

APPROVED

By Olivia Yu at 11:10 am, Sep 10, 2018

August 17, 2018

Sent via e-mail to Olivia.Yu@state.nm.us

Ms. Olivia Yu
Environmental Specialist
New Mexico Oil Conservation Division — District 1
1625 N. French Drive
Hobbs, New Mexico 88240

NMOCD approves of the proposed delineation plan for 1RP-5154.

And

Ms. Yolanda Jimenez Bureau of Land Management 301 Dinosaur Trail Santa Fe, New Mexico 87508

RE: Soil Delineation Work Plan - WTX to EMSU Battery to Byrd Pump Crude Oil Release

Dear Ms. Yu and Ms. Jimenez,

Please find the enclosed Soil Delineation Work Plan for the WTX to EMSU Battery to Byrd Pump Crude Oil Release Site. We look forward to receiving your approval for implementation of delineation activities.

Should you have any questions or concerns, please contact me at 214-954-6668 or mark.shemaria@hollyenergy.com.

Sincerely,

Mark Shemaria

Senior Manager Regulatory & EHS

Enclosure



August 16, 2018 Reference No. 11181401

Ms. Olivia Yu Environmental Specialist, District 1 Oil Conservation Division, EMNRD 1625 N French Dr. Hobbs, New Mexico 88240

Ms. Yolanda Jimenez Bureau of Land Management 301 Dinosaur Trail Santa Fe, New Mexico 87508

Re: Soil Delineation Work Plan
WTX to EMSU Battery to Byrd Pump Crude Oil Release
Unit P, Section 11, Township 20, Range 36
Lea County, New Mexico

Dear Ms. Yu and Ms. Jimenez:

On behalf of Holly Energy Partners (HEP), GHD Services (GHD) is pleased to present this Soil Delineation Work Plan to the New Mexico Oil Conservation Division (NMOCD) and Bureau of Land Management (BLM) outlining our proposed approach to delineation activities for the WTX to EMSU Battery to Byrd Pump Crude Oil Release Site (hereafter referred to as the "Site").

1. Project Information and Background

The Site is located in Unit P, Section 11, Township 20, Range 36, approximately 3.2 miles southwest of Monument in eastern Lea County, New Mexico. The coordinates of the release location are – Latitude 32.583989, Longitude -103.317743. According to the NMOCD Release Notification and Corrective Action Form C-141 submitted to the agency by HEP, the release occurred on July 11, 2018 and was reported to Ms. Olivia Yu, Hobbs District 1 NMOCD office on August 10, 2018 (see attached C-141).

The release was initially detected during an air patrol fly over. The release was determined to have originated from a pinhole leak in the bottom of a pipe. HEP personnel shut down the pipe segment and the initial release volume was estimated at less than one barrel, therefore under reportable limits. HEP began excavation activities and determined that the affected area was larger than previously thought. The volume of the spill was reported as greater than 5 barrels of crude oil, of which 0.5 barrels were recovered. Excavation activities were halted on August 6, 2018 due to the discovery that the affected area was larger than originally estimated and impact to soil was deeper than anticipated (17 feet below ground surface (bgs)). The surface land owner (Klien) and the mineral owner (BLM) have been notified.





2. Soil Delineation

Depth to groundwater at the site is anticipated to be less than 50 feet bgs. As such, GHD will advance four (4) soil borings to delineate the petroleum hydrocarbon impact to soil in the vicinity of the release to total depths of approximately 35 feet below ground surface (bgs), groundwater is believed to be approximately 40-45 feet bgs at this location (see Figure 1). The following sections outline basic project details that will be completed by GHD and GHD subcontractors:

Field Program

The field program will consist of the following:

Soil Boring Installation:

