

Annual Reclamation Assessment Report (2023)

ECMC Location Name (ID)	MATT-64N67W /24NWSW (331001)
Operator Location Name	Matt 1 Well Pad & Facility
ECMC Operator Name (ID)	PDC ENERGY, INC (69175)
Legal Description	NWSW Sec. 24 T4N-R67W
Well Pad Geographic Coordinates (WGS84)	40.295627/ -104.846841
Facility Pad Geographic Coordinates (WGS84)	40.294865/-104.848239

Introduction

Confluence Compliance Companies, LLC (Confluence) prepared this Annual Reclamation Assessment Report (Report) for PDC Energy Inc. (PDC) to document the results of reclamation monitoring and maintenance activities on the Matt 1 well pad and tank battery locations, hereafter singularly as "Location" or plurally as "Locations". Following a complaint by the surface owner about subsurface impacts at the Locations, PDC entered an agreement with the Energy & Carbon Management Commission (ECMC) to increase the frequency of vegetation monitoring and maintenance at the Locations until reclamation success was achieved.

During the 2023 growing season, Confluence personnel conducted assessments to compare vegetation on the reclaimed Locations ("reclaim" singularly and "reclaims" plurally) with vegetation on adjacent undisturbed reference surfaces with similar growing conditions (reference). Soil samples were also collected to compare conditions between the reclaims and reference areas to determine if differences in agronomic conditions in reclaim soils could be identified. This Report includes additional information on project background, a review of methodology for data collection, analysis, and reporting, and conclusions and recommendations from the results of this year's efforts. Additional documentation of these efforts are also attached, including maps and diagrams, field reports and data, and photo logs.

Background

The Matt 1 well pad (API: 05-123-20011) and tank battery (Locations) are found on private surface 2.4 miles south-southeast of Milliken, Colorado in Weld County. The Matt 1 well was drilled September 27, 2000 by Southwestern Production Corporation (operator # 81415). PDC acquired the location June 30, 2012 and plugged and abandoned (P&A) the well and performed facility decommissioning in June of 2014 (Form 6 Document: 400825204). The historical well pad surface disturbance was less than 1 acre and was accessed via a preexisting surface owner access road. The facility is located 500 feet southwest of the well site with a historical surface disturbance of 0.43 acres. The Locations were reclaimed following well plugging and abandonment and have received annual monitoring of vegetation since then. Between Spring 2021 and Fall 2023, Confluence conducted seasonal reclamation assessments, collected and analyzed field data, and recommended site maintenance and further investigations based on observed conditions. A more detailed list of activities, with dates, is provided as an attachment to this report.

Methods

In preparation for the 2023 field season, Confluence reviewed historical records, consulted with PDC project personnel, and prepared a scope of work (SOW) to support collection of additional information about site conditions with the potential to affect revegetation success on the reclaims. Confluence prepared for, site assessments to complete qualitative and quantitative vegetation assessments, collection of samples to characterize agronomic soil conditions, drone flights to collect high resolution aerial imagery of current conditions, and other observations related to current or ongoing conditions which are, or have the potential to, affect reclamation success. These activities are discussed in more detail in the subsections below.

Vegetation Assessment

Confluence completes a qualitative assessment of overall vegetation condition and reclamation status any time they evaluate a reclaimed surface. These qualitative Vegetation Progress Evaluations (VPE) provide an appraisal of a reclaimed surface based on regulatory requirements and/or client specifications, and whether the assessed condition indicates the need for vegetation management or other maintenance activities, or if it appears the site has met standards and a more thorough quantitative assessment is warranted. In the event a VPE indicates a site meets reclamation standards and/or there is a request or other reason to collect more detailed information on reclaim vegetation status, Confluence will conduct a Quantitative Vegetation Assessment (QVS) based on an approved methodology for the project area.

Confluence deploys a line-point intercept (LPI) vegetation cover survey method with plot-level species inventories from the Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems (Volume 2) [1]. Foliar and basal cover, along with non-vegetated and noxious weed occurrences, are documented at each survey point within the two reclaim transects and within two reference transects. Each transect contains 50 survey points for a total of 100 points in the reclaim and 100 survey points in the reference.

Within the reclaim, transects are selected to run through areas of the historical surface disturbance that are representative of overall site condition. Wherever feasible, reference areas are selected to ensure that comparative assessments occur in areas not previously impacted by oil and gas operations or other surface disturbing activities, have similar slope and aspect to the reclaimed surface, and are to the extent practicable, reflective of pre-disturbance conditions or desired final ecological condition for the reclaimed surface. Survey point data are documented in the attached Transect Detail – Field Data Tables. Photographs are collected throughout the survey to document site conditions and depict transects. These photos are included in the Vegetation Assessment Photo Log. The Reclamation Survey Site Diagram illustrates transect locations as well as photo collection points.

Noxious weeds listed by the Colorado Department of Agriculture are excluded from the percent of reference vegetative coverage calculations, per ECMC Rule 1004.d. Undesirable cover includes species identified by the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) as introduced and not native to the lower 48 states, and not considered beneficial for reclamation purposes. All other vegetation not classified as noxious or undesirable, is identified by growth habit (grass, forb, shrub) and is considered desirable vegetative cover.



Soil Sampling

To evaluate other potential causes of lagging progress in revegetation efforts, soil samples are collected from the Locations and associated reference areas to compare soil conditions. Samples are collected at 0.5 feet below ground surface (bgs) and 1.5 feet bgs. Collected samples are submitted for laboratory analysis under chain of custody.

Results

Vegetation Assessment

On May 25, 2023, VPEs were completed on the Locations. Subsidence was observed at the site of the former well head despite repair during the 2022 growing season. Additionally, a bare spot was noted at the former facility site where the surface owner previously stored an unstabilized stockpile of road base. Both Locations showed evidence of stormwater run-on resulting in deposition of sediment and woody debris which impacted and/or buried reclaim vegetation. A railroad stormwater conduit, 335 feet northwest of the well reclaim was identified as the primary source of stormwater run-on. The attached VPE reports illustrate document Location conditions, including photos and other assessment details.

The Quantitative Vegetation Survey (QVS) was conducted on September 5, 2023. A summary of findings is presented in the tables below. Additional detail on survey results can be found in the attached summary of field data, relative foliar species abundance tables, and field data tables.

Table 1: Well Reclaimed Surface QVS Results			
Reclaim Vegetation Cover	Cover (%)	Reference Vegetation Cover	Cover (%)
Desirable Foliar Cover	40.0	Desirable Foliar Cover	60.0
Undesirable Foliar Cover	32.0	Undesirable Foliar Cover	24.0
Noxious Weed Foliar Cover	8.0	Noxious Weed Foliar Cover	10.0
Desirable vegetation comparison (reclaim/reference)			67%

Table 2: Facility Reclaimed Surface QVS Results			
Reclaim Vegetation Cover	Cover (%)	Reference Vegetation Cover	Cover (%)
Desirable Foliar Cover	56.0	Desirable Foliar Cover	60.0
Undesirable Foliar Cover	29.0	Undesirable Foliar Cover	24.0
Noxious Weed Foliar Cover	0.0	Noxious Weed Foliar Cover	10.0
Desirable vegetation comparison (reclaim/reference)			93%



Soil Sampling

On May 25, 2023 eight soil samples were collected from the reclaims and six background samples were collected from the associated reference areas. At the former well site, two sample locations were selected; one north of the former well head and one near the plugged and abandoned well. At the former facility reclaim, two sample locations were selected; one at the site of the former tank battery and one at the site of the former separator. Three reference sample locations were selected within the reference area; one east of the former well, one south of the well reclaim, and one between the former well and facility reclaims. Sample locations are illustrated in the attached Soil Sample Site Diagram.

While collecting soil samples field staff observed evidence of surface flow and inundation, in and around the reclaims, which resulted in sediment deposition. At the well reclaim, the top six inches of soil was newly deposited sediment. This observation was also made at the two eastern reference samples though sedimentation extended to a depth of four inches. Sedimentation was less notable at the facility reclaim and reference sample point north of the facility reclaim where sedimentation was observed to a depth of up to one inch.

Agronomic soil sample results indicate that soil conditions within both the reclaim and reference are within the normal range for native grasslands based on pH, salts, and organic matter percent. Though findings of all samples fall within the normal range, organic matter percent is lower within well site samples relative to reference samples. Based on these findings, both reclaim and reference soils are sufficient to support vegetation establishment. Additional detail on soil sampling can be found in the attached Soil Sample Site Diagram and Laboratory Results.

Analysis and Recommendations

Based on observed conditions, stormwater inundation and sedimentation, will continue to occur, making successful reclamation improbable. Confluence recommends PDC pursue a variance for these Locations to request deviation from certain ECMC 1004 rules for final reclamation because offsite stormwater management is beyond the scope of these reclamation projects or PDC's control. Stormwater run-on control measures would need to be installed up-gradient and offsite by the surface owner and/or other stakeholders responsible for that surface and would change the hydrology and character of the floodplain in this area. This conclusion is based on observed field conditions, soil sample results, past and current QVS findings, and a desktop flow analysis of the drainage basin upgradient of the Locations. Analysis of these findings and the basis for conclusions provided here are presented below.

2023 QVS results indicate that while the well reclaim does not meet the required 80% threshold for final reclamation vegetation establishment specified by the ECMC, the facility reclaim does. In 2021, prior to the storm events that caused stormwater inundation and sediment deposition, the well site met ECMC reclamation standards with a vegetative cover that was 113.6% of reference. However, since these sites are co-permitted under a single ECMC Location ID, a typical reclamation completion notice could not be submitted in 2021 for the well site due to the status of the facility at that time, and a similar challenge is faced today with reclaim statuses reversed.

A flow analysis of the upgradient drainage basin found that 373 acres contribute stormwater and suspended sediment to the reclaimed Locations. The Locations are directly downgradient of the basin and fall within the floodplain and filled oxbow of the South Platte River. An abandoned



railroad spur traverses the landscape north of the project area, and a culvert installed for the upgradient drainage, discharges to the flood plain directly above the reclaimed Locations. The steep, upgradient drainage mobilizes sediment, before the culvert concentrates stormwater flow right before inundating the reclaimed locations and surrounding floodplain.

Based on 2023 observations, multiple years of vegetation monitoring, and an assessment of hydrologic conditions in the area, stormwater inundation and sediment deposition have and will continue to pose the greatest obstacle to meeting ECMC reclamation standards. Despite PDC implementation of reclamation best practices and ongoing monitoring and maintenance efforts, successful reclamation under 1004.d. is unlikely to succeed. Confluence recommends submitting a variance based on current and past assessments, that demonstrate that reclamation practices are not limiting compliance with rules for final reclamation but the ongoing disturbance resulting from offsite stormwater run-on and sediment deposition is the limiting factor in achieving reclamation success.

Confluence appreciates the opportunity to provide environmental consulting services on this project. If you have any questions about our methodology, the results of this assessment, or our conclusions, please let me know.

Respectfully,



Carolyn Craveiro de Sá
Reclamation Program Scientist
720.289.1631 (M)
carolyn@confluence-cc.com



Attachments

1. Figures
 - a. Topographic Location Map
 - b. Soil Sample Site Diagram
 - c. Reclamation Site Survey Diagram
 - d. Matt 1 Flow Analysis Site Overview
2. Matt 1 Construction, Operation, & Reclamation Timeline
3. Vegetation Progress Evaluation (VPE) Reports
 - a. Well Summary of Field Data
 - b. Well VPE Photolog
 - c. Facility Summary of Field Data
 - d. Facility Photolog
4. Soil Sample Analytical Results
5. Quantitative Vegetation Survey (QVS) Reports
 - a. Well QVS Report
 - b. Well QVS Photolog
 - c. Facility QVS Report
 - d. Facility QVS Photolog

References

1. Herrcik, Jeffrey E, et al. "Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems." Monitoring Manual, 2nd Edition, USDA - ARS Jornada Experimental Range, 2009, <https://aim.landscapetoolbox.org/wp-content/uploads/2015/08/Monitoring-Manual-Volume-II.pdf>.



