

SITE-SPECIFIC QUALITY ASSURANCE & QUALITY CONTROL AUDIT



Permit Closure Type – Final

PERMIT CLOSURE REPORT – RANGELAND

Location ID 331623

Location Name DOW-LAURA-65N63W/28NENW

Report Date

28 January 2025 - Revision

6 December 2024

Soil Sage has conducted a thorough data audit as part of our Quality Assurance and Quality Control (QA/QC) protocols.

Quality Assurance & Quality Control Audit

Auditor	Soil Sage
Audit Date	05/02/2023
Review Audit Date	12-06/2024

Audit Methodology

The following source materials were consulted during the QA and QC audit process:

- ✓ Site Permit Closures provided by CIVITAS Resources
- ✓ Colorado Oil & Gas Information System – COGIS Database
- ✓ On-site Evaluation and Proprietary Soil Sage Drone Imagery data collection
- ✓ Review of legacy imagery for site location and facility parameters

All pertinent data, imagery, and materials are included at the end of this report.

Site Description

Name	DOW-LAURA-65N63W/28NENW		
Location ID	331623		
Operator / #	HIGHPOINT OPERATING CORPORATION / 10071		
Field	WATTENBERG 90750		
County, State	WELD		
Lat/Long	40.376060 / -104.442790		
	Planned Location	X	As Drilled
Facility Status	CL	Location	NENW 28 5N63W
Facility Status Date	12/07/2013	Access Road	Oil & Gas Access
Facility Entities	X	Tank Battery	Pits
	X	Wells	X Off-Location Flowlines (Form 44)
		Domestic Taps	X On-Location Flowlines (Form 42)
Equipment Remaining on Site	X	None	Debris or Non-Oil & Gas
		List of Equipment	
Environment Incidents & Remediation	X	None	Spill or Release (Form 19)
		Remediation (Form 27/27A)	
Inspection Corrective Actions (CA)s	<p>Corrective Actions (CA)s were detected during the QA & QC Audit.</p> <p>CA Overall Status: 1 of 1 CAs with a response</p> <p>Originating Field Inspection Doc # & Date: 697504608 & 04/28/2023</p> <ul style="list-style-type: none"> See "Field Inspection Form" section of this report below for details. <p>Complete COGCC Inspection Search Results: Link</p>		
Sundry Notice (Form 4)	No Form 4s were detected during this QA & QC Audit.		
On Location Flowlines (Form 42)	Form 42s exist for Related Facilities – See individual scout card data for report details.		
Off-Location Flowlines (Form 44)	No Form 44s were detected during the QA & QC Audit.		
Field Inspection Form (Form INSP)	<p>Form INSP Doc # & Date: 713900925 & 09/06/2024</p> <ul style="list-style-type: none"> Status Summary: Follow Up Inspection Required Findings: 5 Comments, 0 Corrective Actions Inspected Facilities: Well DOW-LAURA-65N63W/28NENW Inspection Status: RI – Reclamation Inspection (Final) Inspection Date & Inspector: 08/28/2024 by Logan Hansen 		

