



Report

Enbridge Power Development Canada Inc.

Seven Stars Wind Project

Geotechnical Investigation Report

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Distribution List

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Table of Contents

- 1 INTRODUCTION 1**
- 2 SITE AND PROJECT DESCRIPTION 1**
- 3 BACKGROUND REVIEW 2**
 - 3.1 Surficial Geology 2
 - 3.2 Bedrock Geology 2
 - 3.3 Previous Geotechnical Investigations 2
 - 3.4 Groundwater information 3
- 4 INVESTIGATION METHODOLOGY 7**
 - 4.1 Preparation and Approvals, Permits and Clearances 7
 - 4.2 Orientations, Induction and Kick-Off 8
 - 4.3 Field Operations 8
 - 4.3.1 Site Reconnaissance 8
 - 4.3.2 Borehole Program 8
 - 4.3.3 Four-Point Wenner in-situ Soil Resistivity Testing 11
 - 4.3.4 Piezometer Decommissioning 11
 - 4.4 Laboratory Testing 11
- 5 SUBSURFACE CONDITIONS 12**
 - 5.1 General Subsurface Profile 12
 - 5.1.1 Topsoil 12
 - 5.1.2 Surficial Stratified Deposits 12
 - 5.1.3 Glacial Till 12
 - 5.1.4 Bedrock 16
 - 5.1.4.1 Clayey Shale 16
 - 5.1.4.2 Clayey Sand to Sandy Clay 18
 - 5.2 Groundwater Conditions 20
 - 5.3 Auger Refusal 22

6	CORROSIVITY, SOIL RESISTIVITY, THERMAL RESISTIVITY AND SOLUBLE SULPHATE TESTING	23
6.1	Corrosivity and Soluble Sulphate Laboratory Testing Results.....	23
6.2	Thermal Resistivity Testing Results	25
7	GEOTECHNICAL COMMENTS AND RECOMMENDATIONS	25
7.1	Frost Penetration Depth	26
7.2	Soil Resistivity and Corrosivity	26
7.2.1	Key Factors and Parameters	26
7.2.2	Corrosion Potential	28
7.3	General Site Preparation.....	28
7.3.1	Grading and Drainage.....	28
7.3.2	Fill Selection and Placement.....	29
7.3.3	Cold Weather Considerations	30
7.4	Turbines Foundation Design Recommendations	30
7.4.1	Gravity Base Foundation	31
7.4.2	Geotechnical Design Parameters	32
7.4.2.1	Bearing Capacity.....	32
7.4.2.2	Overturning	34
7.4.2.3	Sliding Resistance at the Bottom	35
7.4.2.4	Dynamic Properties and Stiffness.....	35
7.4.3	Temporary Excavations	42
7.4.4	Backfill Above and Around the Foundation.....	43
7.4.5	Buoyancy Considerations	44
7.4.6	Drainage.....	45
7.5	MET Mast Foundations	45
7.6	O&M Building and Substation Foundations	45
7.6.1	Design Approach.....	45
7.6.1.1	Limit States Design	46
7.6.1.2	Ultimate Limit State (ULS)	46
7.6.1.3	Serviceability Limit State (SLS)	46

7.6.2	Cast in Place Concrete (CIPC) Friction Pile Foundations	46
7.6.2.1	Ultimate Limit State	46
7.6.2.2	Serviceability Limit State (SLS)	47
7.6.2.3	Additional Recommendations for CIPC Piles	47
7.6.2.4	Tensile Uplift Resistance	48
7.6.2.5	Lateral Resistance	49
7.6.2.6	Pile Group Effects	50
7.6.2.7	Frost Design Considerations for Piles	50
7.6.2.8	Grade Beam and Pile Caps	51
7.7	Grade Supported Concrete Slabs	51
7.7.1	Minimum Gravel Structure and Slab Thickness.....	51
7.7.2	Subgrade Preparation and Construction Recommendations	52
7.7.3	Structurally Supported Concrete Slabs.....	53
7.8	Gravel Pavement Structure.....	54
7.8.1	General Discussion.....	54
7.8.2	Design Traffic Loading.....	54
7.8.3	Granular Surfacing.....	54
7.9	Crane Pads	56
7.10	Seismic Site Classification and Seismic Hazard.....	57
7.11	Foundation Concrete.....	57
8	DESIGN REVIEW, CONSTRUCTION MONITORING AND MATERIALS TESTING	58
9	CLOSURE	58
10	REFERENCES	61

TABLES

Table 1: Turbine Design Inputs	1
Table 2: Summary of Existing Boreholes	3
Table 3: WSA Water Well Record Summary.....	3
Table 4: Summary of Borehole Locations	8
Table 5: Summary of Laboratory Testing	11

Table 6: Summary of Laboratory Test Results for Surficial Stratified Deposit Samples	12
Table 7: Summary of Laboratory Test Results for Glacial Till Samples	13
Table 8: Summary of Dry Density and Unconfined Compressive Strength Testing on Glacial Till.....	15
Table 9: Summary of Laboratory Test Results for Clay Shale Samples	16
Table 10: Summary of Dry Density and Unconfined Compressive Strength Testing on Clayey Shale	17
Table 11: Summary of Laboratory Test Results for Clayey Sand to Sandy Clay Samples	19
Table 12: Summary of Dry Density and Unconfined Compressive Strength Testing on Clayey Sand to Sandy Clay Samples	20
Table 13: Seepage, Sloughing and Groundwater Observations	20
Table 14: Corrosivity and Soluble Sulphate Laboratory Testing Results	23
Table 15: Geotechnical Design Criteria.....	26
Table 16: Soil Electrical Resistivity vs. Corrosivity Rating.....	28
Table 17: Unfactored Ultimate and Serviceability Bearing Resistance for Turbine Shallow Foundations	33
Table 18: Geotechnical Design Parameters at Anticipated Foundation Level	36
Table 19: Estimated Foundation Stiffness Parameters for Modes of Motion	38
Table 20: Ultimate Skin Friction Values for CIPC Friction Piles	47
Table 21: Modulus of Subgrade Reaction (k_h) for Lateral Loads on Piles	49
Table 22: Granular Design Sections.....	55
Table 23: Minimum Recommended Quality Control Requirements	58

FIGURES

Figure 1: Site Location Plan.....	63
Figure 2: Borehole Location Plan (SS-BH25-01 to 07)	64
Figure 3: Borehole Location Plan (SS-BH25-08 to 17, 21-22, 25-27 and 51-55)	65
Figure 4: Borehole Location Plan (SS-BH25-18 to 21, 23-26, 28 to 32, 40 and 47).....	66
Figure 5: Borehole Location Plan (SS-BH25-31 to 39, 41-50 and 56).....	67
Figure 6: Surficial Geology	68
Figure 7: Standpipe Piezometer Measurement.....	69

APPENDICES

APPENDIX A

Historical Borehole Records

APPENDIX B

WSA Water Well Records

APPENDIX C

Photo Log

APPENDIX D

Borehole Logs

APPENDIX E

Soil Resistivity Testing

APPENDIX F

Laboratory Test Results

1 INTRODUCTION

WSP Canada Inc. (WSP) was retained by Enbridge Power Development Canada Inc. (Enbridge) to complete a geotechnical investigation to support the design of the proposed Seven Stars Wind Farm Project located near Weyburn, SK.

The purpose of this geotechnical investigation was to evaluate the subsurface and groundwater conditions and to provide geotechnical design parameters and construction recommendations for the proposed wind farm. The approved scope of work included the following:

WSP previously prepared a report for EDF Renewables Development Inc. for this location in June 2024 entitled "Weyburn Wind Farm". It is understood that the preliminary design of the development is based on that report.

2 SITE AND PROJECT DESCRIPTION

The site is shown in Figure 1. The project site is located approximately 10 to 25 km west and southwest of the city of Weyburn, SK. The locations of forty-six (46) proposed wind turbines, four (4) alternate wind turbines, two (2) meteorological (MET) stations, the proposed substation and proposed operations and maintenance (O&M) building were provided by Enbridge. The site extends across agricultural land consisting of crop land, pasture, wetlands, and numerous oilfield developments.

Based on the preliminary design and investigation, it is understood that Enbridge is considering a gravity (partial buoyancy and without buoyancy) foundation for a Vestas V163-4.5 MW MK4, HH98 wind turbine. The design inputs in Table 1 have been considered for preparation of this report.

Table 1: Turbine Design Inputs

Input	Preliminary Design Basis
Foundation Embedment Depth (m)	2.7
Foundation Diameter (m)	20.0
Moment (kN-m)	81,584 (Normal Loads) 137,430 (Extreme Factored Loads) 103,900 (Extreme Unfactored Loads)
Axial Loading (kN)	4,830 (Normal Loads) 5,404 (Extreme Factored Loads) 4,859 (Extreme Unfactored Loads)
Lateral Loading (kN)	795 (Normal Loads) 1,381 (Extreme Factored Loads) 1,067 (Extreme Unfactored Loads)
Torsion (kN-m) Mz	2,953 (Normal Loads) 11,697 (Extreme Factored Loads) 8,072 (Extreme Unfactored Loads)

Note: m = metre; kN = kiloNewton

Additionally, it is assumed that for design of the O&M building and substation, consideration will be given to piled foundations or alternatively shallow footings. It is assumed that the MET Mast Foundations will be comprised of shallow foundations.

3 BACKGROUND REVIEW

3.1 Surficial Geology

Based on review of surficial geological mapping of the project area (Saskatchewan Mining and Petroleum GeoAltas), the primary surficial geology across the site area is a morainal plain (Mp), with a glaciolacustrine plain (GLp) observed on the western perimeter of the site (corresponding to boreholes Turbines 2 to 8) and an eroded moraine (Me) located in the area of Turbine 1. Minor meltwater channels are also present in the area (near Turbines 29, 36, 41 and 45 and near MET 2).

Based on review of geology and groundwater resource information for the area (Simpson 1993), the surficial geology of the area is expected to consist of up to 50 m of undifferentiated drift overlying bedrock. The undifferentiated drift is expected to be composed of surficial stratified deposits and glacial till of the Saskatoon Group Formation followed by glacial tills of the Sutherland Group Formation. Where encountered, the Sutherland Group Formation is typically less sandy and more clayey than the Saskatoon Group formation and tests to be harder to penetrate and less electrically resistive, however the difference between the two formations has not been mapped in the project area. No aquifers have been mapped in this area, however, discontinuous intertill and bedrock aquifers may be encountered. The mapped surficial geology relative to the Turbine locations is shown in Figure 6.

3.2 Bedrock Geology

The mapped uppermost bedrock in the area consists of the cretaceous Pierre Formation, which is composed of a thick sequence of noncalcareous marine silt and clay (Simpson 1993). In other records (Saskatchewan GeoAltas 2026), the area is mapped as having bedrock of the Bearpaw Formation, which is understood to be stratigraphically equivalent to the Pierre Shale across the prairie provinces, but containing a number of sand, silt and clay members. The Bearpaw Formation is also a marine sediment primarily composed to noncalcareous silt and clay, and may contain bentonitic seams and extensive sandy beds. It is typically highly plastic and over-consolidated.

Bedrock occurs at shallow depths across this project area and is typically overlain by till deposits of Saskatoon Group Formation. It is anticipated that the bedrock elevation in the project area will typically range from 550 m above sea level (m ASL) to 575 m ASL (Simpson 1993). The uppermost bedrock is understood to extend for hundreds of metres below ground surface in the project area.

3.3 Previous Geotechnical Investigations

WSP completed a geotechnical investigation report entitled "Weyburn Wind Farm" for EDF Renewables Development Inc. in June 2024, (WSP 2024a) which was used as the basis for the preliminary design of the proposed Seven Stars Wind Project. A total of seven boreholes were completed to a depth of approximately 15.5 to 15.7 metres below ground surface (mbgs) at that time. The locations of these boreholes shown together with those completed for the current assignment in Figures 2 to 5. Table 2 summarizes the borehole information provided in the WSP 2024a report. A copy of these borehole logs is included in Appendix A.

Table 2: Summary of Existing Boreholes

Borehole ID	Depth (mbgs)	Northing (m)	Easting (m)	Water Level (m) (23 May 2024)	Stratigraphy (mbgs)			
					Topsoil	SSD	Till	Inferred Bedrock
BH24-T01	15.7	5496264	589471	3.5	0-0.2	--	0.2-15.7	--
BH24-T06	15.6	5495127	591232	Dry	0-0.2	--	0.2-15.6	--
BH24-T09	15.7	5496996	594178	Dry	0-0.3	--	0.3-8.5	8.5
BH24-T24	15.7	5499988	597526	Dry	0-0.2	--	0.2-4.7	4.7
BH24-T25	15.7	5494268	597927	Dry	0-0.25	--	0.25-6.4	6.4
BH24-T34	15.7	5491900	599450	Dry	0-0.2	--	0.2-7.6	7.6
BH24-T46	15.5	5500666	603340	3.2	0-0.2	--	0.2-4.6	4.6

Notes: m = meters; mbgs = meters below ground surface; SSD = surficial stratified deposits

3.4 Groundwater information

The Saskatchewan Water Security Agency (WSA) database for wells attempted or completed within 3 km of the project area was reviewed. The registered wells are summarized in Table 3 and copies of the water well reports are included in Appendix B. It is noted that soil descriptions in water well records vary and may not be consistent with the nomenclature used in the rest of this report. Historically, descriptions such as “blue” in water well records were indicators of high plasticity clays. It is also noted that only 9 of the 38 wells shown had water levels recorded, which indicates that a larger regional aquifer is unlikely to be present in the area.

