

Phillip Porter
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 PDC Energy Inc.
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Quantitative Vegetation Survey Report

COGCC Location Name (ID)	LANDAU-65N65W /3NESE (323178)
Operator Location Name	Landau 2 Well & Facility
COGCC Operator Name (ID)	PDC ENERGY, INC (69175)
Legal Description	NESE Sec. 3 T5N-R65W
Geographic Coordinates (WGS84)	40.426243/-104.64212

Mr. Porter,

Confluence Compliance Companies LLC (Confluence) is presenting this report to PDC Energy Inc. (PDC) documenting the results of a Quantitative Vegetation Survey (QVS) completed on the above-referenced location. The QVS was conducted to evaluate vegetation cover and composition in the reclaimed surface of the location (Reclaimed Surface) and an equivalent reference area (Reference Area) to determine if vegetative cover requirements for final reclamation in Colorado Oil & Gas Conservation Commission (COGCC) Rule 1004.d have been met. Included with this Report is a review of methodologies used to evaluate the Reclaimed Surface, results of those evaluations, and recommendations for how to proceed with the information presented in this Report. Attached is a Summary of Field Data, Topographic Location Map, Reclamation Survey Site Diagram, Vegetation Assessment Photo Log, Relative Foliar Species Abundance Table, and Vegetation Survey results that illustrate QVS findings.

Methods

The survey methodology employed by Confluence is based on the step-point method described in an interagency technical reference published by the Bureau of Land Management (BLM, 1996). Prior to field evaluation, a desktop review of historical PDC and COGCC records, and an aerial imagery evaluation is performed to define and map all portions of the Reclaimed Surface and identify and map an equivalent Reference Area. Equivalent Reference Area(s) are selected to ensure that comparative assessments are conducted in areas not previously impacted by oil and gas operations or other surface disturbing processes, have similar slope and aspect to the Reclaimed Surface, and are reflective of pre-disturbance conditions for the referenced location to the extent feasible. When on-site, data from the desktop review is confirmed with observations of site conditions to confirm the preliminary transect locations chosen to characterize the Reclaimed Surface and Reference Area. Transect locations are selected to best represent the vegetative cover and species composition of the respective areas, and to limit subjectivity of field personnel.

A bullseye target tool is used to collect vegetation survey data at 50 survey points along each transect. Foliar and basal cover, along with non-vegetated and noxious weed

occurrences, are documented at each survey point within the two Reclaim Transects and two Reference Transects, for a total of 100 survey points in both areas. Transect data is documented in the Vegetation Survey – Field Data Tables. Photographs are collected throughout the QVS 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 COGCC Rule 1004.d. To ensure reclamation vegetative composition meets the standards of PDC and the COGCC, undesirable cover is also quantified in the attached Summary of Field Data. 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.

Results

The QVS was conducted on August 8, 2021, with the following findings:

- Reclaimed Surface Desirable Foliar Cover is 30.0%.
- Reference Area Desirable Foliar Cover is 29.0%.
- Vegetative foliar cover within the Reclaimed Surface is composed of 41.7% desirable species, 54.2% undesirable species, and 4.2% noxious List C species.
- Vegetative foliar cover within the Reference Area is composed of 30.5% desirable species, 38.9% undesirable species, and 30.5% noxious species.
- Reclaimed Surface desirable dominant species include Western Wheatgrass (*Pascopyrum smithii*), Bluebunch wheatgrass (*Pseudoroegneria spicata*), and Green Needlegrass (*Nassella viridula*)
- Reference area desirable dominant species include Green Needlegrass (*Nassella viridula*), Sand dropseed (*Sporobolus cryptandrus*), and Western Wheatgrass (*Pascopyrum smithii*).

Based on these findings, the Reclaimed Surface has a desirable foliar vegetative cover that is 103.0% of the Reference Area.

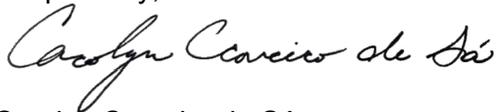
Analysis and Recommendations

No reclamation maintenance is recommended for this location as weed species were under-represented and vegetation establishment is uniform on the Reclaimed Surface compared to the Reference Area. Foliar species abundance calculations indicate vegetative cover compositions are comparable. Based on the results of the survey, final reclamation as defined by COGCC rules has been achieved and uniform vegetation cover has been established that reflects surrounding conditions with a total plant cover of at least 80% of the Reference Area. Submittal of a Form 4 (Sundry Notice) is recommended to document successful completion of final reclamation and notify the COGCC that the site is ready for final reclamation inspection.



