



Northern Natural Gas Company  
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402 398-7200

September 5, 2025

*Via eFiling*

Ms. Debbie-Anne Reese, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

Re: Northern Natural Gas Company  
Northern Lights 2025  
Docket No. CP24-60-000  
Biweekly Status Report No. 14

Dear Ms. Reese:

Pursuant to Condition 8 of the Order Issuing Certificate and Approving Abandonment issued by the Federal Energy Regulatory Commission February 19, 2025, Northern Natural Gas hereby submits for filing in the above-referenced docket its biweekly environmental inspector report for the period ending August 31, 2025.

The photographs provided in the attached biweekly report for the La Crescent compressor station depict specific components of the station illustrating operating details and have therefore been labeled **“CUI//CEII - DO NOT RELEASE (CRITICAL ENERGY INFRASTRUCTURE INFORMATION).”** Pursuant to 18 CFR section 388.112, Northern requests confidential and privileged treatment of the La Crescent compressor station photographs due to the confidential nature of the contents.

The person to be contacted regarding the request for privileged and confidential treatment is as follows:

Donna Martens  
Senior Regulatory Analyst  
Northern Natural Gas Company  
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Any questions regarding the filing should be directed at the undersigned at (402) 398-7138.

Respectfully submitted,

/s/ Donna Martens

Donna Martens  
Senior Regulatory Analyst

**Northern Natural Gas Company**  
**Northern Lights 2025 (CP24-60-000)**  
**Biweekly Status Report No. 14**  
**Period Ending August 31, 2025**

**PROJECT DESCRIPTION**

Northern Natural Gas (Northern) will construct and operate the Project, which will consist of (1) a 3.00-mile extension of its 36-inch-diameter Lake Mills to Albert Lea E-line; (2) a 2.42-mile extension of its 30-inch-diameter Elk River 3rd branch line; (3) a non-contiguous 1.90-mile extension of its 30-inch-diameter Farmington to Hugo C-line<sup>1</sup>; (4) a 1.28-mile extension of its 8-inch-diameter Tomah branch line loop; (5) minor modifications to its existing La Crescent compressor station; and (6) aboveground facilities including a launcher, receiver and tie-in valve settings. All Project components are located in various counties in Minnesota and Wisconsin.

**FEDERAL AUTHORIZATION STATUS**

Northern has received all federal and state permits required under federal law for the Project.

**Lake Mills to Albert Lea E-line**

Northern will construct and operate an approximately 3.00-mile extension of its 36-inch-diameter MNM80105 Lake Mills to Albert Lea E-line in Freeborn County, Minnesota. Northern will remove the existing aboveground valve setting located in Section 16, Township 101 North, Range 22 West (Section 16, T101N, R22W), Freeborn County, Minnesota. Northern will construct and operate an aboveground valve setting at the terminus of the new extension on the north side of 165th Street in Section 33, T102N, R22W, Freeborn County, Minnesota.

**Environmental Training**

One contractor will construct the Lake Mills to Albert Lea E-line and associated aboveground facilities. The environmental training totals listed below reflect all training conducted to date for this component.

On-site Contractor: K & K, Inc. (K&K)

Overall Construction Start Date: Commenced April 21, 2025

Environmental Training Conducted: This reporting period: 0 Total to date: 40

**Construction Status:** K&K continued fabrication of 36-inch-diameter tie-in piping north of 165th Street. K&K continued sandblasting and coating mainline pipe north of County Road 80/154th Street<sup>2</sup>. K&K continued restoration of detected holidays<sup>3</sup> for the 36-inch-diameter mainline north of County Road 80/154th Street. K&K continued dewatering surface water from the right of way (ROW). K&K commenced bringing subsoil to grade north and south of County Road 80/154th Street. K&K continued stockpiling and removal of topsoil from over the D-line south of 140th Street. K&K commenced removal of silt fence along the working side of the topsoil pile north of 140th Street. K&K commenced 24-hour dewatering August 24, 2025.

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<sup>1</sup> The total pipeline length of the Farmington to Hugo C-line extension was reduced from 1.91 miles to 1.90 miles as described in Northern's implementation plan and response to the conditions of the order (condition 5) filed with the Federal Energy Regulatory Commission (FERC) March 6, 2025.

<sup>2</sup> County Road 80 is also referred to as 154th Street.

<sup>3</sup> Holidays are spots on the pipeline where the coating is absent or thin.

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K&K continued lowering-in 36-inch-diameter mainline pipe south of 140th Street. K&K commenced scoping damaged drain tiles at milepost (MP) 31.18 to ensure tile performance.

### Construction Modifications:

No construction modifications occurred during this reporting period.

### Stream Crossings and Environmentally Sensitive Areas

No stream crossings or other environmentally sensitive areas were impacted during this reporting period.

### Rain Events

One rain event of 0.50 inch or greater occurred during this reporting period. One rain event of 2.16 inches occurred August 18, 2025. To date, the project has received 32.88 inches of precipitation.

Lake Mills to Albert Lea E-line Construction Progress			
Activity	Start Date	Completed	Notes
Survey	4/16/2025	99%	Survey is ongoing
Clearing	N/A	N/A	N/A
Grading	4/21/2025	5/30/2025	Grading is complete
Stringing	5/5/2025	5/19/2025	Stringing is complete
Welding	5/16/2025	98%	Welding is ongoing
Ditching	6/6/2025	74%	Ditching is ongoing
Lower-in	6/6/2025	70%	Lowering-in is ongoing
Backfill	6/6/2025	52%	Backfill is ongoing
Topsoil Restoration			
Removal of existing E-line tie-over valve setting	5/15/2025	15%	K&K completed excavation
New Lake Mills tie-in valve setting	6/15/2025	15%	K&K completed excavation
Clean-up			
Seeding	6/17/2025	20%	Seeding is ongoing
*Completed totals include either percentage completed or date all completed. All totals are approximate.			

