

June 7, 2021

Shawn Hawk, Sr. Surface Land Representative  
Berry Petroleum Company LLC (COGCC Operator #10091)  
4028 West 4000 South  
Roosevelt, UT 84066

The intent of this letter is to inform Berry Petroleum Company LLC, Operator #10091 (Berry) of actions required by the COGCC in regards to active Remediation Projects (REMs) within the Piceance Basin, and their association with formal complaints brought to the COGCC by Caerus. The COGCC will not address civil disputes arising from surface use agreements or royalty issues that are beyond the jurisdiction of the Commission.

**REM #10234** – This Remediation Project was formally initiated in 2017, and is currently the focus of **Complaint #200449297**. Drill cuttings from the J13 pad are being land farmed on the I11 pad (Location ID: 335886), which is an abandoned location within the COGIS database. A land farming agreement was reportedly finalized in September of 2014 between the co-tenants (currently dba Berry Petroleum and Caerus) of this location.

Since the inception of REM #10234 land farming remediation activities have been to the satisfaction of the COGCC. The most recent sample results indicate that impacted material pertaining to this remediation project should comply with Table 915-1 concentration levels, should the operator opt to request closure under Rules effective January 15, 2021. It is the operator's responsibility to review and comply with all applicable Rules, specifically, but not limited to, the 900 series Rules.

The operator will collect confirmation samples in the spring of 2021, as soon as practicable, and submit analytical results to the COGCC promptly on a Supplemental Form 27 Site Investigation and Remediation Workplan. The operator will coordinate with the COGCC Reclamation Specialist as well as Environmental Protection staff regarding closure of this Remediation Project as well as compliance with the 1000 series Rules.

**Complaint #200449298** refers to several locations within the Piceance Basin. Three of these locations have active Remediation Projects associated with them. The **B21** pad (Location ID: 421108) has APDs which expired April 4, 2020. There are five (5) APDs in eForms that have been in process since October 19, 2020. Allegedly the operator has refiled these APDs for wells that have had conductors set.

The operator shall contact the area Reclamation Specialist within 30-days of this letter to determine the approval process for delayed interim reclamation

**REM #10237** – This Remediation Project was formally initiated in 2017 to land farm impacted material on the **K15** pad (Location ID: 335991) and **L15** pad (Location ID: 335979). According to the operator, material associated with the K15 pad land farmed at these two locations are expected to be compliant with Table 915-1, should the operator opt to request closure under the Rules effective January 15, 2021. The operator will collect confirmation samples in the spring of 2021, as soon as practicable, and submit analytical results to the COGCC promptly on a Supplemental Form 27 Site Investigation and Remediation Workplan. The operator will coordinate with the COGCC Reclamation Specialist as well as Environmental Protection staff regarding closure of REM #10237 and compliance with the 1000 series Rules.

**REM #10240** – Remediation Project #10240 was initiated in 2017 to remediate impacted material associated with the **C10** pad (Location ID: 335876). The most recent analytical results submitted by the operator are not compliant with Table 915-1. As such, remediation efforts will need to continue. The operator will collect samples in the spring of 2021, as soon as practicable, to assess the current status of land farmed material. The operator will submit analytical results to the COGCC promptly on a Supplemental Form 27 Site Investigation and Remediation Workplan.

The operator shall contact the area Reclamation Specialist within 30-days of this letter to determine the approval process for delayed interim reclamation.

**REM #10238** – Remediation Project #10238, started in 2017, was initiated to address the remediation of impacted material associated with the **L15** pad (Location ID: 335979). This material contains exceedances of Table 915-1 contaminant concentration levels.

The operator will collect samples in the spring of 2021, as soon as practicable, to assess the current status of land farmed material. The operator will submit analytical results to the COGCC promptly on a Supplemental Form 27 Site Investigation and Remediation Workplan.

The operator shall contact the area Reclamation Specialist within 30-days of this letter to determine the approval process for delayed interim reclamation.

**REM #15535** – Berry will provide the horizontal and vertical extent that is believed to have been impacted by Spill/Release Point ID #474500 (adjacent to the J15 pad, Location ID: 335568), incorrectly cited as Spill/Release Point ID #478786 in the Berry response letter to Caerus' complaints. Evidence to support these claims will be provided to COGCC Environmental Protection staff within 30 days of this letter.

Berry initially advanced a boring until they felt that they had satisfied a request by the COGCC to drill an investigative boring that either encountered groundwater or was advanced to an estimated depth of 250'. This was described by the operator on Supplemental Form 27 Document #402461780 as:

*"The agreement with the COGCC had stated that the bore needed to run until it encountered (sic) groundwater or a total depth of roughly 250', so when water was observed in the bore hole at*

*approximately 60' the decision was made to stop work and install a well liner as it appeared groundwater had potentially been reached. Since it was believed groundwater had been reached boring activities were ended and Berry proceeded with the installation of a monitoring well. Prior to installation of the liner, including grouting the PVC pipe in place, a fluid column of approximately 13' had built-up in the bore hole and has maintained within the completed well. A water sample was taken from the water column and sent of (sic) for analysis (see attached report), and based on the results Berry believes that groundwater was not encountered and the fluid in the column was entirely composed of produced fluids."*

If the operator believes that the fluid encountered is produced water as a result of Spill/Release Point ID #474500 then a plan to accomplish the COGCC's core/boring request will be submitted on a Supplemental Form 27 within 30 days of this letter. The core/boring will be advanced to an estimated depth of 250' and completed by June 30, 2021.

Impacted material, that is being land farmed on the J15 pad, will be sampled for Table 915-1 "Cleanup Concentrations" for TPH (total volatile [C<sub>6</sub>-C<sub>10</sub>] and extractable [C<sub>10</sub>-C<sub>36</sub>] hydrocarbons), Soil Suitability for Reclamation, Organic Compounds in Soils, and Metals in Soils by the operator in the spring of 2021, as soon as practicable, to assess progress of remediation activities to date. All other previously approved details within the REM workplan will be adhered to, including but not limited to, active land farming, confirmation sampling, surface water monitoring, etc. Should remediation efforts fail to bring all media impacted by Spill ID 474500 fully in compliance with Table 915-1 by January 15, 2022, the operator will remit additional financial assurance in the amount of \$1,000,000 pursuant to Rule 702.a, as agreed to in the Administrative Order by Consent (Order No. 1V-755).

The operator will notify the surface owner and/or co-tenant of any surface or subsurface disturbance, investigation, or remedial activities associated with Remediation Project No. 15535 no less than 48-hours prior to commencement of such activities.

The operator shall demonstrate that material at the base of the excavation as well as the underlying strata have been remediated and are compliant to Table 915-1 "Cleanup Concentrations."

The COGCC has verbally requested that fluids from the pipeline be collected, sampled and analyzed. This sample will be analyzed for Table 915-1, VOCs, and SVOCs. If a sample cannot be collected from the pipeline, then a sample of fluids from wells on the J15 595 pad will be collected and analyzed.

The operator will review and comply with COGCC Rules, effective January 15, 2021. Specifically refer to Rule 913 as it relates to implementation schedules, reporting frequency, and the requirement to provide a detailed project summary and status update for all existing remediation projects by April 15, 2021.

Mr. Shawn Hawk

June 7, 2021

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Sincerely,

A handwritten signature in black ink, appearing to read 'Jim Hughes', with a stylized flourish at the end.

Jim Hughes

Environmental Protection Specialist

cc: Alex Fischer

Greg Deranleau

Zane Lay, Surface Land Manager (Cearus)

Jon Armstrong, EH&S Representative (Berry)