



Northern Natural Gas Company  
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August 22, 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. 13

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 (Northern) hereby submits for filing in the above-referenced docket its biweekly environmental inspector report for the period ending August 17, 2025.

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. 13**  
**Period Ending August 17, 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 trenching for 36-inch-diameter mainline pipe north of 140th Street. K&K continued sandblasting and coating mainline pipe south of 165th Street. K&K completed restoration of the north roadside ditch at the 140th Street road crossing. K&K continued the tie-in for 36-inch-diameter mainline pipe north of County Road 80/154th Street<sup>2</sup>. K&K pushed subsoil off the right of way (ROW) and pulled back the subsoil onto the ROW, south of 140th Street at Milepost (MP) 31.83. K&K continued removing topsoil over the D-line south of 140th Street. K&K continued backfilling the mainline trench north of County Road 80/154th Street. K&K continued fabrication of 36-inch-diameter tie-in piping north of 165th Street at MP 34.2. K&K continued sandblasting and coating tie-in welds north of 140th Street. K&K

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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.

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continued trenching for mainline pipe north of County Highway 9/135th Street<sup>3</sup>. K&K continued lowering-in 36-inch-diameter mainline pipe north of County Highway 9/135th Street. K&K completed restoration of the south roadside ditches for the County Road 80/154th Street road crossing and 140th Street road crossing. K&K continued lowering-in 36-inch-diameter mainline pipe north of County Road 80/154th Street. K&K commenced bringing the ROW to grade south of 140th Street. K&K completed the trench tie-in for mainline pipe at MP 33.31 north of County Road 80/154th Street. K&K commenced backfilling the mainline trench north of County Highway 9/135th Street at MP 31.37. K&K commenced bringing subsoil to grade south of County Road 80/154th Street. K&K completed installation of test leads for the mainline pipe south of County Road 80/154th Street at MP 33.18.

### 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

Three rain events of 0.50 inch or greater occurred during this reporting period. One rain event of 1.59 inches occurred August 10, 2025. One rain event of 0.69 inch occurred August 11, 2025. One rain event of 1.03 inches occurred August 17, 2025. To date, the project has received 29.92 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	97%	Welding is ongoing
Ditching	6/6/2025	71%	Ditching is ongoing
Lower-in	6/6/2025	67%	Lowering-in is ongoing
Backfill	6/6/2025	44%	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

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<sup>3</sup> County Highway 9 is also referred to as 135th Street.

### **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 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: 4 Total to date: 90

### **Construction Status:**

Otis continued welding and coating the line pipe. Otis completed welding bore pipe on horizontal directional drills (HDD). Mears Group Inc. (Mears), a third-party HDD sub-contractor of Otis, commenced the ream pass of HDD P4-5 and completed the pipe pull for HDD P4-2. Mears had a 1,096-gallon inadvertent release (IR) of drilling fluid on HDD P4-5 in an upland area near MP 2.93 August 12, 2025. The IR was contained with silt fence and cleaned with hand tools and a hydro vacuum truck. The day after HDD P4-5 clean-up was complete, Northern and the contractor noticed multiple sink holes forming along the HDD P4-5 path. The contractor installed silt fence around the sink hole path as a safety precaution. Northern and the contractor are closely monitoring the sink holes for any changes and will request a variance for additional workspace to repair the sink holes once P4-5 HDD is complete.

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**

Wetland feature ERT-W34 crossed by HDD June 29, 2025.

Wetland feature ERT-W14 crossed by HDD July 30, 2025.

### **Rain Events**

Two rain events of 0.50 inch or greater occurred during this reporting period. One rain event of 1.00 inch

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<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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occurred August 9, 2025. One rain event of 3.10 inches occurred August 16, 2025. To date the project has received 18.43 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	69%	Welding is ongoing
Ditching	7/9/2025	34%	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	43%	Mears commenced the 28-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	33%	Otis continued lowering-in
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

One spill occurred during this reporting period. On August 8, 2025, a spill of 0.3 gallon of hydraulic fluid occurred due to a cracked hydraulic hose fitting on an excavator. The spill was cleaned up immediately and all contaminated material was stored in contamination barrels onsite. The quantity did not meet the reporting threshold for Minnesota.

