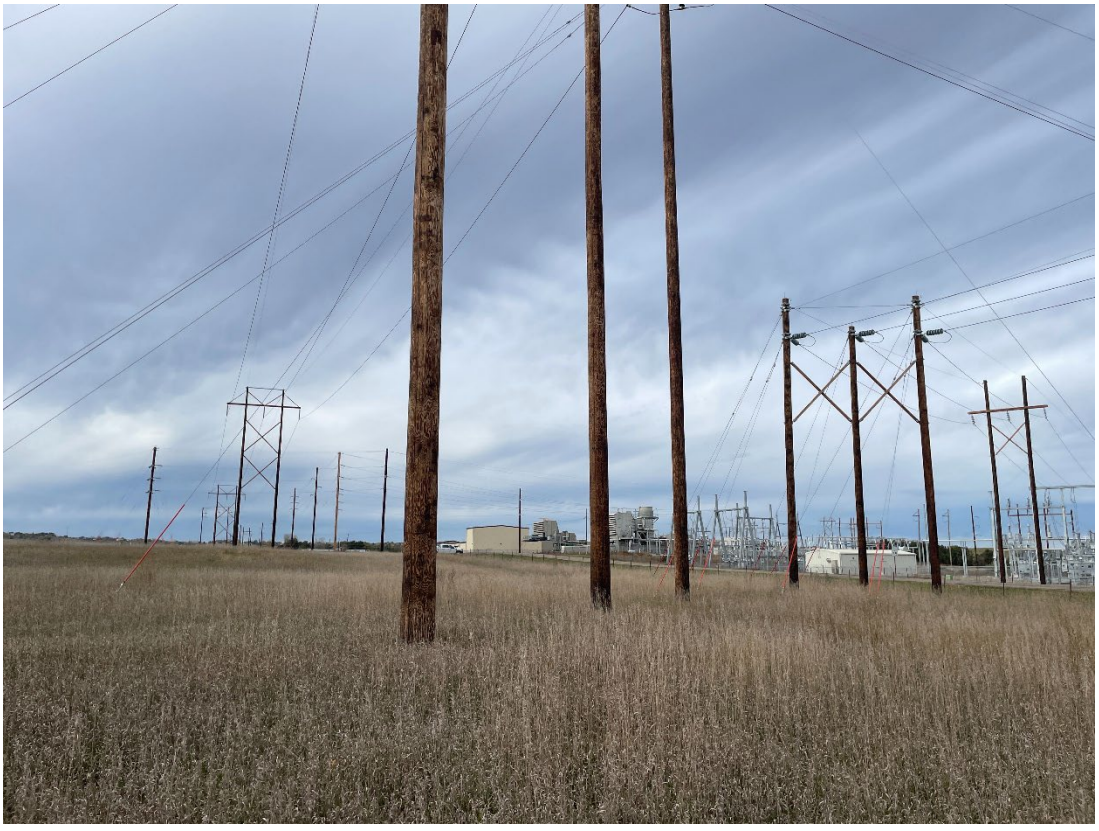
MDU 230 kV Transmission Line Project- Morton County

Reclamation Inspection Report

Docket Number: PU-21-151

Prepared for North Dakota Public Service Commission



October 2023

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Reclamation Inspection Report

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Contents

List of Appendices

1 Executive Summary

The North Dakota Public Service Commission (PSC) retained Barr Engineering Co. (Barr) to complete reclamation inspection for the construction of a 230kV Transmission Line Project in Morton County, North Dakota (ND), constructed by Montana Dakota Utilities (MDU). The purpose of the inspections is to ensure the project is constructed in compliance with siting laws and rules and the applicable PSC Orders for the project.

Reclamation inspections were conducted on 17 October 2023. The inspection included observations of the reclaimed areas around transmission line structures, temporary construction areas, and disturbed areas noted during the construction of the Project. No major issues were observed, though continued monitoring and maintenance is recommended for control of annual and noxious weeds. Overall, reclamation efforts of the project are satisfactory and appeared to have been completed according to Natural Resource Conservation Service (NRCS) recommendations. The Project is considered to be in compliance with applicable siting laws, rules, and PSC orders.

2 Background and Scope

2.1 Introduction

The Montana Dakota Utilities 230kV Transmission Line is a 230-kilovolt transmission line located in Sections 10 and 15, Township 139 North, Range 81 West in Morton County, North Dakota. The line originates at the R.M. Heskett plant located near Mandan, North Dakota and ends at the existing substation approximately one mile north of the R.M. Heskett plant.

The Project is designed to carry 230-kilovolt electrical power to the existing substation. The Project is under the jurisdiction of the North Dakota PSC, which issued its Findings of Fact, Conclusions of Law, and Order in Case No. PU-21-151 on July 28, 2021. Certificates of Corridor Compatibility No. 223, and Route Permit No. 233 were granted for the Project.

2.2 Regulatory Purpose and Need

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code Chapter 49-22) charges the Public Service Commission with determining that the location, construction, and operation of jurisdictional energy conversion and transmission facilities will produce minimal adverse effects on the environment and the welfare of citizens of North Dakota. Inspections during construction ensure that such projects are built in compliance with the siting laws (North Dakota Century Code Chapter 49-22) and rules (North Dakota Administrative Code Article 69-06) and the applicable Commission Orders.

2.3 Scope of Work

The North Dakota Public Service Commission retained Barr Engineering Co. to perform a reclamation inspection of the Project. Barr subcontracted with Meadowlark Environmental, LLC (Meadowlark) to complete the reclamation inspection. Barr's scope of work was to complete and document an on-site reclamation inspection upon completion of a minimum of one growing season after the construction phase of the project to verify the project was constructed in compliance with the siting laws, rules, and applicable Commission Orders and to determine whether the area affected by construction activities has been restored to as near as practicable to the condition as it existed prior to the beginning of construction, including reestablishment of desired plant species where applicable. This report contains site visit observations and a summary of findings and issues that should be addressed for the Project to be considered complete and in full compliance.

