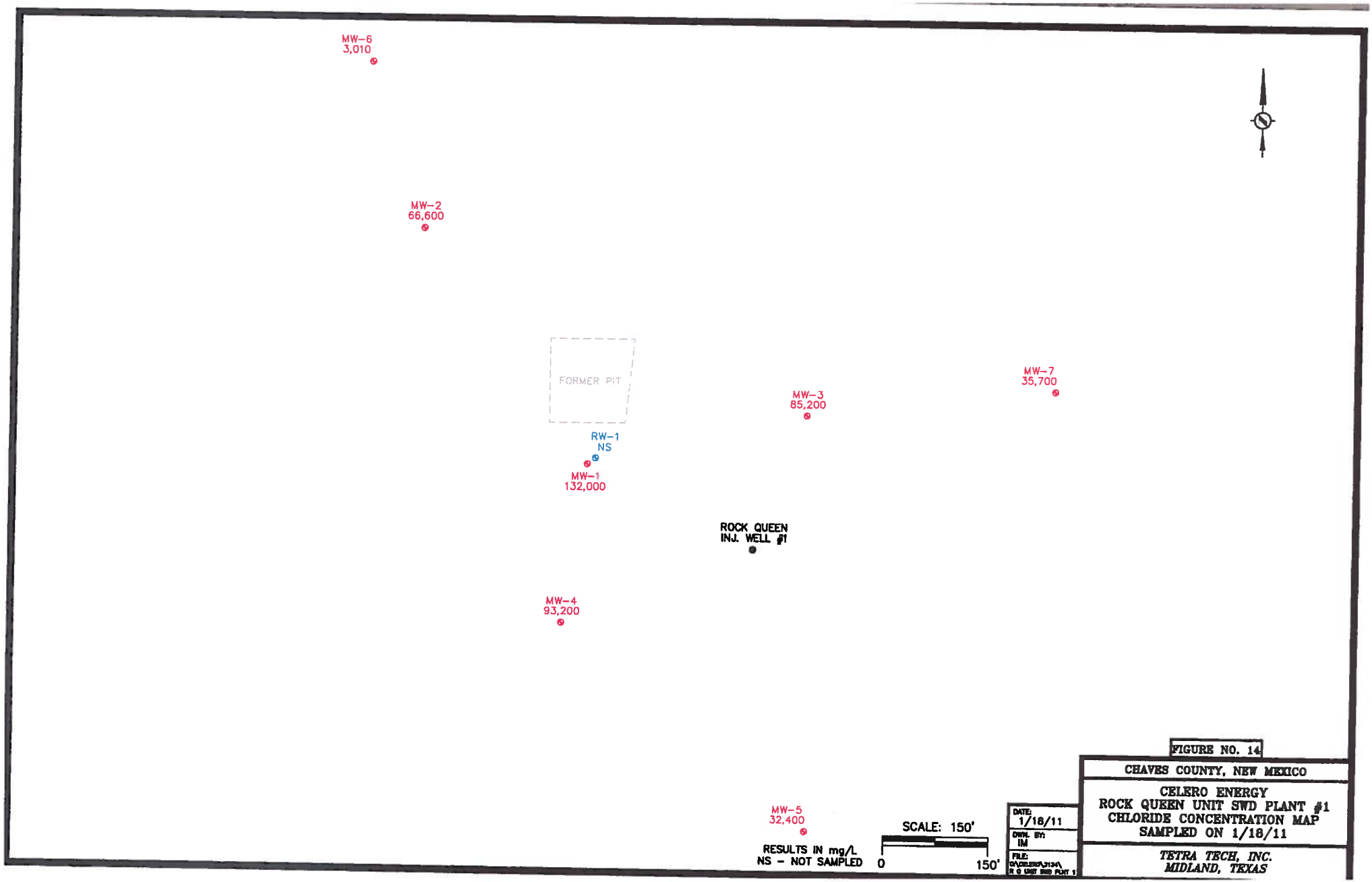


FIGURE NO. 14

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
CHLORIDE CONCENTRATION MAP
SAMPLED ON 1/18/11

TETRA TECH, INC.
MIDLAND, TEXAS

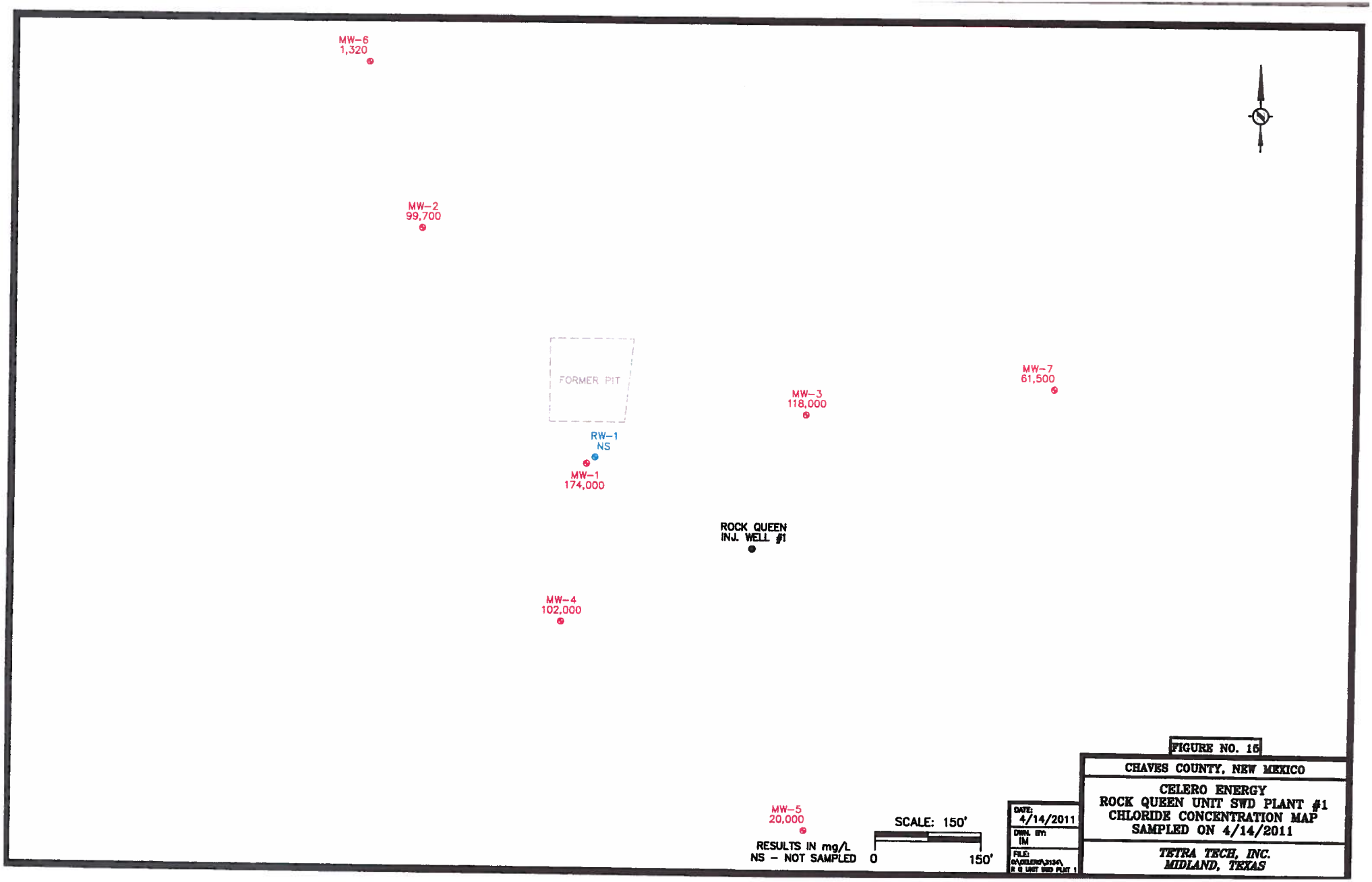


FIGURE NO. 16

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
CHLORIDE CONCENTRATION MAP
SAMPLED ON 4/14/2011

TETRA TECH, INC.
MIDLAND, TEXAS

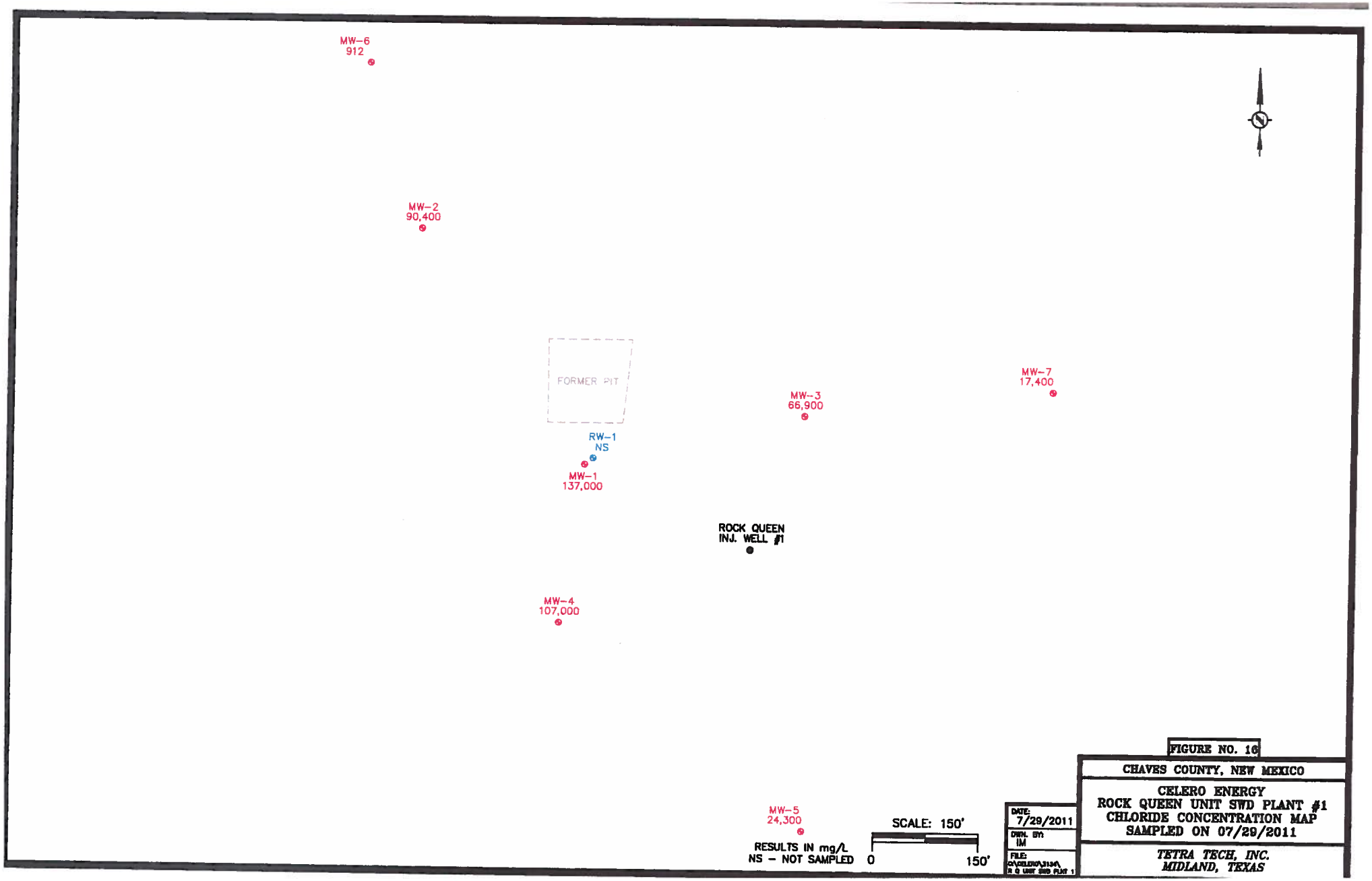


FIGURE NO. 16

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
CHLORIDE CONCENTRATION MAP
SAMPLED ON 07/29/2011

TETRA TECH, INC.
MIDLAND, TEXAS

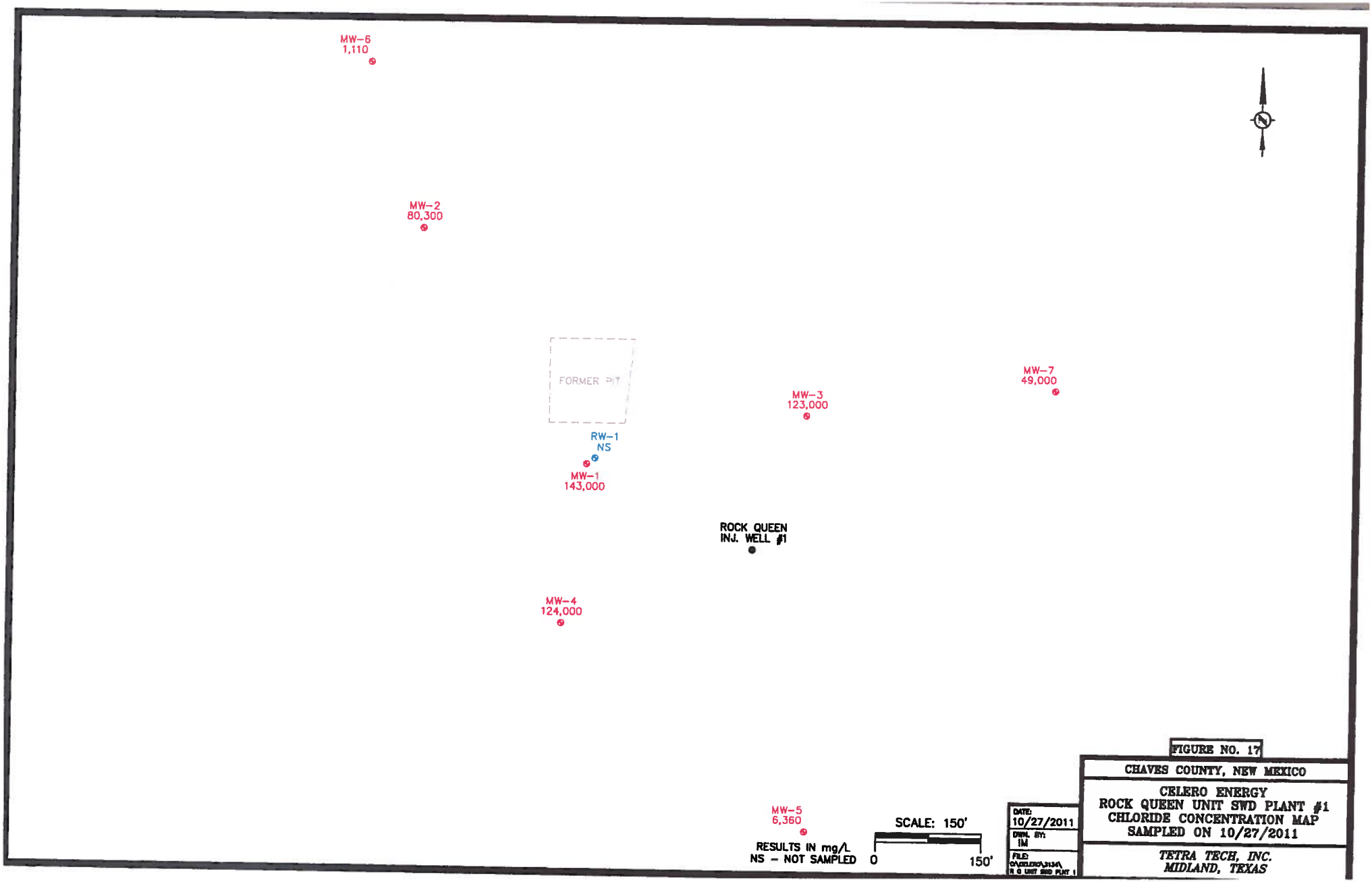


FIGURE NO. 17

CHAVES COUNTY, NEW MEXICO

CELERO ENERGY
ROCK QUEEN UNIT SWD PLANT #1
CHLORIDE CONCENTRATION MAP
SAMPLED ON 10/27/2011

TETRA TECH, INC.
MIDLAND, TEXAS

TABLES

Table 1
Celero Energy II, LP
Groundwater Gauging Data
Rock Queen Unit Saltwater Injection Plant #1
Chaves County, New Mexico

Monitor Well	Date Gauged	Date Well Installation	TOC Elevation (ft)	Depth of Well (bgs in ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)
MW-1	05/24/07	05/24/07	4,421.40	148.00	136.57	4,284.83
	02/05/08				136.08	4,285.32
	11/24/09				136.35	4,285.05
	07/13/10				136.49	4,284.91
	10/11/10				136.57	4,284.83
	01/17/11				136.60	4,284.80
	04/12/11				136.74	4,284.66
	07/28/11				136.82	4,284.58
	10/24/11				136.82	4,284.58
MW-2	11/24/09	11/18/09	4,423.57	150.00	137.84	4,285.73
	07/13/10				138.05	4,285.52
	10/11/10				138.18	4,285.39
	01/17/11				138.14	4,285.43
	04/12/11				138.23	4,285.34
	07/28/11				139.22	4,284.35
	10/24/11				138.45	4,285.12
MW-3	11/24/09	11/18/09	4,421.79	150.00	137.01	4,284.78
	07/13/10				137.07	4,284.72
	10/11/10				137.19	4,284.60
	01/17/11		4,421.49		136.78	4,285.01
	04/12/11				136.75	4,285.04
	07/28/11				137.82	4,283.97
	10/24/11				137.08	4,284.71
MW-4	11/24/09	11/18/09	4,421.26	150.00	137.30	4,283.96
	07/13/10				137.64	4,283.62
	10/11/10				137.72	4,283.54
	01/17/11				137.75	4,283.51
	04/12/11				137.89	4,283.37
	07/28/11				138.68	4,282.58
	10/24/11				137.99	4,283.27

Table 1
Celero Energy II, LP
Groundwater Gauging Data
Rock Queen Unit Saltwater Injection Plant #1
Chaves County, New Mexico

Monitor Well	Date Gauged	Date Well Installation	TOC Elevation (ft)	Depth of Well (bgs in ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)
MW-5	01/17/11	11/22/10	4,420.25	152.40	138.76	4,281.49
	04/12/11				138.81	4,281.44
	07/28/11				139.75	4,280.50
	10/24/11				138.97	4,281.28
MW-6	01/17/11	11/22/10	4,423.57	149.70	137.62	4,285.95
	04/12/11				137.81	4,285.76
	07/28/11				138.71	4,284.86
	10/24/11				137.97	4,285.60
MW-7	01/17/11	11/19/10	4,423.52	159.02	139.76	4,283.76
	04/12/11				139.79	4,283.73
	07/28/11				140.74	4,282.78
	10/24/11				139.96	4,283.56
RW-1	01/17/11	12/12/10	4,420.69	153.03	134.97	4,285.72
	04/12/11				135.35	4,285.34
	07/28/11				136.25	4,284.44
	10/24/11				135.72	4,284.97

Table 2
Celero Energy II, LP
Groundwater Analytical Results
Rock Queen Unit Saltwater Injection Plant #1
Chaves County, New Mexico

