

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

Form C-141  
Revised April 3, 2017

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

## Release Notification and Corrective Action

### OPERATOR

☒ Initial Report ☐ Final Report

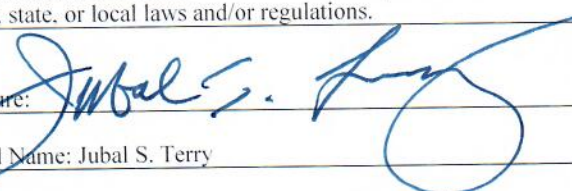
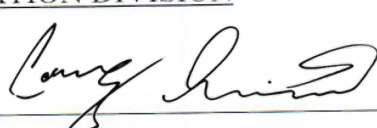
Name of Company BIYA Operators, Inc.	Contact Jubal Terry	
Address 1789 W. Littleton Blvd	Telephone No.(303) 797-5417	
Facility Name Ute Hicks #1	Facility Type Tank Battery	
Surface Owner Ute Mountain Ute	Mineral Owner: Ute Mountain Ute	API No. 30-045-10448

### LOCATION OF RELEASE

Unit Letter L	Section 23	Township 31N	Range 16W	Feet from the 690' FSL	North/South Line	Feet from the	East/West Line 820 FWL	County San Juan
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Latitude 36.81111 Longitude -108.499965 NAD83

### NATURE OF RELEASE

Type of Release: Produced: Oil	Volume of Release	Volume Recovered
Source of Release Production Tank	Date and Hour of Occurrence Unknown	Date and Hour of Discovery Unknown
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* An unreported release from the production tank from the previous operator. Previous operator attempted to berm area. However historical contamination remained.		
Describe Area Affected and Cleanup Action Taken.* Area of impact has been excavated down to sandstone. A total of 800 SCF of soil was removed and taken to an off-lease land farm. A work plan was submitted and approved by the BLM with input from the UTE Mountain Ute tribe and the BIA. Pending approval for sampling for closure.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Jubal S. Terry	Approved by Environmental Specialist: 	
Title: V.P. Exploration	Approval Date: 9/13/17	Expiration Date:
E-mail Address: jterry@diversifiedresourcesinc.com	Conditions of Approval:	Attached <input checked="" type="checkbox"/>
Date: 7/27/2017	Phone: (303) 797-5417	SEE ATTACHED

\* Attach Additional Sheets If Necessary

NCS1725637484

Operator/Responsible Party,

7/27/17

The OCD has received the form C-141 you provided on 7/27/17 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 19.15.29.11 has been assigned.

**Please refer to this case number in all future correspondence.**

NCS1725637484

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 division-approved corrective action 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 III office in Aztec on or before n/a. 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; C<sub>6</sub> thru C<sub>36</sub>), 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; C<sub>6</sub> thru C<sub>36</sub>), 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



# SOIL REMEDIATION WORK PLAN

FOR

BIYA OPERATORS, INC.

UTE #1 TANK BATTERY  
SECTION 23, T31N R16W, NMPM  
SAN JUAN COUNTY, NM



Prepared for:  
BIYA Operators, Inc.  
1789 West Littleton Blvd.  
Littleton, CO 80120

Prepared by:  
Souder, Miller & Associates  
401 W Broadway  
Farmington, NM 87401  
505-325-7535

May 10, 2017  
SMA Reference  
5124920 BG13



**Souder, Miller & Associates**  
*Engineering ♦ Environmental ♦ Surveying*

401 W. Broadway ♦ Farmington, NM 87401  
(505) 325-7535 ♦ fax (505) 326-0045 ♦ [www.soudermiller.com](http://www.soudermiller.com)

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Figure 1: Site Map

## **1.0 Introduction**

Souder, Miller & Associates (SMA) is pleased to submit this work plan for excavation at the BIYA Operators, Inc., Ute #1 Tank Battery (previously referred to as the Hicks #2 Tank Battery) release site. The site is located in Unit M (SW ¼ SW ¼), Section 23, Township 31 North, Range 16 West; GPS: 36.881094°, -108.500091°, in San Juan County, New Mexico on Ute Mountain Ute Tribal lands within the jurisdiction of the Bureau of Land Management (BLM).

