CROWLEY | FLECK PLLP
ATTORNEYS

Brian R. Bjella
100 West Broadway, Suite 250
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bbjella@crowleyfleck.com

September 29, 2016

Mr. Darrell Nitschke
NORTH DAKOTA PUBLIC
SERVICE COMMISSION
600 E. Boulevard Avenue, Dept. 408
Bismarck, ND 58505-0480

Dear Mr. Nitschke:

In re: In the matter of the Application of
Vantage Pipeline US, LP
West Spur Lateral Pipeline
Williams and Divide Counties, North Dakota
Case No. PU-11-109
Our File No. 74-563-001

Enclosed for filing are 11 copies of the Vantage Pipeline Third Annual Tree and Shrub Reclamation Monitoring Report, with attached Memorandum from KC Harvey Environmental.

Please call should you have any questions.

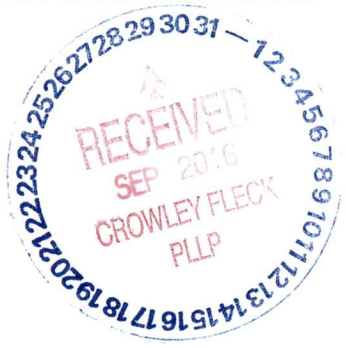
Very truly yours,

Brian Bjella

bw
Enc.
cc: (w/o enc.)
Julie Prescott
Irfana Qureshi
Monica Pokorny

MEMORANDUM

KC HARVEY
ENVIRONMENTAL, LLC



TO: Brian Bjella and Casey Furey, Crowley Fleck Attorneys PLLP

CC: Irfana Qureshi, Pembina Pipeline Corporation

FROM: Monica Pokorny, KC Harvey Environmental LLC mp

DATE: September 26, 2016

SUBJECT: Vantage West Spur Lateral and Vantage Mainline, Tree and Shrub Reclamation Monitoring for PSC

Enclosed are 11 copies of the Vantage West Spur Lateral Pipeline First Annual Tree and Shrub Reclamation Monitoring Report (PU-15-142), and 11 copies of the Vantage Pipeline Third Annual Tree and Shrub Reclamation Monitoring Report (PU-11-109) for the PSC. The documents are also saved electronically on CD for the PSC.

Please let me know if you have any questions or concerns.

KC Harvey Environmental, LLC
376 Gallatin Park Drive
Bozeman, Montana 59715

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T 406-585-7402
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KC HARVEY
ENVIRONMENTAL, LLC

September 26, 2016

North Dakota Public Service Commission
Patrick Fahn
600 E. Boulevard, Dept 408
Bismarck, ND 58505-0480

RE: Tree and Shrub Planting Survival – Third Year Annual Report Vantage Pipeline Case No. PU-11-109

Dear Mr. Fahn,

In accordance with the North Dakota Public Service Commission (NDPSC) Tree and Shrub Mitigation Specifications, KC Harvey is submitting documentation of the reclamation planting survival monitoring for the third year after reclamation for the Vantage Pipeline Case Number PU-11-109.

The Tree and Shrub Reclamation Plan provided the following information as requested by the NDPSC Mitigation Specifications:

- The number and variety of trees and shrubs removed
- Reclamation plan for replacing these species at a 2:1 ratio
- The variety, location, and date of replacement plantings

A letter to the NDPSC dated May 29, 2015 and titled Tree and Shrub Reclamation Plan for Vantage Pipeline Case No. PU-11-109 documented the actual tree and shrubs planted as part of the reclamation efforts in 2014 and 2015. Tree and shrub stock was obtained from the Divide County Conservation District and were planted in May 2014 and 2015.

The tree and shrub survival monitoring occurred again in September 2016. The results are documented in the attached annual report.

Please contact us if you require any additional information.

