

State of Colorado  
Energy & Carbon Management Commission

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Report taken by:  
Jason Kosola

Site Investigation and Remediation Workplan (Supplemental 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 ECMC 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>GUNNISON ENERGY LLC</u>	Operator No: <u>10515</u>	Phone Numbers Phone: <u>(303) 296-8807</u> Mobile: <u>( )</u>
Address: <u>1801 BROADWAY #1150</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80202</u>
Contact Person: <u>Tyson Johnston</u>	Email: <u>tyson.johnston@oxbow.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 24644 Initial Form 27 Document #: 403124166

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: Q4 2023 - Status Update - Administratively Close Open Pit Facility IDs (100431 and 115194).

SITE INFORMATION

Yes Multiple Facilities

Facility Type: <u>PIT</u>	Facility ID: <u>100431</u>	API #: _____	County Name: <u>GUNNISON</u>
Facility Name: <u>RIVIERA FED 11-90-7</u>		Latitude: <u>39.119847</u>	Longitude: <u>-107.482224</u>
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: <u>NENE</u>	Sec: <u>7</u>	Twp: <u>11S</u>	Range: <u>90W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>PIT</u>	Facility ID: <u>115194</u>	API #: _____	County Name: <u>GUNNISON</u>
Facility Name: <u>FEDERAL 7-11-90</u>		Latitude: <u>39.119847</u>	Longitude: <u>-107.482224</u>
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: <u>NENE</u>	Sec: <u>7</u>	Twp: <u>11S</u>	Range: <u>90W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

## SITE CONDITIONS

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use Rangeland-  
National Forest

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**

Little Henderson Creek of the North Fork draw is approximately 220 feet from location.

# SITE INVESTIGATION PLAN

## TYPE OF WASTE:

- E&P Waste       Other E&P Waste       Non-E&P Waste
- 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) Historic Blowdown Open Pit Facility IDs (100431 and 115194)

## DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	GROUNDWATER	TBD	Site Investigation/Laboratory Analytical
Yes	SOILS	65x65x20	Site Investigation/Laboratory Analytical

## INITIAL ACTION SUMMARY

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

Please refer to Colorado Energy and Carbon Management Commission (ECMC) Document Number (DN) 403193909 for initial investigative activities completed. All investigative activities that occurred prior to the fourth quarter (Q4) can be referenced under Remediation Project Number (PRN) 24644.

No work was completed during the Q4 of 2023.

## 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 ):

Gunnison is in the process of determining a remediation approach to address the soil impacts. Once a remediation plan has been confirmed with the United States Forest Service (USFS), Bureau of Land Management (BLM), and Gunnison, the plan will then be presented to the ECMC. Vertical and lateral delineation of the soil impacts associated with the historic blowdown pit has been confirmed. Based on the latest subsurface investigation completed between July 31, 2023 and August 4, 2023, there are approximately 2,1423 cubic yards of impacted soil to be remediated at the Site. The approximate area of impacted soils is illustrated on Figures 2 and 3 of the document attached to ECMC DN 403553986. All samples will be analyzed under the reduced suite approved via DN 403193909.

### Proposed Groundwater Sampling

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

All groundwater samples will be submitted for ECMC Table 915-1. An environmental drill rig will be mobilized to the location to delineate groundwater impacts and install up to three groundwater monitoring wells. The focus of the delineation attempts will be beyond the former pit along the original disturbance of the location. One monitoring well will be advanced upgradient, cross-gradient, and downgradient of the previously confirmed impacts. The proposed monitoring well locations are illustrated on Figure 2 in DN of the document attached to ECMC DN 403553986.

### 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 ):

See "Proposed Soil Sampling" and "Remediation Summary" sections for more details on investigative activities.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

**Soil**

Number of soil samples collected 0  
Number of soil samples exceeding 915-1 0  
Was the areal and vertical extent of soil contamination delineated? Yes  
Approximate areal extent (square feet) 4000

**NA / ND**

-- Highest concentration of TPH (mg/kg) 3279  
NA Highest concentration of SAR             
BTEX > 915-1 Yes  
Vertical Extent > 915-1 (in feet) 30

**Groundwater**

Number of groundwater samples collected 0  
Was extent of groundwater contaminated delineated? No  
Depth to groundwater (below ground surface, in feet)             
Number of groundwater monitoring wells installed             
Number of groundwater samples exceeding 915-1           

Highest concentration of Benzene (µg/l)             
Highest concentration of Toluene (µg/l)             
Highest concentration of Ethylbenzene (µg/l)             
Highest concentration of Xylene (µg/l)             
NA Highest concentration of Methane (mg/l)           

**Surface Water**

0 Number of surface water samples collected  
           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?

Please see ECMC DNs 403193909 and 403527386 for previously collected site-specific background soil sample details and results per ECMC Rule 915.e.(2).D.

