

State of Colorado
Oil and Gas Conservation Commission

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



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Report taken by:
PETER GINTAUTAS

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 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 INFORMATION

Name of Operator: DCP OPERATING COMPANY LP	Operator No: 4680	Phone Numbers
Address: 370 17TH STREET - SUITE 2500		Phone: (303) 6051718
City: DENVER State: CO Zip: 80202		Mobile: (303) 6193042
Contact Person: Steve Weathers	Email: swweathers@dcpmidstream.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION
Remediation Project #: 14694 Initial Form 27 Document #: 402247877

PURPOSE INFORMATION

<input type="checkbox"/> 901.e. Sensitive Area Determination	<input checked="" type="checkbox"/> 909.c.(5), Rule 910.b.(4): Remediation of impacted ground water
<input type="checkbox"/> 909.c.(1), Rule 905: Pit or PW vessel closure	<input type="checkbox"/> Rule 909.e.(2)A.: Notice completion of remediation in accordance with Rule 909.b.
<input checked="" type="checkbox"/> 909.c.(2), Rule 906: Spill/Release Remediation	<input type="checkbox"/> Rule 909.e.(2)B.: Closure of remediation project
<input type="checkbox"/> 909.c.(3), Rule 907.e.: Land treatment of oily waste	<input type="checkbox"/> Rule 906.c.: Director request
<input type="checkbox"/> 909.c.(4), Rule 908.g.: Centralized E&P Waste Management Facility closure	<input checked="" type="checkbox"/> Other 1Q21 groundwater progress report.

SITE INFORMATION N Multiple Facilities (in accordance with Rule 909.c.)

Facility Type: SPILL OR RELEASE	Facility ID: 468979	API #: _____	County Name: WELD
Facility Name: CR20 and Hwy 85 Release	Latitude: 40.130910	Longitude: -104.806776	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SWSW	Sec: 17	Twp: 2N	Range: 66W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SM Most Sensitive Adjacent Land Use Irrigation ditch and agricultural land

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

Irrigation ditch, county road, crop land

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- | | | |
|--|--|--|
| <input type="checkbox"/> E&P Waste | <input checked="" type="checkbox"/> Other E&P Waste | <input type="checkbox"/> Non-E&P Waste |
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids | |
| <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 checked="" type="checkbox"/> Other (as described by EPA) TPH impacted soils | |

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	GROUNDWATER	18 ft bgs	Groundwater Sampling and Lab analysis
No	SOILS	12 ft bgs	Soil excavation and borings and lab 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.

Initial actions and completed remedial measures have been previously submitted to the COGCC in the Form 19 Initial with Supplemental (Document # 402226829) and the Form 27 Initial (Document # 402247877), approved December 2, 2019 and COGCC issued Remediation Project #14694 for the Site. Additional Site investigation activities and ongoing quarterly groundwater monitoring information has been provided to COGCC via approved eform 27 supplemental documents. The results of the first quarter 2021 (1Q21) groundwater monitoring event and continued investigation and remediation alternatives 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):

Further Soil Sampling is not anticipated 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 27S reports and a total of nine monitoring wells have been installed which are illustrated on Figure 2. However, during the 3Q and 4Q 2020 events, BH10 was not found and presumed destroyed by the landowner efforts and could not be sampled. Groundwater samples are being analyzed for BTEX, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and naphthalene using USEPA Method 8260B. In addition, three wells were sampled for total dissolved solids (TDS), sulfate, and chloride per COGCC Rule 900 guidance. Analytical results from the 1Q21 sampling event are presented herein. Groundwater monitoring will continue on a quarterly basis until analytical results demonstrate concentrations below COGCC standards for four consecutive quarterly monitoring events, at which time a no further action (NFA) determination for the Site will be requested from the COGCC.

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 0
Number of soil samples exceeding 910-1 0
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet) 1000

NA / ND

NA Highest concentration of TPH (mg/kg) _____
NA Highest concentration of SAR _____
BTEX > 910-1 No
Vertical Extent > 910-1 (in feet) 18

Groundwater

Number of groundwater samples collected 8
Was extent of groundwater contaminated delineated? No
Depth to groundwater (below ground surface, in feet) 13'
Number of groundwater monitoring wells installed 9
Number of groundwater samples exceeding 910-1 0

ND Highest concentration of Benzene (µg/l) _____
ND Highest concentration of Toluene (µg/l) _____
-- Highest concentration of Ethylbenzene (µg/l) 84.2
-- Highest concentration of Xylene (µg/l) 690
NA Highest concentration of Methane (mg/l) _____

Surface Water

0 Number of surface water samples collected
0 Number of surface water samples exceeding 910-1
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 to complete additional soil or groundwater delineation activities at this time and continue quarterly groundwater monitoring activities at the eight existing monitoring well locations. Based on current observations, if warranted, DCP would evaluate an alternative remediation approach applicable to the Site and present a workplan to the COGCC for approval.

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.

As referenced in the previously submitted Form 19 Initial with Supplemental (Document # 402226829) and Form 27 Initial (Document # 402247877), initial source remediation efforts successfully removed approximately 400 CY of impacted soils. Additionally, mobile vacuum enhanced fluid recovery (EFR) groundwater remediation efforts were conducted from the third quarter 2015 through the fourth quarter 2016 in which approximately 307 barrels of impacted groundwater were removed from the site. Ongoing groundwater monitoring has been performed at the Site on a quarterly basis through the first quarter 2021.

REMEDICATION 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.

