



January 19, 2017

Mr. Mike Dinkel, REM, CSEM  
Kerr-McGee Oil & Gas Onshore LP  
1099 18th Street, Suite 1800  
Denver, Colorado 80202

**RE: Colorado Oil & Gas Conservation Commission (COGCC)  
Form 4 (Interim Reclamation Completion Notice)  
HARRIS FEDERAL 15N-18HZ (329567)  
Kerr-McGee Oil & Gas Onshore LP (Operator: 47120)**

Dear Mr. Dinkel:

Apex Companies, LLC (Apex) is pleased to present this letter to Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) documenting results of a vegetation assessment that demonstrates successful completion of interim reclamation efforts per COGCC Rule 1003 on the above referenced location in Weld County, Colorado. Attached is a topographic map, which identifies the referenced location.

Based on site visits and the completed vegetation assessment, Apex inspectors confirmed that the unused portions of the reduced production footprint have been stabilized and seeded with a seed mixture representative of adjacent reference area species composition.

On August 10, 2016, modified step-point vegetation surveys were conducted on the reclaimed portion of the well pad, and on adjacent reference areas. Foliar and basal cover, along with non-vegetated, and noxious weed occurrences were documented; 100 survey points were recorded within the reclaimed disturbance and 100 survey points were recorded within the reference area. Noxious weeds listed by the Colorado Department of Agriculture were excluded from the vegetative coverage calculation.

Survey results indicate the reclaimed area has a foliar vegetative cover that is 246.46% of the undisturbed reference area. Vegetation survey results are provided in the attached survey summary tables and data sheets. Based on the results of the survey, interim reclamation as defined by COGCC Rule 1003.e (2) has been achieved. Photographs required by COGCC Rule 1003.e (3) are also attached along with a diagram illustrating vegetation survey efforts.

Apex appreciates the opportunity to provide environmental consulting services to Kerr-McGee with this project. Should you have any questions or require additional information, please don't hesitate to contact me.

Sincerely,  
**Apex Companies, LLC**

A handwritten signature in black ink, appearing to read 'Chris Hines', written over a horizontal line.

Chris Hines  
Project Manager  
970-261-1127  
[chris.hines@apexcos.com](mailto:chris.hines@apexcos.com)

Attachments:

1. Vegetation Survey (Summary of Field Data)
2. Vegetation Survey Site Map
3. Topographic Location Map
4. Vegetation Survey (Photos)
5. Vegetation Survey (Field Data Tables)



## Vegetation Survey (Summary of Field Data)

<b>Client</b>	Kerr-McGee Oil & Gas Onshore LP
<b>COGCC Location Name (ID)</b>	HARRIS FEDERAL 15N-18HZ (329567)
<b>Assessment Date</b>	8/10/2016
<b>Inspector Name - Title</b>	Jennie Schoedel - Environmental Scientist
<b>Data Processor Name - Title</b>	Jennie Schoedel-Environmental Scientist

Based on the survey methodology, the Foliar Cover % in each survey area is calculated by summing the total number of foliar occurrences, minus noxious weeds, and dividing by the total occurrences in the transect. For this location:

<b>Reclaim Area (Foliar Cover)</b>	<b>Reference Area (Foliar Cover)</b>
$(40 + 0 + 0) / 142 =$ <b>28.17%</b>	$(0 + 16 + 0) / 140 =$ <b>11.43%</b>

The Percent of Reference (%) used to evaluate each reclaim area for compliance with COGCC Rule 1003.e(2) for determining interim reclamation success, is calculated by dividing the Foliar Cover % in the Reclaim Area by the Foliar Cover % in the Reference Area. For this location:

<b>Percent of Reference (Reclaim % / Reference %)</b>
$28.17\% / 11.43\% =$ <b>246.46%</b>

