

# State of Colorado Oil and Gas Conservation Commission

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402969813

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Report taken by:

Steven Arauza

## Site Investigation and Remediation Workplan (Initial Form)

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.

Closure request is not available for an Initial Site Investigation and Remediation Workplan.

### OPERATOR INFORMATION

Name of Operator: <u>MARALEX RESOURCES INC</u>	Operator No: <u>53255</u>	<b>Phone Numbers</b>
Address: <u>P O BOX 338</u>		Phone: <u>(970) 563-4000</u>
City: <u>IGNACIO</u> State: <u>CO</u> Zip: <u>81137</u>		Mobile: <u>(575) 640-9586</u>
Contact Person: <u>Travis Hahn</u>	Email: <u>thahn@maralexinc.com</u>	

### PROJECT, PURPOSE & SITE INFORMATION

#### PROJECT INFORMATION

Remediation Project #: 22742 Initial Form 27 Document #: 402969813

#### PURPOSE INFORMATION

- ☐ Rule 913.c.(1): Pit or Cuttings Trench closure.
- ☐ Rule 913.c.(2): Buried or partially buried vessel closure, which will be by removal.
- ☐ Rule 913.c.(3): Remediation of Spill and Releases pursuant to Rule 912.
- ☐ Rule 913.c.(4): Land treatment of Oily Waste pursuant to Rule 905.e.
- ☐ Rule 913.c.(5): Closure of Centralized E&P Waste Management Facilities pursuant to Rule 907.h.
- ☐ Rule 913.c.(6): Remediation of impacted Groundwater pursuant to Rule 915.e.(3).D, and the contaminant concentrations in Table 915-1.
- ☐ Rule 913.c.(7): Investigation and remediation of natural gas in soil or Groundwater.
- ☐ Rule 913.c.(8): When requested by the Director due to any potential risk to soil, Groundwater, or surface water.
- ☒ Rule 913.c.(9): Decommissioning of Oil and Gas Facilities.
- ☐ Rule 913.g: Changes of Operator.
- ☐ Rule 915.b: Request to leave elevated inorganics in situ.
- ☐ Other: \_\_\_\_\_

#### SITE INFORMATION

☐ Yes ☐ Multiple Facilities

Facility Type: <u>PIT</u>	Facility ID: <u>111190</u>	API #: _____	County Name: <u>GARFIELD</u>
Facility Name: <u>CALF CANYON 13-3A</u>	Latitude: <u>39.537699</u>	Longitude: <u>-108.707535</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NESE</u>	Sec: <u>13</u>	Twp: <u>6S</u>	Range: <u>102W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>
Facility Type: <u>WELL</u>	Facility ID: _____	API #: <u>045-06415</u>	County Name: <u>GARFIELD</u>
Facility Name: <u>CALF CANYON-FEDERAL 13-3A</u>	Latitude: <u>39.537434</u>	Longitude: <u>-108.707345</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NESE</u>	Sec: <u>13</u>	Twp: <u>6S</u>	Range: <u>102W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type:	LOCATION	Facility ID:	322509	API #:		County Name:	GARFIELD
Facility Name:		CALF CANYON-FEDERAL-66S102W 13NESE		Latitude:	39.536804	Longitude:	-108.707025
				** correct Lat/Long if needed: Latitude:		Longitude:	
QtrQtr:	NESE	Sec:	13	Twp:	6S	Range:	102W
		Meridian:	6	Sensitive Area?		Yes	

## **SITE CONDITIONS**

General soil type - USCS Classifications GC Most Sensitive Adjacent Land Use Range land