	<p>Comments: This is a follow-up Final Reclamation Inspection to FIR #697504608. In the previous inspection it was determined that a reclamation plan with soil analysis would be required which was then submitted via Form 4 (Document #403597211).</p> <p>Well was plugged and abandoned 12/07/2013.</p> <p>EQUIPMENT: No visual evidence of oil and gas equipment at the well or associated tank battery location. Refer to the attached inspection photos.</p> <p>RECLAMATION: It appears the Operator has performed final reclamation at the historic tank battery and well location. The access road will be addressed under an inspection report for Location ID 447290. Based on observations during the inspection the tank battery area appears to pass final reclamation standards however the well does not yet pass and therefore the location will remain IN PROCESS. Operator shall continue to monitor and manage this site until the location meets Rule 1004 standards, including stormwater and weed management. Operator shall submit a Form 4 Final Reclamation Complete notice when the location meets Rule 1004 standards. ECMC may conduct inspections prior to receiving said notice to ensure compliance with Rule 1004.</p> <p>STORMWATER: At the time of this inspection, no stormwater erosion issues were observed at the location or along the access road.</p> <p>Overall Final Reclamation: In progress</p> <p>Attachments: Inspection Photos Doc #713900932</p>
	<p>Form INSP Doc # & Date: 697504608 & 04/28/2023</p> <ul style="list-style-type: none"> ○ Status Summary: Follow Up Inspection Required, Corrective Action Required ○ Inspected Facilities: Well DOW-LAURA 3-28 ○ Inspection Status: RI – Reclamation Inspection (Final) ○ Inspection Date & Inspector: 04/20/2023 by Chris Binschus <p>Complaint #: 403379491</p> <p>Nature of Complaint: CPW (landowner) had concerns about failed reclamation that was previously performed by BONANZA CREEK approximately three years ago.</p> <p>Comments: This inspection only covers the well location. The access road and tank battery are being addressed under a separate inspection (FIR Doc # 697504606) – see Note in the Tank Battery</p>

	<p>section of this report below for clarification. The well location consisted mostly of weeds with little to no perennial vegetation that is not reflective of reference areas. Due to the lack of desirable vegetation establishment, COGCC is requiring soil sampling. Operator shall take samples along portions of the failed reclamation and background reference samples for comparison. Operator shall take discrete samples at six (6) inches intervals to a minimum depth of two (2) feet. See COGCC Comments Section for details on analytics. Note- Operator may need to install temporary fencing to facilitate on-going grazing operations.</p> <p>Corrective Action: Comply with Rule 1004 to conduct additional reclamation. The corrective action date is the date the location was observed out of compliance.</p> <p>CA Date: 04/20/2023</p> <p>Overall Final Reclamation: Fail</p> <p>Attachments: Inspection Photos Doc # 697504615</p>
<p>COGIS Tank Facilities Information (Scout Card)</p>	<p>No Tank Battery forms were detected during this QA & QC Audit. However, a review of past Field Inspection Reports for this location revealed GPS coordinates of a crude oil steel tank believed to be associated with this location’s tank battery (nearby to the SE). GPS coordinates: 40.375790 /-104.442540 were detected in Inspection Doc # 674000022. Additionally, a Site Layout (Doc # 1217648) shows the Tank Battery and related production facilities approximately 80 feet to the SE of the wellhead.</p> <p>Note: This location’s Reclamation Inspection Doc # 697504608 states “This inspection only covers the well location. The access road and this tank battery are being addressed under a separate inspection (FIR Doc # 697504606) for Location 331251.” However, based on this audit’s findings, the Tank Battery is not actually the Tank Battery associated with 331251 (which is Location 447290) as stated.</p>
<p>COGIS Well Information (Scout Card)</p>	<p>Well Name: DOW-LAURA #3-28</p> <p>API#: 05-123-21000</p> <p>FACILITY ID: 264041</p> <ul style="list-style-type: none"> ○ Status & Date: PA & 12/07/2013 ○ Lat/Long As Drilled: 40.376060 / -104.442790 ○ Form 6 Subsequent Doc # & Date: 400527149 & 02/06/2014 ○ Form 42 Doc # & Date: 400638465 & 07/02/2014 <p>Purpose: Flowlines Abandoned on 12/16/2013</p>

COGCC Abbreviations: [Location & Facility Status Codes](#), [Inspection Types & Statuses](#) and [COGCC Help](#).

Audit Key Findings – Designation Land Use Observations

PREVIOUS LAND USE	CURRENT LAND USE
Reference Imagery for Infrastructure: Landsat/Copernicus 2013	Remotely Sensed Imagery: 09/11/2024
Designation: Oil and Gas Facility	Designation: Rangeland

The following imagery sources were reviewed during this audit:

EarthExplorer, DRCOG 2002 - 2014, NAIP Imagery 2011, 2013, 2015, 2017, 2019, 2021, ESRI Maxar and Remotely Sensed Imagery Sep 2022

Closure Information

This recent inspection states: Based on observations during the inspection the tank battery area appears to pass final reclamation standards however the well has not yet passed and therefore the location will remain **IN PROCESS**.