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
Project Manager
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720-432-7344 (O)
carolyn.craveiro@confluence-cc.com

Attachments

1. Quantitative Vegetation Survey – Summary of Field Data
2. Topographic Location Map
3. Reclamation Survey Site Diagram
4. Vegetation Assessment Photo Log
5. Quantitative Vegetation Survey – Relative Foliar Species Abundance Table
6. Quantitative Vegetation Survey – Field Data Tables

References

United States (U.S.) Department of Agriculture (USDA), Forest Service (USFS), Natural Resource Conservation Service (NRCS) and U.S. Department of the Interior (USDOI) Bureau of Land Management (BLM). "Sampling Vegetation Attributes, Interagency Technical Reference, 1996 (Revised in 1997, and 1999)". USDOI BLM Technical References #1734-4.



Quantitative Vegetation Survey - Summary of Field Data

Client	PDC ENERGY, INC (69175)
Operator Location Information	Landau 2 Well & Facility (Location ID: 323178)
Assessment Date	8/8/2021
Inspector Name	Adam Roll

Based on the survey methodology, the desirable foliar cover (%) in each survey area is calculated by summing the total number of grass, forb, and shrub foliar occurrences (#), excluding noxious weeds and undesirable species, and dividing by the total possible foliar occurrences in the transects (100). For this location:

Reclaim Area Vegetation

Desirable Foliar Cover = 30%

$$(30 + 0 + 0) / 100 = 0.3$$

Reference Area Vegetation

Desirable Foliar Cover = 29%

$$(29 + 0 + 0) / 100 = 0.29$$

For the purposes of this assessment, the undesirable foliar cover (%) in each survey is calculated by summing the total number of undesirable* foliar occurrences (#), excluding noxious weeds, and dividing by the total possible foliar occurrences in the transects (100). For this location:

Undesirable Foliar Cover = 39%

$$39 / 100 = 0.39$$

Undesirable Foliar Cover = 37%

$$37 / 100 = 0.37$$

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

Percent of Reference = 103%

$$30\% / 29\% = 103\%$$

Reclaim Area Vegetation

Cover Type	#	%**
Desirable Foliar Cover	30	15%
Grass	30	15%
Forb	0	0%
Shrub	0	0%
Desirable Basal Cover	15	8%
Grass	15	8%
Forb	0	0%
Shrub	0	0%
Undesirable Cover	64	32%
Foliar	39	20%
Basal	25	13%
Non Vegetated	88	44%
Bare Ground	16	8%
Litter	72	36%
Rock	0	0%
Noxious Weeds Cover	3	2%
Foliar	3	2%
Basal	0	0%
Quality Assurance Total**	200	100%

Reference Area Vegetation

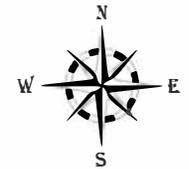
Cover Type	#	%**
Desirable Foliar Cover	29	15%
Grass	29	15%
Forb	0	0%
Shrub	0	0%
Desirable Basal Cover	2	1%
Grass	2	1%
Forb	0	0%
Shrub	0	0%
Undesirable Cover	53	27%
Foliar	37	19%
Basal	16	8%
Non Vegetated	61	31%
Bare Ground	10	5%
Litter	38	19%
Rock	13	7%
Noxious Weeds Cover	55	28%
Foliar	29	15%
Basal	26	13%
Quality Assurance Total**	200	100%

* Identified as introduced and non-native to the lower 48 states by the USDA NRCS, and not considered beneficial for reclamation purposes
 . ** % cover in the above cover detail tables represents Total Cover. For representation purposes, vegetative and non vegetated % Total Cover is rounded to the nearest whole number. The Quality Assurance Total is the summation of % cover with all applicable decimal numbers.

Topographic Location Map

PDC ENERGY, INC (69175)

Landau 2 Well & Facility
(LANDAU-65N65W /3NESE)
COGCC Location ID: 323178
Weld County
NESE Sec. 3 T5N-R65W



Topographic map sourced from 2020 Earth Point using data provided by United States Geological Survey

Map created by Carolyn Craveiro on 10/12/2021.