3 Findings of Site Inspection

3.1 Methods

Zach Peterson, Project Manager/Field Inspector for Meadowlark visited the Project site on October 17, 2023 to conduct the reclamation inspection. Representative for MDU Daniel Albrecht, PE, accompanied Mr. Peterson. The site was visually inspected by walking or driving to transmission line structures and areas disturbed by construction activities with the Project right-of-way (ROW). Photos (iPhone 12) were taken with a GIS overlay and without the overlay at observation points to record the geographic locations of the observation points visited during the inspection.

3.2 On-Site Inspection Observations

Mr. Peterson met with Mr. Albrecht where the Project originates at the R.M. Heskett Plant and proceeded on foot to inspect transmission line structures and the Project ROW. Overall, reclamation efforts at structure locations and areas disturbed by construction activities are satisfactory and appear to have been completed according to NRCS guidelines. Mr. Albrecht stated that he has been personally involved with the reclamation of the Project and had reseeded several pole structures and one area of ROW disturbed by construction activities in the Spring of 2023. The pole structures located on the northern half of the Project are in a crop field owned by MDU and farmed for crop production by a local farmer.

The areas around the pole structures on the southern end of the Project (Structures 11-14) had over 50% vegetation consisting of the native grass mix planted during reclamation. These areas around the structures also had smooth brome and annual weeds comprising less than 20% of the total area of reclaimed soil around the structures that were the same species found in the adjacent areas not disturbed by construction activities. One area between Structures 11 and 12 was disturbed during construction after an underground gas line was damaged. This area had over 80% established vegetation comprising of approximately 60% native grasses planted during reclamation and 40% smooth brome, annual weeds, and noxious weeds similar to the adjacent areas not disturbed by construction activities. Noxious weeds noted in this area were Canada thistle, leafy spurge, and absinth wormwood. The reclamation efforts and establishment of desired grasses was adequate, and the non-native grasses and weeds matched the surrounding areas.

The pole structures located on the northern half of the Project area (Structures 1-6) were located in a crop field owned by MDU and farmed by a local farmer. The field was planted to sunflowers in 2023 and contained a mix of sunflowers and annual weeds such as kochia and Russian thistle. The areas around the pole structures resembled the surrounding areas of crop field and have been reclaimed satisfactory with the Commission's Order.

4 Issues to Resolve and Recommendations

As-built inspection of the MDU 230kV Transmission Line Project verified that the project is constructed in compliance with the siting laws, rules, and applicable Commission Orders. No major issues were observed during the as-built inspection. However, Meadowlark makes the following recommendations to prevent potential issues at the project site:

Potential Issues	Recommendations
Areas with dense, extensive cover of annual weeds or noxious weeds.	Monitor and manage these areas to promote the establishment of grasslands and crops. Consult with landowners and ag producers to determine course of action. Spraying or periodic mowing of noxious weeds and annual weeds may be necessary to decrease the seed set of undesirable and nuisance species.
Additional potential issues	Refer to project Storm Water Pollution Prevention Plan (SWPPP) for additional post-construction recommendations

5 Signatures

The services performed by Barr staff, and its subcontractor Meadowlark, for this project have been conducted in a manner consistent with the technical skill and degree of care exercised by professionals currently practicing in this discipline under similar time and budget constraints. Findings and recommendations represent our professional judgement and are based on available information and accepted practices. No warranty is implied or expressed beyond this.

Andrew Unbehaun, Project Manager

11/13/2023

Date

Zach Peterson, Inspector

10/30/2023

Date

Appendices

Appendix A

Photo Log and Observation Maps


MDU 230 kV Transmission Line
Project Location Map
PU-21-151
Legend
MDU 230kV Route
Project Location
Mandan Middle School
Walmart Supercenter
Subaru of Mandan
Marathon - Mandan Refinery
Old Red Trail
Union Cemetery
Eagles (Universal) Park
Missouri River
Missouri River State Natural Area
Pioneer Park
Papa's Pumpkin Patch
Heart River
Mandan
Old 10 Bar & Grill
BNSF Mandan Rail Yard
Softball Complex
Mandan Municipal Golf Course
Wildwood Mobile Home Park
McDonald's
Eide Ford Mandan
Roughrider Harley-Davidson
Sunnyside Feeds
Johnson's Wrecking Used & Rebuilt Auto &
Google Earth
4000 ft

MDU 230 kV Transmission Line

Photo Location Map 1
PU-21-151

Legend

- MDU - RM Heskett Station
- MDU 230kV Route
- Photo

MDU - RM Heskett Station

Mandan Power Plant

3

36th St

35th St

Photo #1

Photo #2

Photo #3

Photo #4

Photo #5

Photo #6

N

200 ft

Google Earth

MDU 230 kV Transmission Line

Photo Location Map 2
PU-21-151

Legend
- MDU - RM Heskett Station
- MDU 230kV Route
- Photo

Photo #7
Photo #8
Photo #9
Photo #10
Photo #11
Photo #12

Custer Professionals
Central Dakota Humane Society
Superior Maverick Powersports
Diamond Hardwood Flooring
Rock Haven Creek
Missouri River
Camp Ocankusa
1806