Landowner Colorado Parks and Wildlife (CPW) filed a complaint on 04/20/2023 stating concerns about failed reclamation activities at the Centennial Valley State Wildlife Area performed by operator BONANZA CREEK ENERGY OPERATING COMPANY LLC approximately three years ago. In response, COGCC Reclamation Specialist Chris Binschus performed a Reclamation Inspection of the area that failed and identified one Corrective Action (CA) requiring the operator to perform soil sampling.

The inspection only covers Well DOW-LAURA #3-28 at this Location (331623). The access road and associated Tank Battery are covered under the Final Reclamation inspection for nearby Location 331251. Note: Despite being written in the failed Final Reclamation inspection, the Tank Battery for 331623 is approximately 80 feet SE of the Well DOW-LAURA #3-28 and not the Tank Battery location (447290) referenced for Location 331251 which is approximately 1280 feet East of the wellhead. The inspection noted the area consisted mostly of weeds with little to no perennial vegetation that is not reflective of reference areas.

Variance

Associated facility - Road variance for segment 331251 (1906 ft) is forthcoming and will be submitted in a separate document.

Site Photos

Site Investigation and Photos Date

09/11/2024

Cardinal directional photos of the site



North



East



East



South



West

ATTACHMENTS

Reclamation Plan

Site Specific Reclamation Plan
Field Photos
Grass Only Seed Mix
Full Seed Mix

Maps and Figures

Location Maps

CPW Overview Roads and Reclamation Extents

Area Maps

Overview
Overview Seed and Straw Crimp

APPENDICES

Data

Soil Analytical Spreadsheet
Ward Laboratory Analysis (Sep and Nov 2024)
Pace Laboratory Analysis (Sep and Nov 2024)

SITE-SPECIFIC RECLAMATION PLAN



Permit Closure Type – Final

Failed Reclamation Inspection

Site Description

Name	DOW-LAURA-65N63W/28NENW
Location ID	331623
Operator / #	BONANZA CREEK ENERGY OPERATING COMPANY LLC / 8960
Field	WATTENBERG / 90750
County, State	WELD, CO
Associated Facilities	Tank Battery, On- and Off-Location Flowline

Report Date

28 Jan 2024

12 Dec 2024

Site Evaluation

Investigator: Soil Sage

Investigation Date: 11 Sep 2024

Previous Investigation Date: 2-4 May 2023

Reference Soil Information: This site is comprised within one soil type, Map Unit 10 - Ellicott-Ellicott sandy-skeletal complex, 0 to 3 percent slopes, sandy texture surface and at depth. These soils are formed from noncalcareous, stratified sandy alluvium. Landform is drainageways, flood plains on intermittent streams. Excessively drained with a very low available water holding capacity. Depth ranges from 0 – 10 inches, the pH is 6.5 and the organic matter is 0.35%.

Current Land Use in Reference Area: Range land

Observations

The Northern section is intermixed leased grazing land and “native” ecosystem along the South Platte River. Final reclamation is progressing slowly and remains in progress.

Vegetation

During the September and Nov sampling events, late Summer/Fall vegetation characteristics were present; grasses and some weeds are the primary vegetation during the site visit.

Weeds

Weed Summary Reference

Common Name	Weed List Type
Kochia in the area	Common

Weed Inventory Criteria

- Each site is accessed for noxious weeds and common weeds
- Data are aggregated using point locations coupled with percent cover assessments and area measurements as needed
- Governance - Colorado Department of Agriculture - Colorado Noxious Weeds List, effective October 2020
- List A - Designated for eradication, List B - Designed to stop the continued spread, List C - Facilitate more integrated effective weed management, Watch List - Determined to pose a potential threat to agriculture and natural productivity.
- Common - designates weeds that do not fall within the Colorado Department of Agriculture lists
- Other - designates other identified weeds at the site

Site Characteristics

Hydrology

Reference 2023 Reclamation plan for additional hydrology information.