### Two-Week Projection

1. Continue welding line pipe
2. Continue sandblasting and coating
3. Continue trenching
4. Continue lowering-in
5. Continue backfill
6. Commence restoration

### Lake Mills to Albert Lea E-line Related Spill

No spills occurred during this reporting period.

### Elk River 3rd Branch Line

Northern will construct and operate an approximately 2.42-mile extension of its 30-inch-diameter MNB87703 Elk River 3rd branch line in Washington County, Minnesota. The new extension will be tied in below ground approximately 260 feet north of the current terminus in Section 36, T32N, R21W, Washington County, Minnesota; the existing aboveground valve setting located on the east side of July Avenue in Section 36, T32N, R21W, Washington County, Minnesota, will be removed. The downstream

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tie-in to both Northern's 20-inch-diameter MNB87701 Elk River branch line and 20-inch-diameter MNB87702 Elk River loop will be completed with a new valve setting at the west side of Henna Avenue North in Section 3, T31N, R21W, Washington County, Minnesota.

### Environmental Training

One contractor will construct the Elk River 3rd branch line extension. The environmental training totals listed below reflect all training conducted to date for this component.

On-site Contractor: Otis Minnesota Services, LLC (Otis)

Overall Construction Start Date: Commenced April 24, 2025

Environmental Training Conducted<sup>4</sup>: This reporting period: 0 Total to date: 90

### Construction Status:

Otis continued stringing, bending, welding and coating the line pipe. Mears Group Inc. (Mears), a third-party horizontal directional drill (HDD) sub-contractor for Otis, completed the 42-inch-diameter ream pass of HDD P4-5 and set up to commence the swab pass. Sound wall installation and equipment setup for HDD P4-1 was completed. Otis continued ditching and lowering-in. Ditching was completed from MP 1.69 to MP 1.90 and lowering-in continued from MP 1.69 to MP 1.90.

The HDD noise report is attached. All sound levels are recorded as dBA.

**Construction Modifications:** There were no construction modifications during this reporting period.

### Stream Crossings and Environmentally Sensitive Areas

Wetlands ERT-W34 and ERT-W35, and stream ERT-S01 were crossed by HDD P4-5 during this reporting period.

### Rain Events

No rain events of 0.50 inch or greater occurred during this reporting period. To date the project has received 18.63 inches of precipitation.

Elk River 3rd Branch Line Construction Progress			
Activity	Start Date	Completed	Notes
Survey	4/10/2025	5/2/2025	Primary survey is complete
Clearing	4/28/2025	5/10/2025	Clearing is complete
Grading	5/6/2025	6/7/2025	Grading is complete
Stringing	5/15/2025	6/21/2025	Stringing is complete
Welding	5/16/2025	72%	Welding is ongoing
Ditching	7/9/2025	36%	Otis continued ditching
HDD ERT P4-1			
HDD ERT P4-2	7/15/2025	8/15/2025	Mears completed the HDD
HDD ERT P4-3	5/22/2025	6/14/2025	Mears completed the HDD
HDD ERT P4-4			
HDD ERT P4-5	6/20/2025	65%	Mears commenced the 42-inch-diameter ream pass
HDD ERT P4-6	6/20/2025	6/25/2025	Mears completed the HDD
HDD ERT P4-7	7/01/2025	7/3/2025	Mears completed the HDD
Lower-in	7/9/2025	35%	Otis continued lowering-in

<sup>4</sup> The same contractor and crews are constructing the Elk River 3rd branch line and Farmington-to-Hugo C-Line extension projects. The numbers reflect the training provided to the one contractor and any subcontractors; however, are double counted between the two projects.

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Backfill	7/9/2025	27%	Otis continued backfill
Topsoil Restoration	7/28/2025	10%	Otis commenced restoration
Existing Elk River tie-over valve setting to be removed			
New Elk River tie-in valve setting			
Clean-up			
Seeding			
*Completed totals include either percentage completed or date all completed. All totals are approximate.			

### Two-Week Projection

1. Continue welding, sandblasting and coating
2. Complete HDD P4-5
3. Commence HDD P4-1 and HDD P4-4
4. Continue stopple bypass at MP 1.0
5. Continue ditching, lowering-in and backfill
6. Continue restoration

### Elk River 3rd Branch Line Related Spill

No spills occurred during this reporting period.

### Farmington to Hugo C-Line Extension

Northern will construct and operate a non-contiguous 1.90-mile extension of its 30-inch-diameter Farmington to Hugo C-line in Washington County, Minnesota. The new extension will be tied in below ground within Northern's existing Hugo compressor station in Section 6, T31N, R20W, Washington County, Minnesota. The downstream tie-in to Northern's 24-inch-diameter MNM86501 B-line will be completed at a new below-ground<sup>5</sup> valve setting in Section 7, T31N, R20W, Washington County, Minnesota.

### Environmental Training

One contractor will construct the Farmington to Hugo C-line extension and associated aboveground facilities. The environmental training totals listed below reflect all training conducted to date for this component.