Google Earth
500 ft
N

On-Site Photographs

MDU 230 kV Transmission Line-Morton County

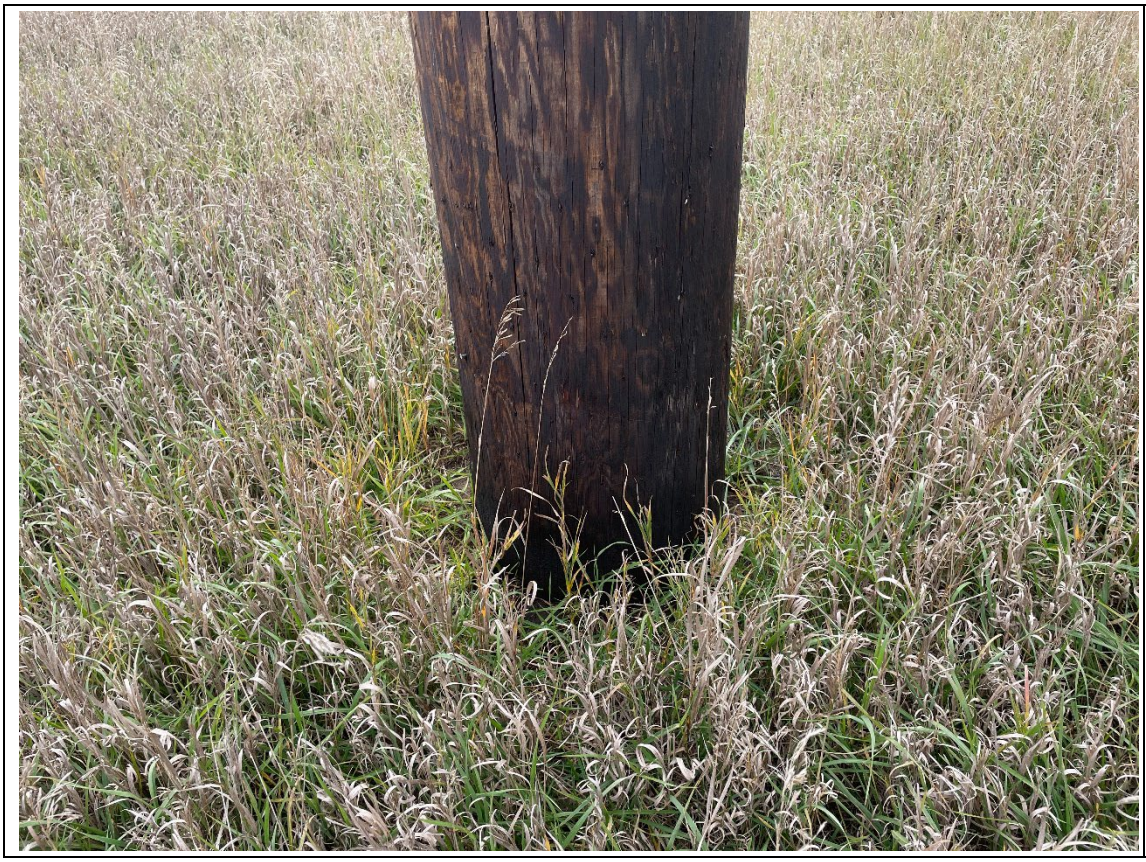


Photo #: 1

Direction: South

Description: Vegetation reestablished at base of Structure #14. Composed of planted native seed mix and smooth brome.

Observer: Zach Peterson

Date: 10/17/2023

Latitude: 46.864533

Longitude: -100.883850

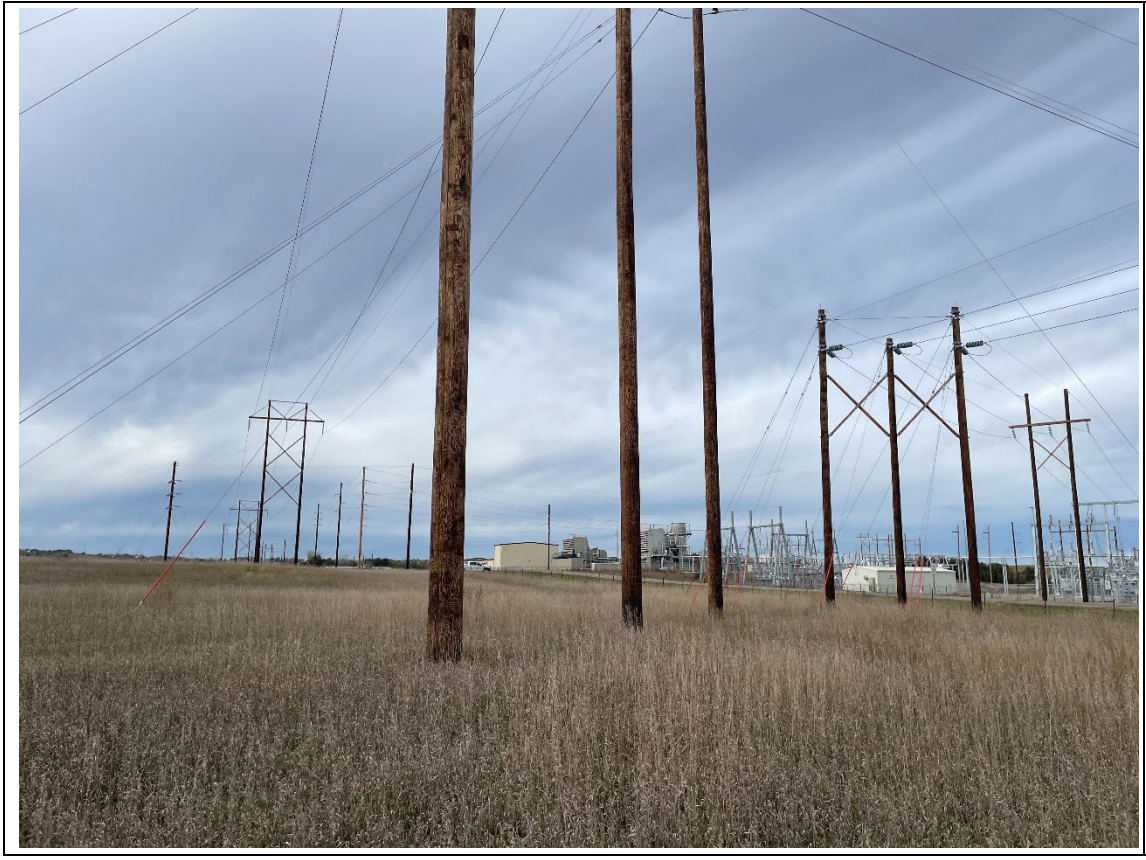


Photo #: 2

Direction: Northwest

Description: Overview of Structures #12, 13, and 14.

