

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

#8406

RECEIVED 5/13/2014

**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.

OGCC Employee:

Spill  Complaint  
 Inspection  NOAV

Tracking No: 2147983

**CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED**

Spill or Release  Plug & Abandon  Central Facility Closure  Site/Facility Closure  Other (describe): \_\_\_\_\_

**GENERAL INFORMATION**

<b>OGCC Operator Number:</b> 69175		Contact Name and Telephone	
Name of Operator: <u>PDC Energy, Inc.</u>		Name: <u>Brandon Bruns</u>	
Address: <u>1775 Sherman Street, Suite 3000</u>		No: <u>(303) 831-3971</u>	
City: <u>Denver</u> State: <u>CO</u> Zip: <u>80203</u>		Fax: <u>(303) 860-5838</u>	
API/Facility No: <u>05-123-36957</u>	County: <u>Weld</u>		
Facility Name: <u>Waste Management 2Q-HZ</u>	Facility Number: <u>432121</u>		
Well Name: <u>Waste Management 2L-421</u>	Well Number: <u>Waste Management 2L-421</u>		
Location (QtrQtr, Sec, Twp, Rng, Meridian): <u>SESW S2 T2N R64W</u>		Latitude: <u>40.161649</u>	Longitude: <u>-104.52055</u>

**TECHNICAL CONDITIONS**

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

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.): Pasture / Oil and Gas Production

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Valent sand, 0 to 3 percent slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): A water well is located 2,660 feet northwest of the tank battery.

The nearest surface water is located 230 feet east of the location. Depth to groundwater is unknown.

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

Impacted Media (check):	Extent of Impact:	How Determined:
<input checked="" type="checkbox"/> Soils	<u>Refer to Table 1 and Figure 2</u>	<u>Excavation and soil sampling</u>
<input type="checkbox"/> Vegetation	_____	_____
<input type="checkbox"/> Groundwater	_____	_____
<input type="checkbox"/> Surface water	_____	_____

**REMEDIATION WORKPLAN**

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

On March 17, 2014, a release of approximately 4 barrels of oil occurred outside secondary containment at the Waste Management 2Q-HZ tank battery (Facility ID 432121). A Form 19 was submitted to the COGCC on March 18, 2014 and Spill Tracking # 2147983 was assigned to the location. An aerial map of the site is included on Figure 1.

Describe how source is to be removed:

Excavation activities occurred on March 17, 2014, as described in the Form 19. Additional excavation activities occurred on March 27, 2014 and approximately 40 cubic yards (yd3) of impacted material were removed and transported to the Buffalo Ridge Landfill in Keenesburg, Colorado under PDC waste manifests. The location and extent of the excavation 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.:

Additional excavation activities were conducted on March 27, 2014 following the oil release which occurred on March 17, 2014. Four confirmation soil samples (SS01 - SS04) were collected on March 27, 2014 at a depth of 1 foot below ground surface (bgs). Soil samples were field screened for volatile organic compound (VOC) concentrations with a photoionization detector (PID). Samples were 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. Samples were also analyzed for TPH-diesel range organics (DRO) by EPA Method 8015. Analytical results indicate constituent concentrations are below laboratory detection limits at all four sample locations. 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 No Further Action determination from the COGCC for this location.

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REMEDIATION WORKPLAN (CONT.)

OGCC Employee:

Tracking Number: Name of Operator: PDC Energy, Inc. OGCC Operator No: 69175 Received Date: Well Name & No: Waste Management 2L-421 Facility Name & No.: Waste Management 2L-421

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.): Groundwater not encountered during excavation activities.

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 [x] 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 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 Buffalo Ridge Landfill in Keansburg, CO under PDC waste manifests.

IMPLEMENTATION SCHEDULE

Table with 4 columns: Date Site Investigation Began, Date Site Investigation Completed, Remediation Plan Submitted, Remediation Start Date, Anticipated Completion Date, Actual Completion Date. Values include 3/17/2014, 3/27/2014, NA, NA.

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: [Signature] Title: EHS Supervisor Date: 5/12/14

OGCC Approved: Title: EPS Date: 5/12/2014