Figures



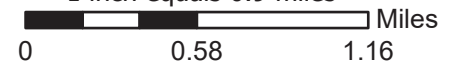
Topographic Location Map

PDC Energy Inc

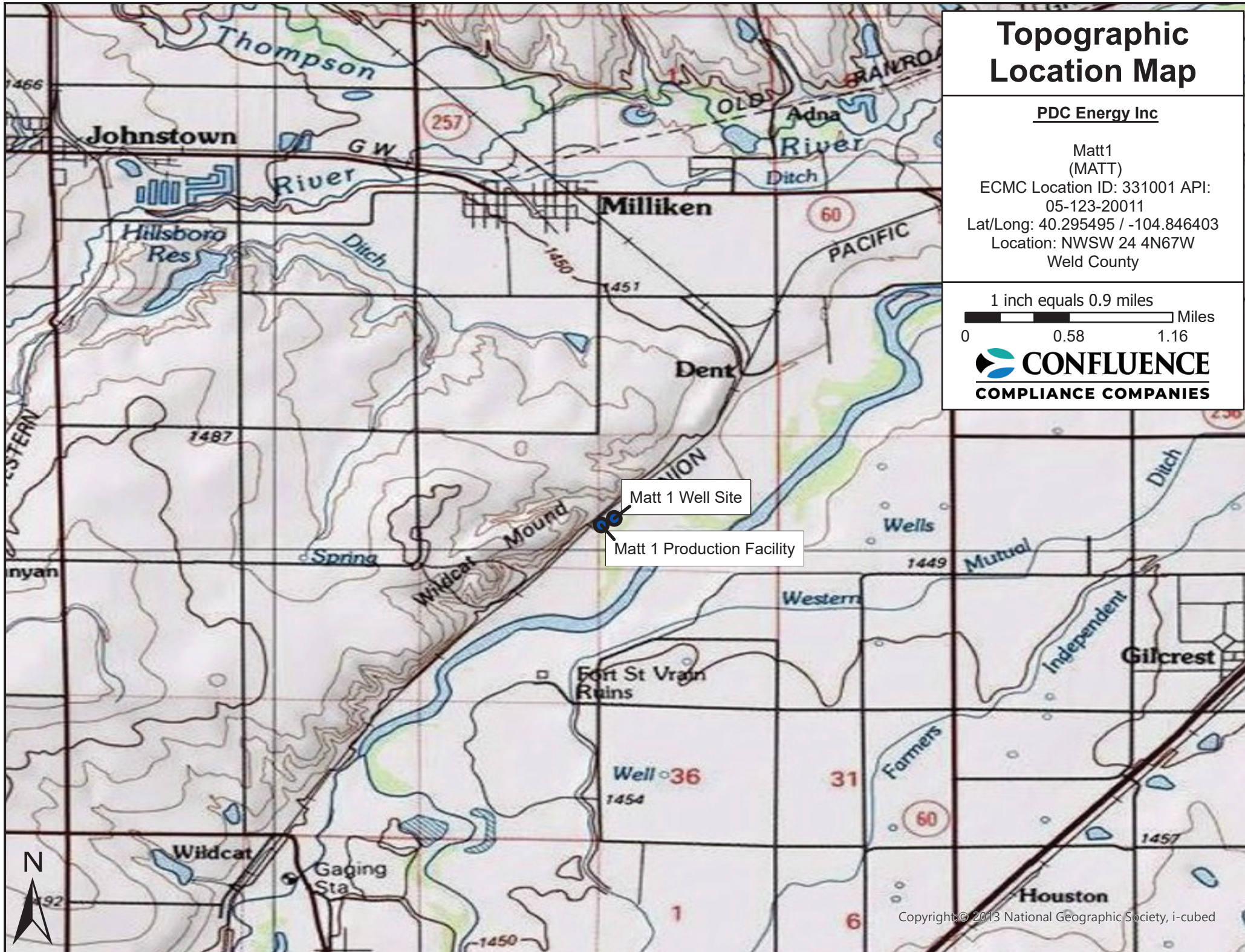
Matt1
(MATT)

ECMC Location ID: 331001 API:
05-123-20011
Lat/Long: 40.295495 / -104.846403
Location: NWSW 24 4N67W
Weld County

1 inch equals 0.9 miles



 **CONFLUENCE**
COMPLIANCE COMPANIES



Soil Sample Site Diagram

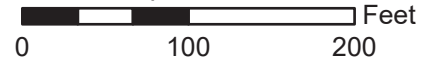
PDC Energy Inc

Matt1
(MATT)
ECMC Location ID: 331001
API: 05-123-20011
Lat/Long: 40.295495 / -104.846403
Location: NWSW 24 4N67W
Weld County

● Soil Sample Locations

■ Reclaimed Surface

1 inch equals 151 feet



Spatial data was collected using a handheld GPS unit with submeter accuracy. Illustration discrepancies may be present in this diagram due to the inherent limitations of data accuracy for both project data and the underlying aerial imagery. The position of illustrated data may have been manually adjusted to align with the aerial imagery in a manner more representative of field conditions for presentation purposes only



230525_Matt1(wellN@0.5)
230525_Matt1(wellN@1.5)

230525_Matt1(wellS@0.5)
230525_Matt1(wellS@1.5)

230525_BG(WN@0.5)
230525_BG(WN@1.5)

230525_BG(F@0.5)
230525_BG(F@1.5)

230525_Matt1(TB@0.5)
230525_Matt1(TB@1.5)

230525_BG(WS@0.5)
230525_BG(WS@1.5)

230525_Matt1(Sep@0.5)
230525_Matt1(Sep@1.5)








Reclamation Site Survey Diagram

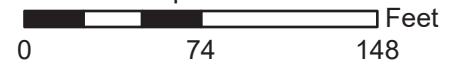
PDC Energy Inc

Matt1
(MATT)

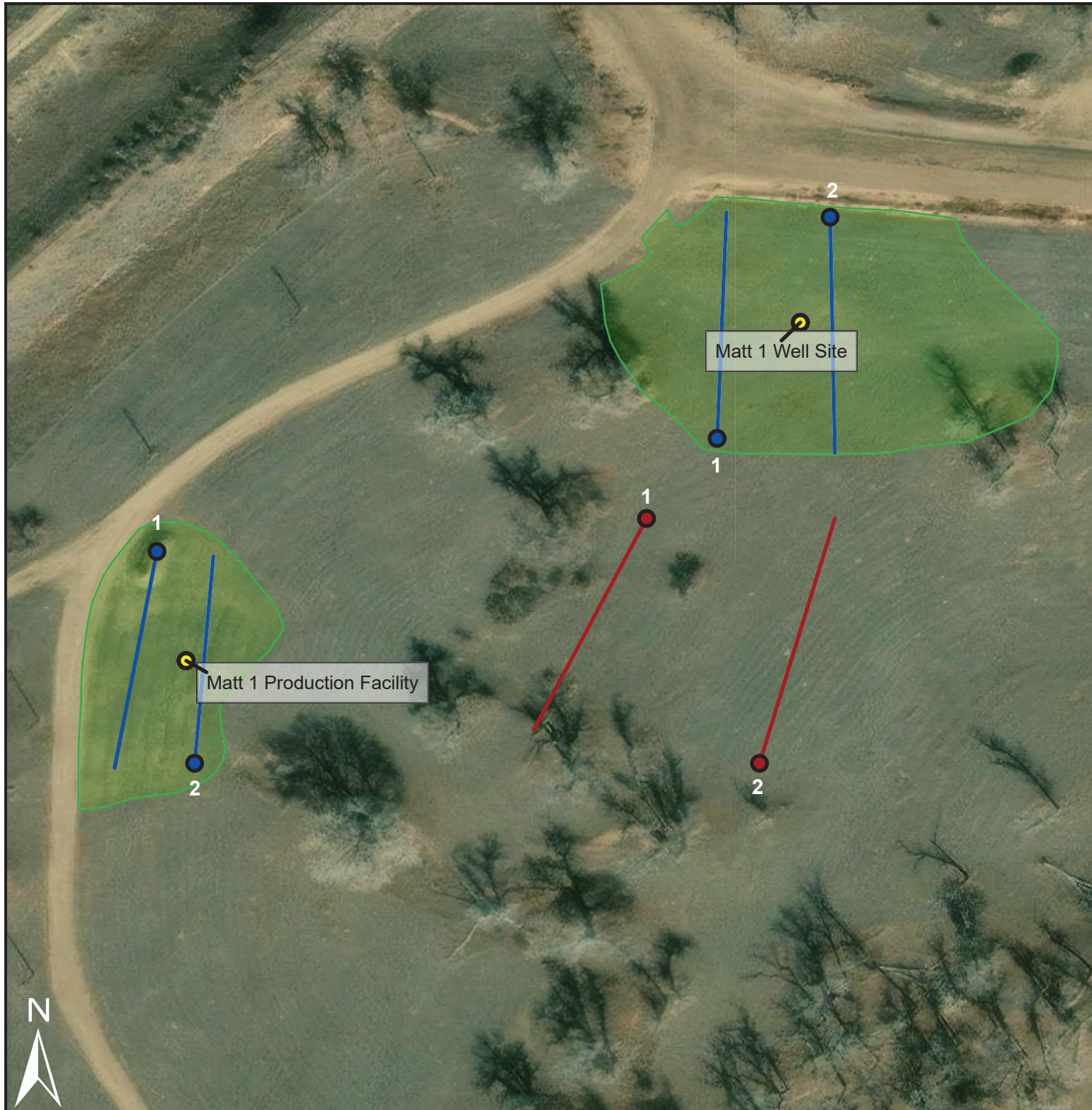
ECMC Location ID: 331001
API: 05-123-20011
Lat/Long: 40.295495 / -104.846403
Location: NWSW 24 4N67W
Weld County

-  Reclaim Transect Photo Point
-  Reference Transect Photo Point
-  Reclaim Transect
-  Reference Transect
-  Reclaimed Surface


1 inch equals 105 feet




Spatial data was collected using a handheld GPS unit with submeter accuracy. Illustration discrepancies may be present in this diagram due to the inherent limitations of data accuracy for both project data and the underlying aerial imagery. The position of illustrated data may have been manually adjusted to align with the aerial imagery in a manner more representative of field conditions for presentation purposes only




Matt 1 Flow Analysis Site Overview



 Area of Unmanaged Drainage (127.5 Acres)

 Approximate Matt 1 Drainage Basin (373.0 Acres)

1 inch equals 1,097 feet

 Feet
0 770 1,540

 **CONFLUENCE**
COMPLIANCE COMPANIES

 Well Site
 Production Facility



Maxar

Construction, Operation, & Reclamation Timeline



Matt 1 Construction, Operation, & Reclamation Timeline

ECMC Location Name (ID)	MATT-64N67W /24NWSW (331001)
Operator Location Name	Matt 1 Well Pad & Facility
ECMC Operator Name (ID)	PDC ENERGY, INC (69175)
Legal Description	NWSW Sec. 24 T4N-R67W
Well Pad Geographic Coordinates (WGS84)	40.295627/ -104.846841
Facility Pad Geographic Coordinates (WGS84)	40.294865/-104.848239

Season / Year	Action
Fall 2000	<ul style="list-style-type: none"> Southwestern Production Corporation (operator # 81415): Drilled well and constructed facility.
Summer 2012	<ul style="list-style-type: none"> PDC: Acquired Matt 1 Location.
Summer 2014	<ul style="list-style-type: none"> PDC: Plugged and abandoned well and decommissioned Location. PDC: Initiated final reclamation.
Summer 2019	<ul style="list-style-type: none"> PDC Contractor: Location maintenance.
Summer 2020	<ul style="list-style-type: none"> PDC Contractor: Location maintenance.
Spring 2021	<ul style="list-style-type: none"> Confluence: Vegetation Progress Evaluation with maintenance recommendations. PDC: Herbicide application and inter-seeding throughout the well pad.
Summer 2021	<ul style="list-style-type: none"> Confluence: Quantitative Vegetation Survey. PDC: Inter-seeding throughout bare regions of the Reclaimed Surface.
Fall 2021	<ul style="list-style-type: none"> PDC: Location mowed in conjunction with hay harvesting.
Spring 2022	<ul style="list-style-type: none"> Confluence: Vegetation Progress Evaluation with maintenance recommendations. PDC: Herbicide application completed on the well pad and both locations mowed.
Summer 2022	<ul style="list-style-type: none"> Confluence: Vegetation Progress Evaluation with maintenance recommendations. PDC: Subsidence corrected at well head, inter-seeding completed on both locations.
Spring 2023	<ul style="list-style-type: none"> PDC: Herbicide application at well and facility reclaims (5/3/2023). Confluence: Vegetation Progress Evaluation with maintenance recommendations. Soil sampling.
Summer 2023	<ul style="list-style-type: none"> PDC: Location aerated and drill seeded. Well subsidence repaired (6/30/2023). Herbicide application to well reclaim (7/28/2023). Well and facility reclaim interseeding (9/26/2023). Confluence: Quantitative Vegetation Survey. Drainage Basin Flow Analysis.