Sincerely,

David P. Cameron, P.E.
Principal Engineer
KC Harvey Environmental, LLC

Monica Pokorny
Senior Ecologist
KC Harvey Environmental, LLC

KC Harvey Environmental, LLC
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Bozeman, Montana 59715

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THIRD ANNUAL MONITORING REPORT OF TREE AND SHRUB RECLAMATION PLANTING SURVIVAL

Prepared for:

State of North Dakota Public Service Commission
Vantage Pipeline
Case No: PU-11-109

September 26, 2016

KC HARVEY
ENVIRONMENTAL, LLC

VANTAGE
PIPELINE US LP

Introduction

This document is a report of the third annual Vantage Pipeline monitoring for tree and shrub reclamation plantings survival. Vantage Pipeline US LP replanted trees and shrubs removed during construction using the methods outlined in the State of North Dakota Public Service Commission (NDPSC) approved Tree and Shrub Reclamation Plan submitted October 2013 (NDPSC approval letter dated November 25, 2013). The 79.8 miles pipeline alignment is from Tioga, ND to the Canadian border northwest of Fortuna, ND within Divide and Williams Counties. The construction right-of-way (ROW) was 70 feet wide. A permanent ROW (PROW) approximately 30 feet of the ROW will be maintained for the lifetime of the pipeline. Vantage Pipeline agrees to comply with all stipulations in the NDPSC's Tree and Shrub Mitigation Specifications, including completing annual inspections for three years following reclamation.

Tree and Shrub Reclamation Plantings

An inventory of planted tree and shrub species was documented in letters to the NDPSC dated May 12, 2014 and May 29, 2015 both titled Tree and Shrub Reclamation Plan for Vantage Case No. PU-11-109. Table 1 outlines the trees and shrubs planted as part of the pipeline reclamation in May 2014 and 2015. Trees planted were at least two-year-old saplings, and shrubs were seedlings or root cuttings. There were six species of trees and shrubs removed from windbreaks, shelterbelts or natural areas during the construction of the Vantage Pipeline. In 2014, the same species were replaced in the approximate locations they were removed. In 2015, trees and shrubs were replanted into three windbreaks. There are four locations on the Vantage Pipeline where either Russian olive or Siberian elm were present in native grasslands. Following the North Dakota Forest Service (NDFS) recommendations, these two species were replaced with a native shrub or tree species. Snowberry and wild rose have regenerated from root fragments and seed where the species were present pre-pipeline disturbance. Trees and shrubs disturbed by the pipeline construction were replaced at a rate of 2:1. The goal is for ≥75% survival three years after planting.

Tree and Shrub Reclamation Planting Survival Monitoring

Vantage Pipeline US LP monitored tree and shrub reclamation plantings for survival on September 22 and 23, 2016. The number of live stems per species planted were counted. Survival percentage is the ratio of live stems to planted stems. Table 1 documents the survival rate of the reclamation tree and shrub plantings, and Table 2 documents shrubs that have naturally regenerated on the ROW.

There were eleven species of trees and shrubs planted on the Vantage Pipeline in 2014 and 2015 including silverberry, chokecherry, dogwood, green ash, caragana, silver buffaloberry, juniper, maple, ponderosa pine, Siberian elm, and willow. Monitoring of the 2014 plantings had low survival due to plantings being cropped through by landowners, the removal of plantings during construction of an adjacent pipeline, and competition with seeded grasses. Therefore, in 2015 additional trees and shrubs were planted. The September 2015 and 2016 monitoring evaluated survival of trees and shrubs in all planting locations. A total of 548 trees and shrubs were inventoried prior to the Vantage Pipeline construction and were removed during construction. In 2014 and 2015, 1,096 and 830 (1,926 total) individual trees and shrubs were planted, respectively. The September 2016 monitoring recorded 1,038 surviving trees and shrubs (Table 1). Approximately two plantings survived for each one plant removed during construction (1038 surviving plants : 548 removed). The third year monitoring found that tree and

met the NDPSC requirements with >75% of the planting surviving three years post-construction. The overall survival of planted species was 189%.