Monitor Well	Date Sampled	Dissolved Calcium (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Sodium (mg/L)	Dissolved Potassium (mg/L)	Hydroxide Alkalinity (mg/L)	Carbonate Alkalinity (mg/L)	Bicarbonate Alkalinity (mg/L)	Total Alkalinity (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	TDS (mg/L)	Hardness (mg/L)	pH
MW-1	05/24/07	3,040	4,620	79,100	1950	<1.00	<1.00	154	154	1,800	154,000	231,100	26,600	6.45
	11/24/09	2,060	3,630	70,000	1840	<1.00	<1.00	127	127	1,600	139,000	220,000	20,100	5.15
	07/13/10	-	-	-	-	-	-	-	-	1,530	155,000	225,000	-	-
	10/11/10	-	-	-	-	-	-	-	-	1,500	130,000	235,000	-	-
	01/18/11	-	-	-	-	-	-	-	-	1,940	132,000	234,000	-	-
	04/14/11	-	-	-	-	-	-	-	-	1,830	174,000	237,000	-	-
	07/29/11	-	-	-	-	-	-	-	-	1,730	137,000	223,000	-	-
	10/28/11	-	-	-	-	-	-	-	-	1,870	143,000	258,000	-	-
MW-2	11/24/09	1,010	633	10,800	270	<1.00	<1.00	127	127	413	18,900	146,000	5,130	6.97
	07/13/10	-	-	-	-	-	-	-	-	652	43,200	72,700	-	-
	10/11/10	-	-	-	-	-	-	-	-	945	51,800	235,000	-	-
	01/18/11	-	-	-	-	-	-	-	-	1,640	68,600	133,000	-	-
	04/14/11	-	-	-	-	-	-	-	-	1,820	99,700	159,000	-	-
	07/29/11	-	-	-	-	-	-	-	-	1,770	90,400	155,000	-	-
	10/28/11	-	-	-	-	-	-	-	-	1,460	80,300	135,000	-	-
MW-3	11/24/09	6,030	2,150	29,900	323	<1.00	<1.00	92	92	908	59,500	108,000	23,900	6.02
	07/13/10	-	-	-	-	-	-	-	-	931	73,200	150,000	-	-
	10/11/10	-	-	-	-	-	-	-	-	934	85,500	167,000	-	-
	01/18/11	-	-	-	-	-	-	-	-	1,230	85,200	154,000	-	-
	04/14/11	-	-	-	-	-	-	-	-	1,250	118,000	188,000	-	-
	07/29/11	-	-	-	-	-	-	-	-	1,100	66,900	103,000	-	-
	10/27/11	-	-	-	-	-	-	-	-	1,160	123,000	184,000	-	-
MW-4	11/24/09	791	253	4,880	76.7	<1.00	<1.00	118	118	286	9,360	22,600	3,020	7.35
	07/13/10	-	-	-	-	-	-	-	-	1,540	85,800	159,000	-	-
	10/11/10	-	-	-	-	-	-	-	-	1,640	93,200	175,000	-	-
	01/18/11	-	-	-	-	-	-	-	-	2,360	93,200	173,000	-	-
	04/14/11	-	-	-	-	-	-	-	-	1,950	102,000	159,000	-	-
	07/29/11	-	-	-	-	-	-	-	-	2,120	107,000	171,000	-	-
	10/28/11	-	-	-	-	-	-	-	-	2,180	124,000	171,000	-	-

Table 2
Celero Energy II, LP
Groundwater Analytical Results
Rock Queen Unit Saltwater Injection Plant #1
Chaves County, New Mexico

Monitor Well	Date Sampled	Dissolved Calcium (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Sodium (mg/L)	Dissolved Potassium (mg/L)	Hydroxide Alkalinity (mg/L)	Carbonate Alkalinity (mg/L)	Bicarbonate Alkalinity (mg/L)	Total Alkalinity (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	TDS (mg/L)	Hardness (mg/L)	pH
MW-5	01/18/11	-	-	-	-	-	-	-	-	822	32,400	69,700	-	-
	04/14/11	-	-	-	-	-	-	-	-	1,070	20,000	39,400	-	-
	07/29/11	-	-	-	-	-	-	-	-	854	24,300	46,700	-	-
	10/27/11	-	-	-	-	-	-	-	-	701	49,700	91,900	-	-
MW-6	01/18/11	-	-	-	-	-	-	-	-	<250	3,010	16,500	-	-
	04/14/11	-	-	-	-	-	-	-	-	188	1,320	2,100	-	-
	07/29/11	-	-	-	-	-	-	-	-	146	912	1,860	-	-
	10/27/11	-	-	-	-	-	-	-	-	191	1,110	2,240	-	-
MW-7	01/18/11	-	-	-	-	-	-	-	-	478	35,700	75,700	-	-
	04/14/11	-	-	-	-	-	-	-	-	657	61,500	91,000	-	-
	07/29/11	-	-	-	-	-	-	-	-	172	17,400	29,500	-	-
	10/27/11	-	-	-	-	-	-	-	-	529	49,000	75,700	-	-
RW-1	01/18/11	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/14/11	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	07/29/11	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/27/11	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

NS - Not sampled

(-) Not analyzed

Table 3
Celero Energy II, LP
Groundwater Analytical Results
Rock Queen Saltwater Injection Plant #1
Chaves County, New Mexico

Monitor Well	Date Sampled	Benzene in (mg/L)	Toluene in (mg/L)	Ethyl-Benzene (mg/L)	Xylene in (mg/L)	Total BTEX (mg/L)
MW-1	11/24/09	0.0016	<0.001	<0.001	<0.001	0.0016
	07/13/10	0.0031	<0.001	<0.001	<0.001	0.0031
	10/11/10	0.0038	<0.001	<0.001	<0.001	0.0038
	01/18/11	0.0116	0.0059	<0.001	<0.001	0.0175
	04/14/11	0.0088	0.0055	<0.001	<0.001	0.0143
	07/29/11	0.0081	<0.001	<0.001	<0.001	0.0081
	10/28/11	0.00400	<0.00100	<0.00100	0.00630	0.01030
MW-2	11/24/09	<0.001	<0.001	<0.001	<0.001	<0.001
	07/13/10	<0.001	<0.001	<0.001	<0.001	<0.001
	10/11/10	0.0017	<0.001	<0.001	<0.001	<0.001
	01/18/11	<0.001	<0.001	<0.001	<0.001	<0.001
	04/14/11	0.0076	<0.001	<0.001	<0.001	0.0076
	07/29/11	0.0092	<0.001	<0.001	<0.001	0.0092
	10/28/11	0.00390	<0.00100	<0.00100	<0.00100	0.00390
MW-3	11/24/09	<0.001	<0.001	<0.001	<0.001	<0.001
	07/13/10	<0.001	<0.001	<0.001	<0.001	<0.001
	10/11/10	<0.001	<0.001	<0.001	<0.001	<0.001
	01/18/11	<0.001	<0.001	<0.001	<0.001	<0.001
	04/14/11	0.0059	<0.001	<0.001	<0.001	0.0059
	07/29/11	<0.001	<0.001	<0.001	<0.001	<0.001
	10/27/11	0.00120	<0.00100	<0.00100	0.00440	0.00560
MW-4	11/24/09	<0.001	<0.001	<0.001	<0.001	<0.001
	07/13/10	<0.001	<0.001	<0.001	<0.001	<0.001
	10/11/10	0.0015	<0.001	<0.001	<0.001	0.0015
	01/18/11	0.0095	<0.001	<0.001	<0.001	0.0095
	04/14/11	0.0064	<0.001	<0.001	<0.001	0.0064
	07/29/11	0.0084	<0.001	<0.001	<0.001	0.0084
	10/28/11	0.00280	<0.00100	<0.00100	<0.00100	0.00280
MW-5	01/18/11	<0.001	<0.001	<0.001	<0.001	<0.001
	04/14/11	<0.001	<0.001	<0.001	<0.001	<0.001
	07/29/11	<0.001	<0.001	<0.001	<0.001	<0.001
	10/27/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-6	01/18/11	<0.001	<0.001	<0.001	<0.001	<0.001
	04/14/11	<0.001	<0.001	<0.001	<0.001	<0.001
	07/29/11	<0.001	<0.001	<0.001	<0.001	<0.001
	10/27/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-7	01/18/11	<0.001	<0.001	<0.001	<0.001	<0.001
	04/14/11	<0.001	<0.001	<0.001	<0.001	<0.001
	07/29/11	<0.001	<0.001	<0.001	<0.001	<0.001
	10/27/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

Table 3

Celero Energy II, LP

Groundwater Analytical Results

Rock Queen Saltwater Injection Plant #1

Chaves County, New Mexico

Monitor Well	Date Sampled	Benzene in (mg/L)	Toluene in (mg/L)	Ethyl-Benzene (mg/L)	Xylene in (mg/L)	Total BTEX (mg/L)
RW-1	01/18/11	NS	NS	NS	NS	NS
	04/14/11	NS	NS	NS	NS	NS
	07/29/11	NS	NS	NS	NS	NS
	10/27/11	NS	NS	NS	NS	NS

NS - Not sampled

APPENDIX A
BORING LOGS

SAMPLE LOG

Boring/Well MW-1
GPS N33.166683° W103.798806°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen SWD Plant #1
Site Location Chaves County, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 198
Date Installed: 05/24/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Buff limestone with chert intermixed with tan sand
5-10	--	Buff limestone with chert intermixed with tan sand
10-15	--	Buff to tan sandy limestone with chert
15-20	--	Tan calcareous fine grain sand
23-25	--	Tan calcareous fine grain sand
28-30	--	Tan well sorted calcareous sand
33-35	--	Tan well sorted calcareous sand
38-40	--	Tan well sorted calcareous sand
43-45	--	Tan well sorted calcareous sand
48-50	--	Tan well sorted calcareous sand
53-55	--	Tan fine grain sand
58-60	--	Tan fine grain sand
63-65	--	Tan fine grain sand
68-70	--	Tan fine grain sand
73-75	--	Tan fine grain sand
78-80	--	Tan fine grain sand
83-85	--	Tan fine grain sand
88-90	--	Tan fine grain sand
98-100	--	Tan fine grain sand
108-110	--	Tan fine grain sand
118-120	--	Tan fine grain sand
128-130	--	Tan fine grain sand
138-140	--	Tan fine grain sand

SAMPLE LOG

Boring/Well MW-1
GPS N33.166683° W103.798806°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen SWD Plant #1
Site Location Chaves County, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 198
Date Installed: 05/24/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
148-150	--	Red fine grain sand
158-160	--	Tan fine grain sand
168-170	--	Dark brown clayey sand
178-180	--	Light red sandy clay
188-190	--	Red clayey sand
198	--	Red sandy clay

Total Depth: 198' Groundwater at 133 feet piping installed to 145 feet

SAMPLE LOG

Boring/Well MW-2
GPS N33.167611° W103.799578°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen SWD Plant #1
Site Location Chaves County, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 150
Date Installed: 11/18/09

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Buff hard limestone with chert intermixed
5-10	--	Buff hard limestone
10-15	--	Buff hard limestone
15-20	--	Buff hard limestone with chert intermixed
23-25	--	Tan well sorted fine grain calcareous sand
28-30	--	Tan well sorted fine grain calcareous sand
33-35	--	Tan well sorted fine grain calcareous sand
38-40	--	Tan well sorted fine grain calcareous sand
43-45	--	Tan well sorted fine grain calcareous sand
48-50	--	Tan well sorted fine grain calcareous sand
53-55	--	Tan well sorted fine grain calcareous sand
58-60	--	Tan well sorted fine grain sand
63-65	--	Tan well sorted fine grain sand
68-70	--	Tan well sorted fine grain sand
73-75	--	Tan well sorted fine grain sand
78-80	--	Tan well sorted fine grain sand (Mud up)
83-85	--	Tan well sorted fine grain sand
88-90	--	Tan well sorted fine grain sand
98-100	--	Tan well sorted fine grain sand
108-110	--	Tan well sorted fine grain sand
118-120	--	Tan well sorted fine grain sand
128-130	--	Tan well sorted fine grain sand
138-140	--	Tan well sorted fine grain sand

SAMPLE LOG

Boring/Well MW-2
GPS N33.167611° W103.799578°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen SWD Plant #1
Site Location Chaves County, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 150
Date Installed: 11/18/09

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
148-150	--	Red/brown Clay (Red bed)
Total Depth:	150'	Groundwater at 137 feet below ground surface

SAMPLE LOG

Boring/Well MW-3
GPS N33.166881° W103.797775°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen SWD Plant #1
Site Location Chaves County, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 150
Date Installed: 11/18/09

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Buff hard limestone with chert intermixed
5-10	--	Buff hard chert with some limestone intermixed
10-15	--	Buff hard limestone with chert intermixed
15-20	--	Hard buff limestone
23-25	--	Tan well sorted fine grain calcareous sand
28-30	--	Tan well sorted fine grain calcareous sand
33-35	--	Tan well sorted fine grain calcareous sand
38-40	--	Tan well sorted fine grain calcareous sand
43-45	--	Tan well sorted fine grain calcareous sand
48-50	--	Tan well sorted fine grain calcareous sand
53-55	--	Tan well sorted fine grain calcareous sand
58-60	--	Tan well sorted fine grain sand
63-65	--	Tan well sorted fine grain sand
68-70	--	Tan well sorted fine grain sand
73-75	--	Tan well sorted fine grain sand
78-80	--	Tan well sorted fine grain sand (Mud up)
83-85	--	Tan well sorted fine grain sand
88-90	--	Tan well sorted fine grain sand
98-100	--	Tan well sorted fine grain sand
108-110	--	Tan well sorted fine grain sand
118-120	--	Tan well sorted fine grain sand
128-130	--	Tan well sorted fine grain sand
138-140	--	Tan well sorted fine grain sand

SAMPLE LOG

Boring/Well MW-3
GPS N33.166881° W103.797775°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen SWD Plant #1
Site Location Chaves County, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 150
Date Installed: 11/18/09

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
143-145	--	Red/brown Clay (Red bed)
148-150	--	Red/brown Clay (Red bed)

Total Depth: 150' Groundwater at 137 feet below ground surface

SAMPLE LOG

Boring/Well: MW-4
GPS N33.166061° W103.798919°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen SWD Plant #1
Site Location Chaves County, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 150
Date Installed: 11/19/09

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Buff hard limestone with chert intermixed
5-10	--	Buff hard limestone with chert intermixed
10-15	--	Buff hard limestone with chert intermixed
15-20	--	Hard buff limestone
23-25	--	Tan well sorted fine grain calcareous sand
28-30	--	Tan well sorted fine grain calcareous sand
33-35	--	Tan well sorted fine grain calcareous sand
38-40	--	Tan well sorted fine grain calcareous sand
43-45	--	Tan well sorted fine grain calcareous sand
48-50	--	Tan well sorted fine grain calcareous sand
53-55	--	Tan well sorted fine grain calcareous sand
58-60	--	Tan well sorted fine grain sand
63-65	--	Tan well sorted fine grain sand
68-70	--	Tan well sorted fine grain sand
73-75	--	Tan well sorted fine grain sand
78-80	--	Tan well sorted fine grain sand (Mud up)
83-85	--	Tan well sorted fine grain sand
88-90	--	Tan well sorted fine grain sand
98-100	--	Tan well sorted fine grain sand
108-110	--	Tan well sorted fine grain sand
118-120	--	Tan well sorted fine grain sand
128-130	--	Tan well sorted fine grain sand
138-140	--	Tan well sorted fine grain sand
143-145	--	Red/brown Clay (Red bed)
148-150	--	Red/brown Clay (Red bed)

Total Depth: 150' Groundwater at 137 feet below ground surface

SAMPLE LOG

Boring/Well MW-5
GPS N33.16536° W103.79881°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen Unit SWD Plant #1
Site Location Chaves, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 150'
Date Installed 11/22/10

Depth (Ft)	OVM	Sample Description
5-6'	--	Caliche and 10% Chert
10-11'	--	Caliche and 10% Chert
15-16'	--	Caliche and 25% Chert
20-21'	--	Buff Fine Grain Sand with 45% Caliche
25-26'	--	Buff Fine Grain Sand with 30% Caliche
30-31'	--	Buff Fine Grain Sand with 15% Caliche
35-36'	--	Buff Fine Grain Sand with 10% Caliche
40-41'	--	Buff Fine Grain Sand with 5% Caliche
45-46'	--	Tan Fine Grain Well Sorted Sand
50-51'	--	Tan Fine Grain Well Sorted Sand
55-56'	--	Tan Fine Grain Well Sorted Sand
60-61'	--	Tan Fine Grain Well Sorted Sand
65-66'	--	Light Brown Fine Grain Well Sorted Sand
70-71'	--	Light Brown Fine Grain Well Sorted Sand
75-76'	--	Light Brown Fine Grain Well Sorted Sand
80-81'	--	Light Brown Fine Grain Well Sorted Sand
85-86'	--	Light Brown Fine Grain Well Sorted Sand
90-91'	--	Light Brown Fine Grain Well Sorted Sand
95-96'	--	Light Brown Fine Grain Well Sorted Sand
100-101'	--	Light Brown Fine Grain Well Sorted Sand
105-106'	--	Light Brown Fine Grain Well Sorted Sand
110-111'	--	Light Brown Fine Grain Well Sorted Sand
115-116'	--	Light Brown Fine Grain Well Sorted Sand
120-121'	--	Light Brown Fine Grain Well Sorted Sand with 45% Subangular Gravel
125-126'	--	Light Brown Fine Grain Well Sorted Sand with 40% Subangular Gravel
130-131'	--	Light Brown Fine Grain Well Sorted Sand with 20% Subangular Gravel
135-136'	--	Light Brown Fine Grain Well Sorted Sand with 10% Subangular Gravel

SAMPLE LOG

Boring/Well MW-5
GPS N33.16536° W103.79881°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen Unit SWD Plant #1
Site Location Chaves, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 150'
Date Installed 11/22/10

140-141'	--	Light Brown Sand with Light Brown Buff Clay
145-146'	--	Light Brown Grey Sandy Clay
150'	--	Grey Buff Clay with Red Bed
Total Depth:	150'	Ground water depth not encountered while drilling.

SAMPLE LOG

Boring/Well MW-6
GPS N33.16840° W103.80038°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen Unit SWD Plant #1
Site Location Chaves, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 150'
Date Installed 11/22/10

Depth (Ft)	OVM	Sample Description
5-6'	--	Caliche
10-11'	--	Caliche and 10% Chert
15-16'	--	Caliche and 10% Chert
20-21'	--	Buff Fine Grain Sand with Caliche
25-26'	--	Buff Fine Grain Sand with 401% Caliche
30-31'	--	Buff Fine Grain Sand with 30% Caliche
35-36'	--	Buff Fine Grain Sand with 15% Caliche
40-41'	--	Buff Fine Grain Sand with 10% Caliche
45-46'	--	Light Brown Fine Grain Well Sorted Sand
50-51'	--	Light Brown Fine Grain Well Sorted Sand
55-56'	--	Light Brown Fine Grain Well Sorted Sand
60-61'	--	Light Brown Fine Grain Well Sorted Sand
65-66'	--	Light Brown Fine Grain Well Sorted Sand
70-71'	--	Light Brown Fine Grain Well Sorted Sand
75-76'	--	Light Brown Fine Grain Well Sorted Sand
80-81'	--	Light Brown Fine Grain Well Sorted Sand
85-86'	--	Light Brown Fine Grain Well Sorted Sand
90-91'	--	Light Brown Fine Grain Well Sorted Sand
95-96'	--	Light Brown Fine Grain Well Sorted Sand
100-101'	--	Light Brown Fine Grain Well Sorted Sand
105-106'	--	Light Brown Fine Grain Well Sorted Sand
110-111'	--	Light Brown Fine Grain Well Sorted Sand
115-116'	--	Light Brown Fine Grain Well Sorted Sand
120-121'	--	Light Brown Fine Grain Well Sorted Sand
125-126'	--	Light Brown Fine Grain Well Sorted Sand with 5% Subangular Gravel

SAMPLE LOG

Boring/Well MW-6
GPS N33.16840° W103.80038°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen Unit SWD Plant #1
Site Location Chaves, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 150'
Date Installed 11/22/10

Depth (Ft)	OVM	Sample Description
130-131'	--	Light Brown Fine Grain Well Sorted Sand with 5% Subangular Gravel
135-136'	--	Light Brown Fine Grain Well Sorted Sand with 10% Grey Buff Clay
140-141'	--	Light Brown Fine Grain Well Sorted Sand with 25% Grey Buff Clay
145-146'	--	Grey Buff Clay with 10% Red Bed
150'	--	Grey Buff Clay with 20% Red Bed
Total Depth:	150'	Ground water depth not encountered while drilling.