Hydrology – Stream Orders 1 – 5 are present - dominant streams are orders are 1, 2 and 3. Order 3 are present in locations that have the potential for soil erosion represented by gullying and riling that follow the elevation gradient from high to low within the current reclaim extent. These could be major runoff areas for gullying and soil erosion with heavy precipitation events.

Ponding - potential ponding can occur where water follows the elevation gradients in low lying area.

Soil/Erosion

Exposed soils have low susceptibility to water erosion and are in the high susceptible group for wind erosion due to ecosystem dynamics and vegetative cover.

Summary Reclamation Acreage Table

Description	Acres
Reclaim Extent	0.03

Reference Overview, and Seed Maps

Seed Mix

Vegetation Seed Mix

Seed mixed provided by surface owner

Refer to the North Sandy Seed Mix for seeding rate

SEEDING Recommend interseeding grasses in the spring fall until successful establishment has been achieved. Subsequent seeding with remaining seed mix (forbs and shrubs) in 2 to 4 years. **NOTE:** Weed control will impact forbs and shrubs during re-establishment.

Site Monitoring

Continue monitoring for vegetative recovery and weed control.

Reclamation

If grazing operations are affecting reclamation efforts, consider using temporary electric fencing to protect the area until vegetation is sufficiently established to withstand grazing pressure.

Reclaim Area Protocol

Step	Description	Complete Date
Soil Samples	Collection of soil samples from the site	9 Sep2024 18 Nov 2024
Seeding Spring (Grasses Only)	Planting appropriate North sandy seed mix for reclamation – grasses only	Week of Mar 17, 2025
Interseed Fall (Grasses Only)	Interseed with appropriate North sandy seed mix – grasses only	Evaluate Week of Seo 8, 2025
Monitor	Continuous monitoring post reclamation	April 7 – Oct 6 2025
Weed Management	Monthly monitoring is recommended with appropriate herbicide control	April 7 – Oct 6, 2025
Temporary Electric Fence	Reclamation affected by grazing, use temporary electric fencing	As Needed
Interseed remaining North Sandy seed mix in 2 to 4 years	After successful grass establishment has occurred, interseed forbs and shrub species in 2 to 4 years.	2027 or 2029

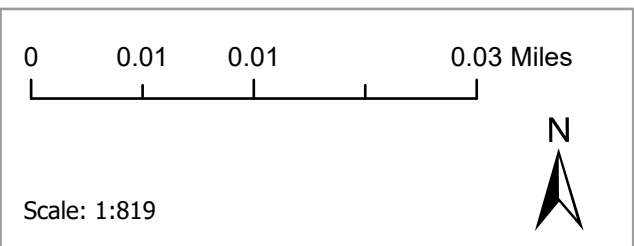


**CIV - 331251 - DOW-LAURA-65N63W/
28NENW**

Map Extent - Overview

Imagery: RS Orthomosaic & DSM
 Imagery Date: 9 SEP 2024
 Map Date: 13 Dec 2024
 Datum: NAD_1983_UTM_Zone_13N
 POC: Soil Sage

- ◆ Oil and Gas Location
 - ▲ Location Soil Samples Sep 2024
 - Reference Soil Samples Nov 2024
- Reclaim Extent
- Location



Service Credits - Esri Community Maps
 Contributors, © OpenStreetMap, Microsoft,
 Esri, TomTom, Garmin, SuficiGraph,
 GeoTechnologies, Inc., MET/NASA, USGS,
 EPA, NPS, US Census Bureau, USDA,
 USFWS





Seed Only Acres - 0.03

331623
331623 -
Reclaim 6 in
- 0.03 ac

331251

**CIV - 331251 - DOW-LAURA-65N63W/
28NENW**

Map Extent - Overview Seed

Imagery: RS Orthomosaic & DSM
Imagery Date: 9 SEP 2024
Map Date: 13 Dec 2024
Datum: NAD_1983_UTM_Zone_13N
POC: Soil Sage

