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North America Division

August 31, 2011

Mr. John Axelson
Department Of Natural Resources
Oil & Gas Conservation Commission
1120 Lincoln St., Suite 801
Denver CO 80203-2136

RE: Form 27
Lilli Unit B-11
API 05-123-13826
NW/NE Sec. 11, T8N R58W
Weld County, Colorado

Dear Mr. Axelson:

Please find attached a completed Form 27, soil analytical data from one soil sample taken at the bottom of the evaporation pit and a site diagram for the Lilli Unit B-11. Based on the soil analytical results obtained, Noble Energy Inc. will remediate the existing impacts using a Soil Vapor Extraction System (SVE).

Noble Energy Inc. would like to claim business confidentiality protection for the information submitted in this letter, the supporting materials attached and all previous and subsequent correspondence related to this matter. Please contact the Noble Energy Environmental Department at (970) 785-5000 if you have any questions or require additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Todd Cullum'.

Todd Cullum
Environmental Specialist

Attachments



01761288

#6093

FORM

27

Rev 6/99

**State of Colorado
Oil and Gas Conservation Commission**

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

**RECEIVED**

FOR OGCC USE ONLY

SEP 01 2011

COGCC

OGCC Employee:

☐ Spill ☐ Complaint
☐ Inspection ☐ NOAV

Tracking No:

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): Pit Remediation Closure Plan

OGCC Operator Number: 100322

Name of Operator: Noble Energy, Inc.

Address: 804 Grand Avenue

City: Platteville

State: CO Zip: 80651

Contact Name and Telephone:

Todd Cullum

No: 970-785-5000

Fax: 970-785-5099

API Number: 05-123-13826

County: Weld

Facility Name: Lilli Unit B-11 (2-11) Pit

Facility Number: 112051

Well Name: Lilli Unit

Well Number: 2-11

Location: (QtrQtr, Sec, Twp, Rng, Meridian): NWNE, Sec 11, T 8N, R 58W, 6th Meridian Latitude: 40.682186 Longitude: -103.827354

TECHNICAL CONDITIONS

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

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: clayey sand

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Streams approximately 715 feet to the east and 4,080 feet west, a stock water well approximately 2,600 feet to the west.

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

Impacted Media (check):

☒ Soils☐ Vegetation☐ Groundwater☐ Surface Water

Extent of Impact:

See Attached.

How Determined:

REMEDATION WORKPLAN

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

A site assessment to evaluate potential soil impact was conducted. A hand auger was advanced to 5 feet below ground surface at two locations in each pit. One composite soil sample was collected from each pit. The soil samples were submitted for laboratory analysis of BTEX, TPH, EC, SAR, and pH. A site map and analytical table are attached.

Describe how source is to be removed:

Analytical results indicate there is benzene, toluene, total xylenes, TPH, and pH impact exceeding standards at pit # 2. Pit # 2 will be backfilled to grade followed by remediation of the impacted soil using soil vapor extraction (SVE). During SVE installation a more detailed site assessment will be conducted to ensure source is delineated and mitigated.

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.:

Remediation of existing impacts will occur using a SVE system. The SVE system will include subsurface vertical wells and above ground horizontal extraction piping connected to a vapor extraction blower. The SVE system is designed to volatilize petroleum constituents adsorbed onto soil particles and to remove petroleum vapors.

Submit Page 2 with Page 1

FORM
27
Rev 6/99

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Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203
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Page 2

REMEDIAL WORKPLAN (Cont.)

Tracking Number: 1761288
Name of Operator: Noble Energy
OGCC Operator No: 100322
Received Date: 9/1/11
Well Name & No: LIII Unit 2-11
Facility Name & No: LIII Unit B-11 (2-11) Pit 112051

Page 2

Axelsson

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

Groundwater was not encountered during assessment activities. An additional assessment during SVE installation will verify the absence of impacted groundwater.

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 pits will be filled and graded to match adjacent topography and reseeding will occur with native grasses.

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:

Soil sample laboratory results indicate that benzene, toluene, total xylenes, TPH, and pH concentrations exceed the COGCC standards in pit 2. Further investigation is required at this site in order to design an appropriate SVE system. A Figure and table are included that summarize sampling locations and results.

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

There will be no waste associated with the project. During SVE operation air emission analysis will be conducted to ensure compliance with CDPHE air emission standards.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 5/17/2011 Date Site Investigation Completed: TBD Date Remediation Plan Submitted: 7/22/2011
Remediation Start Date: 5/17/2011 Anticipated Completion Date: -- Actual Completion Date: TBD

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

Print Name: Todd Cullum

Signed: [Signature]