SAMPLE LOG

Boring/Well MW-7
GPS N33.16710° W103.79710°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen Unit SWD Plant #1
Site Location Chaves, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 155'
Date Installed 11/19/10

Depth (Ft)	OVM	Sample Description
5-6'	--	Caliche
10-11'	--	Caliche and 20% Chert
15-16'	--	Buff Sand with Caliche and 20% Chert
20-21'	--	Buff Sand with 30% Caliche
25-26'	--	Buff Sand with 30% Caliche
30-31'	--	Buff Sand with 10% Caliche
35-36'	--	Buff Sand with 20% Caliche
40-41'	--	Buff Sand with 20% Caliche
45-46'	--	Light Brown Fine Grain Well Sorted Sand
50-51'	--	Light Brown Fine Grain Well Sorted Sand
55-56'	--	Light Brown Fine Grain Well Sorted Sand
60-61'	--	Light Brown Fine Grain Well Sorted Sand
65-66'	--	Light Brown Fine Grain Well Sorted Sand
70-71'	--	Light Brown Fine Grain Well Sorted Sand
75-76'	--	Light Brown Fine Grain Well Sorted Sand
80-81'	--	Light Brown Fine Grain Well Sorted Sand
85-86'	--	Light Brown Fine Grain Well Sorted Sand
90-91'	--	Light Brown Fine Grain Well Sorted Sand
95-96'	--	Light Brown Fine Grain Well Sorted Sand
100-101'	--	Light Brown Fine Grain Well Sorted Sand with 10% Blue Grey Clay
105-106'	--	Light Brown Fine Grain Well Sorted Sand with 5% Blue Grey Clay
110-111'	--	Light Brown Fine Grain Well Sorted Sand
115-116'	--	Light Brown Fine Grain Well Sorted Sand
120-121'	--	Light Brown Fine Grain Well Sorted Sand
125-126'	--	Light Brown Fine Grain Well Sorted Sand

SAMPLE LOG

Boring/Well MW-7
GPS N33.16710° W103.79710°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen Unit SWD Plant #1
Site Location Chaves, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 155'
Date Installed 11/19/10

Depth (Ft)	OVM	Sample Description
130-131'	--	Light Brown Fine Grain Well Sorted Sand
135-136'	--	Light Brown Fine Grain Well Sorted Sand
140-141'	--	Light Brown Fine Grain Well Sorted Sand
145-146'	--	Light Brown Sandy Clay with Subangular Gravel
150-151'	--	Light Brown Sandy Clay with Reddish Brown Clay
155'	--	Light Brown Sandy Clay with Reddish Brown Clay
Total Depth:	155'	Ground water depth not encountered while drilling.

SAMPLE LOG

Boring/Well RW-1
GPS N33.166708° W103.798764°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen Unit SWD Plant #1
Site Location Chaves, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 150'
Date Installed 12/12/10

Depth (Ft)	OVM	Sample Description
5-6'	--	Buff hard limestone with chert to 8 feet
10-11'	--	Hard buff limestone
15-16'	--	Hard buff limestone to 19 feet
20-21'	--	Tan well sorted fine grain calcareous sand
25-26'	--	Tan well sorted fine grain calcareous sand
30-31'	--	Tan well sorted fine grain calcareous sand
35-36'	--	Tan well sorted fine grain calcareous sand
40-41'	--	Tan well sorted fine grain calcareous sand
45-46'	--	Tan well sorted fine grain calcareous sand
50-51'	--	Tan well sorted fine grain calcareous sand
55-56'	--	Tan well sorted fine grain sand
60-61'	--	Tan well sorted fine grain sand
65-66'	--	Tan well sorted fine grain sand
70-71'	--	Tan well sorted fine grain sand
75-76'	--	Tan well sorted fine grain sand
80-81'	--	Tan well sorted fine grain sand
85-86'	--	Tan well sorted fine grain sand
90-91'	--	Tan well sorted fine grain sand
95-96'	--	Tan well sorted fine grain sand
100-101'	--	Tan well sorted fine grain sand
105-106'	--	Tan well sorted fine grain sand
110-111'	--	Tan well sorted fine grain sand
115-116'	--	Tan well sorted fine grain sand
120-121'	--	Tan well sorted fine grain sand
125-126'	--	Tan well sorted fine grain sand
130-131'	--	Tan well sorted fine grain sand
135-136'	--	Tan well sorted fine grain sand

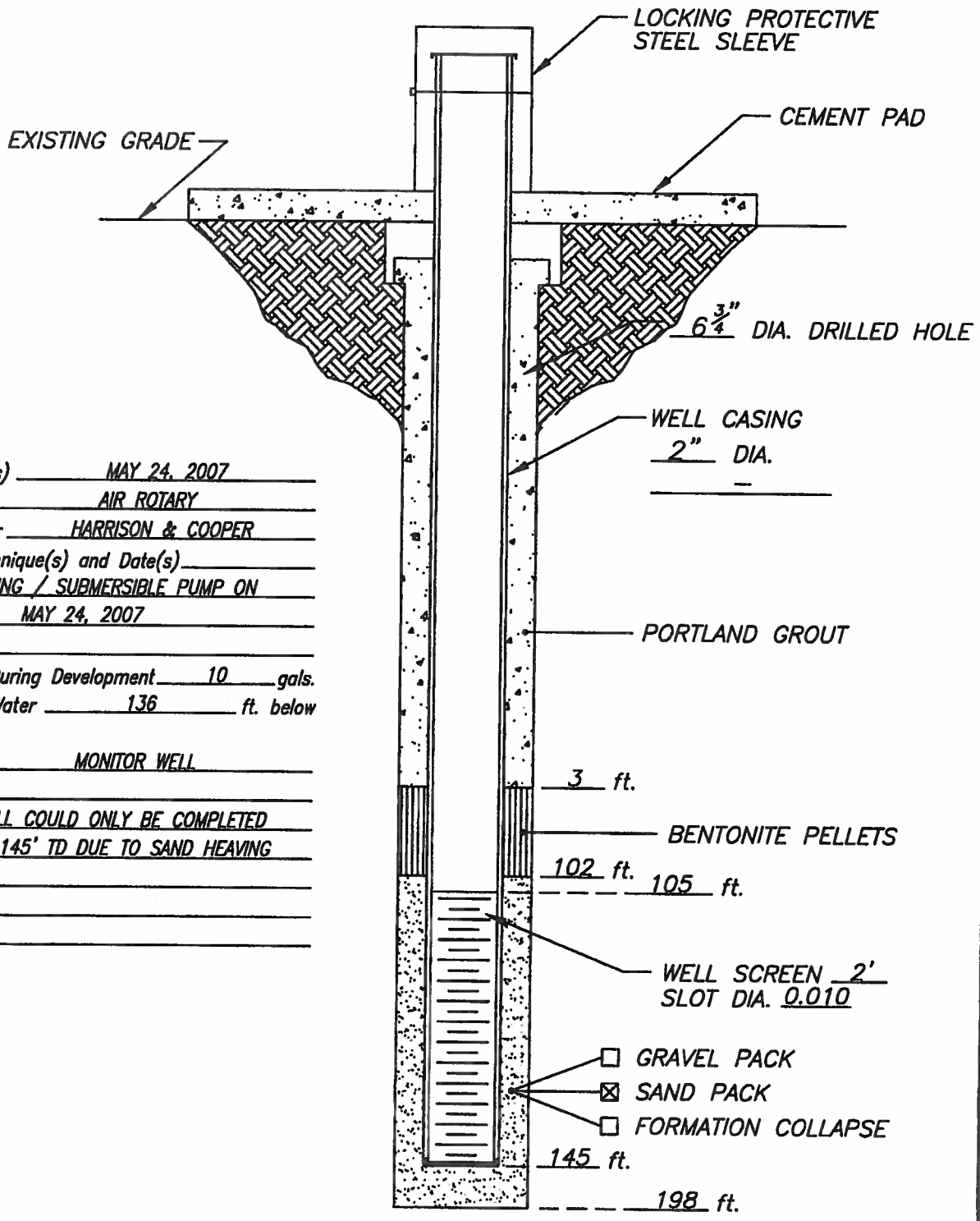
SAMPLE LOG

Boring/Well RW-1
GPS N33.166708° W103.798764°
Project Number 115-6403134A
Client Celero Energy II, LP
Site Name Rock Queen Unit SWD Plant #1
Site Location Chaves, New Mexico
Letter D, Section 26, Township 13 South, Range 31 East
Total Depth 150'
Date Installed 12/12/10

Depth (Ft)	OVM	Sample Description
140-141'	--	Tan well sorted fine grain sand
145-146'	--	Tan clay
150'	--	Tan clay
Total Depth:	150'	Ground water depth not encountered while drilling.

APPENDIX B
MONITOR WELL INSTALLATION DIAGRAMS

WELL CONSTRUCTION LOG



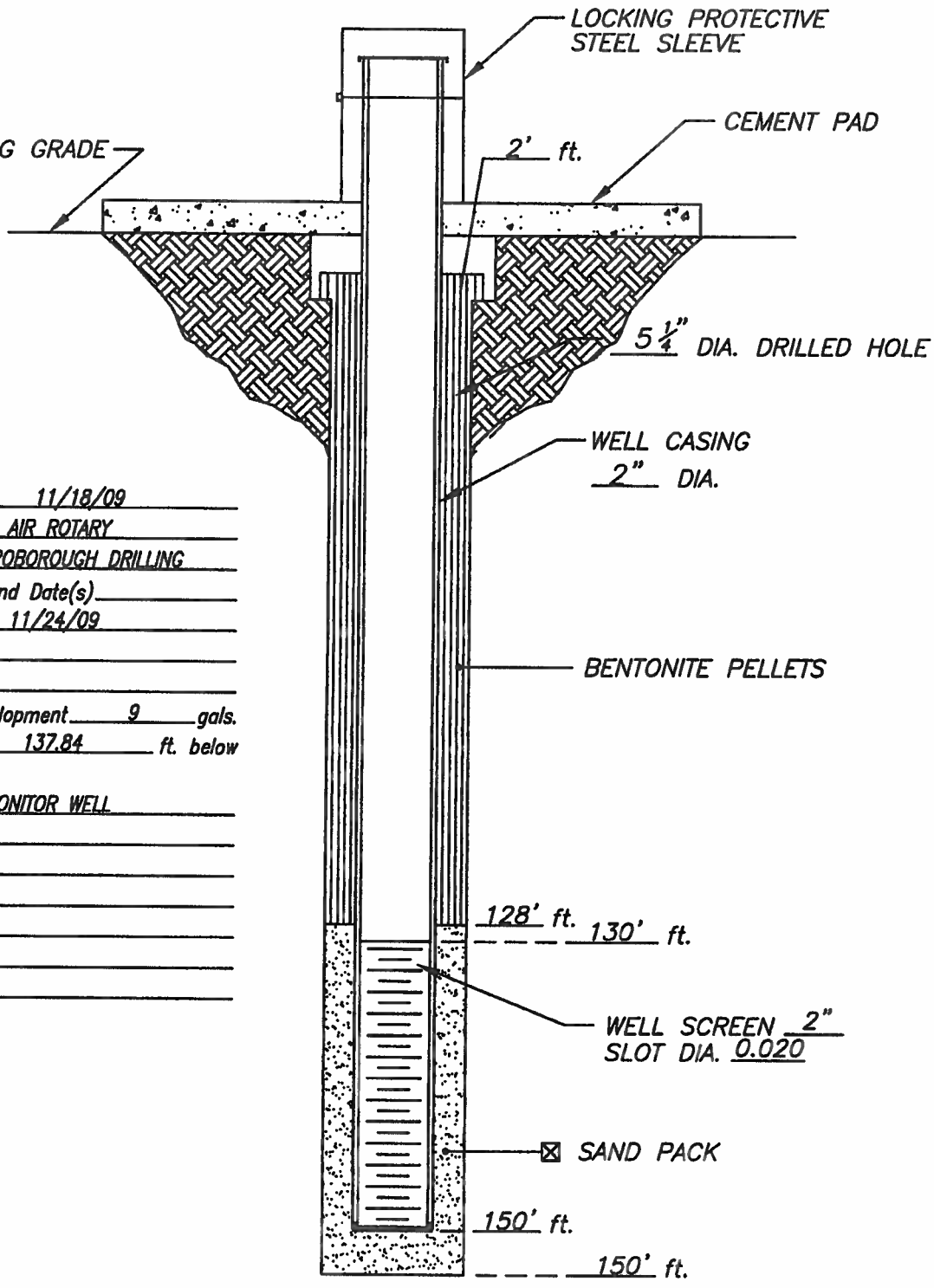
Installation Date(s) MAY 24, 2007
Drilling Method AIR ROTARY
Drilling Contractor HARRISON & COOPER
Development Technique(s) and Date(s) HAND BAILING / SUBMERSIBLE PUMP ON MAY 24, 2007

Water Removed During Development 10 gals.
Static Depth to Water 136 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks WELL COULD ONLY BE COMPLETED TO 145' TD DUE TO SAND HEAVING

DATE: 5/24/07	CLIENT: CELERO ENERGY II, LP	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: ROCK QUEEN INJ. PLANT #1 (115-6403134)	MW-1
	LOCATION: CHAVES COUNTY, NM	

WELL CONSTRUCTION LOG



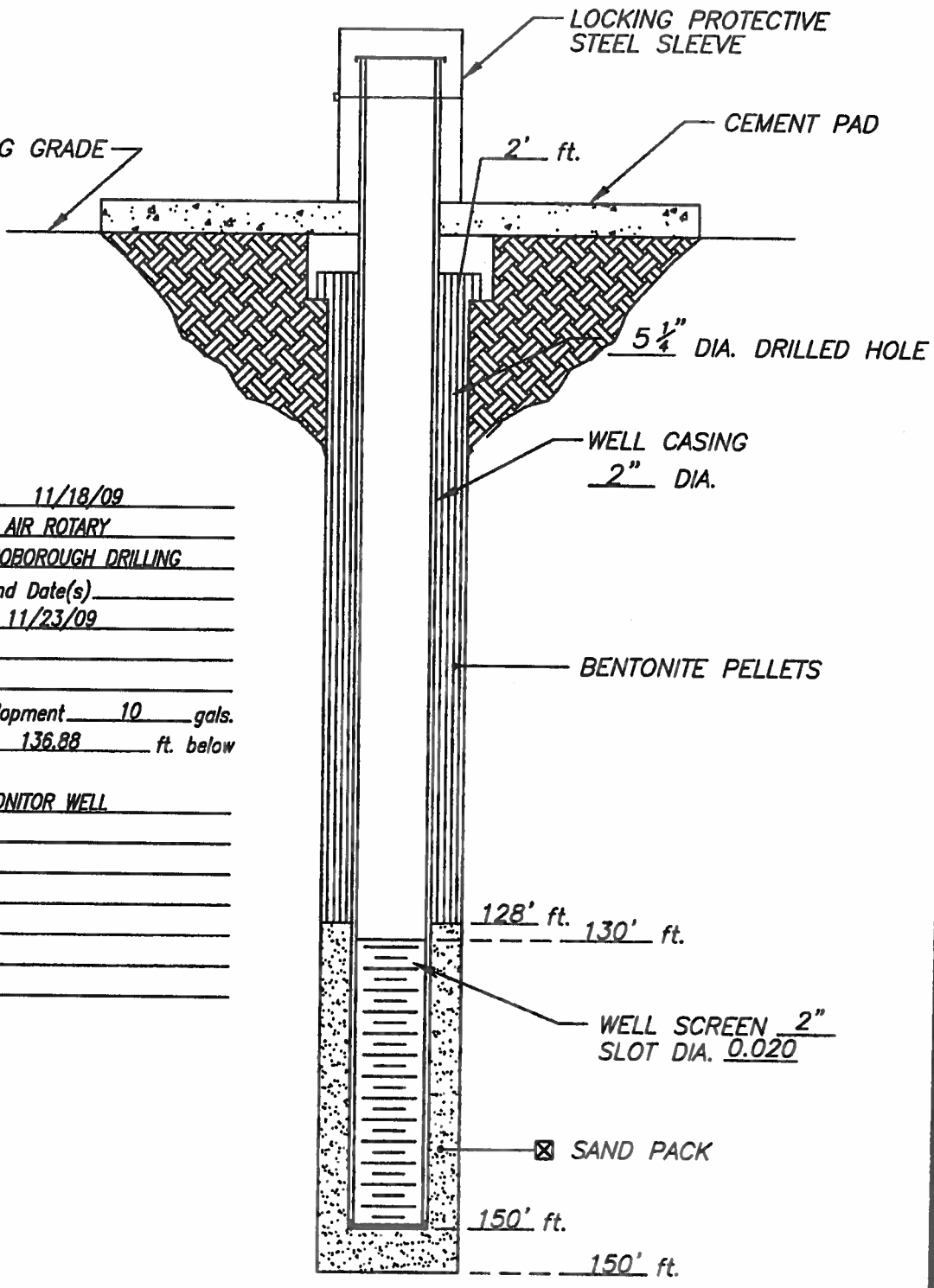
Installation Date(s) 11/18/09
Drilling Method AIR ROTARY
Drilling Contractor SCROBOROUGH DRILLING
Development Technique(s) and Date(s)
HAND BAILED 11/24/09

Water Removed During Development 9 gals.
Static Depth to Water 137.84 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks

DATE: 11/20/09	CLIENT: CELERO ENERGY	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: ROCK QUEEN INJ. PLANT #1 (115-6403134)	MW-2
	LOCATION: CHAVEZ COUNTY, NEW MEXICO	

WELL CONSTRUCTION LOG



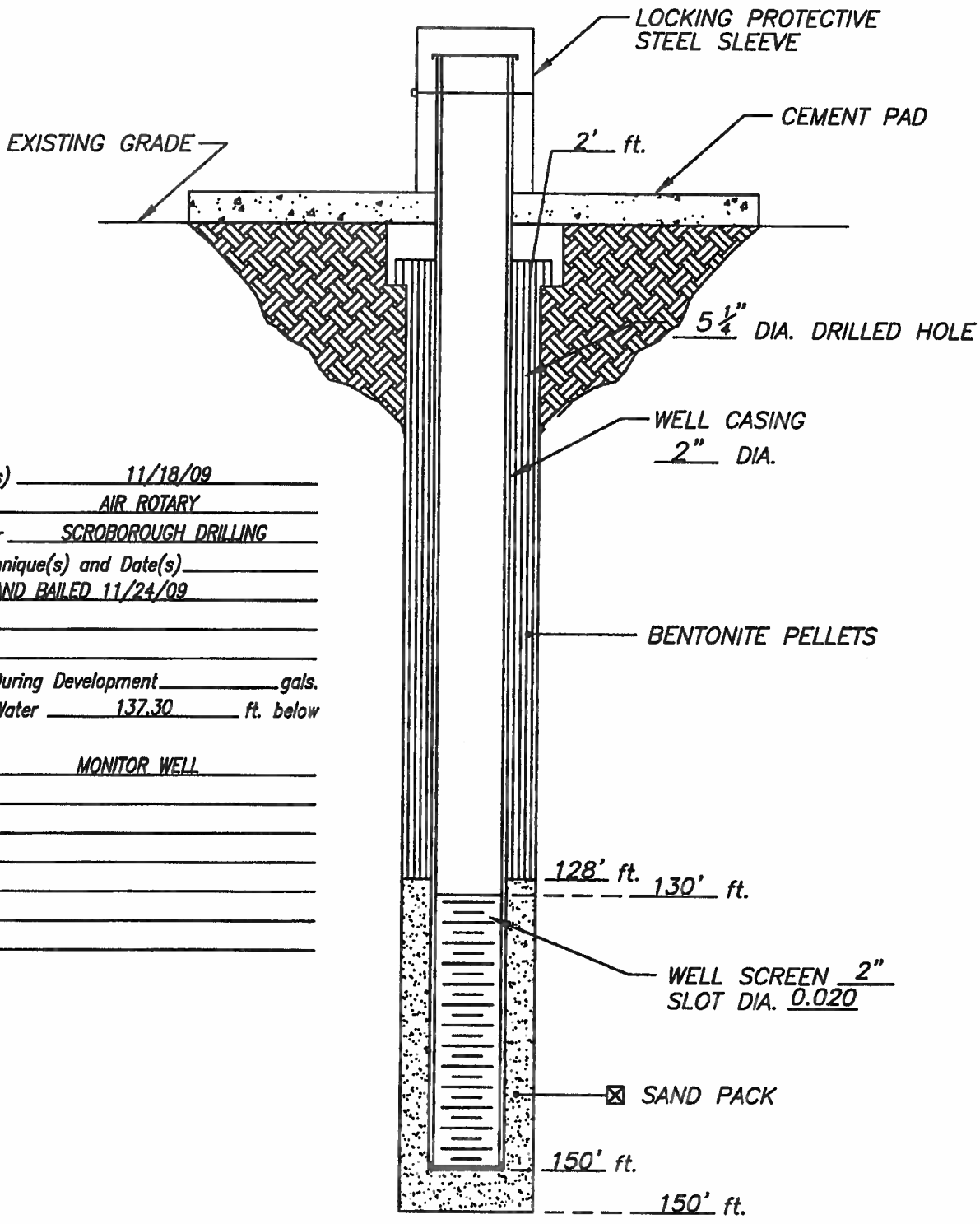
Installation Date(s) 11/18/09
Drilling Method AIR ROTARY
Drilling Contractor SCROBOROUGH DRILLING
Development Technique(s) and Date(s)
HAND BAILED 11/23/09

