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By OCD Dr Oberding at 11:34 am, Oct 13, 2016

September 28, 2016

Terracon

New Mexico Oil Conservation Division
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APPROVED

By OCD Dr Oberding at 11:39 am, Oct 13, 2016

Re: Energy Transfer Company's Jal #3 Gas Plant – Contingency Tank
Summary of Field Activities
Section 33, Township 24 South, Range 37 East
Terracon Project No. AR167205

Dr. Oberding:

Terracon Consultants, Inc. (Terracon) has prepared the following *Summary of Field Activities* in regard to the closure of the Contingency Tanks at Energy Transfer's Jal #3 Gas Plant. The Jal #3 Gas Plant is located in Unit Letter "E" of Section 33, Township 24 South, Range 37 East in Lea County, New Mexico. The contingency tank is located in the northeastern portion of the Jal #3 Plant at 32.17661° North latitude, 103.17292° West longitude. Review of the New Mexico Water Rights Reporting System (NMWRRS) online database indicates depth to groundwater information is not available for Section 33, Township 24 South, Range 37 East. Review of a depth to groundwater gradient map utilized by the NMOCD indicates groundwater is estimated to be encountered at approximately 220 feet below grade surface (bgs). A "Site Location Map" is provided as Attachment #1.

Introduction

On March 24, 2011, GEOLEX, Inc., submitted a *Proposed Retrofitting and Closure of Subgrade Tanks at Southern Union Gas Services Jal #3 Gas Plant (Proposal)* to the New Mexico Oil Conservation Division's (NMOCD) Santa Fe Office, on behalf of Southern Union Gas Services (Energy Transfer), detailing plans for the closure of an on-site contingency tank, two classifier tanks and three miscellaneous wastewater collection sumps at the Jal #3 Gas Plant. The *Proposed Retrofitting and Closure of Subgrade Tanks at Southern Union Gas Services Jal #3 Gas Plant* was subsequently approved. A "Site Diagram" is provided as Attachment #2.

Background Information

The *Proposed Retrofitting and Closure of Subgrade Tanks at Southern Union Gas Services Jal #3 Gas Plant* proposed closing the contingency tank by removing all of its contents and disposing of them at an NMOCD-approved facility, followed by a thorough cleaning and detailed inspection of the tank. In the

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Environmental



Facilities



Geotechnical



Materials

event no evidences of a release were discovered, the top of the below-grade tank (BGT) would be cut below the existing grade. Upon cutting the top of the BGT to below the existing grade, the tank would be backfilled and compacted to meet the specifications of the plant. Upon backfilling the BGT, a permanent steel marker will be placed to indicate location of the closed tank.

Field Activities

In May 2016, the last remaining piping was re-routed to the newly installed above-grade horizontal overflow tank and the Contingency Tank was taken out of service. Liquids remaining within the Contingency Tank were removed with a vacuum truck and disposed of at an NMOCD-permitted disposal well.

Beginning August 11, 2016, as per the approved work-plan, the floor and sides of the Contingency Tank were thoroughly cleaned. This was achieved utilizing a high-pressure hose, non-hazardous detergent, squeegees and a hydroexcavator. Recovered solids were placed into a polyurethane lined containment, pending final disposition. During the cleaning of the tank, a largely intact rubber liner was encountered on the floor of the tank extending approximately 4 feet up the tank sides. The liner could be described as approximately ¼-inch rubber, adhered to the floor and sides of the tank with white mastic. A “Photographic Log” is provided as Attachment #3.

On August 25, 2016, representatives and contractors of ETC, conducted an inspection of the Contingency Tank to determine if evidences of a release were present. The inspection consisted of a visual survey from within the tank and collecting ultrasonic thickness measurements (UTM) from select locations, including those demonstrating evidences of aging to determine if conditions indicative of failure were present. During the visual inspection, portions of the liner that were not intact, or appeared loose, were cut back and discarded. Upon removing portions of the liner, a visual survey was conducted to check for evidences of failures within the floor and sides of the tank. The visual inspection also included inspecting welds on each of the inlets within the range of the maximum fluid level for evidences of failure. During the visual inspection, no evidences of releases were discovered by ETC representatives or contractors conducting the inspection or cleaning the tank.