### Reclaim Area Vegetation

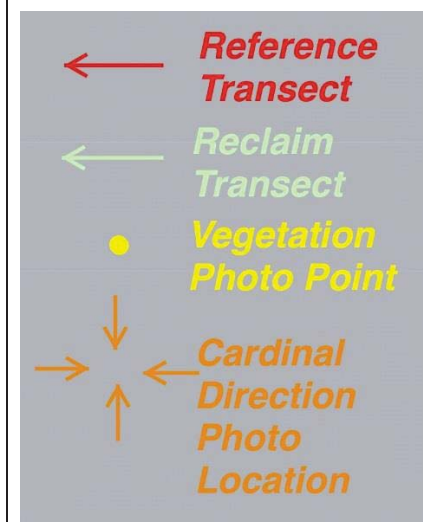
Foliar Cover	28.17%
Basal Cover	8.45%
Non Vegetated	61.97%
Noxious Weeds	1.41%
<b>QA Total</b> (must equal 100)	<b>100.00%</b>
Grass (Foliar)	40
Forb (Foliar)	0
Shrubs (Foliar)	0
Noxious Weed (Foliar)	2
Grass (Basal)	12
Forb (Basal)	0
Shrubs (Basal)	0
Noxious Weed (Basal)	0
Bare Ground	13
Litter	75
Rock	0
<b>Total Occurrences</b>	<b>142</b>

### Reference Area Vegetation

Foliar Cover	11.43%
Basal Cover	1.43%
Non Vegetated	68.57%
Noxious Weeds	18.57%
<b>QA Total</b> (must equal 100)	<b>100.00%</b>
Grass (Foliar)	0
Forb (Foliar)	16
Shrubs (Foliar)	0
Noxious Weed (Foliar)	24
Grass (Basal)	0
Forb (Basal)	2
Shrubs (Basal)	0
Noxious Weed (Basal)	2
Bare Ground	3
Litter	93
Rock	0
<b>Total Occurrences</b>	<b>140</b>



