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By OCD; Dr. Oberding at 11:15 am, Apr 26, 2016

April 18, 2016

Reference No. 11103552

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

APPROVED

By OCD; Dr. Oberding at 11:15 am, Apr 26, 2016

Dear Dr. Oberding:

Section 2.3 only

**Re: WT-1 Compressor Station
Eddy County, New Mexico
2016 Work Plan
AP-105**

On behalf of Transwestern Pipeline Company, LLC (Transwestern), GHD Services Inc. (GHD) appreciates the opportunity to submit this proposed 2016 work scope for tasks to be performed at the WT-1 Compressor Station site (hereafter referred to as the "Site") in Eddy County, New Mexico (Figure 1). The Site is located about 29 miles east of Carlsbad, New Mexico in the northwest quarter of Section 31, Township 20 South, Range 32 East. Site coordinates are 32.531549 North, 103.807904 West. The Site is regulated by the New Mexico Oil Conservation Division (NMOCD).

1. Project History

The Site consists of an active compressor station and associated equipment and installations. The Site has been in active assessment and remediation since 1994.

The Site consists of two historically impacted areas, the former Engine Room Drain Pit (ERDP) located in the north-central portion of the Site and the dehydration area (DEHY) located in the southwest portion of the Site. A Site Plan is included as Figure 2.

The contaminants of concern (COCs) in the ERDP area consist of light non-aqueous phase liquid (LNAPL), benzene, toluene, ethylbenzene, and xylene (BTEX), and the chlorinated solvents 1,1-dichloroethylene (1,1-DCE) and 1,1-dichloroethane (1,1-DCA). The COCs in the DEHY area consist of LNAPL and BTEX only.

A soil vapor extraction (SVE) system was installed in the DEHY area in 1996 and operated until 2013. The system was taken out of service due to significant reductions in volatile organic compound (VOC) mass removal.

In 2003, approximately 1,826 cubic yards of impacted soil were excavated from two locations in the ERDP area. The excavations extended up to 15 feet below ground surface (bgs). A 30-mil polyethylene liner was placed in the bottom of each excavation prior to backfilling.

Site consulting duties were transferred to GHD in August 2015. GHD installed an active skimmer in monitoring well MW-1 and hydrocarbon-absorbent socks in MW-10, SVE-11, SVE-12, SVE-13, and SVE-14 during October and November 2015. Additionally, GHD has performed monthly gauging events of the 40 Site wells since October 2015 in order to obtain data on how or if seasonal changes in the groundwater may affect LNAPL thicknesses.

2. Proposed Scope of Work

Based on a review of the existing Site data, GHD proposes to continue annual groundwater monitoring and reporting. Additionally, GHD proposes to plug and abandon 23 monitoring wells that are not in use. Details of each task to be completed in 2016 are presented below:

2.1 2016 Groundwater Monitoring

GHD proposes to perform annual groundwater monitoring at the Site. An oil/water interface probe will be used to measure groundwater depths and assess the LNAPL thickness, if any. Before and after each use, the oil/water interface probe will be cleaned with an Alconox®/de-ionized water solution and rinsed with de-ionized water.

Monitoring wells will be purged and sampled using dedicated, disposable polyethylene bailers. Wells will be purged until field parameters including groundwater temperature, pH, and conductivity stabilize to within 10 percent. Field parameters will be collected using an appropriate multi-parameter groundwater quality meter. The sampling program will include collecting a groundwater sample from seven wells in the ERDP area (MW-4, MW-5, MW-6, MW-7, MW-8, MW-14, and SVE-1A). Monitoring wells MW-15, MW-16, and MW-17 have not been included in this sampling event because a COC has not been detected in any of these wells since they were initially installed in 2004. Eleven wells will be sampled in the DEHY area (SVE-1, SVE-2, SVE-5, SVE-6, SVE-7, SVE-8, SVE-9, SVE-10, SVE-12, SVE-13 and SVE-14). Monitoring well MW-10 will not be sampled due to its close proximity to SVE-10. Monitoring well SVE-11 will not be sampled due to its close proximity to SVE-5. Monitoring wells MW-9, MW-11, MW-12, and MW-13 will not be sampled because a COC has not been detected in any of these wells since they were initially installed in 2004. Purge water generated during the monitoring events will be containerized on-Site for disposal following analysis.

