October 6, 2015 Reference No. 082149

Mr. Tomas Oberding PhD
New Mexico Energy, Minerals, and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Dear Mr. Oberding:

Re: Boyd Compressor Station, AP-106,
Work Plan for Well Development, Pumping, and
Continuation of Quarterly Groundwater Monitoring
Lea County, New Mexico

On behalf of Regency Field Services, LLC, an Energy Transfer company (Regency), GHD Services Inc. (GHD) appreciates the opportunity to submit this proposed work scope to assist in the development of a remediation strategy for the Boyd Compressor Station (Site) in Lea County, New Mexico (Figure 1). The Site is located approximately seven miles south of Jal, New Mexico and one mile west of New Mexico Highway 18 and it is regulated by the New Mexico Oil Conservation Division (NMOCD).

1. Project History

The Site is an inactive compressor station located in Section 26, Township 22 South, Range 37 East in Lea County, New Mexico (Figure 1). The land is owned by Mr. R.D. Simms of Eunice, New Mexico.

Decommissioning of the compressor station began June 18, 2008. During removal of the 80 barrel (bbl) and 460 bbl tanks, corrosion was observed around the bolts used to join the two halves of the tank. The corrosion appeared to have allowed the release of liquids. The 80 bbl tank was utilized to contain produced water and the 460 bbl tank was utilized to contain hydrocarbon liquids (condensate) and produced water. Hydrocarbon and chloride impacted soil was excavated from the area where the tanks were located.

In December 2008, NMOCD approved backfilling of the excavation. The area was backfilled to a depth of 10 feet (ft) below ground surface (bgs). A 20- mil polyethylene liner was installed in the bottom of the excavation and the remainder of the excavation was backfilled to grade.

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In January 2009, four groundwater monitoring wells were installed to a total depth of approximately 70 ft bgs using air rotary drilling method. Monitoring well MW-1 was installed immediately south (down-gradient) of the excavation and monitoring wells MW-2, MW-3, and MW-4 were installed north, southwest, and southeast of the excavation, respectively. Monitoring wells MW-2, MW-3, and MW-4 are located approximately 70 ft away from MW-1.

The compressor station operated under New Mexico Discharge Plan & Permit GW-269. NMOCD rescinded the discharge permit in February 2012 and issued Abatement Plan number AP-106.

The contaminant of concern (COC) at the site is chloride in groundwater and the impact is localized to the area of MW-1. Chloride concentrations in groundwater samples from MW-1 have ranged from 2610 milligrams per Liter (mg/L) to 6000 mg/L. The New Mexico Water Quality Control Commission (NMWQCC) regulatory limits for the Site are:

Constituent	NMWQCC Regulatory Limit
Chlorides	250 mg/L
Total dissolved solids (TDS)	1000 mg/L

2. Data Review

Groundwater monitoring in the wells has been performed since January 2009. The depth to groundwater ranges from 59.67 to 60.55 ft below top of casing (approximately 56.67 to 57.77 ft bgs, see Table 1).

Chloride concentrations in MW-1 have ranged from 2610 milligrams per Liter (mg/L) to 6000 mg/L. Chloride concentrations have been slowly decreasing and are currently 3100 mg/L based on the most recent available groundwater monitoring data (see Table 2). Groundwater samples from the other monitoring wells have shown chloride concentrations to be stable and below the regulatory limit of 250 mg/L since monitoring began (see Table 2).

Soil data from MW-1 indicates the chloride concentrations ranged from below the laboratory detection limit of 200 milligrams per Kilogram (mg/Kg) to 11,000 mg/Kg at a depth of 30 ft bgs (see Table 3). Chloride concentrations at 60 ft bgs ranged from below the laboratory detection limit to 300 mg/Kg. Based on this, it is likely that the residual chlorides found in the soil at the water table are contributing to the recalcitrant chloride concentrations in the groundwater.

