January 26, 2018

APPROVED
By Olivia Yu at 7:29 am, Jan 29, 2018

NMOCD approves of the proposed delineation plan for 1RP-4939 with these clarifications:
Each sample location must have two depths demonstrating permissible levels of BTEX, TPH extended, and chlorides: depth obtained and depth maintained at least 1 ft. further. Permissible chloride concentration is <= 600 mg/kg.

Mr. David Ramsden-Wood
OneEnergy Partners Operating, LLC
2929 Allen Parkway, Suite 200
Houston, TX 77019

Re: Proposal for Release Characterization Activities
Lea County, NM

David,

This proposal has been prepared by SLR International Corporation (SLR) for release characterization activities at the County Fair well pad located in Lea County, New Mexico (Oil Conservation Division [OCD] remediation case number 1RP-4939).

BACKGROUND

As presented in the Release Notification and Corrective Action form submitted to OCD by OneEnergy Partners, a gas sales flowline leaked and caught fire the morning of December 29, 2017. The fire was identified at 7:18 AM CST by personnel working at a nearby location. The personnel immediately drove to the site, shut the well in, and extinguished the fire. Subsequent investigation showed that the leak occurred at 4:45 AM CST. The total estimated gas release volume was 42 thousand cubic feet (MCF); therefore, the maximum estimated release of liquids was 4 barrels (168 gallons). It appeared that a majority of the discharge was ignited during the fire. A subsequent investigation of site conditions on January 24 and 25, 2018 did not identify apparent surface staining or noticeable impacts from the release and subsequent fire. The flowline was subsequently repaired, purged, tested for integrity, and returned to operation.

PROPOSED SCOPE OF WORK

In order to satisfy the requirements of 19.15.29.11 of the New Mexico Administrative Code (NMAC), and per the request of the Oil Conservation Division (OCD), SLR proposes the following scope of work to complete the release characterization activities.

Workplan Development

Per the letter from the OCD, the goals of the release characterization activities are to determine the

lateral and vertical extents and magnitude of soil contamination, determine if groundwater or surface waters have been impacted and assess extent and magnitude if so, and assess any additional impacts (i.e. ecological or property impacts). The OCD requires a workplan for the characterization of impacts associated with the release be submitted to the local district office **on or before February 17, 2018**. Release characterization activities may not commence until approval of the workplan. At that time, the OCD will present an associated deadline for submittal of the resultant investigation report

The scope of work outlined below will address the elements of the OCD letter, including: 1) determining the lateral and vertical extents and magnitude of soil contamination; 2) determining if groundwater or surface waters have been impacted and assessing extent and magnitude if so; and, 3) assessing any additional impacts (i.e. ecological or property impacts).

Release Characterization Field Activities

To assess the soil impacts of the unauthorized release, one day of soil sampling is proposed. As the source of the unauthorized (flowline leak) and approximate volume that was released (4 barrels) are known, a sampling grid will be established emanating from the source area in each of the four cardinal compass directions. The initial starting point for soil sampling activities will be based on visual observations and discussions with personnel familiar with the initial release investigation. Soil sample locations will be completed within the impacted area and beyond.

Surface soil samples will be collected with hand tools (i.e. hand auger, trowel, and/or shovel) within an approximately 30 foot by 30 foot area centered on the initial release point. Soil borings will be completed at approximately five foot horizontal intervals from the initial release point in each cardinal direction. Recovered soil will be screened with a photoionization detector (PID) to determine the presence of volatile compounds in the headspace of individually-bagged sample intervals. Up to two soil samples will be collected from each soil sampling location and submitted for laboratory analysis. Sample intervals for laboratory analysis will include the surface soil and the interval with the highest observed contamination (based on field observations, PID screening, etc.) or from approximately one foot below ground surface in absence of observed contamination.

In accordance with OCD requirements, soil samples selected for laboratory analysis will be submitted for the following:

- Benzene, toluene, ethylbenzene, total xylenes (BTEX) per EPA Method 8021
- Total Petroleum Hydrocarbons (TPH) by EPA Method 8015 (extended range: GRO+DRO+MRO; C6 thru C36)
- Chloride per EPA Method 300

In addition, duplicate samples will be collected from the laterally farthest (in each cardinal direction) and vertically deepest sample. Duplicate samples will be submitted for the same analyses as the characterization samples (described above).

Based on a review of available data from United States Geological Survey (USGS), it appears that the shallowest groundwater zone in the area of the Site is approximately 76 feet below ground surface. As this is beyond the 50 foot threshold stated in the OCD letter, additional investigation of groundwater impacts related to the release is not proposed. In addition, due to the distance to surface water bodies investigation of surface water impacts related to the release is not proposed.

During the release characterization field activities, the area within and immediately adjacent to the release point will be monitored for potential impacts to vegetation, wildlife, air quality, or property.

Investigation Summary Report

Following completion of the release characterization activities, a summary report will be provided to OCD that includes: a summary of field activities, scale site maps, soil boring logs, analytical summary tables, copies of laboratory analytical reports, copies of field notes, photographs of site conditions, and recommendations for additional remedial action (i.e. soil removal), if warranted.

ASSUMPTIONS

SLR has made the following assumptions regarding this scope of work.

- OneEnergy Partners will provide access to the well pad and personnel familiar with the location of the release and subsequent investigation area.
- Ground surface is penetrable with hand tools (hand auger, trowel, and/or shovel) for collection of soil samples and impacts do not extend beyond expected depth range of sample collection with hand tools.
- OCD does not request significant changes to the proposed scope of work upon review of the workplan.

SLR is prepared to begin working on this project as soon as approval is received from OneEnergy Partners and OCC. If you have any questions regarding this proposal, please contact us at (503) 723-4423.

Sincerely,
SLR International Corporation

Chris Kramer
Associate Scientist

Megan Coracci
Principal Scientist