

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



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COGCC

☐ 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):

OGCC Operator Number: 10318	Contact Name and Telephone: Hector Gonzales
Name of Operator: Vaquero Energy Inc	No: 661 363-7240
Address: 5060 California Ave, Ste 640	Fax:
City: Bakersfield State: CA Zip: 93309	
API Number: 05-081-06249	County: Moffat
Facility Name: Federal1-23 pit	Facility Number: 112274
Well Name: Federal	Well Number: 1-23
Location: (QtrQtr, Sec, Twp, Rng, Meridian): SESE 24 9N 91W 6th PM Latitude: 40.718476 Longitude: -107.564032	

TECHNICAL CONDITIONS

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

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.): Rangeland

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Styers-Pinelli-Taffom complex, 10 to 25 percent slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): ephemeral drainage 270 east of facility; no water wells within 1/4 mile

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	not yet determined	
<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):

Ownership of produced water pits transferred from previous owner to Vaquero through the submittal of Form 10. Any water contained within the pits has been removed and disposed via the Blue Gravel injection well (Blue Gravel 1-35, API 05-081-06744).

Describe how source is to be removed:

See attached.

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.:

Excavated soils will be land treated in accordance with Rule 907.e.(2) through a combination of methods including disking, tilling, aerating, or adding nutrients such as microbes, water, or other amendments. The soil may also be blended with clean soil to meet Table 910-1 standards and utilized to backfill the excavation. Excess impacted soils may be transported to a local landfill for disposal. Manifests will be prepared for all soil transported to disposal.



REMEDIATION WORKPLAN (Cont.)

Tracking Number: _____
Name of Operator: VAQUERO Energy
OGCC Operator No: 10318
Received Date: _____
Well Name & No: Federal 1-23
Facility Name & No: Blue GRAVEL 1-23 pit, 11227H

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

It is anticipated that groundwater will not be encountered.

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 excavation will be filled with clean soil and contoured to match the surrounding topography. Reseeding will be performed using an appropriate seed mixture, which may contain the following species: Alkali sagebrush, Western wheatgrass, Bluebunch wheatgrass, Prairie Junegrass, Bottlebrush squirreltail, Wyoming big sagebrush, Needleandthread, Indian ricegrass, and Nevada bluegrass. The NRCS, BLM, or other agencies will be consulted to determine the appropriate seed mix.

Appropriate measures will be taken to prevent the establishment of noxious weeds. The reseeded area will be relatively small; therefore, it is anticipated that manual weed control will be used.

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:

NA

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

Sampling of the excavated and treated soil will occur regularly to determine compliance with Table 910-1 standards. Once the soil meets the Table 910-1., it will be incorporated into berms or spread upon the facility.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: _____ Date Site Investigation Completed: _____ Date Remediation Plan Submitted: _____
Remediation Start Date: _____ Anticipated Completion Date: _____ 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: Hector Gonzales

Signed: Hector Gonzales

Title: Production Foreman

Date: 12-15-11

OGCC Approved: Alex Fischer Title: West Enviro. Supervisor Date: 12/20/11

**STATE OF COLORADO
OIL AND GAS CONSERVATION COMMISSION**

Form 27 Attachment

Vaquero Energy, Blue Gravel Pits

REMEDATION WORKPLAN

Describe how source is to be removed:

The impacted soil will be excavated from the pit using a backhoe to an anticipated depth of 10 ft. The vertical and lateral extent of the excavation will be based upon visual evidence of impacted soil in conjunction with field PID headspace measurements. The excavated soil will be temporarily managed within a lined berm to prevent contamination of stormwater runoff. Soil samples will be collected from the excavated pit to confirm compliance with Table 910-1 standards. The soil samples will be analyzed for the full 910 soil list to identify constituents of concern. If the constituents of concern have been identified as part of a background sampling program on similar Blue Gravel Pits, the soil samples may only be analyzed for a specific subset of the 910 list.