Vegetation progress Evaluation Reports



Vegetation Progress Evaluation - Summary of Field Data

Client	PDC Energy, Inc. (69175)
Operator Location Name	Matt 1
ECMC Location ID	331001
API	05-123-20011
Location Type	Well
Reclamation Phase	Final Reclaim
Location Coordinates	40.295627/-104.846841
Inspection Date	5/25/2023
Inspector Name	Carolyn Craveiro
Inspection Coordinates	40.295616, -104.846834

This survey was conducted to evaluate reclamation implementation and/or compliance with Energy and Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

Site Summary

The Matt 1 Well is located within non-crop lands. Based on ocular assessment, vegetative cover, composition, health, and/or vigor of the reclaim is not yet comparable to the reference. Weeds were observed within the reclaimed surface and are over represented in the plant community when compared to the reference. Weed management is recommended to mitigate undesirable vegetation. Weeds observed on the Location include Blue mustard (*Chorispora tenella*) - Undesirable, Leafy spurge (*Euphorbia esula*) - Noxious List B, and Whitetop (*Lepidium draba*) - Noxious List B. No oil and gas equipment, livestock disturbance, wildlife disturbance, or surface owner debris were observed on Location. Subsidence was observed around the former well head; a recommendation has been included specifying the subsidence extent and options for mitigation. Erosive features and other stormwater compliance concerns were observed on Location, a recommendation has been included to identify options for minimizing run on and sediment deposition. Bare areas greater than or equal to 1 square meter were observed within the reclaimed surface. Bare regions appear to be the result of intermittent flooding and associated sediment deposition.

Reclamation Benchmark Phase: 3

Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with ECMC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

Primary Recommendation: Maintenance	Rationale: Erosion observed within the reclaimed disturbance.	Description: Run on erosion is resulting in sediment deposition across the former well site. Confluence recommends evaluating the site for additional stormwater control measure installation and deposited sediment removal.
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Maintenance Contract Type: 3
Square Foot Estimate: 41392

Secondary Recommendation: Maintenance	Rationale: Subsidence observed within the reclaimed disturbance.	Description: The 600 square feet surrounding the former well head is below grade despite evidence of previous subsidence repair and reseeding. Confluence recommends subsidence repair during potential sediment removal operations.
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Maintenance Contract Type: 3
Square Foot Estimate: 600

Tertiary Recommendation: Maintenance	Rationale: Weeds are over-represented within the reclaim when compared to the reference.	Description: Listed noxious weed and undesirable weeds are overrepresented within the reclaimed surface. Confluence recommends weed management to suppress undesirable vegetation encroachment.
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Maintenance Contract Type: 1
Square Foot Estimate: 41392

Vegetation Progress Evaluation - Matt 1

ECMC Location ID	331001
API	05-123-20011
Location Type	Well
Reclamation Phase	Final Reclaim

Site Overview

Is the access road or access point present?	No
Is the access road or access point in use?	No
Is the surface owner using the disturbance area?	No

Vegetation Assessment

Current Land Use	Non-crop
Crop Type	NA
What is the % vegetation cover of the reclaimed disturbance?	5%
What is the % vegetation cover of the reference?	15%
What is the percent cover of the reclaim compared to the reference?	30%
Is the vegetative cover and composition of the reclaim comparable to the reference?	No
Are vegetation health and vigor of the reclaim comparable to the reference?	No
Are weeds present within the reclaim?	Yes
Are weedy species over represented within the reclaimed surface when compared to the reference?	Yes
Most common weed species observed:	Blue mustard (Chorispora tenella) - Undesirable
Second most common weed species observed:	Leafy spurge (Euphorbia esula) - Noxious List B
Third most common weed species observed:	Whitetop (Lepidium draba) - Noxious List B

Housekeeping

Is oil and gas equipment present on the location?	No
What oil and gas equipment is present?	NA
Are livestock or wildlife disturbances evident?	No
Is there surface owner trash or debris present on the reclaimed surface?	No

Soils

Has the reclaimed surface been disturbed by vehicles?	No
Was subsidence observed within the reclaimed surface?	Yes
Are cut and fill slopes evident?	No
Are any erosive features present on or adjacent to the reclaimed surface?	Yes
Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface?	No
Is soil staining and/or discoloration present on or adjacent to the reclaimed surface?	No
Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface?	Yes

Other Comments

Run on is originating from the surface owner road on the north and east edges of the pad. The majority of sediment is being deposited from an ephemeral stream located northeast of the site. Run on is causing intermittent flooding and sediment depositionit

Reviewed By C. Jones
 Form ID fc70e362-da02-4c5f-aeaa-27e6a65b2937
 Event ID 230518-Event0006

Client Unique ID Functional ID: CD2BBFA8C9F843FEA064EC1E2A20FD57, Asset/Well ID: E456D67075A44CF5AEE130B03FC672EB
 Confluence ID Asset ID: PDC046724L1WEL

Vegetation Progress Evaluation - Photo Log

Operator Location Name matt 1
Location Type Well Site
Event ID 230518-Event0006

DISTURBANCE OVERVIEW

Aerial Image – Historical Surface Disturbance



Aerial Image – Current Surface Disturbance



NOTE: Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

Vegetation Progress Evaluation - Photo Log

Operator Location Name matt 1

Location Type Well Site

Event ID 230518-Event0006

RECLAIMED SURFACE - DIRECTIONAL PHOTOS

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



East of Disturbance - Facing West



Vegetation Progress Evaluation - Photo Log

Operator Location Name matt 1
 Location Type Well Site
 Event ID 230518-Event0006

REFERENCE AREA - DIRECTIONAL PHOTOS

Reference Area - North of Reclaimed Surface	Reference Area - South of Reclaimed Surface
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Reference Area - West of Reclaimed Surface	Reference Area - East of Reclaimed Surface
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Vegetation Progress Evaluation - Photo Log

Operator Location Name matt 1

Location Type Well Site

Event ID 230518-Event0006

PRIMARY SITE RECOMMENDATION: Variance / Surface Owner Consultation

Recommendation Aerial Overview



Recommendation Context



NOTE: The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

Vegetation Progress Evaluation - Photo Log

Operator Location Name matt 1
Location Type Well Site
Event ID 230518-Event0006

SECONDARY SITE RECOMMENDATION: Maintenance

Recommendation Aerial Overview



Recommendation Context



NOTE: The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

Vegetation Progress Evaluation - Photo Log

Operator Location Name matt 1
Location Type Well Site
Event ID 230518-Event0006

TERTIARY SITE RECOMMENDATION: Maintenance

Recommendation Aerial Overview



Recommendation Context



NOTE: The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

Vegetation Progress Evaluation - Summary of Field Data

Client	PDC Energy, Inc. (69175)
Operator Location Name	Matt 1
ECMC Location ID	331001
API	(05-123-20011)
Location Type	Tank Battery
Reclamation Phase	Final Reclaim
Location Coordinates	40.294865/-104.848239
Inspection Date	5/25/2023
Inspector Name	Carolyn Craveiro
Inspection Coordinates	40.294918/-104.848208

This survey was conducted to evaluate reclamation implementation and/ or compliance with Energy and Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

Site Summary

The Matt 1 Tank Battery is located within non-crop lands. Based on ocular assessment, vegetative cover, composition, health, and/or vigor of the reclaim is comparable to the reference. Weeds were observed within the reclaimed surface include Blue mustard (*Chorispora tenella*) - Undesirable, Downy brome (*Bromus tectorum*) - Noxious List C, and Kochia (*Kochia scoparia*) - Undesirable. No oil and gas equipment was observed on Location. No livestock, wildlife, or surface owner debris were observed on Location. Subsidence was observed on Location, a recommendation has been included specifying the subsidence extent and options for mitigation. Bare areas greater than or equal to 1 square meter were observed within the reclaimed surface.

Reclamation Benchmark Phase: 3

Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with ECMC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

Primary Recommendation:	Rationale:	Description:
Maintenance	Subsidence present within the reclaimed surface.	The southern portion of the surface disturbance is below grade and exhibits evidence of ponding with poor vegetation establishment. Confluence recommends infilling the below grade region and interseeding.
Maintenance Contract Type:	3	
Square Foot Estimate:	3410	
Secondary Recommendation:	Rationale:	Description:
Maintenance	Bare regions present within the reclaimed surface.	The surface disturbance previously housed a road base stockpile. This has been removed by the surface owner. The area beneath the former stockpile is bare. Confluence recommends seedbed preparation and seeding for the bare area.
Maintenance Contract Type:	NA	
Square Foot Estimate:	2687	
Tertiary Recommendation:	Rationale:	Description:
Maintenance	Weeds are over-represented within the reclaim when compared to the reference.	Undesirable and listed noxious weeds are over represented in the reclaim. Confluence recommends coordinating weed management activities with the surface owner.
Maintenance Contract Type:	1	
Square Foot Estimate:	17000	

Vegetation Progress Evaluation - Matt 1

ECMC Location ID 331001
 API (05-123-20011)
 Location Type Tank Battery
 Reclamation Phase Final Reclaim

Site Overview

Is the access road or access point present? No
 Is the access road or access point in use? No
 Is the surface owner using the disturbance area? No

Vegetation Assessment

Current Land Use Non-crop
 Crop Type NA
 What is the % vegetation cover of the reclaimed disturbance? 20%
 What is the % vegetation cover of the reference? 20%
 What is the percent cover of the reclaim compared to the reference? 100%
 Is the vegetative cover and composition of the reclaim comparable to the reference? No
 Are vegetation health and vigor of the reclaim comparable to the reference? No
 Are weeds present within the reclaim? Yes
 Are weedy species over represented within the reclaimed surface when compared to the reference? Yes
 Most common weed species observed: Blue mustard (Chorispora tenella) - Undesirable
 Second most common weed species observed: Downy brome (Bromus tectorum) - Noxious List C
 Third most common weed species observed: Kochia (Kochia scoparia) - Undesirable

Housekeeping

Is oil and gas equipment present on the location? No
 What oil and gas equipment is present? NA
 Are livestock or wildlife disturbances evident? No
 Is there surface owner trash or debris present on the reclaimed surface? No

Soils

Has the reclaimed surface been disturbed by vehicles? No
 Was subsidence observed within the reclaimed surface? Yes
 Are cut and fill slopes evident? No
 Are any erosive features present on or adjacent to the reclaimed surface? No
 Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface? No
 Is soil staining and/or discoloration present on or adjacent to the reclaimed surface? No
 Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface? Yes

Other Comments

The reclaim is dominated by crested wheatgrass with large inter-plant distances. The reference contains mixed perennial grasses. In the event seeding is to occur on location, Confluence recommends interseeding with a more diverse seed mix.

Reviewed By C. Jones
 Form ID 968fcb04-e5ac-4d4f-870d-afd422d130dd
 Event ID 230518-Event0007

Client Unique ID Functional ID: CD2BBFA8C9F843FEA064EC1E2A20FD58, Asset/Well ID: (blank)
 Confluence ID Asset ID: PDC046724L2BAT

Vegetation Progress Evaluation - Photo Log

Operator Location Name MATT 1
Location Type Production Facility
Event ID 230518-Event0007

DISTURBANCE OVERVIEW

Aerial Image – Historical Surface Disturbance



Aerial Image – Current Surface Disturbance



NOTE: Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

Vegetation Progress Evaluation - Photo Log

Operator Location Name MATT 1
Location Type Production Facility
Event ID 230518-Event0007

RECLAIMED SURFACE - DIRECTIONAL PHOTOS

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



East of Disturbance - Facing West



Vegetation Progress Evaluation - Photo Log

Operator Location Name MATT 1

Location Type Production Facility

Event ID 230518-Event0007

REFERENCE AREA - DIRECTIONAL PHOTOS

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



Vegetation Progress Evaluation - Photo Log

Operator Location Name MATT 1
Location Type Production Facility
Event ID 230518-Event0007

PRIMARY SITE RECOMMENDATION: Maintenance

Recommendation Aerial Overview



Recommendation Context



NOTE: The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

Vegetation Progress Evaluation - Photo Log

Operator Location Name MATT 1
Location Type Production Facility
Event ID 230518-Event0007

SECONDARY SITE RECOMMENDATION: Maintenance

Recommendation Aerial Overview



Recommendation Context



NOTE: The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

Vegetation Progress Evaluation - Photo Log

Operator Location Name MATT 1
Location Type Production Facility
Event ID 230518-Event0007

TERTIARY SITE RECOMMENDATION:

Recommendation Aerial Overview



Recommendation Context



NOTE: The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

Vegetation Progress Evaluation - Photo Log

Operator Location Name MATT 1
Location Type Production Facility
Event ID 230518-Event0007

ADDITIONAL SITE PHOTOS

Stressed vegetation and bare areas



Stressed vegetation and bare areas



Image Not Applicable

Image Not Applicable

Soil Sample Analytical Results



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Weld Laboratories, Inc.
1527 1st Ave.
Greeley, CO 80631

Confluence Compliance Companies, LLC
403 ½ Rockwood Lane
Grand Junction, CO 81507

Date: 6/8/2023

Farmer/Grower: Carolyn Caviero

Field No.: 230525_Matt1(wellN@0.5)

Requested Fertilizer Recommendation:

Laboratory No. S23145-53

**Vs. Our
Average Ag.
Soil**

Crop: Native Grass

Soil Texture Sandy Loam

Yield goal: default

Units: default

pH 7.76

Avg

Credits:

Salts 1:1,mmhos/cm 0.44

Avg

Subsoil N ppm:

Organic Matter, % 1.35

Avg

**Vs. Our
Average
Ag. Soil**

	ppm	lbs/acre	
Nitrate-N	5.2	10	Low
Phosphorus	19	38	Avg
Potassium	284	568	Avg
Calcium	2139	4277	Avg
Sulfate-S	18	36	Avg
Boron	0.7	1.4	Avg
Zinc	5.3	10.6	High
Iron	18.0	36	Avg
Manganese	11.8	23.7	High
Copper	1.3	2.6	Avg
Magnesium	245	490	Avg
Sodium	51.8	104	Avg
ECEC (meq/100g)	13.9		

Recommendations - add lbs. per acre

59	#N
23	#P ₂ O ₅
0.0	#K ₂ O
	#Ca
0.0	#S
	#B
0.0	#Zn
	#Fe
	#Mn
0.2	#Cu
	#Mg

**Notes: Based on a mixture of
buffalograss and blue grama**

Sampling procedures can affect the value of analytical results – customers are advised to use appropriate sampling protocol to ensure samples are truly representative of the bulk sample.