## 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

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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: 4 Total to date: 90

### Construction Status:

Otis continued hydro-vacuum excavation and completed the 24-inch-diameter hot tap within the Hugo compressor station. Otis completed topsoil segregation on the Farmington-Hugo C-Line extension. Otis completed seeding and mulching all stored stockpiles. Otis restored topsoil up to a travel lane from MP 1.88-MP 1.52. Otis continued stringing and welding line pipe. Otis continued stringing the bore pipe. Otis continued sandblasting line and bore pipe. Otis completed setting up the sound wall for HDD P4-1. Otis continued ditching, lowering-in and backfill on the south side of the Minnesota Department of Natural Resources (MDNR) property. Otis continued the topsoil restoration.

The young eagles have left the nest and are freely flying greater than half a mile from the nest. The restrictions have been lifted within the previous buffer.

**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 0.85 inch occurred August 9, 2025. One rain event of 2.75 inches occurred August 17, 2025. To date the project has received 18.67 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	90%	Stringing is ongoing
Welding	6/20/2025	90%	Welding is ongoing
Ditching	7/24/2025	18%	Otis continued ditching
HDD FAR P4-1			
HDD FAR P4-2			
Lower-in	7/24/2025	18%	Otis continued lowering-in
Backfill	7/28/2025	18%	Otis continued backfill

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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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<b>Topsoil Restoration</b>	7/1/2025	10%	Otis continued topsoil restoration
<b>Hugo compressor station launcher and valves</b>	5/22/2025	65%	Otis continued hydro-vacuum activities and completed the hot tap.
<b>Farmington tie-over valve setting</b>	6/17/2025	50%	Otis completed installation of the valve.
<b>Clean-up</b>			
<b>Seeding</b>			
<b>*Completed totals include either percentage completed or date all completed. All totals are approximate.</b>			

### Two-Week Projection

1. Continue hydro-vacuum excavation and start backfilling in the Hugo compressor station
2. Continue stringing
3. Continue welding
4. Continue sandblasting and coating
5. Commence 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: 6 Total to date: 49

**Construction Status:** K&K completed ditching and lowering-in of the pipeline. American Hydrovac, Inc (American Hydro), continued working on the Tomah tie-over valve setting. K&K continued installation of trench breakers. K&K completed the tie-ins near MP 2.25 and MP 2.41. K&K commenced cleanup. K&K commenced final restoration. K&K commenced installation of permanent slope breakers. K&K completed running brush pipeline inspection gauges and smart tool. American Hydro commenced hydro seeding. K&K completed installation of all trench breakers. K&K completed installation of split tee at tie in location.

**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**

One rain event of 0.50 inch or greater occurred during this reporting period. One rain event of 0.70 inch occurred August 10, 2025. To date, the project has received 20.55 inches of precipitation.

<b>Tomah Branch Line Loop Construction Progress</b>			
<b>Activity</b>	<b>Start Date</b>	<b>Completed</b>	<b>Notes</b>
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	90%	Welding is ongoing
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	95%	Backfill is ongoing
Topsoil Restoration	8/9/2025	7%	Restoration commenced
Remove Tomah branch line loop receiver facility	6/11/2025	15%	K & K completed excavation
Remove Tomah Tie-over valve setting	6/12/2025	35%	K & K completed excavation
Clean-up	8/9/2025	10%	Clean-up ongoing
Seeding	8/14/2025	15%	Seeding ongoing
<b>*Completed totals include either percentage completed or date all completed. All totals are approximate.</b>			

### **Two-Week Projection**

1. Complete tie-ins
2. Complete welding
3. Complete sandblasting and coating
4. Continue cleanup and seeding
5. Complete pressure test
6. Continue removal of Tomah tie-over valve setting
7. Continue removal of Tomah branch line loop receiver facility

### **Tomah Branch Line Loop Related Spill Totals**

No spills occurred during this reporting period.