Water Removed During Development 10 gals.
Static Depth to Water 136.88 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks

DATE: 11/20/09 TETRA TECH, INC. MIDLAND, TEXAS	CLIENT: CELERO ENERGY PROJECT: ROCK QUEEN INJ. PLANT #1 (115-6403134) LOCATION: CHAVEZ COUNTY, NEW MEXICO	WELL NO. MW-3

WELL CONSTRUCTION LOG



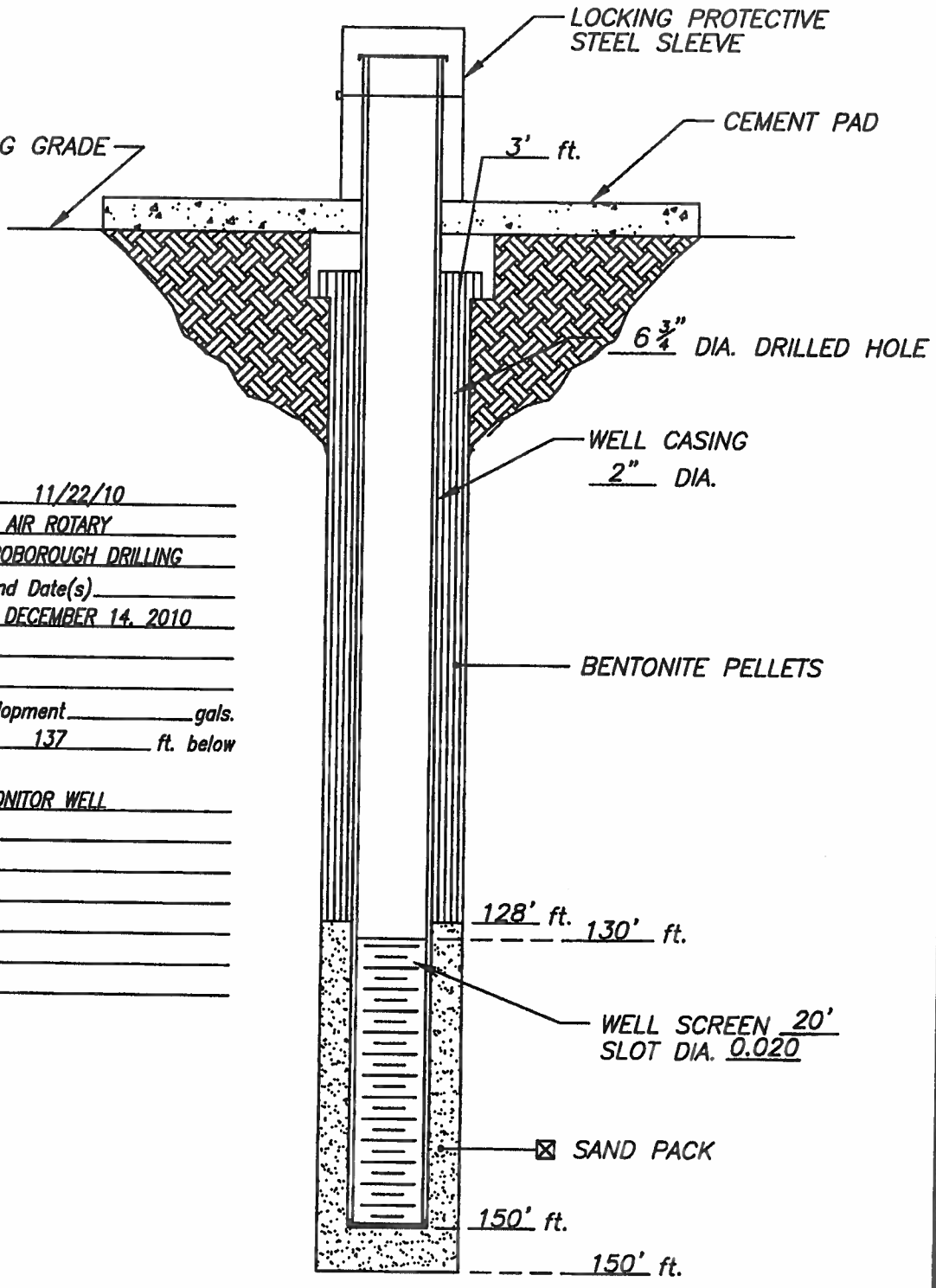
Installation Date(s) 11/18/09
Drilling Method AIR ROTARY
Drilling Contractor SCROBOROUGH DRILLING
Development Technique(s) and Date(s)
HAND BAILED 11/24/09

Water Removed During Development ____ gals.
Static Depth to Water 137.30 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks

DATE: 11/20/09	CLIENT: CELERO ENERGY	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: ROCK QUEEN INJ. PLANT #1 (115-6403134)	MW-4
	LOCATION: CHAVEZ COUNTY, NEW MEXICO	

WELL CONSTRUCTION LOG



Installation Date(s) 11/22/10
Drilling Method AIR ROTARY
Drilling Contractor SCROBOROUGH DRILLING
Development Technique(s) and Date(s)
HANDBAILED ON DECEMBER 14, 2010

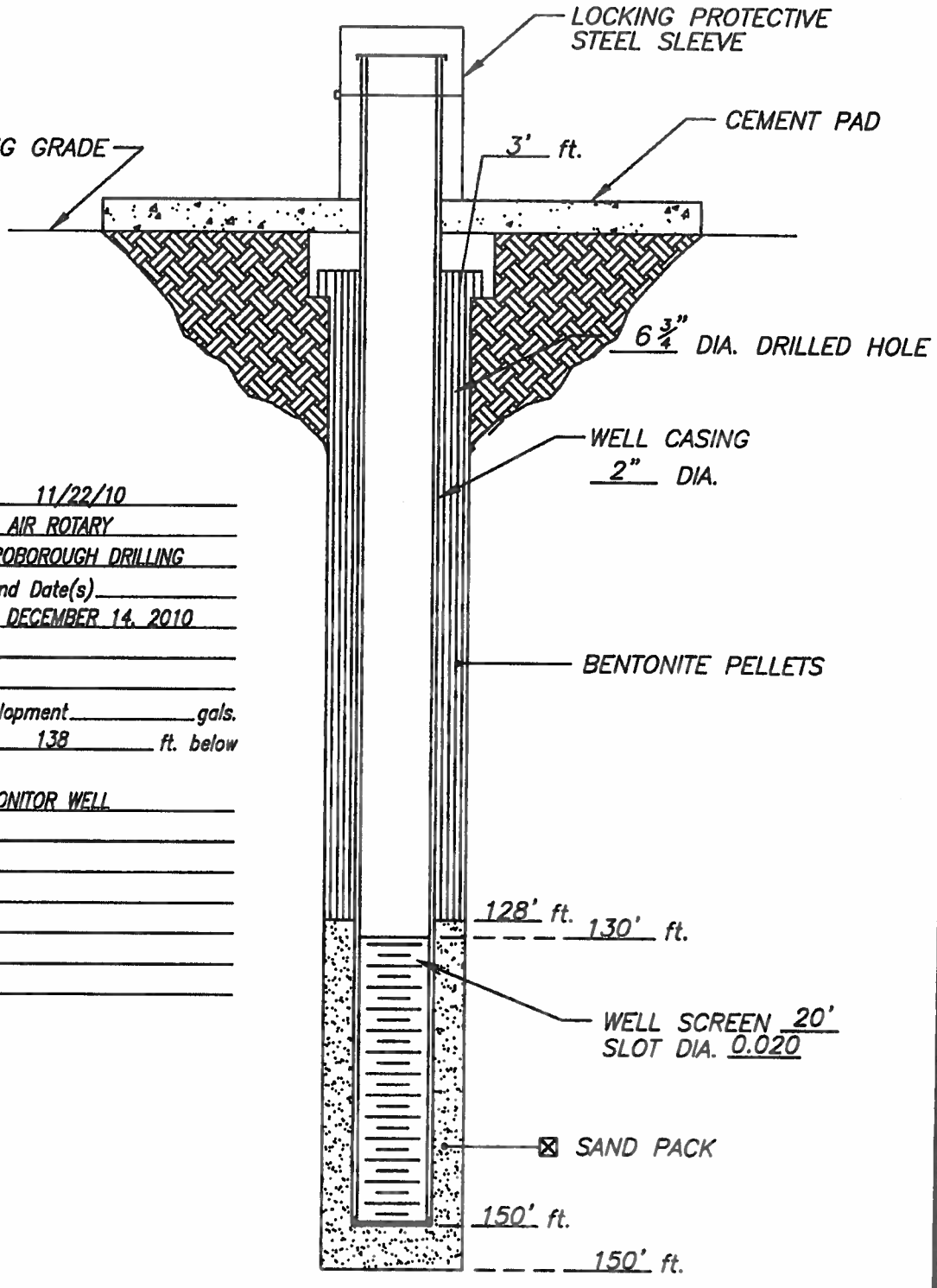
Water Removed During Development ____ gals.
Static Depth to Water 137 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks

DATE: 11/18/10 TETRA TECH, INC. MIDLAND, TEXAS	CLIENT: CELERO ENERGY II, LLC PROJECT: ROCK QUEEN INJ. PLANT #1 LOCATION: CHAVES COUNTY, NEW MEXICO	WELL NO. MW-5

118-6403134

WELL CONSTRUCTION LOG



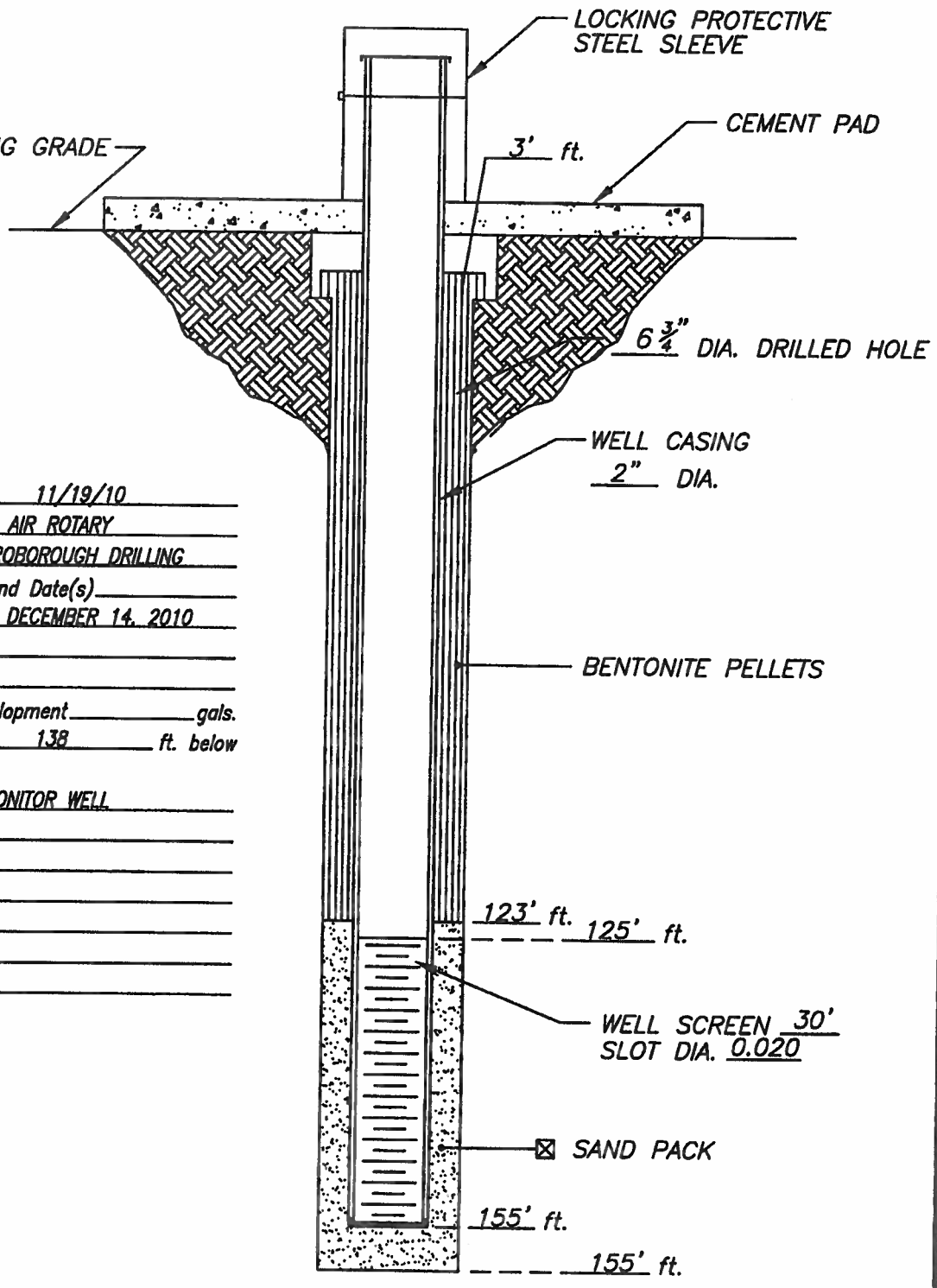
Installation Date(s) 11/22/10
Drilling Method AIR ROTARY
Drilling Contractor SCROBOROUGH DRILLING
Development Technique(s) and Date(s)
HANDBAILED ON DECEMBER 14, 2010

Water Removed During Development _____ gals.
Static Depth to Water 138 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks

DATE: 11/18/10	CLIENT: CELERO ENERGY II, LLC	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: ROCK QUEEN INJ. PLANT #1	MW-6
	LOCATION: CHAVES COUNTY, NEW MEXICO	
	115-6403134	

WELL CONSTRUCTION LOG



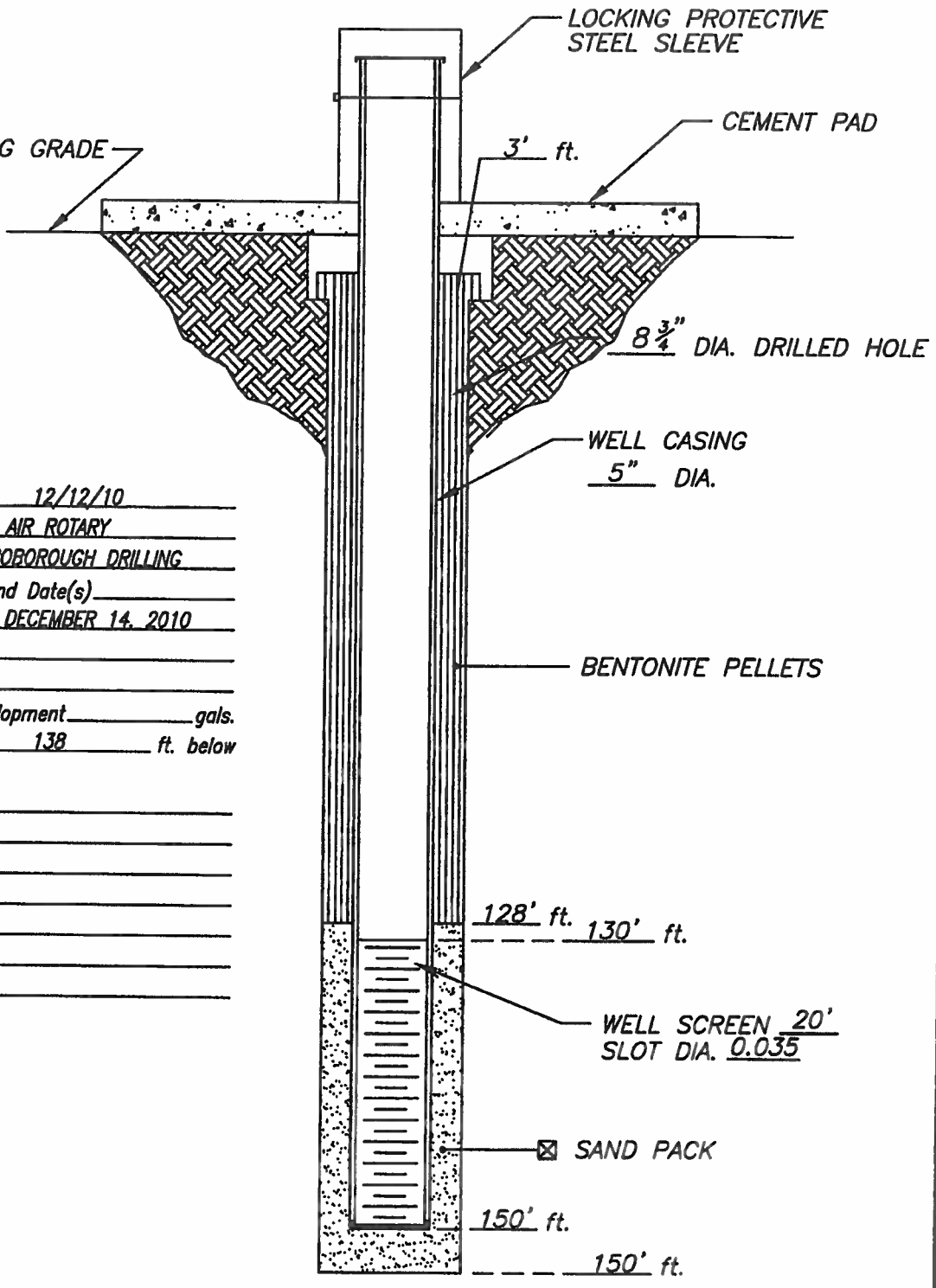
Installation Date(s) 11/19/10
Drilling Method AIR ROTARY
Drilling Contractor SCROBOROUGH DRILLING
Development Technique(s) and Date(s)
HANDBAILED ON DECEMBER 14, 2010

Water Removed During Development ____ gals.
Static Depth to Water 138 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks

DATE: 11/19/10	CLIENT: CELERO ENERGY II, LLC	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: ROCK QUEEN INJ. PLANT #1	MW-7
	LOCATION: CHAVES COUNTY, NEW MEXICO	
	115-8403134	

WELL CONSTRUCTION LOG



Installation Date(s) 12/12/10
Drilling Method AIR ROTARY
Drilling Contractor SCROBOROUGH DRILLING
Development Technique(s) and Date(s)
HANDBAILED ON DECEMBER 14, 2010

Water Removed During Development ____ gals.
Static Depth to Water 138 ft. below Ground Level
Well Purpose

Remarks

DATE: 12/13/10	CLIENT: CELERO ENERGY II, LLC	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: ROCK QUEEN INJ. PLANT #1	RW-1
	LOCATION: CHAVES COUNTY, NEW MEXICO	

118-8403134

APPENDIX C
LABORATORY ANALYSIS

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Jeff Kindley
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: February 7, 2011

Work Order: 11012135

Project Name: Celero/Rock Queen Saltwater Plant #1
Project Number: 115-6403134

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
255925	MW-1	water	2011-01-19	17:58	2011-01-21
255926	MW-2	water	2011-01-19	17:50	2011-01-21
255927	MW-3	water	2011-01-19	17:30	2011-01-21
255928	MW-4	water	2011-01-19	18:10	2011-01-21
255929	MW-5	water	2011-01-19	18:05	2011-01-21
255930	MW-6	water	2011-01-19	17:43	2011-01-21
255931	MW-7	water	2011-01-19	17:35	2011-01-21

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 21 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Samples for project Celero/Rock Queen Saltwater Plant #1 were received by TraceAnalysis, Inc. on 2011-01-21 and assigned to work order 11012135. Samples for work order 11012135 were received intact without headspace and at a temperature of 12.5 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	66196	2011-01-25 at 10:00	77170	2011-01-25 at 14:57
BTEX	S 8021B	66223	2011-01-27 at 10:00	77205	2011-01-27 at 11:06
Chloride (IC)	E 300.0	66402	2011-02-04 at 11:18	77415	2011-02-04 at 15:32
SO4 (IC)	E 300.0	66402	2011-02-04 at 11:18	77415	2011-02-04 at 15:32
SO4 (IC)	E 300.0	66413	2011-02-06 at 10:00	77426	2011-02-06 at 12:17
TDS	SM 2540C	66164	2011-01-25 at 12:00	77317	2011-02-01 at 15:04

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11012135 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 255925 - MW-1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77205	Date Analyzed:	2011-01-27	Analyzed By:	AG
Prep Batch:	66223	Sample Preparation:	2011-01-27	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		**0.0116**	mg/L	1	0.00100
Toluene		**0.00590**	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[1]	0.0447	mg/L	1	0.100	45	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)	[2]	0.0396	mg/L	1	0.100	40	78.6 - 122.8

Sample: 255925 - MW-1

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**132000**	mg/L	10000	2.50

Sample: 255925 - MW-1

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77426	Date Analyzed:	2011-02-06	Analyzed By:	PG
Prep Batch:	66413	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	Result	RL Units	Dilution	RL
Sulfate		**1940**	mg/L	100	2.50

[1]Surrogate TFT out due to matrix interference. Sample was reran on 01-27-2011 to confirm matrix interference results.
[2]Surrogate 4-BFB out due to matrix interference. Sample was reran on 01-27-2011 to confirm matrix interference results.