- Prior to mobilizing the drilling equipment to the Site, a site visit will be performed by GHD to mark the
 proposed boring locations for New Mexico 811 notification. A One Call ticket will be initiated by the
 driller to identify subsurface hazards within the proposed drilling areas;
- Findings will be confirmed following the One Call notification and marking;
- An air-rotary drilling rig, operated by a licensed State of New Mexico water well driller, will be utilized to advance the proposed borings;
- A geologist will record the subsurface lithology and sample data on soil boring logs. At a minimum, soil samples will be collected with split-spoon samplers decontaminated between each sampling interval, initially 2-foot intervals to a depth of 10 feet bgs, then at 5-foot intervals to the maximum termination depth of 35 feet bgs;
- Soil samples collected from each sampling interval will be visually inspected, logged, and recorded for stratigraphy in accordance with the Unified Soil Classification System (USCS), and field screened for volatile organic compounds (VOCs) using a photoionization detector (PID) calibrated with isobutylene. A portion of each soil sample will be placed in a ZipLoc® bag, allowed to sit for approximately 5 minutes, and then field screened for VOCs with the PID;
- Up to three soil samples will be collected for laboratory analysis from each borehole. These will
 include the sample with highest PID reading and the sample from the terminal depth of each borehole.
 One additional sample will be collected from within each borehole;
- Selected soil samples will be submitted for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) via EPA Test Method 8021B, total petroleum hydrocarbon (TPH) by EPA Method 8015 Modified, and chloride by EPA Method 300;
- After completion of drilling and sampling activities to the target depths, each soil boring will be backfilled using a bentonite/cement slurry to the surface;



- Investigation Derived Waste (IDW soil cuttings) generated from drilling and sampling activities will be contained in 55-gallon drums, staged on-site, and properly disposed following evaluation of soil sample analytical results and waste profiling; and
- Borings will not be advanced into the groundwater table; therefore, a plugging plan will not be required by the New Mexico State Engineer's Office.

Health and Safety Considerations

Personal protective equipment, including fire-retardant clothing, steel-toed work boots, gloves, safety glasses, H2S monitoring, and hard hats will be required during all field tasks. The project health and safety plan will be prepared, reviewed and signed by on-Site personnel, subcontractors, and authorized visitors, and maintained at the Site. A project kick-off/tail-gate safety meeting will be conducted with the field team prior to implementation of field activities each day.

Quality Assurance/ Quality Control soil sampling will be completed in accordance with our standard Quality Assurance/ Quality Control procedures designed to minimize cross-contamination between samples and to provide reliable laboratory results.

Reporting

A letter report summarizing assessment activities will be submitted to the NMOCD. The letter report will include a Site description, project history, description of field events, a discussion of results, and recommendations for a path forward.

The report will include:

- A scaled Site plan showing the locations of the soil borings and other Site features;
- Soil boring logs;
- Tabulation of field screening and laboratory analytical results;
- · Copies of landfill manifests;
- · Geotagged photographic documentation of field activities; and
- Assessment results and recommended path forward.

3. Work Plan Approval Request

GHD is prepared to initiate the proposed work plan activities immediately upon NMOCD and BLM concurrence. If you have any questions or comments with regards to this work plan, please do not hesitate to contact our Houston office at (713) 734-3090. Your timely response to this correspondence is appreciated.



Sincerely,

GHD

Scott Foord Project Manager

SF/sh/1

Encl.

Attachments: C-141 Form

Figure 1 – Proposed Soil Boring Location Map

Ray U. Palio Raaj Patel

Program Manager

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Form C-141

Revised April 3, 2017

1220 South St. Francis Dr. Santa Fe, NM 87505

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Name of Co	Contact - Melanie Nolan													
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Operator/Responsible Party,

The OCD has received the form C-141 you provided on _8/10/2018_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-5154__ has been assigned. Please refer to this case number in all future correspondence.

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete <u>division-approved corrective action</u> for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _9/10/2018_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- •Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.
- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.
- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold

OCD Environmental Bureau Chief 1220 South St. Francis Drive Santa Fe, New Mexico 87505 505-476-3465 jim.griswold@state.nm.us



Source: Image © 2018 Google - Imagery Date: November 2, 2017

Lat/Long: 32.583989° North, 103.317743° West







HOLLY ENERGY PARTNERS MONUMENT, LEA COUNTY, NEW MEXICO WTX TO EMSU BATTERY RELEASE SITE

PROPOSED SOIL BORING LOCATIONS

11181401-00 Aug 14, 2018

FIGURE 1