## **2.0 Site Ranking and Land Jurisdiction**

The Ute #1 Tank Battery release is located on Ute Mountain Ute tribal land, with an elevation of approximately 5,560 feet above sea level. After evaluation of the site using aerial photography and topographic maps and review of ground water information provided by Colin Larrick, Water Quality Program Manager, Ute Mountain Ute Tribe, depth to groundwater is estimated to be less than 50 feet below ground surface (bgs).

SMA searched the New Mexico State Engineer's Office online water well database for water wells in the vicinity of the release. No wells are located within a 1000 foot radius of the site. The physical location of this release is within the jurisdiction of the BLM on Ute Mountain Ute tribal land.

This release location has been assigned soil remediation standards of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 100 ppm total petroleum hydrocarbons (TPH). Remediation standards have been assigned by Scott Clow, Ute Mountain Ute Tribe Environmental Programs Director, and are contingent upon BLM approval.

## **3.0 Previous Site Assessment**

A work plan dated September 19, 2016 was submitted on behalf of BIYA to Scott Clow, Environmental Programs Manager, Ute Mountain Ute Tribe, detailing proposed excavation for the hydrocarbon release at the Ute #1 Tank Battery. Jubal Terry, BIYA, has notified SMA that excavation has occurred as provided in the above listed work plan.

BIYA has requested that SMA coordinate with the BLM and Ute Mountain Ute Tribe and to collect confirmation closure samples of the existing excavation. At the request of the Ute Mountain Ute Tribe, sampling is to occur before May 12, 2017. BLM and/or Ute Mountain Ute Tribe representatives will be notified to witness collection of discreet samples. The laboratory samples will be sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analysis for Benzene and Total BTEX using EPA Method 8021B, DRO and GRO by EPA Method 8015D, and total Chlorides using EPA Method 300.0.

## **4.0 Soil Remediation Work Plan**

Prior excavation has occurred on this site. BIYA is requesting that confirmation closure sampling occur, as described above. Upon receiving sample results, SMA will submit a request for site closure report or provide further delineation guidance to BIYA, the BLM and the Ute Mountain Ute Tribe. If further excavation is required, the BLM and Ute Mountain Ute Tribe will be provided an updated work plan detailing additional excavation and remediation activities. Per the Ute Mountain Ute Tribe, with BLM approval, final remediation is to occur prior to June 16, 2017.

If impacted sandstone is identified during excavation activities, SMA recommends the use of a bentonite geosynthetic clay liner with a minimum thickness of 40 mil to create a barrier cap.

Back filling of excavated areas is to occur upon receiving confirmation sampling and BLM approval for closure of the excavated areas. Prior to back fill occurring, back fill source(s) and material is to be approved by the BLM. Upon BLM approval, The Ute Mountain Ute Tribe is requesting that, at a minimum, the excavated areas nearest to the small wash located on the south side of the location be filled with material of similar quality and grain size as the original excavated material. The Ute Mountain Ute Tribe also recommends the larger excavated area to the east of the staged tanks be completely back filled prior to or during final reclamation. The BLM Gold Book Standards will be applied to areas that require storm water management.

## **5.0 Conclusions and Recommendations**

This site has been assigned soil remediation standards of: 10 ppm (mg/kg) Benzene, 50 ppm total BTEX, and 100 ppm TPH.

Upon approval of the soil remediation work plan by the BLM, SMA will conduct closure confirmation sampling. BIYA will provide laboratory report information to the BLM and Ute Mountain Ute Tribe. Upon completion of back filling the excavated areas, a work plan for reclamation will be submitted to the BLM for approval.

Changes to the layout of the location will be approved by the BLM and updated site facility diagrams will require BLM approval.

If there are any questions regarding this report, please contact either Ashley Maxwell or Shawna Chubbuck at 505-325-7535.