On-site Contractor: Otis Minnesota Services, LLC (Otis)

Overall Construction Start Date: May 3, 2025

Environmental Training Conducted<sup>4</sup>: This reporting period: 0 Total to date: 90

### Construction Status:

Otis commenced backfill and hydrostatic pressure testing within the Hugo compressor station. Otis continued stringing and welding line pipe. Otis completed stringing the bore pipe. Otis continued sandblasting line and bore pipe. Otis completed setting up the sound wall for HDD P4-2. North Country Drilling, LLC (North Country) commenced the HDD P4-1 and P4-2.

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<sup>5</sup> As described in Northern's implementation plan and response to the conditions of the order (condition 5) filed with FERC March 6, 2025, the new downstream valve setting for the Farmington to Hugo C-line extension will be below ground in accordance with the landowner's request rather than aboveground as originally proposed.

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The HDD noise report is attached. All sound levels are recorded as dBA.

North Country detected an inadvertent release (IR) of 270 gallons on HDD P4-1 within wetland FRM-W01 near MP 0.23 August 26, 2025. Two additional IRs were discovered August 28, 2025, in wetland FRM-W01 parallel to the previous release; 467 gallons and 2,042 gallons were released. The August 28 release locations are believed to be continual from the August 26 release. All IRs were contained and cleaned up utilizing a vacuum truck. All IRs were reported to the Minnesota Duty Officer, U.S. Army Corps of Engineers and Carnelian Marine St. Croix Watershed District.

**Construction Modifications:** There were no construction modifications during this reporting period.

### Stream Crossings and Environmentally Sensitive Areas

Wetlands FRM-W01, FRM-W21, and FRM-W05 were crossed by HDD P4-1 during this reporting period. Wetlands FRM-W09 and FRM-W10 were crossed by HDD P4-2 during this reporting period.

### Rain Events

No rain events greater than 0.5 inch occurred during this reporting period. To date the project has received 18.87 inches of precipitation.

Farmington to Hugo C-Line Construction Progress			
Activity	Start Date	Completed	Notes
Survey	4/26/2025	5/5/2025	Survey is complete
Clearing	5/3/2025	5/9/2025	Clearing is complete
Grading	6/9/2025	8/15/2025	Grading is complete
Stringing	6/18/2025	91%	Stringing is ongoing
Welding	6/20/2025	91%	Welding is ongoing
Ditching	7/24/2025	18%	Otis continued ditching
HDD FAR P4-1	8/19/2025	30%	North Country commenced drilling
HDD FAR P4-2	8/26/2025	25%	North Country commenced drilling
Lower-in	7/24/2025	18%	Otis continued lowering-in
Backfill	7/28/2025	18%	Otis continued backfill
Topsoil Restoration	7/1/2025	10%	Otis continued topsoil restoration
Hugo compressor station launcher and valves	5/22/2025	75%	Otis commenced backfill and testing
Farmington tie-over valve setting	6/17/2025	50%	Otis completed installation of the valve
Clean-up			
Seeding			
*Completed totals include either percentage completed or date all completed. All totals are approximate.			

### Two-Week Projection

1. Continue backfill and testing in the Hugo compressor station
2. Continue stringing
3. Continue welding
4. Continue sandblasting and coating
5. Continue HDD P4-1 and HDD P4-2
6. Continue ditching
7. Continue lowering-in
8. Continue backfill
9. Continue restoration

### Farmington to Hugo C-line Related Spill Totals

No spills occurred during this reporting period.

### Tomah Branch Line Loop

Northern will construct and operate an approximately 1.28-mile extension of its 8-inch-diameter WIB11902 Tomah branch line loop in Monroe County, Wisconsin. The new extension will be tied in below ground to the current terminus of the Tomah branch line loop in Section 1, T17N, R4W, Monroe County, Wisconsin, and the existing tie-in valve setting and receiver facility at this location will be removed. The down-stream tie-in to Northern's 6-inch-diameter WIB11901 branch line is located in Section 6, T17N, R3W, Monroe County, Wisconsin.

### Environmental Training

One contractor will construct the Tomah branch line loop. The environmental training totals listed below reflect all training conducted to date for this component.

On-site Contractor: K & K, Inc. (K&K)

Overall Construction Start Date: Commenced May 12, 2025

Environmental Training Conducted: This reporting period: 0 Total to date: 49

**Construction Status:** K&K successfully completed a nitrogen pressure test of the completed pipeline. K&K completed final tie-ins. K&K continued installation of permanent slope breakers. American Hydro Seed, LLC completed hydro seeding on the west end of the Tomah branch line loop. K&K commenced decompaction of the ROW, restored topsoil and drill seeded a cover crop in the agriculture field between MP 3.2 and MP 3.4. K&K completed sandblasting and coating. K&K completed installation of cathodic protection. K&K commenced seeding and mulching field berms. K&K completed backfill.

**Construction Modifications:** There were no construction modifications during this reporting period.

### Stream Crossings and Environmentally Sensitive Areas

No stream crossings or other environmentally sensitive areas were impacted during this reporting period.

### Rain Events

Two rain events of 0.50 inch or greater occurred during this reporting period. One rain event of 2.25 inches occurred August 10, 2025. One rain event of 1.10 inches occurred August 30, 2025. To date, the project has received 23.9 inches of precipitation.