Is domestic water well within 1/4 mile? No Is surface water within 1/4 mile? Yes

Is groundwater less than 20 feet below ground surface? No

### **Other Potential Receptors within 1/4 mile**

Barrel Spring Creek 180' to the West

## SITE INVESTIGATION PLAN

### TYPE OF WASTE:

- |                                          |                                                      |                                                   |
|------------------------------------------|------------------------------------------------------|---------------------------------------------------|
| <input type="checkbox"/> E&P Waste       | <input type="checkbox"/> Other E&P Waste             | <input checked="" type="checkbox"/> Non-E&P Waste |
| <input type="checkbox"/> Produced Water  | <input type="checkbox"/> Workover Fluids             | Wellhead, separator and flowline                  |
| <input type="checkbox"/> Oil             | <input type="checkbox"/> Tank Bottoms                |                                                   |
| <input type="checkbox"/> Condensate      | <input type="checkbox"/> Pigging Waste               |                                                   |
| <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Rig Wash                    |                                                   |
| <input type="checkbox"/> Drill Cuttings  | <input type="checkbox"/> Spent Filters               |                                                   |
|                                          | <input type="checkbox"/> Pit Bottoms                 |                                                   |
|                                          | <input type="checkbox"/> Other (as described by EPA) |                                                   |

### DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	SOILS	tbd	Soil samples

### INITIAL ACTION SUMMARY

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

N/A

### 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 ):

6 soil grab samples, will be collected from the location consisting of one (1) at the wellhead, one (1) in the middle of the Earthen pit, one (1) where the separator and meter were placed. Additional sampling will occur at the start and end point of the flowline. Areas below the separator, meter and flowline will be field screened with a PID and/or Petroflag. If concentrations do not indicate a hydrocarbon presence, Maralex is requesting a reduced analyte list consisting of TPH/BTEX and Inorganics (SAR/EC/pH).

#### Proposed Groundwater Sampling

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

#### 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 ):

## SITE INVESTIGATION REPORT

### SAMPLE SUMMARY

#### Soil

Number of soil samples collected 6

Number of soil samples exceeding 915-1 0

Was the areal and vertical extent of soil contamination delineated? \_\_\_\_\_

#### NA / ND

\_\_\_\_\_ Highest concentration of TPH (mg/kg) \_\_\_\_\_

\_\_\_\_\_ Highest concentration of SAR \_\_\_\_\_

BTEX > 915-1 \_\_\_\_\_

Approximate areal extent (square feet) 0

Vertical Extent > 915-1 (in feet) 0

#### Groundwater

Number of groundwater samples collected 0

Highest concentration of Benzene (µg/l) \_\_\_\_\_

Was extent of groundwater contaminated delineated? No

Highest concentration of Toluene (µg/l) \_\_\_\_\_

Depth to groundwater (below ground surface, in feet) \_\_\_\_\_

Highest concentration of Ethylbenzene (µg/l) \_\_\_\_\_

Number of groundwater monitoring wells installed 0

Highest concentration of Xylene (µg/l) \_\_\_\_\_

Number of groundwater samples exceeding 915-1 0

Highest concentration of Methane (mg/l) \_\_\_\_\_

#### Surface Water

0 Number of surface water samples collected

0 Number of surface water samples exceeding 915-1

If surface water is impacted, other agency notification may be required.

### OTHER 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?

Volume of solid waste (cubic yards) \_\_\_\_\_

Volume of liquid waste (barrels) \_\_\_\_\_

☐ Is further site investigation required?

### REMEDIAL ACTION PLAN

#### SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Hauled off

#### 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.

At this time, there is no reason to suspect surface or subsurface soil impacts requiring remediation are present.

#### Soil Remediation Summary

☐ In Situ

☐ Ex Situ

Bioremediation ( or enhanced bioremediation )

Excavate and offsite disposal

Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_

Air sparge / Soil vapor extraction

Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_

Natural Attenuation

Excavate and onsite remediation

Other \_\_\_\_\_

Land Treatment

Bioremediation (or enhanced bioremediation)

Chemical oxidation

**Groundwater Remediation Summary**

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

\_\_\_\_\_ Chemical oxidation

\_\_\_\_\_ Air sparge / Soil vapor extraction

\_\_\_\_\_ Natural Attenuation

\_\_\_\_\_ Other \_\_\_\_\_

**GROUNDWATER MONITORING**

If groundwater has been impacted, describe proposed monitoring plan, including # of wells or sample points, monitoring schedule, analytical methods, points of compliance. Attach a groundwater monitoring location diagram.