Sample: 255925 - MW-1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**234000**	mg/L	100	10.0

Sample: 255926 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77170	Date Analyzed:	2011-01-25	Analyzed By:	AG
Prep Batch:	66196	Sample Preparation:	2011-01-25	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0720	mg/L	1	0.100	72	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0673	mg/L	1	0.100	67	78.6 - 122.8

Sample: 255926 - MW-2

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**66600**	mg/L	10000	2.50

Sample: 255926 - MW-2

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77426	Date Analyzed:	2011-02-06	Analyzed By:	PG
Prep Batch:	66413	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**1640**	mg/L	100	2.50

Sample: 255926 - MW-2

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**133000**	mg/L	100	10.0

Sample: 255927 - MW-3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77170	Date Analyzed:	2011-01-25	Analyzed By:	AG
Prep Batch:	66196	Sample Preparation:	2011-01-25	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[3]	0.0666	mg/L	1	0.100	67	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0648	mg/L	1	0.100	65	78.6 - 122.8

[3]SPECIAL - TFT is out of control limits due to an unknown anomaly. However, 4-BFB shows the method to be in control. •

Sample: 255927 - MW-3

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**85200**		mg/L	10000	2.50

Sample: 255927 - MW-3

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77426	Date Analyzed:	2011-02-06	Analyzed By:	PG
Prep Batch:	66413	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	Result	RL	Units	Dilution	RL
Sulfate		**1230**		mg/L	100	2.50

Sample: 255927 - MW-3

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**154000**		mg/L	100	10.0

Sample: 255928 - MW-4

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77205	Date Analyzed:	2011-01-27	Analyzed By:	AG
Prep Batch:	66223	Sample Preparation:	2011-01-27	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		**0.00950**		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100

continued ...

sample 255928 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[4]	0.0458	mg/L	1	0.100	46	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)	[5]	0.0434	mg/L	1	0.100	43	78.6 - 122.8

Sample: 255928 - MW-4

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**93200**	mg/L	10000	2.50

Sample: 255928 - MW-4

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77426	Date Analyzed:	2011-02-06	Analyzed By:	PG
Prep Batch:	66413	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**2360**	mg/L	100	2.50

Sample: 255928 - MW-4

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**173000**	mg/L	100	10.0

[4]Surrogate TFT out due to matrix interference. Sample was reran on 01-27-2011 to confirm matrix interference results.
[5]Surrogate 4-BFB out due to matrix interference. Sample was reran on 01-27-2011 to confirm matrix interference results.

Sample: 255929 - MW-5

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77170	Date Analyzed:	2011-01-25	Analyzed By:	AG
Prep Batch:	66196	Sample Preparation:	2011-01-25	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.104	mg/L	1	0.100	104	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0933	mg/L	1	0.100	93	78.6 - 122.8

Sample: 255929 - MW-5

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**32400**	mg/L	5000	2.50

Sample: 255929 - MW-5

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77426	Date Analyzed:	2011-02-06	Analyzed By:	PG
Prep Batch:	66413	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**822**	mg/L	50	2.50

Sample: 255929 - MW-5

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		**69700**	mg/L	100	10.0

Sample: 255930 - MW-6

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77170	Date Analyzed:	2011-01-25	Analyzed By:	AG
Prep Batch:	66196	Sample Preparation:	2011-01-25	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.112	mg/L	1	0.100	112	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0961	mg/L	1	0.100	96	78.6 - 122.8

Sample: 255930 - MW-6

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**3010**	mg/L	100	2.50

Sample: 255930 - MW-6

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		<250	mg/L	100	2.50

Sample: 255930 - MW-6

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**16500**	mg/L	10	10.0

Sample: 255931 - MW-7

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	77170	Date Analyzed:	2011-01-25	Analyzed By:	AG
Prep Batch:	66196	Sample Preparation:	2011-01-25	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0863	mg/L	1	0.100	86	75.4 - 119.4
4-Bromofluorobenzene (4-BFB)		0.0789	mg/L	1	0.100	79	78.6 - 122.8

Sample: 255931 - MW-7

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77415	Date Analyzed:	2011-02-04	Analyzed By:	PG
Prep Batch:	66402	Sample Preparation:	2011-02-04	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**35700**	mg/L	5000	2.50

Sample: 255931 - MW-7

Laboratory:	Lubbock				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	77426	Date Analyzed:	2011-02-06	Analyzed By:	PG
Prep Batch:	66413	Sample Preparation:	2011-02-06	Prepared By:	PG

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**478**	mg/L	50	2.50

Sample: 255931 - MW-7

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	77317	Date Analyzed:	2011-02-01	Analyzed By:	AR
Prep Batch:	66164	Sample Preparation:	2011-01-26	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**75700**	mg/L	100	10.0

Method Blank (1) QC Batch: 77170

QC Batch:	77170	Date Analyzed:	2011-01-25	Analyzed By:	AG
Prep Batch:	66196	QC Preparation:	2011-01-25	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000400	mg/L	0.001
Toluene		<0.000300	mg/L	0.001
Ethylbenzene		<0.000300	mg/L	0.001

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Xylene		<0.000333	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.111	mg/L	1	0.100	111	70.8 - 117.4
4-Bromofluorobenzene (4-BFB)		0.0994	mg/L	1	0.100	99	79 - 113.4

Method Blank (1) QC Batch: 77205

QC Batch: 77205 Date Analyzed: 2011-01-27 Analyzed By: AG
Prep Batch: 66223 QC Preparation: 2011-01-27 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000400	mg/L	0.001
Toluene		<0.000300	mg/L	0.001
Ethylbenzene		<0.000300	mg/L	0.001
Xylene		<0.000333	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.117	mg/L	1	0.100	117	70.8 - 117.4
4-Bromofluorobenzene (4-BFB)		0.0998	mg/L	1	0.100	100	79 - 113.4

Method Blank (1) QC Batch: 77317

QC Batch: 77317 Date Analyzed: 2011-02-01 Analyzed By: AR
Prep Batch: 66164 QC Preparation: 2011-01-25 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		10.0	mg/L	10

Method Blank (1) QC Batch: 77415

QC Batch: 77415 Date Analyzed: 2011-02-04 Analyzed By: PG
Prep Batch: 66402 QC Preparation: 2011-02-04 Prepared By: PG

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.0142	mg/L	2.5

Method Blank (1) QC Batch: 77415

QC Batch: 77415 Date Analyzed: 2011-02-04 Analyzed By: PG
Prep Batch: 66402 QC Preparation: 2011-02-04 Prepared By: PG

Parameter	Flag	MDL Result	Units	RL
Sulfate		<0.126	mg/L	2.5

Method Blank (1) QC Batch: 77426

QC Batch: 77426 Date Analyzed: 2011-02-06 Analyzed By: PG
Prep Batch: 66413 QC Preparation: 2011-02-06 Prepared By: PG

Parameter	Flag	MDL Result	Units	RL
Sulfate		<0.126	mg/L	2.5

Duplicates (1) Duplicated Sample: 255931

QC Batch: 77317 Date Analyzed: 2011-02-01 Analyzed By: AR
Prep Batch: 66164 QC Preparation: 2011-01-25 Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	70500	75700	mg/L	100	7	10

Laboratory Control Spike (LCS-1)

QC Batch: 77170 Date Analyzed: 2011-01-25 Analyzed By: AG
Prep Batch: 66196 QC Preparation: 2011-01-25 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0891	mg/L	1	0.100	<0.000400	89	76.8 - 110.3
Toluene	0.103	mg/L	1	0.100	<0.000300	103	81 - 108.2
Ethylbenzene	0.108	mg/L	1	0.100	<0.000300	108	78.8 - 111

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	0.328	mg/L	1	0.300	<0.000333	109	80.3 - 111.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0843	mg/L	1	0.100	<0.000400	84	76.8 - 110.3	6	20
Toluene	0.0988	mg/L	1	0.100	<0.000300	99	81 - 108.2	4	20
Ethylbenzene	0.103	mg/L	1	0.100	<0.000300	103	78.8 - 111	5	20
Xylene	0.312	mg/L	1	0.300	<0.000333	104	80.3 - 111.4	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.112	0.111	mg/L	1	0.100	112	111	66.6 - 114.5
4-Bromofluorobenzene (4-BFB)	0.108	0.106	mg/L	1	0.100	108	106	77.1 - 114.4

Laboratory Control Spike (LCS-1)

QC Batch: 77205 | Date Analyzed: 2011-01-27 | Analyzed By: AG
Prep Batch: 66223 | QC Preparation: 2011-01-27 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0939	mg/L	1	0.100	<0.000400	94	76.8 - 110.3
Toluene	0.102	mg/L	1	0.100	<0.000300	102	81 - 108.2
Ethylbenzene	0.108	mg/L	1	0.100	<0.000300	108	78.8 - 111
Xylene	0.326	mg/L	1	0.300	<0.000333	109	80.3 - 111.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0896	mg/L	1	0.100	<0.000400	90	76.8 - 110.3	5	20
Toluene	0.0970	mg/L	1	0.100	<0.000300	97	81 - 108.2	5	20
Ethylbenzene	0.105	mg/L	1	0.100	<0.000300	105	78.8 - 111	3	20
Xylene	0.317	mg/L	1	0.300	<0.000333	106	80.3 - 111.4	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.115	0.108	mg/L	1	0.100	115	108	66.6 - 114.5
4-Bromofluorobenzene (4-BFB)	0.105	0.100	mg/L	1	0.100	105	100	77.1 - 114.4

Laboratory Control Spike (LCS-1)

QC Batch: 77317 | Date Analyzed: 2011-02-01 | Analyzed By: AR
Prep Batch: 66164 | QC Preparation: 2011-01-25 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids	1080	mg/L	1	1000	<9.75	108	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids	1050	mg/L	1	1000	<9.75	105	90 - 110	3	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 77415 | Date Analyzed: 2011-02-04 | Analyzed By: PG
Prep Batch: 66402 | QC Preparation: 2011-02-04 | Prepared By: PG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	23.6	mg/L	1	25.0	<0.0142	94	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	23.7	mg/L	1	25.0	<0.0142	95	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 77415 | Date Analyzed: 2011-02-04 | Analyzed By: PG
Prep Batch: 66402 | QC Preparation: 2011-02-04 | Prepared By: PG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	24.1	mg/L	1	25.0	<0.126	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	24.2	mg/L	1	25.0	<0.126	97	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 77426
Prep Batch: 66413
Date Analyzed: 2011-02-06
QC Preparation: 2011-02-06
Analyzed By: PG
Prepared By: PG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	24.7	mg/L	1	25.0	<0.126	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	24.7	mg/L	1	25.0	<0.126	99	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 256101

QC Batch: 77170
Prep Batch: 66196
Date Analyzed: 2011-01-25
QC Preparation: 2011-01-25
Analyzed By: AG
Prepared By: AG

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		0.0827	mg/L	1	0.100	<0.000400	83	68.2 - 119.3
Toluene		0.0851	mg/L	1	0.100	<0.000300	85	74.6 - 110.8
Ethylbenzene		0.0786	mg/L	1	0.100	<0.000300	79	71.6 - 111.9
Xylene	[6]	0.204	mg/L	1	0.300	<0.000333	68	71.3 - 113.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		0.0777	mg/L	1	0.100	<0.000400	78	68.2 - 119.3	6	20
Toluene		0.0814	mg/L	1	0.100	<0.000300	81	74.6 - 110.8	4	20
Ethylbenzene	[7]	0.0750	mg/L	1	0.100	<0.000300	75	71.6 - 111.9	5	20
Xylene	[8]	0.193	mg/L	1	0.300	<0.000333	64	71.3 - 113.4	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0829	0.0831	mg/L	1	0.1	83	83	68.2 - 110.1
4-Bromofluorobenzene (4-BFB)	0.0830	0.0816	mg/L	1	0.1	83	82	78.7 - 116.2

[6]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[7]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[8]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Matrix Spike (MS-1) Spiked Sample: 256097

QC Batch: 77415 | Date Analyzed: 2011-02-04 | Analyzed By: PG
Prep Batch: 66402 | QC Preparation: 2011-02-04 | Prepared By: PG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	300000	mg/L	10000	250000	51900	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	299000	mg/L	10000	250000	51900	99	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 256097

QC Batch: 77415 | Date Analyzed: 2011-02-04 | Analyzed By: PG
Prep Batch: 66402 | QC Preparation: 2011-02-04 | Prepared By: PG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	241000	mg/L	10000	250000	1900	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	240000	mg/L	10000	250000	1900	95	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 255931

QC Batch: 77426 | Date Analyzed: 2011-02-06 | Analyzed By: PG
Prep Batch: 66413 | QC Preparation: 2011-02-06 | Prepared By: PG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	1780	mg/L	50	1250	478	104	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	1790	mg/L	50	1250	478	105	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (CCV-1)

QC Batch: 77170 Date Analyzed: 2011-01-25 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0857	86	80 - 120	2011-01-25
Toluene		mg/L	0.100	0.100	100	80 - 120	2011-01-25
Ethylbenzene		mg/L	0.100	0.104	104	80 - 120	2011-01-25
Xylene		mg/L	0.300	0.314	105	80 - 120	2011-01-25

Standard (CCV-2)

QC Batch: 77170 Date Analyzed: 2011-01-25 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0873	87	80 - 120	2011-01-25
Toluene		mg/L	0.100	0.101	101	80 - 120	2011-01-25
Ethylbenzene		mg/L	0.100	0.105	105	80 - 120	2011-01-25
Xylene		mg/L	0.300	0.315	105	80 - 120	2011-01-25

Standard (CCV-3)

QC Batch: 77170 Date Analyzed: 2011-01-25 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0844	84	80 - 120	2011-01-25
Toluene		mg/L	0.100	0.0988	99	80 - 120	2011-01-25
Ethylbenzene		mg/L	0.100	0.103	103	80 - 120	2011-01-25
Xylene		mg/L	0.300	0.310	103	80 - 120	2011-01-25

Standard (CCV-1)

QC Batch: 77205 Date Analyzed: 2011-01-27 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0921	92	80 - 120	2011-01-27
Toluene		mg/L	0.100	0.0994	99	80 - 120	2011-01-27
Ethylbenzene		mg/L	0.100	0.108	108	80 - 120	2011-01-27

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		mg/L	0.300	0.326	109	80 - 120	2011-01-27

Standard (CCV-2)

QC Batch: 77205 Date Analyzed: 2011-01-27 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0887	89	80 - 120	2011-01-27
Toluene		mg/L	0.100	0.0969	97	80 - 120	2011-01-27
Ethylbenzene		mg/L	0.100	0.101	101	80 - 120	2011-01-27
Xylene		mg/L	0.300	0.304	101	80 - 120	2011-01-27

Standard (CCV-1)

QC Batch: 77415 Date Analyzed: 2011-02-04 Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	24.0	96	90 - 110	2011-02-04

Standard (CCV-1)

QC Batch: 77415 Date Analyzed: 2011-02-04 Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	24.5	98	90 - 110	2011-02-04

Standard (CCV-2)

QC Batch: 77415 Date Analyzed: 2011-02-04 Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	23.5	94	90 - 110	2011-02-04

Standard (CCV-2)

QC Batch: 77415 Date Analyzed: 2011-02-04 Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	24.0	96	90 - 110	2011-02-04

Standard (CCV-1)

QC Batch: 77426 Date Analyzed: 2011-02-06 Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	25.2	101	90 - 110	2011-02-06

Standard (CCV-2)

QC Batch: 77426 Date Analyzed: 2011-02-06 Analyzed By: PG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	24.7	99	90 - 110	2011-02-06

WO#: 11012135

Analysis Request of Chain of Custody Record

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

PAGE: 1 OF: 1

CLIENT NAME:

SITE MANAGER: Jeff Kindley

PROJECT NO.: 115 616 3134

PROJECT NAME:

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPL DENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: H	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations pH, TDS	
925925	1/19	1758	W		X	MW 1		N	X		X	X	X															X	X
926		1750																											
927																													
928		B				MW-4																							
929																													
930		1743				MW-6																							
931	↓		↓		↓			↓	↓		↓	↓	↓											↓				↓	↓

RELINQUISHED BY: (Signature) Date: 1/24/11 Time: 12:45

RECEIVED BY: (Signature) Date: 1/24/11 Time: 12:45

RELINQUISHED BY: (Signature) Date: 1/24/11 Time: 16:00

RECEIVED BY: (Signature) Date: Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Initial) Date Time

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL OTHER:

RECEIVING LABORATORY: ADDRESS: CITY: STATE: ZIP: CONTACT: PHONE:

RECEIVED BY: (Signature) DATE 01/25/11 TIME 10:10

TA - LS ZK 95149 7 Temp 5.5/3.5°C

TETRA TECH CONTACT PERSON:

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 2 C

REMARKS: *Midland - BTEX, TDS *Lubbock - Chlorides, SO4

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

TRACEANALYSIS, INC.