### **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 did not perform any work during this reporting period. Northern sent the compressor head supports to Northern's machine shop to modify the supports to fit the new compressor cylinder end caps. Northern has scheduled the supports to be shipped back to the project site and Archrock will complete the compressor cylinder end cap replacement 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	10%	Compressor modifications are ongoing
*Completed totals include either percentage completed or date all completed. All totals are approximate.			

### Two-Week Projection

1. Modify the existing supports
2. Complete modifications

### La Crescent Compressor Station Related Spill Totals

No spills occurred during this reporting period.

### PROJECT-WIDE AGENCY COMMUNICATIONS AND SITE VISITS

No project-wide agency communications or site visits occurred during this reporting period.

### PROJECT-WIDE LANDOWNER CONCERNS

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

### PROJECT-WIDE NON-COMPLIANCE CONCERNS

As noted in the construction status section above for the Lake Mills to Albert Lea E-line extension, on August 4, 2025, K&K had a minor off-ROW event. K&K was operating equipment near the ROW boundary when some of the spoil pile material spilled over off the ROW. The site has been experiencing higher than average rainfall resulting in very saturated soils. The combined weight of the equipment along

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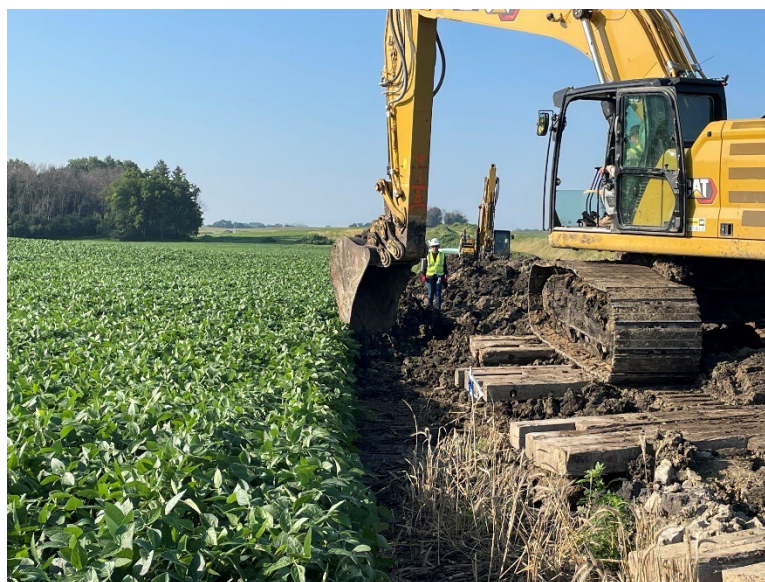
with the saturated soils caused mud to extend approximately three feet beyond the ROW. K&K used equipment and hand shoveling to remediate all off-ROW debris.

**PHOTOS**

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



Facing southwest at MP 33.31, K&K completing tie-in



Facing south at MP 31.83, K&K cleaning an off-ROW incident

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Facing south at MP 32.3, K&K removing topsoil over D-line north of 140th Street



Facing north at MP 33.4, K&K backfilling trench north of County Road 8/154th Street



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



Facing east at MP 33.19, K&K installing erosion control blankets (ECBs) north of County Road 8/154th Street

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Facing northwest at MP 31.25, K&K trenching north of County Highway 9/135th Street



Facing north at MP 33.35, K&K lowering-in mainline pipe north of County Road 8/154th Street



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Facing south at MP 31.8, K&K restoring subsoil to grade south of 140th Street



Facing southeast at MP 33.18, K&K installing test leads south of County Road 8/154th Street

