

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 August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Subsequent Report ☐ Final Report

Name of Company: BP	Contact: Steve Moskal	
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9497	
Facility Name: Gallegos Canyon Unit 264	Facility Type: Natural gas well	
Surface Owner: Fee	Mineral Owner: Fee	API No. 3004520656

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: San Juan
E	17	28N	12W	1,630	North	1,150	West	

Latitude 36.66512° Longitude -108.14076°

NATURE OF RELEASE



Type of Release: Former earthen pit – condensate/produced water	Volume of Release: unknown	Volume Recovered: none
Source of Release: Former earthen pit	Date and Hour of Occurrence:	Date and Hour of Discovery: May 10, 2016
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom? Steve Moskal	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.* Impacts were discovered beneath a below grade tank during closure sampling. Impacts may have been associated with tank integrity as a corrosion hole was identified during inspection of the tank. Laboratory results confirmed the release exceeded the BGT closure standard and the spill and release guidelines. Remedial excavation then followed with impacts determined to be off location beneath an adjacent ephemeral wash. The excavation was stopped per the landowner's request and a soil boring investigation was used to determine the extents of the remaining impacts. Additional delineation is required to determine full extents of the impacts.

Describe Area Affected and Cleanup Action Taken.* A total of 3,700 cubic yards of soil was excavated from the impact area. Approximately 2,531 cubic yards of soil was excavated and removed from the site for landfarm treatment. The excavation measured 75'x95'x18' maximum depth. A single portion of the excavation had remaining impacts along the SW wall at a depth of 15-16' which was on the edge of the well location and at the interface of a ephemeral wash. The area of remaining contaminants is off the pad disturbance area and required landowner approval for excavation. The excavation was backfilled per landowner approval. BP further delineated the area of remaining impacts beneath the ephemeral wash via a soil boring investigation. Additional delineation is required to determine final extents of contamination.

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: Steve Moskal	Approved by Environmental Specialist: 	
Title: Field Environmental Coordinator	Approval Date: <u>3/23/2017</u>	Expiration Date:
E-mail Address: steven.moskal@bp.com	Conditions of Approval: <u>NCS1613445286</u>	Attached <input type="checkbox"/>
Date: March 21, 2017	Phone: 505-326-9497	

* Attach Additional Sheets If Necessary

OIL CONS. DIV DIST. 3

MAR 21 2017

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BP Remediation Plan

To: Vanessa Fields (NMOCD)
From: Steve Moskal (BP)
CC: Jeff Blagg (Blagg Engineering)
Date: 3/21/2017
Re: Gallegos Canyon Unit 264 – Contaminant Delineation for In-Place Closure.
API# 30-045-20656; (E) S17 – T28N – R12W; ncs1613445286

Dear Ms. Fields,

INTRODUCTION

The Gallegos Canyon Unit (GCU) 264 site is an active natural gas production pad within the San Juan Basin Gas Field in San Juan County, New Mexico. The site is located on private land with previous ownership and approved drilling permit (APD) issued by the Bureau of Land Management (BLM). The APD was approved in 1970. The transfer of ownership from the BLM to the private landowner occurred sometime during 1981-1982. The well location is near the head of a small ephemeral stream draining a very steep slope, covered with well-established sage brush.

HISTORY

A historical release of natural gas liquids from production and process equipment was identified during the closure sampling of a below grade tank (BGT) in April of 2016. Since the discovery of the release BP has excavated approximately 2,531 cubic yards of impacted soil to depths of 18 feet below ground surface (fbgs); collected numerous soil confirmation samples for closure of all onsite impacts. During the remedial excavation, it was identified that the impacts likely go off site and are located 15 feet, or greater, below an ephemeral wash.

The site soils consist of loose tan-brown sands with an underlying grey silty-clay. The thickness of the brown sands ranges from 8 to 12 feet and the underlying grey formation with an unknown thickness at this time.

After the majority of impacted soil was removed from the production pad area in May of 2016, laboratory analysis of 14 composite and 1 discrete soil confirmation samples revealed that remaining total petroleum hydrocarbons (TPH) concentrations were below detection limits for the excavated sidewall and base of the excavation, except in far southwest wall section of the excavation where the edge of the production pad meets the ephemeral wash. The contamination zone is approximately 25-30' long and ranges from 15-16' feet below ground surface. The analytical results of the 1 discrete sample collected from the 15-16' zone of the SW wall resulted in 560 ppm total petroleum hydrocarbons (TPH) and 3.32 ppm of combined BTEX. A site excavation diagram and laboratory results are attached.