Observer: Zach Peterson

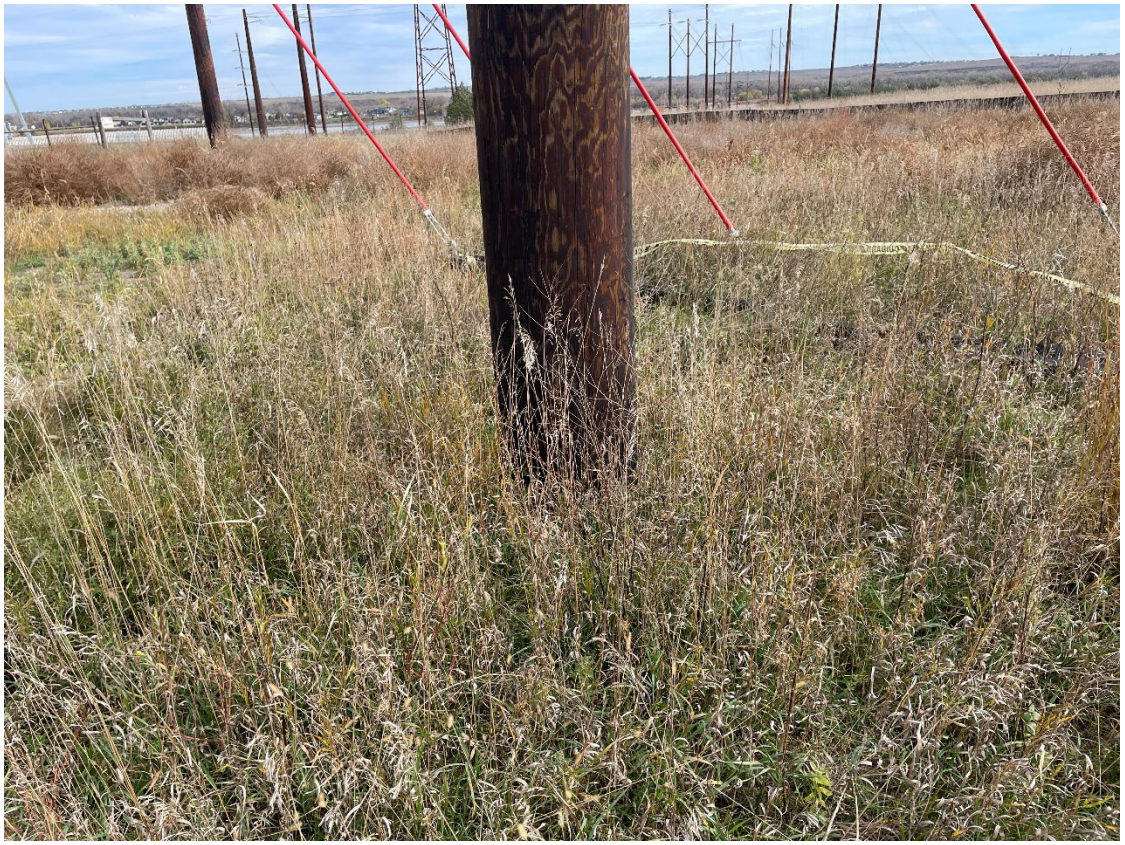
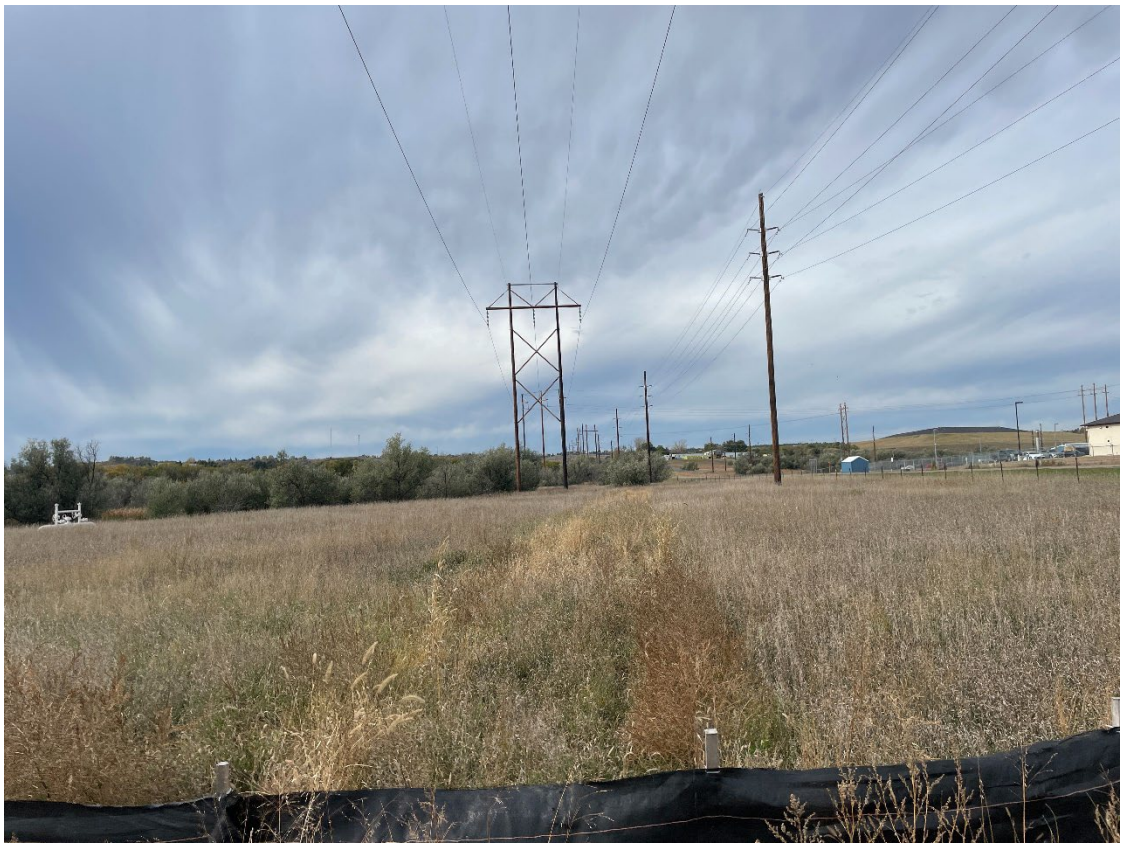
Date: 10/17/2023