As referenced in the previously submitted Form 19 Initial with Supplemental (Document # 402226829) and Form 27 Initial (Document # 402247877), initial source remediation efforts removed approximately 400 CY of impacted soils. Additionally, mobile vacuum enhanced fluid recovery (EFR) groundwater remediation efforts were conducted from the third quarter 2015 through the fourth quarter 2016 in which approximately 307 barrels of impacted groundwater were removed from the site. Ongoing groundwater monitoring has been performed at the Site on a quarterly basis through the first quarter 2021 and will continue until a period of four consecutive quarterly monitoring events have demonstrated that groundwater impacts are below COGCC standards. At that time, an NFA determination for the Site will be requested from the COGCC. Based on observations of low-level concentrations above the COGCC standards at three locations, if warranted, DCP would evaluate an alternative remediation approach applicable to the Site with COGCC approval, which may include, but not limited to the potential use of additional EFR treatment methods in order to mitigate the impacted area beneath the surface.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) _____ 400

_____ 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

_____ Other _____

Groundwater Remediation Summary

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

Yes _____ Natural Attenuation

Yes _____ Other From 3Q-2015 through 4Q-2016 vac enhanced fluid recovery remediation was performed. GW monitoring. _____

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 monitoring well locations illustrated on the attached Figure 2. BH10 could not be located and presumed destroyed due to activities by the landowner. During the 1Q21 monitoring event, performed on 2/4/21, groundwater levels and samples were collected from eight of the nine well locations using standard hand-bailing sampling methods, and were submitted to Origins Laboratory Inc. (Origins) for analysis using USEPA method 8260B (BTEX, 1,2,4-trimethylebenzene, 1,3,5-trimethylebenzene and naphthalene). In addition, three wells located upgradient (BH01), within the release area (BH03) and downgradient (BH09) were sampled for the Table 915-1 inorganic parameters total dissolved solids (TDS), chloride and sulfate, with concentrations ranging from 872 to 1,020 mg/L for TDS, 144 to 157 mg/L for chloride and 162 mg/L to 190 mg/L for sulfate and the reported concentrations for these parameters should be considered representative of the local groundwater conditions. Groundwater elevations and flow trends are presented in Table 1 and illustrated on Figure 3. First Quarter 2021 laboratory analytical data for sampled constituents are summarized on Table 2 and presented on Figure 4. The historical groundwater data is summarized in Table 3, and the 1Q21 laboratory reports are attached. Benzene concentrations were above the Table 915-1 COGCC standards at three of the nine monitoring locations (BH02, BH03 and BH09) for low-level concentrations of 1,2,4-TMB and 1,3,5-TMB during the first quarter 2021 event. Ongoing quarterly monitoring and groundwater data analysis will be conducted to evaluate site trends over time and whether additional investigation may be warranted.

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Frequency: Quarterly Semi-Annually Annually Other _____

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: _____

REMEDIATION COMPLETION REPORT

REMEDIATION COMPLETION SUMMARY

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

Do all soils meet Table 910-1 standards? Yes _____

Does the previous reply indicate consideration of background concentrations? Yes _____

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? Yes _____

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.

Following completion of the initial July 2013 soil excavation activities, site surfaces were regraded to match existing conditions. Ground surfaces at the Site currently match surrounding areas and are fully vegetated with wild grasses like surfaces in adjacent areas. No further reclamation is proposed at this time. Final reclamation will be conducted following completion of groundwater monitoring requirements and eventual site closure.

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 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. 07/22/2013

Actual Spill or Release date, if known. 07/22/2013

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/22/2013

Date of commencement of Site Investigation. 07/22/2013

Date of completion of Site Investigation. 09/01/2015

REMEDIAL ACTION DATES

Date of commencement of Remediation. 07/22/2013

Date of completion of Remediation. _____

SITE RECLAMATION DATES

Date of commencement of Reclamation. 07/22/2013

Date of completion of Reclamation. _____

OPERATOR COMMENT

If warranted, further investigative or remedial activities will need to be discussed/approved with the landowner and COGCC. As described above, three groundwater samples were collected from a downgradient, source and upgradient well location for comparison of the Table 915-1 constituents of total dissolved solids (TDS), chloride, and sulfate and appear to be representative of the natural groundwater conditions beneath the site and/or are not considered indicative of petroleum hydrocarbon impacts associated with midstream processes or the release. With COGCC approval, DCP proposes that the groundwater monitoring activities will continue sampling for the organic parameters listed in Table 915-1 on a quarterly basis. However, based on the initial results for the inorganic constituents during the first quarter 2021, DCP does not believe the inorganic parameters listed in Table 915 should be considered as constituents of concern for this Site and proposes to discontinue sampling of these analytes for all future quarterly monitoring events. DCP will comply with this interim Site-Specific Groundwater Sampling and Analysis Plan during each quarterly event with COGCC approval. DCP will continue to perform quarterly groundwater monitoring and submit updates and quarterly reports to COGCC via eform 27.

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

Signed: Steve Weathers _____

Title: Environmental Specialist _____

Submit Date: 03/11/2021 _____

Email: swweathers@dcpmidstream.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: 03/12/2021 _____

Remediation Project Number: 14694 _____

COA Type**Description**

	This report serves as adequate project summary and status update required to be submitted prior to April 15, 2021 as per rule 913.e.(2).
	E&P waste spilled from pipeline was reported by operator as consisting primarily of hydrocarbon gases and hydrocarbon liquids. The request to limit future sampling and analysis of groundwater at the site to Table 915-1 organic compounds in water is approved based on the waste characterization assumptions.

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**

402625909	FORM 27-SUPPLEMENTAL-SUBMITTED
402626215	MONITORING REPORT

Total Attach: 2 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)