- ◆ Oil and Gas Location
- Seed & Straw Crimp
- ▨ Location

0 0.01 0.01 0.03 Miles

Scale: 1:819

Service Credits - Esri Community Maps
Contributors, © OpenStreetMap, Microsoft,
Esri, TomTom, Garmin, SuficiGraph,
GeoTechnologies, Inc., MET/NASA, USGS,
EPA, NPS, US Census Bureau, USDA,
USFWS



CPW - Reference Soil Samples 18 Nov 2024

Location_ID : 331251 - 331623

Latitude : 40.376529

Soil_ID : 09

Longitude : -104.442627

Depth : 24

Notes : Soil Sample 3



Grass Seeding PART I - Planned

Cooperator	Area 3 SWA Sandy soil seed mix	Date	
Tract/Field No		Acres	
Soil Survey Area		Map Unit (s)	1
Contract No.		CIN	
Seeding dates	Nov 1 - Apr 30	Purpose	Other
Seedbed preparation	No Till	Seed rate	20
Drill type	no-till grass	Acres to be seeded	1.00
Planting depth-Drill spacing (in)	.25 ----7-10inches		
Planned fertilizer application (lb/ac)	N	P ₂ O ₅	K ₂ O
Planned weed control activities	Description	Herbicide	Attach WIN-PST Soil-Pesticide Interaction Risk Report for all chemical suppression activities
	Date(s)	as needed	
Planned residue cover or mulch	Type	Other NRCS approved cover	
	Amount (lb/ac)		
	Application method		

A Nutrient Management Plan is not required for the establishment of vegetative conservation practices.

Seed Mix Recommendation, † ‡

Common name N=Native, I=introduced	Genus, species	Recommended Cultivar	% of seed mix	Pounds (lbs) pure live seed (PLS)
Grasses, forbs				
Switchgrass	Native <i>Panicum virgatum</i>	Blackwell	20.0	0.45
Little bluestem	Native <i>Schizachyrium scoparium</i>	Aldous, cimm.,camper, blaze	12.5	0.42
Yellow indiagrass	Native <i>Sorghastrum nutans</i>	cheyenne	15.0	0.77
Sand bluestem	Native <i>Andropogon hallii</i>	chet	15.0	1.19
Prairie sandreed	Native <i>Calimovilfa longifolia</i>	Goshen	4.0	0.13
Indian ricegrass	Native <i>Achnatherum hymenoides</i>	Paloma, Rimrock	2.0	0.12
Blanketflower	Native <i>Gaillardia aristata</i>		3.0	0.13
Maxmilian sunflower	Native <i>Helianthus maximilianii</i>		3.0	0.15
Prairie Coneflower	Native <i>Ratibida columnifera</i>		3.0	0.03
Purple prairie clover	Native <i>Dalea purpurea purpurea</i>		2.0	0.06
Annual sunflower	Native <i>Helianthus annuus</i>		2.0	0.29
Small burnet	roduced <i>Sanguisorba minor</i>		3.0	0.62
Alfalfa	roduced <i>Medicago sativa</i>		3.0	0.12
Sainfoin	roduced <i>Onobrychis vicifolia</i>		3.0	0.87
Yellow sweetclover	roduced <i>Melilotus officinale</i>		2.0	0.07
Western Yarrow	Native <i>Achillea lanulosa</i>		2.0	0.01
Blue flax	Native <i>Linum lewisii</i>		2.0	0.06
Black-eyed Susan	Native <i>Rudbeckia hirta</i>		3.5	0.02

Shrubs

Fourwing Saltbush	Native <i>Atriplex canescens</i>			0.10
skunkbush sumac	Native <i>Rhus trilobata</i>			0.17
0				0.00

Shrubs 0.27

† Certified Seed is required for all NRCS cost share programs

Grasses, Forbs 5.49

‡ Complete a Tree and Shrub Establishment 612 Job Sheet for bare-root shrub plantings

Total lbs PLS 5.76

Seed Rate (lbs PLS/acre) 5.76