**Elk River 3rd Branch Line**



HDD P4-2 completed the pull



Facing west near MP 1.35, welding and coating ongoing





HDD P4-5 commenced the ream pass

### **Farmington-Hugo C-Line Extension**



Facing north near MP 0.55, view of the soundwalls completed on HDD P4-1 side entry



Facing west near MP 1.7, view of the contractor stringing and welding line pipe



Facing south near MP 1.65, view of the ROW restored up to a travel lane, which is still required to allow access for final tie-in





Facing south near MP 1.08, view of the contractor grading ROW



Facing south near MP 0.1, view of the contractor welding on the split tee in the Hugo compressor station



Facing south near MP 1.08, view of the contractor stabilizing the topsoil stockpiles



Facing south, Badger hydro vacuuming in the Hugo compressor station near MP 0.1



**Tomah Branch Line Loop**



Facing east near MP 3.2, trench breaker installation



Facing east near MP 2.25, contractor lowering-in pipe

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Facing south near MP 2.25, contractor performing tie-in



Facing east near MP 2.4, contractor restoring topsoil





Facing east near MP 2.45, contractor installing slope breakers



Facing east near MP 2.42, hydro seeding



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

380.203m  
1 of 1

Project: NL25 Elk River 3rd BL Extension				WO: 1146979											
Drill:	P4-2	Date:	8/4/25	Footage:	221.24-feet	Depth:	0	Phase:	Second ream						
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				
	Richard Benike				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-08					N/A	N/A	41.2	37.4	43.5	39.3				40.35	
NSA-11					N/A	N/A	39.1	41.1	42.2	41.2				40.90	
NSA-12					N/A	N/A	42.0	43.7	40.2	36.3				40.55	
NSA-13					N/A	N/A	37.6	44.0	39.9	39.7				40.30	
Notes: Contractor commenced pull ream with 42-inch reamer. Contractor ended the day with 221.24-feet reamed total.															





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

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

Project: NL25 Elk River 3rd BL Extension					WO: 1146979										
Drill:	P4-2	Date:	8/5/25	Footage:	284.45-feet	Depth:	0	Phase:	Second ream						
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			
		Richard Benike				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-08				N/A		38.8	43.2	39.5	44.0	41.1				41.32	
NSA-11				N/A		44.1	37.9	40.2	36.9	38.3				39.48	
NSA-12				N/A		39.4	38.7	40.7	40.9	39.6				39.86	
NSA-13				N/A		41.2	42.1	39.9	42.5	38.0				40.74	
Notes: Contractor continued pull ream with 42-inch reamer. Contractor ended the day with 505.69-feet reamed total.															



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

380.203m  
1 of 1

Project: NL25 Elk River 3rd BL Extension				WO: 1146979											
Drill:	P4-2	Date:	8/6/25	Footage:	221.27-feet	Depth:	0	Phase:	Second ream						
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				
		Richard Benike			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-08				N/A		39.9	37.6	N/A	45.5	39.6				40.65	
NSA-11				N/A		40.6	41.9	N/A	38.2	39.9				40.15	
NSA-12				N/A		38.4	42.8	N/A	38.6	38.2				39.50	
NSA-13				N/A		44.3	36.9	N/A	42.5	38.9				40.65	
Notes: Contractor continued pull ream with 42-inch reamer. Contractor ended the day with 726.96-feet reamed total.															



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

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

Project: NL25 Elk River 3rd BL Extension					WO: 1146979										
Drill:	P4-2	Date:	8/7/25	Footage:	316.1-feet	Depth:	0	Phase:	Second ream						
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				
		Richard Benike				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-08				N/A		38.1	38.0	N/A	39.8	N/A				38.63	
NSA-11				N/A		39.8	45.1	N/A	42.5	N/A				42.47	
NSA-12				N/A		43.4	39.2	N/A	46.1	N/A				42.90	
NSA-13				N/A		44.3	42.7	N/A	37.6	N/A				41.53	
Notes: Contractor continued pull ream with 42-inch reamer. Contractor ended the day with 1042.39-feet reamed total.															