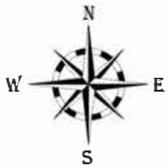
Landau 2 Well Pad

Reclamation Survey Site Diagram

PDC ENERGY, INC (69175)

Landau 2 Well & Facility
(LANDAU-65N65W /3NESE)
COGCC Location ID: 323178

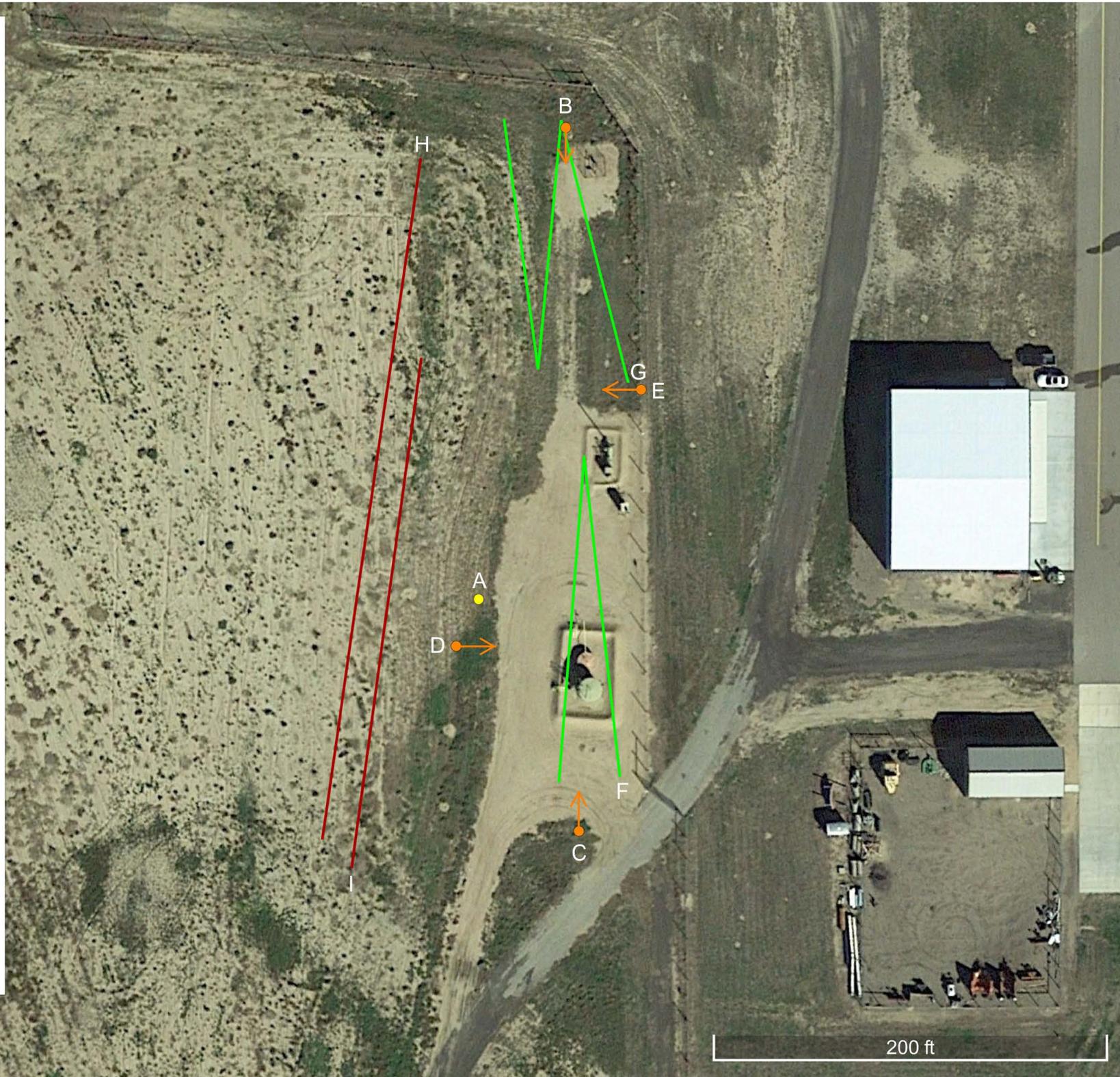
Weld County
NESE Sec. 3 T5N-R65W
Well Lat./Long.:
40.426243/-104.64212
Facility Lat./Long.:
40.425570/-104.642115
Land Use: Non-Crop
Aerial Imagery Date: 10/14/2017



Legend

- Directional Photo Point
- Photo Point
- Reference Transect
- Reclaim Transect

Map created by Carolyn Craveiro on 10/12/2021.