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Confluence Compliance Companies, LLC
403 ½ Rockwood Lane
Grand Junction, CO 81507

Date: 6/8/2023

Farmer/Grower: Carolyn Caviero
Field No.: 230525_Matt1(WN@1.5)
Requested Fertilizer Recommendation:

Laboratory No. S23145-54 **Vs. Our Average Ag. Soil**

Soil Texture Sandy Clay oam

pH 7.94 **Avg**

Salts 1:1,mmhos/cm 0.42 **Avg**

Organic Matter, % 1.63 **Avg**

Crop: Native Grass

Yield goal: default

Units: default

Credits:

Subsoil N ppm:

	ppm	lbs/acre	Vs. Our Average Ag. Soil
Nitrate-N	5.8	12	Low
Phosphorus	17	35	Avg
Potassium	301	602	Avg
Calcium	4762	9523	High
Sulfate-S	11	22	Avg
Boron	0.8	1.6	Avg
Zinc	1.0	2.1	Avg
Iron	18.5	37	Avg
Manganese	8.2	16.4	High
Copper	0.8	1.6	Avg
Magnesium	500	1001	High
Sodium	40.1	80	Avg
ECEC (meq/100g)	28.8		

Recommendations - add lbs. per acre

57	#N
26	#P₂O₅
0.0	#K₂O
	#Ca
0.0	#S
	#B
0.0	#Zn
	#Fe
	#Mn
0.2	#Cu
	#Mg

Notes: Based on a mixture of buffalograss and blue grama

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 403 ½ Rockwood Lane
 Grand Junction, CO 81507

Date: 6/8/2023

Farmer/Grower: Carolyn Caviero
Field No.: 230525_Matt1(wells@0.5)
Requested Fertilizer Recommendation:

Laboratory No. S23145-55 **Vs. Our Average Ag. Soil**

Soil Texture Sandy Loam

pH 7.84 **Avg**

Salts 1:1,mmhos/cm 0.42 **Avg**

Organic Matter, % 1.79 **Avg**

Crop: Native Grass
Yield goal: default
Units: default

Credits:

Subsoil N ppm:

	ppm	lbs/acre	Vs. Our Average Ag. Soil
Nitrate-N	8.6	17	Avg
Phosphorus	22	44	Avg
Potassium	236	471	Avg
Calcium	3966	7932	High
Sulfate-S	18	36	Avg
Boron	0.6	1.1	Avg
Zinc	0.7	1.5	Avg
Iron	11.4	23	Avg
Manganese	7.3	14.7	Avg
Copper	0.5	1.1	Avg
Magnesium	307	613	High
Sodium	11.8	24	Low
ECEC (meq/100g)	23.1		

Recommendations - add lbs. per acre

52	#N
17	#P ₂ O ₅
0.0	#K ₂ O
	#Ca
0.0	#S
	#B
0.2	#Zn
	#Fe
	#Mn
0.2	#Cu
	#Mg

Notes: Based on a mixture of buffalograss and blue grama

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403 ½ Rockwood Lane
Grand Junction, CO 81507

Date: 6/8/2023

Farmer/Grower: Carolyn Caviero

Field No.: 230525_Matt1(wellS@1.5

Requested Fertilizer Recommendation:

Laboratory No. S23145-56

**Vs. Our
Average Ag.
Soil**

Crop: Native Grass

Yield goal: default

Soil Texture Sandy Loam

Units: default

pH 7.7

Avg

Credits:

Salts 1:1,mmhos/cm 0.77

Avg

Subsoil N ppm:

Organic Matter, % 0.91

Low

**Vs. Our
Average
Ag. Soil**

	ppm	lbs/acre	Vs. Our Average Ag. Soil
Nitrate-N	35.0	70	V. High
Phosphorus	57	114	Avg
Potassium	245	491	Avg
Calcium	2375	4751	Avg
Sulfate-S	33	66	Avg
Boron	0.6	1.3	Avg
Zinc	4.9	9.8	High
Iron	16.8	34	Avg
Manganese	6.6	13.1	Avg
Copper	2.2	4.4	Avg
Magnesium	230	460	Avg
Sodium	78.0	156	Avg
ECEC (meq/100g)	15.1		

Recommendations - add lbs. per acre

0	#N
0	#P₂O₅
0.0	#K₂O
	#Ca
0.0	#S
	#B
0.0	#Zn
	#Fe
	#Mn
0.2	#Cu
	#Mg

**Notes: Based on a mixture of
buffalograss and blue grama**

Sampling procedures can affect the value of analytical results – customers are advised to use appropriate sampling protocol to ensure samples are truly representative of the bulk sample.

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 403 ½ Rockwood Lane
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Date: 6/8/2023

Farmer/Grower: Carolyn Caviero
Field No.: 230525_Matt1(TB@0.5)
Requested Fertilizer Recommendation:

Laboratory No. S23145-57 **Vs. Our Average Ag. Soil**

Soil Texture **Sandy Clay Loam**

pH **7.89** **Avg**

Salts 1:1,mmhos/cm **0.38** **Avg**

Organic Matter, % **1.56** **Avg**

Crop: Native Grass
Yield goal: default
Units: default

Credits:

Subsoil N ppm:

	ppm	lbs/acre	Vs. Our Average Ag. Soil
Nitrate-N	5.4	11	Low
Phosphorus	43	87	Avg
Potassium	447	894	High
Calcium	4460	8920	High
Sulfate-S	18	36	Avg
Boron	0.9	1.8	Avg
Zinc	3.4	6.9	Avg
Iron	65.9	132	High
Manganese	5.7	11.4	Avg
Copper	2.4	4.8	Avg
Magnesium	371	742	High
Sodium	16.2	32	Avg
ECEC (meq/100g)	26.5		

Recommendations - add lbs. per acre

58	#N
0	#P₂O₅
0.0	#K₂O
	#Ca
0.0	#S
	#B
0.0	#Zn
	#Fe
	#Mn
0.2	#Cu
	#Mg

Notes: Based on a mixture of buffalograss and blue grama

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 403 ½ Rockwood Lane
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Date: 6/8/2023

Farmer/Grower: Carolyn Caviero
Field No.: 230252_Matt1(TB@1.5)
Requested Fertilizer Recommendation:

Laboratory No. S23145-58 **Vs. Our Average Ag. Soil**

Soil Texture Sandy Loam

pH 7.61 **Avg**

Salts 1:1,mmhos/cm 1.92 **High**

Organic Matter, % 1.33 **Avg**

Crop: Native Grass
Yield goal: default
Units: default

Credits:

Subsoil N ppm:

	ppm	lbs/acre	Vs. Our Average Ag. Soil
Nitrate-N	67.3	135	V. High
Phosphorus	33	66	Avg
Potassium	256	512	Avg
Calcium	3650	7299	Avg
Sulfate-S	116	231	V. High
Boron	0.9	1.9	Avg
Zinc	3.8	7.5	Avg
Iron	66.7	133	High
Manganese	7.8	15.7	Avg
Copper	2.3	4.5	Avg
Magnesium	485	970	High
Sodium	267.6	535	V. High
ECEC (meq/100g)	24.9		

Recommendations - add lbs. per acre

0	#N
0	#P ₂ O ₅
0.0	#K ₂ O
	#Ca
0.0	#S
	#B
0.0	#Zn
	#Fe
	#Mn
0.2	#Cu
	#Mg

Notes: Based on a mixture of buffalograss and blue grama

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 403 ½ Rockwood Lane
 Grand Junction, CO 81507

Date: 6/8/2023

Farmer/Grower: Carolyn Caviero
Field No.: 230525_Matt1(Sep@0.5)
Requested Fertilizer Recommendation:

Laboratory No. S23145-59 **Vs. Our Average Ag. Soil**

Soil Texture **Sandy Clay Loam**

pH **7.79** **Avg**

Salts 1:1,mmhos/cm **0.42** **Avg**

Organic Matter, % **1.71** **Avg**

Crop: Native Grass
Yield goal: default
Units: default

Credits:
Subsoil N ppm:

	ppm	lbs/acre	Vs. Our Average Ag. Soil
Nitrate-N	5.3	11	Low
Phosphorus	44	89	Avg
Potassium	490	980	High
Calcium	4168	8337	High
Sulfate-S	17	35	Avg
Boron	0.9	1.8	Avg
Zinc	3.4	6.8	Avg
Iron	65.4	131	High
Manganese	5.8	11.6	Avg
Copper	2.1	4.2	Avg
Magnesium	344	687	High
Sodium	16.0	32	Avg
ECEC (meq/100g)	25.2		

Recommendations - add lbs. per acre

58	#N
0	#P₂O₅
0.0	#K₂O
	#Ca
0.0	#S
	#B
0.0	#Zn
	#Fe
	#Mn
0.2	#Cu
	#Mg

Notes: Based on a mixture of buffalograss and blue grama

Sampling procedures can affect the value of analytical results – customers are advised to use appropriate sampling protocol to ensure samples are truly representative of the bulk sample.

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 Grand Junction, CO 81507

Date: 6/8/2023

Farmer/Grower: Carolyn Caviero
Field No.: 230525_Matt1(SEP@1.5)
Requested Fertilizer Recommendation:

Laboratory No. S23145-60 **Vs. Our Average Ag. Soil**

Soil Texture Sandy Loam

pH 7.79 **Avg**

Salts 1:1,mmhos/cm 0.71 **Avg**

Organic Matter, % 0.80 **Low**

Crop: Native Grass
Yield goal: default
Units: default

Credits:

Subsoil N ppm:

	ppm	lbs/acre	Vs. Our Average Ag. Soil
Nitrate-N	10.5	21	Avg
Phosphorus	23	46	Avg
Potassium	126	251	Low
Calcium	3156	6311	Avg
Sulfate-S	52	104	High
Boron	0.6	1.1	Avg
Zinc	6.7	13.3	High
Iron	33.3	67	Avg
Manganese	4.6	9.1	Avg
Copper	4.3	8.7	High
Magnesium	294	588	Avg
Sodium	104.2	208	Avg
ECEC (meq/100g)	19.2		

Recommendations - add lbs. per acre

48	#N
15	#P ₂ O ₅
2.0	#K ₂ O
	#Ca
0.0	#S
	#B
0.0	#Zn
	#Fe
	#Mn
0.0	#Cu
	#Mg

Notes: Based on a mixture of buffalograss and blue grama

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403 ½ Rockwood Lane
Grand Junction, CO 81507

Date: 6/8/2023

Farmer/Grower: Carolyn Caviero

Field No.: 230525_BG(WN@0.5)

Requested Fertilizer Recommendation:

Laboratory No. S23145-61

**Vs. Our
Average Ag.
Soil**

Crop: Native Grass

Yield goal: default

Soil Texture Sandy Clay

Units: default

pH 7.55

Avg

Credits:

Salts 1:1,mmhos/cm 0.55

Avg

Subsoil N ppm:

Organic Matter, % 2.49

High

**Vs. Our
Average
Ag. Soil**

	ppm	lbs/acre	
Nitrate-N	18.4	37	Avg
Phosphorus	44	88	Avg
Potassium	373	747	High
Calcium	5883	11767	V. High
Sulfate-S	18	36	Avg
Boron	0.6	1.2	Avg
Zinc	3.8	7.5	Avg
Iron	28.9	58	Avg
Manganese	12.0	24.0	High
Copper	2.2	4.4	Avg
Magnesium	510	1019	High
Sodium	20.8	42	Avg
ECEC (meq/100g)	36.2		

Recommendations - add lbs. per acre

32	#N
0	#P ₂ O ₅
0.0	#K ₂ O
	#Ca
0.0	#S
	#B
0.0	#Zn
	#Fe
	#Mn
0.2	#Cu
	#Mg

Notes: Based on a mixture of buffalograss and blue grama

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 403 ½ Rockwood Lane
 Grand Junction, CO 81507