In October of 2016, a track mounted Geoprobe was used to advance 11 probe points. Probing locations were selected by beginning at the edge of known impacts and progressing in all directions to delineate the 3-dimensional limit of impacts exceeding site standards. Soil samples were collected using 1-inch diameter x 4 foot long clear plastic sleeves. Test holes were advanced vertically until field observations indicated non-impacted material had been reached, or until refusal by dense substrate. Select samples were placed into gallon sized Ziploc® baggies for field headspace analysis of organic vapors with a calibrated IonScience Tiger model photo-ionization detector (PID) containing a 11.2 eV lamp.

The initial probe point was placed at the edge of known residual impacts identified in the May 2016 excavation remediation. The impacts in this boring that exceeded the closure standard of 100 ppm TPH began at approximately 17 feet below surface grade (bsg) and extended to approximately 22 feet bsg. Subsequent borings were advanced at approximately 15 foot horizontal steps from each other to delineate impacts. Based on this delineation, approximately 222 cubic yards of impacted soil remain below a dry ephemeral wash abutting the western edge of the well location. These impacts encompass an area of approximately 80' x 25' x 3' thick and begin at an average depth of approximately 16' bsg, up to depths of 22'. There are approximately 1,370 cubic yards of clean overburden on top of these impacts. Below are the TPH results of the 2016 Geoprobe investigation:

**Summary Impact
Depth and Thickness**

Boring ID	Top of Impacts Exceeding 100 ppm TPH (Below Surface Grade)	Bottom of Impacts Exceeding 100 ppm TPH (Below Surface Grade)	Impact Thickness	Maximum Lab TPH (mg/Kg)
GP-1	17'	22'	5'	143
GP-2	18.5'	22'	3.5'	572
GP-3	21.5'	22.5'	1'	372
GP-4	None	None	0'	39.6
GP-5	None	None	0'	28
GP-6	None	None	0'	89
GP-7	None	None	0'	43
GP-8	18'	22'	4'	370
GP-9	16'	19'	3'	113
GP-10	18.5'	22'	3.5'	688
GP-11	21.5'	23'	1.5'	463

PLAN OF ACTION

BP proposes to continue off-site delineation to determine the extent of hydrocarbon impacts to soils of the wash (refer to Figure 1 for the confirmed extent of soil impacts to-date). An additional 6-10 Geoprobe® soil borings will be advanced to approximately 18-22 feet deep and field screened using a calibrated photoionization detector (PID) in 2-foot intervals starting at 14 feet to total depth. Attached in Figure 2 are the anticipated locations of the soil borings, however, the borings will be spaced and directed on field screening, visual observation and physical characteristics of the screening intervals. Based on the results of the field screenings, soil samples will be collected from the highest PID screening interval and at total depth and placed in laboratory provided glassware for select boring locations. A minimum 6 soil samples will be collected and submitted to an accredited laboratory for analysis of TPH via 8015 and BTEX via 8021. Two samples from each boring where final extents are assumed to be will be submitted for laboratory analysis: an upgradient, a west/southwest extent and a downgradient.

The objectives of this investigation are:

- Determine the size and extents of the contaminants.
- Obtain enough information to prepare a detailed geological model and map the extent and thickness contaminant zone.
- Confirm the contaminant concentrations are relatively low (BTEX, GRO and DRO concentration levels).

REPORTING

BP will perform the proposed site investigation within 60 days of approval. Upon completion of the field activities, analytical data evaluation and geological model interpretation, BP will submit to the NMOCD a report of the remedial excavation and soil boring investigation activities for the proposed in-place closure Gallegos Canyon Unit 264 site within 60 days of receipt of the soil boring laboratory data. BP will then either request site closure or develop a remediation plan according to the investigation findings.

Regards,

A handwritten signature in blue ink, appearing to read "Steve Moskal", is written above the printed name.

Steve Moskal
BP America Production Co.

Approximate Remaining Sidewall
Impacts (30' Long Section,
Impact Depth 14' - 18') estimated
after original closure excavation.

Figure 1: Impact Isopach Map

GCU 264

(E) Sec 17 - T28N - R12W

API: 30-045-20656

Remedial Excavation
Completed May 25, 2016

0 Foot

0.0'

GP7

0.0'

GP6

0.0'

GP5

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GP4

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GP3

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GP2

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GP1

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GP8

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GP9

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GP11

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Figure 2: Proposed Geoprobe Points
GCU 264
(E) Sec 17 - T28N - R12W
API: 30-045-20656

Approximate Remaining Sidewall
Impacts (30' Long Section,
Impact Depth 14' - 18') estimated
after original closure excavation.

Remedial Excavation
Completed May 25, 2016

October 2016 Geoprobe points

Alternative Geoprobe points

Proposed Geoprobe points (est.)