The UTM survey included measuring the thickness of the steel in ten locations on the floor and/or sides of the tank utilizing an ultrasonic thickness gauge. Special attention was given to gauging areas exhibiting evidences of rust and/or scaling. UTM readings ranged from 0.232 inches to 0.290 inches with the mean of 0.262 inches and a mode of 0.250 inches. Areas exhibiting thicknesses over ¼-inch are inferred to be a result of lamination. UT measurements are summarized in the following table:

UT Measurements					
Floor	Location ID	Measurement	Sides	Location ID	Measurement
	Floor #1	0.275 in.		Wall #1	0.250 in.
	Floor #2	0.250 in.		Wall #2	0.269 in.
	Floor #3	0.280 in.		Wall #3	0.250 in.
	Floor #4	0.290 in.		Wall #4	0.270 in.
	Floor #5	0.250 in.		Wall #5	0.232 in.

Conclusions

Field observations made during tank cleaning activities and the visual inspection suggest the integrity of the floor and sides of the tank had not been compromised and that no evidences of a release were present. Results of the UTM survey indicate the tank thickness ranged from 0.232 inches to 0.290 inches with the mean of 0.262 inches and a mode of 0.250 inches. UTM gauging data collected from areas exhibiting scaling and/or rust on the sides of the tank suggested a thickening of the tank wall due to lamination.

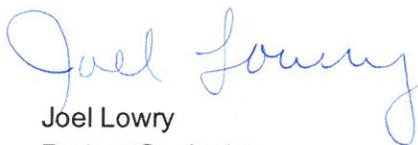
Recommendations

Based on field observations made during the visual inspection and the results UTM survey, Terracon, on behalf of ETC, recommends filling the Contingency Tank with non-impacted soil to approximately 5 feet bgs. Upon filling the tank to approximately 5 feet bgs, contactors can safely enter the tank to cut the top off below ground level. Upon cutting the top of the Contingency Tank, the remaining portion will be backfilled. Final soil cover will consist of engineered fill used throughout the plant. Upon bring the final soil cover up to grade, a permanent steel marker will be placed to document the location of the closed BGT.

Upon receiving NMOCD permission and completion of the above mentioned field activities, ETC will prepare and submit a Final C-144 and *Closure Report* detailing the results of the inspection and field activities conducted to date.

Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Terracon Consultants, Inc.