Table 3: WSA Water Well Record Summary

Well ID	Date Drilled (DD-MM-YYYY)	Legal Land Location	Approximate Distance from Test Hole (m)	Water Level (ft)	Reported Stratigraphy (ft)
3598	22-11-1961	NW-16-08-12-W2M	0.9 km W of SS-BH25-18 0.9 km SW of SS-BH25-19 0.9 km S of SS-BH25-20	10	0-1: Topsoil 1-30: Till, brown 30-90: Till, blue 90-119: Till, black, boulders 119-130: Sand, angular 130-132: Till, blue
3599	15-08-1969	SW-17-08-12-W2M	1.8 km W of SS-BH25-20 1.8 km NE of SS-BH25-24	11	0-1: Topsoil 1-20: Till, yellow 20-23: Sand, medium 23-25: Till, blue 25-26: Sand, medium 26-30: Till, blue
3600	16-06-1970	SW-17-08-12-W2M	1.8 km W of SS-BH25-20 1.8 km NE of SS-BH25-24	16	0-19: Sandy clay 19-28: Sand
3601	15-08-1969	NE-19-08-12-W2M	~1.8 km NE of SS-BH25-15	-	0-1: Topsoil 1-20: Till, yellow 20-54: Till, blue 54-57: Gravel & Rocks 57-100: Till, blue, boulders

Table 3: WSA Water Well Record Summary

Well ID	Date Drilled (DD-MM-YYYY)	Legal Land Location	Approximate Distance from Test Hole (m)	Water Level (ft)	Reported Stratigraphy (ft)
3602	07-07-1972	SE-19-08-12-W2M	~1.5 km E of SS-BH25-15	22	0-5: Clay, yellow 5-20: Clay, yellow, sand streaks 20-27: Clay, blue 27-37: Sand 37-40: Clay, blue
3670	02-07-1960	SW-27-07-13-02	~3.4 km SW of SS-BH25-53	-	0-2: Topsoil 2-10: Clay, brown, gritty 10-30: Clay, brown 30-100: Clay, blue
3671	24-11-1960	SW-27-07-13-02	~3.4 km SW of SS-BH25-53	-	0-1: Topsoil 1-20: Clay, brown, boulders 20-30: Clay, brown 30-105: Clay, blue
3672	13-05-1959	SW-27-07-13-02	~3.4 km SW of SS-BH25-53	-	0-42: Clay, brown, boulders 42-315: Clay, brown, boulders
3674	05-02-1963	SE-12-08-13-W2M	~0.6 km SW of SS-BH25-25 ~0.6 km N of SS-BH25-26	-	0-20: Till, yellow 20-30: Till, brown 30-200: Till, blue
42689	04-12-1974	SE-19-08-12-W2M	~1.5 km E of SS-BH25-15	10	0-1: Topsoil 1-16: Clay, yellow 16-18: Boulders 18-20: Sand, water 20-25: Clay, blue, boulders
42720	16-10-1975	NE-10-08-13-W2M	~0.9 km N of SS-BH25-09	8	0-10: Sandy clay 10-12: Gravel, water 12-24: Sand, blue
49044	16-02-1977	NE-09-08-12-W2M	~1 km SE of SS-BH25-20	-	0-1: Topsoil 1-8: Clay, yellow 8-9: Rock 9-21: Sand, water 21-22: Rock
50607	14-07-1977	NW-20-08-12-W2M	~2.5 km NE of SS-BH25-15	-	0-15: Clay, yellow 15-22: Clay, brown 22-45: Sand 45-46: Clay, blue
50609	15-07-1977	19-08-12-W2M	~1.2 km NE of SS-BH25-15	-	0-15: Clay, yellow 15-25: Clay, blue 25-30: Sand, blue
53948	21-04-1978	19-08-12-W2M	~1.2 km NE of SS-BH25-15	-	0-1: Topsoil 1-35: Till, yellow 35-42: Till, sandy 42-43: Rock
53949	21-04-1978	19-08-12-W2M	~1.2 km NE of SS-BH25-15	-	0-1: Topsoil 1-39: Till, brown 39-40: Rock

Table 3: WSA Water Well Record Summary

Well ID	Date Drilled (DD-MM-YYYY)	Legal Land Location	Approximate Distance from Test Hole (m)	Water Level (ft)	Reported Stratigraphy (ft)
53950	21-04-1978	19-08-12-W2M	~1.2 km NE of SS-BH25-15	-	0-1: Topsoil 1-25: Till, brown 25-88: Till, blue
54308	28-04-1978	NW-16-08-12-W2M	~0.9 km W of SS-BH25-18 ~0.9 km SW of SS-BH25-19 ~0.9 km S of SS-BH25-20	-	0-1: Topsoil 1-13: Till, yellow 13-24: Till, brown 24-117: Till, blue 117-136: Sand, medium
61151	26-05-1980	NE-18-08-12-W2M	~1.5 km E of SS-BH25-21	-	0-15: Till, brown 15-18: Sand 18-20: Clay, black 20-25: Clay, blue
61152	26-05-1980	NE-18-08-12-W2M	~1.5 km E of SS-BH25-21	-	0-15: Till, brown 15-18: Sand 18-25: Clay, brown 25-28: Sand, fine 28-30: Clay, blue
61486	11-06-1980	NE-18-08-12-W2M	~1.5 km E of SS-BH25-21	-	0-15: Till, brown, boulders 15-19: Sand 19-23: Clay, brown 23-26: Sand, fine 26-34: Clay, blue
61487	11-06-1980	NE-18-08-12-W2M	~1.5 km E of SS-BH25-21	-	0-15: Till, brown, boulders 15-16: Sand
66474	10-06-1981	NE-09-08-13-W2M	~1.3 km N of SS-BH-25-07	-	0-6: Till, brown 6-11: Sand, dry 11-21: Sand, grey 21-32: Sand 32-33: Till, blue
67233	12-05-1981	NE-09-08-13-W2M	~1.3 km N of SS-BH-25-07	-	0-6: Till, brown 6-11: Gravel, dry 11-34: Gravel, water 34-45: Till, grey
70633	17-02-1982	SW-16-08-13-W2M	~2.2 km NW of SS-BH25-07	16	0-1: Topsoil 1-14: Till, yellow 14-26: Till, blue 25-60: Sand
72345	30-03-1982	SW-16-08-13-W2M	~2.2 km NW of SS-BH25-07	-	0-1: Topsoil 1-7: Clay, brown 7-10: Sand 10-18: Clay, blue
72346	30-03-1982	SW-16-08-13-W2M	~2.2 km NW of SS-BH25-07	-	0-1: Topsoil 1-16: Clay, brown 16-20: Clay, blue

Table 3: WSA Water Well Record Summary

Well ID	Date Drilled (DD-MM-YYYY)	Legal Land Location	Approximate Distance from Test Hole (m)	Water Level (ft)	Reported Stratigraphy (ft)
72347	30-03-1982	SW-16-08-13-W2M	~2.2 km NW of SS-BH25-07	-	0-1: Topsoil 1-18: Clay, brown
72348	30-03-1982	SW-16-08-13-W2M	~2.2 km NW of SS-BH25-07	-	0-1: Topsoil 1-14: Clay, brown 14-23: Clay, blue
72349	30-03-1982	SW-16-08-13-W2M	~2.2 km NW of SS-BH25-07	-	0-1: Topsoil 1-7: Clay, yellow 7-15: Clay, brown 15-18: Clay, blue
72350	30-03-1982	SW-16-08-13-W2M	~2.2 km NW of SS-BH25-07	-	0-1: Topsoil 1-12: Clay, brown 12-23: Clay, blue
86268	03-11-1987	SW-26-07-13-W2M	~1.3 km SW of SS-BH25-51	-	0-20: Sand, water 20-22: Clay, grey, silty
88611	06-07-1988	NE-24-08-13-W2M	~0.9 m N of SS-BH25-53/54	-	0-14: Clay, brown 14-90: Till, blue
89080	16-08-1988	SW-09-08-12-W2M	~1.6 km S of SS-BH25-20	-	0-1: Topsoil 1-15: Clay, brown 15-25: Clay, blue 25-34: Sand, water 34-41: Clay, blue
90408	26-08-1988	SE-12-08-14-W2M	~0.9km NW of SS-BH25-05	-	0-1: Topsoil 1-34: Till, yellow 34-140: Till, blue
90409	26-08-1988	SE-12-08-14-W2M	~0.9 km NW of SS-BH25-05	-	0-1: Topsoil 1-16: Till, yellow 16-22: Till, brown 22-158: Till, blue 158-218: Sand, fine 218-220: Till, blue
90410	26-08-1988	SE-12-08-14-W2M	~800 m NW of SS-BH25-05	-	0-1: Topsoil 1-18: Till, brown 18-168: Till, blue 168-192: Sand, fine 192-202: Till, blue 202-230: Sand and gravel, coarse
96019	24-08-1989	NE-19-08-12-W2M	~1.8 km NE of SS-BH25-15	14	0-1: Topsoil 1-22: Till, yellow 22-30: Till, blue, sand streaks 30-35: Sand and Gravel, fine 35-73: Till, blue 73-120: Silt, grey 120-124: Bentonite 124-136: Till, blue

Table 3: WSA Water Well Record Summary

Well ID	Date Drilled (DD-MM-YYYY)	Legal Land Location	Approximate Distance from Test Hole (m)	Water Level (ft)	Reported Stratigraphy (ft)
117675	12-03-2002	NE-17-08-13-W2M	~2.4 km NE of SS-BH25-05	9	0-1: Topsoil 1-9: Sand, dry 9-20: Sand, yellow, water 20-22: Clay, grey 22-33: Sand, grey, water 33-40: Till, grey
215020	09-09-2010	SW-21-08-13-W2M	~2.4 km W of SS-BH25-55	-	0-2: Till, brown 2-46: Till, brown 45-60: Clay, grey, noncalcareous
215021	09-09-2010	SW-21-08-13-W2M	~2.4 km W of SS-BH25-55	-	0-32: Till, brown 32-38: Till, brown 38-40: Clay, grey, noncalcareous

Note: ft = feet; m = metres

4 INVESTIGATION METHODOLOGY

4.1 Preparation and Approvals, Permits and Clearances

All field work was completed under the Work Authorization Form CAN WA40000980-001 issued by Enbridge on 30 September 2025 as well as the Enbridge Environmental Protection Plan for the Seven Stars Project which was initially issued on 2 October 2025 and updated on 24 November 2025. WSP prepared a Project Specific Safety Plan and submitted it to Enbridge on 7 October 2025 (revised 15 October 2025).

A Safe Work Permit was issued by Enbridge prior to the start of work each day for the proposed drill locations. WSP and all on-site personnel, including clients and subcontractors, completed daily toolbox talks, Field Level Risk Assessments, Environmental Hazard Assessment and vehicle inspections. Equipment cleaning logs were completed and submitted to Enbridge to confirm that equipment arrived on site in a clean condition and all equipment and vehicles were rough cleaned between borehole locations in accordance with clubroot management procedures.

Prior to conducting the site investigations, WSP requested utility locates clearances for the drilling locations and for utility crossings from Saskatchewan 1st Call and these locate requests were updated as drilling progressed. WSP coordinated directly with several of the pipeline utility companies (TransGas, SaskEnergy, Kingston Midstream, Allied, Harvard Resources, and Valleyview) to establish requirements for crossings of these utilities. On behalf of Enbridge, GeoVerra Inc. completed 3rd Party Utility sweeps at all borehole locations as well as along the proposed access paths to the boreholes. These sweeps were updated as borehole locations and access routes changed during the course of the drilling program and were reviewed by WSP as part of our internal Ground Disturbance review and authorization process. A daily ground disturbance permit was issued by Enbridge prior to the start of work each day for proposed drilling activities. On behalf of Enbridge, Gee Bee Construction placed rig mats for crossing of seven pipelines for drilling access. Rig matting was placed between 20 and 21 November 2025 and removed on 1 to 2 December 2025.