3. Scope of Work

The scope of work for this project will involve the following tasks:

- Perform short-term pumping (up to 50 hours total) to assess if dissolved chloride concentrations decrease;
- Field screening /confirmation sampling performed to track chloride concentration trends during pumping of groundwater from MW-1;
- Continuation of quarterly groundwater sampling of all Site monitoring wells; and
- Reporting of site activities to the NMOCD on behalf of Regency.

3.1 MW-1 Well Pumping Event

Prior to pumping, the static water level will be observed and recorded. A small pump will be placed in monitoring well MW-1. The monitor well will be pumped at a sustainable rate. Groundwater from the monitoring well will be pumped into a 130 barrel (bbl) vacuum truck. The vacuum truck will be used to contain the fluids and haul them for disposal. The impacted groundwater will be disposed of at the Parabo Facility that is operated by Sundance Services.

Groundwater samples will be collected on an hourly basis during the pumping event and field screened for chloride concentrations. The field screening will be utilized to observe any noticeable trends in regards to changes in chloride concentrations over time. Field screening will be performed with HACH QuanTab® chloride test strips. Confirmation samples of groundwater will also be collected for laboratory analysis by HEAL.

Groundwater samples will be collected, labeled, placed on ice and submitted to Hall Environmental Analysis Laboratories (HEAL) in Albuquerque, New Mexico for analyses of chlorides by EPA Method 300.0 and total dissolved solids (TDS) by Method SM20 2540C.

Groundwater samples for laboratory analysis will be collected from MW-1:

- At the beginning of pumping to obtain an initial concentration;
- During pumping after parameters have stabilized to provide a midpoint concentration; and
- At the completion of pumping to provide an endpoint concentration.

All purged groundwater will be containerized in a vacuum truck on site. It is anticipated that this site is RCRA exempt and analytical data will not be required for disposal.

3.2 Continuation of Quarterly Groundwater Monitoring

GHD proposes the continuation of quarterly groundwater monitoring to monitor ongoing conditions at the Site. The quarterly groundwater monitoring will be performed to assess the effectiveness of the pumping. Groundwater monitoring is proposed to be performed the week following pumping and three months thereafter.

A groundwater level meter will be used to measure groundwater depths in Site monitoring wells. Before and after each use, the groundwater level meter will be cleaned with an Alconox®/de-ionized water solution and rinsed with de-ionized water.

Monitoring wells will be purged and sampled using a low flow bladder pump, or disposable polyethylene bailer. Wells will be purged until field parameters including groundwater temperature, pH, TDS, conductivity, and oxidation/reduction potential (ORP) stabilize or until three well volumes have been removed. Field parameters will be collected using an appropriate multi-parameter sonde. The wells to be sampled will include monitor wells MW-1, MW-2, MW-3, and MW-4.

Following collection, groundwater samples will be labeled, placed on ice, and submitted to HEAL for analyses of chloride by EPA Method 300.0 and TDS by SM 2540C. The information obtained from these sampling events will be included in the 2015 Annual Report.

Purge water generated during the monitoring events will be containerized on Site for disposal following analysis.

3.3 Reporting

A report summarizing well development, pumping, and sampling activities will be submitted to the NMOCD on behalf of Regency. The report will include a Site description, project history, description of field events, a discussion of results, tabulation of field and analytical data and recommendations (if any).

GHD appreciates the opportunity to submit this work scope to assist in the management, assessment and closure of the Boyd Compressor Station site. Please feel free to contact either of us at 505-884-0672 if you have questions or comments.

