

State of Colorado Oil and Gas Conservation Commission 1120 Lincoln Street, Suite 801, Denver, Colorado 80203

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Report taken by: PETER GINTAUTAS

Site Investigation	n and Remediation	Workplan	(Supplemental	Form)
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This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. However, this shall not preclude the Operator from taking immediate action to protect public health or safety, the environment, wildlife, or livestock.

This Form 27 describes site conditions as currently understood by the Operator; approval of this Form 27 by COGCC is based on the site conditions accurately described herein; any changes in site conditions identified during or subsequent to the performance of the approved workplan may necessitate additional investigation or remediation which shall be described on a supplemental Form 27. This Form 27 is intended to provide basic information regarding the proposed site investigation and remediation actions, but the workplan may be more fully described in attached documentation. Refer to Rules 340, 905, 906, 907, 908, 909, and 910

OPERATOR INFORMATON

Name of Operator: KERR MCGEE OIL & GAS ONSHORE	E LP	Operator	No: 47120	Phone Numbers
Address: P O BOX 173779		-		Phone: (970) 336-3500
City: DENVER State:	СО	Zip:	80217-3779	Mobile: (970) 515-1698
Contact Person: Gregory Hamilton		E	Email: Gregory	Hamilton@oxy.com
PROJECT, PUR	POSE & S		ORMATION	N
PROJECT INFORMATION				
Remediation Project #: 14607	Initial Form 2	27 Docume	nt #:	
PURPOSE INFORMATION				
901.e. Sensitive Area Determination	909.c.(5),	Rule 910.b.(4): Remediation	of impacted ground water
X 909.c.(1), Rule 905: Pit or PW vessel closure	Rule 909.6	e.(2)A.: Notic	e completion of r	remediation in accordance with Rule 909.b.
909.c.(2), Rule 906: Spill/Release Remediation	X Rule 909.	e.(2)B.: Clos	sure of remediation	on project
909.c.(3), Rule 907.e.: Land treatment of oily waste	Rule 906.0	c.: Director r	equest	
909.c.(4), Rule 908.g.: Centralized E&P Waste Management Facility closure	Other			
SITE INFORMATION N Multiple	Facilites (in a	accordance	with Rule 909.	c.)
Facility Type: LOCATION Facility ID: 317550	0 API #:		County	Name: WELD
Facility Name: UPRR 21 PAN AM B-63N66W 9SWS	SW Latit	tude: 40.23	3870	Longitude: -104.789610
** correct Lat/Long	g if needed: Latit	tude: 40.23	3157	Longitude: -104.789633
QtrQtr: SWSW Sec: 9 Twp: 3	3N Rang	ge: 66W	Meridian:	6 Sensitive Area? Yes
SITE CONDITIONS				
General soil type - USCS Classifications SM	Most Sensiti	ive Adjacent	Land Use Non-	crop land
Is domestic water well within 1/4 mile? Yes	Is surface w	ater within 1	/4 mile? No	
Is groundwater less than 20 feet below ground surface? Yes				
Other Potential Receptors within 1/4 mile	-			
Livestock pens are located approximately 1,170 feet north of the fac	ility.			

SITE INVESTIGATION PLAN

TYPE OF WASTE:

E&P Waste	Other E&P Waste
X Produced Water	Workover Fluids
Oil	Tank Bottoms
Condensate	Pigging Waste
Drilling Fluids	🦲 Rig Wash
Drill Cuttings	Spent Filters
	Pit Bottoms
	Other (as described by EPA)

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
No	SOILS	No impacts encountered	Soil samples/laboratory analytical results

INITIAL ACTION SUMMARY

Description of initial action or emergency response measures take to abate, investigate, and/or remediate impacts associated with E&P Waste.

A partially-buried produced water vessel (PWV) was removed from the UPRR Pan Am B1 facility on January 17, 2020. Groundwater and impacted soil were not encountered in the PWV excavation. A liner was not present beneath the PWV at this site. The PWV at this facility has been permanently removed. Soil samples from the excavation were submitted for laboratory analysis to determine if a release occurred. A topographic Site Location Map showing the geographic setting of the site location is provided as Figure 1. Soil sample locations are illustrated on Figure 2.