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?

See "Proposed Soil Sampling" and "Remediation Summary" sections which detail additional investigative actions.

**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.

Once the impacts are fully delineated a plan to remove the source (former blowdown pit) will be presented.

**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.

A remediation plan will be submitted once all historic pit impacts are delineated.

Gunnison is in the process of determining a remediation approach to address the soil impacts. Once a remediation plan has been confirmed with the United States Forest Service (USFS), Bureau of Land Management (BLM), and Gunnison, the plan will then be presented to the ECMC. Vertical and lateral delineation of the soil impacts associated with the historic blowdown pit has been confirmed. Based on the latest subsurface investigation completed between July 31, 2023 and August 4, 2023, there are approximately 2,1423 cubic yards of impacted soil to be remediated at the Site. The approximate area of impacted soils is illustrated on Figures 2 and 3 of the document attached to ECMC DN 403553986. All samples will be analyzed under the reduced suite approved via DN 403193909.

Additional site-specific background hand augured borings will be advanced to total depths of 4 to 6 feet bgs from nearby locations relative to the Site to further establish representative background soil data per ECMC 915 Rule.e.(2).D. Discrete soil samples from the three site-specific background borings will be collected at every 2-foot interval and at the boring terminus. All background samples will be submitted for arsenic, barium, and chromium (VI).

Please see ECMC DN 403527386 for additional investigative plans.

**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 ECMC Facility ID # \_\_\_\_\_

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

\_\_\_\_\_ Excavate and onsite remediation

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

\_\_\_\_\_ Land Treatment

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

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

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

**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.

Gunnison plans to install a minimum of three groundwater monitoring wells to define impacts to groundwater observed in and immediately surrounding the historic pit location. The monitoring wells will be installed within the original pad disturbance boundary to determine if groundwater impacts are confined within the original pad disturbance boundary. One monitoring well will be advanced upgradient, cross-gradient, and downgradient of the previously confirmed impacts. The proposed monitoring well locations are illustrated on Figure 2 of the document attached to ECMC DN 403553986. Once installed the wells will be properly developed and sampled. All future groundwater samples will be submitted for ECMC Table915-1.

# REMEDATION 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 Q4 2023 - Status Update to RPN 24644

## Adequacy of Operator's General Liability Insurance and Financial Assurance

Describe the adequacy of the Operator's general liability insurance and Financial Assurance to fully address the anticipated costs of Remediation, including the estimated remaining cost for this project (below).

If this information has been provided on a Form 27 within the last 12 months, provide the Document Number of that form.

Per Rule 705.b, and in line with guidance laid out in the SBAP, Gunnison Energy has general liability insurance in the amount of \$2M, and Gunnison Energy has umbrella insurance, which sits over the general liability insurance in the amount of \$10M. The umbrella and general liability insurance covers property damage, bodily injury to third parties, and sudden or accidental pollution under a combined \$12M.

Operator anticipates the remaining cost for this project to be: \$ 100000

## 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

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility:

Volume of E&P Waste (liquid) in barrels

E&P waste (liquid) description

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility:

# REMEDATION COMPLETION REPORT

## REMEDATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? No

If YES:

Compliant with Rule 913.h.(1).

Compliant with Rule 913.h.(2).

Compliant with Rule 913.h.(3).

Do all soils meet Table 915-1 standards?

Does the previous reply indicate consideration of background concentrations?

Does Groundwater meet Table 915-1 standards? \_\_\_\_\_

Is additional groundwater monitoring to be conducted? \_\_\_\_\_

Operator shall comply with the ECMC 1000-Series Reclamation Requirements for all impacted and disturbed areas.

## 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 location has been through final reclamation.

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 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). 08/22/2022

Proposed site investigation commencement. 07/10/2023

Proposed completion of site investigation. 05/20/2024

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 05/27/2024

Proposed date of completion of Remediation. \_\_\_\_\_

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**

No additional activities were completed during the Q4 of 2023. Gunnison does not plan on completing any additional work on this project until the second quarter of 2024 and is requesting an alternative reporting schedule per Rule 913.e.

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

Signed: Dustin Held

Title: Lead, Consultant

Submit Date: 01/19/2024

Email: dustin.held@wsp.com

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with ECMC Rules and applicable orders and is hereby approved.

ECMC Approved: Jason Kosola

Date: 06/25/2024

Remediation Project Number: 24644

**COA Type****Description**

	ECMC approves alternate reporting schedule as described.
1 COA	

**ATTACHMENT 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**

403625776	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
403834535	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 2 Files

**General Comments****User Group****Comment****Comment Date**

		Stamp Upon Approval
--	--	---------------------

Total: 0 comment(s)