Vegetation Assessment Photo Log

Date Completed - 08/08/2021

Client - PDC Energy Inc. Landau 2

Location Name (ID) - Well & Facility (323178)



Aug 8, 2021 1:21:58 PM
40.42566068N 104.64234052W
345° N
Weld County
Landau 2
Well & Facility

Photo Point A: Edge of Disturbance - Facing North

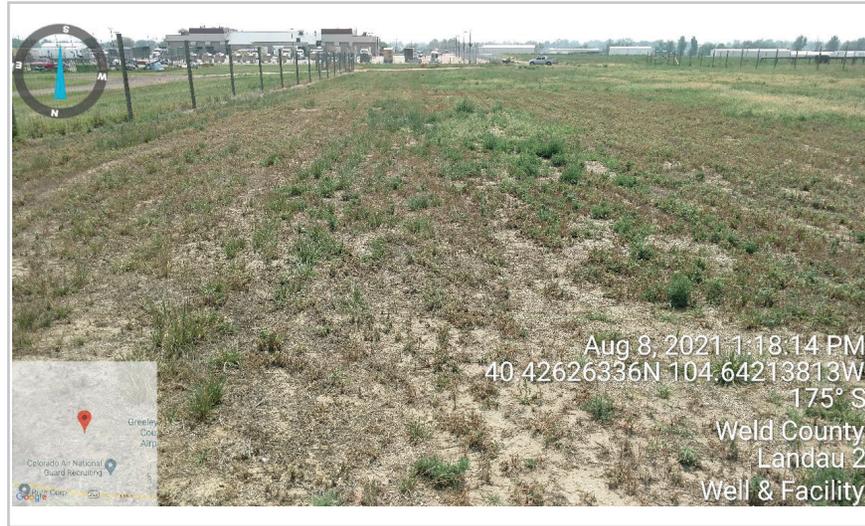


Vegetation Assessment Photo Log

Date Completed - 08/08/2021

Client - **PDC Energy Inc.**

Location Name (ID) - **Landau 2 Well & Facility (323178)**



Directional Photo Point B: North of Disturbance - Facing South



Directional Photo Point C: South of Disturbance - Facing North



Directional Photo Point D: West of Disturbance - Facing East



Directional Photo Point E: East of Disturbance - Facing West



Vegetation Assessment Photo Log

Date Completed - 08/08/2021

Client - PDC Energy Inc.

Location Name (ID) - Landau 2 Well & Facility (323178)



Aug 8, 2021 1:22:02 PM
40.42565442N 104.64234345W

Photo Point A: Reclamation Area - Facing Northeast



Vegetation Assessment Photo Log

Client - **PDC Energy Inc.**

Date Completed - 08/08/2021

Location Name (ID) - **Landau 2 Well & Facility (323178)**



Photo Point F: Reclaim Transect 1 - Facing North-Northwest



Photo Point G: Reclaim Transect 2 - Facing North



Vegetation Assessment Photo Log

Date Completed - 08/08/2021

Client - PDC Energy Inc.

Location Name (ID) - Landau 2 Well & Facility (323178)



Aug 8, 2021 1:22:06 PM
40.42565508N 104.64235155W
303° NW
Weld County
Landau 2
Well & Facility

Photo Point A: Reference Area - Facing Northwest



Vegetation Assessment Photo Log

Client - PDC Energy Inc.

Date Completed - 08/08/2021

Location Name (ID) - Landau 2 Well & Facility (323178)



Photo Point H: Reference Transect 1 - Facing South



Photo Point I: Reference Transect 2 - Facing North



Client	PDC ENERGY, INC (69175)
Operator Location Information	Landau 2 Well & Facility (Location ID: 323178)
Assessment Date	8/8/2021
Inspector Name	Adam Roll

Relative Foliar Species Abundance

Relative foliar species abundance is calculated by dividing the total number of foliar occurrences (#) of an individual species by the total number of foliar occurrences (#) in the transect(s).

Species listed by transect area	#	%
Reclaim	72	100.0%
Grass	30	41.7%
Western Wheatgrass (<i>Pascopyrum smithii</i>)	18	25.0%
Bluebunch wheatgrass (<i>Pseudoroegneria spicata</i>)	6	8.3%
Green Needlegrass (<i>Nassella viridula</i>)	6	8.3%
Noxious List C	3	4.2%
Puncturevine (<i>Tribulus terrestris</i>)	2	2.8%
Downy brome (<i>Bromus tectorum</i>)	1	1.4%
Undesirable	39	54.2%
Kochia (<i>Kochia scoparia</i>)	28	38.9%
Stinkgrass (<i>Eragrostis ciliaris</i>)	11	15.3%
Reference	95	100.0%
Grass	29	30.5%
Green Needlegrass (<i>Nassella viridula</i>)	8	8.4%
Sand dropseed (<i>Sporobolus cryptandrus</i>)	7	7.4%
Western Wheatgrass (<i>Pascopyrum smithii</i>)	5	5.3%
Intermediate wheatgrass (<i>Thinopyrum intermedia</i>)	2	2.1%
Blue Grama (<i>Bouteloua gracilis</i>)	2	2.1%
Alkali Cordgrass (<i>Spartina gracilis</i>)	2	2.1%
Bluebunch wheatgrass (<i>Pseudoroegneria spicata</i>)	1	1.1%
Crested wheatgrass (<i>Agropyron cristatum</i>)	1	1.1%
Sand lovegrass (<i>Eragrostis trichodes</i>)	1	1.1%
Noxious List C	29	30.5%
Puncturevine (<i>Tribulus terrestris</i>)	27	28.4%
Downy brome (<i>Bromus tectorum</i>)	1	1.1%
Field bindweed (<i>Convolvulus arvensis</i>)	1	1.1%
Undesirable	37	38.9%
Stinkgrass (<i>Eragrostis ciliaris</i>)	34	35.8%
Kochia (<i>Kochia scoparia</i>)	3	3.2%
Grand Total	167	