**Vegetation Survey Site Map**  
**HARRIS FEDERAL 15N-18HZ**  
**(329567)**



Legal Description: SWSE, Sec 19,  
T3N-R66W

County: Weld

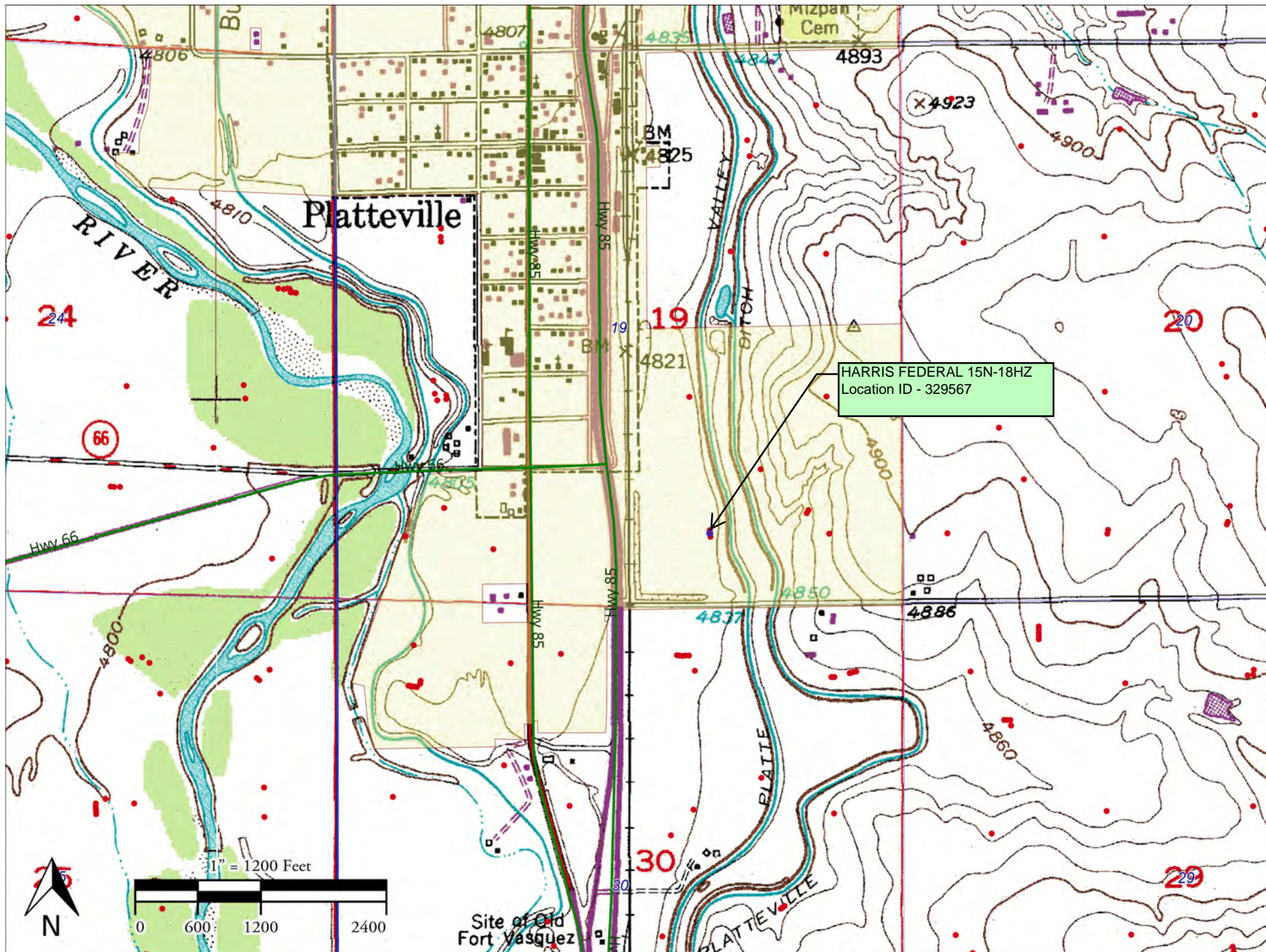
Land Use: Rangeland  
Reference Area Cover: 11.43%  
Reclamation Cover: 28.17 %  
Cover Ratio  
(Reclaim/Reference): 246.46%

Inspector: J. Schoedel  
Assessment Date: 08/10/2016





# HARRIS FEDERAL 15N-18HZ (329567) Topographic Location Map

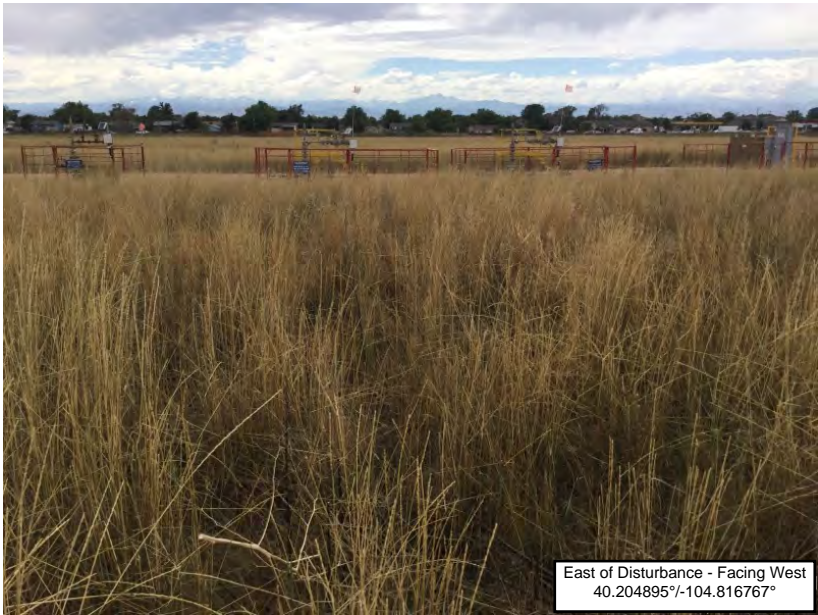






Edge of Disturbance - Facing South  
40.204980°/-104.818799°























**VEGETATION MONITORING FORM:** Kerr-McGee Oil & Gas Onshore LP

COGCC Location Name (ID): HARRIS FEDERAL 15N-18HZ (329567)