PROPOSED SAMPLING PLAN

Proposed Soil Sampling

🔀 Will soil samples be collected as part of this investigation? (Number, type (grab/composite), analyses, and locations of samples):

On January 17, 2020, five (5) confirmation soil samples were collected from the sidewalls and base of the final extent of the excavation area at depths of approximately 4 feet and 5.5 feet below ground surface (bgs), respectively. The base soil sample was submitted for laboratory analysis of BTEX, naphthalene, and total petroleum hydrocarbons (TPH) - gasoline range organics (GRO) by United States Environmental Protection Agency (USEPA) Method 8260D, TPH - diesel range organics (DRO) and oil range organics (ORO) by USEPA Method 8015D, pH by USEPA Method 9045D, specific conductance (EC) by USEPA Method 9050A, and sodium adsorption ratio (SAR) by USDA Agricultural Handbook 60 Method 20B. The sidewall soil samples were submitted for laboratory analysis of BTEX, naphthalene, and TPH. Laboratory analytical results indicated that constituent concentrations in the soil samples collected from the final extent of the excavation area were in full compliance with COGCC standards.

Proposed Groundwater Sampling

Will groundwater samples be collected as part of this investigation? (Number, analyses, and locations of samples):

No groundwater was encountered in the excavation.

Proposed Surface Water Sampling

Will surface water samples be collected as part of this investigation? (Number, analyses, and locations of samples):

Additional Investigative Actions

Additional alternative investigative actions described in attached Site Investigation Plan (summary):

A topographic Site Location Map showing the geographic setting of the site location is provided as Figure 1. Soil sample locations are illustrated on Figure 2. Soil analytical results are summarized in Table 1. The laboratory analytical report is provided as Attachment A. A partially-buried vessel was removed during facility abandonment activities.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil	NA / ND	
Number of soil samples collected 5	ND Highest o	concentration of TPH (mg/kg)
Number of soil samples exceeeding 910-1	Highest o	concentration of SAR 2.63
Was the areal and vertical extent of soil contamination delineated? Yes	BTEX > 9	910-1 <u>No</u>
Approximate areal extent (square feet) 0	Vertical E	Extent > 910-1 (in feet) 0
Groundwater		
Number of groundwater samples collected	Highest	concentration of Benzene (µg/I)
Was extent of groundwater contaminated delineated? No	Highest of	concentration of Toluene (µg/l)
Depth to groundwater (below ground surface, in feet)	Highest of	concentration of Ethylbenzene (µg/I)
Number of groundwater monitoring wells installed	Highest of	concentration of Xylene (µg/l)
Number of groundwater samples exceeding 910-1	Highest d	concentration of Methane (mg/l)
Surface Water		
0 Number of surface water samples collected		
Number of surface water samples exceeding 910-1		
If surface water is impacted, other agency notification may be require		
THER INVESTIGATION INFORMATION		
Were impacts to adjacent property or offsite impacts identified?		
Were background samples collected as part of this site investigation?		
Was investigation derived waste (IDW) generated as part of this investigation		
Was investigation derived waste (IDW) generated as part of this investigation Volume of solid waste (cubic yards) Volume	of liquid waste (barrel	s)

REMEDIAL ACTION PLAN

Does this Supplemental Form 27A include changes to a previously approved Remedial Action Plan? No

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Laboratory results indicate that constituent concentrations in the soil samples collected from the final extent of the excavation area were in full compliance with COGCC Table 910-1 allowable levels; therefore, no soils were removed. The excavation area was backfilled and contoured to match pre-existing site conditions.

REMEDIATION SUMMARY

Describe how remediation of existing impacts to soil and groundwater is to be accomplished (i.e. summarize remedial action plan). Provide a brief narrative description including: technical justification, schedule for implementation, estimated time to attain NFA status, plus plans and specifications for the selected remedial action technology.

Laboratory results indicate that constituent concentrations in the 5 soil samples collected from the final extent of the excavation area were in full compliance with COGCC standards. Groundwater was not encountered in the excavation. Based on the analytical data presented herein, assessment is complete at this site and no further activities are required. As such, Kerr-McGee is requesting a No Further Action (NFA) determination for this location.