Client PDC ENERGY, INC (69175)
Operator Location Information Landau 2 Well site (Location ID: 323178)
Assessment Date 8/8/2021
Inspector Name Adam Roll
Transect Length 328 feet

Reclaim Transect 1

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	None	NA	Non-Vegetated	Litter
2	None	NA	Non-Vegetated	Litter
3	Undesirable	Kochia (Kochia scoparia)	Non-Vegetated	Litter
4	Undesirable	Kochia (Kochia scoparia)	Grass	Western Wheatgrass (Pascopyrum smithii)
5	Grass	Western Wheatgrass (Pascopyrum smithii)	Grass	Western Wheatgrass (Pascopyrum smithii)
6	Grass	Western Wheatgrass (Pascopyrum smithii)	Grass	Western Wheatgrass (Pascopyrum smithii)
7	Undesirable	Kochia (Kochia scoparia)	Undesirable	Kochia (Kochia scoparia)
8	Grass	Western Wheatgrass (Pascopyrum smithii)	Undesirable	Kochia (Kochia scoparia)
9	Grass	Western Wheatgrass (Pascopyrum smithii)	Grass	Western Wheatgrass (Pascopyrum smithii)
10	None	NA	Non-Vegetated	Litter
11	None	NA	Non-Vegetated	Litter
12	Grass	Green Needlegrass (Nassella viridula)	Non-Vegetated	Litter
13	Grass	Western Wheatgrass (Pascopyrum smithii)	Non-Vegetated	Litter
14	Grass	Western Wheatgrass (Pascopyrum smithii)	Undesirable	Kochia (Kochia scoparia)
15	Undesirable	Kochia (Kochia scoparia)	Grass	Western Wheatgrass (Pascopyrum smithii)
16	None	NA	Non-Vegetated	Litter
17	Grass	Bluebunch wheatgrass (Pseudoroegneria spicata)	Grass	Bluebunch wheatgrass (Pseudoroegneria spicata)
18	Undesirable	Kochia (Kochia scoparia)	Grass	Western Wheatgrass (Pascopyrum smithii)
19	Grass	Bluebunch wheatgrass (Pseudoroegneria spicata)	Non-Vegetated	Litter
20	Grass	Western Wheatgrass (Pascopyrum smithii)	Non-Vegetated	Litter
21	None	NA	Non-Vegetated	Litter
22	Noxious List C	Downy brome (Bromus tectorum)	Undesirable	Kochia (Kochia scoparia)
23	Undesirable	Kochia (Kochia scoparia)	Non-Vegetated	Litter
24	Grass	Western Wheatgrass (Pascopyrum smithii)	Non-Vegetated	Litter
25	Grass	Western Wheatgrass (Pascopyrum smithii)	Non-Vegetated	Litter
26	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
27	Grass	Western Wheatgrass (Pascopyrum smithii)	Undesirable	Stinkgrass (Eragrostis cilianensis)
28	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
29	None	NA	Non-Vegetated	Litter
30	None	NA	Non-Vegetated	Litter
31	Undesirable	Kochia (Kochia scoparia)	Non-Vegetated	Litter
32	Undesirable	Kochia (Kochia scoparia)	Non-Vegetated	Litter
33	Undesirable	Kochia (Kochia scoparia)	Undesirable	Kochia (Kochia scoparia)
34	Undesirable	Kochia (Kochia scoparia)	Non-Vegetated	Litter
35	Grass	Green Needlegrass (Nassella viridula)	Undesirable	Kochia (Kochia scoparia)
36	Grass	Green Needlegrass (Nassella viridula)	Non-Vegetated	Litter
37	Undesirable	Kochia (Kochia scoparia)	Grass	Western Wheatgrass (Pascopyrum smithii)
38	Undesirable	Kochia (Kochia scoparia)	Undesirable	Kochia (Kochia scoparia)
39	None	NA	Non-Vegetated	Bare Ground
40	Grass	Western Wheatgrass (Pascopyrum smithii)	Grass	Western Wheatgrass (Pascopyrum smithii)
41	None	NA	Non-Vegetated	Litter
42	Undesirable	Kochia (Kochia scoparia)	Grass	Bluebunch wheatgrass (Pseudoroegneria spicata)
43	Undesirable	Kochia (Kochia scoparia)	Non-Vegetated	Litter
44	Grass	Bluebunch wheatgrass (Pseudoroegneria spicata)	Undesirable	Kochia (Kochia scoparia)
45	Grass	Green Needlegrass (Nassella viridula)	Non-Vegetated	Litter
46	Grass	Western Wheatgrass (Pascopyrum smithii)	Grass	Western Wheatgrass (Pascopyrum smithii)
47	None	NA	Non-Vegetated	Litter
48	Undesirable	Kochia (Kochia scoparia)	Non-Vegetated	Litter
49	None	NA	Non-Vegetated	Litter
50	Undesirable	Kochia (Kochia scoparia)	Non-Vegetated	Litter