The natural regeneration of snowberry and rose was monitored by counting the number of stems re-establishing in the ROW. Prior to construction, 37,919 snowberry and rose stems were inventoried along the ROW. During the second year following construction, snowberry and rose stem count on the ROW was 90,825. The third year of monitoring verified the stem count. This included all areas where the two species was found prior to construction, and areas where the species have newly established after construction (Table 2). The overall survival of snowberry and rose exceeded the goal of 75% survival. The overall survival of snowberry and rose was 240%.

In summary, the planted trees and shrubs had a 189% survival compared to the number of plants removed. Snowberry and rose had a high (240%) natural regeneration. The NDPSC goal is to replace trees and shrubs on the pipeline at a ratio of 2:1 with a survival of 75%. During the third year of monitoring for both planted and naturally regenerated species there was survival of 91,863 stems to replace the 38,467 stems removed during construction. This represents 239% mitigation replacement of trees and shrubs on the Vantage Pipeline ROW.

Table 1. Survival of tree and shrub reclamation plantings, September 2016.

Pipeline Milepost	Inventory Species	Inventory Stem Count	Mitigation Plan	Date Planted	Mitigation Species Planted	2014 Mitigation Stem Count Planted	2015 Mitigation Stem Count Planted	Survival Monitoring Observed Stem Count
0.71	Silverberry	25	replace same species, 2 to 1	5/7/2014	Silverberry	50	0	200
2.50	Russian Olive	1	Replace with chokecherry, 2 to 1	5/7/2014	Chokecherry	2	0	0
3.15	Chokecherry	50	replace same species, 2 to 1	5/7/2014	Chokecherry	100	0	0
3.51	Dogwood	5	replace same species, 2 to 1	5/7/2014	Dogwood	10	0	0
4.24	Siberian Elm	1	Replace with chokecherry, 2 to 1	5/7/2014	Chokecherry	2	0	0
4.35	Chokecherry	2	replace same species, 2 to 1	5/7/2014	Chokecherry	4	0	0
4.35	Green Ash	10	replace same species, 2 to 1	5/7/2014	Green Ash	20	0	20
4.36	Willow	2	replace same species, 2 to 1	5/7/2014	Willow	4	0	0
4.95	Silverberry	100	replace same species, 2 to 1	5/7/2014	Silverberry	200	0	250
5.36	Chokecherry	10	replace same species, 2 to 1	5/8/2014	Chokecherry	20	0	22
5.68	Silverberry	75	replace same species, 2 to 1	5/8/2014	Silverberry	150	0	100
5.71	Silverberry	10	replace same species, 2 to 1	5/8/2014	Silverberry	20	0	20
6.07	Caragana	10	replace same species, 2 to 1	5/8/2014	Caragana	20	0	20
6.07	Green Ash	5	replace same species, 2 to 1	5/8/2014	Green Ash	10	0	1
6.21	Caragana	15	replace same species, 2 to 1	5/8/2014	Caragana	30	0	12
6.35	Caragana	16	replace same species, 2 to 1	5/8/2014	Caragana	32	0	0
6.48	Caragana	20	replace same species, 2 to 1	5/8/2014	Caragana	40	0	20
6.48	Green Ash	6	replace same species, 2 to 1	5/8/2014	Green Ash	12	0	0