Soil Remediation Summary

🔲 In Situ	Ex Si	tu	
	Bioremediation (or enhanced bioremediation)	Exca	vate and offsite disposal
	Chemical oxidation	If Ye	s: Estimated Volume (Cubic Yards)
	Air sparge / Soil vapor extraction	Nam	e of Licensed Disposal Facility or COGCC Facility ID #
	Natural Attenuation	Exca	vate and onsite remediation
	Other	_	Land Treatment
			Bioremediation (or enhanced bioremediation)
	_		Chemical oxidation
	_		Other
<u>Groundw</u>	vater Remediation Summary		
	Bioremediation (or enhanced bioremediation)		
	Chemical oxidation		
	Air sparge / Soil vapor extraction		
	Natural Attenuation		
	Other		
GROUNI	DWATER MONITORING		
	ter has been impacted, describe proposed monitoring plan, incluints of compliance. Attach a groundwater monitoring location d		

REMEDIATION PROGRESS UPDATE	

PERIODIC REPORTING
Frequency: Quarterly Semi-Annually Annually 🔀 Other Final Report
Report Type: Groundwater Monitoring Land Treatment Progress Report O&M Report
X Other Produced Water Vessel Closure
WASTE DISPOSAL INFORMATION
Was E&P waste generated as part of this remediation? No
Describe beneficial use, if any, of E&P Waste derived from this remediation project:
Volume of E&P Waste (solid) in cubic yards
E&P waste (solid) description
COGCC Disposal Facility ID #, if applicable:
Non-COGCC Disposal Facility:
Volume of E&P Waste (liquid) in barrels
E&P waste (liquid) description
COGCC Disposal Facility ID #, if applicable:
Non-COGCC Disposal Facility:
REMEDIATION COMPLETION REPORT
REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? Yes

Do all soils meet Table 910-1 standards? Yes

Does the previous reply indicate consideration of background concentrations? No

Are the only residual soil impacts pH, SAR, or EC at depths greater than 3 feet below ground surface?

Does Groundwater meet Table 910-1 standards? No

Is additional groundwater monitoring to be conducted? No

RECLAMATION PLAN

RECLAMATION PLANNING

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.

The site will be reclaimed in accordance with COGCC 1000 Series Reclamation Rules.

Is the described reclamation complete?

Does the reclamation described herein constitute interim or final reclamation of the Oil and Gas Location?

Interim?

Final?

Did the Surface Owner approve the seed mix?

If NO, does the seed mix comply with local soil conservation district recommendations?

IMPLEMENTATION SCHEDULE

PRIOR DATES

Date of Surface Owner notification/consultation, if required.

Actual Spill or Release date, if known.

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 01/17/2020

Date of commencement of Site Investigation. 01/17/2020

Date of completion of Site Investigation. 01/17/2020

REMEDIAL ACTION DATES

Date of commencement of Remediation.

Date of completion of Remediation.

SITE RECLAMATION DATES

Date of commencement of Reclamation.

Date of completion of Reclamation.

OPERATOR COMMENT Based on the analytical data provided herein, Kerr-McGee is requesting an NFA determination for this location. I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete. Signed: Gregory Hamilton Title: Senior Staff Env Rep Submit Date:` 02/24/2020 Email: Gregory_Hamilton@oxy.com Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with COGCC Rules and applicable orders and is hereby approved. COGCC Approved: PETER GINTAUTAS Date: 02/24/2020 **Remediation Project Number:** 14607 COA Type Description

Based on the information presented, it is concluded that no further action is necessary at this time and the COGCC approves the closure request. However, should future conditions at the site indicate contaminant concentrations in soils exceeding COGCC
standards or if ground water is found to be impacted, then further investigation and/or further remediation activities may be required. In addition, the surface area disturbed by the remediation activity shall be reclaimed in accordance with the 1000 Series Reclamation Rules.

Attachment Check List

Upon approval, the approved Form 27 and all listed attachments will be indexed to the Remediation Project file. Only the approved Form 27 will also be indexed to the related Facilities.

Att Doc Num	Name
402295948	FORM 27-SUPPLEMENTAL-SUBMITTED
402295984	SITE MAP
402295988	ANALYTICAL RESULTS
402320652	ANALYTICAL RESULTS
402320653	SOIL SAMPLE LOCATION MAP

Total Attach: 5 Files

General Comments

User Group **Comment Comment Date** Stamp Upon

Total: 0 comment(s)

Approval