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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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Report Date: April 27, 2011

Work Order: 11041523

Project Location: Chavez Co., NM
Project Name: Celero/Rock Queen SWD #1
Project Number: 115-6403134A

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
263877	MW-1	water	2011-04-14	11:00	2011-04-15
263878	MW-2	water	2011-04-14	10:55	2011-04-15
263879	MW-3	water	2011-04-14	11:15	2011-04-15
263880	MW-4	water	2011-04-14	11:55	2011-04-15
263881	MW-5	water	2011-04-14	11:30	2011-04-15
263882	MW-6	water	2011-04-14	11:15	2011-04-15
263883	MW-7	water	2011-04-14	11:35	2011-04-15

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Report Contents

Case Narrative

Samples for project Celero/Rock Queen SWD #1 were received by TraceAnalysis, Inc. on 2011-04-15 and assigned to work order 11041523. Samples for work order 11041523 were received intact without headspace and at a temperature of 0.6 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	68257	2011-04-18 at 08:51	80419	2011-04-18 at 08:51
Chloride (IC)	E 300.0	68352	2011-04-19 at 15:05	80544	2011-04-21 at 15:08
Chloride (IC)	E 300.0	68353	2011-04-19 at 15:06	80545	2011-04-21 at 15:09
Chloride (IC)	E 300.0	68437	2011-04-25 at 09:23	80664	2011-04-26 at 15:31
SO4 (IC)	E 300.0	68352	2011-04-19 at 15:05	80544	2011-04-21 at 15:08
SO4 (IC)	E 300.0	68353	2011-04-19 at 15:06	80545	2011-04-21 at 15:09
TDS	SM 2540C	68386	2011-04-19 at 11:50	80661	2011-04-25 at 15:08

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11041523 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 263877 - MW-1

Laboratory: Midland
Analysis: BTEX
QC Batch: 80419
Prep Batch: 68257

Analytical Method: S 8021B
Date Analyzed: 2011-04-18
Sample Preparation: 2011-04-18

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.00880**	mg/L	1	0.00100
Toluene		1	**0.00550**	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0684	mg/L	1	0.100	68	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.0722	mg/L	1	0.100	72	51.1 - 128

Sample: 263877 - MW-1

Laboratory: Midland
Analysis: Chloride (IC)
QC Batch: 80664
Prep Batch: 68437

Analytical Method: E 300.0
Date Analyzed: 2011-04-26
Sample Preparation: 2011-04-25

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**174000**	mg/L	5000	2.50

Sample: 263877 - MW-1

Laboratory: Midland
Analysis: SO4 (IC)
QC Batch: 80544
Prep Batch: 68352

Analytical Method: E 300.0
Date Analyzed: 2011-04-21
Sample Preparation: 2011-04-19

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**1830**	mg/L	100	2.50

Sample: 263877 - MW-1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80661	Date Analyzed:	2011-04-25	Analyzed By:	AR
Prep Batch:	68386	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**237000**	mg/L	100	10.0

Sample: 263878 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	80419	Date Analyzed:	2011-04-18	Analyzed By:	ME
Prep Batch:	68257	Sample Preparation:	2011-04-18	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.00760**	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0708	mg/L	1	0.100	71	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.0783	mg/L	1	0.100	78	51.1 - 128

Sample: 263878 - MW-2

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80544	Date Analyzed:	2011-04-21	Analyzed By:	AR
Prep Batch:	68352	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**99700**	mg/L	5000	2.50

Sample: 263878 - MW-2

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80544	Date Analyzed:	2011-04-21	Analyzed By:	AR
Prep Batch:	68352	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**1820**	mg/L	50	2.50

Sample: 263878 - MW-2

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80661	Date Analyzed:	2011-04-25	Analyzed By:	AR
Prep Batch:	68386	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**159000**	mg/L	100	10.0

Sample: 263879 - MW-3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	80419	Date Analyzed:	2011-04-18	Analyzed By:	ME
Prep Batch:	68257	Sample Preparation:	2011-04-18	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.00590**	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0717	mg/L	1	0.100	72	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.0830	mg/L	1	0.100	83	51.1 - 128

Sample: 263879 - MW-3

Laboratory: Midland
Analysis: Chloride (IC)
QC Batch: 80544
Prep Batch: 68352

Analytical Method: E 300.0
Date Analyzed: 2011-04-21
Sample Preparation: 2011-04-19

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**118000**	mg/L	5000	2.50

Sample: 263879 - MW-3

Laboratory: Midland
Analysis: SO4 (IC)
QC Batch: 80544
Prep Batch: 68352

Analytical Method: E 300.0
Date Analyzed: 2011-04-21
Sample Preparation: 2011-04-19

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**1250**	mg/L	50	2.50

Sample: 263879 - MW-3

Laboratory: Midland
Analysis: TDS
QC Batch: 80661
Prep Batch: 68386

Analytical Method: SM 2540C
Date Analyzed: 2011-04-25
Sample Preparation: 2011-04-19

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**188000**	mg/L	100	10.0

Sample: 263880 - MW-4

Laboratory: Midland
Analysis: BTEX
QC Batch: 80419
Prep Batch: 68257

Analytical Method: S 8021B
Date Analyzed: 2011-04-18
Sample Preparation: 2011-04-18

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

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sample 263880 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.00640**	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0720	mg/L	1	0.100	72	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.0776	mg/L	1	0.100	78	51.1 - 128

Sample: 263880 - MW-4

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80545	Date Analyzed:	2011-04-21	Analyzed By:	AR
Prep Batch:	68353	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**102000**	mg/L	5000	2.50

Sample: 263880 - MW-4

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80545	Date Analyzed:	2011-04-21	Analyzed By:	AR
Prep Batch:	68353	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**1950**	mg/L	50	2.50

Sample: 263880 - MW-4

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80661	Date Analyzed:	2011-04-25	Analyzed By:	AR
Prep Batch:	68386	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**159000**	mg/L	100	10.0

Sample: 263881 - MW-5

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	80419	Date Analyzed:	2011-04-18	Analyzed By:	ME
Prep Batch:	68257	Sample Preparation:	2011-04-18	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	<0.00100	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0965	mg/L	1	0.100	96	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.102	mg/L	1	0.100	102	51.1 - 128

Sample: 263881 - MW-5

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80545	Date Analyzed:	2011-04-21	Analyzed By:	AR
Prep Batch:	68353	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**20000**	mg/L	1000	2.50

Sample: 263881 - MW-5

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80545	Date Analyzed:	2011-04-21	Analyzed By:	AR
Prep Batch:	68353	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**1070**	mg/L	100	2.50

Sample: 263881 - MW-5

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80661	Date Analyzed:	2011-04-25	Analyzed By:	AR
Prep Batch:	68386	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**39400**	mg/L	100	10.0

Sample: 263882 - MW-6

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	80419	Date Analyzed:	2011-04-18	Analyzed By:	ME
Prep Batch:	68257	Sample Preparation:	2011-04-18	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	<0.00100	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.101	mg/L	1	0.100	101	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.103	mg/L	1	0.100	103	51.1 - 128

Sample: 263882 - MW-6

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80545	Date Analyzed:	2011-04-21	Analyzed By:	AR
Prep Batch:	68353	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**1320**	mg/L	100	2.50

Sample: 263882 - MW-6

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	80545	Date Analyzed:	2011-04-21	Analyzed By:	AR
Prep Batch:	68353	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**188**	mg/L	5	2.50

Sample: 263882 - MW-6

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80661	Date Analyzed:	2011-04-25	Analyzed By:	AR
Prep Batch:	68386	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**2100**	mg/L	5	10.0

Sample: 263883 - MW-7

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	80419	Date Analyzed:	2011-04-18	Analyzed By:	ME
Prep Batch:	68257	Sample Preparation:	2011-04-18	Prepared By:	ME

continued . . .

sample 263883 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	<0.00100	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0875	mg/L	1	0.100	88	67.8 - 129
4-Bromofluorobenzene (4-BFB)		1	0.101	mg/L	1	0.100	101	51.1 - 128

Sample: 263883 - MW-7

Laboratory: Midland
Analysis: Chloride (IC)
QC Batch: 80545
Prep Batch: 68353

Analytical Method: E 300.0
Date Analyzed: 2011-04-21
Sample Preparation: 2011-04-19

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**61500**	mg/L	5000	2.50

Sample: 263883 - MW-7

Laboratory: Midland
Analysis: SO4 (IC)
QC Batch: 80545
Prep Batch: 68353

Analytical Method: E 300.0
Date Analyzed: 2011-04-21
Sample Preparation: 2011-04-19

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**657**	mg/L	50	2.50

Sample: 263883 - MW-7

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	80661	Date Analyzed:	2011-04-25	Analyzed By:	AR
Prep Batch:	68386	Sample Preparation:	2011-04-19	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**91000**	mg/L	100	10.0

Method Blanks

Method Blank (1) QC Batch: 80419

QC Batch: 80419
Prep Batch: 68257

Date Analyzed: 2011-04-18
QC Preparation: 2011-04-18

Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1	0.0911	mg/L	1	0.100	91	70.2 - 118
4-Bromofluorobenzene (4-BFB)		1	0.104	mg/L	1	0.100	104	47.3 - 116

Method Blank (1) QC Batch: 80544

QC Batch: 80544
Prep Batch: 68352

Date Analyzed: 2011-04-21
QC Preparation: 2011-04-19

Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	0.511	mg/L	2.5

Method Blank (1) QC Batch: 80544

QC Batch: 80544
Prep Batch: 68352

Date Analyzed: 2011-04-21
QC Preparation: 2011-04-19

Analyzed By: AR
Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Sulfate		1	<0.177	mg/L	2.5

Method Blank (1) QC Batch: 80545

QC Batch: 80545 Date Analyzed: 2011-04-21 Analyzed By: AR
Prep Batch: 68353 QC Preparation: 2011-04-19 Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	1.10	mg/L	2.5

Method Blank (1) QC Batch: 80545

QC Batch: 80545 Date Analyzed: 2011-04-21 Analyzed By: AR
Prep Batch: 68353 QC Preparation: 2011-04-19 Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Sulfate		1	<0.177	mg/L	2.5

Method Blank (1) QC Batch: 80661

QC Batch: 80661 Date Analyzed: 2011-04-25 Analyzed By: AR
Prep Batch: 68386 QC Preparation: 2011-04-19 Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1	<9.75	mg/L	10

Method Blank (1) QC Batch: 80664

QC Batch: 80664 Date Analyzed: 2011-04-26 Analyzed By: AR
Prep Batch: 68437 QC Preparation: 2011-04-25 Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	0.484	mg/L	2.5

Duplicates (1) Duplicated Sample: 263885

QC Batch: 80661
Prep Batch: 68386

Date Analyzed: 2011-04-25
QC Preparation: 2011-04-19

Analyzed By: AR
Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	90500	84500	mg/L	100	7	10

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 80419
Prep Batch: 68257

Date Analyzed: 2011-04-18
QC Preparation: 2011-04-18

Analyzed By: ME
Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0882	mg/L	1	0.100	<0.000400	88	76.8 - 110
Toluene		1	0.0944	mg/L	1	0.100	<0.000300	94	81 - 108
Ethylbenzene		1	0.0965	mg/L	1	0.100	<0.000300	96	78.8 - 118
Xylene		1	0.291	mg/L	1	0.300	<0.000333	97	80.3 - 119

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0948	mg/L	1	0.100	<0.000400	95	76.8 - 110	7	20
Toluene		1	0.102	mg/L	1	0.100	<0.000300	102	81 - 108	8	20
Ethylbenzene		1	0.104	mg/L	1	0.100	<0.000300	104	78.8 - 118	8	20
Xylene		1	0.314	mg/L	1	0.300	<0.000333	105	80.3 - 119	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1	0.0994	0.0964	mg/L	1	0.100	99	96	66.6 - 114
4-Bromofluorobenzene (4-BFB)	1	0.119	0.116	mg/L	1	0.100	119	116	68.2 - 124

Laboratory Control Spike (LCS-1)

QC Batch: 80544
Prep Batch: 68352

Date Analyzed: 2011-04-21
QC Preparation: 2011-04-19

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	25.2	mg/L	1	25.0	<0.265	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	25.2	mg/L	1	25.0	<0.265	101	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 80544
Prep Batch: 68352

Date Analyzed: 2011-04-21
QC Preparation: 2011-04-19

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	24.8	mg/L	1	25.0	<0.177	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	24.7	mg/L	1	25.0	<0.177	99	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 80545
Prep Batch: 68353

Date Analyzed: 2011-04-21
QC Preparation: 2011-04-19

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	25.4	mg/L	1	25.0	<0.265	102	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	25.5	mg/L	1	25.0	<0.265	102	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 80545
Prep Batch: 68353

Date Analyzed: 2011-04-21
QC Preparation: 2011-04-19

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	24.6	mg/L	1	25.0	<0.177	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	24.6	mg/L	1	25.0	<0.177	98	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 80661
Prep Batch: 68386

Date Analyzed: 2011-04-25
QC Preparation: 2011-04-19

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	997	mg/L	1	1000	<9.75	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	988	mg/L	1	1000	<9.75	99	90 - 110	1	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 80664
Prep Batch: 68437

Date Analyzed: 2011-04-26
QC Preparation: 2011-04-25

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	25.2	mg/L	1	25.0	<0.265	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	25.5	mg/L	1	25.0	<0.265	102	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 263879

QC Batch: 80544
Prep Batch: 68352

Date Analyzed: 2011-04-21
QC Preparation: 2011-04-19

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	115000	mg/L	50	1380	115000	0	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	116000	mg/L	50	1380	115000	0	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 263879

QC Batch: 80544
Prep Batch: 68352

Date Analyzed: 2011-04-21
QC Preparation: 2011-04-19

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	2360	mg/L	50	1380	1250	81	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	2370	mg/L	50	1380	1250	81	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 263882

QC Batch: 80545
Prep Batch: 68353

Date Analyzed: 2011-04-21
QC Preparation: 2011-04-19

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	3920	mg/L	100	2750	1320	94	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	3900	mg/L	100	2750	1320	94	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 263882

QC Batch: 80545
Prep Batch: 68353

Date Analyzed: 2011-04-21
QC Preparation: 2011-04-19

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	2890	mg/L	100	2750	438	89	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	2890	mg/L	100	2750	438	89	90 - 110	30	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 263900

QC Batch: 80664
Prep Batch: 68437

Date Analyzed: 2011-04-26
QC Preparation: 2011-04-25

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	354	mg/L	10	275	139	78	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	352	mg/L	10	275	139	77	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (CCV-1)

QC Batch: 80419 Date Analyzed: 2011-04-18 Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0932	93	80 - 120	2011-04-18
Toluene		1	mg/L	0.100	0.0973	97	80 - 120	2011-04-18
Ethylbenzene		1	mg/L	0.100	0.0962	96	80 - 120	2011-04-18
Xylene		1	mg/L	0.300	0.292	97	80 - 120	2011-04-18

Standard (CCV-2)

QC Batch: 80419 Date Analyzed: 2011-04-18 Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0964	96	80 - 120	2011-04-18
Toluene		1	mg/L	0.100	0.100	100	80 - 120	2011-04-18
Ethylbenzene		1	mg/L	0.100	0.0997	100	80 - 120	2011-04-18
Xylene		1	mg/L	0.300	0.298	99	80 - 120	2011-04-18

Standard (ICV-1)

QC Batch: 80544 Date Analyzed: 2011-04-21 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.1	96	90 - 110	2011-04-21

Standard (ICV-1)

QC Batch: 80544 Date Analyzed: 2011-04-21 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	24.8	99	90 - 110	2011-04-21

Standard (CCV-1)

QC Batch: 80544 Date Analyzed: 2011-04-21 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.4	98	90 - 110	2011-04-21

Standard (CCV-1)

QC Batch: 80544 Date Analyzed: 2011-04-21 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	25.0	100	90 - 110	2011-04-21

Standard (ICV-1)

QC Batch: 80545 Date Analyzed: 2011-04-21 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.4	98	90 - 110	2011-04-21

Standard (ICV-1)

QC Batch: 80545 Date Analyzed: 2011-04-21 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	25.0	100	90 - 110	2011-04-21

Standard (CCV-1)

QC Batch: 80545 Date Analyzed: 2011-04-21 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2011-04-21

Standard (CCV-1)

QC Batch: 80545 Date Analyzed: 2011-04-21 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	25.1	100	90 - 110	2011-04-21

Standard (ICV-1)

QC Batch: 80664 Date Analyzed: 2011-04-26 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.8	91	90 - 110	2011-04-26

Standard (CCV-1)

QC Batch: 80664 Date Analyzed: 2011-04-26 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.3	93	90 - 110	2011-04-26

Appendix

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

xWO#: 1104523

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 1

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

ANALYSIS REQUEST (Circle or Specify Method No.)

CLIENT NAME: Celero

SITE MANAGER: Jeff Kindley

PROJECT NO.: 115-6403134

PROJECT NAME: Rock Queen SWD #1

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, (TDS)	Sulfates
263877	4/14	1100	W		X	mw-1	4	N	X		X	X	X											X				X	X
878		1055				mw-2																							
879		1115				mw-3																							
880		1155				mw-4																							
881		1130				mw-5																							
882		1115				mw-6																							
883	4/14	1135	W		X	mw-7	4	N	X		X	X	X											X				X	X

RELINQUISHED BY: (Signature) — Date: 4-15-11 Time:
RECEIVED BY: (Signature) — Date: 4/15/11 Time: 1350

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:

SAMPLED BY: (Print & Initial) James Kennedy 9PK — Date: 4-14-11 Time:

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS
HAND DELIVERED UPS
AIRBILL #:
OTHER:

TETRA TECH CONTACT PERSON: Jeff Kindley

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: Ice Intact

REMARKS: Full tests-Midland

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report
(Corrected Report)

Jeff Kindley
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: August 26, 2011

Work Order: 11080103

Project Location: Chavez Co., NM
Project Name: Celero/Rock Queen SWD #1
Project Number: 115-6403134

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
273187	MW-1	water	2011-07-29	11:50	2011-07-29
273188	MW-2	water	2011-07-29	11:20	2011-07-29
273189	MW-3	water	2011-07-29	11:40	2011-07-29
273190	MW-4	water	2011-07-29	12:00	2011-07-29
273191	MW-5	water	2011-07-29	12:10	2011-07-29
273192	MW-6	water	2011-07-29	11:10	2011-07-29
273193	MW-7	water	2011-07-29	11:30	2011-07-29

Report Corrections (Work Order 11080103)

- Corrected project number to 115-6403134 per J. Fitch. 8/26/11

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

TraceAnalysis, Inc.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Report Contents

Case Narrative

Samples for project Celero/Rock Queen SWD #1 were received by TraceAnalysis, Inc. on 2011-07-29 and assigned to work order 11080103. Samples for work order 11080103 were received intact without headspace and at a temperature of 10.8 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	70921	2011-08-02 at 09:42	83491	2011-08-02 at 09:42
BTEX	S 8021B	70958	2011-08-03 at 09:47	83538	2011-08-03 at 09:47
Chloride (IC)	E 300.0	70867	2011-08-01 at 12:06	83504	2011-08-02 at 11:11
Chloride (IC)	E 300.0	70869	2011-08-01 at 12:42	83505	2011-08-02 at 11:12
SO4 (IC)	E 300.0	70867	2011-08-01 at 12:06	83504	2011-08-02 at 11:11
SO4 (IC)	E 300.0	70869	2011-08-01 at 12:42	83505	2011-08-02 at 11:12
TDS	SM 2540C	70895	2011-08-02 at 08:59	83717	2011-08-09 at 11:17

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11080103 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

Samples were received on ice.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 273187 - MW-1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	83538	Date Analyzed:	2011-08-03	Analyzed By:	ME
Prep Batch:	70958	Sample Preparation:	2011-08-03	Prepared By:	ME

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.00810**	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0721	mg/L	1	0.100	72	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0705	mg/L	1	0.100	70	67.5 - 140.8

Sample: 273187 - MW-1

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83504	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70867	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride		1	**137000**	mg/L	5000	2.50

Sample: 273187 - MW-1

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83504	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70867	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Sulfate		1	**1730**	mg/L	50	2.50

Sample: 273187 - MW-1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	83717	Date Analyzed:	2011-08-09	Analyzed By:	AR
Prep Batch:	70895	Sample Preparation:	2011-08-02	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**223000**	mg/L	100	10.0

Sample: 273188 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	83491	Date Analyzed:	2011-08-02	Analyzed By:	ME
Prep Batch:	70921	Sample Preparation:	2011-08-02	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.00920**	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0778	mg/L	1	0.100	78	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0795	mg/L	1	0.100	80	67.5 - 140.8

Sample: 273188 - MW-2

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83504	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70867	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**90400**	mg/L	5000	2.50

Sample: 273188 - MW-2

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83504	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70867	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**1770**	mg/L	50	2.50

Sample: 273188 - MW-2

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	83717	Date Analyzed:	2011-08-09	Analyzed By:	AR
Prep Batch:	70895	Sample Preparation:	2011-08-02	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**155000**	mg/L	100	10.0

Sample: 273189 - MW-3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	83491	Date Analyzed:	2011-08-02	Analyzed By:	ME
Prep Batch:	70921	Sample Preparation:	2011-08-02	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0836	mg/L	1	0.100	84	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0852	mg/L	1	0.100	85	67.5 - 140.8

Sample: 273189 - MW-3

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83504	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70867	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**66900**	mg/L	5000	2.50

Sample: 273189 - MW-3

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83504	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70867	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**1100**	mg/L	50	2.50

Sample: 273189 - MW-3

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	83717	Date Analyzed:	2011-08-09	Analyzed By:	AR
Prep Batch:	70895	Sample Preparation:	2011-08-02	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**103000**	mg/L	100	10.0

Sample: 273190 - MW-4

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	83491	Date Analyzed:	2011-08-02	Analyzed By:	ME
Prep Batch:	70921	Sample Preparation:	2011-08-02	Prepared By:	ME

continued ...

sample 273190 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.00840**	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0729	mg/L	1	0.100	73	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0742	mg/L	1	0.100	74	67.5 - 140.8

