

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303) 894-2100 Fax 894-2109



FOR OGCC USE ONLY

#8396

Received
4/30/2014

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

☐ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☒ Site/Facility Closure ☒ Other (describe): Vault Closure

OGCC Employee:

☐ Spill ☐ Complaint
☐ Inspection ☐ NOAV

Tracking No:

GENERAL INFORMATION

OGCC Operator Number: 69175		Contact Name and Telephone	
Name of Operator: PDC Energy, Inc.		Name: Brandon Bruns	
Address: 1775 Sherman Street, Suite 3000		No: (303) 831-3971	
City: Denver State: CO Zip: 80203		Fax: (303) 860-5838	
API/Facility No: 05-123-10703		County: Weld	
Facility Name: Kelly Estate (Williams) 44-19		Facility Number: 319110	
Well Name: Kelly Estate (Williams) 44-19		Well Number: Kelly Estate (Williams) 44-19	
Location (QtrQtr, Sec, Twp, Rng, Meridian): SESE S19 T6N R65W		Latitude: 40.468323 Longitude: -104.697721	

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc.): NA

Site Conditions: Is location within a sensitive area (according to Rule 901e)? ☒ Y ☐ N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Agriculture

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Colby loam, 0 to 1 percent slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Buildings are located 755' southeast of the tank battery. Water wells are located 340' west and 620' south of the location. The nearest surface water is located 3,655' to the north. Depth to groundwater is unknown.

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):

- ☐ Soils
☐ Vegetation
☐ Groundwater
☐ Surface water

Extent of Impact:

No impacts encountered

How Determined:

Excavation and soil sampling

REMEDATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

Following the removal of the buried produced water vessel at the Kelly Estate (Williams) 44-19 (API # 05-123-10703) tank battery, a soil sample was collected from below the former tank location to confirm the absence of petroleum hydrocarbon impacts. An aerial map of the site is included on Figure 1.

Describe how source is to be removed:


Impacted soils were not encountered during abandonment activities at the location. However, 20 cubic yards (yd3) of soil were removed as a part of internal housekeeping and site reclamation activities. Soil was transported to the Waste Management Facility in Ault, Colorado under PDC waste manifests. The facility orientation and soil sample location is illustrated on Figure 2.

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

Removal of the buried produced water vessel and confirmation soil sampling activities were conducted on December 20, 2013. Soil encountered during tank removal did not exhibit petroleum hydrocarbon impacts. Following the removal of the produced water vessel, a confirmation soil sample was collected below the former tank location at approximately 7 feet below ground surface (bgs). The soil sample was field screened for volatile organic compound (VOC) concentrations with a photoionization detector (PID). The soil sample was submitted to Summit Scientific Laboratories in Golden, Colorado for laboratory analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), total petroleum hydrocarbons (TPH)-gasoline range organics (GRO), and naphthalene by EPA Method 8260B. The sample was also analyzed for TPH-diesel range organics (DRO) by EPA Method 8015. Analytical results indicate constituent concentrations are below laboratory detection limits. A summary of soil analytical data is presented in Table 1. Groundwater was not encountered during excavation activities. The laboratory analytical report is included as Attachment A. The facility orientation and the soil sample location are illustrated on Figure 2. Based on the soil analytical results, PDC is requesting a produced water vessel closure from the COGCC at this location.

FORM
27
Rev 6/99

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Tracking Number: _____
Name of Operator: PDC Energy, Inc.
OGCC Operator No: 69175
Received Date: 4/30/2014
Well Name & No: Kelly Estate (Williams) 44-19
Facility Name & No.: Kelly Estate (Williams) 44-19

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OGCC Employee: R. Allison

REMEDATION WORKPLAN (CONT.)

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):
Groundwater not encountered during the removal of the buried produced water vessel.

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.
The area where the excavation is located has been backfilled and compacted with clean material and the ground surface was contoured to match pre-existing conditions.


Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.
Is further site investigation required? ☐ Y ☒ N If yes, describe:
PDC feels that no further Site investigation is required at this time. The facility orientation and soil sample locations are illustrated on Figure 2. Soil analytical results are summarized in Table 1 and the analytical report is included as Attachment A. Based on the soil analytical results, PDC is requesting a vault closure and No Further Action (NFA) determination for this location.

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):
Waste was disposed of at the Waste Management Facility in Ault, CO under PDC waste manifests.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began:	<u>12/20/2013</u>	Date Site Investigation Completed:	<u>12/20/2013</u>	Remediation Plan Submitted:	<u>NA</u>
Remediation Start Date:	<u>NA</u>	Anticipated Completion Date:	<u>NA</u>	Actual Completion Date:	_____

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.
Print Name: Brandon Bruns

Signed: 

Title: EHS Supervisor

Date: 4/30/14

OGCC Approved: _____

Title: Northeast EPS

Date: 5/5/2014