Following collection, groundwater samples will be labeled, placed on ice, and submitted to Hall Environmental Analysis Laboratory for analyses of VOCs by Environmental Protection Agency (EPA) Method SW-846 8260B and semi-volatile organic compounds (SVOCs) by EPA method SW-846 8270C. The information obtained from these sampling events will be included in the 2016 Annual Report.

2.2 Natural Attenuation Data Collection

During the 2016 Annual Monitoring Event, the following will also be analyzed in each monitoring well:

- Sulfate
- Ammonia-nitrogen
- Orthophosphate-phosphorus
- Nitrate
- Total and dissolved iron

Approximately half of the wells would be also be analyzed for total aerobic and anaerobic microbial counts. In addition, wells located in the ERDP area (MW-4, MW-5, MW-6, MW-7, MW-14, and SVE-1A) will be analyzed for dissolved gasses (ethene, ethane, methane) and total organic carbon.

The purpose of this data is to assess if there are rate-limiting constituents that may be preventing or slowing natural attenuation from occurring. This data would be reviewed by staff from GHD's Innovative Technology Group who will perform an assessment of the data and provide recommendations.

2.3 Monitoring Well Plugging and Abandonment

GHD is proposing to plug and abandon recovery wells RW-1 through RW-12 and MW-2. The recovery wells were initially constructed as borehole wells. Due to this, they do not contain a well screen and casing with a proper seal. These wells are being proposed to be plugged and abandoned because they were not constructed to current well construction specifications as required by the NMOSE. Monitoring well MW-2 has been dry since November 2011. This well is currently unusable and should be plugged.

A plugging plan will be submitted to the NMOSE for their approval prior to mobilizing plugging and abandonment equipment. The wells to be plugged will be marked for utility location. GHD will confirm that the plugging and abandonment subcontractor performs utility notifications at least 48-hours prior to mobilization as required by the State. Plugging will be performed by pumping Portland cement/bentonite slurry into the wells through a tremmie pipe. Any monitoring well surface completions will be removed and the well casings will be cut a minimum of 6 inches below ground surface.

2.4 2016 Report

GHD will prepare a report summarizing the activities that were performed in 2016. The report will include a Site description, project history, description of field events, appropriate maps, tabulation of field and analytical data, and a discussion of results and recommendations.

GHD appreciates the opportunity to submit this proposed 2016 work scope in order to assist in the management, assessment and closure of the WT-1 Compressor Station site. Please feel free to contact either of us at 505-884-0672 if you have questions or comments.