Sample: 273190 - MW-4

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83504	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70867	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**107000**	mg/L	5000	2.50

Sample: 273190 - MW-4

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83504	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70867	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**2120**	mg/L	50	2.50

Sample: 273190 - MW-4

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	83717	Date Analyzed:	2011-08-09	Analyzed By:	AR
Prep Batch:	70895	Sample Preparation:	2011-08-02	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**171000**	mg/L	100	10.0

Sample: 273191 - MW-5

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	83491	Date Analyzed:	2011-08-02	Analyzed By:	ME
Prep Batch:	70921	Sample Preparation:	2011-08-02	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0992	mg/L	1	0.100	99	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0959	mg/L	1	0.100	96	67.5 - 140.8

Sample: 273191 - MW-5

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83505	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70869	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**24300**	mg/L	5000	2.50

Sample: 273191 - MW-5

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83505	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70869	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Sulfate		1	**854**	mg/L	50	2.50

Sample: 273191 - MW-5

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	83717	Date Analyzed:	2011-08-09	Analyzed By:	AR
Prep Batch:	70895	Sample Preparation:	2011-08-02	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Total Dissolved Solids		1	**46700**	mg/L	100	10.0

Sample: 273192 - MW-6

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	83491	Date Analyzed:	2011-08-02	Analyzed By:	ME
Prep Batch:	70921	Sample Preparation:	2011-08-02	Prepared By:	ME

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0962	mg/L	1	0.100	96	67.5 - 140.8

Sample: 273192 - MW-6

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83505	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70869	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**912**	mg/L	100	2.50

Sample: 273192 - MW-6

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83505	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70869	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**146**	mg/L	5	2.50

Sample: 273192 - MW-6

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	83717	Date Analyzed:	2011-08-09	Analyzed By:	AR
Prep Batch:	70895	Sample Preparation:	2011-08-02	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**1860**	mg/L	5	10.0

Sample: 273193 - MW-7

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	83491	Date Analyzed:	2011-08-02	Analyzed By:	ME
Prep Batch:	70921	Sample Preparation:	2011-08-02	Prepared By:	ME

continued ...

sample 273193 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0989	mg/L	1	0.100	99	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0939	mg/L	1	0.100	94	67.5 - 140.8

Sample: 273193 - MW-7

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83505	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70869	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**17400**	mg/L	1000	2.50

Sample: 273193 - MW-7

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	83505	Date Analyzed:	2011-08-02	Analyzed By:	AR
Prep Batch:	70869	Sample Preparation:	2011-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Sulfate		1	**172**	mg/L	5	2.50

Sample: 273193 - MW-7

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	83717	Date Analyzed:	2011-08-09	Analyzed By:	AR
Prep Batch:	70895	Sample Preparation:	2011-08-02	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**29500**	mg/L	100	10.0

Method Blanks

Method Blank (1) QC Batch: 83491

QC Batch: 83491 | Date Analyzed: 2011-08-02 | Analyzed By: ME
Prep Batch: 70921 | QC Preparation: 2011-08-02 | Prepared By: ME

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0926	mg/L	1	0.100	93	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0850	mg/L	1	0.100	85	45.9 - 126.4

Method Blank (1) QC Batch: 83504

QC Batch: 83504 | Date Analyzed: 2011-08-02 | Analyzed By: AR
Prep Batch: 70867 | QC Preparation: 2011-08-01 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	2.71	mg/L	2.5

Method Blank (1) QC Batch: 83504

QC Batch: 83504 | Date Analyzed: 2011-08-02 | Analyzed By: AR
Prep Batch: 70867 | QC Preparation: 2011-08-01 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Sulfate		1	<0.177	mg/L	2.5

Method Blank (1) QC Batch: 83505

QC Batch: 83505 | Date Analyzed: 2011-08-02 | Analyzed By: AR
Prep Batch: 70869 | QC Preparation: 2011-08-01 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	0.780	mg/L	2.5

Method Blank (1) QC Batch: 83505

QC Batch: 83505 | Date Analyzed: 2011-08-02 | Analyzed By: AR
Prep Batch: 70869 | QC Preparation: 2011-08-01 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Sulfate		1	<0.177	mg/L	2.5

Method Blank (1) QC Batch: 83538

QC Batch: 83538 | Date Analyzed: 2011-08-03 | Analyzed By: ME
Prep Batch: 70958 | QC Preparation: 2011-08-03 | Prepared By: ME

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.103	mg/L	1	0.100	103	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0946	mg/L	1	0.100	95	45.9 - 126.4

Method Blank (1) QC Batch: 83717

QC Batch: 83717 | Date Analyzed: 2011-08-09 | Analyzed By: AR
Prep Batch: 70895 | QC Preparation: 2011-08-02 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1	<9.75	mg/L	10

Duplicates (1) Duplicated Sample: 273196

QC Batch:	83717	Date Analyzed:	2011-08-09	Analyzed By:	AR
Prep Batch:	70895	QC Preparation:	2011-08-02	Prepared By:	AR

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1	99100	93400	mg/L	100	6	10

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 83491 | Date Analyzed: 2011-08-02 | Analyzed By: ME
Prep Batch: 70921 | QC Preparation: 2011-08-02 | Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.104	mg/L	1	0.100	<0.000400	104	76.8 - 110.3
Toluene		1	0.101	mg/L	1	0.100	<0.000300	101	90.9 - 122.2
Ethylbenzene		1	0.0945	mg/L	1	0.100	<0.000300	94	72.7 - 120.2
Xylene		1	0.284	mg/L	1	0.300	<0.000333	95	72.1 - 121.5

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.104	mg/L	1	0.100	<0.000400	104	76.8 - 110.3	0	20
Toluene		1	0.101	mg/L	1	0.100	<0.000300	101	90.9 - 122.2	0	20
Ethylbenzene		1	0.0952	mg/L	1	0.100	<0.000300	95	72.7 - 120.2	1	20
Xylene		1	0.286	mg/L	1	0.300	<0.000333	95	72.1 - 121.5	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0993	0.0992	mg/L	1	0.100	99	99	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0973	0.0980	mg/L	1	0.100	97	98	56.4 - 127.9

Laboratory Control Spike (LCS-1)

QC Batch: 83504 | Date Analyzed: 2011-08-02 | Analyzed By: AR
Prep Batch: 70867 | QC Preparation: 2011-08-01 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	26.0	mg/L	1	25.0	<0.265	104	90.9 - 113.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	26.1	mg/L	1	25.0	<0.265	104	90.9 - 113.9	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 83504 | Date Analyzed: 2011-08-02 | Analyzed By: AR
Prep Batch: 70867 | QC Preparation: 2011-08-01 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	24.9	mg/L	1	25.0	<0.177	100	99 - 113.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	25.4	mg/L	1	25.0	<0.177	102	99 - 113.6	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 83505 | Date Analyzed: 2011-08-02 | Analyzed By: AR
Prep Batch: 70869 | QC Preparation: 2011-08-01 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	25.6	mg/L	1	25.0	<0.265	102	90.9 - 113.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	25.7	mg/L	1	25.0	<0.265	103	90.9 - 113.9	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 83505 | Date Analyzed: 2011-08-02 | Analyzed By: AR
Prep Batch: 70869 | QC Preparation: 2011-08-01 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	25.0	mg/L	1	25.0	<0.177	100	99 - 113.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	24.8	mg/L	1	25.0	<0.177	99	99 - 113.6	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 83538 | Date Analyzed: 2011-08-03 | Analyzed By: ME
Prep Batch: 70958 | QC Preparation: 2011-08-03 | Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.101	mg/L	1	0.100	<0.000400	101	76.8 - 110.3
Toluene		1	0.0979	mg/L	1	0.100	<0.000300	98	90.9 - 122.2
Ethylbenzene		1	0.0919	mg/L	1	0.100	<0.000300	92	72.7 - 120.2
Xylene		1	0.276	mg/L	1	0.300	<0.000333	92	72.1 - 121.5

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.103	mg/L	1	0.100	<0.000400	103	76.8 - 110.3	2	20
Toluene		1	0.0996	mg/L	1	0.100	<0.000300	100	90.9 - 122.2	2	20
Ethylbenzene		1	0.0942	mg/L	1	0.100	<0.000300	94	72.7 - 120.2	2	20
Xylene		1	0.282	mg/L	1	0.300	<0.000333	94	72.1 - 121.5	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0992	0.0894	mg/L	1	0.100	99	89	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0986	0.0880	mg/L	1	0.100	99	88	56.4 - 127.9

Laboratory Control Spike (LCS-1)

QC Batch: 83717 | Date Analyzed: 2011-08-09 | Analyzed By: AR
Prep Batch: 70895 | QC Preparation: 2011-08-02 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	964	mg/L	1	1000	<9.75	96	85.5 - 112.7

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	1010	mg/L	1	1000	<9.75	101	85.5 - 112.7	5	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 273205

QC Batch: 83491 | Date Analyzed: 2011-08-02 | Analyzed By: ME
Prep Batch: 70921 | QC Preparation: 2011-08-02 | Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0992	mg/L	1	0.100	<0.000400	99	66.9 - 128.2
Toluene		1	0.0931	mg/L	1	0.100	<0.000300	93	81.6 - 122.9
Ethylbenzene		1	0.0805	mg/L	1	0.100	<0.000300	80	62.7 - 117.9
Xylene		1	0.241	mg/L	1	0.300	<0.000333	80	62.9 - 118.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.107	mg/L	1	0.100	<0.000400	107	66.9 - 128.2	8	20
Toluene		1	0.0999	mg/L	1	0.100	<0.000300	100	81.6 - 122.9	7	20
Ethylbenzene		1	0.0868	mg/L	1	0.100	<0.000300	87	62.7 - 117.9	8	20
Xylene		1	0.259	mg/L	1	0.300	<0.000333	86	62.9 - 118.2	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0945	0.0975	mg/L	1	0.1	94	98	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	0.0964	0.0997	mg/L	1	0.1	96	100	52.2 - 135.8

Matrix Spike (MS-1) Spiked Sample: 273188

QC Batch: 83504 | Date Analyzed: 2011-08-02 | Analyzed By: AR
Prep Batch: 70867 | QC Preparation: 2011-08-01 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	76800	mg/L	50	1380	<13.2	5585	48.4 - 143.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	76800	mg/L	50	1380	<13.2	5585	48.4 - 143.2	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 273188

QC Batch: 83504 | Date Analyzed: 2011-08-02 | Analyzed By: AR
Prep Batch: 70867 | QC Preparation: 2011-08-01 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	2800	mg/L	50	1380	1770	75	59.7 - 115.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	2790	mg/L	50	1380	1770	74	59.7 - 115.4	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 273192

QC Batch: 83505 | Date Analyzed: 2011-08-02 | Analyzed By: AR
Prep Batch: 70869 | QC Preparation: 2011-08-01 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	3210	mg/L	100	2750	912	84	48.4 - 143.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	3260	mg/L	100	2750	912	85	48.4 - 143.2	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 273192

QC Batch: 83505 | Date Analyzed: 2011-08-02 | Analyzed By: AR
Prep Batch: 70869 | QC Preparation: 2011-08-01 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate		1	2400	mg/L	100	2750	148	82	59.7 - 115.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate		1	2430	mg/L	100	2750	148	83	59.7 - 115.4	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 273037

QC Batch: 83538 | Date Analyzed: 2011-08-03 | Analyzed By: ME
Prep Batch: 70958 | QC Preparation: 2011-08-03 | Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.587	mg/L	5	0.500	0.127	92	66.9 - 128.2
Toluene		1	0.544	mg/L	5	0.500	0.1205	85	81.6 - 122.9
Ethylbenzene		1	0.421	mg/L	5	0.500	<0.00150	84	62.7 - 117.9
Xylene		1	1.29	mg/L	5	1.50	0.1543	76	62.9 - 118.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.607	mg/L	5	0.500	0.127	96	66.9 - 128.2	3	20
Toluene		1	0.563	mg/L	5	0.500	0.1205	88	81.6 - 122.9	3	20
Ethylbenzene		1	0.438	mg/L	5	0.500	<0.00150	88	62.7 - 117.9	4	20
Xylene		1	1.34	mg/L	5	1.50	0.1543	79	62.9 - 118.2	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.511	0.468	mg/L	5	0.5	102	94	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	0.502	0.461	mg/L	5	0.5	100	92	52.2 - 135.8

Calibration Standards

Standard (CCV-1)

QC Batch: 83491 | Date Analyzed: 2011-08-02 | Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0972	97	80 - 120	2011-08-02
Toluene		1	mg/L	0.100	0.0955	96	80 - 120	2011-08-02
Ethylbenzene		1	mg/L	0.100	0.0882	88	80 - 120	2011-08-02
Xylene		1	mg/L	0.300	0.273	91	80 - 120	2011-08-02

Standard (CCV-2)

QC Batch: 83491 | Date Analyzed: 2011-08-02 | Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.104	104	80 - 120	2011-08-02
Toluene		1	mg/L	0.100	0.0994	99	80 - 120	2011-08-02
Ethylbenzene		1	mg/L	0.100	0.0933	93	80 - 120	2011-08-02
Xylene		1	mg/L	0.300	0.279	93	80 - 120	2011-08-02

Standard (ICV-1)

QC Batch: 83504 | Date Analyzed: 2011-08-02 | Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	26.0	104	90 - 110	2011-08-02

Standard (ICV-1)

QC Batch: 83504 | Date Analyzed: 2011-08-02 | Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	25.5	102	90 - 110	2011-08-02

Standard (CCV-1)

QC Batch: 83504 Date Analyzed: 2011-08-02 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	26.6	106	90 - 110	2011-08-02

Standard (CCV-1)

QC Batch: 83504 Date Analyzed: 2011-08-02 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	26.3	105	90 - 110	2011-08-02

Standard (ICV-1)

QC Batch: 83505 Date Analyzed: 2011-08-02 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	26.6	106	90 - 110	2011-08-02

Standard (ICV-1)

QC Batch: 83505 Date Analyzed: 2011-08-02 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	26.3	105	90 - 110	2011-08-02

Standard (CCV-1)

QC Batch: 83505 Date Analyzed: 2011-08-02 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	25.9	104	90 - 110	2011-08-02

Standard (CCV-1)

QC Batch: 83505 Date Analyzed: 2011-08-02 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	24.9	100	90 - 110	2011-08-02

Standard (CCV-1)

QC Batch: 83538 Date Analyzed: 2011-08-03 Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0989	99	80 - 120	2011-08-03
Toluene		1	mg/L	0.100	0.0948	95	80 - 120	2011-08-03
Ethylbenzene		1	mg/L	0.100	0.0892	89	80 - 120	2011-08-03
Xylene		1	mg/L	0.300	0.271	90	80 - 120	2011-08-03

Standard (CCV-2)

QC Batch: 83538 Date Analyzed: 2011-08-03 Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.102	102	80 - 120	2011-08-03
Toluene		1	mg/L	0.100	0.0980	98	80 - 120	2011-08-03
Ethylbenzene		1	mg/L	0.100	0.0920	92	80 - 120	2011-08-03
Xylene		1	mg/L	0.300	0.276	92	80 - 120	2011-08-03

Appendix

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

AWO #: 11080103

Analysis Request of Chain of Custody Record

PAGE: | OF:

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: Cetero

SITE MANAGER: Jeff Kindley

PROJECT NO.: 115-640 3130

PROJECT NAME: Cetero | Rock Queen SWD #1 Chavez Co, NM

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS	TDS	Sulfates
273187	7/29	1150	W		X	MW-1	4	W	X		X		X												X				X	X
188		1120				MW-2																								
189		1140				MW-3																								
190		1200				MW-4																								
191		1210				MW-5																								
192		1110				MW-6																								
193	↓	1130	↓		↓	MW-7	↓	↓	↓		↓		↓												↓				↓	↓

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) — Date: 7/29/11 Time: 1535
RECEIVED BY: (Signature) — Date: 7/29/11 Time: 15:35

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:

SAMPLED BY: (Print & Initial) JT/RS — Date: 7/29/11 Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: OTHER:

RECEIVING LABORATORY: Test America
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:

TETRA TECH CONTACT PERSON: Jeff Kindley

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 10.8° c intact

REMARKS: X All to ESB-Midland

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Jeff Kindley
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: November 10, 2011

Work Order: 11103126

Project Location: Chavez Co., NM
Project Name: Celero/Rock Queen SWD #1
Project Number: 115-6403134A

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
281147	MW-6	water	2011-10-27	13:25	2011-10-31
281148	MW-7	water	2011-10-27	14:25	2011-10-31
281149	MW-5	water	2011-10-27	15:10	2011-10-31
281150	MW-3	water	2011-10-27	15:47	2011-10-31
281151	MW-2	water	2011-10-28	12:50	2011-10-31
281152	MW-4	water	2011-10-28	13:10	2011-10-31
281153	MW-1	water	2011-10-28	13:05	2011-10-31

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Report Contents

Case Narrative

Samples for project Celero/Rock Queen SWD #1 were received by TraceAnalysis, Inc. on 2011-10-31 and assigned to work order 11103126. Samples for work order 11103126 were received intact without headspace and at a temperature of 3.9 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	73013	2011-11-01 at 15:26	85998	2011-11-01 at 15:26
BTEX	S 8021B	73017	2011-11-01 at 15:26	86000	2011-11-01 at 15:26
BTEX	S 8021B	73038	2011-11-02 at 12:52	86025	2011-11-02 at 12:52
BTEX	S 8021B	73126	2011-11-04 at 12:58	86112	2011-11-04 at 12:58
Chloride (IC)	E 300.0	73088	2011-11-02 at 10:34	86079	2011-11-03 at 02:52
Chloride (IC)	E 300.0	73105	2011-11-03 at 09:29	86198	2011-11-03 at 11:29
Chloride (IC)	E 300.0	73106	2011-11-03 at 09:30	86199	2011-11-03 at 11:31

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11103126 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 281147 - MW-6

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	85998	Date Analyzed:	2011-11-01	Analyzed By:	ZLM
Prep Batch:	73013	Sample Preparation:	2011-11-01	Prepared By:	ZLM

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0985	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0984	mg/L	1	0.100	98	70 - 130

Sample: 281147 - MW-6

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86079	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73088	Sample Preparation:	2011-11-02	Prepared By:	AR

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Q*	Qs	2	**1110**	mg/L	100	2.50

Sample: 281148 - MW-7

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	85998	Date Analyzed:	2011-11-01	Analyzed By:	ZLM
Prep Batch:	73013	Sample Preparation:	2011-11-01	Prepared By:	ZLM

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.108	mg/L	1	0.100	108	70 - 130
4-Bromofluorobenzene (4-BFB)			0.114	mg/L	1	0.100	114	70 - 130

Sample: 281148 - MW-7

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86079	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73088	Sample Preparation:	2011-11-02	Prepared By:	AR

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Q*	Qs	2	**49000**	mg/L	5000	2.50

Sample: 281149 - MW-5

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	85998	Date Analyzed:	2011-11-01	Analyzed By:	ZLM
Prep Batch:	73013	Sample Preparation:	2011-11-01	Prepared By:	ZLM

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.107	mg/L	1	0.100	107	70 - 130
4-Bromofluorobenzene (4-BFB)			0.113	mg/L	1	0.100	113	70 - 130

Sample: 281149 - MW-5

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86079	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73088	Sample Preparation:	2011-11-02	Prepared By:	AR

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs	Qs	2	<12500	mg/L	5000	2.50

Sample: 281150 - MW-3

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86025	Date Analyzed:	2011-11-02	Analyzed By:	MT
Prep Batch:	73038	Sample Preparation:	2011-11-02	Prepared By:	MT

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene			1	**0.00120**	mg/L	1	0.00100
Toluene	U	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene			1	**0.00440**	mg/L	1	0.00100

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr		0.134	mg/L	1	0.100	134	70 - 130
4-Bromofluorobenzene (4-BFB)				0.113	mg/L	1	0.100	113	70 - 130

Sample: 281150 - MW-3

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86198	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73105	Sample Preparation:	2011-11-03	Prepared By:	AR

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs	Qs	2	**123000**	mg/L	5000	2.50

Sample: 281151 - MW-2

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	85998	Date Analyzed:	2011-11-01	Analyzed By:	ZLM
Prep Batch:	73013	Sample Preparation:	2011-11-01	Prepared By:	ZLM