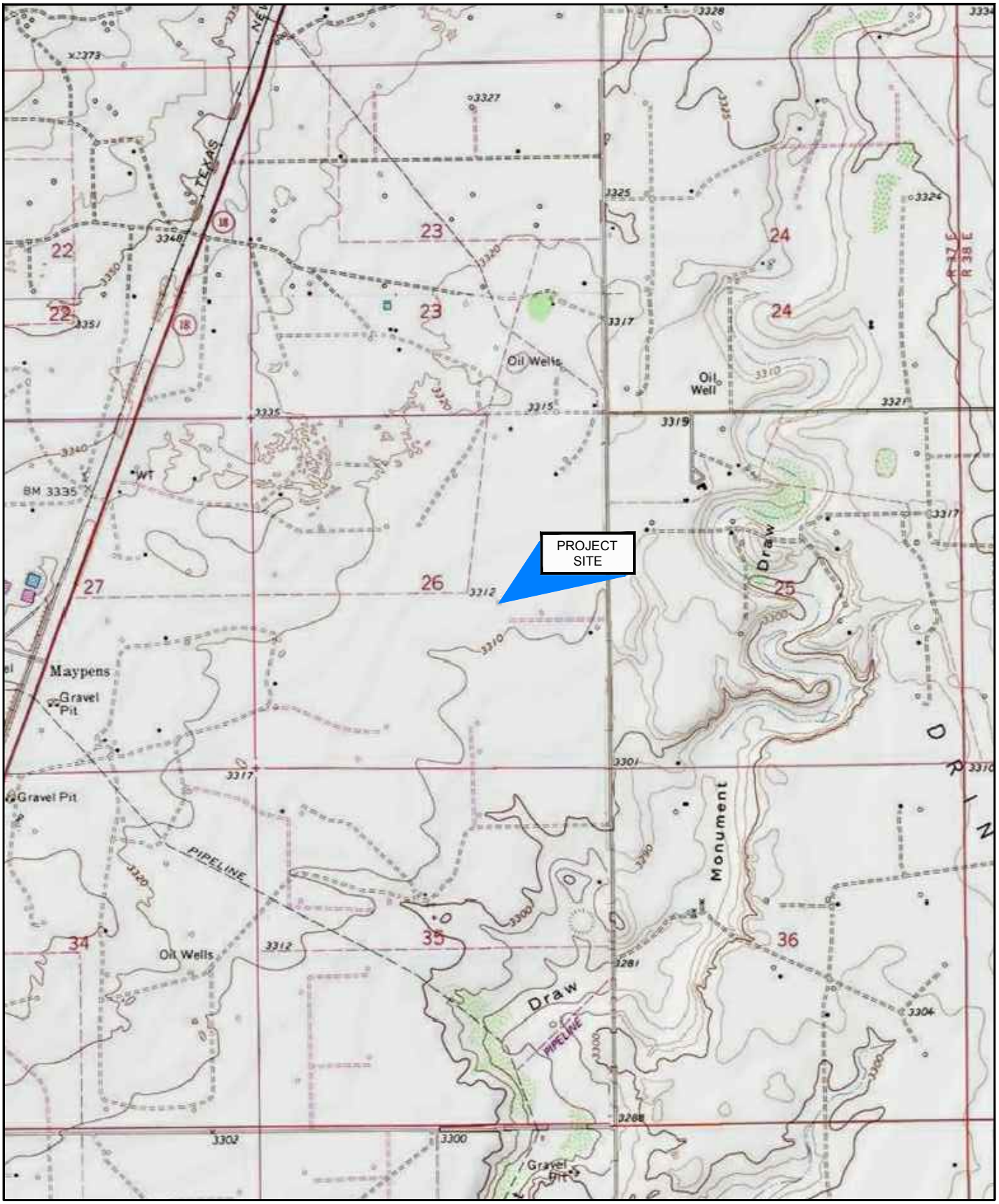
Sincerely,

GHD

Christine Mathews
Project Scientist/Coordinator

Bernard Bockisch
Senior Project Manager

Encl.



Source: USGS 7.5 Minute Quad "RATTLESNAKE CANYON AND EUNICE SE"

Lat/Long: 32.362468° North, 103.130500° West

0 1000 2000ft

Coordinate System:
NAD83, U.S. FT
STATE PLANE-NEW MEXICO EAST

REGENCY FIELD SERVICES, LLC
LEA COUNTY, NEW MEXICO
BOYD COMPRESSOR STATION

082149-00

Oct 6, 2015

SITE LOCATION MAP

FIGURE 1

CAD File: I:\CAD\Files\08----\082---\082149-Energy Transfer-Boyd Compressor\082149-00\082149-00(000)\082149-00(000)GN-GN-DL001.dwg