Latitude: 46.864433

Longitude: -100.883633

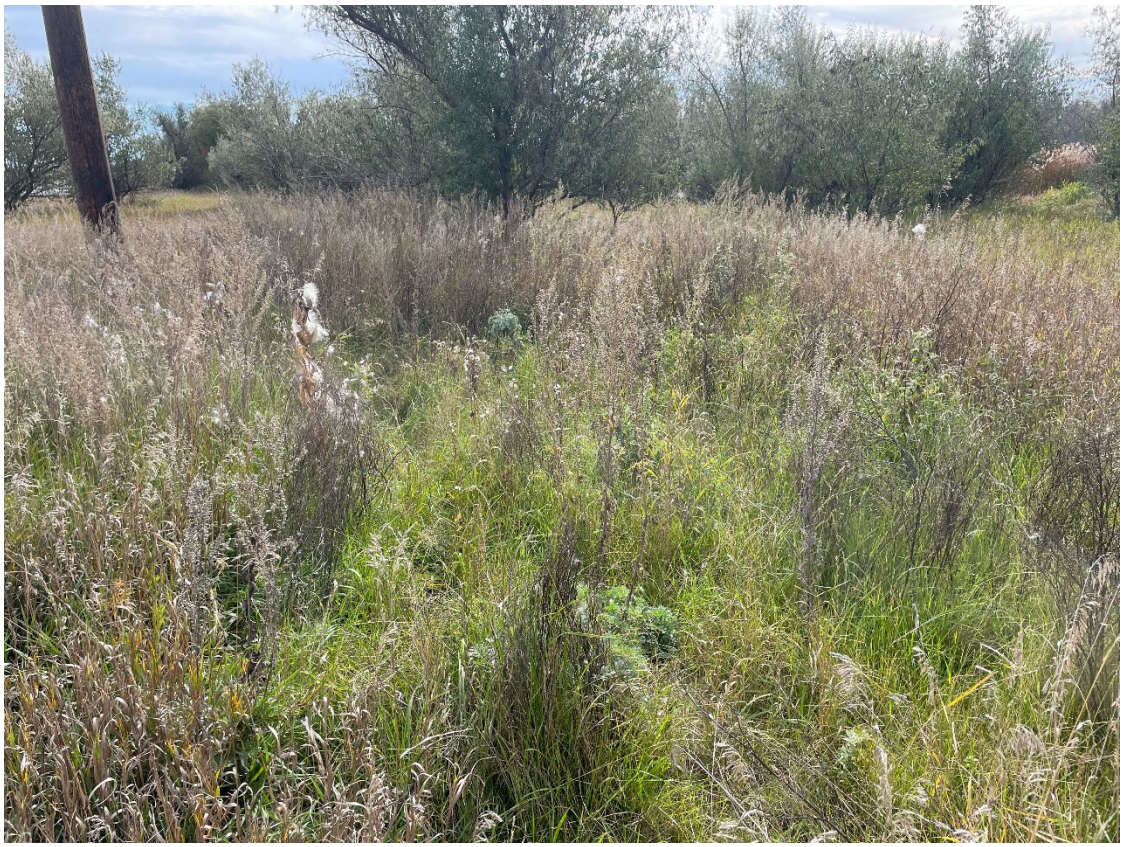
On-Site Photographs

MDU 230 kV Transmission Line-Morton County

	Photo #: 3 Direction: Northeast Description: Structure #13 with established vegetation composed of planted native grasses and smooth brome. Observer: Zach Peterson Date: 10/17/2023 Latitude: 46.864566 Longitude: -100.885666
	Photo #: 4 Direction: West Description: Reseed area between Structures #12 and 13. Vegetation composed of planted native grasses along with smooth brome and weeds encroaching from adjacent areas Observer: Zach Peterson Date: 10/17/2023 Latitude: 46.864500 Longitude: -100.886333

On-Site Photographs

MDU 230 kV Transmission Line-Morton County

	Photo #: 5 Direction: Northeast Description: Base of Structure #12. Established vegetation composed of planted native grasses with smooth brome encroaching from adjacent area. Observer: Zach Peterson Date: 10/17/2023 Latitude: 46.864450 Longitude: -100.887733
	Photo #: 6 Direction: South Description: Reclaimed area near Structure #12 where underground gas line was damaged during construction. Vegetation composed of a mix of planted native grass and smooth brome, Canada thistle, absinth wormwood, and leafy spurge. Observer: Zach Peterson Date: 10/17/2023 Latitude: 46.864500 Longitude: -100.887883