Sincerely,

GHD



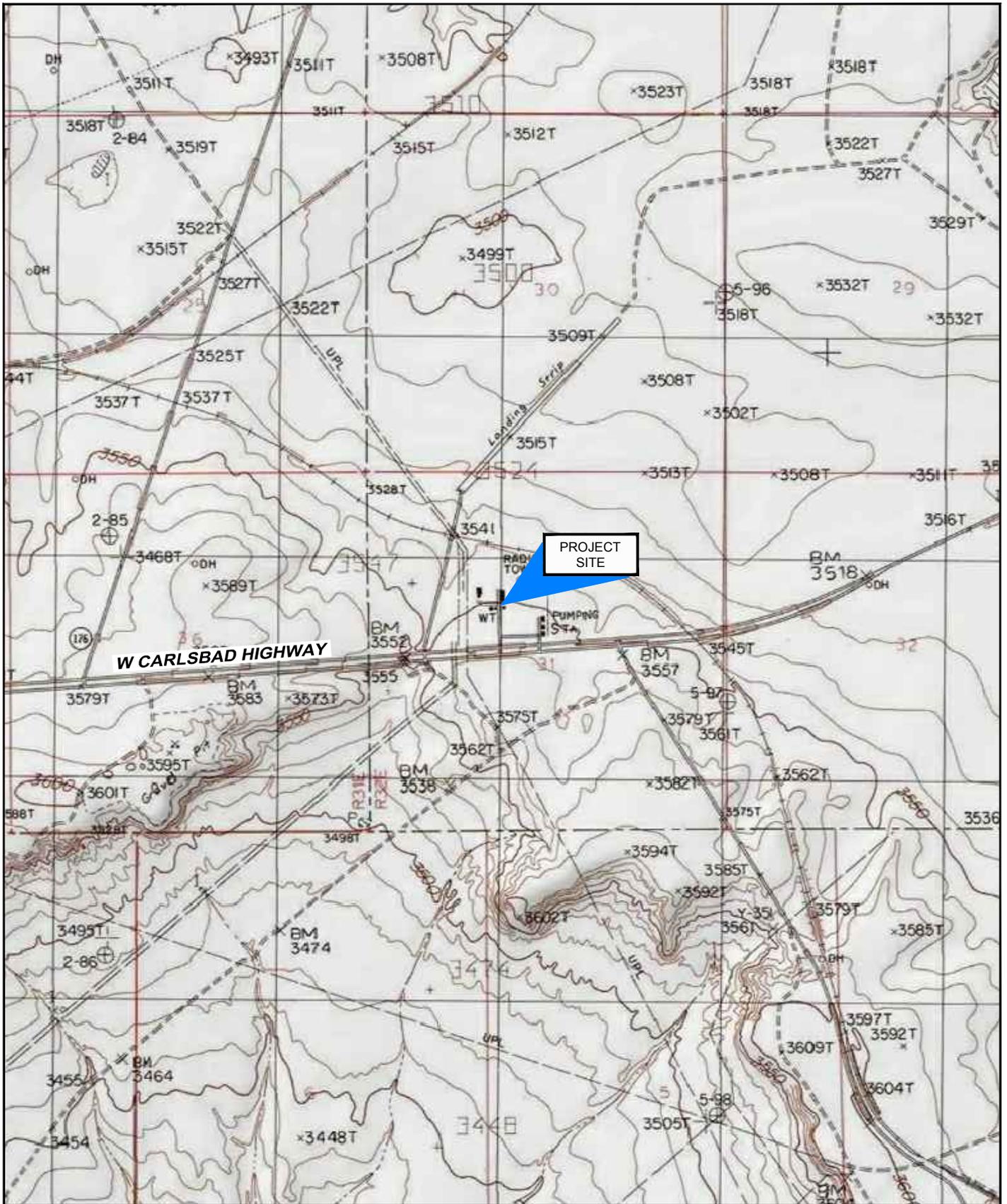
Cale Kanack
Project Scientist



Bernard Bockisch, PMP
Senior Project Manager

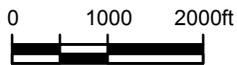
Encl.

Figures



Source: USGS 7.5 Minute quad "Williams Sink, New Mexico"

Lat/Long: 32.531549° North, 103.807904° West



Coordinate System:
NAD 83 STATE PLANE -
NEW MEXICO EAST (US FEET)



TRANSWESTERN PIPELINE COMPANY
LEA COUNTY, NEW MEXICO
WT-1 COMPRESSOR

SITE LOCATION MAP

11103552-00

Oct 7, 2015

FIGURE 1



Source: USDA FSA Imagery, May 10, 2014

Lat/Long: 32.531549° North, 103.807904° West



Coordinate System:
NAD 83 STATE PLANE -
NEW MEXICO EAST (US FEET)



TRANSWESTERN PIPELINE COMPANY
LEA COUNTY, NEW MEXICO
WT-1 COMPRESSOR

SITE PLAN

11103552-00
Oct 7, 2015

FIGURE 2