Source: USDA FSA Imagery, May 10, 2014

0 40 80ft

Coordinate System:
NAD83, U.S. FT
STATE PLANE-NEW MEXICO EAST

REGENCY FIELD SERVICES, LLC
LEA COUNTY, NEW MEXICO
BOYD COMPRESSOR STATION

SITE MAP

082149-00

Oct 6, 2015

FIGURE 2

CAD File: I:\CAD\Files\08----\082---\082149-Energy Transfer-Boyd Compressor\082149-00\082149-00(000)\082149-00(000)GN-GN-DL001.dwg

TABLE 1

GROUNDWATER ELEVATION DATA
REGENCY FIELD SERVICES, LLC
BOYD COMPRESSOR STATION
LEA COUNTY, NEW MEXICO

Well Number	*Date Measured*	*Casing Well Elevation*	*Depth to Product*	*Depth to Water*	*PSH Thickness*	*Total Depth*	*Corrected Groundwater Elevation*
MW-1	6/26/2009	3,316.67	-	58.95	-	69.35	3,257.72
	3/25/2010	3,316.67	-	59.07	-	69.35	3,257.60
	6/28/2010	3,316.67	-	59.32	-	69.35	3,257.35
	10/29/2010	3,316.67	-	59.12	-	69.35	3,257.55
	2/8/2011	3,316.67	-	59.17	-	69.35	3,257.50
	9/28/2011	3,316.67	-	59.36	-	69.35	3,257.31
	12/1/2011	3,316.67	-	59.36	-	69.35	3,257.31
	2/9/2012	3,316.67	-	59.45	-	69.35	3,257.22
	5/16/2012	3,316.67	-	58.00	-	68.25	3,258.67
	8/31/2012	3,316.67	-	58.01	-	68.25	3,258.66
	11/2/2012	3,316.67	-	59.50	-	68.60	3,257.17
	2/7/2013	3,316.67	-	59.67	-	68.95	3,257.00
MW-2	6/26/2009	3,317.02	-	59.16	-	69.64	3,257.86
	3/25/2010	3,317.02	-	59.32	-	69.64	3257.70
	6/28/2010	3,317.02	-	59.97	-	69.64	3257.05
	10/29/2010	3,317.02	-	57.36	-	69.64	3259.66
	2/8/2011	3,317.02	-	59.4	-	69.64	3257.62
	9/28/2011	3,317.02	-	59.57	-	69.64	3,257.45
	12/1/2011	3,317.02	-	60.65	-	69.64	3,256.37
	2/9/2012	3,317.02	-	59.65	-	69.64	3,257.37
	5/16/2012	3,317.02	-	59.65	-	69.35	3,257.37
	8/31/2012	3,317.02	-	59.60	-	69.35	3,257.42
	11/2/2012	3,317.02	-	59.75	-	69.36	3,257.27
	2/7/2013	3,317.02	-	59.84	-	69.20	3,257.18
MW-3	6/26/2009	3,317.52	-	59.16	-	69.50	3,258.36
	3/25/2010	3,317.52	-	59.92	-	69.50	3,257.60
	6/28/2010	3,317.52	-	59.97	-	69.50	3,257.55
	10/29/2010	3,317.52	-	60.16	-	69.50	3,257.36
	2/8/2011	3,317.52	-	59.40	-	69.50	3,258.12
	9/28/2011	3,317.52	-	60.23	-	69.50	3,257.29
	12/1/2011	3,317.52	-	65.20	-	69.50	3,252.32
	2/9/2012	3,317.52	-	60.30	-	69.50	3,257.22
	5/16/2012	3,317.52	-	60.30	-	69.10	3,257.22
	8/31/2012	3,317.52	-	60.30	-	69.10	3,257.22
	11/2/2012	3,317.52	-	59.97	-	69.40	3,257.55
	2/7/2013	3,317.52	-	60.55	-	69.41	3,256.97
MW-4	6/26/2009	3,317.06	-	59.36	-	68.95	3,257.70