Date: 6/8/2023

Farmer/Grower: Carolyn Caviero
Field No.: 230525_BG(WN@1.5)
Requested Fertilizer Recommendation:

Laboratory No. S23145-62 **Vs. Our Average Ag. Soil**

Soil Texture Sandy Loam

pH 7.83 **Avg**

Salts 1:1,mmhos/cm 0.36 **Avg**

Organic Matter, % 0.42 **Low**

Crop: Native Grass
Yield goal: default
Units: default

Credits:

Subsoil N ppm:

	ppm	lbs/acre	Vs. Our Average Ag. Soil
Nitrate-N	1.6	3	V. Low
Phosphorus	23	47	Avg
Potassium	54	108	Low
Calcium	2091	4182	Avg
Sulfate-S	21	41	Avg
Boron	0.5	1.0	Avg
Zinc	5.3	10.5	High
Iron	15.8	32	Avg
Manganese	3.7	7.3	Avg
Copper	1.9	3.8	Avg
Magnesium	213	425	Avg
Sodium	48.7	97	Avg
ECEC (meq/100g)	12.6		

Recommendations - add lbs. per acre

66	#N
14	#P ₂ O ₅
4.0	#K ₂ O
	#Ca
0.0	#S
	#B
0.0	#Zn
	#Fe
	#Mn
0.2	#Cu
	#Mg

Notes: Based on a mixture of buffalograss and blue grama

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403 ½ Rockwood Lane
Grand Junction, CO 81507

Date: 6/8/2023

Farmer/Grower: Carolyn Caviero
Field No.: 230525_BG(WS@0.5)
Requested Fertilizer Recommendation:

Laboratory No. S23145-63 **Vs. Our Average Ag. Soil**

Soil Texture Sandy Loam

pH 7.75 **Avg**

Salts 1:1,mmhos/cm 0.31 **Avg**

Organic Matter, % 0.76 **Low**

Crop: Native Grass

Yield goal: default

Units: default

Credits:

Subsoil N ppm:

	ppm	lbs/acre	Vs. Our Average Ag. Soil
Nitrate-N	2.4	5	V. Low
Phosphorus	27	54	Avg
Potassium	170	340	Low
Calcium	3457	6914	Avg
Sulfate-S	9	18	Low
Boron	0.7	1.4	Avg
Zinc	0.8	1.7	Avg
Iron	6.5	13	Low
Manganese	4.2	8.5	Avg
Copper	0.3	0.7	Avg
Magnesium	202	404	Avg
Sodium	15.3	31	Avg
ECEC (meq/100g)	19.8		

Recommendations - add lbs. per acre

64	#N
7	#P₂O₅
0.0	#K₂O
	#Ca
0.0	#S
	#B
0.2	#Zn
	#Fe
	#Mn
0.2	#Cu
	#Mg

Notes: Based on a mixture of buffalograss and blue grama

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Grand Junction, CO 81507

Date: 6/8/2023

Farmer/Grower: Carolyn Caviero

Field No.: 230525_BG(WS@1.5)

Requested Fertilizer Recommendation:

Laboratory No. S23145-64
Vs. Our Average Ag. Soil

Crop: Native Grass

Yield goal: default

Soil Texture Loamy Sand

Units: default

pH 7.65 **Avg**

Credits:

Salts 1:1,mmhos/cm 0.16 **Avg**

Subsoil N ppm:

Organic Matter, % 0.13 **V. Low**

Vs. Our Average Ag. Soil

ppm **lbs/acre**

Nitrate-N 0.6 1 **V. Low**

Phosphorus 13 26 **Low**

Potassium 55 111 **Low**

Calcium 645 1290 **Low**

Sulfate-S 9 18 **Low**

Boron 0.5 1.0 **Avg**

Zinc 2.6 5.2 **Avg**

Iron 5.9 12 **Low**

Manganese 1.5 3.1 **Avg**

Copper 0.6 1.3 **Avg**

Magnesium 63 125 **Avg**

Sodium 6.7 13 **Low**

ECEC (meq/100g) 4.0

Recommendations - add lbs. per acre

68	#N
35	#P ₂ O ₅
4.0	#K ₂ O
	#Ca
0.0	#S
	#B
0.0	#Zn
	#Fe
	#Mn
0.2	#Cu
	#Mg

Notes: Based on a mixture of buffalograss and blue grama

Sampling procedures can affect the value of analytical results – customers are advised to use appropriate sampling protocol to ensure samples are truly representative of the bulk sample.

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WELD LABORATORIES, INC.

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Phone: (970) 353-8118 • Fax: (970) 353-1671
www.weldlabs.com

Confluence Compliance Companies, LLC
403 ½ Rockwood Lane
Grand Junction, CO 81507

Date: 6/8/2023

Farmer/Grower: Carolyn Caviero
Field No.: 230525_BG(WS@1.5)
Requested Fertilizer Recommendation:
Crop: Native Grass
Yield goal: default
Units: default

Laboratory No. S23145-64 Page 2

ECEC (meq/100g)	4.0
%Base Sat by Na	0.72
%Base Sat by K	3.47
%Base Sat by Mg	12.63
%Base Sat by Ca	78.95
%Base Sat by Zn	0.19
%Base Sat by Fe	0.65
%Base Sat by Mn	0.20
%Base Sat by Cu	0.05
%Base Sat by H	3.14

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Note: NA = Not Applicable, ND = Not Detected
Note: Minerals on this page are digested. Not necessarily plant-available.

Sampling procedures can affect the value of analytical results – customers are advised to use appropriate sampling protocol to ensure samples are truly representative of the bulk sample.

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 403 ½ Rockwood Lane
 Grand Junction, CO 81507

Date: 6/8/2023

Farmer/Grower: Carolyn Caviero

Field No.: 230525_BG(F@0.5)

Requested Fertilizer Recommendation:

Laboratory No. S23145-65

**Vs. Our
Average Ag.
Soil**

Crop: Native Grass

Soil Texture Sandy Loam

pH 7.67

Salts 1:1,mmhos/cm 0.47

Organic Matter, % 1.54

Yield goal: default

Units: default

Credits:

Subsoil N ppm:

	ppm	lbs/acre	Vs. Our Average Ag. Soil
Nitrate-N	15.3	31	Avg
Phosphorus	29	59	Avg
Potassium	322	643	Avg
Calcium	3843	7687	High
Sulfate-S	14	28	Avg
Boron	0.5	1.0	Avg
Zinc	0.8	1.7	Avg
Iron	8.8	18	Avg
Manganese	11.3	22.7	High
Copper	0.5	0.9	Avg
Magnesium	327	654	High
Sodium	13.8	28	Avg
ECEC (meq/100g)	23.4		

Recommendations - add lbs. per acre

38	#N
2	#P ₂ O ₅
0.0	#K ₂ O
	#Ca
0.0	#S
	#B
0.2	#Zn
	#Fe
	#Mn
0.2	#Cu
	#Mg

**Notes: Based on a mixture of
buffalograss and blue grama**

Sampling procedures can affect the value of analytical results – customers are advised to use appropriate sampling protocol to ensure samples are truly representative of the bulk sample.

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Confluence Compliance Companies, LLC
403 ½ Rockwood Lane
Grand Junction, CO 81507

Date: 6/8/2023

Farmer/Grower: Carolyn Caviero

Field No.: 230525_BG(F@1.5)

Requested Fertilizer Recommendation:

Laboratory No. S23145-66 **Vs. Our Average Ag. Soil**

Soil Texture Sandy Clay Loam

pH 7.85 **Avg**

Salts 1:1,mmhos/cm 0.43 **Avg**

Organic Matter, % 1.83 **Avg**

Crop: Native Grass

Yield goal: default

Units: default

Credits:

Subsoil N ppm:

	ppm	lbs/acre	Vs. Our Average Ag. Soil
Nitrate-N	12.2	24	Avg
Phosphorus	27	54	Avg
Potassium	363	727	Avg
Calcium	5981	11963	V. High
Sulfate-S	13	26	Avg
Boron	0.7	1.4	Avg
Zinc	2.0	4.0	Avg
Iron	15.8	32	Avg
Manganese	8.5	17.0	High
Copper	1.5	3.0	Avg
Magnesium	498	996	High
Sodium	76.8	154	Avg
ECEC (meq/100g)	35.3		

Recommendations - add lbs. per acre

45	#N
7	#P ₂ O ₅
0.0	#K ₂ O
	#Ca
0.0	#S
	#B
0.0	#Zn
	#Fe
	#Mn
0.2	#Cu
	#Mg

Notes: Based on a mixture of buffalograss and blue grama

Chain of Custody Record

Weld Laboratories, Inc.

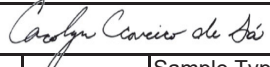
Company Name Confluence Compliance Companies, LLC
 Address 403 1/2 Rockwood Lane, Grand Junction, CO 81507

1527 1st Ave. Established 1978
 Greeley, CO 80631
 Phone: (970)353-8118 Fax: (970)353-1671



Contact: Chris Jones

Phone No. 970-749-6965

Fax / Email chris.jones@confluence.cc.com

Sampler: Print Name		Signature		Analysis													
Carolyn Craveiro de Sa																	
Project No.:		Composit	Grab	Date	Time	Sample Type				No. of Containers	Complete Sample Profile					Remarks	
Sample ID	Sample Location					Water	Liquid	Oil	Solid								
230525_Matt1(wellN@0.5)	Matt 1		X	5/25/2023	10:14 am				X	1	X						40.295777, -104.846829
230525_Matt1(wellN@1.5)	Matt 1		X	5/25/2023	10:23 am				X	1	X						40.295777, -104.846829
230525_Matt1(wells@0.5)	Matt 1		X	5/25/2023	10:29 am				X	1	X						40.295635, -104.846834
230525_Matt1(wells@1.5)	Matt 1		X	5/25/2023	10:36 am				X	1	X						40.295635, -104.846834
230525_Matt1(TB@0.5)	Matt 1		X	5/25/2023	11:22 am				X	1	X						40.294952, -104.848237
230525_Matt1(TB@1.5)	Matt 1		X	5/25/2023	11:39 am				X	1	X						40.294952, -104.848237
230525_Matt1(Sep@0.5)	Matt 1		X	5/25/2023	11:44 am				X	1	X						40.294748, -104.848247
230525_Matt1(Sep@1.5)	Matt 1		X	5/25/2023	11:57 am				X	1	X						40.294748, -104.848247
230525_BG(WN@0.5)	Matt 1		X	5/25/2023	10:44 am				X	1	X						40.295631, -104.84612
230525_BG(WN@1.5)	Matt 1		X	5/25/2023	10:53 am				X	1	X						40.295631, -104.84612
230525_BG(WS@0.5)	Matt 1		X	5/25/2023	10:59 am				X	1	X						40.295145, -104.846796

Comments:

Relinquished by: (Signature) 	Date <u>05/25/23</u>	Time <u>2:15 pm</u>	Received by: (Signature) 	Date <u>5/25/2023</u>	Time <u>2:15 pm</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time
Method of shipment: FedEx Standard Overnight					

Chain of Custody Record

Company Name Confluence Compliance Companies, LLC
 Address 403 1/2 Rockwood Lane, Grand Junction, CO 81507

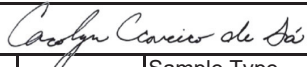
Weld Laboratories, Inc.

1527 1st Ave. Established 1978
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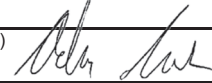
Contact: Chris Jones

Phone No. 970-749-6965

Fax / Email chris.jones@confluence.cc.com

Sampler: Print Name		Signature		Analysis													
Carolyn Craveiro de Sa																	
Project No.:		Composit	Grab	Date	Time	Sample Type				No. of Containers	Complete Sample Profile					Remarks	
Sample ID	Sample Location					Water	Liquid	Oil	Solid		1	2	3	4	5		
230525_BG(WS@1.5)	Matt 1		X	5/25/2023	11:02 am				X	1	X						40.295145, -104.846796
230525_BG(F@0.5)	Matt 1		X	5/25/2023	11:11 am				X	1	X						40.295302, -104.847893
230525_BG(F@1.5)	Matt 1		X	5/25/2023	11:16 am				X	1	X						40.295302, -104.847893
			X						X	1	X						
			X						X	1	X						
			X						X	1	X						
			X						X	1	X						
			X						X	1	X						
			X						X	1	X						
			X						X	1	X						

Comments:

Relinquished by: (Signature) 	Date <u>05/25/23</u>	Time <u>2:15 pm</u>	Received by: (Signature) 	Date <u>5/25/2023</u>	Time <u>2:15 pm</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time
Method of shipment: FedEx Standard Overnight					

Quantitative Vegetation Survey Reports



Quantitative Vegetation Survey - Photo Log

Operator Location Name Matt 1
Location Type Well Site
Event ID 230905-Event0002

DISTURBANCE OVERVIEW

Aerial Image – Historical Surface Disturbance



Aerial Image – Current Surface Disturbance



NOTE: Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

Quantitative Vegetation Survey - Photo Log

Operator Location Name Matt 1
 Location Type Well Site
 Event ID 230905-Event0002

RECLAIM TRANSECT

Start of Transect Photo 40.295856/-104.846839



End of Transect Photo 40.29536/-104.84683



NOTE: Geographic coordinate discrepancies result from provided coordinates in the photo caption being collected with a sub-meter accurate GPS unit, while the photo stamp coordinates (white font in-photo) originate with a phone application using native phone coordinate accuracy which may be as large as nine meters.