Tomah Branch Line Loop Construction Progress			
Activity	Start Date	Completed	Notes
Survey	4/22/2025	98%	Survey is ongoing
Clearing	5/14/2025	5/23/2025	Clearing is complete
Grading	5/16/2025	8/2/2025	Grading is complete
Stringing	6/2/2025	7/9/2025	Stringing is complete
Welding	6/3/2025	8/23/2025	Welding is complete
Ditching	7/9/2025	8/4/2025	Ditching is complete
HDD TBL P4-1	7/15/2025	7/16/2025	P4-1 is complete
HDD TBL P4-2	7/7/2025	7/12/2025	P4-2 is complete
Lower-in	7/10/2025	8/4/2025	Lowering-in is complete
Backfill	7/14/2025	8/30/2025	Backfill is complete
Topsoil Restoration	8/9/2025	25%	Restoration ongoing



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Remove Tomah branch line loop receiver facility	6/11/2025	8/23/2025	K&K completed removal at receiver site
Remove Tomah Tie-over valve setting	6/12/2025	8/23/2025	K&K completed removal of valve setting
Clean-up	8/9/2025	30%	Clean-up ongoing
Seeding	8/14/2025	25%	Seeding ongoing
*Completed totals include either percentage completed or date all completed. All totals are approximate.			

## Two-Week Projection

1. Continue restoration
2. Continue clean-up
3. Continue seeding
4. Request approval for in-service

## La Crescent Compressor Station

Northern will complete minor aboveground facility modifications within its existing La Crescent compressor station facility. The site is located in Section 16, T104N, R5W, Houston County, Minnesota. The facility modifications will consist of replacing the current blind flanges with compressor cylinder end caps; Northern will not complete any ground disturbance at this site and all work will be completed inside the compressor building. There will be no change to the horsepower or emissions at the facility as a result of the Project.

## Environmental Training

Archrock Services LP (Archrock) will make the modifications at the La Crescent compressor station. The environmental training totals listed below reflect all training conducted to date for this component.

On-site Contractor: Archrock

Overall Construction Start Date: July 22, 2025

Environmental Training Conducted: This reporting period: 0 Total to date: 2

**Construction Status:** Archrock completed installation of new supports and variable capacity compressor heads on August 27, 2025.

**Construction Modifications:** There were no construction modifications during this reporting period.

## Stream Crossings and Environmentally Sensitive Areas

No stream crossings or other environmentally sensitive areas were impacted during this reporting period.

## Rain Events

No rain event of 0.50 inch or greater occurred during this reporting period.

La Crescent Compressor Station Modifications Construction Progress			
Activity	Start Date	Completed	Notes
Compressor modifications	7/22/2025	8/27/2025	Compressor modifications are complete
*Completed totals include either percentage completed or date all completed. All totals are approximate.			

### **Two-Week Projection**

1. Request approval for in-service

### **La Crescent Compressor Station Related Spill Totals**

No spills occurred during this reporting period.

### **PROJECT-WIDE AGENCY COMMUNICATIONS AND SITE VISITS**

On August 26, 2025, Clay Roesler, Tetra-Tech third-party inspector, completed a FERC environmental compliance inspection of the pipeline projects.

As noted above, Northern made notifications of three IRs of drilling fluids on the Farmington to Hugo C-line extension to the Minnesota Duty Officer, U.S. Army Corps of Engineers and Carnelian Marine St. Croix Watershed District August 26, 2025, and August 28, 2025.

### **PROJECT-WIDE LANDOWNER CONCERNS**

No project-wide landowner concerns were raised during this reporting period.

### **PROJECT-WIDE NON-COMPLIANCE CONCERNS**

No project-wide non-compliance concerns were raised during this reporting period.

**PHOTOS**

**Lake Mills to Albert Lea E-line**



Facing north at MP 34.2, K&K fabricating tie-in piping



Facing north at MP 33.3, K&K backfilling trench north of County Road 80/154th Street

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Facing northeast at MP 33.5, K&K repairing detected mainline holidays



Facing north at MP 31.51, K&K completing mainline trench tie-in north of County Road 9/135th Street



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Facing southwest at MP 31.35, K&K utilizing an empty jug to suspend suction intake while dewatering



Facing south at MP 34.1, K&K utilizing a dozer to dry ROW and bring subsoil to grade

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Facing south at MP 31.65, K&K utilizing a track hoe to remove topsoil from over D-line south of County Highway 9/135th Street



Facing southeast at MP 31.7, K&K lowering-in mainline pipe south of 140th Street





Facing southeast at MP 31.18, K&K utilizing a camera to scope damaged drain tile south of County Road 80/154th Street

**Elk River 3rd Branch Line**



Facing east near MP 1.69, lowering-in ongoing

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Facing east near MP 1.69, ditching ongoing



Facing west near MP 1.69, welding ongoing



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Facing north at HDD P4-1, sound wall installation being completed



Facing west at HDD P4-5, reaming completed

**Farmington-Hugo C-Line Extension**



Facing north at MP 1.6, view of the vegetation growth on temporary restoration



Facing south at MP 1.15, view of Otis welding bore pipe for HDD P4-2





Facing west at MP 2.93, view of North Country containing and cleaning the IR on HDD P4-1 in wetland FRM-W01



Facing east at MP 0.16, view of Otis installing the test header in preparation for testing the 30-inch-diameter pipe in the Hugo compressor station

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Facing west at MP 0.60, view of Otis stabilizing topsoil stockpiles



Facing east at MP 0.65, view of North Country commencing the pilot hole on HDD P4-2





Facing north at MP 0.5, view of North Country commencing the pilot hole on HDD P4-1