4.2 Orientations, Induction and Kick-Off

The project kick-off meeting was held on 10 September 2025 via Microsoft Teams. A field kick-off meeting was held on 20 October 2025 and involved WSP’s field supervisor, drilling crew, and Enbridge’s Field Inspector and H&S Specialist. An additional field safety meeting was held on 7 November 2025 with the WSP team completing the in-situ electrical resistivity testing. These kick-off meetings reaffirmed the commitment to health and safety on all sides and to provide a risk assessment of any last-minute issues which were raised.

All personnel completed Enbridge’s 2025 Contractor Safety & Environment Orientation prior to mobilizing to site. Job specific training was confirmed to be completed by required personnel. WSP’s field supervisors completed AMSHA Supervisor Training in accordance with Enbridge’s requirements.

4.3 Field Operations

4.3.1 Site Reconnaissance

Site reconnaissance was conducted from 6 to 8 October 2025 to assess and review the site access for drilling operations. Changes to proposed site access based on the site reconnaissance were communicated to Enbridge between 10 and 14 October 2025. Additional reconnaissance for alternate access to SS-BH25-26 was also completed on 27 October 2025 to determine if an alternate access route from the south was feasible.

4.3.2 Borehole Program

WSP oversaw the drilling of 57 geotechnical boreholes. All borehole locations were provided to WSP by Enbridge in advance of drilling and were staked by GeoVerra in the field. Boreholes were drilled as close to the provided coordinates as possible using a handheld GPS. The boreholes were drilled by Forged Drilling Company Ltd. of Pilot Butte, SK using a CME-75 truck mounted drill rig. A summary of the completed borehole locations is provided in Table 4. Borehole location plans are shown in Figures 2 to 5.

Table 4: Summary of Borehole Locations

Borehole ID	Date Drilled (DD-MM-YYYY)	Depth (m)	Easting (m) ¹	Northing (m) ^(a)	Stratigraphy (mbgs)			
					Topsoil	SSD	TILL	Inferred Bedrock Depth
SS-BH25-01	02-11-2025	12.6	590312	5495782	0-0.3	--	0.3-2.7	2.7
SS-BH25-02	02-11-2025	12.6	590319	5496539	0-0.3	--	0.3-3.1	3.1
SS-BH25-03	03-11-2025	12.6	590398	5497304	0-0.15	0.15-1.2	1.2-7.6	7.6
SS-BH25-04	25-10-2025	14.2	590966	5497558	--	0-2.4	2.4-6.1	6.1
SS-BH25-05	26-10-2025	15.7	590907	5498226	0-0.3	--	0.3-3.1	3.1
SS-BH25-06	04-11-2025	15.7	592907	5497078	0-0.3	0.3-2.0	2.0-3.7	3.7
SS-BH25-07	30-11-2025	12.6	593244	5497555	--	--	0-12.6	>12.6
SS-BH25-08	29-10-2025	20.3	594217	5497479	0-0.5	--	0.5-17.2	17.2
SS-BH25-09	27-10-2025	12.6	594982	5498023	--	--	0-3.1	3.1
SS-BH25-10	29-10-2025	14.2	596136	5497918	0-0.3	0.3-1.2	1.2-7.6	7.6
SS-BH25-11B	30-11-2025	12.6	595922	5496719	0-0.6	--	0.6-6.1	6.1
SS-BH25-12	12-11-2025	12.5	595200	5501535	--	--	0-12.8	>12.8
SS-BH25-13	22-10-2025	15.9	595237	5500862	0-0.3	--	0.3-6.1	6.1
SS-BH25-14	21-10-2025	20.3	596555	5500766	--	--	0-3.1	3.1

Table 4: Summary of Borehole Locations

Borehole ID	Date Drilled (DD-MM-YYYY)	Depth (m)	Easting (m) ¹	Northing (m) ^(a)	Stratigraphy (mbgs)			
					Topsoil	SSD	TILL	Inferred Bedrock Depth
SS-BH25-15	12-11-2025	12.6	598448	5501376	--	--	0-12.6	>12.6
SS-BH25-16	13-11-2025	13.7	597672	5501316	--	--	0-9.0	9.0
SS-BH25-17	14-11-2025	12.8	597658	5500444	--	--	0-7.6	7.6
SS-BH25-18B	29-11-2025	12.6	603338	5500619	--	--	0-12.6	>12.6
SS-BH25-19	28-11-2025	6.4	603130	5500214	--	--	0-6.5	>6.5
SS-BH25-20B	27-11-2025	15.2	602634	5499856	--	--	0-9.3	9.3
SS-BH25-21	13-11-2025	14.2	598514	5500446	--	--	0-9.1	9.1
SS-BH25-22	23-10-2025	15.7	597381	5499700	--	--	0-6.7	6.7
SS-BH25-23B	15-11-2025	15.7	600159	5497989	--	--	0-3.1	3.1
SS-BH25-24	01-11-2025	14.2	599155	5499038	0-0.15	--	0.15-7.6	7.6
SS-BH25-25	24-10-2025	12.6	598472	5498724	--	--	0-6.1	6.1
SS-BH25-26	15-11-2025	14.2	598416	5497526	--	--	0-6.4	6.4
SS-BH25-27	01-11-2025	15.7	597359	5496686	0-0.3	--	0.3-8.1	8.1
SS-BH25-28	31-10-2025	15.7	601710	5496944	0-1.1	--	1.1-3.5	3.5
SS-BH25-29	29-11-2025	12.6	600856	5496500	--	--	0-1.8	1.8
SS-BH25-30	04-12-2025	12.6	599780	5496485	--	--	0-3.4	3.4
SS-BH25-31B	03-12-2025	12.6	603397	5495601	--	--	0-5.2	5.2
SS-BH25-32B	01-12-2025	11.3	602611	5495154	--	--	0-11.3	>11.3
SS-BH25-33B	02-12-2025	12.8	602299	5494802	--	--	0-5.2	5.2
SS-BH25-34	04-11-2025	12.6	601872	5494438	0-0.15	--	0.15-3.5	3.5
SS-BH25-35	18-11-2025	12.6	601521	5493669	0-0.15	--	0.15-3.5	3.4
SS-BH25-36C	03-12-2025	12.6	600671	5494837	--	--	0-3.5	3.5
SS-BH25-37B	01-12-2025	12.6	599286	5491563	--	--	0-6.4	6.4
SS-BH25-38B	25-11-2025	12.6	599940	5493263	0-0.6	--	0.6-8.1	8.1
SS-BH25-39	27-10-2025	12.6	598516	5494283	0-0.9	--	0.9-5.0	5.0
SS-BH25-40	16-11-2025	14.2	599125	5495964	--	--	0-6.4	6.4
SS-BH25-41	24-10-2025	14.2	603476	5491633	0-0.6	--	0.6-4.9	4.9
SS-BH25-42	30-10-2025	15.7	602508	5491622	0-0.4	--	0.4-6.7	6.7
SS-BH25-42B	26-11-2025	12.6	602426	5491758	--	--	0-7.6	7.6
SS-BH25-43	16-11-2025	14.2	601172	5491857	--	--	0-5.9	5.9
SS-BH25-44B	17-11-2025	14.2	600196	5490250	--	--	0-5.5	5.5
SS-BH25-45	18-11-2025	14.2	600245	5490855	--	--	0-3.5	3.5
SS-BH25-46	17-11-2025	12.8	600102	5492018	0-0.3	--	0.3-5.2	5.2
SS-BH25-47	02-12-2025	12.6	600748	5495508	--	--	0-3.1	3.1
SS-BH25-48	26-11-2025	12.6	601463	5492542	--	--	0-7.0	7.0
SS-BH25-49B	25-11-2025	12.8	601098	5493535	--	--	0-4.9	4.9
SS-BH25-50B	27-11-2025	12.6	599937	5494234	0-0.15	--	0-4.9	4.9

Table 4: Summary of Borehole Locations

Borehole ID	Date Drilled (DD-MM-YYYY)	Depth (m)	Easting (m) ¹	Northing (m) ^(a)	Stratigraphy (mbgs)			
					Topsoil	SSD	TILL	Inferred Bedrock Depth
SS-BH25-51	10-11-2025	12.6	596777	5496037	--	--	0-7.6	7.6
SS-BH25-52	05-11-2025	12.6	596856	5495967	0-0.15	--	0.15-7.6	7.6
SS-BH25-53	11-11-2025	12.8	596455	5495976	--	--	0-6.7	6.7
SS-BH25-54	11-11-2025	12.6	596492	5496047	--	--	0-6.7	6.7
SS-BH25-55	14-11-2025	12.6	594994	5501186	--	--	0-5.5	5.5
SS-BH25-56	17-11-2025	12.6	599956	5490551	--	--	0-4.6	4.6

Notes: m = metres; mbgs = metres below ground surface; SSD = surficial stratified deposits

(a) Borehole coordinates are from North American Datum (NAD) 83 Universal Transverse Mercator (UTM) Zone 13N

WSP's field engineer logged the boreholes and classified the soils at the time of drilling according to ASTM D2487 United Soil Classification System. The in-situ relative density of cohesionless soil and consistency of cohesive soil was evaluated using Standard Penetration Tests (SPTs). For each SPT, a standard 63.5 kg hammer was repeatedly dropped 760 mm to drive a standard 50.88 mm diameter thick-walled sampling tube through the soil over up to three consecutive depth intervals of 150 mm each. The number of drops, or blows, required for the hammer to drive the sample through each 150 mm interval was recorded. The recorded SPT results are shown on the borehole logs as the SPT 'N' value, which represents the number of blows to drive the sampler through the final one to two 150 mm intervals; or partial increments in cases where 50 blows produce less than 150 mm penetration.

Where possible, SPTs were conducted at 1.5 m depth intervals at the borehole locations. Disturbed soil samples were obtained from auger cuttings and from the SPT split spoon sampler at regular intervals until the termination depth of each borehole was reached. The soil samples were sealed in labelled plastic bags. Relatively undisturbed soil samples were collected in Shelby tubes at a rate of approximately two per borehole. All soil samples were transported to either WSP's Saskatoon or Regina laboratory for further examination, testing, and assessment.

All boreholes were left open for approximately five (5) minutes following completion of drilling to monitor sloughing condition. Piezometers were installed in all boreholes except for SS-BH25-42 to a depth of approximately 6.1 mbgs and screened from 6.1 to 3.05 mbgs. Borehole SS-BH25-13 was installed to a depth of 7.6 mbgs and screened from 7.6 to 4.57 mbgs. The boreholes were backfilled from the bottom of the borehole (or top of slough) to a depth of approximately 6.1 mbgs using bentonite and then a 25 mm diameter PVC standpipe piezometer was installed in each borehole (the piezometer in SS-BH25-13 was installed to a depth of 7.6 mbgs), complete with a 3 m long screen and filter sand zone followed by bentonite chips to surface with a bolted steel flush mount casing. Borehole SS-BH25-42 was backfilled with bentonite chips from the bottom of the borehole to ground surface at the completion of drilling.

The locations of all boreholes and piezometers were recorded in with a hand-held device with a minimum sensitivity +/- 5 m.

Select photos from the drilling investigation are included in Appendix C. Copies of borehole logs are included in Appendix D.

4.3.3 Four-Point Wenner in-situ Soil Resistivity Testing

A summary of the four-point Wenner in-situ soil resistivity testing is included in Appendix E. The testing was performed in accordance with the ASTM G57 Standard Test Method for Field Measurement of Soil Resistivity Using the Wenner Four-Electrode Method at the proposed substation location on 7 November 2025, by WSP technicians. An AEMC 6471 device was used. Two profiles were completed perpendicular to each other in the shape of a cross (i.e., “+”). For each profile, Wenner “A” spacings (i.e., the space between pins) were completed as shown in Appendix E. Test location centre coordinates were recorded on a handheld GPS unit at the following UTM Coordinates: 596817 E, 5496003 N, Zone 13N.

Further discussion on soil resistivity is provided in Section 7.2.

4.3.4 Piezometer Decommissioning

A total of 50 piezometer’s were decommissioned from boreholes SS-BH25-01 to SS-BH25-50 between 16 and 18 December 2025 by a representative from Forged Drilling Company and WSP’s field supervisor. The flush mount casings were removed and then the PVC screen and piping were pulled from the ground and backfilled with bentonite to ground surface. The bentonite chips were slightly mounded at each location to allow for potential settlement as the removals were completed in freezing conditions. The flush mount casings were retained by Forged Drilling Company for future work, and the PVC piping was disposed of at the Weyburn landfill. The removal of the remaining six (6) piezometers (SS-BH25-51 to SS-BH25-56) was completed on March 5, 2026.

4.4 Laboratory Testing

Laboratory testing was conducted on select soil samples recovered from the boreholes as summarized in Table 5. The laboratory test results can be found in Appendix F.

