FORM 27 Rev 5/22

State of Colorado
Energy & Carbon Management Commission

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

Document Number: 404097252
Receive Date: 03/25/2025
Report taken by: Kari Brown

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 INFORMATON

Name of Operator: TOP OPERATING COMPANY Operator No: 39560
Address: 3609 S WADSWORTH BLVD STE 340
City: LAKEWOOD State: CO Zip: 80235
Contact Person: Paul Herring Email: paul.herring@topoperating.com

Phone Numbers
Phone: (303) 727-9915
Mobile: ( )

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 18090 Initial Form 27 Document #: 402679572

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.
- [X] 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.
- [X] Rule 913.g: Changes of Operator.
- [ ] Rule 915.b: Request to leave elevated inorganics in situ.
- [X] Other: Wellhead, Flowline, and Tank Battery Closure

SITE INFORMATION

Yes Multiple Facilities

Facility Type: WELL Facility ID: API #: 123-10615 County Name: WELD
Facility Name: STAMP 31-2C Latitude: 40.186450 Longitude: -105.048090
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NENW Sec: 31 Twp: 3N Range: 68W Meridian: 6 Sensitive Area? Yes

Facility Type: TANK BATTERY Facility ID: 426981 API #: County Name: WELD
Facility Name: Stamp 31-2 426981 Latitude: 40.186687 Longitude: -105.048643
** correct Lat/Long if needed: Latitude: 40.186895 Longitude: -105.048765
QtrQtr: NENW Sec: 31 Twp: 3N Range: 68W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 480596 API #: County Name: WELD

Facility Name: Wellhead Latitude: 40.186467 Longitude: -105.048098

** correct Lat/Long if needed: Latitude: Longitude:

QtrQtr: NENW Sec: 31 Twp: 3N Range: 68W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications: SC

Most Sensitive Adjacent Land Use: Union Reservoir, approx. 700' east of site

Is domestic water well within 1/4 mile? Yes

Is surface water within 1/4 mile? Yes

Is groundwater less than 20 feet below ground surface? Yes

Other Potential Receptors within 1/4 mile

Water Well: 496'
Surface Water: 710'
Wetlands: 694'
Springs: none
Livestock: none
Occupied Building: 1247'
High Priority Habitat (HPH): none

SITE INVESTIGATION PLAN

TYPE OF WASTE:

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

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
No	GROUNDWATER	No impacted groundwater	laboratory analysis
UNDETERMINED	SOILS	78' (N-S) x 64' (E-W) x 14' bgs	laboratory analysis

INITIAL ACTION SUMMARY

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

Decommissioning activities were completed at the Stamp 31-2C facility on July 18, 2021. Visual inspection and field screening of soils at one separator, three emission control devices (ECD), and one aboveground storage tank (AST) was conducted following removal activities, and soil samples were submitted for laboratory analysis to determine if a release occurred.

Wellhead cut and cap operations and flowline removal activities were completed at the Stamp 31-2C wellhead and associated flowline on July 27, 2021. Visual inspection and field screening of soils around the wellheads and associated flowlines was conducted following wellhead cut and cap operations, and soil samples were submitted for laboratory analysis to determine if a release occurred. Soil samples were collected from the locations where the flowline risers were disconnected at the wellhead and separator.

Laboratory analytical results indicated that BTEX, TPH, TMBs, 1-methylnaphthalene, 2-methylnaphthalene, benzo(a)anthracene, fluorene, and naphthalene concentrations in soil sample WHF01@4' collected at the Stamp 31-2C wellhead exceeded the applicable ECMC Table 915-1 standards. As such, the soil impacts were reported under the Form 19-Initial Spill/Release Report (Document No. 402771698) was submitted on August 5, 2021, and the ECMC issued Spill/Release Point ID 480596 for this release.

PROPOSED SAMPLING PLAN

Proposed Soil Sampling

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

From July 18 through August 23, 2021, excavation activities were conducted to address soil impacts at the former wellhead and confirmation soil samples were collected at depths ranging from 10' and 14' bgs. The soil samples were submitted for laboratory analysis of BTEX, TPH, TMBs, boron, pH, EC, SAR, PAHs, and/or ECMC Table 915-1 metals using ECMC-approved methods. Analytical results for the soil samples collected from the final excavation extents were in compliance with the applicable ECMC Table 915-1 standards and/or within background limits, with the exception of the inorganic concentrations in soil samples FL01@13', N02@10', N03@10', W02@10', and W01@10'. However, the inorganic exceedances of site-specific background limits are within the acceptable range of analytical variability of background limits. In addition, inorganic exceedances are below the vegetation root-zone. The initial waste characterization sample WHF01@4' did not contain inorganic exceedances.

