

State of Colorado
Oil and Gas Conservation Commission

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



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.

received 03/07/2016

Project 9549

Spill 2232617

facility 103144

Operator states original submittal

date of this form 27 was

03/07/2014

Document 2525951

☐ Spill ☐ Complaint
☐ Inspection ☐ NOAV

Tracking No: 2232617

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

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

GENERAL INFORMATION

OGCC Operator Number: 47120		Contact Name and Telephone	
Name of Operator: Kerr-McGee Oil & Gas Onshore LP		Name: Paul Schneider	
Address: 1099 18th Street, Suite 1800		No: 720-929-6000	
City: Denver State: CO Zip: 80202		Fax: 720-929-7726	
API/Facility No: 05-123-10041		County: Weld	
Facility Name: Helgoth Heirs Unit #1		Facility Number:	
Well Name: Helgoth Heirs Unit #1		Well Number:	
Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSW S24 T2N R66W		Latitude: 40.117619 Longitude: -104.732557	

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc.):	Produced Water / Condensate
Site Conditions: Is location within a sensitive area (according to Rule 901e)?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> 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:	Refer to boring logs in attached Supplemental Remedial Report
Potential receptors (water wells within 1/4 mi, surface waters, etc.):	A water well is located approximately 1,300' southeast of the site.

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	Refer to the attached Figures and Tables	Collected soil samples for laboratory analysis
<input type="checkbox"/> Vegetation		
<input checked="" type="checkbox"/> Groundwater	Refer to the attached Figures and Tables	Collected groundwater samples for laboratory analysis
<input type="checkbox"/> Surface water		

REMEDIATION WORKPLAN

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

A Form 19 was previously submitted and the COGCC has issued the spill tracking number 2232617 for the site. As described in the Form 19, a limited Phase II investigation was conducted. Petroleum hydrocarbon impacts to soil and groundwater were observed during this investigation. Additional site history and data, including data tables and figures, are provided in the attached Supplemental Remedial Report (SRR).

Describe how source is to be removed:

Approximately 2,760 cubic yards of impacted soil was excavated and transported to the Kerr-McGee land treatment facility in Weld County, Colorado. Post-excavation soil sample analysis, as described in the attached SRR, indicate that petroleum hydrocarbon impacts persist on-site.

As described in detail in the attached SRR, LNAPL will be recovered using an active LNAPL recovery system.

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.:

As described in the attached SRR, site petroleum hydrocarbon impacts will be addressed through a remedial approach consisting of: 1) active LNAPL removal; 2) mobile air sparge / soil vapor extraction (AS/SVE) events, and; 3) chemical oxidation (chemox), if needed.

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OGCC Operator No: 47120
Received Date:
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Facility Name & No.: Helgoth Heirs Unit #1

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REMEDIATION WORKPLAN (CONT.)

OGCC Employee:

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

As described in the attached SRR, Kerr-McGee Oil and Gas Onshore, LP will sample the fifteen site monitoring wells (SB07, SB08, SB10, SB11, SB13, and SB17-SB26) on a quarterly basis to assess the dissolved-phase petroleum hydrocarbon impacts in groundwater. Groundwater samples will be submitted for laboratory analysis of BTEX constituents using USEPA Method 8260B until four consecutive quarters of groundwater concentrations are in compliance with the applicable CGWQS.

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 area where the excavation is located is used as an equipment access area to the tank battery location and has a road base surface. The excavation has been backfilled with clean material and compacted; the ground surface has been contoured to match pre-existing conditions. Following four consecutive quarters of groundwater analytical data in compliance with the CGWQS, the temporary monitoring wells will be properly plugged and abandoned.

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:

No further Site investigation is required at this time. Historic and current soil and groundwater analytical results are presented in the tables of the attached SRR. Site groundwater monitoring wells, soil sample locations, and the LNAPL recovery wells are illustrated on the figures of the attached SRR. Well boring logs and laboratory analytical reports are included in the SRR appendices.

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

The impacted soil was transported to the Kerr-McGee land treatment facility in Weld County, CO.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began:	03/13/2013	Date Site Investigation Completed:	01/02/2014	Remediation Plan Submitted:	7-31-14
Remediation Start Date:	07/29/2013	Anticipated Completion Date:	TBD	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: Paul D. Schneider

Signed:  Title: Senior Staff EHS Representative Date: 7-31-14

OGCC Approved: _____ Title: _____ Date: _____