Pipeline Milepost	Inventory Species	Inventory Stem Count	Mitigation Plan	Date Planted	Mitigation Species Planted	2014 Mitigation Stem Count Planted	2015 Mitigation Stem Count Planted	Survival Monitoring Observed Stem Count
6.77	Silver Buffaloberry	50	replace same species, 2 to 1	5/8/2014	Silver Buffaloberry	100	0	0
7.63	Juniper	1	replace same species, 2 to 1	5/8/2014	Juniper	2	0	0
8.41	Chokecherry	1	replace same species, 2 to 1	5/8/2014	Chokecherry	2	0	0
11.93	Russian Olive	1	Replace with chokecherry, 2 to 1	5/6/2014	Chokecherry	2	0	0
12.43	Siberian Elm	7	replace same species, 2 to 1	5/6/2014	Siberian Elm	14	0	8
15.10	Siberian Elm	1	Replace with chokecherry, 2 to 1	5/6/2014	Chokecherry	2	0	0
16.09	Chokecherry	1	replace same species, 2 to 1	5/6/2014	Chokecherry	2	0	2
21.36	Maple	1	replace same species, 2 to 1	5/6/2014	Maple	2	0	1
21.38	Green Ash	8	replace same species, 2 to 1	5/6/2014	Green Ash	16	0	8
21.39	Willow	2	replace same species, 2 to 1	5/6/2014	Willow	4	0	0
30.24	Chokecherry	1	replace same species, 2 to 1	5/6/2014	Chokecherry	2	0	0
30.34	Chokecherry	3	replace same species, 2 to 1	5/6/2014	Chokecherry	6	0	1
30.48	Chokecherry	2	replace same species, 2 to 1	5/6/2014	Chokecherry	4	0	20
32.00			homestead windbreak	5/1/2015	Chokecherry	0	140	122
32.00			homestead windbreak	5/1/2015	Silverberry	0	75	0
32.00			homestead windbreak	5/1/2015	Silver Buffaloberry	0	100	52
32.00			homestead windbreak	5/1/2015	Willow	0	20	20
32.00			homestead windbreak	5/1/2015	Dogwood	0	25	0
33.44	Ponderose Pine	4	replace same species, 2 to 1	5/6/2014	Ponderosa Pine	8	0	0
33.44			additional windbreak	5/1/2015	Caragana	0	117	40
33.44			additional windbreak	5/1/2015	Siberian Elm	0	30	22
33.44			additional windbreak	5/1/2015	Green Ash	0	60	30
33.44			additional windbreak	5/1/2015	Silverberry	0	100	10
40.16	Siberian Elm	7	replace same species, 2 to 1	5/6/2014	Siberian Elm	14	0	15
61.52	Caragana	95	replace same species, 2 to 1	5/6/2014 & 4/29/2015	Caragana	190	163	22
	Total Removed	**548**			**Total Planted per year**	**1096**	**830**	**1038**

Table 2. Survival of snowberry and wild rose natural regeneration and seedlings, September 2015 with verification 2016.

Milepost	Species	Inventory Stem Count	Mitigation Plan	Survival Observed Stem Count
0.60	Snowberry	300	Natural Regeneration	4000
0.69	Snowberry	300	Natural Regeneration	2500
0.71	Snowberry	300	Natural Regeneration	200
0.71	Snowberry	100	Natural Regeneration	10
0.71	Wild rose	100	Natural Regeneration	100
0.82	Snowberry	100	Natural Regeneration	2500
0.85	Snowberry	70	Natural Regeneration	100
0.85	Wild rose	35	Natural Regeneration	200
0.87	Snowberry	50	Natural Regeneration	1500
0.88	Snowberry	300	Natural Regeneration	300
0.95	Snowberry	1000	Natural Regeneration	600
2.44	Snowberry	0	Natural Regeneration	50
2.50	Snowberry	50	Natural Regeneration	200
2.82	Snowberry	0	Natural Regeneration	15
3.03	Snowberry	1000	Natural Regeneration	500
3.08	Snowberry	1000	Natural Regeneration	500
3.11	Snowberry	1000	Natural Regeneration	1500
3.15	Snowberry	300	Natural Regeneration	200
3.21	Snowberry	200	Natural Regeneration	500
3.25	Snowberry	100	Natural Regeneration	500
3.51	Snowberry	100	Natural Regeneration	300
3.53	Snowberry	300	Natural Regeneration	1500
3.60	Snowberry	300	Natural Regeneration	1000
3.60	Wild rose	100	Natural Regeneration	100
3.64	Snowberry	10000	Natural Regeneration	600
3.68	Wild rose	0	Natural Regeneration	100
3.70	Snowberry	350	Natural Regeneration	400
3.78	Snowberry	500	Natural Regeneration	400
3.85	Wild rose	0	Natural Regeneration	1
3.98	Snowberry	0	Natural Regeneration	500
4.04	Snowberry	200	Natural Regeneration	3000
4.10	Snowberry	0	Natural Regeneration	100
4.30	Wild rose	200	Natural Regeneration	200
4.55	Snowberry	200	Natural Regeneration	2000
4.59	Snowberry	500	Natural Regeneration	1200
4.66	Snowberry	250	Natural Regeneration	1700
4.76	Snowberry	250	Natural Regeneration	2500
4.87	Wild rose	0	Natural Regeneration	200
4.89	Snowberry	0	Natural Regeneration	1500