On-Site Photographs

MDU 230 kV Transmission Line-Morton County

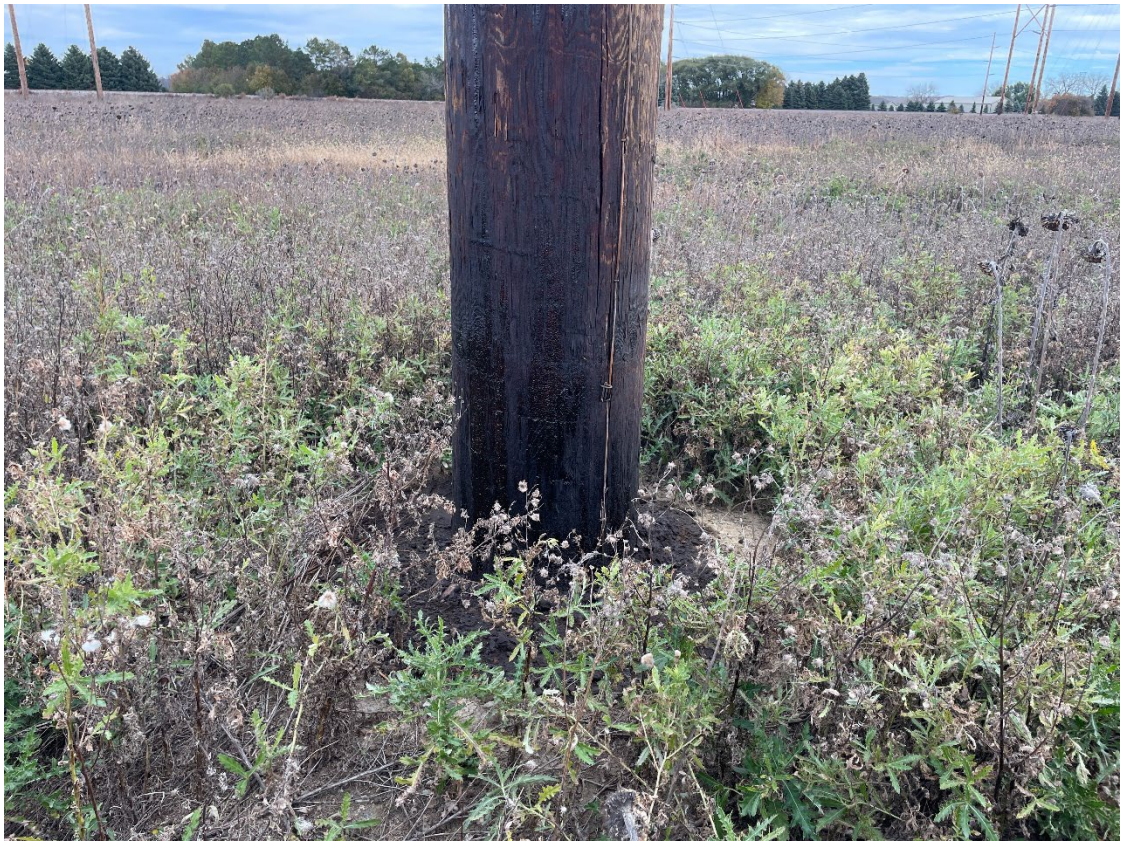


Photo #: 7

Direction: East

Description: Base of Structure #1 showing creosote seeping from pole. Vegetation composed of weeds and sunflowers similar to adjacent areas of crop field not disturbed by construction activities.

Observer: Zach Peterson

Date: 10/17/2023

Latitude: 46.875533

Longitude: -100.893483

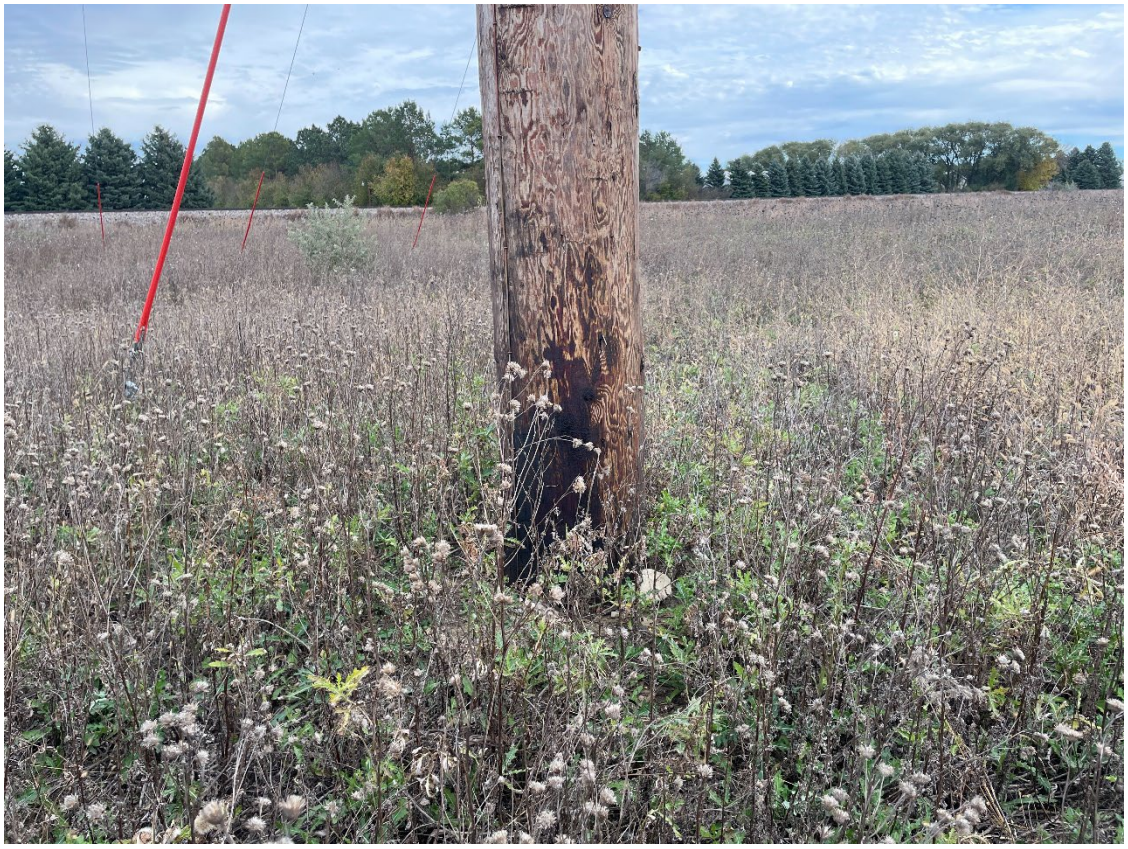


Photo #: 8

Direction: East

Description: Structure #2 located in sunflower field. Vegetation and ground cover is similar to adjacent areas of crop field not disturbed by construction activities.