### **Tomah Branch Line Loop**



Facing east near MP 3.35, K&K decompacting subsoil in agricultural field

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Facing south near MP 2.2, K&K completing final tie-in



Facing east near MP 3.5, K&K installing test leads





Facing north near MP 3.35, K&K seeded and mulched field berm



Facing east near MP 3.4, K&K drill seeding cover crop in agricultural field



Facing east near MP 2.3, American Hydro Seed hydroseeding slope



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**La Crescent Compressor Station**

**Photos segregated and filed as privileged information**



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Farmington to Hugo C-line Extension

WO: 1146968

Drill:	P4-1	Date:	8/19/2025	Footage:	73.2	Depth:	10.8	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Austin Cleveland	Role	EI	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
					Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2					N/A	N/A	N/A	N/A	37.6	37.9	N/A	N/A	N/A	37.75	
NSA-3					N/A	N/A	N/A	N/A	36.8	36.1	N/A	N/A	N/A	36.45	
NSA-5					N/A	N/A	N/A	N/A	45.8	46.1	N/A	N/A	N/A	45.95	
NSA-6					N/A	N/A	N/A	N/A	46.1	45.5	N/A	N/A	N/A	45.80	

Notes: Drill P4-1 commenced pilot phase and ended the day with a total of 72.3-feet drilled.



Environmental Procedure  
\*Appendix M: Horizontal Directional Drill Daily Report\*

380.203m  
1 of 1

Project: NL25 Farmington to Hugo C-Line extension

WO: 1146968

Drill:	P4-1	Date:	8/20/25	Footage:	316.54-feet	Depth:	54.4	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Austin Cleveland	Role	El	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-02				N/A		44.1	44.8	41.3	43.5	N/A				43.43	
NSA-03				N/A		39.0	42.6	38.6	41.4	N/A				40.40	
NSA-05				N/A		45.0	47.1	40.2	39.8	N/A				43.03	
NSA-06				N/A		42.9	42.7	39.9	45.1	N/A				42.65	

Notes: Contractors continued pilot phase drilling 316.54-feet today and an overall total of 388.84-feet.



Environmental Procedure  
\*Appendix M: Horizontal Directional Drill Daily Report\*

380.203m  
1 of 1

Project: NL25 Farmington to Hugo C-Line extension

WO: 1146968

Drill:	P4-1	Date:	8/21/25	Footage:	83.1-feet	Depth:	53.72	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Austin Cleveland	Role	El	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-02					N/A	43.9	44.2	N/A	42.5	N/A				43.53	
NSA-03					N/A	42.4	41.9	N/A	38.0	N/A				40.77	
NSA-05					N/A	45.6	47.2	N/A	38.4	N/A				43.73	
NSA-06					N/A	39.1	46.8	N/A	42.8	N/A				42.90	

Notes: Contractors continued pilot phase drilling 83.1-feet today and an overall total of 471.94-feet.



Environmental Procedure  
\*Appendix M: Horizontal Directional Drill Daily Report\*

380.203m  
1 of 1

Project: NL25 Farmington to Hugo C-line Extension

WO: 1146968

Drill:	P4-1	Date:	8/22/2025	Footage:	508.1	Depth:	68.69	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2				N/A	N/A	N/A		41.5	39.8	45.9	N/A	N/A	N/A	42.40	
NSA-3				N/A	N/A	N/A		39.6	44.7	39.0	N/A	N/A	N/A	41.10	
NSA-5				N/A	N/A	N/A		49.1	41.5	46.3	N/A	N/A	N/A	45.63	
NSA-6				N/A	N/A	N/A		48.8	39.9	38.6	N/A	N/A	N/A	42.43	

Notes: Drill P4-1 continued pilot phase drilling 508.1-feet today and an overall total of 980.04-feet.



Environmental Procedure  
\*Appendix M: Horizontal Directional Drill Daily Report\*

380.203m  
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	8/23/2025	Footage:	409.08	Depth:	68.38	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Austin Cleveland	Role	EI	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2				N/A	N/A		39.6	42.6	39.1	41.3	N/A	N/A	N/A	40.65	
NSA-3				N/A	N/A		39.1	36.4	38.5	40.0	N/A	N/A	N/A	38.50	
NSA-5				N/A	N/A		45.6	48.2	47.5	45.9	N/A	N/A	N/A	46.80	
NSA-6				N/A	N/A		43.6	39.9	44.2	38.6	N/A	N/A	N/A	41.58	

Notes: Drill P4-1 commenced operations at 1045 and drilled 409.08-feet today, with a total of 1389.12-feet.



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Farmington to Hugo C-Line Extension					WO: 1146968										
Drill:	P4-1	Date:	8/25/2025	Footage:	177.43	Depth:	55.26	Phase:	Pilot						
Drilling Fluids:	MAXGEL							Approved by DES	Yes						
	Water							Approved by DES	Yes						
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber							Approved by DES	Yes						
Person Walking Drill Path		Austin Cleveland			Role	EI		Frequency	Hourly	IR Detected	No				
		Bryce Warner				Contractor			Continuously						
						Contractor			Hourly						
NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2				N/A		41.6	38.3	46.8	43.4	38.5	N/A	N/A	N/A	41.72	
NSA-3				N/A		39.8	39.5	43.8	46.6	39.1	N/A	N/A	N/A	41.76	
NSA-5				N/A		43.1	44.6	39.9	47.5	41.6	N/A	N/A	N/A	43.34	
NSA-6				N/A		42.4	42.9	39.5	37.4	37.7	N/A	N/A	N/A	39.98	
Notes: Drill P4-1 commenced operations at 0830, the contractors drilled 409.08-feet today, with a total of 1566.55-feet.															