Submitted by:

Reviewed by:

SOUDER, MILLER & ASSOCIATES



Ashley Maxwell  
Staff Scientist



Shawna Chubbuck  
Senior Scientist

FIGURE 1  
SITE MAP





BIYA		WATERFLOW, NEW MEXICO		Rev #	Date	Description
AREAS OF EXCAVATION UTE #1 TANK BATTERY SITE LOCATION MAP						
SMA Engineering Environmental Surveying						
Souders, Miller & Associates 401 West Broadway Avenue Farmington, NM 87401-5907 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045 www.soudersmiller.com Serving the Southwest & Rocky Mountains						
Designed APM	Drawn DJB	Checked SH	Date: April 2017			
Scale: Horiz: 1" = 20'		Vert: NA				
Project No: 5124920						
Figure 1						





June 7, 2017

SMA #5124920

Attn: Mr. Ryan Joyner  
29211 Highway 187  
Dolores, CO 81323

**RE: ADDENDUM TO UTE #1 TANK BATTERY SOIL REMEDIATION WORK PLAN (DATED MAY 10, 2017)**

Dear Mr. Joyner:

Souder, Miller & Associates (SMA) is submitting this letter report, on behalf of BIYA Operators, Inc., as an addendum to the Ute #1 Tank Battery Soil Remediation Work Plan dated May 10, 2017 in response to the June 1, 2017 site visit at the Ute #1 Tank Battery, and provide further required remediation activities. The site is located in the SW ¼ SW ¼ (Unit Letter M) Section 23 T31N R16W, on Ute Mountain Ute Tribal lands within the jurisdiction of the Bureau of Land Management (BLM).

## **1.0 SUMMARY OF FIELD ACTIVITIES**

On June 1, 2017 SMA personnel met with you, representatives from the Bureau of Indian Affairs (BIA), and representatives from BIYA Operators, Inc. All parties completed a visual inspection of the three excavation sites currently on location. There was agreement that additional excavation activity is required prior to closure sampling.

## **2.0 RESULTS/ CONCLUSION**

In the attached Figure 1, SMA has labeled the excavation sites: Excavation 1, Excavation 2 and Excavation 3. Each of the excavations has additional remediation activities that need to be addressed prior to closure sampling.

### **Excavation 1**

The south wall of the excavation is to be side scraped. If there is visual or olfactory evidence of contamination, the excavation is to extend further south until there is no evidence of hydrocarbon impact. All visible hydrocarbon impacted debris, rocks, wood, paraffin balls and loose soil are to be removed.

## Excavation 2

The east and south walls appear to be clean, and are pending sampling upon the completion of remedial activities on this site. The west and north walls of the excavation are to be side scraped. If there is visual or olfactory evidence of contamination, the excavation is to extend further north and west until there is no evidence of hydrocarbon impact. If excavation continues on the north wall, excavation must remain within the footprint of the well pad and not to enter the off-pad vegetation. All visible hydrocarbon impacted debris, rocks, wood, paraffin balls and loose soil are to be removed.

## Excavation 3

The east and north walls of the excavation are to be side scraped. SMA recommends sloping the east wall as it is side scraped to account for surface staining observed during the site visit as well as allowing for safe entry of excavation when sampling is to occur. If there is visual or olfactory evidence of contamination, the excavation is to extend further north and east until there is no evidence of hydrocarbon impact. All visible hydrocarbon impacted debris, rocks, wood, paraffin balls and loose soil are to be removed.

Upon completion of remediation activities, notifications to the BLM, BIA and Ute Mountain Ute Tribe requesting permission to conduct closure sampling to will be made. Representatives will be notified to witness collection of samples. Sampling is to occur at an approximate frequency of five (5) discreet samples and one composite sample representing every 25 linear feet of a typical excavation on each side wall and, if applicable, the floor. The laboratory samples will be sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analysis for Benzene and Total BTEX using EPA Method 8021B, DRO and GRO by EPA Method 8015D, and total Chlorides using EPA Method 300.0.

If there are any questions regarding this report, please contact myself or Shawna Chubbuck at 505-325-7535.

Sincerely,

Souder, Miller & Associates



Ashley Maxwell  
Staff Scientist



Shawna Chubbuck  
Senior Scientist

## Figures:

Figure 1: Areas of Excavation Map

**FIGURE**






REMOVE ALL VISIBLE HYDROCARBON IMPACTED DEBRIS, ROCKS, WOOD, PARAFFIN BALLS, AND LOOSE SOIL FROM EXCAVATION SITES.

WATERFLOW, NEW MEXICO		Rev #	Date	Description

BIYA

**AREAS OF EXCAVATION  
UTE #1 TANK BATTERY  
SITE LOCATION MAP**



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Designed APM	Drawn DJB	Checked SH
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Date: **June 2017**

Scale: Horiz: 1" = 20'  
Vert: NA

Project No: 5124920

**Figure 1**