Quantitative Vegetation Survey - Photo Log

Operator Location Name Matt 1
 Location Type Well Site
 Event ID 230905-Event0002

RECLAIM TRANSECT

Start of Transect Photo 40.29539/-104.84708



End of Transect Photo 40.29587/-104.84706



NOTE: Geographic coordinate discrepancies result from provided coordinates in the photo caption being collected with a sub-meter accurate GPS unit, while the photo stamp coordinates (white font in-photo) originate with a phone application using native phone coordinate accuracy which may be as large as nine meters.

Quantitative Vegetation Survey - Photo Log

Operator Location Name Matt 1
Location Type Production Facility
Event ID 230905-Event0001

DISTURBANCE OVERVIEW

Aerial Image – Historical Surface Disturbance



Aerial Image – Current Surface Disturbance



NOTE: Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

Quantitative Vegetation Survey - Photo Log

Operator Location Name Matt 1
 Location Type Production Facility
 Event ID 230905-Event0001

RECLAIM TRANSECT

Start of Transect Photo 40.29515/-104.84827



End of Transect Photo 40.29469/-104.84836



NOTE: Geographic coordinate discrepancies result from provided coordinates in the photo caption being collected with a sub-meter accurate GPS unit, while the photo stamp coordinates (white font in-photo) originate with a phone application using native phone coordinate accuracy which may be as large as nine meters.

Quantitative Vegetation Survey - Photo Log

Operator Location Name Matt 1
 Location Type Production Facility
 Event ID 230905-Event0001

RECLAIM TRANSECT

Start of Transect Photo 40.2947/-104.84819



End of Transect Photo 40.29514/-104.84815



NOTE: Geographic coordinate discrepancies result from provided coordinates in the photo caption being collected with a sub-meter accurate GPS unit, while the photo stamp coordinates (white font in-photo) originate with a phone application using native phone coordinate accuracy which may be as large as nine meters.

Quantitative Vegetation Survey - Photo Log

Location Name Matt 1 Reference

Location Type Reference

Event ID 230905-Event0001

REFERENCE TRANSECT

Start of Transect Photo

40.29522/-104.84723



End of Transect Photo

40.29477/-104.84747



NOTE: Geographic coordinate discrepancies result from provided coordinates in the photo caption being collected with a sub-meter accurate GPS unit, while the photo stamp coordinates (white font in-photo) originate with a phone application using native phone coordinate accuracy which may be as large as nine meters.

Quantitative Vegetation Survey - Photo Log

Location Name Matt 1 Reference
 Location Type Reference
 Event ID 230905-Event0001

REFERENCE TRANSECT

Start of Transect Photo

40.2947/-104.84699



End of Transect Photo

40.29522/-104.84683



NOTE: Geographic coordinate discrepancies result from provided coordinates in the photo caption being collected with a sub-meter accurate GPS unit, while the photo stamp coordinates (white font in-photo) originate with a phone application using native phone coordinate accuracy which may be as large as nine meters.

Quantitative Vegetation Survey - Summary of Field Data

Client	PDC	API(s)	
Operator Location	Matt 1 Well		05-123-20011
CCC Disturbance ID	PDC046724L1WEL		
ECMC ID	331001		
Reclamation Phase	Final Reclaim		
Latitude/Longitude	40.295627 / -104.846841		
Assessment Date	9/5/2023		
Inspector Name	Sully Phillips		

The survey methodology employed by Confluence is the line-point intercept method with plot-level species inventories conducted in accordance with the Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems (Volume 2). Vegetation cover data is collected along each transect. Foliar and basal cover, along with non-vegetated and noxious weed occurrences, are documented at each survey point. Transects are completed in the reclaim and reference areas. The desirable foliar cover (grasses, forbs, shrubs) in each survey transect area is calculated by summing the total number of foliar occurrences (#), excluding noxious weeds and undesirable species, and dividing by the total possible foliar occurrences in the transect. This is completed for both transects in the reclaim area and in the reference area. The resulting values from each transect in the respective areas are then averaged to surmise an overall coverage and/or composition for the location. For this location:

Reclaim Area Vegetation

Desirable Foliar Cover = 40%

$$[(30 + 10 + 0) / 100] * 100$$

Reference Area Vegetation

Desirable Foliar Cover = 60%

$$[(60 + 0 + 0) / 100] * 100$$

For the purposes of this assessment, undesirable foliar cover is defined as introduced and non-native to the lower 48 states by the USDA NRCS and is not considered beneficial for reclamation purposes. The undesirable foliar cover (%) in each survey transect area is calculated by summing the total number of undesirable foliar occurrences (#), excluding noxious weeds, and dividing by the total possible foliar occurrences in the transect. This is completed for both transects in the reclaim area and in the reference area. The resulting values from each transect in the respective areas are then averaged to surmise an overall coverage and/or composition for the location. For this location:

Undesirable Foliar Cover = 32%

$$(32 / 100) * 100$$

Undesirable Foliar Cover = 24%

$$(24 / 100) * 100$$

The percent of reference used to evaluate the reclamation area for compliance with ECMC Rule 1003.e(2) is calculated by dividing the averaged foliar cover (%) in the reclaim area by the averaged foliar cover (%) in the reference area. For this location:

Percent of Reference = 67%

$$40\% / 60\%$$

Cover Type	Reclaim Transect(s) x 2		Reference Transect(s) x 2	
	#	Overall Cover	#	Overall Cover
Desirable Foliar Cover	40	41%	60	60%
Grass	30	31%	60	60%
Forb	10	10%	0	0%
Shrub	0	0%	0	0%
Desirable Basal Cover	15	13%	28	28%
Grass	13	13%	28	28%
Forb	2	0%	0	0%
Shrub	0	0%	0	0%
Undesirable Cover	35	36%	26	26%
Foliar	32	31%	24	24%
Basal	3	5%	2	2%
Unvegetated	20	20%	6	6%
Bare Ground	10	10%	2	3%
Litter	10	10%	4	14%
Rock	0	0%	0	0%
Other	0	0%	0	0%
Noxious Weeds Cover	11	11%	10	10%
Foliar	8	8%	10	10%
Basal	3	3%	0	0%
Foliar Quality Assurance Total	100	100%	100	100%

Reclaim Transect Global ID(s):
3d41e117-ed9-48f8-b019-617518aeeef85,
980391f3-231e-494d-a0c3-7df692cef18c,

Reference Transect Global ID(s):
6d1fce43-3d29-4531-ba26-a9b0c6cad5bb,
7395fc81-b36c-496e-af14-b8687d53453a,

Client PDC
 Operator Location Matt 1 Well
 Assessment Date 9/5/2023
 Inspector Name Sully Phillips

Transect Detail - Reclamation Area Observation Summary

Plant species indicated by red text include all State-listed noxious weeds and undesirable species identified as introduced and non-native to the lower 48 states by the USDA NRCS not considered beneficial for reclamation purposes.

Observation Summary				
Life Cycle	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	49	49%	7	7%
Perennial	31	31%	14	14%
Unvegetated	20	20%	79	79%
Grand Total	100	100%	100	100%

Life Cycle	Species Code	Scientific Name	Common Name	Cover Type	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	B RTE	<i>Bromus tectorum</i>	Downy brome	Noxious List C	2	2%	0	0%
Annual	ECCR	<i>Echinochloa crus galli</i>	Barnyardgrass	Grass	2	2%	1	1%
Annual	ERCI	<i>Eragrostis cilianensis</i>	Stinkgrass	Undesirable	12	12%	0	0%
Annual	HEPE	<i>Helianthus petiolaris</i>	Prairie sunflower	Forb	10	10%	2	2%
Annual	KOSC	<i>Kochia scoparia</i>	Kochia	Undesirable	8	8%	2	2%
Annual	RUCR	<i>Rumex crispus</i>	Curly dock	Undesirable	1	1%	0	0%
Annual	SATR12	<i>Salsola tragus L.</i>	Russian thistle	Undesirable	10	10%	1	1%
Annual	VETH	<i>Verbascum thapsus</i>	Common mullein	Noxious List C	3	3%	1	1%
Annual	SEVI4	<i>Setaria viridis</i>	Green bristlegrass	Grass	1	1%	0	0%
Perennial	AGCR	<i>Agropyron cristatum</i>	Crested wheatgrass	Grass	1	1%	0	0%
Perennial	CANU4	<i>Carduus nutans</i>	Musk thistle	Noxious List B	3	3%	2	2%
Perennial	ELTR7	<i>Elymus trachycaulus</i>	Slender wheatgrass	Grass	5	5%	1	1%
Perennial	LECI4	<i>Leymus cinereus</i>	Basin wildrye	Grass	1	1%	1	1%
Perennial	PAVI2	<i>Panicum virgatum</i>	Switchgrass	Grass	11	11%	1	1%
Perennial	RUCR	<i>Rumex crispus</i>	Curly dock	Undesirable	1	1%	0	0%
Perennial	THIN6	<i>Thinopyrum intermedia</i>	Intermediate wheatgrass	Grass	9	9%	9	9%
Unvegetated	NA	NA	Litter	Unvegetated	10	10%	31	31%
Unvegetated	NA	NA	Bare Ground	Unvegetated	10	10%	48	48%

Client PDC
 Operator Location Reference location(s) for Matt 1 Battery
 Assessment Date 9/5/2023, 9/5/2023
 Inspector Name Sully Phillips

Transect Detail - Reference Area Observation Summary

Plant species indicated by red text include all State-listed noxious weeds and undesirable species identified as introduced and non-native to the lower 48 states by the USDA NRCS not considered beneficial for reclamation purposes.

Observation Summary				
Life Cycle	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	34	34%	4	4%
Perennial	60	60%	24	24%
Unvegetated	6	6%	72	72%
Grand Total	100	100%	100	100%

Life Cycle	Species Code	Scientific Name	Common Name	Cover Type	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	B RTE	<i>Bromus tectorum</i>	Downy brome	Noxious List C	6	6%	0	0%
Annual	CHAL7	<i>Chenopodium album</i>	Common Lambsquarters	Undesirable	5	5%	0	0%
Annual	ERCI	<i>Eragrostis cilianensis</i>	Stinkgrass	Undesirable	11	11%	2	2%
Annual	KOSC	<i>Kochia scoparia</i>	Kochia	Undesirable	2	2%	0	0%
Annual	RUCR	<i>Rumex crispus</i>	Curly dock	Undesirable	6	6%	0	0%
Annual	SEVI4	<i>Setaria viridis</i>	Green bristlegrass	Grass	2	2%	2	2%
Annual	VETH	<i>Verbascum thapsus</i>	Common mullein	Noxious List C	2	2%	0	0%
Perennial	BRIN2	<i>Bromus inermis</i>	Smooth brome	Grass	6	6%	0	0%
Perennial	CANU4	<i>Carduus nutans</i>	Musk thistle	Noxious List B	2	2%	0	0%
Perennial	HECO26	<i>Hesperostipa comata</i>	Needle and thread	Grass	28	28%	10	10%
Perennial	PAVI2	<i>Panicum virgatum</i>	Switchgrass	Grass	24	24%	14	14%
Unvegetated	NA	NA	Litter	Unvegetated	4	4%	56	56%
Unvegetated	NA	NA	Bare Ground	Unvegetated	2	2%	16	16%

Client	PDC
Operator Location Information	Matt 1 Well
Assessment Date	9/5/2023
Inspector Name	Sully Phillips
Transect Length (ft.)	150

