

State of Colorado
Energy & Carbon Management Commission

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Document Number:

403736161

Receive Date:

Report taken by:

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: DCP OPERATING COMPANY LP	Operator No: 4680	Phone Numbers
Address: 2331 CITYWEST BLVD., S812-02		Phone: (303) 619-3042
City: HOUSTON	State: TX	Zip: 77042
Contact Person: Steve Weathers	Email: Stephen.Weathers@P66.com	Mobile: (303) 619-3042

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 12644 Initial Form 27 Document #: 401940170

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: 1Q24 groundwater monitoring report

SITE INFORMATION

Yes Multiple Facilities

Facility Type: GAS PROCESSING PLANT	Facility ID: 255957	API #:	County Name: WELD
Facility Name: GREELEY GAS PLANT	Latitude: 40.363548	Longitude: -104.728707	
** correct Lat/Long if needed: Latitude: 40.363785		Longitude: -104.729330	
QtrQtr: SWSW	Sec: 25	Twp: 5N	Range: 66W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE	Facility ID: 479990	API #:	County Name: WELD
Facility Name: Greeley Gas Plant	Latitude: 40.363785	Longitude: -104.729330	
** correct Lat/Long if needed: Latitude:		Longitude:	
QtrQtr: SWSW	Sec: 25	Twp: 5N	Range: 66W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SW

Most Sensitive Adjacent Land Use Agricultural land and water treatment plant to the south, residential development to the north

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

Residential development 0.25 miles to the north; Evans Town Ditch 225' east; floodplain 500' east; public wastewater treatment facility 575' south; freshwater emergent wetland 913' south; two water wells within 1,400 feet (Permits 6012-R-R and 161539); South Platte River 1,500' south, and Ashcroft Draw 2,400' west.

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) Petroleum hydrocarbon impacted soil and groundwater

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	GROUNDWATER	Unknown	monitoring well installation and groundwater sampling
Yes	SOILS	800 sf	soil sample investigation

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 detailed description of the initial response activities was previously provided in the approved Initial eForm 27, Document #401940170 dated February 22, 2019. The Form 27 was conditionally approved (COA) by the ECMC on February 27, 2019, and the Site was assigned remediation project number #12644. Additional Site investigation activities and remediation alternatives have been provided to the ECMC via previously approved eForm 27 Documents, with the most recently submitted Form 27S #403533746 (3Q23). In addition, on May 11, 2021, and September 26, 2023, separate releases occurred which were caused by equipment failure. Upon discovery, the operator shut the equipment off immediately to mitigate the spills. Details of the May 2021 release were provided in the approved F19 documents (#402687618, 402694686, and 402766682), and details of the September 2023 release were provided in the approved F19 documents (#403543725 and 403569256), and the ECMC assigned Spill ID #485272 to the September 2023 release. Remedial activities associated with these releases and the 2019 release will continue under the existing Remediation Project # 12644. The results of the first quarter 2024 (1Q24) groundwater monitoring event are described herein.

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):

Previously completed soil investigations were submitted via the approved eForm 19 and 27 documents discussed in the Initial Action Summary. A total of 15 monitoring wells have been installed and are illustrated in Figure 2. During boring advancement, the soil borings were logged to evaluate geological conditions and identify any potential impacts to soil and groundwater at that location. Soil samples were collected from zones with the highest PID detections and/or capillary fringe, and the total depth of the boring. Soil samples were submitted for laboratory analysis, and the results were presented in previously approved Form 27 reports. Additional soil investigation samples are not proposed at this time.

Proposed Groundwater Sampling

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

Previous groundwater monitoring activities were described in approved Form 27 reports, most recently #403633984 (4Q23). A total of 15 monitoring wells have been installed and are illustrated in Figure 2. The 1Q24 groundwater event is further described in the groundwater monitoring section below, and the results from the 1Q24 sampling event are presented in Tables 1 through 3. Ongoing quarterly groundwater monitoring of the Site wells will continue until a no further action (NFA) is approved by ECMC.

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):

Previous investigations were discussed in the approved Form 27 Supplemental reports. An additional release occurred on September 26, 2023, and details of this release were provided in the approved F19 documents (#403543725 and 403569256) and the ECMC assigned Spill ID #485272. Remedial activities associated with this release will continue under the existing Remediation Project # 12644. Ongoing quarterly groundwater monitoring will continue and results will be presented to the ECMC in subsequent Form 27 Supplemental reports.

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) 16

NA / ND

NA Highest concentration of TPH (mg/kg)

NA Highest concentration of SAR

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 0

Groundwater

Number of groundwater samples collected 13

Was extent of groundwater contaminated delineated? Yes

Depth to groundwater (below ground surface, in feet) 11

Number of groundwater monitoring wells installed 15

Number of groundwater samples exceeding 915-1 3

-- Highest concentration of Benzene (µg/l) 188

ND Highest concentration of Toluene (µg/l)

-- Highest concentration of Ethylbenzene (µg/l) 1.13

-- Highest concentration of Xylene (µg/l) 4.03

NA 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?

DCP does not anticipate further investigation at this time, however, in addition to the 2019 release, a separate release occurred in May 2021 and another in September 2023. Details of the May 2021 release were provided in the approved Form 19 documents (#402687618, 402694686, and 402766682), and details of the September 2023 release were provided in the approved Form 19 documents (#403543725 and 403569256). Remedial activities associated with the 2019, 2021 and 2023 releases will continue under the existing Remediation Project # 12644.

