

State of Colorado
Oil and Gas Conservation Commission



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#8466

FOR OGCC USE ONLY
Received
5/7/2014

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: 2146909

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

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

OGCC Operator Number: <u>100322</u>	Contact Name and Telephone: <u>Jacob Evans</u>
Name of Operator: <u>Noble Energy Inc.</u>	No: <u>303-228-4000</u>
Address: <u>1625 Broadway, Suite 2000</u>	Fax: <u>303-228-4459</u>
City: <u>Denver</u> State: <u>CO</u> Zip: <u>80202</u>	

API Number: <u>05-123-16656</u>	County: <u>Weld</u>
Facility Name: <u>Evans Industrial Park</u>	Facility Number: 248539 <u>437452</u>
Well Name: <u>Evans Industrial Park</u>	Well Number: <u>#2</u>
Location: (QtrQtr, Sec, Twp, Rng, Meridian): <u>NWSE Sec 30, T5N, R65W, 6PM</u>	Latitude: <u>40.366</u> Longitude: <u>-104.703</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.): Light industrial

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Topsoil underlain by sand and gravel to 11', then clay

Potential receptors (water wells within 1/4 mi, surface waters, etc.): 200' west to well (domestic), 1,000' southeast to well (domestic), 1,100' northwest to well (domestic)

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>50' x 85'</u>	<u>Excavation</u>
<input type="checkbox"/> Vegetation	_____	_____
<input checked="" type="checkbox"/> Groundwater	<u>Monitoring well MW-4 had benzene at 23.6 ug/L, others <COGCC limit</u>	<u>Ten monitoring wells were installed</u>
<input type="checkbox"/> Surface Water	_____	_____

REMEDIATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):
Facility was taken out of service, see Form 19 previously submitted.

Describe how source is to be removed:
Excavation was completed between December 30 and 31, 2013. Photoionization detector (PID) was used for field screening of wall samples with confirmation analyses by eAnalytics Lab of Loveland, CO. Approximately 530 cubic yards of impacted soil were removed.

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.:
Prior to excavation, 10 monitoring wells were installed to determine the magnitude and extent of subsurface impacts. Noble determined that excavation of the impacted soil was the most appropriate remedial approach. Excavation was conducted to remove impacted soils which were then transported offsite to Waste Management's Buffalo Ridge landfill in Keenesburg, CO landfill as non-hazardous waste.



Tracking Number: 2146909 Name of Operator: Noble Energy, Inc. OGCC Operator No: 100322 Received Date: 5/7/2014 Well Name & No: Facility Name & No: Evans Industrial Park

REMEDIATION WORKPLAN (Cont.)

OGCC Employee: R. Allison

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

Shortly after the discovery of the release from the water vault, 10 monitoring wells were installed on 11/14/13 to determine the extent of the subsurface impacts. Ground water was impacted above the COGCC Table 910-1 limits only in well MW-4. These ten wells will be sampled quarterly for BTEX by EPA method 8260. Excavation of the impacted soil was conducted after installation of the wells.

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.

A new water vault was installed at this facility after removal of the impacted soil. The surface was recontoured to match the existing grade. The facility has been placed back into service.

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:

See Site Investigation Report dated December 13, 2013 for additional description and laboratory analyses. The ten existing monitoring wells will be monitored on a quarterly basis until four consecutive quarters indicate ground water quality is within the COGCC Table 910-1 limits.

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

All petroleum impacted soil was transported and disposed at Waste Management's Buffalo Ridge landfill in Keenesburg, CO.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 12/13/2013 Date Site Investigation Completed: Denver 12/13/2013 Date Remediation Plan Submitted: CO 5/7/14 Remediation Start Date: 80202 12/30/2013 Anticipated Completion Date: Jacob Evans 3/31/2015 Actual Completion Date: 303-228-4000

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

Print Name: 303-228-4459

Signed: Jacob Evans

Digitally signed by: Jacob Evans DN: CN = Jacob Evans C = AD O = Noble Energy Inc. Date: 2014.05.07 10:09:06 -06'00'

Title: 05-123-16656

Date: Weld

OGCC Approved:

Title: Northeast EPS

Date: 6/3/2014