Reclaim Transect 1				
Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Unvegetated	Litter	Unvegetated	Litter
2	Undesirable	Russian thistle (Salsola tragus L.) - SATR12	Unvegetated	Litter
3	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
4	Noxious List C	Common mullein (Verbascum thapsus) - VETH	Unvegetated	Bare Ground
5	Unvegetated	Bare Ground	Unvegetated	Bare Ground
6	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
7	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
8	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
9	Undesirable	Russian thistle (Salsola tragus L.) - SATR12	Unvegetated	Litter
10	Undesirable	Russian thistle (Salsola tragus L.) - SATR12	Unvegetated	Litter
11	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
12	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6	Unvegetated	Bare Ground
13	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
14	Forb	Prairie sunflower (Helianthus petiolaris) - HEPE	Unvegetated	Bare Ground
15	Unvegetated	Litter	Unvegetated	Litter
16	Unvegetated	Bare Ground	Unvegetated	Bare Ground
17	Unvegetated	Litter	Unvegetated	Litter
18	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Bare Ground
19	Unvegetated	Litter	Unvegetated	Litter
20	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Bare Ground
21	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Bare Ground
22	Unvegetated	Litter	Unvegetated	Litter
23	Unvegetated	Bare Ground	Unvegetated	Bare Ground
24	Grass	Green bristlegrass (Setaria viridis) - SEVI4	Unvegetated	Bare Ground
25	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
26	Unvegetated	Bare Ground	Unvegetated	Bare Ground
27	Unvegetated	Litter	Unvegetated	Litter
28	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Bare Ground
29	Noxious List C	Common mullein (Verbascum thapsus) - VETH	Unvegetated	Litter
30	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6	Unvegetated	Litter
31	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6	Unvegetated	Bare Ground
32	Forb	Prairie sunflower (Helianthus petiolaris) - HEPE	Unvegetated	Bare Ground
33	Unvegetated	Bare Ground	Unvegetated	Bare Ground
34	Undesirable	Russian thistle (Salsola tragus L.) - SATR12	Unvegetated	Litter
35	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
36	Undesirable	Russian thistle (Salsola tragus L.) - SATR12	Unvegetated	Bare Ground
37	Undesirable	Russian thistle (Salsola tragus L.) - SATR12	Unvegetated	Bare Ground
38	Unvegetated	Bare Ground	Unvegetated	Bare Ground
39	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
40	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6	Unvegetated	Litter
41	Unvegetated	Bare Ground	Unvegetated	Bare Ground
42	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6
43	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6
44	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6
45	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6	Unvegetated	Bare Ground
46	Undesirable	Russian thistle (Salsola tragus L.) - SATR12	Unvegetated	Bare Ground
47	Forb	Prairie sunflower (Helianthus petiolaris) - HEPE	Unvegetated	Bare Ground
48	Forb	Prairie sunflower (Helianthus petiolaris) - HEPE	Unvegetated	Bare Ground
49	Forb	Prairie sunflower (Helianthus petiolaris) - HEPE	Unvegetated	Bare Ground
50	Forb	Prairie sunflower (Helianthus petiolaris) - HEPE	Unvegetated	Litter

Client PDC
 Operator Location Information Matt 1 Well
 Assessment Date 9/5/2023
 Inspector Name Sully Phillips
 Transect Length (ft.) 150

Reclaim Transect 2

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Unvegetated	Bare Ground	Unvegetated	Bare Ground
2	Unvegetated	Litter	Unvegetated	Litter
3	Forb	Prairie sunflower (Helianthus petiolaris) - HEPE	Unvegetated	Litter
4	Forb	Prairie sunflower (Helianthus petiolaris) - HEPE	Grass	Basin wildrye (Leymus cinereus) - LEC14
5	Forb	Prairie sunflower (Helianthus petiolaris) - HEPE	Unvegetated	Bare Ground
6	Unvegetated	Bare Ground	Unvegetated	Bare Ground
7	Undesirable	Kochia (Kochia scoparia) - KOSC	Undesirable	Kochia (Kochia scoparia) - KOSC
8	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Bare Ground
9	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Bare Ground
10	Grass	Barnyardgrass (Echinochloa crus galli) - ECCR	Grass	Barnyardgrass (Echinochloa crus galli) - ECCR
11	Grass	Barnyardgrass (Echinochloa crus galli) - ECCR	Unvegetated	Bare Ground
12	Grass	Barnyardgrass (Echinochloa crus galli) - ECCR	Unvegetated	Litter
13	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
14	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
15	Grass	Basin wildrye (Leymus cinereus) - LEC14	Unvegetated	Bare Ground
16	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6
17	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6
18	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Bare Ground
19	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
20	Unvegetated	Litter	Unvegetated	Litter
21	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7
22	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
23	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
24	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
25	Unvegetated	Bare Ground	Unvegetated	Bare Ground
26	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Bare Ground
27	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7	Unvegetated	Litter
28	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
29	Unvegetated	Litter	Unvegetated	Litter
30	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
31	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
32	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6
33	Forb	Prairie sunflower (Helianthus petiolaris) - HEPE	Unvegetated	Litter
34	Unvegetated	Litter	Unvegetated	Litter
35	Noxious List C	Common mullein (Verbascum thapsus) - VETH	Noxious List C	Common mullein (Verbascum thapsus) - VETH
36	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6	Unvegetated	Bare Ground
37	Undesirable	Kochia (Kochia scoparia) - KOSC	Undesirable	Kochia (Kochia scoparia) - KOSC
38	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
39	Undesirable	Kochia (Kochia scoparia) - KOSC	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6
40	Noxious List B	Musk thistle (Carduus nutans) - CANU4	Noxious List B	Musk thistle (Carduus nutans) - CANU4
41	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Litter
42	Noxious List B	Musk thistle (Carduus nutans) - CANU4	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6
43	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
44	Noxious List B	Musk thistle (Carduus nutans) - CANU4	Noxious List B	Musk thistle (Carduus nutans) - CANU4
45	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
46	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7	Unvegetated	Bare Ground
47	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
48	Undesirable	Russian thistle (Salsola tragus L.) - SATR12	Undesirable	Russian thistle (Salsola tragus L.) - SATR12
49	Undesirable	Russian thistle (Salsola tragus L.) - SATR12	Grass	Intermediate wheatgrass (Thinopyrum intermedia) - THIN6
50	Undesirable	Russian thistle (Salsola tragus L.) - SATR12	Unvegetated	Litter

Client	PDC
Operator Location Information	Matt 1 Well
Assessment Date	9/5/2023
Inspector Name	Sully Phillips
Transect Length (ft.)	150

Reference Transect 1

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERC1	Unvegetated	Litter
2	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERC1	Unvegetated	Litter
3	Grass	Needle and thread (Hesperostipa comata) - HECCO26	Unvegetated	Litter
4	Grass	Needle and thread (Hesperostipa comata) - HECCO26	Unvegetated	Litter
5	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Litter
6	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Litter
7	Noxious List B	Musk thistle (Carduus nutans) - CANU4	Unvegetated	Litter
8	Noxious List B	Musk thistle (Carduus nutans) - CANU4	Unvegetated	Litter
9	Grass	Green bristlegrass (Setaria viridis) - SEVI4	Grass	Green bristlegrass (Setaria viridis) - SEVI4
10	Grass	Green bristlegrass (Setaria viridis) - SEVI4	Grass	Green bristlegrass (Setaria viridis) - SEVI4
11	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
12	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
13	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
14	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
15	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
16	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
17	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
18	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
19	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
20	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
21	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
22	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
23	Unvegetated	Litter	Unvegetated	Litter
24	Unvegetated	Litter	Unvegetated	Litter
25	Unvegetated	Litter	Unvegetated	Litter
26	Unvegetated	Litter	Unvegetated	Litter
27	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
28	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
29	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
30	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
31	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
32	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
33	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
34	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
35	Undesirable	Common Lambsquarters (Chenopodium album) - CHAL7	Unvegetated	Litter
36	Undesirable	Common Lambsquarters (Chenopodium album) - CHAL7	Unvegetated	Litter
37	Undesirable	Common Lambsquarters (Chenopodium album) - CHAL7	Unvegetated	Bare Ground
38	Undesirable	Common Lambsquarters (Chenopodium album) - CHAL7	Unvegetated	Bare Ground
39	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
40	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
41	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
42	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
43	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
44	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
45	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
46	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
47	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
48	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
49	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
50	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2

Client: PDC
 Operator Location Information: Matt 1 Well
 Assessment Date: 9/5/2023
 Inspector Name: Sully Phillips
 Transect Length (ft.): 150

Reference Transect 2

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Noxious List C	Common mullein (Verbascum thapsus) - VETH	Unvegetated	Litter
2	Noxious List C	Common mullein (Verbascum thapsus) - VETH	Unvegetated	Litter
3	Unvegetated	Bare Ground	Unvegetated	Bare Ground
4	Unvegetated	Bare Ground	Unvegetated	Bare Ground
5	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
6	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
7	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Litter
8	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Litter
9	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
10	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
11	Grass	Needle and thread (Hesperostipa comata) - HECO26	Grass	Needle and thread (Hesperostipa comata) - HECO26
12	Grass	Needle and thread (Hesperostipa comata) - HECO26	Grass	Needle and thread (Hesperostipa comata) - HECO26
13	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
14	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
15	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
16	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
17	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
18	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
19	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
20	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
21	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Grass	Needle and thread (Hesperostipa comata) - HECO26
22	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Grass	Needle and thread (Hesperostipa comata) - HECO26
23	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
24	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
25	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Litter
26	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Litter
27	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Litter
28	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Litter
29	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
30	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
31	Grass	Needle and thread (Hesperostipa comata) - HECO26	Grass	Needle and thread (Hesperostipa comata) - HECO26
32	Grass	Needle and thread (Hesperostipa comata) - HECO26	Grass	Needle and thread (Hesperostipa comata) - HECO26
33	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
34	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
35	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
36	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
37	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
38	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
39	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
40	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
41	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Grass	Needle and thread (Hesperostipa comata) - HECO26
42	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Grass	Needle and thread (Hesperostipa comata) - HECO26
43	Grass	Needle and thread (Hesperostipa comata) - HECO26	Grass	Needle and thread (Hesperostipa comata) - HECO26
44	Grass	Needle and thread (Hesperostipa comata) - HECO26	Grass	Needle and thread (Hesperostipa comata) - HECO26
45	Grass	Needle and thread (Hesperostipa comata) - HECO26	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
46	Grass	Needle and thread (Hesperostipa comata) - HECO26	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
47	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
48	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
49	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
50	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground

Quantitative Vegetation Survey - Summary of Field Data

Client	PDC	API(s)	
Operator Location	Matt 1 Battery	Associated well:	05-123-20011
CCC Disturbance ID	PDC046724L2BAT		
ECMC ID	335785		
Reclamation Phase	Final Reclaim		
Latitude/Longitude	40.294865 /-104.848239		
Assessment Date	9/5/2023		
Inspector Name	Sully Phillips		

The survey methodology employed by Confluence is the line-point intercept method with plot-level species inventories conducted in accordance with the Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems (Volume 2). Vegetation cover data is collected along each transect. Foliar and basal cover, along with non-vegetated and noxious weed occurrences, are documented at each survey point. Transects are completed in the reclaim and reference areas. The desirable foliar cover (grasses, forbs, shrubs) in each survey transect area is calculated by summing the total number of foliar occurrences (#), excluding noxious weeds and undesirable species, and dividing by the total possible foliar occurrences in the transect. This is completed for both transects in the reclaim area and in the reference area. The resulting values from each transect in the respective areas are then averaged to surmise an overall coverage and/or composition for the location. For this location:

Reclaim Area Vegetation

Desirable Foliar Cover = 56%
 $[(56 + 0 + 0) / 100] * 100$

Reference Area Vegetation

Desirable Foliar Cover = 60%
 $[(94 + 0 + 0) / 200] * 100$

For the purposes of this assessment, undesirable foliar cover is defined as introduced and non-native to the lower 48 states by the USDA NRCS and is not considered beneficial for reclamation purposes. The undesirable foliar cover (%) in each survey transect area is calculated by summing the total number of undesirable foliar occurrences (#), excluding noxious weeds, and dividing by the total possible foliar occurrences in the transect. This is completed for both transects in the reclaim area and in the reference area. The resulting values from each transect in the respective areas are then averaged to surmise an overall coverage and/or composition for the location. For this location:

Undesirable Foliar Cover = 29%
 $(29 / 100) * 100$

Undesirable Foliar Cover = 24%
 $(24 / 100) * 100$

The percent of reference used to evaluate the reclamation area for compliance with ECMC Rule 1003.e(2) is calculated by dividing the averaged foliar cover (%) in the reclaim area by the averaged foliar cover (%) in the reference area. For this location:

Percent of Reference = 93%
 $56\% / 60\%$

Cover Type	Reclaim Transect(s) x 2		Reference Transect(s) x 2	
	#	Overall Cover	#	Overall Cover
Desirable Foliar Cover	56	56%	60	60%
Grass	56	56%	60	60%
Forb	0	0%	0	0%
Shrub	0	0%	0	0%
Desirable Basal Cover	17	17%	28	28%
Grass	17	17%	28	28%
Forb	0	0%	0	0%
Shrub	0	0%	0	0%
Undesirable Cover	41	41%	26	26%
Foliar	29	29%	24	24%
Basal	12	12%	2	2%
Unvegetated	15	15%	6	6%
Bare Ground	13	13%	2	3%
Litter	1	1%	4	14%
Rock	1	1%	0	0%
Other	0	0%	0	0%
Noxious Weeds Cover	0	0%	10	10%
Foliar	0	0%	10	10%
Basal	0	0%	0	0%
Foliar Quality Assurance Total	100	100%	100	100%

Reclaim Transect Global ID(s):
 137d6613-d754-46c1-b06d-429f27dd8702,
 458c9d49-e702-4b33-a702-d57388849cae,

Reference Transect Global ID(s):
 6d1fce43-3d29-4531-ba26-a9b0c6cad5bb,
 7395fc81-b36c-496e-af14-b8687d53453a,

Client PDC
 Operator Location Matt 1 Battery
 Assessment Date 9/5/2023
 Inspector Name Sully Phillips

Transect Detail - Reclamation Area Observation Summary

Plant species indicated by red text include all State-listed noxious weeds and undesirable species identified as introduced and non-native to the lower 48 states by the USDA NRCS not considered beneficial for reclamation purposes.