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.

A description of initial source removal was provided in the previously submitted Form 27 (Document # 401940170) dated February 22, 2019 and were conditionally approved by the ECMC. Following completion of the additional soil investigation activities, performed April 24 to 26, and September 4, 2019, remaining soil impacts were delineated to within a small area in close proximity to the original sump replacement location. Based on other Form 27S approvals by the ECMC, monitoring well locations have been installed to establish the horizontal extent of impacts to groundwater (15 total). First quarter 2024 groundwater monitoring activities are further described in the following Groundwater Monitoring Section. The shallow surficial soil impacts appear to have been removed during previous efforts from both areas, but the deeper soil and groundwater in the vicinity and pathway of the release remain impacted in some areas. Details of the May 2021 release were provided in the approved F19 documents (#402687618, 402694686, and 402766682) and details of the September 2023 release in approved F19 document (#403543725 and 403569256), and remedial activities associated with these releases and the 2019 release will continue under this REM #12644. Additional source removal is not recommended at this time due to the limited area of impacted soils being located in close proximity to active gas plant operations, resulting in an unreasonable risk to human health and safety and the environment.

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.

Previously completed remediation activities including excavation, bioremediation (Micro-blaze), and EFR were described in the approved Form 27 reports. Based on the previous investigations, a limited volume of soil impacts remains in place in some areas that are currently inaccessible to remedial activities, due to existing gas plant operations and infrastructure resulting in an unreasonable risk to human health and safety and the environment. An additional three EFR events were completed during the 1Q24 at MW01, MW04, MW09 and MW13 on January 31st, and February 27th with approximately 210 gallons being removed overall. Field sheets from the EFR events are included as Attachment B. Following conversations with ECMC during a site walk on April 20, 2023, DCP has continued to perform monthly EFR at specific onsite monitoring wells based on data evaluation and local groundwater trends. Groundwater conditions at the Site will continue to be monitored on a quarterly basis to evaluate current Site conditions and identify any change in conditions over time that may warrant additional remediation at the Site.

Soil Remediation Summary

☐ In Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ Other _____

☐ Ex Situ

_____ Excavate and offsite disposal

_____ If Yes: Estimated Volume (Cubic Yards) _____

_____ Name of Licensed Disposal Facility or COGCC Facility ID # _____

_____ Excavate and onsite remediation

_____ Land Treatment

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Other _____

Groundwater Remediation Summary

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

No _____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

No _____ 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.

Site-wide groundwater sampling is conducted on a quarterly basis at the 15 Site monitoring well locations, MW01 through MW15, illustrated on the attached Figure 2. During the 1Q24 monitoring event, performed 2/13/2024, groundwater levels and samples were collected from 13 of the 15 Site well locations using standard hand-bailing sampling methods, and were submitted to Pace Analytical (Pace) for analysis using USEPA method 8260D (BTEX; 1,2,4-trimethylebenzene [TMB]; 1,3,5-TMB; and naphthalene). Monitoring well MW02 became flooded with snow melt surface water after being gauged and MW03 could not be located during the 1Q24 event and therefore were not sampled. Groundwater elevations are presented in Table 1 and illustrated in Figure 3. The laboratory analytical results for sampled constituents during the 1Q24 event are summarized in Tables 2 and 3 and presented on Figure 4. The laboratory analytical reports are also provided as an attachment. Benzene and/or 1,2,4-TMB concentrations were above the ECMC standards at 3 of the 13 sampled monitoring locations (MW01, MW04 and MW09) during the 1Q24 event. Ongoing quarterly monitoring and groundwater data analysis will be conducted to evaluate site trends over time.

Date Run: 4/6/2024 Doc [#403736161]

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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 1Q24 progress report

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.

DCP has sufficient insurance to fully address the anticipated costs of Remediation, including the remaining estimated costs for this project. DCP currently has \$5,000,000 in general liability insurance. The cost provided below for remediation is a preliminary estimate only, costs may change upwards or downward based on site-specific information. DCP makes no representation or guarantees as to the accuracy of the preliminary estimate.

Operator anticipates the remaining cost for this project to be: \$ 70000

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

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:

REMEDIATION COMPLETION REPORT

REMEDIATION 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? No

Is additional groundwater monitoring to be conducted? Yes

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 Site is currently located within an active DCP gas plant. No plans for reclamation are necessary at this time.

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. 11/03/2015

Actual Spill or Release date, or date of discovery. 11/03/2015

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 11/03/2015

Proposed site investigation commencement. 11/03/2015

Proposed completion of site investigation. 10/13/2021

REMEDIAL ACTION DATES

Proposed start date of Remediation. 01/01/2022

Proposed date of completion of Remediation. 01/01/2032

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

DCP performed the 1Q24 groundwater sampling event in accordance with the Site Sampling and Analysis Plan in the approved 2Q21 Form 27-S (#402704583) and will continue to comply with the plan throughout the quarterly groundwater events. Following onsite conversations with ECMC in April 2023, DCP has continued to perform monthly EFR events at the Site and the most recent field sheets have been included in Attachment B. If needed, DCP will re-evaluate further remediation activities for the Site. A historical summary of the onsite releases associated with REM#12644 is provided in Table 4 per ECMC request.

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

Signed: Steve Weathers

Title: Program Manager

Submit Date: _____

Email: ECMCNotification@p66.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: 12644

COA Type**Description**

0 COA	

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**

403745396	OTHER
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Total Attach: 1 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)