Table 5: Summary of Laboratory Testing

Laboratory Test	Reference Standard	Number of Tests
Moisture Content	ASTM D2217	678
Atterberg Limits	ASTM D4318	85
Particle Size Analysis	CSA C136	5
Hydrometer	AASHTO T88	23
Unconfined Compressive Strength	ASTM D2166	42
Unit Weight (Wax Method) ^(a)	ASTM D7263	5
Standard Proctor Maximum Dry Density	ASTM D698	4
pH by Meter	Carter-CSSS/APHA 4500H	56
Resistivity by Electrode	ASTM G57-95A	56
ORP by Electrode	ASTM G200-09	56
Total Sulphate Ion Content	CSA-A23.2-3B	56
Total Water-Soluble Sulphate Ion Content	CSA-A23.2-3B	56
Chloride by Colourimetry	CSS Ch. 15/APHA 4500-CL E	56
Thermal Resistivity	ASTM	1

Notes:

(a) Not including dry density tests completed as part of Unconfined Compressive Strength Testing.

5 SUBSURFACE CONDITIONS

5.1 General Subsurface Profile

5.1.1 Topsoil

Topsoil was encountered at ground surface in boreholes SS-BH25-01, 02, 03, 05, 06, 08, 10, 11B, 27, 28, 38B, 39, 41, 42, 46, 47, 50B, and 52 with depths ranging between 150 mm and 1.1 m, although it may vary across the site. The presence and thickness of topsoil could vary in areas outside the borehole locations.

Where sampled, the moisture content of the topsoil ranged from 11% to 30% and was typically composed of black organics and clayey or sandy material.

5.1.2 Surficial Stratified Deposits

In accordance with surficial geology maps for the Weyburn area, the presence of surficial stratified deposits was anticipated on the western edge of the site. During the field investigations, surficial stratified deposits were encountered in boreholes SS-BH25-03, SS-BH25-04, SS-BH25-06 and SS-BH25-10 from below the topsoil to depths ranging from approximately 1.2 to 2.4 mbgs. The surficial stratified deposits consisted of either clayey sand, silty sand, or sandy clay.

In borehole SS-BH25-03 the surficial deposits were described as silty sand, mostly fine to medium sand, little non plasticity fines. In borehole SS-BH25-04, the surficial deposit was described as clayey sand, mostly fine to medium sand, some low plasticity fines becoming silty clayey sand with depth. In borehole SS-BH25-06 the surficial deposit was described as sandy lean clay, mostly low to high plasticity fines and some fine to coarse sand becoming poorly graded fine to medium sand with trace low plasticity fines with depth. In borehole SS-BH25-10 the surficial deposit was described as fat clay with sand, mostly high plasticity fines, little fine sand.

Moisture contents in the surficial deposits ranged from 5% to 22% and were 11% on average. Four Atterberg limits tests were performed on samples of the surficial deposits as shown in Table 6 and indicated that these soils were low to high plastic. Only two (2) SPTs were taken within these deposits with blow counts of N=3 in borehole SS-BH25-04 and N=8 in borehole SS-BH25-06.

Table 6: Summary of Laboratory Test Results for Surficial Stratified Deposit Samples

Borehole ID	Sample Top Depth (mbgs)	Water Content (%)	Atterberg Limits			Particle Size Distribution			
			Plastic Limit	Liquid Limit	Plasticity Index	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
SS-BH25-03	0.6	5.5	13	25	12	61		39	
SS-BH25-04	0.6	9.5	15	19	4	72		28	
SS-BH25-06	0.9	16.7	13	29	16	41		59	
SS-BH25-10	0.6	21.8	17	72	55	21		79	

5.1.3 Glacial Till

Glacial till was present across the entire site investigated and generally consisted of mostly medium plasticity fines and little to some fine to coarse sand and trace fine to coarse gravel, with combined sand and gravel content range from 8% to 60%. Areas of higher plasticity clay were also encountered, and the sand and gravel content varied, generally becoming less coarse grained with depth. Layers of silty sand and clayey sand were also

encountered within the till matrix. Cobbles and boulders were inferred within the till across the site, with auger and split spoon refusals as noted in Section 5.3.

A summary of index testing (moisture content, particle size distribution, and Atterberg Limits) conducted on till samples is presented in Table 7.

Table 7: Summary of Laboratory Test Results for Glacial Till Samples

Borehole ID	Sample Top Depth (mbgs)	Water Content (%)	Atterberg Limits			Particle Size Distribution			
			Plastic Limit	Liquid Limit	Plasticity Index	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
SS-BH25-01	0.6	12.6	14	45	31	35		65	
SS-BH25-02	0.6	9.5	15	37	22	31		69	
SS-BH25-05	0.9	18.9	20	56	36	24		77	
SS-BH25-07	0.9	14.1	16	39	23	49		51	
SS-BH25-07	2.1	19.2	--	--	--	1	35	41	23
SS-BH25-08	0.6	15.2	14	41	27	29		71	
SS-BH25-08	7.6	28.3	16	47	31	--	--	--	--
SS-BH25-09	0.9	20.5	17	45	28	17		83	
SS-BH25-10	2.7	19.5	16	48	32	0	26	47	27
SS-BH25-11B	0.9	16.1	19	57	38	21		79	
SS-BH25-11B	7.5		22	62	40	--	--	--	--
SS-BH25-12	0.9	15.8	23	55	32	23		77	
SS-BH25-12	4.4	--	23	46	23	0	31	51	18
SS-BH25-13	0.9	10	11	37	26	35		65	
SS-BH25-14	0.3	11.3	13	39	26	40		60	
SS-BH25-14	0.9	11.3	13	39	26	40		60	
SS-BH25-15	0.9	12.4	24	51	27	31		69	
SS-BH25-15	7.5	--	--	--	--	1	68	31	
SS-BH25-16	0.9	20.5	28	68	40	8		92	
SS-BH25-17	0.9	25.2	21	46	25	32		68	
SS-BH25-18B	0.9	12.9	14	36	22	28		72	
SS-BH25-19	0.9	10.7	17	45	28	35		65	
SS-BH25-20B	0.9	12.3	18	45	27	29		71	
SS-BH25-20B	4.4	--	--	--	--	3	36	40	21
SS-BH25-20B	4.6	18.4	14	34	20	--	--	--	--
SS-BH25-21	0.9	16.8	25	53	28	23		77	
SS-BH25-21	7.5	15.6	19	41	22	--	--	--	--
SS-BH25-22	0.9	6.4	13	33	20	36		64	
SS-BH25-23B	0.9	21	17	43	26	28		72	
SS-BH25-24	0.6	13.1	13	37	24	21		79	
SS-BH25-25	0.9	14.9	16	48	32	26		74	
SS-BH25-26	0.9	6.1	15	34	19	51		49	
SS-BH25-27	0.6	9.9	18	44	26	28		72	

Table 7: Summary of Laboratory Test Results for Glacial Till Samples

Borehole ID	Sample Top Depth (mbgs)	Water Content (%)	Atterberg Limits			Particle Size Distribution			
			Plastic Limit	Liquid Limit	Plasticity Index	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
SS-BH25-29	0.9	18.1	15	53	38	60		40	
SS-BH25-30	0.9	13.8	12	39	27	34		66	
SS-BH25-30	3.1	21.2	17	49	32	--	--	--	--
SS-BH25-31B	0.9	14.4	21	54	33	17		83	
SS-BH25-32B	0.9	15.8	18	51	33	9		91	
SS-BH25-33B	0.9	14.3	18	47	29	28		72	
SS-BH25-34	0.6	16.7	15	45	30	33		67	
SS-BH25-35	0.9	19.4	14	44	30	31		69	
SS-BH25-36C	0.9	11.7	18	51	33	30		70	
SS-BH25-37B	0.9	11.9	13	26	13	36		64	
SS-BH25-37B	5.9	--	--	--	--	3	32	40	25
SS-BH25-38B	0.9	12.5	16	40	24	36		64	
SS-BH25-38B	2.9	--	--	--	--	1	35	38	26
SS-BH25-39	0.9	21.4	13	37	24	23		77	
SS-BH25-40	0.9	15.3	18	44	26	27		73	
SS-BH25-41	0.9	16.0	--	--	--	1	32	67	
SS-BH25-41	2.9	--	--	--	--	1	34	38	27
SS-BH25-41	3.1	16.8	14	39	25	--	--	--	--
SS-BH25-42B	0.9	8.6	13	35	22	31		69	
SS-BH25-43	0.9	15.1	13	47	34	36		64	
SS-BH25-45	0.9	14.2	14	35	21	37		63	
SS-BH25-46	0.9	17.9	13	44	31	31		69	
SS-BH25-48	0.9	6.7	15	38	23	38		62	
SS-BH25-49B	0.9	12.7	14	39	25	50		50	
SS-BH25-50B	0.9	19	14	44	30	24		76	
SS-BH25-51	0.9	13	21	49	28	38		62	
SS-BH25-52	0.2	18.9	17	45	28	43		57	
SS-BH25-52	4.6	19.8	13	32	19	--	--	--	--
SS-BH25-52	5.2	--	--	--	--	5	69	26	
SS-BH25-54	0.9	21.9	19	41	22	31		69	
SS-BH25-54	4.4	19.0	--	--	--	1	33	47	19
SS-BH25-55	0.9	5.1	20	48	28	35		65	
SS-BH25-56	0.9	16	14	39	25	34		66	

Notes: mbgs = metres below ground surface; % = percent

The liquid limit of the glacial till ranged from 26% to 68% with an average of 44% and the plastic limit ranged from 11% to 28% with an average of 17%, indicating the till contained low to high plastic fines and was medium plastic on average. The moisture content of the glacial till ranged from 5% to 32% with an average of 17% indicating that the soil was dry to wet of the plastic limit and near the plastic limit of the soil on average.

Approximately eighteen (18) dry density tests were conducted on Shelby tube samples of the till as shown in Table 8. The dry density ranged from 1,700 to 1,960 kg/m³ and was 1,824 kg/m³ on average.

Unconfined compressive strength testing was completed on sixteen (16) Shelby tube samples of the till as shown in Table 8. The unconfined compressive strength of the samples ranged from 153 kPa to 537 kPa indicating the samples were stiff to hard in consistency. The range of standard penetration test (SPT) results in the till ranged from N=8 to N=173 with an average N=29 blows, indicating the till was firm to hard and very stiff to hard on average.

Table 8: Summary of Dry Density and Unconfined Compressive Strength Testing on Glacial Till

Borehole ID	Sample Top Depth (mbgs)	Sample Description	Moisture Content (%)	Dry Density (kg/m ³)	Bulk Density (kg/m ³)	Unconfined Compressive Strength (kPa)
SS-BH25-07	6.1	CH (TILL), with sand, high plastic	17.4	1858	2181	301
SS-BH25-08	6.1	CL (TILL), medium plastic	14.3	1890	2159	153
SS-BH25-08	12.2	CL (TILL), medium plastic	18.3	1826	--	--
SS-BH25-10	4.6	CL (TILL), with sand, medium plastic	20.3	1700	2046	422
SS-BH25-15	4.6	CL (TILL), with sand, medium plastic	16.5	1811	2111	201
SS-BH25-16	4.6	CL (TILL), medium plastic	18.4	1777	2104	381
SS-BH25-17	6.1	CL (TILL), medium plastic	14.3	1915	2189	417
SS-BH25-21	6.1	CL (TILL), with sand, medium plastic	13.6	1960	2226	498
SS-BH25-22	6.1	CL (TILL), medium plastic	19.0	1735	2066	441
SS-BH25-24	6.1	CL (TILL), medium plastic	17.8	1768	2084	241
SS-BH25-31B	4.6	CH (TILL), high plastic	20.1	1792	2152	355
SS-BH25-37B	4.6	CL (TILL), medium plastic	16.2	1873	--	--
SS-BH25-38B	6.1	CL (TILL), medium plastic	15.8	1775	2056	443
SS-BH25-40	4.6	CL (TILL), medium plastic	20.3	1800	2166	507
SS-BH25-43	4.6	CL (TILL), sandy, medium plastic	13.4	1946	2206	537
SS-BH25-44B	4.6	CL (TILL), medium plastic	16.6	1780	2076	239
SS-BH25-48	4.6	CL (TILL), medium plastic	15.5	1899	2193	427
SS-BH25-52	3.1	CL (TILL), sandy, medium plastic	20	1718	2062	273

Note: mbgs = metres below ground surface; % = percent; kg/m³ = kilograms per cubic metre; kPa = kiloPascals

Four (4) standard proctor maximum dry density (SPMDD) tests were performed on bulk soil samples of the clay till taken from boreholes SS-BH25-33B, SS-BH25-52, SS-BH25-53 and SS-BH-25-54 between depths of 1.5 and 4.6 mbgs. The SPMDD results ranged from 1,629 to 1,810 kg/m³ with optimum moisture contents between 14.5% and 19.8% which were typically drier than the as-received moisture contents of the samples.

One (1) thermal conductivity test was conducted on a bulk sample from SS-BH25-33B taken between a depth of 1.5 and 3.1 mbgs. The results of this test are discussed in Section 6.2.