Observer: Zach Peterson

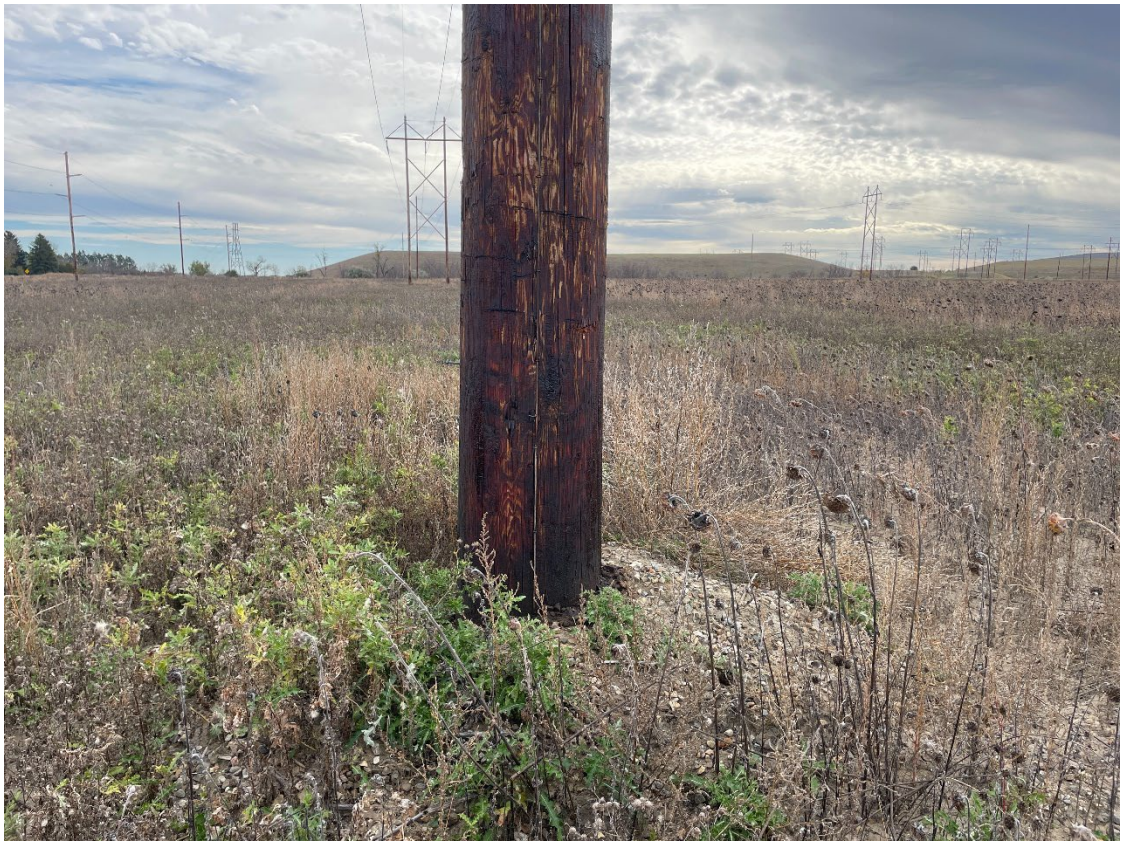
Date: 10/17/2023

Latitude: 46.876016

Longitude: -100.892433

On-Site Photographs

MDU 230 kV Transmission Line-Morton County

	Photo #: 9 Direction: Southeast Description: Structure #3 located in sunflower field. Vegetation and ground cover is similar to adjacent areas of crop field not disturbed by construction activities. Observer: Zach Peterson Date: 10/17/2023 Latitude: 46.874966 Longitude: -100.891533
	Photo #: 10 Direction: South/Southeast Description: Structure #4 located in sunflower field. Vegetation and ground cover is similar to adjacent areas of crop field not disturbed by construction activities. Observer: Zach Peterson Date: 10/17/2023 Latitude: 46.873850 Longitude: -100.890750