CO #: COP0171

Date of Assessment: 08/10/2016

Transect ID: Reclaim transect 1

Length of Transect (ft.): 500

Transect Type:



Reclamation



Reference

Inspector(s) (Name and Title): Jennie Schoedel - Environmental Scientist

Weather at Time of Inspection: Partly Cloudy, 90s

Method: Step Point

Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
1	-		-		Litter
2	Grass	Thinopyrum intermedia	-		Litter
3	Grass	Thinopyrum intermedia	-		Bare Ground
4	Grass	Thinopyrum intermedia	-		Bare Ground
5	-		-		Bare Ground
6	-		-		Litter
7	Grass	Thinopyrum intermedia	B-Grass	Thinopyrum intermedia	-
8	-		-		Litter
9	Grass	Thinopyrum intermedia	B-Grass	Thinopyrum intermedia	-
10	-		-		Litter
11	-		-		Litter
12	Grass	Bromus inermis	-		Bare Ground
13	-		-		Litter
14	-		-		Litter
15	Grass	Bromus inermis	-		Litter
16	-		-		Litter
17	-		-		Litter
18	Grass	Thinopyrum intermedia	B-Grass	Thinopyrum intermedia	-
19	-		-		Litter
20	Grass	Pascopyrum smithii (Agropyron)	-		Litter
21	-		-		Litter
22	-		-		Litter
23	Grass	Thinopyrum intermedia	B-Grass	Thinopyrum intermedia	-
24	-		-		Litter
25	Grass	Bromus inermis	-		Bare Ground
26	-		-		Litter
27	Grass	Thinopyrum intermedia	B-Grass	Thinopyrum intermedia	-
28	-		-		Litter
29	-		-		Litter



Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
30	-		-		Litter
31	Grass	Thinopyrum intermedia	-		Litter
32	Grass	Bromus inermis	-		Litter
33	-		-		Litter
34	-		-		Litter
35	Grass	Thinopyrum intermedia	-		Bare Ground
36	-		-		Litter
37	-		-		Bare Ground
38	-		-		Litter
39	Grass	Bromus inermis	-		Litter
40	-		-		Bare Ground
41	-		-		Litter
42	Grass	Pascopyrum smithii (Agropyron)	-		Litter
43	-		-		Bare Ground
44	-		-		Litter
45	-		-		Bare Ground
46	-		-		Litter
47	Grass	Thinopyrum intermedia	-		Litter
48	-		-		Bare Ground
49	-		-		Litter
50	Grass	Thinopyrum intermedia	-		Bare Ground

#### Photo Requirements

Representative photo looking down the length of each transect; including reference area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo facing each cardinal direction (N, E, S, W) from edge of disturbance looking to well heads.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Representative photo down edge of disturbance.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo that documents the total cover of live perennial vegetation for the reference area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo that documents the total cover of live perennial vegetation of the disturbed area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO

#### General Notes:

List any newly identified species not present in drop-down lists.

#### INSPECTION CERTIFICATION

I certify that this document and all attachments were prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of termination.

Inspector (Name)

Jennie Schoedel - Environmental Scientist



Date: 08/10/2016



**VEGETATION MONITORING FORM: Kerr-McGee Oil & Gas Onshore LP**

COGCC Location Name (ID): HARRIS FEDERAL 15N-18HZ (329567)

CO #: COP0171

Date of Assessment: 08/10/2016

Transect ID: Reclaim transect 2

Length of Transect (ft.): 500

Transect Type:



Reclamation



Reference

Inspector(s) (Name and Title): Jennie Schoedel - Environmental Scientist

Weather at Time of Inspection: Partly Cloudy, 90s

Method: Step Point

Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
1	Noxious Weed	Bromus tectorum	-		Litter
2	-		-		Litter
3	Grass	Bromus inermis	-		Litter
4	Grass	Thinopyrum intermedia	B-Grass	Thinopyrum intermedia	-
5	-		-		Litter
6	-		-		Litter
7	Grass	Bromus inermis	-		Litter
8	-		-		Litter
9	Grass	Bromus inermis	B-Grass	Bromus inermis	-
10	-		-		Bare Ground
11	Noxious Weed	Bromus tectorum	-		Litter
12	Grass	Bromus inermis	-		Litter
13	-		-		Litter
14	-		-		Litter
15	Grass	Thinopyrum intermedia	B-Grass	Thinopyrum intermedia	-
16	Grass	Thinopyrum intermedia	-		Litter
17	-		-		Litter
18	-		-		Litter
19	-		-		Litter
20	-		-		Litter
21	Grass	Thinopyrum intermedia	B-Grass	Thinopyrum intermedia	-
22	-		-		Litter
23	Grass	Bromus inermis	-		Litter
24	Grass	Thinopyrum intermedia	-		Litter
25	-		-		Litter
26	-		-		Litter
27	Grass	Bromus inermis	-		Litter
28	Grass	Thinopyrum intermedia	-		Litter
29	Grass	Bromus inermis	B-Grass	Bromus inermis	-



Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
30	-		-		Litter
31	-		-		Litter
32	Grass	Bromus inermis	-		Litter
33	Grass	Bromus inermis	-		Litter
34	-		-		Litter
35	-		-		Litter
36	Grass	Bromus inermis	-		Litter
37	-		-		Litter
38	Grass	Bromus inermis	-		Litter
39	Grass	Thinopyrum intermedia	B-Grass	Thinopyrum intermedia	-
40	-		-		Litter
41	-		-		Litter
42	-		-		Litter
43	-		-		Litter
44	Grass	Thinopyrum intermedia	B-Grass	Thinopyrum intermedia	-
45	-		-		Litter
46	Grass	Thinopyrum intermedia	-		Litter
47	-		-		Litter
48	Grass	Thinopyrum intermedia	-		Litter
49	-		-		Litter
50	-		-		Litter

#### Photo Requirements

Representative photo looking down the length of each transect; including reference area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo facing each cardinal direction (N, E, S, W) from edge of disturbance looking to well heads.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
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Photo that documents the total cover of live perennial vegetation for the reference area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo that documents the total cover of live perennial vegetation of the disturbed area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO

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CO #: COP0171

Date of Assessment: 08/10/2016

Transect ID: Reference transect 1

Length of Transect (ft.): 500

Transect Type:

☐

Reclamation

☒

Reference

Inspector(s) (Name and Title): Jennie Schoedel - Environmental Scientist

Weather at Time of Inspection: Partly Cloudy, 90s

Method: Step Point

Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
1	-		-		Litter
2	-		-		Litter
3	Noxious Weed	Bromus tectorum	-		Litter
4	Noxious Weed	Bromus tectorum	-		Litter
5	-		-		Litter
6	-		-		Litter
7	-		-		Litter
8	-		-		Litter
9	Noxious Weed	Bromus tectorum	-		Litter
10	-		-		Litter
11	Noxious Weed	Bromus tectorum	-		Litter
12	Noxious Weed	Bromus tectorum	-		Litter
13	-		-		Litter
14	-		-		Litter
15	Noxious Weed	Bromus tectorum	-		Litter
16	Noxious Weed	Bromus tectorum	-		Litter
17	-		-		Litter
18	-		-		Litter
19	Forb	Other spp. 1	-		Litter
20	-		-		Litter
21	Noxious Weed	Bromus tectorum	-		Litter
22	Forb	Lactuca serriola	-		Litter
23	Noxious Weed	Bromus tectorum	-		Litter
24	-		-		Litter
25	-		-		Litter
26	Noxious Weed	Bromus tectorum	-		Litter
27	-		-		Litter
28	Noxious Weed	Bromus tectorum	-		Litter
29	-		-		Litter



Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
30	-		-		Litter
31	-		-		Litter
32	Forb	Lactuca serriola	-		Litter
33	Noxious Weed	Bromus tectorum	-		Litter
34	-		-		Litter
35	Noxious Weed	Bromus tectorum	-		Litter
36	-		-		Litter
37	-		-		Litter
38	Forb	Lactuca serriola	-		Litter
39	-		-		Litter
40	-		-		Litter
41	Noxious Weed	Bromus tectorum	-		Litter
42	-		-		Litter
43	-		-		Litter
44	Noxious Weed	Bromus tectorum	B-Noxious Weed	Bromus tectorum	-
45	-		-		Litter
46	Forb	Lactuca serriola	-		Litter
47	-		-		Litter
48	-		-		Litter
49	Forb	Lactuca serriola	B-Forb	Lactuca serriola	-
50	-		-		Litter

#### Photo Requirements

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Photo that documents the total cover of live perennial vegetation of the disturbed area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO

#### General Notes: Forb other species 1 Curley dock

List any newly identified species not present in drop-down lists.

#### INSPECTION CERTIFICATION

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Inspector (Name)

Jennie Schoedel - Environmental Scientist



Date: 08/10/2016

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CO #: COP0171

Date of Assessment: 08/10/2016

Transect ID: Reference transect 2

Length of Transect (ft.): 500

Transect Type:

☐ Reclamation☒ Reference

Inspector(s) (Name and Title): Jennie Schoedel - Environmental Scientist

Weather at Time of Inspection: Partly Cloudy, 90s

Method: Step Point

Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
1	-		-		Litter
2	-		-		Litter
3	-		-		Bare Ground
4	Forb	Lactuca serriola	-		Litter
5	-		-		Litter
6	-		-		Litter
7	Noxious Weed	Bromus tectorum	-		Litter
8	-		-		Bare Ground
9	-		-		Litter
10	Forb	Other spp. 1	-		Litter
11	-		-		Litter
12	-		-		Litter
13	-		-		Litter
14	-		-		Litter
15	Forb	Other spp. 1	-		Litter
16	-		-		Litter
17	Noxious Weed	Bromus tectorum	-		Litter
18	-		-		Litter
19	-		-		Bare Ground
20	Forb	Other spp. 1	-		Litter
21	-		-		Litter
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23	-		-		Litter
24	Noxious Weed	Bromus tectorum	-		Litter
25	-		-		Litter
26	Forb	Other spp. 1	B-Noxious Weed	Bromus tectorum	-
27	-		-		Litter
28	Noxious Weed	Bromus tectorum	-		Litter
29	-		-		Litter



Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
30	Forb	Lactuca serriola	-		Litter
31	-		-		Litter
32	-		-		Litter
33	Forb	Lactuca serriola	-		Litter
34	Noxious Weed	Bromus tectorum	-		Litter
35	-		-		Litter
36	-		-		Litter
37	-		-		Litter
38	Forb	Lactuca serriola	B-Forb	Lactuca serriola	-
39	-		-		Litter
40	Noxious Weed	Bromus tectorum	-		Litter
41	Noxious Weed	Bromus tectorum	-		Litter
42	-		-		Litter
43	-		-		Litter
44	Forb	Other spp. 1	-		Litter
45	-		-		Litter
46	-		-		Litter
47	Forb	Lactuca serriola	-		Litter
48	Noxious Weed	Bromus tectorum	-		Litter
49	-		-		Litter
50	-		-		Litter

#### Photo Requirements

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Photo that documents the total cover of live perennial vegetation for the reference area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo that documents the total cover of live perennial vegetation of the disturbed area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO

#### General Notes: Forb other species 1 curly dock

List any newly identified species not present in drop-down lists.

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Jennie Schoedel - Environmental Scientist



Date: 08/10/2016