Laboratory test results are included in Appendix F.

5.1.4 Bedrock

Given the prevalence of clayey sand seams interbedded with highly plastic clay shale within the inferred bedrock surface, it was inferred that the Bearpaw formation is the predominant bedrock in the study area.

Bedrock was inferred to be encountered in 50 of the 57 boreholes advanced during the geotechnical investigation. The shallowest non-till clayey/sandy interbed began just below 2.1 and bedrock was encountered below the clay till at depths of up to 16 mbgs.

5.1.4.1 Clayey Shale

Lean clays were widespread across the site, commonly forming the upper to mid-depth cohesive units beneath surficial soils and tills. They were typically described as:

- Sandy lean clay or lean clay with sand, containing medium-plasticity fines with some fine to coarse sand and trace gravel.
- Brown to grey-brown, often with iron oxide staining, and occasional coal or organic inclusions.
- Cohesive, soft to stiff near the surface, transitioning to very stiff and sometimes hard with depth.
- Moisture condition often around or slightly above the plastic limit ($w \sim PL$ to $w > PL$), indicating moderate to high moisture content.
- Structurally slightly blocky, locally containing thin sandy or silty partings.

Fat clays occurred extensively and marked a transition toward more plastic, more hardened material:

- Composed of high-plasticity fines, with trace to few fine sand or gravel, and occasional laminations or bedding features.
- Brown, grey, and dark grey, often blocky with distinct iron oxide staining.
- Typically very stiff to hard, reflecting higher over consolidation or greater cementation.
- Moisture condition usually below the plastic limit ($w < PL$), correlating with higher strength.

A summary of index testing (moisture content, particle size distribution, and Atterberg Limits) conducted on Clay Shale samples is presented in Table 9.

Table 9: Summary of Laboratory Test Results for Clay Shale Samples

Borehole ID	Sample Top Depth (mbgs)	Water Content (%)	Atterberg Limits			Particle Size Distribution			
			Plastic Limit	Liquid Limit	Plasticity Index	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
SS-BH25-01	4.57	22.7	30	96	66	1		99	
SS-BH25-02	8.23	25.1	24	72	48	0	1	47	43
SS-BH25-05	8.84	21.1	--	--	--	0	2	50	48
SS-BH25-05	9.14	25.2	27	90	63	--	--	--	--
SS-BH25-09	7.47	26	28	91	63	1		99	
SS-BH25-11B	7.47	--	22	62	40	--	--	--	--

Table 9: Summary of Laboratory Test Results for Clay Shale Samples

Borehole ID	Sample Top Depth (mbgs)	Water Content (%)	Atterberg Limits			Particle Size Distribution			
			Plastic Limit	Liquid Limit	Plasticity Index	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
SS-BH25-23B	7.47	--	--	--	--	0	1	46	53
SS-BH25-24	13.72	26.1	30	108	78	--	--	--	--
SS-BH25-30	3.05	21.2	17	49	32	--	--	--	--
SS-BH25-31B	5.94	--	--	--	--	0	1	65	34
SS-BH25-31B	6.10	25.2	19	58	39	--	--	--	--
SS-BH25-33B	7.62	29.2	--	--	--	1	7	46	46
SS-BH25-47	3.05	32.9	21	72	51	3		97	

Notes: mbgs = metres below ground surface; % = percent

The liquid limit of the clay shale ranged from 49% to 108% with an average of 77% and the plastic limit ranged from 17% to 30% with an average of 24%, indicating the shale generally consisted of high plasticity fines. The moisture content of the shale ranged from 8% to 53% with an average of 24% indicating that the soil was dry to wet of the plastic limit and near the plastic limit of the soil on average.

Twenty (20) dry density tests were conducted on Shelby tube samples of the shale as shown in **Error! Reference source not found.** The dry density ranged from 1,501 to 1,845 kg/m³ and was 1,635 kg/m³ on average. One density test (borehole SS-BH25-05, sample TO2) had a density of 1,117 kg/m³, which was determined to be an outlier and not included in the range provided.

Unconfined compressive strength testing was completed on seventeen (17) Shelby tube samples of the shale as shown in Table 10. The unconfined compressive strength of the samples ranged from 76 to 1,172 kPa indicating the samples were firm to hard in consistency (four UCS test results were not consistent with cohesive soil failure and as such have been omitted as discussed below). The range of standard penetration test (SPT) results in the shale was from N=11 to N=130 with an average N=40 blows, indicating the shale was stiff to hard and hard on average.

Table 10: Summary of Dry Density and Unconfined Compressive Strength Testing on Clayey Shale

Borehole ID	Sample Top Depth (mbgs)	Sample Description	Moisture Content (%)	Dry Density (kg/m ³)	Bulk Density (kg/m ³)	Unconfined Compressive Strength (kPa)
SS-BH25-01	7.62	CH (Shale), high plastic	21.5	1590	1932	616
SS-BH25-04	10.67	CH (Shale), high plastic	22.2	1638	--	--
SS-BH25-05	4.57	CI (Shale), medium plastic	27.9	1539	--	--
SS-BH25-05*	12.19	CH (Shale), high plastic	52.5	1117	1703	8
SS-BH25-09	9.14	CH (Shale), high plastic	22	1643	2004	267
SS-BH25-11B	6.10	CH (Shale), high plastic	18.9	1635	1994	354
SS-BH25-12	6.10	CI (Shale), medium plastic	20.1	1729	2077	623
SS-BH25-12	12.19	CH (Shale), high plastic	18.3	1755	2076	1096
SS-BH25-13*	15.24	CH (Shale), high plastic	20.3	1633	1966	385
SS-BH25-17	12.2	CH (Shale), high plastic	17.3	1845	2164	1172

Table 10: Summary of Dry Density and Unconfined Compressive Strength Testing on Clayey Shale

Borehole ID	Sample Top Depth (mbgs)	Sample Description	Moisture Content (%)	Dry Density (kg/m ³)	Bulk Density (kg/m ³)	Unconfined Compressive Strength (kPa)
SS-BH25-21	10.67	CH (Shale), high plastic	26.7	1523	1929	416
SS-BH25-23B	6.10	CH (Shale), high plastic	22.2	1669	2040	290
SS-BH25-25	9.14	CH (Shale), high plastic	25.4	1656	2077	472
SS-BH25-29*	4.57	CH (Shale), high plastic	24.7	1590	1983	68
SS-BH25-30	4.57	CI (Shale), medium plastic	20.1	1732	2080	268
SS-BH25-33B*	12.2	CH (Shale), high plastic	25.1	1588	1987	452
SS-BH25-34	4.57	CI (Shale), medium plastic	16.8	1685	1968	361
SS-BH25-39	7.6	CH (Shale), high plastic	28.4	1567	2011	215
SS-BH25-53	7.62	CH (Shale), high plastic	30.8	1501	1963	76
SS-BH25-56	10.67	CH (Shale), high plastic	18.4	1679	--	--

Note: mbgs = metres below ground surface; % = percent; kg/m³ = kilograms per cubic metre; kPa = kiloPascals

* Samples having unconfined compressive strength curves indicative of brittle failure; results ignored for the range of applicable values

It is noted that the shape of the unconfined compressive strength curves for boreholes SS-BH25-05, SS-BH25-13, SS-BH25-29, and SS-BH25-33B are indicative of brittle failure of the soil samples rather than plastic deformation typically characterized by cohesive soil. Generally, weathered shales will behave more like soil than rock when subjected to UCS testing and geotechnical analysis.

5.1.4.2 Clayey Sand to Sandy Clay

Layers of fine clayey sand to sandy clay were encountered interbedded with the clay shale in 27 of the boreholes across the site and are inferred to be part of the bedrock formation in numerous boreholes, including SS-BH25-03, SS-BH25-04, SS-BH25-06, SS-BH25-08, SS-BH25-10, SS-BH25-12, SS-BH25-15, SS-BH25-16, SS-BH25-21, SS-BH25-23B, SS-BH25-24, SS-BH25-27, SS-BH25-28, SS-BH25-29, SS-BH25-31B, SS-BH25-32B, SS-BH25-34, SS-BH25-35, SS-BH25-36C, SS-BH25-37B, SS-BH25-38B, SS-BH25-41, SS-BH25-42, SS-BH25-44B, SS-BH25-45, SS-BH25-46, SS-BH25-47, SS-BH25-48. These layers typically occur below the clay till and range in depth between about 2.5 and 12.5 mbgs, however, are more commonly present from about 9 to 12 mbgs.

These layers were generally described as mostly fine sand to little fine sand with mostly to some high-plastic fines, grey to bluish grey (locally brown or mottled), damp to wet, and exhibiting dense to very dense sandy components and very stiff to hard clayey components. Occasional sand and gravel inclusions, thin sand seams or laminations, and localized coal or iron-oxide staining were also noted within these interbeds.

A summary of index testing (moisture content, particle size distribution, and Atterberg Limits) conducted on clayey sand to sandy clay samples is presented in Table 11.

Table 11: Summary of Laboratory Test Results for Clayey Sand to Sandy Clay Samples

Borehole ID	Sample Top Depth (mbgs)	Water Content (%)	Atterberg Limits			Particle Size Distribution			
			Plastic Limit	Liquid Limit	Plasticity Index	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
SS-BH25-11B	12.04	--	--	--	--	0	28	47	25
SS-BH25-20B	10.52	--	--	--	--	5	50	31	14
SS-BH25-20B	10.67	15.3	10	24	14	--	--	--	--
SS-BH25-23B	3.05	18.8	17	50	33	26		74	
SS-BH25-28	9.22	22.0	--	--	--	0	62	24	14
SS-BH25-28	9.75	--	21	59	38	--	--	--	--
SS-BH25-29	2.13	26.8	20	70	50	--	--	--	--
SS-BH25-29	3.05	26.2	--	--	--	0	16	51	33
SS-BH25-34	9.75	21.3	24	64	40	0	43	37	20
SS-BH25-41	8.99	--	--	--	--	0	66	20	14
SS-BH25-41	9.14	29.1	21	78	57	--	--	--	--
SS-BH25-45	4.42	20.1	--	--	--	0	54	29	17
SS-BH25-49B	6.10	22.6	19	85	66	--	--	--	--
SS-BH25-51	8.99	19.3	22	32	10	0	66	25	9
SS-BH25-54	9.14	24.5	34	64	30	--	--	--	--

Notes: mbgs = metres below ground surface; % = percent

The liquid limit of the sandy clays to clayey sands ranged from 24% to 85% with an average of 54% and the plastic limit ranged from 10% to 34% with an average of 20%, indicating the soil generally consisted of high plasticity fines. The moisture content of the sands and clays ranged from 7% to 36% with an average of 21% indicating that the soil was dry to wet of the plastic limit and approximately at the plastic limit of the soil on average. Fines content of the samples ranged from 34% to 74% indicating that the soils have some to mostly fines or coarse-grained particles.

The range of standard penetration test (SPT) results in the clayey sand was from N=18 to N=97 with an average N=42 blows, indicating the sand was compact to very dense and dense on average. For the soils described as sandy clay, the range of SPT tests was from N=15 to N=146 with an average of 42 blows, indicating the clay was very stiff to very hard and hard on average.

Eight (8) dry density tests were conducted on Shelby tube samples of the clayey sands/sandy clays as shown in Table 12. The dry density ranged from 1,512 to 1,829 kg/m³ and was 1,686 kg/m³ on average.

Unconfined compressive strength testing was completed on eight (8) Shelby tube samples of the clayey sand to sandy clay as shown in Table 12. The unconfined compressive strength of the samples ranged from 97 kPa to 543 kPa. The results of the unconfined compressive strength testing of samples of the clayey sand indicate that the behaviour of these sands depends to some degree on clay content that is present. Under low loads the sand takes most of the load resistance while the presence of the clayey fines provides some ductility and delays the peak until brittle granular failure occurs and the curve drops off sharply. With increasing fines content, the materials exhibit more cohesive behaviour. These soil tests also indicate that there is variation in fines content that cannot easily be classified by visual review.

Table 12: Summary of Dry Density and Unconfined Compressive Strength Testing on Clayey Sand to Sandy Clay Samples

Borehole ID	Sample Top Depth (mbgs)	Sample Description	Moisture Content (%)	Dry Density (kg/m ³)	Bulk Density (kg/m ³)	Unconfined Compressive Strength (kPa)
SS-BH25-14	6.1	CH, with sand, high plastic	17.8	1807	2129	384
SS-BH25-16	9.1	SC, clayey, high plastic	21.8	1687	2054	543
SS-BH25-28	6.1	SC, clayey, high plastic	21.4	1718	2086	151
SS-BH25-35	10.7	SC, clayey, high plastic	21.2	1703	2064	141
SS-BH25-41	6.1	SC, clayey, high plastic	17.6	1829	2152	97
SS-BH25-47	6.1	CH, with sand, high plastic	24.4	1609	2001	278
SS-BH25-49B	4.6	CH, sandy, high plastic	14.9	1512	1738	106
SS-BH25-51	10.7	CH, sandy, high plastic	23.2	1625	1625	211

Note: mbgs = metres below ground surface; % = percent; kg/m³ = kilograms per cubic metre; kPa = kiloPascals

5.2 Groundwater Conditions

The occurrence of groundwater seepage and sloughing conditions encountered during drilling are noted on the borehole logs in Appendix D and summarized in Table 13.

