



March 17, 2023

New Mexico Oil Conservation Division

New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Remediation Work Plan
Bandit 15 Federal Com 002H
Incident Number NAPP2231139799
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this *Remediation Work Plan* (RWP) for the Bandit 15 Federal Com 002H (Site). This RWP documents site assessment and soil sampling activities and provides supplemental information requested in the denial of a *Closure Request* submitted to the New Mexico Oil Conservation Division (NMOCD) on January 30, 2023. COG received the denial notice from the NMOCD on February 17, 2023. In the denial, NMOCD stated:

Closure Report Denied. The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater. Release has not been sufficiently addressed. Please resubmit a revised closure report to the OCD portal by March 17, 2023.

The following RWP proposes installation of a depth to water boring to confirm the Closure Criteria. Based on driller and Ensolum availability, there was not enough time to collect the additional data and submit a revised closure report by March 17, 2023 deadline set by the NMOCD. Instead, COG is submitting this RWP, agreeing to the denial conditions.

BACKGROUND

The Site is located in Unit J, Section 15, Township 20 South, Range 33 East, in Lea County, New Mexico (32.5709°, -103.6487°) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management (BLM). On November 1, 2022, illegal dumping by an unknown operator occurred, resulting in the release of approximately 0.25 barrels (bbls) of produced water and 2.26 bbls of crude oil into the adjacent pasture located southwest of the Site. The Site was previously characterized in the *Closure Request* and the following NMOCD Table I Closure Criteria were applied:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg

- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the pasture area that was impacted by the release, per Title 19, Chapter 15, Part 29, Section 13.D(1) (19.15.29.13.D(1)) of the New Mexico Administrative Code (NMAC) for the top 4 feet of areas that will be reclaimed following remediation.

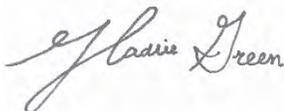
Site assessment and excavation activities were conducted at the Site and laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all chemical of concern (COC) concentrations were compliant with the Closure Criteria. Details of the previously conducted soil sampling and excavation activities were included in the denied *Closure Request*.

PROPOSED REMEDIATION WORK PLAN

In order to confirm depth to groundwater is greater than 100 feet below ground surface (bgs) at the Site and confirm the applied Closure Criteria, COG proposes to complete a depth to water boring within ½-mile of the release. The soil boring will be advanced until groundwater is encountered or to a maximum depth of approximately 110 feet bgs. An Ensolum geologist will log and describe soil continuously and will document observations on a lithologic/soil sampling log. The borehole will be left open for a minimum of 72 hours to allow for the potential slow infill of groundwater. Following the 72-hour waiting period, depth to groundwater will be measured or the Ensolum geologist will confirm groundwater is absent in the boring. The borehole will be properly abandoned following New Mexico Office of the State Engineer (NMOSE) procedures. Ensolum and COG will include documentation of the soil boring installation and lithologic/soil sampling log in the subsequent *Closure Request Addendum* if groundwater is confirmed to be greater than 100 feet bgs. The depth to water boring will be completed as soon as possible following approval from the surface landowner and scheduling with a New Mexico licensed driller. Ensolum will present the drilling schedule within 60 days of approval of the RWP.

If you have any questions or comments, please contact Ms. Kalei Jennings at (817) 683-2503 or kjennings@ensolum.com.

Sincerely,
Ensolum, LLC



Hadlie Green
Project Manager



Kalei Jennings
Senior Scientist

cc: Charles Beauvais, ConocoPhillips Company
Bureau of Land Management

Appendices:

Appendix A Final C-141



APPENDIX A

Final C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

| | |
|----------------|----------------|
| Incident ID | NAPP2231139799 |
| District RP | |
| Facility ID | fAPP2202651171 |
| Application ID | |

Release Notification

Responsible Party

| | | | |
|-------------------------|--|------------------------------|----------------|
| Responsible Party | COG Operating, LLC | OGRID | 229137 |
| Contact Name | Charles Beauvais | Contact Telephone | (575) 988-2043 |
| Contact email | Charles.R.Beauvais@ConocoPhillips.com | Incident # (assigned by OCD) | NAPP2231139799 |
| Contact mailing address | 600 West Illinois Avenue, Midland, Texas 79701 | | |

Location of Release Source

Latitude 32.5709 Longitude -103.6487
(NAD 83 in decimal degrees to 5 decimal places)

| | | | |
|-------------------------|----------------------------|----------------------|--------------|
| Site Name | Bandit 15 Federal Com 002H | Site Type | Tank Battery |
| Date Release Discovered | November 1, 2022 | API# (if applicable) | |

| Unit Letter | Section | Township | Range | County |
|-------------|---------|----------|-------|--------|
| J | 15 | 20S | 33E | Lea |

Surface Owner: State Federal Tribal Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

| | | | | |
|--|--|---|---|---|
| <input checked="" type="checkbox"/> Crude Oil | Volume Released (bbls) | 2.26 | Volume Recovered (bbls) | 0 |
| <input checked="" type="checkbox"/> Produced Water | Volume Released (bbls) | 0.25 | Volume Recovered (bbls) | 0 |
| | Is the concentration of dissolved chloride in the produced water >10,000 mg/l? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | |
| <input type="checkbox"/> Condensate | Volume Released (bbls) | | Volume Recovered (bbls) | |
| <input type="checkbox"/> Natural Gas | Volume Released (Mcf) | | Volume Recovered (Mcf) | |
| <input type="checkbox"/> Other (describe) | Volume/Weight Released (provide units) | | Volume/Weight Recovered (provide units) | |

Cause of Release

The release was a result of an illegal dumping by unknown operator.
This illegal dumping occurred on pad. Evaluation will be made of the spill area.