Environmental Procedure  
\*Appendix M: Horizontal Directional Drill Daily Report\*

380.203m  
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	8/26/2025	Footage:	330.05	Depth:	0	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Austin Cleveland	Role	EI	Frequency	Hourly	IR Detected	Yes
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2					N/A	N/A	42.1	43.8	41.7	N/A	N/A	N/A	N/A	42.53	
NSA-3					N/A	N/A	39.8	38.9	42.4	N/A	N/A	N/A	N/A	40.37	
NSA-5					N/A	N/A	44.0	47.5	41.3	N/A	N/A	N/A	N/A	44.27	
NSA-6					N/A	N/A	38.9	41.3	38.5	N/A	N/A	N/A	N/A	39.57	

Notes: Drill P4-1 commenced operations, the contractors drilled 330.05-feet today, with a total of 1896.6-feet.





Environmental Procedure  
\*Appendix M: Horizontal Directional Drill Daily Report\*

380.203m  
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	8/27/2025	Footage:	448	Depth:	0	Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Austin Cleveland	Role	El	Frequency	Hourly	IR Detected	No
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2		N/A	N/A	N/A	N/A	N/A	43.6	44.0	41.5	N/A	N/A	N/A	N/A	43.03	
NSA-3		N/A	N/A	N/A	N/A	N/A	41.8	44.6	42.5	N/A	N/A	N/A	N/A	42.97	
NSA-5		N/A	N/A	N/A	N/A	N/A	39.5	39.9	42.7	N/A	N/A	N/A	N/A	40.70	
NSA-6		N/A	N/A	N/A	N/A	N/A	37.1	46.2	44.4	N/A	N/A	N/A	N/A	42.57	

Notes: Drill P4-1 commenced operations at 0955, the contractors drilled 448-feet today, with a total of 448-feet.



Environmental Procedure  
\*Appendix M: Horizontal Directional Drill Daily Report\*

380.203m  
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	8/28/2025	Footage:	252	Depth:	0	Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Austin Cleveland	Role	EI	Frequency	Hourly	IR Detected	Yes
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2		N/A	N/A	N/A	42.9	42.1	37.8	N/A	N/A	N/A	N/A	N/A	N/A	40.93	
NSA-3		N/A	N/A	N/A	43.5	37.7	41.2	N/A	N/A	N/A	N/A	N/A	N/A	40.80	
NSA-5		N/A	N/A	N/A	38.6	45.1	39.5	N/A	N/A	N/A	N/A	N/A	N/A	41.07	
NSA-6		N/A	N/A	N/A	40.2	43.7	37.1	N/A	N/A	N/A	N/A	N/A	N/A	40.33	

Notes: Drill P4-1 commenced operations at 0805, the contractors reamed 252-feet today, with a total of 693-feet.



Environmental Procedure  
\*Appendix M: Horizontal Directional Drill Daily Report\*

380.203m  
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-1	Date:	8/29/2025	Footage:	251	Depth:	0	Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Austin Cleveland	Role	El	Frequency	Hourly	IR Detected	Yes
	Bryce Warner		Contractor		Continuously		
			Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-2		N/A	N/A	N/A	45.1	44.6	39.9	41.6	37.9	N/A	N/A	N/A	N/A	41.82	
NSA-3		N/A	N/A	N/A	38.9	37.1	41.3	43.6	41.2	N/A	N/A	N/A	N/A	40.42	
NSA-5		N/A	N/A	N/A	35.7	39.5	45.2	44.8	41.8	N/A	N/A	N/A	N/A	41.40	
NSA-6		N/A	N/A	N/A	42.4	40.4	37.3	41.0	39.2	N/A	N/A	N/A	N/A	40.06	

Notes: Drill P4-1 commenced operations at 0730, the contractors reamed 251-feet today, with a total of 944-feet.



Environmental Procedure  
\*Appendix M: Horizontal Directional Drill Daily Report\*

380.203m  
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-2	Date:	8/26/2025	Footage:	220.46	Depth:	41	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Michael Hussong	Role	EI	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continuously		
	Colt Smith		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07					N/A	N/A	43.2	42.1	N/A	43.6	N/A	N/A	N/A	42.97	
NSA-08					N/A	N/A	46.9	48.5	N/A	46.3	N/A	N/A	N/A	47.23	
NSA-09					N/A	N/A	45.2	43.3	N/A	45.2	N/A	N/A	N/A	44.57	
NSA-10					N/A	N/A	45.8	42.8	N/A	44.8	N/A	N/A	N/A	44.47	

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Environmental Procedure  
\*Appendix M: Horizontal Directional Drill Daily Report\*

380.203m  
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-2	Date:	8/27/2025	Footage:	506- Feet	Depth:	73-Feet	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continuously		
	Colt Smith		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07					N/A	N/A	46.8	43.7	45.2	44.8	N/A	N/A	N/A	45.13	
NSA-08					N/A	N/A	42.0	40.9	43.4	42.7	N/A	N/A	N/A	42.25	
NSA-09					N/A	N/A	46.6	47.3	46.2	45.3	N/A	N/A	N/A	46.35	
NSA-10					N/A	N/A	43.9	41.8	44.4	42.6	N/A	N/A	N/A	43.18	

High traffic on 170th St N during sound monitoring. The contractors drilled 506-feet today, and an overall total of 727-feet.