Client PDC ENERGY, INC (69175)
Operator Location Information Landau 2 Well site (Location ID: 323178)
Assessment Date 8/8/2021
Inspector Name Adam Roll
Transect Length 390 feet

Reclaim Transect 2

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	None	NA	Non-Vegetated	Litter
2	Undesirable	Kochia (Kochia scoparia)	Undesirable	Kochia (Kochia scoparia)
3	Grass	Western Wheatgrass (Pascopyrum smithii)	Undesirable	Kochia (Kochia scoparia)
4	Grass	Western Wheatgrass (Pascopyrum smithii)	Non-Vegetated	Litter
5	Grass	Western Wheatgrass (Pascopyrum smithii)	Non-Vegetated	Litter
6	None	NA	Non-Vegetated	Litter
7	None	NA	Non-Vegetated	Litter
8	None	NA	Non-Vegetated	Bare Ground
9	None	NA	Non-Vegetated	Litter
10	Undesirable	Kochia (Kochia scoparia)	Non-Vegetated	Bare Ground
11	None	NA	Non-Vegetated	Bare Ground
12	Undesirable	Kochia (Kochia scoparia)	Undesirable	Kochia (Kochia scoparia)
13	Grass	Green Needlegrass (Nassella viridula)	Non-Vegetated	Litter
14	Grass	Green Needlegrass (Nassella viridula)	Grass	Green Needlegrass (Nassella viridula)
15	Grass	Western Wheatgrass (Pascopyrum smithii)	Undesirable	Kochia (Kochia scoparia)
16	None	NA	Non-Vegetated	Bare Ground
17	Grass	Western Wheatgrass (Pascopyrum smithii)	Non-Vegetated	Litter
18	None	NA	Non-Vegetated	Litter
19	None	NA	Non-Vegetated	Litter
20	None	NA	Non-Vegetated	Litter
21	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
22	Undesirable	Stinkgrass (Eragrostis cilianensis)	Undesirable	Stinkgrass (Eragrostis cilianensis)
23	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
24	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
25	Grass	Bluebunch wheatgrass (Pseudoroegneria spicata)	Grass	Bluebunch wheatgrass (Pseudoroegneria spicata)
26	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
27	Grass	Bluebunch wheatgrass (Pseudoroegneria spicata)	Grass	Bluebunch wheatgrass (Pseudoroegneria spicata)
28	None	NA	Non-Vegetated	Litter
29	Undesirable	Kochia (Kochia scoparia)	Undesirable	Kochia (Kochia scoparia)
30	Undesirable	Kochia (Kochia scoparia)	Non-Vegetated	Litter
31	None	NA	Non-Vegetated	Bare Ground
32	None	NA	Non-Vegetated	Litter
33	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
34	Undesirable	Kochia (Kochia scoparia)	Undesirable	Kochia (Kochia scoparia)
35	Undesirable	Kochia (Kochia scoparia)	Non-Vegetated	Litter
36	Grass	Western Wheatgrass (Pascopyrum smithii)	Grass	Western Wheatgrass (Pascopyrum smithii)
37	None	NA	Non-Vegetated	Bare Ground
38	Undesirable	Kochia (Kochia scoparia)	Undesirable	Kochia (Kochia scoparia)
39	Undesirable	Kochia (Kochia scoparia)	Undesirable	Kochia (Kochia scoparia)
40	None	NA	Non-Vegetated	Litter
41	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Bare Ground
42	Undesirable	Kochia (Kochia scoparia)	Undesirable	Kochia (Kochia scoparia)
43	Undesirable	Kochia (Kochia scoparia)	Non-Vegetated	Litter
44	Undesirable	Stinkgrass (Eragrostis cilianensis)	Undesirable	Stinkgrass (Eragrostis cilianensis)
45	Grass	Bluebunch wheatgrass (Pseudoroegneria spicata)	Undesirable	Kochia (Kochia scoparia)
46	Undesirable	Stinkgrass (Eragrostis cilianensis)	Undesirable	Stinkgrass (Eragrostis cilianensis)
47	Undesirable	Kochia (Kochia scoparia)	Undesirable	Kochia (Kochia scoparia)
48	Undesirable	Stinkgrass (Eragrostis cilianensis)	Undesirable	Stinkgrass (Eragrostis cilianensis)
49	None	NA	Non-Vegetated	Bare Ground
50	Undesirable	Stinkgrass (Eragrostis cilianensis)	Undesirable	Kochia (Kochia scoparia)