State of New Mexico
Oil Conservation Division

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| | |
|---|--|
| Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If YES, for what reason(s) does the responsible party consider this a major release? |
| If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? | |

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

| |
|--|
| <input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately. |
| If all the actions described above have <u>not</u> been undertaken, explain why: |
| Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation. |
| I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. |
| Printed Name: <u>Brittany N. Esparza</u> Title: <u>Environmental Technician</u> Signature: <u></u> Date: <u>11/07/2022</u> email: <u>Brittany.Esparza@ConocoPhillips.com</u> Telephone: <u>(432) 221-0398</u> |
| <u>OCD Only</u> Received by: <u>Jocelyn Harimon</u> Date: <u>11/07/2022</u> |

| Spill Calculation - Subsurface Spill - Rectangle | | | | | | | | | | | Remediation Recommendation | | |
|--|---|--------------|-------------|---------------------|-----------------------|-----------------------------------|--------------------------------------|--|---|--|--|---|--|
| Received by OCD: 11/7/2022 11:07:20 AM | Convert Irregular shape into a series of rectangles | Length (ft.) | Width (ft.) | Average Depth (in.) | On/Off Pad (dropdown) | Soil Spilled-Fluid Saturation (%) | Estimated volume of each area (bbl.) | Total Estimated Volume of Spill (bbl.) | Percentage of Oil if Spilled Fluid is a Mixture (%) | Total Estimated Volume of Spilled Oil (bbl.) | Total Estimated Volume of Spilled Liquid other than Oil (bbl.) | Total Estimated Contaminated Soil, uncompacted, 25% (yd ³ .) | Current Rule of Thumb - RMR Handover Volume, (yd ³ .) |
| | Rectangle A | 75.0 | 60.0 | 0.3 | Off-Pad | 15.02% | 16.69 | 2.51 | 90% | 2.26 | 0.25 | 4.34 | 750 |
| | Rectangle B | | | | On-Pad | 10.50% | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | |
| | Rectangle C | | | | On-Pad | 10.50% | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | |
| | Rectangle D | | | | ▼ | | 0.00 | | | | | 0.00 | |
| | Rectangle E | | | | ▼ | | 0.00 | | | | | 0.00 | |
| | Rectangle F | | | | ▼ | | 0.00 | | | | | 0.00 | |
| | Rectangle G | | | | ▼ | | 0.00 | | | | | 0.00 | |
| | Rectangle H | | | | ▼ | | 0.00 | | | | | 0.00 | |
| | Rectangle I | | | | ▼ | | 0.00 | | | | | 0.00 | |
| | Rectangle I | | | | ▼ | | 0.00 | | | | | 0.00 | |
| | Total Subsurface Volume Released: | | | | | | | 2.51 | | 2.26 | 0.25 | 4.34 | BU |

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

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 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS
 Action 156620

CONDITIONS

| | |
|---|---|
| Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701 | OGRID: 229137 |
| | Action Number: 156620 |
| | Action Type: [C-141] Release Corrective Action (C-141) |

CONDITIONS

| Created By | Condition | Condition Date |
|------------|-----------|----------------|
| jharimon | None | 11/7/2022 |

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|----------------|----------------|
| Incident ID | NAPP2231139799 |
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Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

| | |
|---|---|
| What is the shallowest depth to groundwater beneath the area affected by the release? | >100 (ft bgs) |
| Did this release impact groundwater or surface water? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 1000 feet of any other fresh water well or spring? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a wetland? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying a subsurface mine? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying an unstable area such as karst geology? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within a 100-year floodplain? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Did the release impact areas not on an exploration, development, production, or storage site? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

| |
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| Characterization Report Checklist: <i>Each of the following items must be included in the report.</i> |
| <input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. |
| <input checked="" type="checkbox"/> Field data |
| <input checked="" type="checkbox"/> Data table of soil contaminant concentration data |
| <input checked="" type="checkbox"/> Depth to water determination |
| <input checked="" type="checkbox"/> Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release |
| <input checked="" type="checkbox"/> Boring or excavation logs |
| <input checked="" type="checkbox"/> Photographs including date and GIS information |
| <input checked="" type="checkbox"/> Topographic/Aerial maps |
| <input checked="" type="checkbox"/> Laboratory data including chain of custody |

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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Oil Conservation Division

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Printed Name: Charles Beauvais Title: Senior Environmental Engineer

Signature: Charles R. Beauvais Date: 3/17/2023

email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon Date: 03/20/2023

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|----------------|----------------|
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Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.

- Detailed description of proposed remediation technique
- Scaled sitemap with GPS coordinates showing delineation points
- Estimated volume of material to be remediated
- Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Charles Beauvais Title: Senior Environmental Engineer
 Signature: Charles R. Beauvais 99 Date: 3/17/2023
 email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon Date: 03/20/2023

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: Jennifer Nobui Date: 04/24/2023

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 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 198347

CONDITIONS

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|---|---|
| Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701 | OGRID: 229137 |
| | Action Number: 198347 |
| | Action Type: [C-141] Release Corrective Action (C-141) |

CONDITIONS

| Created By | Condition | Condition Date |
|------------|----------------------------|----------------|
| jnobui | Remediation Plan Approved. | 4/24/2023 |