Milepost	Species	Inventory Stem Count	Mitigation Plan	Survival Observed Stem Count
5.24	Snowberry	100	Natural Regeneration	200
5.28	Snowberry	250	Natural Regeneration	75
5.30	Snowberry	200	Natural Regeneration	10
5.32	Snowberry	0	Natural Regeneration	100
5.40	Snowberry	100	Natural Regeneration	50
5.44	Wild rose	50	Natural Regeneration	200
5.47	Snowberry	250	Natural Regeneration	500
5.52	Snowberry	200	Natural Regeneration	200
5.59	Snowberry	100	Natural Regeneration	100
5.62	Snowberry	0	Natural Regeneration	250
5.68	Snowberry	100	Natural Regeneration	100
5.71	Snowberry	100	Natural Regeneration	500
5.75	Snowberry	200	Natural Regeneration	100
5.75	Wild rose	50	Natural Regeneration	10
5.78	Snowberry	100	Natural Regeneration	250
6.01	Snowberry	50	Natural Regeneration	50
6.03	Wild rose	0	Natural Regeneration	2
6.04	Snowberry	150	Natural Regeneration	20
6.04	Wild rose	50	Natural Regeneration	10
6.31	Siberian Elm	0	Natural Regeneration	1
6.67	Snowberry	200	Natural Regeneration	0
6.72	Snowberry	200	Natural Regeneration	250
6.72	Wild rose	0	Natural Regeneration	40
6.83	Snowberry	0	Natural Regeneration	250
6.84	Snowberry	500	Natural Regeneration	600
6.88	Wild rose	50	Natural Regeneration	100
6.91	Snowberry	50	Natural Regeneration	40
6.96	Snowberry	200	Natural Regeneration	30
7.00	Snowberry	250	Natural Regeneration	150
7.26	Snowberry	250	Natural Regeneration	150
7.28	Snowberry	250	Natural Regeneration	0
7.33	Snowberry	500	Natural Regeneration	750
7.40	Snowberry	300	Natural Regeneration	400
7.43	Snowberry	200	Natural Regeneration	400
7.47	Snowberry	1000	Natural Regeneration	50
7.53	Snowberry	300	Natural Regeneration	50
7.63	Snowberry	250	Natural Regeneration	300
7.70	Snowberry	500	Natural Regeneration	250
7.73	Snowberry	250	Natural Regeneration	500
7.78	Snowberry	500	Natural Regeneration	100