Proposed Groundwater Sampling

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

Groundwater was encountered in the wellhead excavation at approximately 13' bgs. On August 16, 2021, a groundwater sample (GW-EX) was collected and submitted for laboratory analysis of BTEX, naphthalene, 1,2,4-TMB, and 1,3,5-TMB by USEPA Method 8260D. Downgradient monitoring well EMW-01 was installed on October 29, 2021 to further assess groundwater impacts near the release location. A groundwater sample collected from monitoring well EMW-01 on December 2 and 27, 2021 and submitted for laboratory analysis of BTEX, naphthalene, 1,2,4-TMB, and 1,3,5-TMB by USEPA Method 8260D. Analytical results indicated that constituent concentrations in the groundwater samples were in compliance with ECMC Table 915-1 standards.

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):

On July 18 - 27, 2021, visual inspection and field screening of soils was conducted at 4 sidewall locations within the cut and cap excavation area, 2 locations at the flowline removal potholes, and three ECD locations. Based on the inspection and screening results, hydrocarbon-impacted soil was not observed at the screening locations, and no soil samples were submitted for laboratory analysis from these areas in accordance with the ECMC Operator Guidance. Laboratory analytical reports are included.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

		NA / ND	
Number of soil samples collected	54	--	Highest concentration of TPH (mg/kg) 11050
Number of soil samples exceeeding 915-1	5	--	Highest concentration of SAR 15.6
Was the areal and vertical extent of soil contamination delineated?	Yes		BTEX > 915-1 Yes
Approximate areal extent (square feet)	4992		Vertical Extent > 915-1 (in feet) 14

Groundwater

Number of groundwater samples collected	3	--	Highest concentration of Benzene (µg/l) 2.26
Was extent of groundwater contaminated delineated?	Yes	ND	Highest concentration of Toluene (µg/l)
Depth to groundwater (below ground surface, in feet)	13	--	Highest concentration of Ethylbenzene (µg/l) 1.87
Number of groundwater monitoring wells installed	1	--	Highest concentration of Xylene (µg/l) 9.89
Number of groundwater samples exceeding 915-1	0	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?

[X] Were background samples collected as part of this site investigation?

Background soil samples BKG01 through BKG05 were collected from native non-impacted material nearby from similar soil type/depths and land use at depths ranging from approximately 2.5' to 12' bgs. The background soil samples were submitted for laboratory analysis of the Soil Suitability for Reclamation Parameters and/or ECMC Table 915-1 metals using standard methods appropriate for detecting the target analytes in Table 915-1.

[ ]

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

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.

Between July 18 and August 23, 2021, approximately 2590 cubic yards of impacted material were excavated and transported to the Front Range Landfill located in Erie, Colorado for disposal; and approximately 50 barrels of groundwater was removed via hydrovac and transported to the NGL disposal facility located in La Salle, Colorado. The excavation area was backfilled and contoured to match pre-existing 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.

Analytical results for the soil samples collected from the final excavation extents were in compliance with the applicable ECMC Table 915-1 standards and/or within background limits, with the exception of the inorganic concentrations in soil samples FL01@13', N02@10', N03@10', W02@10', and W01@10'. However, the inorganic exceedances of site-specific background limits are within the acceptable range of analytical variability of background limits and are below the vegetation root-zone. The initial waste characterization sample WHF01@4' did not contain inorganic exceedances. In addition, analytical results indicated that constituent concentrations in the groundwater samples were in compliance with ECMC Table 915-1 standards. Based on the analytical data presented herein, assessment is complete at this site and no further activities are required. As such, Top Operating is requesting a No Further Action (NFA) determination for this location.

Soil Remediation Summary

☐ **In Situ**

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ Other _____

☒ **Ex Situ**

Yes Excavate and offsite disposal

If Yes: Estimated Volume (Cubic Yards) 2590

Name of Licensed Disposal Facility or ECMC Facility ID # _____

_____ Excavate and onsite remediation

_____ 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.

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Approved Reporting Schedule:

☐ Quarterly ☐ Semi-Annually ☐ Annually ☒ Other NFA Request

☐ **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

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.

TOP Operating is adequately bonded per Rule 702 and has complied with the insurance requirements of Rule 705.

Operator anticipates the remaining cost for this project to be: $ 0

WASTE DISPOSAL INFORMATION

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

Describe beneficial use, if any, of E&P Waste derived from this remediation project:

None.

Volume of E&P Waste (solid) in cubic yards 2590

E&P waste (solid) description impacted soil

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: Front Range Landfill located in Erie, Colorado

Volume of E&P Waste (liquid) in barrels 50

E&P waste (liquid) description groundwater

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: NGL disposal facility located in La Salle, Colorado

REMEDIATION COMPLETION REPORT

REMEDIATION COMPLETION SUMMARY

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

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? Yes

Does the previous reply indicate consideration of background concentrations? Yes

Does Groundwater meet Table 915-1 standards? Yes

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.

Reclamation will be completed in accordance with ECMC 1000 Series Rules.