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-2	Date:	8/28/2025	Footage:	409- Feet	Depth:	71-Feet	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continously		
	Colt Smith		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07					N/A	45.8	44.6	45.4	46.0	46.6	N/A	N/A	N/A	45.68	
NSA-08					N/A	43.4	44.1	45.3	46.8	44.2	N/A	N/A	N/A	44.76	
NSA-09					N/A	45.9	47.3	46.3	46.7	45.8	N/A	N/A	N/A	46.40	
NSA-10					N/A	44.1	42.4	41.2	43.8	43.2	N/A	N/A	N/A	42.94	

High traffic on 170th St N during sound monitoring. The contractors drilled 409-feet today, and an overall total of 1136-feet.



Environmental Procedure  
\*Appendix M: Horizontal Directional Drill Daily Report\*

380.203m  
1 of 1

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-2	Date:	8/29/2025	Footage:	380.84-Feet	Depth:	57.92-Feet	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continuously		
	Colt Smith		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07				N/A		46.3	44.3	45.2	47.2	46.2	N/A	N/A	N/A	45.84	
NSA-08				N/A		44.2	46.8	45.6	46.2	43.4	N/A	N/A	N/A	45.24	
NSA-09				N/A		45.8	44.2	44.3	46.4	45.2	N/A	N/A	N/A	45.18	
NSA-10				N/A		43.6	40.1	38.7	41.3	38.9	N/A	N/A	N/A	40.52	

High traffic on 170th St N during sound monitoring. The contractors drilled 380.84 feet today, and an overall total of 1,516.9 feet.



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Farmington to Hugo C-Line Extension

WO: 1146968

Drill:	P4-2	Date:	8/30/2025	Footage:	506.82-Feet	Depth:	Punched Out	Phase:	Pilot
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Michael Hussong	Role	El	Frequency	Hourly	IR Detected	No
	Randy Tilley		Contractor		Continuously		
	Colt Smith		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-07				N/A		45.6	47.6	46.2	45.8	N/A	N/A	N/A	N/A	46.30	
NSA-08				N/A		43.4	46.2	45.9	46.5	N/A	N/A	N/A	N/A	45.50	
NSA-09				N/A		45.2	45.9	44.8	46.3	N/A	N/A	N/A	N/A	45.55	
NSA-10				N/A		43.8	44.2	43.7	44.2	N/A	N/A	N/A	N/A	43.98	

High traffic on 170th St N during sound monitoring. The contractors drilled 506.82 feet today, and an overall total of 2023.72 feet. Pilot drill punched out today at 1245.





**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	8/18/2025	Footage:	2838	Depth:	120	Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	El	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	40.6	64.3	61.8	51.0	41.3	40.3	N/A	N/A	51.80	40.30
NSA-29					N/A	34.6	37.1	35.8	36.7	33.9	35.2	N/A	N/A	35.62	35.20
NSA-32					N/A	31.4	33.5	33.5	29.6	31.3	32.2	N/A	N/A	31.86	32.20
NSA-33					N/A	35.0	30.9	33.1	31.9	28.6	31.4	N/A	N/A	31.90	31.40

Notes: Drill P4-5 commenced at 0845 and stopped operation at 1930.



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	8/19/2025	Footage:	0	Depth:	0	Phase:	First ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	El	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	N/A	N/A	N/A	N/A	N/A	54.6	N/A	N/A		54.60
NSA-29					N/A	N/A	N/A	N/A	N/A	N/A	36.4	N/A	N/A		36.40
NSA-32					N/A	N/A	N/A	N/A	N/A	N/A	30.7	N/A	N/A		30.70
NSA-33					N/A	N/A	N/A	N/A	N/A	N/A	33.9	N/A	N/A		33.90

Notes: Drill P4-5 commenced at 1640 and stopped operation at 1930.



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	8/20/2025	Footage:	191	Depth:	60	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	El	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	N/A	N/A	N/A	N/A	N/A	61.4	N/A	N/A		61.40
NSA-29					N/A	N/A	N/A	N/A	N/A	N/A	35.9	N/A	N/A		35.90
NSA-32					N/A	N/A	N/A	N/A	N/A	N/A	31.2	N/A	N/A		31.20
NSA-33					N/A	N/A	N/A	N/A	N/A	N/A	32.5	N/A	N/A		32.50

Notes: Drill P4-5 commenced at 1815 and stopped operation at 2030.



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	8/21/2025	Footage:	765	Depth:	60	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	El	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	61.3	59.7	63.2	59.1	58.0	58.7	N/A	N/A	60.26	58.70
NSA-29					N/A	37.3	34.9	35.2	35.5	36.4	36.9	N/A	N/A	35.86	36.90
NSA-32					N/A	32.1	29.9	34.6	33.0	33.8	29.4	N/A	N/A	32.68	29.40
NSA-33					N/A	30.5	33.1	31.7	32.3	31.4	34.3	N/A	N/A	31.80	34.30

Notes: Drill P4-5 commenced at 1815 and stopped operation at 2030.



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	8/22/2025	Footage:	988	Depth:	115	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	El	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	N/A	57.1	55.9	56.3	60.3	61.2	N/A	N/A	57.40	61.20
NSA-29					N/A	N/A	35.8	38.1	37.5	36.4	35.9	N/A	N/A	36.95	35.90
NSA-32					N/A	N/A	35.1	34.3	32.7	34.8	35.3	N/A	N/A	34.23	35.30
NSA-33					N/A	N/A	29.4	30.7	34.5	32.6	34.1	N/A	N/A	31.80	34.10

Notes: Drill P4-5 commenced at 1000 and stopped operation at 2030.