Milepost	Species	Inventory Stem Count	Mitigation Plan	Survival Observed Stem Count
7.87	Snowberry	50	Natural Regeneration	100
7.99	Snowberry	1500	Natural Regeneration	1600
8.09	Snowberry	1000	Natural Regeneration	1000
8.15	Snowberry	200	Natural Regeneration	200
8.21	Snowberry	250	Natural Regeneration	300
8.22	Snowberry	0	Natural Regeneration	50
8.24	Snowberry	0	Natural Regeneration	1500
8.33	Snowberry	150	Natural Regeneration	500
8.37	Snowberry	350	Natural Regeneration	350
8.53	Snowberry	100	Natural Regeneration	100
11.97	Snowberry	150	Natural Regeneration	0
11.97	Wild rose	100	Natural Regeneration	0
14.84	Snowberry	1500	Natural Regeneration	1500
14.85	Wild rose	0	Natural Regeneration	50
14.87	Snowberry	0	Natural Regeneration	200
15.04	Snowberry	1250	Natural Regeneration	1000
16.08	Snowberry	550	Natural Regeneration	150
17.74	Snowberry	0	Natural Regeneration	500
19.80	Wild rose	0	Natural Regeneration	4
19.87	Willow	0	Natural Regeneration	1
27.34	Poplar	0	Natural Regeneration	2
27.76	Snowberry	0	Natural Regeneration	1500
28.04	Snowberry	0	Natural Regeneration	150
28.46	Snowberry	0	Natural Regeneration	1000
30.08	Wild rose	0	Natural Regeneration	1
30.13	Wild rose	0	Natural Regeneration	10
30.32	Snowberry	100	Natural Regeneration	300
30.34	Snowberry	50	Natural Regeneration	600
30.42	Snowberry	200	Natural Regeneration	300
30.43	Wild rose	0	Natural Regeneration	200
30.46	Snowberry	100	Natural Regeneration	500
30.54	Wild rose	0	Natural Regeneration	100
30.58	Snowberry	0	Natural Regeneration	50
30.72	Snowberry	200	Natural Regeneration	200
30.76	Snowberry	1000	Natural Regeneration	750
30.79	Snowberry	850	Natural Regeneration	1000
38.91	Snowberry	23	Natural Regeneration	1000
42.08	Snowberry	21	Natural Regeneration	3000
42.17	Snowberry	18	Natural Regeneration	1000
48.44	Snowberry	18	Natural Regeneration	30

Milepost	Species	Inventory Stem Count	Mitigation Plan	Survival Observed Stem Count
48.44	Wild rose	4	Natural Regeneration	20
50.22	Other	0	Natural Regeneration	4000
50.63	Snowberry	13	Natural Regeneration	200
50.72	Snowberry	0	Natural Regeneration	1200
50.73	Snowberry	10	Natural Regeneration	30
50.73	Snowberry	14	Natural Regeneration	10
50.77	Snowberry	12	Natural Regeneration	20
50.85	Snowberry	8	Natural Regeneration	0
50.93	Snowberry	6	Natural Regeneration	0
51.11	Snowberry	17	Natural Regeneration	0
51.12	Snowberry	9	Natural Regeneration	40
51.32	Snowberry	4	Natural Regeneration	350
51.41	Wild rose	0	Natural Regeneration	30
51.62	Snowberry	5	Natural Regeneration	15
51.62	Snowberry	6	Natural Regeneration	200
51.68	Snowberry	15	Natural Regeneration	9
51.68	Wild rose	3	Natural Regeneration	3
51.70	Snowberry	0	Natural Regeneration	5
51.74	Snowberry	10	Natural Regeneration	15
51.79	Snowberry	20	Natural Regeneration	15
51.81	Snowberry	23	Natural Regeneration	0
51.95	Snowberry	15	Natural Regeneration	0
52.04	Snowberry	24	Natural Regeneration	30
52.04	Wild rose	1	Natural Regeneration	7
52.19	Snowberry	6	Natural Regeneration	7
52.25	Snowberry	5	Natural Regeneration	5
52.25	Wild rose	2	Natural Regeneration	5
52.33	Snowberry	10	Natural Regeneration	20
52.36	Snowberry	20	Natural Regeneration	50
52.45	Snowberry	15	Natural Regeneration	0
52.53	Snowberry	9	Natural Regeneration	0
52.61	Snowberry	21	Natural Regeneration	35
53.20	Snowberry	0	Natural Regeneration	3000
53.79	Snowberry	0	Natural Regeneration	12
53.85	Snowberry	9	Natural Regeneration	120
53.89	Snowberry	16	Natural Regeneration	25
53.95	Snowberry	17	Natural Regeneration	30
53.99	Snowberry	16	Natural Regeneration	50
54.16	Wild rose	0	Natural Regeneration	12
54.19	Snowberry	14	Natural Regeneration	45