Is the described reclamation complete? Yes

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? Yes

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

Did the local soil conservation district provide the seed mix? No

SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. 05/06/2024

Proposed date of completion of Reclamation. 05/06/2024

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. 08/03/2021

Actual Spill or Release date, or date of discovery. 07/31/2021

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/18/2021

Proposed site investigation commencement. 07/18/2021

Proposed completion of site investigation. 12/27/2021

REMEDIAL ACTION DATES

Proposed start date of Remediation. 07/18/2021

Proposed date of completion of Remediation. 08/23/2021

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

Top submitted Form 27 (Doc. No. 403905617) to the ECMC on 9/22/24, requesting NFA; the Form was denied by the ECMC on 1/7/25. ECMC denied and removed the closure request due to hydrocarbons being "present" in a groundwater sample collected during excavation activities. No exceedance of Table 915-1 standards was detected. In addition, the ECMC requested that groundwater monitoring wells be installed and sampled for ECMC Table 915-1 organics and inorganics for 4 consecutive quarters to properly characterize groundwater.

On 8/16/21, during excavation activities, groundwater was encountered within the former wellhead excavation area at approx. 13' bgs. A grab groundwater sample, GW-EX, was collected from within the former wellhead excavation area and submitted for lab analysis. Based on lab analytical results, groundwater sample GW-EX was in compliance with the applicable ECMC Table 915-1 standards. Per the request of the ECMC Environmental Protection Specialist, a down-gradient temporary monitoring well, EMW-01, was installed on 10/29/21, to further assess groundwater conditions near the former oil and gas location. Two (2) groundwater samples were collected from the temporary monitoring well EMW-01 on 12/2/21, and 12/27/21; the samples were submitted for lab analysis. Based on the lab analytical results, the groundwater sample collected on 12/2/21, contained minimal detections of organic compounds in groundwater, but did not exceed the applicable ECMC Table 915-1 standards. Another groundwater sample, EMW-01, was collected from the same temporary monitoring on 12/27/21. Based on analytical results, groundwater sample EMW-01 was non-detect for all the Table 915-1 organic compounds in groundwater. Per the City of Longmont's request, the City of Longmont's consultant (Terracon) was onsite to complete split sampling for December 2021 groundwater sampling events.

Additionally, the City of Longmont has a network of nine (9) monitoring wells on and surrounding the former wellhead and tank battery, as well as a monitoring well (S31-MW-04) located within the former wellhead excavation area. Terracon collected groundwater samples from this network of monitoring wells from 7/7/21, through 11/6/24. Based on lab analytical results, organic compounds in groundwater have "never been detected above the lab reporting limits or Table 915-1 standards at any of the nine (9) monitoring wells sampled over the last 3.5 years". The groundwater samples were also submitted for lab analysis of Table 915-1 Inorganic Compounds. City of Longmont monitoring wells S31-MW02 (located downgradient of former wellhead) and S31-MW04 (within former wellhead excavation) are below Table 915-1 for chloride, sulfate, and within background of TDS. All 3 of the ST1 monitoring wells would be considered wells for local background determination based on groundwater flow directions at the Site (see attached figures).

ECMC Rule 913.b.(2) states operators will conduct sampling and analysis of groundwater pursuant to Rule 915 to determine the extent of contamination "in excess" of Table 915-1 standards. None of the groundwater samples collected during assessment activities were contaminated in excess of Table 915-1 standards and thus complied with Rule 913.b.(2). Thirty (30) groundwater samples have been collected and lab analyzed at the site since July 2021. Per ECMC Rule 913.h.(1), closure can be requested, and remediation can be considered complete, once the Operator has demonstrated compliance with the cleanup concentrations in Table 915-1.

Based on the data provided, groundwater at the site complies with Table 915-1 and site remedial activities comply with ECMC Rule 913.h.(1)(A-C) regarding closure. Therefore, the mere "presence of hydrocarbons" does not warrant the installation of additional monitoring wells, nor collection of additional groundwater samples at the site. Based on ECMC standards, Top requests NFA as allowed for under ECMC Rules.

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

Signed: Trisha Fanning Title: President

Submit Date: 03/25/2025 Email: tfanning@ardorenvironmental.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: Date:

Remediation Project Number: 18090

COA Type	Description
0 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
404097252	FORM 27-SUPPLEMENTAL-SUBMITTED
404097366	SITE INVESTIGATION REPORT
404097372	ANALYTICAL RESULTS
404097373	ANALYTICAL RESULTS
404097374	ANALYTICAL RESULTS
404097377	ANALYTICAL RESULTS
404097378	ANALYTICAL RESULTS
404097379	ANALYTICAL RESULTS

404097381	ANALYTICAL RESULTS
404097382	ANALYTICAL RESULTS
404097385	ANALYTICAL RESULTS
404097387	ANALYTICAL RESULTS
404097392	ANALYTICAL RESULTS
404097395	ANALYTICAL RESULTS

Total Attach: 14 Files

General Comments

User Group	Comment	Comment Date
Environmental	The following laboratory analytical reports contain metadata not consistent with similar laboratory reports (does not show lab as the author and indicates PDFium, a pdf altering program was utilized) additionally these reports are not secure, the laboratory can reissue these reports in a secured format: 404097252, 404097392, 404097381, 404097378, 404097374, and 404097373 ECMC has not conducted a complete technical review of this form, data, or attachments but is denying this form.	04/07/2025

Total: 1 comment(s)