Table 13: Seepage, Sloughing and Groundwater Observations

Borehole ID	Drilled Depth (mbgs)	During Drilling		Upon Completion		Piezometer Details ^{(a), (b)}			
		Sloughing Zone (mbgs)	Seepage Zone (mbgs)	Depth to Slough (mbgs)	Depth to Groundwater (mbgs)	Installation Date (DD-MM-YYYY)	Screened Interval (mbgs)	Measurement Date (DD-MM-YYYY)	Groundwater Level (mbgs)
SS-BH25-01	12.6	--	--	12.0 ^(c)	Dry	02-11-2025	3.0-6.1	16-12-2025	Dry
SS-BH25-02	12.6	--	9.2-9.8, 12.2-12.6	--	5.5	02-11-2025	3.0-6.1	16-12-2025	2.8
SS-BH25-03	12.6	4.9-5.2, 6.1-6.4, 8.5-8.6	3.0-3.5, 4.9-5.2	12.2	NAS	03-11-2025	3.0-6.1	16-12-2025	4.2
SS-BH25-04	14.2	--	10.7	--	6.4	25-10-2025	3.0-6.1	16-12-2025	3.8
SS-BH25-05	15.7	--	12.2-12.8 ^(g)	--	10.4	26-10-2025	3.0-6.1	16-12-2025	3.8
SS-BH25-06	15.7	2.4-5.2	2.4-3.1	14.8	14.3	04-11-2025	3.0-6.1	16-12-2025	2.5
SS-BH25-07	12.6	--	3.4-4.9	--	Dry	30-11-2025	3.0-6.1	16-12-2025	2.6
SS-BH25-08	20.3	4.6-6.1	9.5, 9.8, 11.1, 12.8	--	Dry	29-10-2025	3.0-6.1	16-12-2025	5.4
SS-BH25-09	12.6	--	1.8-2.7 ⁷	-- ^(e)	3.1	27-10-2025	3.0-6.1	16-12-2025	2.5
SS-BH25-10	14.2	11.3-12.6	11.3-12.6	10.1	7.6	29-10-2025	3.0-6.1	16-12-2025	4.8
SS-BH25-11B	12.6	--	7.6-7.9	--	9.4	30-11-2025	3.0-6.1	16-12-2025	3.2
SS-BH25-12	12.8	--	--	12.5 ^(c)	Dry	12-11-2025	3.0-6.1	17-12-2025	3.4
SS-BH25-13	15.9	--	--	-- ^(d)	Dry ^(d)	22-10-2025	4.6-7.6	17-12-2025	Dry
SS-BH25-14	20.3	--	--	--	8.8	21-10-2025	3.0-6.1	17-12-2025	5.7
SS-BH25-15	12.6	6.7-12.6 ^(g)	7.6-12.6	7.0	6.4	12-11-2025	3.0-6.1	17-12-2025	3.5
SS-BH25-16	13.7	--	--	--	Dry	13-11-2025	3.0-6.1	17-12-2025	3.4
SS-BH25-17	12.8	--	--	-- ^(d)	Dry ^(d)	14-11-2025	3.0-6.1	17-12-2025	Dry

Table 13: Seepage, Sloughing and Groundwater Observations

Borehole ID	Drilled Depth (mbgs)	During Drilling		Upon Completion		Piezometer Details ^{(a), (b)}			
		Sloughing Zone (mbgs)	Seepage Zone (mbgs)	Depth to Slough (mbgs)	Depth to Groundwater (mbgs)	Installation Date (DD-MM-YYYY)	Screened Interval (mbgs)	Measurement Date (DD-MM-YYYY)	Groundwater Level (mbgs)
SS-BH25-18B	12.6	--	--	-- ^(d)	Dry ^(d)	29-11-2025	3.0-6.1	17-12-2025	Dry
SS-BH25-19	6.5	--	--	--	Dry	28-11-2025	3.0-6.1	17-12-2025	Dry
SS-BH25-20B	15.2	6.3-9.3, 10.7-15.2	6.3-9.3, 10.7-15.2	6.6	NAS	27-11-2025	3.0-6.1	17-12-2025	Dry
SS-BH25-21	14.2	--	--	--	Dry	13-11-2025	3.0-6.1	17-12-2025	5.4
SS-BH25-22	15.7	--	--	--	Dry	23-10-2025	3.0-6.1	17-12-2025	Dry
SS-BH25-23B	15.7	14.9-15.7 ^(g)	15.5-15.7	14.9	4.5	15-11-2025	3.0-6.1	17-12-2025	4.5
SS-BH25-24	14.2	9.1-10.7 ^(g)	9.1-10.7	13.1	NAS	01-11-2025	3.0-6.1	17-12-2025	5.9
SS-BH25-25	12.2	4.6-6.1 ^(g)	3.1-6.1	-- ^(e)	6.1 ^(f)	24-10-2025	3.0-6.1	17-12-2025	2.5
SS-BH25-26	14.2	--	--	-- ^(d)	Dry ^(d)	15-11-2025	3.0-6.1	17-12-2025	Dry
SS-BH25-27	15.7	--	13.7-14.3	15.2 ^(c)	7.0	01-11-2025	3.0-6.1	16-12-2025	5.5
SS-BH25-28	15.7	--	6.1-6.7 ^(g) , 12.2	15.2 ^{(c),(e)}	12.2	31-10-2025	3.0-6.1	17-12-2025	2.6
SS-BH25-29	12.6	--	--	--	Dry	29-11-2025	3.0-6.1	17-12-2025	Dry
SS-BH25-30	12.6	--	--	-- ^(d)	Dry ^(d)	04-12-2025	3.0-6.1	17-12-2025	Dry
SS-BH25-31B	12.6	--	--	12.5 ^(c)	Dry	03-12-2025	3.0-6.1	18-12-2025	Dry
SS-BH25-32B	11.3	--	--	--	Dry	01-12-2025	3.0-6.1	18-12-2025	Dry
SS-BH25-33B	12.8	--	--	--	Dry	04-11-2025	3.0-6.1	18-12-2025	Dry
SS-BH25-34	12.6	--	--	12.2 ^(c)	Dry	04-11-2025	3.0-6.1	18-12-2025	Dry
SS-BH25-35	12.6	--	2.1-6.9 ^(g)	--	12.0	18-11-2025	3.0-6.1	18-12-2025	2.4
SS-BH25-36C	12.6	--	--	--	Dry	03-12-2025	3.0-6.1	18-12-2025	4
SS-BH25-37B	12.6	--	7.6-8.5 ^(g)	12.2 ^{(c),(d)}	Dry ^(d)	01-12-2025	3.0-6.1	18-12-2025	3.9
SS-BH25-38B	12.6	--	10.7-11.1	--	10.7	25-11-2025	3.0-6.1	18-12-2025	5.4
SS-BH25-39	12.2	--	10.7-11.1	12.2 ^(c)	11.6	28-10-2025	3.0-6.1	17-12-2025	1.7
SS-BH25-40	14.2	10.1-10.7 ^(g)	9.0-10.7 ^(g)	10.7	7.6 ^(f)	16-11-2025	3.0-6.1	17-12-2025	2.6
SS-BH25-41	14.2	9.1-10.7 ^(g)	9.1-9.5	12.5	11.3	24-10-2025	3.0-6.1	18-12-2025	4
SS-BH25-42	15.7	9.1-11.1 ^(g)	7.6, 11.3-11.6, 14.0-15.7	10.1	NAS	--	--	--	--
SS-BH25-42B	12.6	--	--	--	Dry	26-11-2025	3.0-6.1	18-12-2025	Dry
SS-BH25-43	14.2	--	--	--	Dry	16-11-2025	3.0-6.1	18-12-2025	5.2
SS-BH25-44B	14.2	11.0-12.2	--	14.0 ^(c)	6.1	17-11-2025	3.0-6.1	18-12-2025	4.5
SS-BH25-45	14.2	9.3-14.2	8.2-12.2	8.2	5.0	18-11-2025	3.0-6.1	18-12-2025	2.7
SS-BH25-46	12.8	--	1.5-3.1, 4.6-5.2	12.5 ^(c)	Dry ^(f)	17-11-2025	3.0-6.1	18-12-2025	4.0
SS-BH25-47	12.6	--	--	-- ⁴	Dry ^(d)	02-12-2025	3.0-6.1	18-12-2025	Dry
SS-BH25-48	12.6	--	--	--	Dry	26-11-2025	3.0-6.1	18-12-2025	Dry
SS-BH25-49B	12.8	--	--	--	Dry ^(f)	25-11-2025	3.0-6.1	18-12-2025	2.7
SS-BH25-50B	12.6	3.4, 4.9-6.6	--	--	Dry ^(f)	27-11-2025	3.0-6.1	18-12-2025	4.5
SS-BH25-51	12.6	--	7.9-9.8	7.3 ^(e)	4.4 ^(f)	10-11-2025	3.0-6.1	05-03-2026	2.7
SS-BH25-52	12.6	5.0-5.8	5.0-5.8	5.4	3.5	04-11-2025	3.0-6.1	05-03-2026	0.3 (Frozen) ^(h)
SS-BH25-53	12.8	6.4-8.5	--	--	12.3	11-11-2025	3.0-6.1	05-03-2026	0.2 (Frozen) ^(h)

Table 13: Seepage, Sloughing and Groundwater Observations

Borehole ID	Drilled Depth (mbgs)	During Drilling		Upon Completion		Piezometer Details ^{(a), (b)}			
		Sloughing Zone (mbgs)	Seepage Zone (mbgs)	Depth to Slough (mbgs)	Depth to Groundwater (mbgs)	Installation Date (DD-MM-YYYY)	Screened Interval (mbgs)	Measurement Date (DD-MM-YYYY)	Groundwater Level (mbgs)
SS-BH25-54	12.6	6.7-8.5	--	--	7.9	11-11-2025	3.0-6.1	05-03-2026	0.2 (Frozen) ^(h)
SS-BH25-55	12.6	--	--	--	Dry	14-11-2025	3.0-6.1	05-03-2026	0.1 (Frozen) ^(h)
SS-BH25-56	12.6	--	--	12.5 ^(c)	11.1	18-11-2025	3.0-6.1	05-03-2026	3.4

Note: mbgs = meters below ground surface; NAS = no water above slough; -- No seepage/slough

- (a) All piezometers were flush mounted.
- (b) Standpipe piezometers for boreholes SS-BH25-01 to SS-BH25-50 were decommissioned between December 16 and 18, 2025. Groundwater levels noted were measured prior to decommissioning of the piezometers.
- (c) Tape measure inferred to not extend to the bottom of the borehole due to narrow diameter of split spoon sampler (25 mm)/Shelby tube (50 mm). Sloughing assumed not present.
- (d) No sloughing or seepage observed in partially drilled borehole overnight.
- (e) Sloughing observed in partially drilled borehole overnight.
- (f) Seepage observed in partially drilled borehole overnight.
- (g) Not observed during drilling; inferred due to moisture content/soil consistency and/or laboratory testing.
- (h) Measurement unreliable due to inferred/freeze thaw conditions.

All boreholes were left open for approximately five minutes after the completion of drilling to monitor short term groundwater seepage and sloughing conditions before installation of the standpipe piezometers and water level readings were taken in the piezometers after installation. Where there are no entries in Table 7, no sloughing, seepage zone, or groundwater was observed.

Groundwater levels were measured in the standpipe piezometers between 16 and 18 December 2025 and on 5 March 2026. The measurements are summarized on **Error! Reference source not found.** and are shown on the borehole logs in Appendix D and on Figure 7. The piezometers were then removed from the borehole and annulus was backfilled with bentonite chips to ground surface. The bentonite chips were left slightly mounded at ground surface to account for potential settlement after spring thaw. It is recommended that the borehole locations be reviewed in the spring and backfilled as required.

It is noted that groundwater levels are expected to fluctuate annually, seasonally, or due to construction activity. Most of the groundwater measurements were taken in late fall, when groundwater elevations are anticipated to be lower than average.

5.3 Auger Refusal

Auger refusal occurred at some of the boreholes on inferred cobbles/boulders during the field investigation as follows:

- SS-BH25-05 – at a depth of 3.1 mbgs in the clay till. The borehole was moved 2 m and redrilled to 3.1 m before the auger refused again. The borehole was moved another 2 m and redrilled to completion although auger resistance was noted at approximately 3.1 mbgs.
- SS-BH25-06 – at a depth of 3.1 mbgs in the clay till.
- SS-BH25-07 – at a depth of 7.6 mbgs in the clay till. Moved borehole 3 m and redrilled to completion.