**REMEDIATION PROGRESS UPDATE****PERIODIC REPORTING****Approved Reporting Schedule:**

☐ Quarterly ☐ Semi-Annually ☐ Annually ☐ Other

☐ **Request Alternative Reporting Schedule:**

☐ Semi-Annually ☐ Annually ☐ Other

Rule 913.e:

After initial approval of a Form 27, the Operator will provide quarterly update reports in a Supplemental Form 27 to document progress of site investigation and remediation, unless an alternative reporting schedule has been requested by the Operator and approved by the Director. The Director may request a more frequent reporting schedule based on site-specific conditions.

**Report Type:** ☐ Groundwater Monitoring ☐ Land Treatment Progress Report ☐ O&M Report  
☐ Other \_\_\_\_\_

**WASTE DISPOSAL INFORMATION**

Was E&P waste generated as part of this remediation? \_\_\_\_\_

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: \_\_\_\_\_

# 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.

Location will be recontoured and reseeded with a seed mixture approved by COGCC and BLM.

Is the described reclamation complete? No \_\_\_\_\_

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

☐ Interim ☐ Final

Did the Surface Owner provide the seed mix? \_\_\_\_\_

If YES, does the seed mix comply with local soil conservation district recommendations? \_\_\_\_\_

Did the local soil conservation district provide the seed mix? \_\_\_\_\_

## SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. \_\_\_\_\_

Proposed date of completion of Reclamation. \_\_\_\_\_

## IMPLEMENTATION SCHEDULE

Per Rule 913.d.(2): Any change from the approved implementation schedule will be requested at least 14 days in advance, and the Operator may not make the change without the Director's approval.

## PRIOR DATES

Date of Surface Owner notification/consultation, if required. \_\_\_\_\_

Actual Spill or Release date, or date of discovery. \_\_\_\_\_

## SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 06/20/2022

Proposed site investigation commencement. 08/05/2022

Proposed completion of site investigation. 08/05/2022

## REMEDIAL ACTION DATES

Proposed start date of Remediation. 08/05/2022

Proposed date of completion of Remediation. 08/15/2022

Per Rule 913.d.(2): Any change from the approved implementation schedule will be requested at least 14 days in advance, and the Operator may not make the change without the Director's approval.

☐ Change from approved implementation schedule per Rule 913.d.(2).

Basis for change in implementation schedule:

**OPERATOR COMMENT**

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

Signed: Travis Hahn

Title: Regulatory/Land Tech

Submit Date: 03/16/2022

Email: thahn@maralexinc.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: Steven Arauza

Date: 04/07/2022

Remediation Project Number: 22742

**Condition of Approval**

<b>COA Type</b>	<b>Description</b>
	Operator's request for a reduced analyte suite is NOT approved at this time.  Per Rule 915.e.(2).C, any request for a modified list of contaminants of concern will be based on a site-specific E&P waste profile and process knowledge. The Operator may request a reduced analyte suite in the future, based on the analytical results for soil samples described in this workplan.  Operator shall analyze all soil samples for the complete list of Table 915-1 contaminants of concern.
	Per Rule 913.b.(2), the Operator will conduct sampling and analysis of soil, and groundwater--if encountered, to determine the horizontal and vertical extent of any contamination in excess of the cleanup concentrations in Table 915-1 for soil and groundwater. The Operator shall analyze samples for the complete Table 915-1 list and shall delineate the extent of impacts using the Table 915-1 Protection of Groundwater Soil Screening Level Concentrations.
	Operator shall collect sample(s) from comparable, nearby non-impacted native soil for purposes of establishing background soil conditions including pH, electrical conductivity (EC) and sodium adsorption ratio (SAR), per Rule 915.e.(2).D.
	Comply with COGCC Rule 1105 flowline abandonment requirements, including notification and verification requirements.
	Comply with Rule 912 if historical impacts are discovered.
	Operator shall comply with Rule 915.e.(2).B by collecting samples from areas most likely to have been impacted and by collecting an appropriate number of representative soil samples to delineate the horizontal and vertical extents of contamination.
6 COAs	

**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.

<b>Att Doc Num</b>	<b>Name</b>
402969813	FORM 27-INITIAL-SUBMITTED
402986506	SOIL SAMPLE LOCATION MAP

Total Attach: 2 Files

**General Comments**

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
Environmental	Updated Site Information to include Pit Facility ID #111190.	04/07/2022

Total: 1 comment(s)