Observation Summary				
Life Cycle	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	6	6%	2	2%
Perennial	79	79%	26	26%
Unvegetated	15	15%	71	72%
Grand Total	100	100%	99	100%

Life Cycle	Species Code	Scientific Name	Common Name	Cover Type	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	ALS18	<i>Alyssum simplex</i>	Alyssum	Undesirable	2	2%	1	1%
Annual	KOSC	<i>Kochia scoparia</i>	Kochia	Undesirable	4	4%	1	1%
Perennial	AGCR	<i>Agropyron cristatum</i>	Crested wheatgrass	Grass	36	36%	11	11%
Perennial	BODA2	<i>Buchloe dactyloides</i>	Buffalograss	Grass	23	23%	10	10%
Perennial	ELTR7	<i>Elymus trachycaulus</i>	Slender wheatgrass	Grass	6	6%	2	2%
Perennial	HECO26	<i>Hesperostipa comata</i>	Needle and thread	Grass	8	8%	0	0%
Perennial	LECI4	<i>Leymus cinereus</i>	Basin wildrye	Grass	1	1%	0	0%
Perennial	PAVI2	<i>Panicum virgatum</i>	Switchgrass	Grass	5	5%	3	3%
Unvegetated	NA	NA	Litter	Unvegetated	0	0%	18	18%
Unvegetated	NA	NA	Bare Ground	Unvegetated	15	15%	52	52%
Unvegetated	NA	NA	Rock	Unvegetated	0	0%	1	1%

Client PDC
 Operator Location Reference location(s) for Matt 1 Battery
 Assessment Date 9/5/2023, 9/5/2023
 Inspector Name Sully Phillips

Transect Detail - Reference Area Observation Summary

Plant species indicated by red text include all State-listed noxious weeds and undesirable species identified as introduced and non-native to the lower 48 states by the USDA NRCS not considered beneficial for reclamation purposes.

Observation Summary				
Life Cycle	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	34	34%	4	4%
Perennial	60	60%	24	24%
Unvegetated	6	6%	72	72%
Grand Total	100	100%	100	100%

Life Cycle	Species Code	Scientific Name	Common Name	Cover Type	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	B RTE	<i>Bromus tectorum</i>	Downy brome	Noxious List C	6	6%	0	0%
Annual	CHAL7	<i>Chenopodium album</i>	Common Lambsquarters	Undesirable	5	5%	0	0%
Annual	ERCI	<i>Eragrostis cilianensis</i>	Stinkgrass	Undesirable	11	11%	2	2%
Annual	KOSC	<i>Kochia scoparia</i>	Kochia	Undesirable	2	2%	0	0%
Annual	RUCR	<i>Rumex crispus</i>	Curly dock	Undesirable	6	6%	0	0%
Annual	SEVI4	<i>Setaria viridis</i>	Green bristlegrass	Grass	2	2%	2	2%
Annual	VETH	<i>Verbascum thapsus</i>	Common mullein	Noxious List C	2	2%	0	0%
Perennial	BRIN2	<i>Bromus inermis</i>	Smooth brome	Grass	6	6%	0	0%
Perennial	CANU4	<i>Carduus nutans</i>	Musk thistle	Noxious List B	2	2%	0	0%
Perennial	HECO26	<i>Hesperostipa comata</i>	Needle and thread	Grass	28	28%	10	10%
Perennial	PAVI2	<i>Panicum virgatum</i>	Switchgrass	Grass	24	24%	14	14%
Unvegetated	NA	NA	Litter	Unvegetated	4	4%	56	56%
Unvegetated	NA	NA	Bare Ground	Unvegetated	2	2%	16	16%

Client PDC
 Operator Location Information Matt 1 Battery
 Assessment Date 9/5/2023
 Inspector Name Sully Phillips
 Transect Length (ft.) 150

Reclaim Transect 1				
Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Grass	Needle and thread (Hesperostipa comata) - HECCO26	Unvegetated	Litter
2	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
3	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
4	Grass	Needle and thread (Hesperostipa comata) - HECCO26	Unvegetated	Bare Ground
5	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
6	Unvegetated	Bare Ground	Unvegetated	Bare Ground
7	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
8	Unvegetated	Bare Ground	Unvegetated	Bare Ground
9	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
10	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
11	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
12	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Bare Ground
13	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
14	Grass	Needle and thread (Hesperostipa comata) - HECCO26	Unvegetated	Bare Ground
15	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
16	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
17	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
18	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
19	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
20	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
21	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
22	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
23	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
24	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
25	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
26	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
27	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
28	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
29	Unvegetated	Bare Ground	Unvegetated	Bare Ground
30	Grass	Needle and thread (Hesperostipa comata) - HECCO26	Unvegetated	Bare Ground
31	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
32	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
33	Grass	Needle and thread (Hesperostipa comata) - HECCO26	Unvegetated	Bare Ground
34	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
35	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
36	Unvegetated	Bare Ground	Unvegetated	Bare Ground
37	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
38	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
39	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
40	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
41	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
42	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
43	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
44	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
45	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
46	Unvegetated	Bare Ground	Unvegetated	Bare Ground
47	Unvegetated	Bare Ground	Unvegetated	Bare Ground
48	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
49	Grass	Needle and thread (Hesperostipa comata) - HECCO26	Unvegetated	Litter
50	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter

Client PDC
 Operator Location Information Matt 1 Battery
 Assessment Date 9/5/2023
 Inspector Name Sully Phillips
 Transect Length (ft.) 150

Reclaim Transect 2

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Unvegetated	Rock	Unvegetated	Rock
2	Unvegetated	Bare Ground	Unvegetated	Bare Ground
3	Undesirable	Russian thistle (Salsola tragus L.) - SATR12	Unvegetated	Bare Ground
4	Undesirable	Russian thistle (Salsola tragus L.) - SATR12	Undesirable	Russian thistle (Salsola tragus L.) - SATR12
5	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
6	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
7	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
8	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7
9	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
10	Undesirable	Kochia (Kochia scoparia) - KOSC	Undesirable	Kochia (Kochia scoparia) - KOSC
11	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
12	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
13	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
14	Unvegetated	Bare Ground	Unvegetated	Bare Ground
15	Undesirable	Kochia (Kochia scoparia) - KOSC	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
16	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
17	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7
18	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7	Unvegetated	Litter
19	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
20	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
21	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
22	Unvegetated	Bare Ground	Unvegetated	Bare Ground
23	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
24	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
25	Unvegetated	Bare Ground	Unvegetated	Bare Ground
26	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
27	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
28	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Litter
29	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
30	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
31	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
32	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
33	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
34	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
35	Unvegetated	Bare Ground	Unvegetated	Bare Ground
36	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
37	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
38	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
39	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
40	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
41	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
42	Unvegetated	Bare Ground	Unvegetated	Bare Ground
43	Grass	Basin wildrye (Leymus cinereus) - LECI4	Unvegetated	Litter
44	Unvegetated	Litter	Unvegetated	Litter
45	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Bare Ground
46	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7
47	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
48	Unvegetated	Bare Ground	Unvegetated	Bare Ground
49	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
50	Grass	Slender wheatgrass (Elymus trachycaulus) - ELTR7	Unvegetated	Litter

Client	PDC
Operator Location Information	Matt 1 Battery
Assessment Date	9/5/2023
Inspector Name	Sully Phillips
Transect Length (ft.)	150

Reference Transect 1

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERC1	Unvegetated	Litter
2	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERC1	Unvegetated	Litter
3	Grass	Needle and thread (Hesperostipa comata) - HECCO26	Unvegetated	Litter
4	Grass	Needle and thread (Hesperostipa comata) - HECCO26	Unvegetated	Litter
5	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Litter
6	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Litter
7	Noxious List B	Musk thistle (Carduus nutans) - CANU4	Unvegetated	Litter
8	Noxious List B	Musk thistle (Carduus nutans) - CANU4	Unvegetated	Litter
9	Grass	Green bristlegrass (Setaria viridis) - SEVI4	Grass	Green bristlegrass (Setaria viridis) - SEVI4
10	Grass	Green bristlegrass (Setaria viridis) - SEVI4	Grass	Green bristlegrass (Setaria viridis) - SEVI4
11	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
12	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
13	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
14	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
15	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
16	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
17	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
18	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
19	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
20	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
21	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
22	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
23	Unvegetated	Litter	Unvegetated	Litter
24	Unvegetated	Litter	Unvegetated	Litter
25	Unvegetated	Litter	Unvegetated	Litter
26	Unvegetated	Litter	Unvegetated	Litter
27	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
28	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
29	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
30	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
31	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
32	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
33	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
34	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
35	Undesirable	Common Lambsquarters (Chenopodium album) - CHAL7	Unvegetated	Litter
36	Undesirable	Common Lambsquarters (Chenopodium album) - CHAL7	Unvegetated	Litter
37	Undesirable	Common Lambsquarters (Chenopodium album) - CHAL7	Unvegetated	Bare Ground
38	Undesirable	Common Lambsquarters (Chenopodium album) - CHAL7	Unvegetated	Bare Ground
39	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
40	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
41	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
42	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
43	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
44	Grass	Switchgrass (Panicum virgatum) - PAVI2	Unvegetated	Litter
45	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
46	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
47	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
48	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
49	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
50	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2

Client: PDC
 Operator Location Information: Matt 1 Battery
 Assessment Date: 9/5/2023
 Inspector Name: Sully Phillips
 Transect Length (ft.): 150

Reference Transect 2

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Noxious List C	Common mullein (Verbascum thapsus) - VETH	Unvegetated	Litter
2	Noxious List C	Common mullein (Verbascum thapsus) - VETH	Unvegetated	Litter
3	Unvegetated	Bare Ground	Unvegetated	Bare Ground
4	Unvegetated	Bare Ground	Unvegetated	Bare Ground
5	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
6	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
7	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Litter
8	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Litter
9	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
10	Grass	Switchgrass (Panicum virgatum) - PAVI2	Grass	Switchgrass (Panicum virgatum) - PAVI2
11	Grass	Needle and thread (Hesperostipa comata) - HECO26	Grass	Needle and thread (Hesperostipa comata) - HECO26
12	Grass	Needle and thread (Hesperostipa comata) - HECO26	Grass	Needle and thread (Hesperostipa comata) - HECO26
13	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
14	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
15	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
16	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
17	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
18	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
19	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
20	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
21	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Grass	Needle and thread (Hesperostipa comata) - HECO26
22	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Grass	Needle and thread (Hesperostipa comata) - HECO26
23	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
24	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
25	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Litter
26	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Litter
27	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Litter
28	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Litter
29	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
30	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
31	Grass	Needle and thread (Hesperostipa comata) - HECO26	Grass	Needle and thread (Hesperostipa comata) - HECO26
32	Grass	Needle and thread (Hesperostipa comata) - HECO26	Grass	Needle and thread (Hesperostipa comata) - HECO26
33	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
34	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Unvegetated	Litter
35	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
36	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
37	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
38	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
39	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
40	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
41	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Grass	Needle and thread (Hesperostipa comata) - HECO26
42	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI	Grass	Needle and thread (Hesperostipa comata) - HECO26
43	Grass	Needle and thread (Hesperostipa comata) - HECO26	Grass	Needle and thread (Hesperostipa comata) - HECO26
44	Grass	Needle and thread (Hesperostipa comata) - HECO26	Grass	Needle and thread (Hesperostipa comata) - HECO26
45	Grass	Needle and thread (Hesperostipa comata) - HECO26	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
46	Grass	Needle and thread (Hesperostipa comata) - HECO26	Undesirable	Stinkgrass (Eragrostis cilianensis) - ERCI
47	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
48	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
49	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground
50	Grass	Needle and thread (Hesperostipa comata) - HECO26	Unvegetated	Bare Ground