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

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

Project: NL25 Elk River 3rd BL Extension				WO: 1146979			
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Drill:	P4-2	Date:	8/8/25	Footage:	284.49-feet	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	Austin Cleveland	Role	EI	Frequency	Hourly	IR Detected	No
	Richard Benike		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-08				N/A		40.1	37.9	37.6	42.3	N/A				39.48	
NSA-11				N/A		38.2	41.2	42.4	38.6	N/A				40.11	
NSA-12				N/A		43.1	39.5	42.0	46.4	N/A				42.75	
NSA-13				N/A		40.8	44.7	37.5	37.9	N/A				40.23	

Notes: Contractor completed pull ream with 42-inch reamer. Contractor ended the day with 1327.44-feet reamed total.



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

380.203m  
1 of 1

Project:		NL25 Elk River 3rd BL Extension												WO:		1146979	
Drill:	P4-2	Date:	8/9/25	Footage:	1237.44-feet	Depth:	0	Phase:	Swabbing								
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					
		Richard Benike				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-08				N/A		41.6	39.6	44.0	42.3	N/A				41.88			
NSA-11				N/A		38.1	38.5	37.6	42.1	N/A				39.08			
NSA-12				N/A		41.5	42.9	38.8	46.4	N/A				42.40			
NSA-13				N/A		43.4	43.8	37.0	37.8	N/A				40.50			
Notes: Contractor commenced and completed swab pass with 42-inch swab. Contractor ended the day with 1327.44-feet swabbed total.																	



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

380.203m  
1 of 1

Project: NL25 Elk River 3rd BL Extension

WO: 1146979

Drill:	P4-2	Date:	8/11/25	Footage:	0-feet	Depth:	0	Phase:	Swabbing
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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	Austin Cleveland	Role	EI	Frequency	Hourly	IR Detected	No
	Richard Benike		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-08				N/A	N/A	N/A	N/A	N/A	N/A	N/A					
NSA-11				N/A	N/A	N/A	N/A	N/A	N/A	N/A					
NSA-12				N/A	N/A	N/A	N/A	N/A	N/A	N/A					
NSA-13				N/A	N/A	N/A	N/A	N/A	N/A	N/A					

Notes: Contractor ended the day with 0-feet swabbed total.



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

380.203m  
1 of 1

Project:		NL25 Elk River 3rd BL Extension										WO:		1146979	
Drill:	P4-2	Date:	8/12/25	Footage:	1327.44-feet	Depth:	0	Phase:	Swabbing						
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			
		Richard Benike				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-08				N/A		38.8	39.6	N/A	43.8	N/A				40.73	
NSA-11				N/A		41.9	42.4	N/A	39.0	N/A				41.10	
NSA-12				N/A		45.1	38.1	N/A	40.4	N/A				41.20	
NSA-13				N/A		38.4	41.9	N/A	38.5	N/A				39.60	
Notes: Contractor commenced and completed the second swab pass today, and ended the day with 1327.44-feet swabbed total.															



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

380.203m  
1 of 1

Project:		NL25 Elk River 3rd BL Extension												WO:		1146979	
Drill:	P4-2	Date:	8/13/25	Footage:	1232.62-feet	Depth:	0	Phase:	Pullback								
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				
		Richard Benike					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-08					N/A	N/A	N/A	N/A	44.1	41.2				42.65			
NSA-11					N/A	N/A	N/A	N/A	46.3	43.5				44.90			
NSA-12					N/A	N/A	N/A	N/A	39.9	38.4				39.15			
NSA-13					N/A	N/A	N/A	N/A	42.3	42.5				42.40			
Notes: Contractor commenced the pull phase today. Contractors pulled a total of 1232.62-feet then had a mechanical failure on the drill and ended the day with 1232.62-feet pulled total.																	