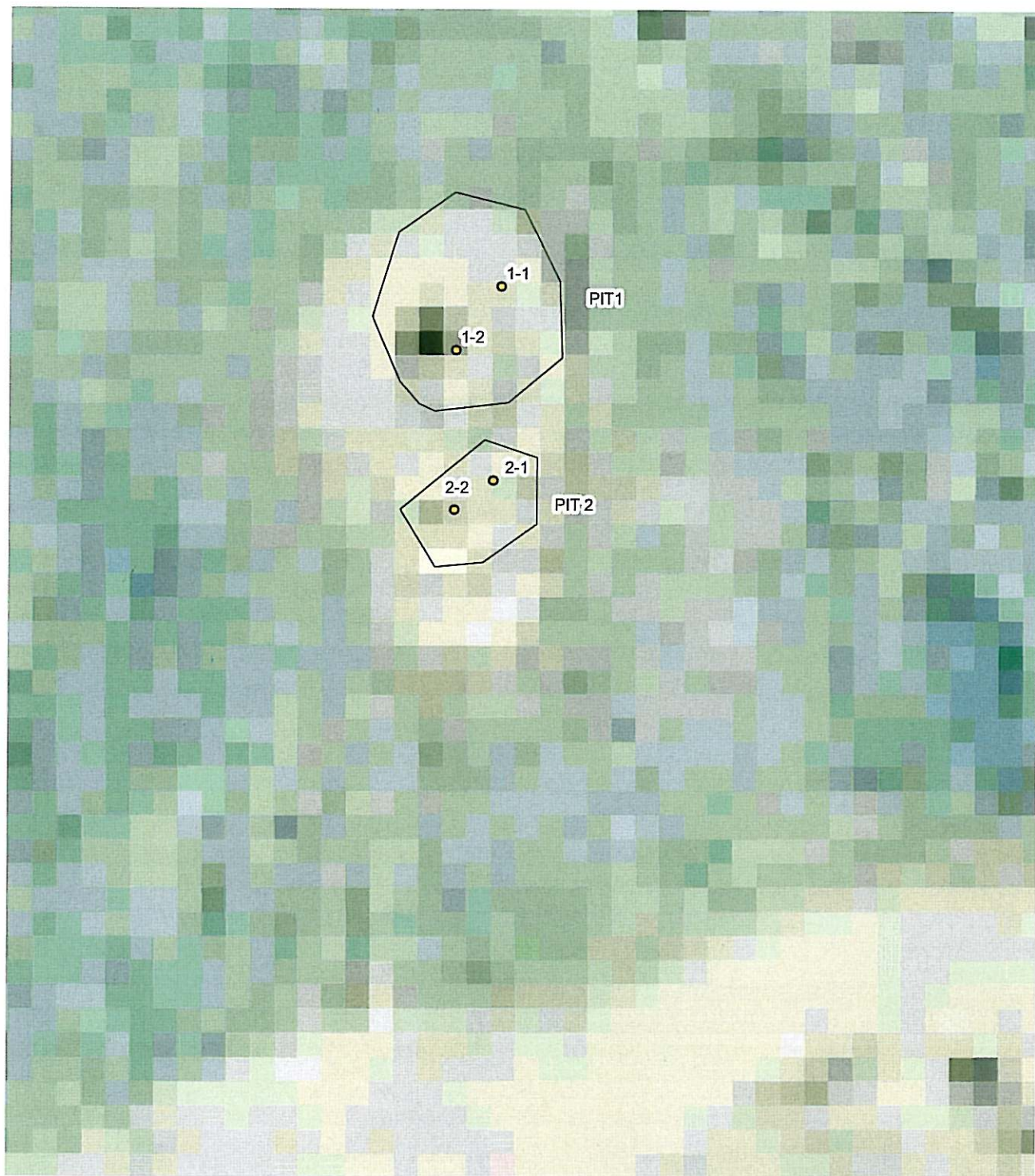
Title: Environmental Specialist

Date: 7/22/2011

OGCC Approved: [Signature]

Title: EPS

Date: 9/1/11



LEGEND

- COMPOSITE SOIL SAMPLE
- PIT BOUNDARY

IMAGE COURTESY OF USDA/NRCS, 2009

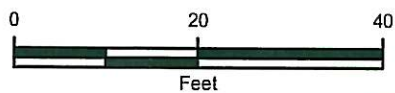


FIGURE 1
SITE MAP
LILLI UNIT B-11
NWNE SEC 11 T8N R58W
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.



TABLE 1
SOIL ANALYTICAL DATA
LILLI EVAPORATION PITS
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.

Sample Location	Date Sampled	Pit Number	Sample Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	TPH (mg/kg)	EC (mmhos/cm)	SAR	pH
Lilli Unit B-11	5/17/2011	1	5	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<50	<50	<100.5	0.28	3.5	7.7
Lilli Unit B-11	5/17/2011	2	5	24	290	97	510	15,000	510	<50	15,560	0.129	5.9	5.3
COGCC Table 910-1				0.17	85	100	175	Combined 500			500	>4	>12	6 to 9

NOTES:

SAR - sodium adsorption ratio

EC - electrical conductivity

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

GRO - gasoline range organics analyzed by EPA Method 8260B

DRO - diesel range organics analyzed by EPA Modified Method 8015

ORO - oil range organics analyzed by EPA Modified Method 8015

< - indicates result is less than the stated laboratory reporting limit

BOLD - indicates result exceeds the applicable standard

COGCC - Colorado Oil and Gas Conservation Commission

Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B