On-Site Photographs

MDU 230 kV Transmission Line-Morton County

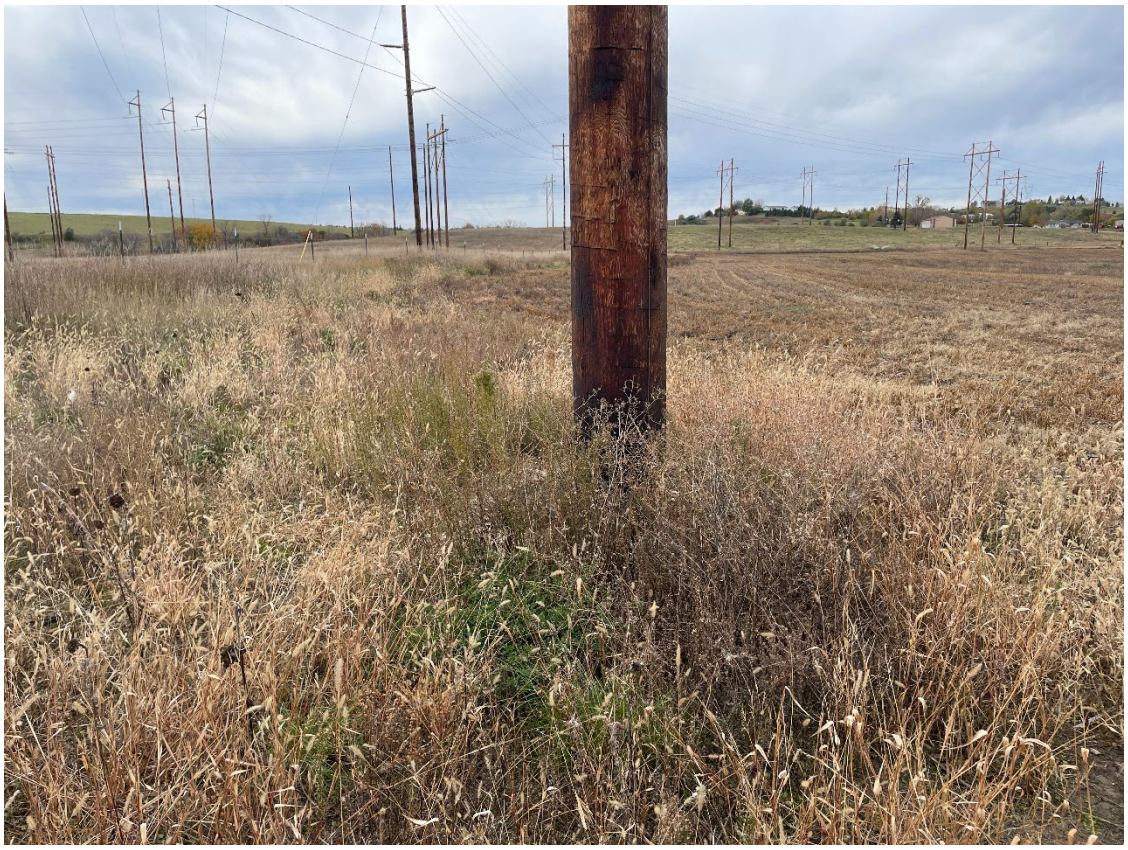


Photo #: 11

Direction: South

Description: Structure #6 located on edge of sunflower field. Vegetation composed of planted native grasses and encroaching crested wheatgrass from adjacent areas.

Observer: Zach Peterson

Date: 10/17/2023

Latitude: 46.872000

Longitude: -100.891683

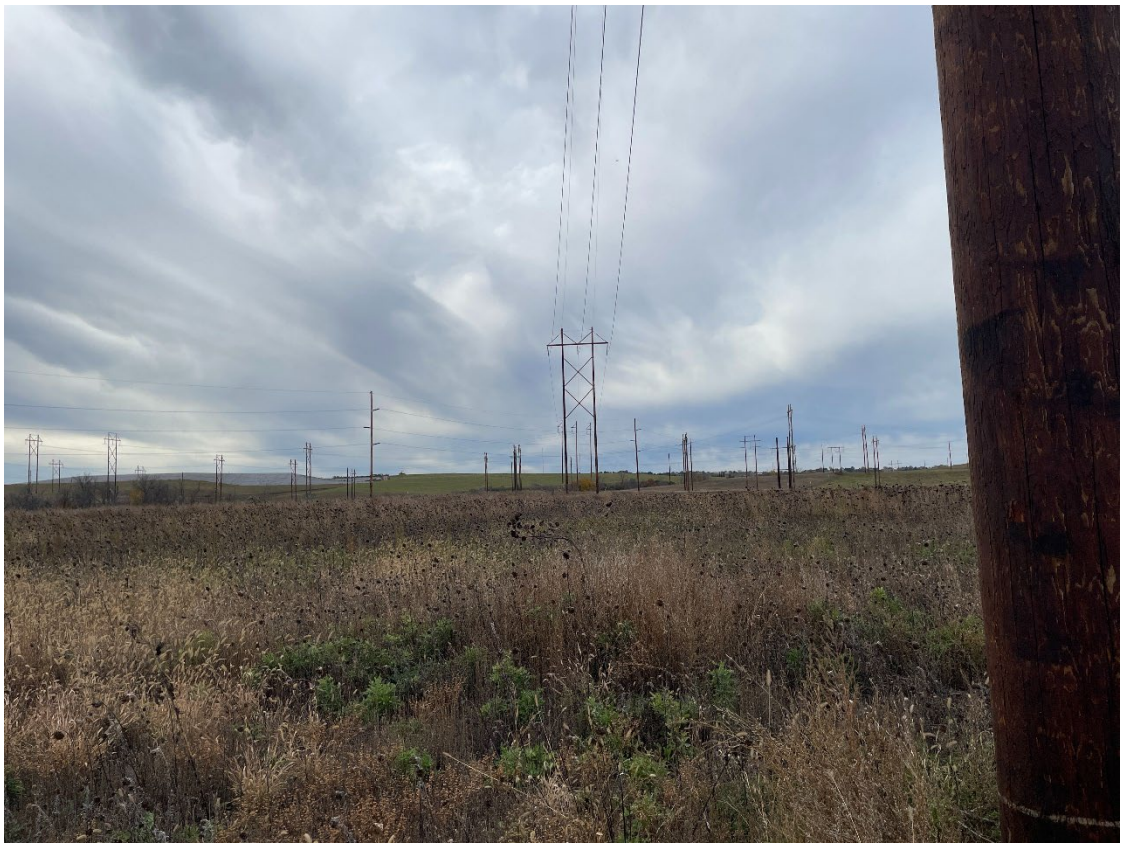


Photo #: 12

Direction: South

Description: Overview of Structures #1, 2, 3, 4, and 5 located in sunflower field. Condition of areas disturbed by construction activities similar to adjacent areas not disturbed by construction activities.

Observer: Zach Peterson

Date: 10/17/2023

Latitude: 46.872750

Longitude: -100.889883