Client PDC ENERGY, INC (69175)
Operator Location Information Landau 2 Well site (Location ID: 323178)
Assessment Date 8/8/2021
Inspector Name Adam Roll
Transect Length 347 feet

Reference Transect 1

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Bare Ground
2	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
3	Grass	Western Wheatgrass (Pascopyrum smithii)	Non-Vegetated	Litter
4	Grass	Western Wheatgrass (Pascopyrum smithii)	Non-Vegetated	Bare Ground
5	Undesirable	Kochia (Kochia scoparia)	Non-Vegetated	Bare Ground
6	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
7	Grass	Alkali Cordgrass (Spartina gracilis)	Undesirable	Stinkgrass (Eragrostis cilianensis)
8	Undesirable	Stinkgrass (Eragrostis cilianensis)	Noxious List C	Puncturevine (Tribulus terrestris)
9	None	NA	Non-Vegetated	Litter
10	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
11	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Bare Ground
12	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
13	Undesirable	Stinkgrass (Eragrostis cilianensis)	Noxious List C	Puncturevine (Tribulus terrestris)
14	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
15	Grass	Sand dropseed (Sporobolus cryptandrus)	Undesirable	Kochia (Kochia scoparia)
16	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Rock
17	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
18	Grass	Alkali Cordgrass (Spartina gracilis)	Undesirable	Stinkgrass (Eragrostis cilianensis)
19	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Rock
20	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
21	Grass	Intermediate wheatgrass (Thinopyrum intermedia)	Non-Vegetated	Litter
22	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
23	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
24	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Rock
25	Grass	Western Wheatgrass (Pascopyrum smithii)	Non-Vegetated	Litter
26	Grass	Western Wheatgrass (Pascopyrum smithii)	Undesirable	Stinkgrass (Eragrostis cilianensis)
27	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
28	Grass	Sand dropseed (Sporobolus cryptandrus)	Noxious List C	Puncturevine (Tribulus terrestris)
29	Grass	Western Wheatgrass (Pascopyrum smithii)	Non-Vegetated	Rock
30	Noxious List C	Puncturevine (Tribulus terrestris)	Noxious List C	Puncturevine (Tribulus terrestris)
31	Undesirable	Stinkgrass (Eragrostis cilianensis)	Noxious List C	Puncturevine (Tribulus terrestris)
32	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
33	Grass	Green Needlegrass (Nassella viridula)	Noxious List C	Puncturevine (Tribulus terrestris)
34	Noxious List C	Downy brome (Bromus tectorum)	Non-Vegetated	Litter
35	Undesirable	Stinkgrass (Eragrostis cilianensis)	Noxious List C	Puncturevine (Tribulus terrestris)
36	Noxious List C	Puncturevine (Tribulus terrestris)	Noxious List C	Puncturevine (Tribulus terrestris)
37	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
38	Grass	Intermediate wheatgrass (Thinopyrum intermedia)	Noxious List C	Puncturevine (Tribulus terrestris)
39	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
40	None	NA	Non-Vegetated	Litter
41	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Rock
42	Grass	Green Needlegrass (Nassella viridula)	Non-Vegetated	Bare Ground
43	None	Rock	Non-Vegetated	Rock
44	Grass	Sand dropseed (Sporobolus cryptandrus)	Undesirable	Russian thistle (Salsola tragus L.)
45	Grass	Green Needlegrass (Nassella viridula)	Non-Vegetated	Litter
46	Grass	Green Needlegrass (Nassella viridula)	Undesirable	Russian thistle (Salsola tragus L.)
47	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Rock
48	Grass	Green Needlegrass (Nassella viridula)	Non-Vegetated	Litter
49	Noxious List C	Field bindweed (Convolvulus arvensis)	Noxious List C	Field bindweed (Convolvulus arvensis)
50	Grass	Green Needlegrass (Nassella viridula)	Noxious List C	Puncturevine (Tribulus terrestris)