- SS-BH25-12 – at a depth of 12.5 m in the bedrock. (Note: auger refused after pushing Shelby tube to 12.75 mbgs).
- SS-BH25-18B – at a depth of 4.7 mbgs in the clay till. Moved borehole 3 m and redrilled to completion.
- SS-BH25-19 – at a depth of 6.1 mbgs in the clay till. The test hole was moved 4 m north and redrilled to 6.1 m before the auger refused again. The borehole was moved 2 m north and redrilled to a depth of 6.4 mbgs before auger refusal.

All other boreholes were drilled to their completion depths without encountering auger refusal.

Additionally, cobbles, coarse gravel, or very hard bedrock were inferred to be present the following boreholes where refusal of the split spoon sampler during the SPT occurred:

- SS-BH25-03 at a depth of 10.72 mbgs
- SS-BH25-05 at a depth of 8.05 mbgs
- SS-BH25-06 at a depth of 4.85 mbgs
- SS-BH25-16 at a depth of 13.72 mbgs
- SS-BH25-17 at a depth of 10.85 mbgs
- SS-BH25-18B at a depth of 4.72 mbgs
- SS-BH25-28 at a depth of 9.22 mbgs
- SS-BH25-29 at a depth of 1.98 mbgs
- SS-BH25-54 at a depth of 12.62 mbgs.

Cobbles and boulders are known to be present randomly throughout most glacial till deposits in Saskatchewan and it is expected that they are present across this site, whether they were encountered within the individual boreholes or not.

6 CORROSIVITY, SOIL RESISTIVITY, THERMAL RESISTIVITY AND SOLUBLE SULPHATE TESTING

6.1 Corrosivity and Soluble Sulphate Laboratory Testing Results

The laboratory and in situ field testing results are provided in the following subsections and summarized in Table 14. Comments on the corrosivity and soluble sulphate results are provided in Sections 7.2 and 7.11, respectively.

Table 14: Corrosivity and Soluble Sulphate Laboratory Testing Results

Borehole	Sample	pH	Chloride Ion (mg/L)	Total Sulfate Ion (%)	Water Soluble Sulphate (%)	Redox Potential (mV)	Electrical Resistivity (Ohm-cm)
SS-BH25-01	AS-3	8.40	57	0.903	0.854	230	361
SS-BH25-02	AS-3	8.43	58	2.48	2.51	450	358
SS-BH25-03	AS-3	9.08	<20	<0.050	NR	384	1,770

Table 14: Corrosivity and Soluble Sulphate Laboratory Testing Results

Borehole	Sample	pH	Chloride Ion (mg/L)	Total Sulfate Ion (%)	Water Soluble Sulphate (%)	Redox Potential (mV)	Electrical Resistivity (Ohm-cm)
SS-BH25-04	AS-3	8.58	85	0.995	1.21	352	339
SS-BH25-05	AS-3	8.13	54	0.158	NR	330	756
SS-BH25-06	AS-3	8.20	<20	<0.050	NR	284	4,820
SS-BH25-07	AS-3	8.33	<20	<0.050	NR	268	3,000
SS-BH25-08	AS-3	8.32	45	3.13	2.82	287	232
SS-BH25-09	AS-3	9.00	127	1.00	1	391	243
SS-BH25-10	AS-3	8.49	45	3.39	3.46	257	309
SS-BH25-11B	AS-3	8.16	45	0.365	0.445	233	464
SS-BH25-12	AS-3	8.93	<20	0.150	NR	224	812
SS-BH25-13	AS-3	9.18	<20	0.159	NR	244	745
SS-BH25-14	AS-3	8.42	29	2.04	2.04	252	252
SS-BH25-15	AS-3	8.22	31	3.12	1.62	202	472
SS-BH25-16	AS-3	8.33	<20	<0.050	NR	207	4,020
SS-BH25-17	AS-3	8.80	<20	<0.050	NR	201	2,890
SS-BH25-18B	AS-3	8.25	84	0.257	0.287	203	684
SS-BH25-19	AS-3	8.19	36	2.31	2.20	232	408
SS-BH25-20B	AS-3	8.08	41	0.991	0.995	241	539
SS-BH25-21	AS-3	8.29	<20	0.721	0.223	198	777
SS-BH25-22	AS-3	8.34	166	0.985	0.996	260	340
SS-BH25-23	AS-3	8.47	<20	1.46	1.72	250	351
SS-BH25-24	AS-3	8.38	<20	0.186	NR	259	788
SS-BH25-25	AS-3	8.47	29	0.110	NR	241	1210
SS-BH25-26	AS-3	8.85	27	<0.050	NR	220	3,500
SS-BH25-27	AS-3	8.14	<20	0.537	0.565	252	537
SS-BH25-28	SS-1	8.74	<20	0.979	0.975	246	220
SS-BH25-29	AS-3	9.02	<20	<0.050	NR	212	2,090
SS-BH25-30	AS-3	8.55	54	3.22	3.39	235	713
SS-BH25-31B	AS-3	8.07	<20	0.547	0.393	238	616
SS-BH25-32B	AS-3	8.28	44	4.33	3.55	229	315
SS-BH25-33B	AS-3	8.48	54	1.80	1.26	235	276
SS-BH25-34	AS-3	8.62	<20	0.553	0.428	226	354
SS-BH25-35	AS-3	8.43	162	2.22	2.20	215	300
SS-BH25-36C	AS-3	8.47	<20	1.92	1.95	211	320
SS-BH25-37B	AS-3	8.41	131	0.507	0.524	204	431
SS-BH25-38B	AS-3	8.33	83	1.31	1.52	203	410
SS-BH25-39	AS-3	8.61	156	0.681	0.641	210	302
SS-BH25-40	AS-3	7.88	<20	1.17	1.20	215	710
SS-BH25-41	AS-3	8.46	<20	2.84	3.08	220	385

Table 14: Corrosivity and Soluble Sulphate Laboratory Testing Results

Borehole	Sample	pH	Chloride Ion (mg/L)	Total Sulfate Ion (%)	Water Soluble Sulphate (%)	Redox Potential (mV)	Electrical Resistivity (Ohm-cm)
SS-BH25-42B	AS-3	8.38	23	6.53	6.87	201	472
SS-BH25-43	AS-3	8.41	246	2.70	2.30	200	266
SS-BH25-44B	AS-3	8.60	106	0.149	NR	180	466
SS-BH25-45	AS-3	8.95	<20	0.179	NR	183	882
SS-BH25-46	AS-3	8.53	<20	0.434	0.558	193	327
SS-BH25-48	AS-3	8.94	<20	<0.050	NR	184	3,320
SS-BH25-49B	AS-3	9.44	<20	<0.050	NR	177	2,890
SS-BH25-50B	AS-3	8.82	93	0.402	0.497	184	282

Notes: mg/L = milligrams per litre; % = percent; mV = milliVolts; ohm-cm = ohm centimeters

1. NR - the total sulphate analysis was <0.2% and based on CSA-A23.2-3B, no analysis for soluble sulphate is required.
2. For soil, 1 mg/L = 1 ppm of elements (Chloride).
3. For soil, % is equivalent to 10,000 ppm of elements.
4. **Bolded** values indicate increased corrosion potential.

The concentration values shown in Table 14 should be considered as depth specific and not necessarily representative of the entire test hole depth. They may also be soil type specific. Past trial test studies conducted by WSP have determined that low concentration values at one depth can be highly misleading in that much higher concentrations can often be present at other depths.

6.2 Thermal Resistivity Testing Results

Thermal Resistivity testing was conducted on one sample of glacial clay till from SS-BH25-33B between a depth of 1.5 and 3.0 mbgs. The thermal resistivity results indicate a critical water content of 6.7% and a maximum standard proctor dry density of 1710 kg/m³. The thermal resistivity results are shown within Appendix F.

7 GEOTECHNICAL COMMENTS AND RECOMMENDATIONS

The recommendations are based on WSP's interpretation of the soils encountered during field drilling, review of available and pertinent background data, WSP's understanding of the site conditions, and experience. Parties requiring information beyond the scope or purpose of this report must make their interpretation of the information provided.

Upon reviewing the field investigation and groundwater monitoring results, the site appears to be suitable for the proposed development from a geotechnical perspective with consideration of the recommendations presented in this report.

This section of the report provides the preliminary geotechnical design and construction recommendations for the foundation of the wind turbines, buildings and access roads. WSP recommendations are based on:

- Review of available and pertinent background data as described in the preceding sections of this report.
- Understanding of the proposed site development.
- Experience in wind energy projects.

- Other project requirements including geotechnical design criteria as follows:

Table 15: Geotechnical Design Criteria

Limit States	Verification	Criteria to Respect
Ultimate Limit State – ULS	Loss of static equilibrium due to overturning	FS > 1.1 as per IEC 61400-6:2020 Table Q.1 and the FS>1.5 as per ASCE/AWEA RP2011 (8.6.1.4)
	Failure or excessive deformation of the ground through bearing capacity	The calculated, as per DNV-RP-C212, factored bearing pressure needs to be less than the Factored Ultimate Gross Bearing Capacity
	Sliding	FS > 1,5 as per IEC 61400-6:2020 Table Q.4
Serviceability Limit State - SLS	Rotational and lateral stiffness under dynamic and static conditions	The foundation system shall meet the required stiffness criteria as define by the turbine manufacturer (calculation according to DNV-RP-C212 considering the foundation is fully embedded).
	Excessive long-term inclination and differential settlement	Maximum allowable permanent rotation of the foundation due to differential settlement: 0.17° (3mm/m) (IEC 61400-6 [8.5.3.3]),
	Long-term degradation of geotechnical capacity leading to failure of other limit states – Foundation Gapping	As per IEC 61400-6:2020 (8.5.3.4) the foundation shall fulfill a zero-ground gap criterion or by other mitigation measures outlined in (8.5.3.5).

7.1 Frost Penetration Depth

The maximum seasonal frost penetration depth was calculated for the near-surface soils using the procedure described in the Canadian Foundation Engineering Manual (CFEM). A mean freezing index of 1,417 Degree Days Celsius (°C-days) was used for the subject site location. The average seasonal frost penetration depth is estimated to be approximately 2.1 m. Any shallow foundations should have a minimum soil cover of at least 2.1 m for frost protection purposes. The burial depth of electrical and fibre optic cables should also consider frost conditions.

The estimated frost penetration depth assumes a uniform soil type with snow cover. Frost susceptibility refers to the tendency of soil to grow ice lenses and heave during freezing. The estimated frost heaving potential (CFEM, 2023) of the surficial soils encountered within the design frost depth is medium susceptible (i.e., Group F3 to F4).

Foundation elements of heated and unheated structures should have a minimum frost protection equivalent to a soil cover of at least 1.5 m and 2.1 m for frost protection purposes, respectively. Rigid insulation may be used to provide frost protection equivalent to the required soil cover. The insulation used for frost protection should be placed at a minimum depth of 0.6 m below the finished ground surface or per the manufacturer's requirement, and the top 0.6 m of backfill should be ignored for equivalent frost penetration calculation purposes.

7.2 Soil Resistivity and Corrosivity

7.2.1 Key Factors and Parameters

In general, only a few parameters have been used to assess soil corrosivity which can include resistivity, pH, concentration of soluble salts, water table depth and fluctuations in the water table depth. Studies have shown that the position of the water table depth and soil resistivity to be the most critical parameters of this group.

Water Table Depth and Soil Moisture

Little evidence of corrosion has been found, even in corrosive soils, where the entire structure is below the water table or where the portion of the structure, such as a pile, above the water table is encased in concrete.

Fully saturated soils below the water table are one extreme in soil moisture content. The other extreme is dry soil. In the case of general corrosion, there is a maximum in soil corrosivity at an intermediate moisture content. At low moisture contents, there is insufficient water to support the corrosion process, while, at high moisture contents, oxygen is excluded from the metal surface and corrosion rates are low. A structure located below the water table is representative of the latter situation.

Soil Type

Soil type is also an important factor that affects underground corrosion. This is a broad category that includes soil particle-size distribution, soil stratification, man-made versus natural soils, and cation-exchange capacity. The classification of soils for corrosivity is based on particle-size distribution. For the Unified Soil Classification System (USCS), silt and clay (fines) are defined as having a grain size of less than 75 μm , and sand has a particle size between 75 μm and 4.75 mm. Because of their small particle size and chemical properties, clays hold moisture better than silt and sand and tend to be deficient in oxygen. When an underground structure is located in stratified soil, containing layers of clay and silt or sand, the clay strata become the anodes in the differential aeration cells, and the silt or sand layers become the cathodes. Most of the severe cases of piling corrosion have been observed in stratified soils.