TABLE 1

GROUNDWATER ELEVATION DATA
REGENCY FIELD SERVICES, LLC
BOYD COMPRESSOR STATION
LEA COUNTY, NEW MEXICO

Well Number	*Date Measured*	*Casing Well Elevation*	*Depth to Product*	*Depth to Water*	*PSH Thickness*	*Total Depth*	*Corrected Groundwater Elevation*
MW-4	3/25/2010	3,317.06	-	59.50	-	68.95	3,257.56
(cont)	6/28/2010	3,317.06	-	59.12	-	68.95	3,257.94
	10/29/2010	3,317.06	-	59.58	-	68.95	3,257.48
	2/8/2011	3,317.06	-	59.61	-	68.95	3,257.45
	9/28/2011	3,317.06	-	59.78	-	68.95	3,257.28
	12/1/2011	3,317.06	-	59.25	-	68.95	3,257.81
	2/9/2012	3,317.06	-	59.85	-	68.95	3,257.21
	5/16/2012	3,317.06	-	59.85	-	68.65	3,257.21
	8/31/2012	3,317.06	-	59.80	-	68.65	3,257.26
	11/2/2012	3,317.06	-	59.80	-	68.97	3,257.26
	2/7/2013	3,317.06	-	60.10	-	68.74	3,256.96

TABLE 2

BTEX AND CHLORIDE CONCENTRATIONS
REGENCY FIELD SERVICES, LLC
BOYD COMPRESSOR STATION
LEA COUNTY, NEW MEXICO

Sample Location	*Sample Date*	*Methods: EPA SW 846-8021b*							*E 300*
		Benzene (mg/L)	*Toluene (mg/L)*	*Ethyl-benzene (mg/L)*	*M,P-Xylenes (mg/L)*	*O-Xylenes (mg/L)*	*Total Xylene (mg/L)*	*Total BTEX (mg/L)*	*Chloride (mg/L)*
MW-1	1/15/2009	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	2,610
	3/25/2010	0.0015	0.0019	<0.0010	<0.0020	<0.0010	<0.0010	0.0034	--
	7/1/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	6,000
	10/29/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	5,910
	2/8/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	5,400
	9/28/2011	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.010	4,250
	12/1/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	4,050
	2/9/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	3,800
	5/16/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	3,420
	8/31/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	3,580
	11/2/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	3,100
MW-2	1/15/2009	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	145
	3/25/2010	<0.0010	0.0013	<0.0010	<0.0020	<0.0010	<0.0010	0.0013	--
	7/1/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	130
	10/29/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	141
	2/8/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	126
	9/28/2011	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.010	148
	12/1/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	126
	2/9/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	129
	5/16/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	135
	8/31/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	132
	11/2/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	164
MW-3	1/15/2009	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	150
	3/25/2010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	--
	7/1/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	124
	10/29/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	124
	2/8/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	109
	9/28/2011	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.010	138
	12/1/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	115
	2/9/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	107
	5/16/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	110
	8/31/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	109
	11/2/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	126
MW-4	1/15/2009	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	208
	3/25/2010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	--
	7/1/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	187
	10/29/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	196
	2/8/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	180
	9/28/2011	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.010	221
	12/1/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	206
	2/9/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	214
	5/16/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	195
	8/31/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	216
	11/2/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	216
NMOCD CRITERIA		**0.01**	**0.75**	**0.75**	**TOTAL XYLENES 0.62**				**250**

TABLE 3

CHLORIDE CONCENTRATION IN SOIL
REGENCY FIELD SERVICES, LLC
BOYD COMPRESSOR STATION
LEA COUNTY, NEW MEXICO

Depth (Feet)	***MW-1***	***MW-2***	***MW-3***	***MW-4***
5	<200	NA	NA	NA
10	265	2190	<200	<200
15	6180	NA	NA	NA
20	8740	<200	<200	<200
25	8470	NA	NA	NA
30	11000	<200	<200	<200
35	10900	NA	NA	NA
40	6830	261	<200	<200
45	5900	NA	NA	NA
50	5760	<200	<200	<200
55	1300	NA	NA	NA
60	<200	<200	<200	<200

NA = Not Analyzed