Client PDC ENERGY, INC (69175)
Operator Location Information Landau 2 Well site (Location ID: 323178)
Assessment Date 8/8/2021
Inspector Name Adam Roll
Transect Length 259 feet

Reference Transect 2

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Noxious List C	Puncturevine (Tribulus terrestris)	Undesirable	Stinkgrass (Eragrostis cilianensis)
2	Grass	Green Needlegrass (Nassella viridula)	Noxious List C	Puncturevine (Tribulus terrestris)
3	Noxious List C	Puncturevine (Tribulus terrestris)	Noxious List C	Puncturevine (Tribulus terrestris)
4	Noxious List C	Puncturevine (Tribulus terrestris)	Noxious List C	Puncturevine (Tribulus terrestris)
5	Undesirable	Stinkgrass (Eragrostis cilianensis)	Noxious List C	Puncturevine (Tribulus terrestris)
6	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
7	Undesirable	Stinkgrass (Eragrostis cilianensis)	Noxious List C	Puncturevine (Tribulus terrestris)
8	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Rock
9	Noxious List C	Puncturevine (Tribulus terrestris)	Noxious List C	Puncturevine (Tribulus terrestris)
10	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
11	Grass	Green Needlegrass (Nassella viridula)	Non-Vegetated	Litter
12	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
13	Noxious List C	Puncturevine (Tribulus terrestris)	Noxious List C	Puncturevine (Tribulus terrestris)
14	Grass	Blue Grama (Bouteloua gracilis)	Noxious List C	Puncturevine (Tribulus terrestris)
15	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Bare Ground
16	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Bare Ground
17	Grass	Crested wheatgrass (Agropyron cristatum)	Noxious List C	Puncturevine (Tribulus terrestris)
18	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Rock
19	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Rock
20	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
21	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
22	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Rock
23	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Bare Ground
24	Undesirable	Stinkgrass (Eragrostis cilianensis)	Undesirable	Stinkgrass (Eragrostis cilianensis)
25	Undesirable	Stinkgrass (Eragrostis cilianensis)	Noxious List C	Puncturevine (Tribulus terrestris)
26	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
27	Noxious List C	Puncturevine (Tribulus terrestris)	Noxious List C	Puncturevine (Tribulus terrestris)
28	Undesirable	Stinkgrass (Eragrostis cilianensis)	Grass	Bluebunch wheatgrass (Pseudoroegneria spicata)
29	None	NA	Non-Vegetated	Litter
30	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
31	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
32	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
33	Undesirable	Stinkgrass (Eragrostis cilianensis)	Noxious List C	Puncturevine (Tribulus terrestris)
34	Grass	Sand dropseed (Sporobolus cryptandrus)	Undesirable	Stinkgrass (Eragrostis cilianensis)
35	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
36	Grass	Sand dropseed (Sporobolus cryptandrus)	Undesirable	Stinkgrass (Eragrostis cilianensis)
37	Undesirable	Stinkgrass (Eragrostis cilianensis)	Noxious List C	Puncturevine (Tribulus terrestris)
38	Grass	Sand dropseed (Sporobolus cryptandrus)	Undesirable	Stinkgrass (Eragrostis cilianensis)
39	Grass	Sand lovegrass (Eragrostis trichodes)	Noxious List C	Puncturevine (Tribulus terrestris)
40	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Rock
41	Undesirable	Stinkgrass (Eragrostis cilianensis)	Non-Vegetated	Litter
42	Grass	Sand dropseed (Sporobolus cryptandrus)	Undesirable	Stinkgrass (Eragrostis cilianensis)
43	Grass	Blue Grama (Bouteloua gracilis)	Grass	Blue Grama (Bouteloua gracilis)
44	Undesirable	Stinkgrass (Eragrostis cilianensis)	Undesirable	Stinkgrass (Eragrostis cilianensis)
45	Noxious List C	Puncturevine (Tribulus terrestris)	Noxious List C	Puncturevine (Tribulus terrestris)
46	Noxious List C	Puncturevine (Tribulus terrestris)	Non-Vegetated	Litter
47	Undesirable	Kochia (Kochia scoparia)	Undesirable	Kochia (Kochia scoparia)
48	Undesirable	Kochia (Kochia scoparia)	Undesirable	Kochia (Kochia scoparia)
49	None	NA	Non-Vegetated	Bare Ground
50	Grass	Bluebunch wheatgrass (Pseudoroegneria spicata)	Undesirable	Kochia (Kochia scoparia)