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

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

Project: NL25 Elk River 3rd BL Extension					WO: 1146979				
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Drill:	P4-2	Date:	8/14/25	Footage:	126-feet	Depth:	0	Phase:	Pullback
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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	Austin Cleveland	Role	EI	Frequency	Hourly	IR Detected	No
	Richard Benike		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-08				N/A	N/A	N/A	N/A		46.2	47.6	49.1			46.90	49.1
NSA-11				N/A	N/A	N/A	N/A		44.3	48.0	47.8			46.15	47.8
NSA-12				N/A	N/A	N/A	N/A		41.4	42.9	43.2			42.15	43.2
NSA-13				N/A	N/A	N/A	N/A		45.6	49.3	48.5			47.45	48.5

Notes: Contractors pulled 126-feet today and completed the pull phase with an overall total of 1358.72-feet. Sound monitoring readings where slightly elevated today due to wind.



**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:	8/4/2025	Footage:	1424	Depth:	130	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

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	40.1	40.1	39.4	41.5	41.7	N/A	N/A		40.56	
NSA-29					N/A	37.7	38.5	36.9	38.1	38.3	N/A	N/A		37.90	
NSA-32					N/A	34.3	35.1	35.3	34.8	34.1	N/A	N/A		34.72	
NSA-33					N/A	33.2	31.7	34.0	32.6	33.9	N/A	N/A		33.08	

Notes: Drill P4-5 commenced drill operation at 0740 and stop operating drill at 2005.



**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:	8/5/2025	Footage:	1675	Depth:	121	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

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	38.6	40.5	41.3	39.3	N/A	N/A	N/A		39.93	
NSA-29					N/A	36.5	37.8	38.1	36.9	N/A	N/A	N/A		37.33	
NSA-32					N/A	35.4	35.4	33.2	33.5	N/A	N/A	N/A		34.38	
NSA-33					N/A	34.8	32.3	33.9	31.1	N/A	N/A	N/A		33.03	

Notes: Drill P4-5 commenced drill operation at 0740 and stop operating drill at 1650.



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

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

Project: NL25 Elk River 3rd BL Extension	WO: 1146979
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Drill:	P4-5	Date:	8/6/2025	Footage:	2242	Depth:	102	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-28					N/A	36.7	40.1	38.9	37.5	40.8	36.4	N/A		38.80	36.40
NSA-29					N/A	35.5	38.7	35.1	38.3	35.4	36.8	N/A		36.60	36.80
NSA-32					N/A	31.3	33.6	34.5	34.8	32.5	32.5	N/A		33.34	32.50
NSA-33					N/A	33.8	31.0	34.3	32.1	35.2	33.7	N/A		33.28	33.70

Notes: Drill P4-5 commenced drill operation at 0740 and stop operating drill at 1650.



**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:	8/7/2025	Footage:	2728	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

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	38.3	41.3	41.7	41.1	42.2	39.7	N/A		40.92	39.70
NSA-29					N/A	38.1	36.7	38.2	38.5	37.2	37.9	N/A		37.74	37.90
NSA-32					N/A	34.3	30.0	32.6	31.3	33.5	34.3	N/A		32.34	34.30
NSA-33					N/A	32.1	33.4	33.1	34.7	34.4	33.5	N/A		33.54	33.50

Notes: Drill P4-5 commenced drill operation at 0745 and stop operating drill at 2050.





**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:	8/8/2025	Footage:	2728	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

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	39.7	N/A			39.70
NSA-29					N/A	N/A	N/A	N/A	N/A	N/A	37.9	N/A			37.90
NSA-32					N/A	N/A	N/A	N/A	N/A	N/A	34.3	N/A			34.30
NSA-33					N/A	N/A	N/A	N/A	N/A	N/A	33.5	N/A			33.50

Notes: Drill P4-5 drill operated for 30 minutes while installing the 28-inch reamer.



**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:	8/9/2025	Footage:		Depth:	102	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	43.7	50.4	46.7	N/A	N/A	N/A		46.93	
NSA-29					N/A	N/A	36.7	35.4	38.9	N/A	N/A	N/A		37.00	
NSA-32					N/A	N/A	30.0	32.9	29.9	N/A	N/A	N/A		30.93	
NSA-33					N/A	N/A	35.8	37.2	39.5	N/A	N/A	N/A		37.50	

Notes: Drill P4-5 drill commenced drill at 1000 and stopped drill operation at 1700.