Milepost	Species	Inventory Stem Count	Mitigation Plan	Survival Observed Stem Count
54.30	Snowberry	12	Natural Regeneration	10
63.88	Wild rose	0	Natural Regeneration	25
64.50	Snowberry	16	Natural Regeneration	200
64.54	Snowberry	2	Natural Regeneration	0
64.59	Snowberry	0	Natural Regeneration	250
64.62	Snowberry	29	Natural Regeneration	100
65.26	Wild rose	0	Natural Regeneration	30
65.91	Snowberry	2	Natural Regeneration	1500
66.01	Snowberry	0	Natural Regeneration	500
66.15	Snowberry	0	Natural Regeneration	1000
66.97	Snowberry	0	Natural Regeneration	500
67.04	Snowberry	0	Natural Regeneration	1000
67.76	Snowberry	0	Natural Regeneration	4000
67.76	Snowberry	7	Natural Regeneration	0
67.79	Snowberry	12	Natural Regeneration	20
67.82	Snowberry	0	Natural Regeneration	2000
67.87	Snowberry	0	Natural Regeneration	2000
67.88	Snowberry	0	Natural Regeneration	2000
68.01	Silverberry	0	Natural Regeneration	50
68.17	Snowberry	16	Natural Regeneration	2000
68.21	Snowberry	20	Natural Regeneration	0
68.27	Snowberry	23	Natural Regeneration	100
68.30	Snowberry	9	Natural Regeneration	300
68.33	Snowberry	15	Natural Regeneration	200
68.62	Snowberry	5	Natural Regeneration	10
68.62	Wild rose	3	Natural Regeneration	4
68.72	Snowberry	5	Natural Regeneration	10
69.10	Snowberry	6	Natural Regeneration	0
69.10	Wild rose	2	Natural Regeneration	10
69.20	Snowberry	0	Natural Regeneration	12
69.22	Snowberry	0	Natural Regeneration	57
69.59	Snowberry	0	Natural Regeneration	40
69.64	Snowberry	12	Natural Regeneration	9
69.73	Snowberry	15	Natural Regeneration	32
73.84	Wild rose	0	Natural Regeneration	10
73.89	Snowberry	0	Natural Regeneration	11
74.01	Snowberry	5	Natural Regeneration	17
74.04	Snowberry	6	Natural Regeneration	9
74.11	Snowberry	10	Natural Regeneration	0
74.22	Snowberry	0	Natural Regeneration	75

Milepost	Species	Inventory Stem Count	Mitigation Plan	Survival Observed Stem Count
74.23	Wild rose	6	Natural Regeneration	5
74.29	Snowberry	10	Natural Regeneration	100
74.37	Wild rose	0	Natural Regeneration	62
74.38	Snowberry	0	Natural Regeneration	100
74.47	Snowberry	35	Natural Regeneration	18
74.51	Snowberry	23	Natural Regeneration	27
74.53	Snowberry	15	Natural Regeneration	22
74.56	Snowberry	0	Natural Regeneration	58
74.62	Snowberry	25	Natural Regeneration	180
74.62	Wild rose	6	Natural Regeneration	18
74.65	Snowberry	20	Natural Regeneration	33
74.77	Snowberry	20	Natural Regeneration	3
77.68	Snowberry	0	Natural Regeneration	50
78.97	Wild rose	0	Natural Regeneration	2
79.02	Snowberry	0	Natural Regeneration	100
79.07	Snowberry	0	Natural Regeneration	300
79.13	Snowberry	2	Natural Regeneration	10
79.14	Snowberry	0	Natural Regeneration	700
79.29	Snowberry	10	Natural Regeneration	65
79.29	Wild rose	3	Natural Regeneration	0
79.36	Snowberry	1	Natural Regeneration	5
79.36	Wild rose	2	Natural Regeneration	0
79.47	Snowberry	15	Natural Regeneration	5
79.61	Snowberry	3	Natural Regeneration	9
79.88	Snowberry	12	Natural Regeneration	15
80.18	Snowberry	15	Natural Regeneration	20
	Total Removed	**37919**	**Total Regeneration**	**90825**

