



#5959

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
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):

OGCC Operator Number: <u>10318</u>	Contact Name and Telephone: <u>Hector Gonzales</u>
Name of Operator: <u>Vaquero Energy Inc</u>	No: <u>661 363-7240</u>
Address: <u>5060 California Ave, Ste 640</u>	Fax:
City: <u>Bakersfield</u> State: <u>CA</u> Zip: <u>93309</u>	
API Number: <u>05-081-06817</u> County: <u>Moffat</u>	
Facility Name: <u>Blue Gravel 4-35 pit</u> Facility Number: <u>112290</u> Location # <u>313046</u>	
Well Name: <u>Federal 4-35</u> Well Number: <u>4-35</u>	
Location: (QtrQtr, Sec, Twp, Rng, Meridian): <u>SWSE 35 9N 91W/6th PM</u> Latitude: <u>40.690096</u> Longitude: <u>-107.570572</u>	

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 1900 feet 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	<u>not yet determined</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):

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 of 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.



Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: _____
Facility Name & No: _____

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: Needleandthread, Wyoming big sagebrush, Antelope bitterbrush, Indian ricegrass, Western wheatgrass, Arrowleaf balsamroot, Bottlebrush squirreltail, Other perennial forbs, Other perennial grasses, Other shrubs and Prairie Junegrass. 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.

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 land treated soil will occur periodically to determine compliance with Table 910-1 standards. Once the soil meets the Table 910-1 standards, it will be incorporated into berms or spread out 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: 7-21-11

OGCC Approved: [Signature]

Title: Env. Sup.

Date: 8/1/11

Provide the proposed list of constituents to be sampled and analyzed if there is a deviation from the full Table 910-1. If groundwater is encountered, collect a water sample and analyze for the constituents listed Table 910-1.

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

Form 27 Attachment

Vaquero Energy, Blue Gravel Pits

REMEDIATION 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.