

State of Colorado
Oil and Gas Conservation Commission

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



#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.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

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

OGCC Employee:

☒ Spill ☐ Complaint
☐ Inspection ☐ NOAV
Tracking No: 2146909

OGCC Operator Number: 100322

Name of Operator: Noble Energy Inc.

Address: 1625 Broadway, Suite 2000

City: Denver State: CO Zip: 80202

Contact Name and Telephone:

Jacob Evans

No: 303-228-4000

Fax: 303-228-4459

API Number: 05-123-16656

County: Weld

Facility Name: Evans Industrial Park

Facility Number: ~~248539~~ 437452

Well Name: Evans Industrial Park

Well Number: #2

Location: (QtrQtr, Sec, Twp, Rng, Meridian): NWSE Sec 30, T5N, R65W, 6PM Latitude: 40.366 Longitude: -104.703

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):

☒ Soils

☐ Vegetation

☒ Groundwater

☐ Surface Water

Extent of Impact:

50' x 85'

Monitoring well MW-4 had benzene at 23.6 ug/L, others <COGCC limit

How Determined:

Excavation

Ten monitoring wells were installed

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.

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**REMEDIATION WORKPLAN (Cont.)**OGCC Employee: R. AllisonTracking Number: 2146909Name of Operator: Noble Energy, Inc.OGCC Operator No: 100322Received Date: 5/7/2014

Well Name & No: _____

Facility Name & No: Evans Industrial Park**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: 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: 303-228-4459Signed: 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: 05-123-16656Date: WeldOGCC Approved: _____ Title: Northeast EPS Date: 6/3/2014