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	8/23/2025	Footage:	1148	Depth:	120	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	El	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	57.8	60.9	57.1	58.8	N/A	N/A	N/A	N/A	58.65	
NSA-29					N/A	36.3	37.1	35.4	38.3	N/A	N/A	N/A	N/A	36.78	
NSA-32					N/A	35.2	29.9	31.3	33.7	N/A	N/A	N/A	N/A	32.53	
NSA-33					N/A	34.3	34.5	32.6	31.4	N/A	N/A	N/A	N/A	33.20	

Notes: Drill P4-5 commenced at 0800 and stopped operation at 1630.



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	8/25/2025	Footage:	1435	Depth:	120	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28				N/A		56.3	58.1	56.3	55.7	55.9	58.6	N/A	N/A	56.46	58.60
NSA-29				N/A		37.3	38.1	34.6	36.5	37.9	37.3	N/A	N/A	36.88	37.30
NSA-32				N/A		34.1	32.9	35.4	36.2	31.9	30.8	N/A	N/A	34.10	30.80
NSA-33				N/A		28.9	31.9	30.1	32.7	34.1	33.2	N/A	N/A	31.54	33.20

Notes: Drill P4-5 commenced at 0800 and stopped operation at 2030.



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	8/26/2025	Footage:	1435	Depth:	120	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28				N/A		56.5	58.1	55.6	57.6	50.8	56.2	N/A	N/A	55.72	56.20
NSA-29				N/A		35.7	36.3	35.9	37.5	34.8	38.1	N/A	N/A	36.04	38.10
NSA-32				N/A		32.9	34.1	35.6	29.4	33.5	31.3	N/A	N/A	33.10	31.30
NSA-33				N/A		35.1	33.7	33.9	34.2	35.9	27.7	N/A	N/A	34.56	27.70

Notes: Drill P4-5 commenced at 0800 and stopped operation at 2015.





**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	8/27/2025	Footage:	1945	Depth:	120	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28				N/A		56.7	56.2	57.1	58.0	56.9	55.4	N/A	N/A	56.98	55.40
NSA-29				N/A		37.4	35.7	35.1	38.3	36.5	36.9	N/A	N/A	36.60	36.90
NSA-32				N/A		34.0	28.8	33.4	35.4	31.4	32.3	N/A	N/A	32.60	32.30
NSA-33				N/A		33.1	35.4	32.8	34.2	30.9	35.2	N/A	N/A	33.28	35.20

Notes: Drill P4-5 commenced at 0800 and stopped operation at 2010.



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	8/28/2025	Footage:	2327	Depth:	120	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	58.8	60.4	56.7	56.0	54.3	55.3	N/A	N/A	57.24	55.30
NSA-29					N/A	38.3	35.4	36.1	37.7	35.5	34.1	N/A	N/A	36.60	34.10
NSA-32					N/A	34.7	33.9	35.3	32.8	33.7	34.9	N/A	N/A	34.08	34.90
NSA-33					N/A	33.0	31.5	32.6	30.0	34.2	35.6	N/A	N/A	32.26	35.60

Notes: Drill P4-5 commenced at 0800 and stopped operation at 2030.



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	8/29/2025	Footage:	2838	Depth:	0	Phase:	Second ream
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber	Approved by DES	Yes

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	N/A	N/A	60.2	60.6	58.9	60.1	N/A	N/A	59.90	60.10
NSA-29					N/A	N/A	N/A	35.3	37.1	34.7	35.9	N/A	N/A	35.70	35.90
NSA-32					N/A	N/A	N/A	31.3	30.6	32.4	33.6	N/A	N/A	31.43	33.60
NSA-33					N/A	N/A	N/A	35.4	34.7	32.5	34.3	N/A	N/A	34.20	34.30

Notes: Drill P4-5 commenced at 0950 and stopped operation at 1030, started drill at 1240 and stopped drill at 2000. Mears HDD completed second ream.



**Environmental Procedure**  
**\*Appendix M: Horizontal Directional Drill Daily Report\***

**380.203m**  
**1 of 1**

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-5	Date:	8/30/2025	Footage:	2838	Depth:	0	Phase:	Not operating
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Drilling Fluids:	MAXGEL	Approved by DES	Yes
	Water	Approved by DES	Yes
	Soda Ash Right Turn Supply, Drill-Plex HDD, Platinum Pac UL, Clay Crusher, Seal Force, Magma Fiber		Approved by DES

Person Walking Drill Path	Nelson Casey	Role	EI	Frequency	Hourly	IR Detected	No
	Zach Miller		Contractor		Continuously		
	John Odom		Contractor		Hourly		

NSA#	Time	1:00	3:00	5:00	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	Daytime Average	Nighttime Average
NSA-28					N/A	52.4	64.8	47.4	57.3	N/A	N/A	N/A	N/A	55.48	
NSA-29					N/A	35.9	36.7	35.9	34.8	N/A	N/A	N/A	N/A	35.83	
NSA-32					N/A	29.3	32.3	31.1	32.6	N/A	N/A	N/A	N/A	31.33	
NSA-33					N/A	30.7	35.1	33.5	34.7	N/A	N/A	N/A	N/A	33.50	

Notes: Drill P4-5 commenced at 0830 and stopped at 1610. Mears HDD tripped drill pipe back to exit.