**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:	8/11/2025	Footage:	988	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	N/A	52.3	62.1	59.4	51.7	62.3	N/A		56.38	62.30
NSA-29					N/A	N/A	35.7	37.3	36.5	34.9	37.8	N/A		36.10	37.80
NSA-32					N/A	N/A	33.8	35.3	28.6	32.1	36.0	N/A		32.45	36.00
NSA-33					N/A	N/A	32.1	33.4	31.5	29.9	32.4	N/A		31.73	32.40

Notes: Drill P4-5 drill commenced drill at 0930 and stopped drill operation at 2000.



**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:	8/12/2025	Footage:	1339	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	Yes
	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	60.7	63.2	51.1	62.3	61.2	N/A	N/A	59.33	61.20
NSA-29					N/A	N/A	35.7	36.9	35.4	38.1	37.3	N/A	N/A	36.53	37.30
NSA-32					N/A	N/A	33.2	29.9	34.3	32.8	33.8	N/A	N/A	32.55	33.80
NSA-33					N/A	N/A	33.0	31.1	30.9	33.6	34.5	N/A	N/A	32.15	34.50

Notes: Drill P4-5 drill commenced drill at 0830 and stopped at 0915, started drill at 1045 and stopped drill 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:	8/13/2025	Footage:	1626	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	51.1	61.5	62.1	46.8	62.4	62.8	N/A	N/A	56.78	62.80
NSA-29					N/A	37.3	36.4	38.7	33.7	35.2	36.4	N/A	N/A	36.26	36.40
NSA-32					N/A	33.5	34.1	31.4	31.2	34.5	35.7	N/A	N/A	32.94	35.70
NSA-33					N/A	31.8	32.8	33.8	28.9	30.9	32.3	N/A	N/A	31.64	32.30

Notes: Drill P4-5 drill commenced drill at 0830 and stopped at 0740, started drill at 1045 and stopped drill 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:	8/14/2025	Footage:	1945	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	61.7	62.3	51.1	42.9	61.0	61.5	N/A	N/A	55.80	61.50
NSA-29					N/A	35.0	34.4	35.7	36.2	37.8	34.7	N/A	N/A	35.82	34.70
NSA-32					N/A	35.4	31.9	33.6	34.1	32.7	34.3	N/A	N/A	33.54	34.30
NSA-33					N/A	31.5	29.8	30.6	32.3	31.2	29.9	N/A	N/A	31.08	29.90

Notes: Drill P4-5 drill commenced drill at 0830 stopped drill 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:	8/15/2025	Footage:	2391	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	N/A	61.8	61.2	51.2	44.9	N/A	N/A	N/A	54.78	
NSA-29					N/A	N/A	37.3	35.4	33.9	33.1	N/A	N/A	N/A	34.93	
NSA-32					N/A	N/A	33.6	30.9	32.4	30.0	N/A	N/A	N/A	31.73	
NSA-33					N/A	N/A	31.1	33.0	31.6	30.4	N/A	N/A	N/A	31.53	

Notes: Drill P4-5 drill commenced at 0925 and stopped drill operation at 0515.



**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:	8/16/2025	Footage:	2391	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	N/A	N/A	62.1	61.7	N/A	N/A	N/A	N/A	61.90	
NSA-29					N/A	N/A	N/A	36.3	37.1	N/A	N/A	N/A	N/A	36.70	
NSA-32					N/A	N/A	N/A	29.5	33.2	N/A	N/A	N/A	N/A	31.35	
NSA-33					N/A	N/A	N/A	30.0	30.9	N/A	N/A	N/A	N/A	30.45	

Notes: Drill P4-5 drill commenced at 1145 and stopped drill operation at 0430.