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene			1	**0.00390**	mg/L	1	0.00100
Toluene	U	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0987	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.104	mg/L	1	0.100	104	70 - 130

Sample: 281151 - MW-2

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86198	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73105	Sample Preparation:	2011-11-03	Prepared By:	AR

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs	Qs	2	**80300**	mg/L	5000	2.50

Sample: 281152 - MW-4

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86000	Date Analyzed:	2011-11-01	Analyzed By:	ZLM
Prep Batch:	73017	Sample Preparation:	2011-11-01	Prepared By:	ZLM

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene			1	**0.00280**	mg/L	1	0.00100
Toluene	U	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.106	mg/L	1	0.100	106	70 - 130
4-Bromofluorobenzene (4-BFB)			0.113	mg/L	1	0.100	113	70 - 130

Sample: 281152 - MW-4

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86198	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73105	Sample Preparation:	2011-11-03	Prepared By:	AR

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qr	Qs	2	**124000**	mg/L	5000	2.50

Sample: 281153 - MW-1

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86112	Date Analyzed:	2011-11-04	Analyzed By:	MT
Prep Batch:	73126	Sample Preparation:	2011-11-04	Prepared By:	MT

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs	Qr,Qs	1	**0.00400**	mg/L	1	0.00100
Toluene	Qr,Qs,U	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs	Qr,Qs	1	**0.00630**	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.129	mg/L	1	0.100	129	70 - 130
4-Bromofluorobenzene (4-BFB)			0.111	mg/L	1	0.100	111	70 - 130

Sample: 281153 - MW-1

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	86199	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73106	Sample Preparation:	2011-11-03	Prepared By:	AR

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Q*	Qs	2	**143000**	mg/L	10000	2.50

Method Blanks

Method Blank (1) QC Batch: 85998

QC Batch: 85998 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM
Prep Batch: 73013 | QC Preparation: 2011-11-01 | Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000765	mg/L	0.001
Toluene		1	<0.000719	mg/L	0.001
Ethylbenzene		1	<0.000860	mg/L	0.001
Xylene		1	<0.000942	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0927	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0945	mg/L	1	0.100	94	70 - 130

Method Blank (1) QC Batch: 86000

QC Batch: 86000 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM
Prep Batch: 73017 | QC Preparation: 2011-11-01 | Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000765	mg/L	0.001
Toluene		1	<0.000719	mg/L	0.001
Ethylbenzene		1	<0.000860	mg/L	0.001
Xylene		1	<0.000942	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.106	mg/L	1	0.100	106	70 - 130
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	70 - 130

Method Blank (1) QC Batch: 86025

QC Batch: 86025 | Date Analyzed: 2011-11-02 | Analyzed By: MT
Prep Batch: 73038 | QC Preparation: 2011-11-02 | Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000765	mg/L	0.001
Toluene		1	<0.000719	mg/L	0.001
Ethylbenzene		1	<0.000860	mg/L	0.001
Xylene		1	<0.000942	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.111	mg/L	1	0.100	111	70 - 130
4-Bromofluorobenzene (4-BFB)			0.113	mg/L	1	0.100	113	70 - 130

Method Blank (1) QC Batch: 86079

QC Batch: 86079 | Date Analyzed: 2011-11-03 | Analyzed By: AR
Prep Batch: 73088 | QC Preparation: 2011-11-02 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		2	0.677	mg/L	2.5

Method Blank (1) QC Batch: 86112

QC Batch: 86112 | Date Analyzed: 2011-11-04 | Analyzed By: MT
Prep Batch: 73126 | QC Preparation: 2011-11-04 | Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000765	mg/L	0.001
Toluene		1	<0.000719	mg/L	0.001
Ethylbenzene		1	<0.000860	mg/L	0.001
Xylene		1	<0.000942	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.107	mg/L	1	0.100	107	70 - 130

continued ...

method blank continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.108	mg/L	1	0.100	108	70 - 130

Method Blank (1) QC Batch: 86198

QC Batch:	86198	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73105	QC Preparation:	2011-11-03	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		2	<0.265	mg/L	2.5

Method Blank (1) QC Batch: 86199

QC Batch:	86199	Date Analyzed:	2011-11-03	Analyzed By:	AR
Prep Batch:	73106	QC Preparation:	2011-11-03	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		2	0.704	mg/L	2.5

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 85998 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM
Prep Batch: 73013 | QC Preparation: 2011-11-01 | Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0989	mg/L	1	0.100	<0.000765	99	70 - 130
Toluene		1	0.0957	mg/L	1	0.100	<0.000719	96	70 - 130
Ethylbenzene		1	0.0945	mg/L	1	0.100	<0.000860	94	70 - 130
Xylene		1	0.279	mg/L	1	0.300	<0.000942	93	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0991	mg/L	1	0.100	<0.000765	99	70 - 130	0	20
Toluene		1	0.0949	mg/L	1	0.100	<0.000719	95	70 - 130	1	20
Ethylbenzene		1	0.0941	mg/L	1	0.100	<0.000860	94	70 - 130	0	20
Xylene		1	0.280	mg/L	1	0.300	<0.000942	93	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0935	0.0945	mg/L	1	0.100	94	94	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0948	0.0979	mg/L	1	0.100	95	98	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 86000 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM
Prep Batch: 73017 | QC Preparation: 2011-11-01 | Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.103	mg/L	1	0.100	<0.000765	103	70 - 130
Toluene		1	0.0993	mg/L	1	0.100	<0.000719	99	70 - 130
Ethylbenzene		1	0.0973	mg/L	1	0.100	<0.000860	97	70 - 130
Xylene		1	0.289	mg/L	1	0.300	<0.000942	96	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.107	mg/L	1	0.100	<0.000765	107	70 - 130	4	20
Toluene		1	0.102	mg/L	1	0.100	<0.000719	102	70 - 130	3	20
Ethylbenzene		1	0.0998	mg/L	1	0.100	<0.000860	100	70 - 130	2	20
Xylene		1	0.294	mg/L	1	0.300	<0.000942	98	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.100	0.0953	mg/L	1	0.100	100	95	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0975	0.0923	mg/L	1	0.100	98	92	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 86025 | Date Analyzed: 2011-11-02 | Analyzed By: MT
Prep Batch: 73038 | QC Preparation: 2011-11-02 | Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.109	mg/L	1	0.100	<0.000765	109	70 - 130
Toluene		1	0.103	mg/L	1	0.100	<0.000719	103	70 - 130
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000860	101	70 - 130
Xylene		1	0.301	mg/L	1	0.300	<0.000942	100	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.106	mg/L	1	0.100	<0.000765	106	70 - 130	3	20
Toluene		1	0.102	mg/L	1	0.100	<0.000719	102	70 - 130	1	20
Ethylbenzene		1	0.0990	mg/L	1	0.100	<0.000860	99	70 - 130	2	20
Xylene		1	0.295	mg/L	1	0.300	<0.000942	98	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.105	0.102	mg/L	1	0.100	105	102	70 - 130
4-Bromofluorobenzene (4-BFB)	0.103	0.101	mg/L	1	0.100	103	101	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 86079 | Date Analyzed: 2011-11-03 | Analyzed By: AR
Prep Batch: 73088 | QC Preparation: 2011-11-02 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		2	23.8	mg/L	1	25.0	<0.265	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		2	23.8	mg/L	1	25.0	<0.265	95	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 86112 | Date Analyzed: 2011-11-04 | Analyzed By: MT
Prep Batch: 73126 | QC Preparation: 2011-11-04 | Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.105	mg/L	1	0.100	<0.000765	105	70 - 130
Toluene		1	0.101	mg/L	1	0.100	<0.000719	101	70 - 130
Ethylbenzene		1	0.100	mg/L	1	0.100	<0.000860	100	70 - 130
Xylene		1	0.293	mg/L	1	0.300	<0.000942	98	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.108	mg/L	1	0.100	<0.000765	108	70 - 130	3	20
Toluene		1	0.101	mg/L	1	0.100	<0.000719	101	70 - 130	0	20
Ethylbenzene		1	0.0990	mg/L	1	0.100	<0.000860	99	70 - 130	1	20
Xylene		1	0.294	mg/L	1	0.300	<0.000942	98	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.103	0.102	mg/L	1	0.100	103	102	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0952	0.0962	mg/L	1	0.100	95	96	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 86198 | Date Analyzed: 2011-11-03 | Analyzed By: AR
Prep Batch: 73105 | QC Preparation: 2011-11-03 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		2	22.8	mg/L	1	25.0	<0.265	91	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		2	22.7	mg/L	1	25.0	<0.265	91	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 86199 | Date Analyzed: 2011-11-03 | Analyzed By: AR
Prep Batch: 73106 | QC Preparation: 2011-11-03 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		2	23.0	mg/L	1	25.0	<0.265	92	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		2	23.2	mg/L	1	25.0	<0.265	93	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 281133

QC Batch: 85998 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM
Prep Batch: 73013 | QC Preparation: 2011-11-01 | Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.104	mg/L	1	0.100	<0.000765	104	70 - 130
Toluene		1	0.0987	mg/L	1	0.100	<0.000719	99	70 - 130
Ethylbenzene		1	0.0972	mg/L	1	0.100	<0.000860	97	70 - 130

continued ...

matrix spikes continued ...

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene		1	0.290	mg/L	1	0.300	<0.000942	97	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.104	mg/L	1	0.100	<0.000765	104	70 - 130	0	20
Toluene		1	0.100	mg/L	1	0.100	<0.000719	100	70 - 130	1	20
Ethylbenzene		1	0.0979	mg/L	1	0.100	<0.000860	98	70 - 130	1	20
Xylene		1	0.294	mg/L	1	0.300	<0.000942	98	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.0978	mg/L	1	0.1	101	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0984	0.0961	mg/L	1	0.1	98	96	70 - 130

Matrix Spike (MS-1) Spiked Sample: 281152

QC Batch: 86000 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM
Prep Batch: 73017 | QC Preparation: 2011-11-01 | Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000765	102	70 - 130
Toluene		1	0.0935	mg/L	1	0.100	<0.000719	94	70 - 130
Ethylbenzene		1	0.0881	mg/L	1	0.100	<0.000860	88	70 - 130
Xylene		1	0.260	mg/L	1	0.300	<0.000942	87	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0891	mg/L	1	0.100	<0.000765	89	70 - 130	14	20
Toluene		1	0.0813	mg/L	1	0.100	<0.000719	81	70 - 130	14	20
Ethylbenzene		1	0.0776	mg/L	1	0.100	<0.000860	78	70 - 130	13	20
Xylene		1	0.228	mg/L	1	0.300	<0.000942	76	70 - 130	13	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.102	0.101	mg/L	1	0.1	102	101	70 - 130
4-Bromofluorobenzene (4-BFB)	0.107	0.106	mg/L	1	0.1	107	106	70 - 130

Matrix Spike (MS-1) Spiked Sample: 281232

QC Batch: 86025 | Date Analyzed: 2011-11-02 | Analyzed By: MT
Prep Batch: 73038 | QC Preparation: 2011-11-02 | Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	5.41	mg/L	50	5.00	<0.0382	108	70 - 130
Toluene		1	5.16	mg/L	50	5.00	<0.0360	103	70 - 130
Ethylbenzene		1	5.11	mg/L	50	5.00	<0.0430	102	70 - 130
Xylene		1	15.1	mg/L	50	15.0	<0.0471	101	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	5.26	mg/L	50	5.00	<0.0382	105	70 - 130	3	20
Toluene		1	5.06	mg/L	50	5.00	<0.0360	101	70 - 130	2	20
Ethylbenzene		1	5.03	mg/L	50	5.00	<0.0430	101	70 - 130	2	20
Xylene		1	14.9	mg/L	50	15.0	<0.0471	99	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5.33	5.12	mg/L	50	5	107	102	70 - 130
4-Bromofluorobenzene (4-BFB)	5.13	5.06	mg/L	50	5	103	101	70 - 130

Matrix Spike (MS-1) Spiked Sample: 281145

QC Batch: 86079 | Date Analyzed: 2011-11-03 | Analyzed By: AR
Prep Batch: 73088 | QC Preparation: 2011-11-02 | Prepared By: AR

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	Qs	Qs	2	7210	mg/L	50	1380	6710	36	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	Qs	Qs	2	7250	mg/L	50	1380	6710	39	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 281561

QC Batch: 86112 | Date Analyzed: 2011-11-04 | Analyzed By: MT
Prep Batch: 73126 | QC Preparation: 2011-11-04 | Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.111	mg/L	1	0.100	<0.000765	111	70 - 130
Toluene		1	0.106	mg/L	1	0.100	<0.000719	106	70 - 130
Ethylbenzene		1	0.106	mg/L	1	0.100	<0.000860	106	70 - 130
Xylene		1	0.312	mg/L	1	0.300	<0.000942	104	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Qr,Qs	Qr,Qs	1	0.0623	mg/L	1	0.100	<0.000765	62	70 - 130	56	20
Toluene	Qr,Qs	Qr,Qs	1	0.0595	mg/L	1	0.100	<0.000719	60	70 - 130	56	20
Ethylbenzene	Qr,Qs	Qr,Qs	1	0.0606	mg/L	1	0.100	<0.000860	61	70 - 130	54	20
Xylene	Qr,Qs	Qr,Qs	1	0.178	mg/L	1	0.300	<0.000942	59	70 - 130	55	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.103	0.0940	mg/L	1	0.1	103	94	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0988	0.0914	mg/L	1	0.1	99	91	70 - 130

Matrix Spike (MS-1) Spiked Sample: 281152

QC Batch: 86198 | Date Analyzed: 2011-11-03 | Analyzed By: AR
Prep Batch: 73105 | QC Preparation: 2011-11-03 | Prepared By: AR

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	Qs	Qs	2	121000	mg/L	50	1380	121000	0	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	Qs	Qs	2	121000	mg/L	50	1380	121000	0	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 281154

QC Batch: 86199 | Date Analyzed: 2011-11-03 | Analyzed By: AR
Prep Batch: 73106 | QC Preparation: 2011-11-03 | Prepared By: AR

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	Qs	Qs	2	448	mg/L	10	275	228	80	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	Qs	Qs	2	443	mg/L	10	275	228	78	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (CCV-2)

QC Batch: 85998 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.104	104	80 - 120	2011-11-01
Toluene		1	mg/L	0.100	0.0999	100	80 - 120	2011-11-01
Ethylbenzene		1	mg/L	0.100	0.0984	98	80 - 120	2011-11-01
Xylene		1	mg/L	0.300	0.292	97	80 - 120	2011-11-01

Standard (CCV-3)

QC Batch: 85998 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.105	105	80 - 120	2011-11-01
Toluene		1	mg/L	0.100	0.100	100	80 - 120	2011-11-01
Ethylbenzene		1	mg/L	0.100	0.0986	99	80 - 120	2011-11-01
Xylene		1	mg/L	0.300	0.290	96	80 - 120	2011-11-01

Standard (CCV-1)

QC Batch: 86000 | Date Analyzed: 2011-11-01 | Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.106	106	80 - 120	2011-11-01
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2011-11-01
Ethylbenzene		1	mg/L	0.100	0.0994	99	80 - 120	2011-11-01
Xylene		1	mg/L	0.300	0.297	99	80 - 120	2011-11-01

Standard (CCV-2)

QC Batch: 86000 Date Analyzed: 2011-11-01 Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.109	109	80 - 120	2011-11-01
Toluene		1	mg/L	0.100	0.104	104	80 - 120	2011-11-01
Ethylbenzene		1	mg/L	0.100	0.101	101	80 - 120	2011-11-01
Xylene		1	mg/L	0.300	0.300	100	80 - 120	2011-11-01

Standard (CCV-1)

QC Batch: 86025 Date Analyzed: 2011-11-02 Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.109	109	80 - 120	2011-11-02
Toluene		1	mg/L	0.100	0.104	104	80 - 120	2011-11-02
Ethylbenzene		1	mg/L	0.100	0.103	103	80 - 120	2011-11-02
Xylene		1	mg/L	0.300	0.301	100	80 - 120	2011-11-02

Standard (CCV-2)

QC Batch: 86025 Date Analyzed: 2011-11-02 Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.107	107	80 - 120	2011-11-02
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2011-11-02
Ethylbenzene		1	mg/L	0.100	0.0986	99	80 - 120	2011-11-02
Xylene		1	mg/L	0.300	0.296	99	80 - 120	2011-11-02

Standard (CCV-1)

QC Batch: 86079 Date Analyzed: 2011-11-03 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	23.8	95	90 - 110	2011-11-03

Standard (CCV-2)

QC Batch: 86079 Date Analyzed: 2011-11-03 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	23.2	93	90 - 110	2011-11-03

Standard (CCV-1)

QC Batch: 86112 Date Analyzed: 2011-11-04 Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.108	108	80 - 120	2011-11-04
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2011-11-04
Ethylbenzene		1	mg/L	0.100	0.102	102	80 - 120	2011-11-04
Xylene		1	mg/L	0.300	0.297	99	80 - 120	2011-11-04

Standard (CCV-2)

QC Batch: 86112 Date Analyzed: 2011-11-04 Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.106	106	80 - 120	2011-11-04
Toluene		1	mg/L	0.100	0.100	100	80 - 120	2011-11-04
Ethylbenzene		1	mg/L	0.100	0.0999	100	80 - 120	2011-11-04
Xylene		1	mg/L	0.300	0.292	97	80 - 120	2011-11-04

Standard (CCV-1)

QC Batch: 86198 Date Analyzed: 2011-11-03 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	23.5	94	90 - 110	2011-11-03

Standard (CCV-2)

QC Batch: 86198 Date Analyzed: 2011-11-03 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	22.6	90	90 - 110	2011-11-03

Standard (CCV-1)

QC Batch: 86199 Date Analyzed: 2011-11-03 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	22.6	90	90 - 110	2011-11-03

Standard (CCV-2)

QC Batch: 86199 Date Analyzed: 2011-11-03 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	22.6	90	90 - 110	2011-11-03

Appendix

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-11-4	Lubbock
2	NELAP	T104704392-10-TX	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

AWO #1103126

Analysis Request of Chain of Custody Record

PAGE: 1 of 1

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: Celero

SITE MANAGER: Jeff Kindley

PROJECT NO.: 115-6403134

PROJECT NAME: Celero | Rock Queen SWD #1

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
28147	10/27	1325	W		X	MW-6	4	N	X		X		X											X				
148		1425				MW-7																						
149		1510				MW-5																						
150		1547				MW-3																						
151	10/28	1250				MW-2																						
152		1310				MW-4																						
153		1305				MW-1																						

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature)	Date: 10/31/11 Time: 1140	RECEIVED BY: (Signature)	Date: 10/31/11 Time: 1140
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

SAMPLED BY: (Print & Initial) JT | SA — Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: OTHER:

RECEIVING LABORATORY: Trace
ADDRESS: Midland
CITY: STATE: TX ZIP:
CONTACT: PHONE: DATE: TIME:
RECEIVED BY: (Signature)

TETRA TECH CONTACT PERSON: Jeff Kindley

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: Intact 3.1°C

REMARKS: *Midland-Chloride *Lubbock - BTEX

3.9°

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

AWO #1103126

Analysis Request of Chain of Custody Record

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

PAGE: Of:

ANALYSIS REQUEST (Circle or Specify Method No.)

CLIENT NAME: Celero

SITE MANAGER: Jeff Kindley

PROJECT NO.: 115-6403134

PROJECT NAME: Celero Rock Queen SWD #1

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
281147	10/27	1325	W		X	MW-6	4	N	X		X		X											X				
148		1425				MW-7																						
149		1510				MW-5																						
150		1547				MW-3																						
151	10/28	1250				MW-2																						
152		1310				MW-4																						
153		1305				MW-1																						

RELINQUISHED BY: (Signature) Date: 10/31/11 Time: 1140

RECEIVED BY: (Signature) Date: 10/31/11 Time: 1140

RELINQUISHED BY: (Signature) Date: 10/31/11 Time: 1600

RECEIVED BY: (Signature) Date: Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Initial) JT/GA Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature) Brenda Ward

DATE: 11/1/11 TIME: 8:40

TETRA TECH CONTACT PERSON: Jeff Kindley

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: Intact 3.1°C

REMARKS: Midland-Chloride & Lubbock - BTEX LS. ZN003964

3.9°

KB

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.