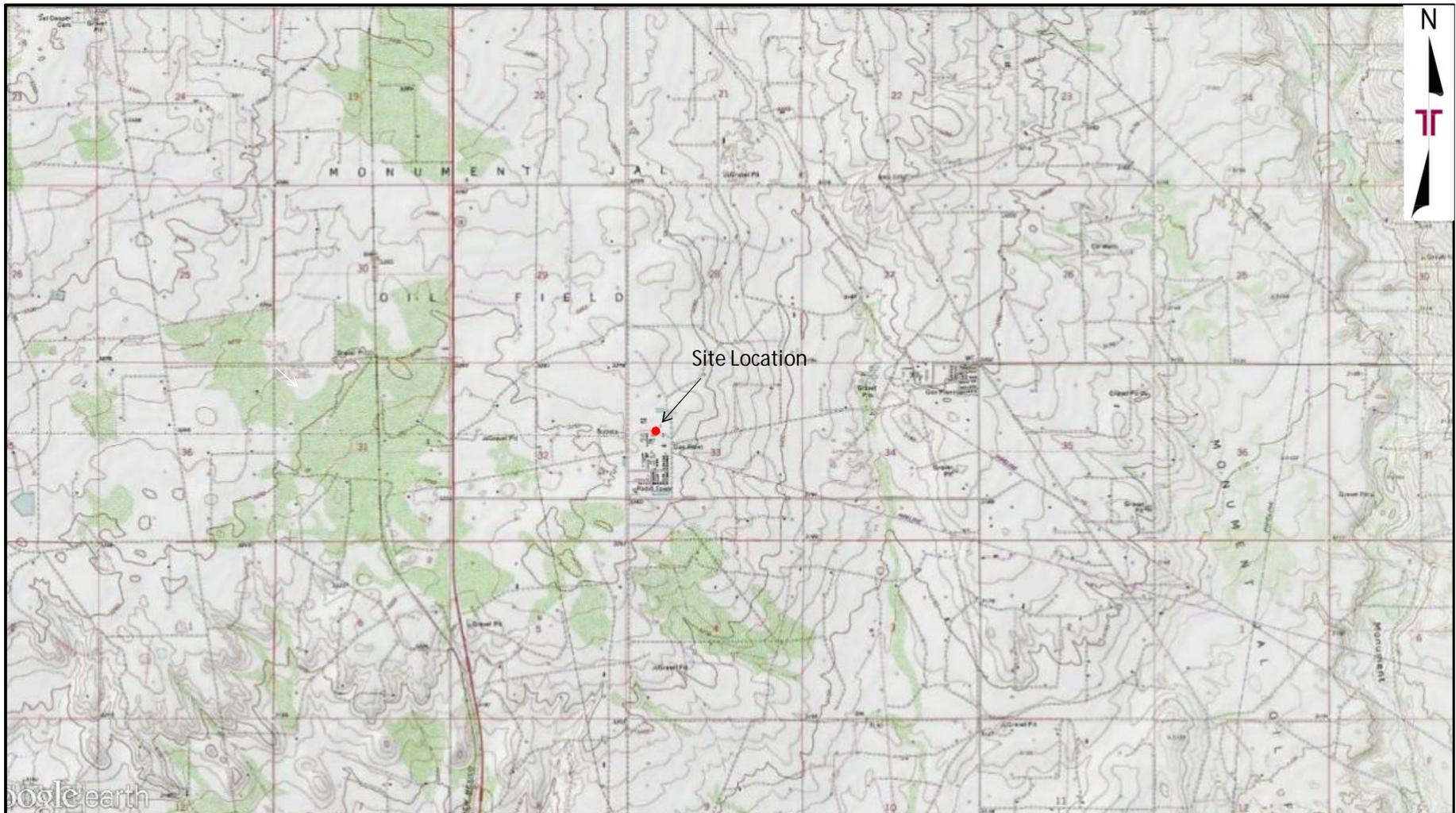
Joel Lowry
Project Geologist



Erin Loyd, P.G.
Senior Associate
Office Manager

Attachments:

- Attachment #1 – Topographic Map
- Attachment #2 – Site Diagram
- Attachment #3 – Photographic Log



Project No.	AR167210
Scale:	1" = ~1 Mile
Source:	Google Earth
Date:	2014

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Attachment #1 – Topographic Map

Energy Transfer Company
 Jal #3 Plant – Contingency Tank
 32.17661°, -103.17292°
 Lea County, New Mexico



Contingency Tank

 Below-Grade Tank

DIAGRAM FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES. NUMEROUS UNIDENTIFIED BURIED UTILITIES.

Project No.	AR167205
Scale:	1"=80'
Source:	GoogleEarth
Date:	2014

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Attachment #2 – Site Diagram
 Energy Transfer Company
 Jal #3 Plant – Contingency Tank
 32.17661° , -103.17292°
 Lea County, New Mexico

Photographic Log



PHOTO 1: View of tank floor including rubber liner and mastic.



PHOTO 2: View of welded seam on tank inlet.



PHOTO 3: View of tank floor including rubber liner and mastic.



PHOTO 4: View of upper portion of tank wall above the rubber liner.



PHOTO 5: View of UTM survey of inferred "worse case" area.



PHOTO 6: View of upper portion of tank wall above the rubber liner.



PHOTO 7: View of tank floor beneath rubber liner.



PHOTO 8: View of tank floor beneath rubber liner.



PHOTO 9: View of welded seam on tank inlet.



PHOTO 10: View of the floor of the tank after cleaning activities and inspection.



PHOTO 11: View of the floor of the tank after cleaning activities and inspection.



PHOTO 12: View of the floor of the tank after cleaning activities and inspection.