Wildrose

T159N R 98W

T159N R 97W

T159N R 96W

T159N R 95W

T159N
R 99W

T158N
R 99W

T158N R 98W

T158N R 97W

T158N R 96W

T158N R 95W

Williams County

T157N
R 99W

T157N R 98W

T157N R 97W

T157N R 96W

T157N R 95W

Tioga

Mistral Energy Inc., Vantage Pipeline Project

VANTAGE PIPELINE US LP

Survey Mapbook - Map Sheet Index

Date: 05/28/2015 | Version: 2014-5

INDEX MAP 1

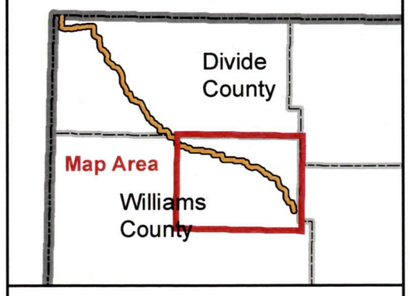
Populated Place

Pipeline Route

Plantings (before 2015)

Plantings (new 2015)

North Dakota



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T161N R102W

T161N R101W

T161N R100W

T161N R 99W

T161N R 98W

Divide County

T160N R102W

T160N R101W

T160N R100W

T160N R 99W

Grenora

T159N R102W

T159N R101W

Williams County

T159N R100W

Alamo

T159N R 99W

Mistral Energy Inc.,
Vantage Pipeline Project

VANTAGE PIPELINE US LP

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INDEX MAP 2

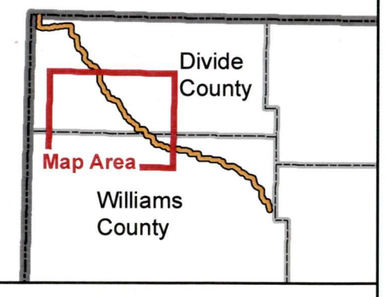
Populated Place

Pipeline Route

Plantings (before 2015)

Plantings (new 2015)

North Dakota



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KC HARVEY
ENVIRONMENTAL, LLC
376 Gallatin Park Drive
Bozeman, MT 59715
406-585-7402
www.kcharvey.com

Saskatchewan

T164N R103W	T164N R102W	T164N R101W	T164N R100W	T164N R 99W
T163N R103W	T163N R102W	T163N R101W	T163N R100W	T163N R 99W
T162N R103W	T162N R102W	T162N R101W	T162N R100W	T162N R 99W
T161N R103W	T161N R102W	T161N R101W	T161N R100W	T161N R 99W

Fortuna

Divide County

Mistral Energy Inc., Vantage Pipeline Project

VANTAGE PIPELINE US LP

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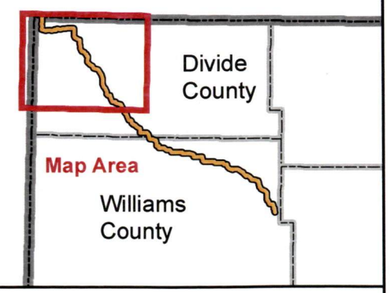
INDEX MAP 3

- Populated Place
- Pipeline Route
- Plantings (before 2015)
- Plantings (new 2015)

North Dakota



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