Soil Resistivity

Soil resistivity affects corrosion in several ways. Low resistivity soils generally contain high concentrations of soluble salts. The anions in the salts attack protective oxide films on the steel, accelerating the rate of the electrochemical reactions at the metal surface. Ionic current flow in the soil must occur for macrocells to develop. Where the soil resistivity is low, the magnitude of this current and the spatial separation of the anodes and cathodes can be larger. Thus, with low soil resistivity, macrocell corrosion rates can be higher and a larger area of the underground structure can be affected as compared with corrosion rates in soils with high resistivity.

Soil pH

Like resistivity, soil pH is one of the primary controlling factors in underground corrosion. In low-pH environments, the protective corrosion product films on steel are de-stabilized, resulting in localized corrosion or accelerated general corrosion. Where the pH is below about 4, rates of hydrogen ion reduction are sufficiently high to increase rates of corrosion. On the other hand, steel develops protective passive films in alkaline environments. As is the case with soil resistivity, there is a lot of scatter in corrosion rate data and all known factors must be considered. For example, high rates of corrosion of pilings have been observed in pH 9 soils.

Chlorides and Sulphates

In accordance with Hannigan et. Al. (2006), when soil resistivity test results are less than 5,000 ohm-cm, the presence of chlorides or sulphates in the soil may indicate the presence of an aggressive subsurface environment where there is an increased potential for corrosion, chemical attack, abrasion, and other factors that can affect the durability of the foundation materials. Although not definitive, it is noted that if chloride ion concentration is greater than 100 parts per million (ppm) or sulphate ion content greater than 200 ppm and the resistivity is less than 5,000 ohm-cm, then there is a risk of corrosion.

Electrical resistivity

The understood generally adopted approach by designers for the corrosion potential of steel in contact with soil has been simplified to consider soil resistivity only, as shown in Table 16 which presents the generally accepted relationship between soil resistivity and corrosivity.

Table 16: Soil Electrical Resistivity vs. Corrosivity Rating

Soil Resistivity (ohm-cm)	Relative Corrosivity Rating
> 20,000	Essentially Non-Corrosive
10,000 to 20,000	Mildly Corrosive
5,000 to 10,000	Moderately Corrosive
3,000 to 5,000	Corrosive
1,000 to 3,000	Highly Corrosive
< 1,000	Extremely Corrosive

Note: cm= centimetre

7.2.2 Corrosion Potential

The results of the laboratory resistivity testing summarized in Section 6.1, indicate that resistivity values across the project area range from 220 ohm-cm (extremely corrosive) to 4,820 ohm-cm (corrosive) and are Extremely corrosive on average. The results of the in-situ resistivity testing at the substation site, as included in Appendix E, indicate that the values range from 440 ohm-cm to 2,540 ohm-cm (900 ohm-cm on average) which indicate extremely to highly corrosive conditions which are extremely corrosive on average. As such, the testing indicates that there is an increased risk of corrosion of steel in contact with the soils across this site.

Additionally, laboratory results indicating chloride concentrations greater than 100 ppm in the soil samples for boreholes SS-BH25-09, 22, 35, 37B, 39, 43 and 44B, and sulphate concentrations greater than 200 ppm in the soil samples for boreholes SS-BH25-08, 10, 14, 15, 19, 30, 32B, 35, 41, 42B and 43 in combination with the low resistivity values indicate and increased potential for corrosion of steel in contact with the soil at those locations.

The corrosivity results, as well as the corrosion aspects related to this project should be analysed by a corrosion specialist. The results of soluble sulfate testing and affect on concrete are discussed in Section 7.11.

7.3 General Site Preparation

7.3.1 Grading and Drainage

Site preparation should include stripping of unsuitable organic soils (topsoil), existing fills (if encountered) and other deleterious materials from within the footprint area. At the borehole locations, the observed thickness of the topsoil ranged from negligible to up to 1.1 m, however it is important to note that subsurface conditions may change in intermediate locations not explicitly investigated.

Subgrade Soils that are exposed after the removal of deleterious material should be protected against construction traffic and provided with positive drainage. Site grading should be designed to provide for positive drainage of surface runoff away from the proposed new structures and traffic areas. Providing positive surface drainage away from the structures and from the site is considered beneficial and would be expected to enhance the long-term performance of vehicle traffic areas, foundations and reinforced concrete slabs, particularly regarding heaving.

Subgrade surfaces should be protected from freezing. In addition, the subgrade should be protected from wetting or drying, both before and after the placement of fill. Subgrade surfaces that are allowed to dry or become wet must be sub-excavated and replaced with engineering fill of a similar soil type to the native soil.

Subgrade preparation within the proposed development footprints should follow the applicable sections of this report.

7.3.2 Fill Selection and Placement

The native glacial clay till and highly plastic clay near ground surface across the project area is considered suitable for use as fill material, although the glacial clay till is a preferred soil due to its lower potential for soil swelling, greater shear strength, and wider range of particle sizes which allow for easier compaction and better moisture control relative to the highly plastic clay.

All native soils re-used for fill material should be separated from all deleterious materials such as vegetation, topsoil, debris and frozen materials, and should be free from particle sizes greater than 75 mm in diameter. Fills will require some moisture conditioning to make it suitable for compaction and/or to meet the project specifications. An effort should be undertaken to avoid mixing clay and glacial clay till soils when they are used as fill because their material properties, such as standard Proctor densities, optimum moisture contents and plasticity, are significantly different and mixing would make it very difficult for quality control during compaction.

If possible and practicable, silt and fine silty sand soils should be avoided for use as fill in traffic areas since they will be highly sensitive to surface traffic and also moisture content when compacted. They will likely be unstable during rainfall and wet conditions and, thus, capable of significant rutting and displacement from construction traffic. The general engineered fill materials may be placed in uniform layers not exceeding 200 mm thickness and compacted to a minimum of 98% Standard Proctor Maximum Dry Density (SPMDD per ASTM D698) and within $\pm 2\%$ of its Optimum Moisture Content (OMC) unless specified differently in the subsequent sections of this report. The exposed subgrade before placement of fill should be reviewed and approved by a qualified geotechnical engineer.

At locations where fill performance is particularly critical to control settlements or to provide structural support, or both, the use of a high-quality structural fill, such as a manufactured base and/or subbase is recommended. Structural fill should consist of well graded crushed gravel and should be free from any frozen soil, organic materials, contamination and deleterious construction materials.

Structural engineered fill consisting of well-graded granular material is recommended for engineered fill beneath ground slabs. Well-graded granular fill as per Saskatchewan Ministry of Highways and Infrastructure (SMHI) Class 33 or 35 base course of Type 8 subbase course or approved equivalent material can be used as structural engineering fill. Granular fill should be placed in loose lift thickness not exceeding 200 mm and be compacted to 100% SPMDD at -3% to +1% of OMC. Non-woven geotextile for separation with a minimum grab tensile strength of 400 N should be placed between native cohesive soils and granular fill to prevent the migration of fine particles into the granular engineering fill.

The extent of new fill settlement will be dependent on the type and quality of the fill selected and the density to which it is compacted. Experience has shown that the following approximate order of long-term consolidation settlements may be expected for engineered fills if they have been compacted to a minimum density that is greater than 95% (cohesive soils) and 100% (granular soils) of SPMDD:

- Highly Plastic Clay 2.5% to 3.5% of height of fill (H_f)
- Medium Plastic Glacial Clay Till 1% to 2% of H_f
- Well graded gravel or gravelly sand 0.5% H_f

7.3.3 Cold Weather Considerations

Special considerations during cold weather conditions:

- 1) A qualified geotechnical engineer should be consulted before construction proceeds.
- 2) Fill placement and compaction during extreme cold weather conditions incorporates a very high risk of unacceptable fill performance, particularly about consolidation and differential settlements. As such, subgrade work under cold weather conditions is generally not recommended except under severely restricted criteria and construction constraints. Even gravels, which give an appearance of being not affected by frozen conditions, can contain ice crystals which limit the achievable degree of compaction. A high degree of fill density and reliability can only be achieved when the fill soils are unfrozen and remain unfrozen during the entire compaction process. This may require that the compaction area is hoarded and heated and/or that the fills are preheated.
- 3) Under difficult circumstances and when construction must proceed if possible, past experience has occasionally shown that acceptable compaction and fill density can be achieved during cold weather conditions, provided the fill placed is kept unfrozen and temperatures during fill placement are not colder than -5°C to -10°C . This type of specialized approach requires the full co-operation of the contractor to help expedite completion of the work to the maximum extent possible. Shift work may be required to ensure that the fill is placed and compacted on a continuous basis, not allowing the underlying soil the opportunity to freeze before the next lift of fill is placed and compacted. Experience has also shown that fill with a moisture content near its optimum moisture content (OMC) is much more favourable for expeditious compaction than fill that is wet of its OMC.
- 4) In most cases when extreme cold temperatures prevail or may be forecasted, heating of the fill soils, and hoarding and heating of the fill placement area will be necessary to achieve the required degree of compaction. It should also be noted that unless the fill placement area is hoarded and heated, the addition of water to the fill to promote its compaction (in the case of dry soils) would not be possible at freezing temperatures. If mass heating of fill stockpiles is to be considered, the application of heat will need to be controlled so the fill does not become overly dry, which would then necessitate the undesirable addition of water to facilitate its compaction.
- 5) Non-compliance to the above guidelines may result in significant fill settlement.
- 6) WSP suggests that use of 'fillcrete' be considered as an alternative to compacted fills when cold weather conditions become a concern.

7.4 Turbines Foundation Design Recommendations

Based on WSP's geotechnical field findings and laboratory testing program, the subsurface conditions encountered are generally considered feasible to support the proposed gravity base foundations at all proposed turbine locations.

It is understood that the foundation will be circular in shape with a maximum diameter of approximately 20 m (total surface area of 314 m^2) and founded at a depth of approximately 2.7 mbgs. If a larger foundation size (area) is considered for design or the foundation depth is reduced to less than 2.7 mbgs, re-evaluation and likely reduction of the above allowable bearing pressure by the geotechnical engineer will be required in order to satisfy settlement criteria. It is noted based on the applied loads provided, that the calculated eccentricity exceeds the proposed radius of the foundation which indicates that full contact between the foundation and supporting soil

may not be maintained under the applied loading. The design of the turbine foundations should consider rocking and partial contact effects.

The frost penetration depth for the site is estimated to be approximately 2.1 mbgs assuming a turf surface and no snow cover. The frost penetration depth shall be considered in the foundation designs. WSP understands that the desired embedment depth for the turbine foundations is 2.7 m below final grade, which exceeds the estimated frost penetration depth for the area.

The 2020 National Building Code of Canada [NBCC] (National Research Council [NRC], 2022) stipulates that geotechnical aspects of foundation design should be conducted using limit states design (LSD) methodology. Under LSD methodology, the serviceability limit state (SLS) bearing resistance must be considered in addition to analyzing and providing the ultimate limit state (ULS) bearing resistance for a foundation. The foundation recommendations provided in this report have been prepared in general conformance with LSD methodology. Design loadings consider partial safety factors stipulated by guidelines and standards, and a geotechnical resistance factor (ϕ) of 0.5 applies to bearing capacity analysis based on laboratory and in situ test data.

Detailed recommendations for shallow foundations are provided in the following sections.

7.4.1 Gravity Base Foundation

The geotechnical bearing resistance at ULS is dependent on foundation dimensions such as width (effective area) and embedment depth, as well as loading eccentricity (factored forces and moments). Foundation design shall be optimized based on actual dimensions and load conditions to be applied, including consideration for normal and extreme loading cases. WSP understands that the foundation base will be approximately 20 m in diameter and founded approximately 2.7 m below grade.

The foundations should be placed on undisturbed native materials.

The undrained conditions were assessed for the bearing resistance calculations using Terzaghi's bearing capacity equation, as follows:

$$q_u = N_c \times S_u \times S_c + q_s \times N_q \times S_q + (1/2 \times \gamma \times B \times N_\gamma \times S_\gamma)$$

Where:

N_c, N_q, N_γ = dimensionless bearing capacity factors

S_u = undrained shear strength of clay (kPa)

S_c, S_q, S_γ = shape factors

B = diameter of the foundation (m)

γ = soil unit weight (kN/m³)

q_s = vertical stress acting at the elevation of the base of the foundation.

WSP understands that in accordance with DNV-RP-C212 (2021b), there are specific shape, depth and inclination factors that should be applied to wind turbine foundations based on the effective foundation area that is dependent on determination of load eccentricity. Bearing capacity of the turbine foundations should be re-evaluated once the final foundation design and loading has been determined.

The foundations must also be designed to resist resonance¹, ensure amplitudes are within permissible values for the turbine and ensure the bearing soil meets the stiffness criteria from the manufacturer. Dimension criteria have been developed by various jurisdictions to guide the engineer in sizing the foundation. It is understood that the foundation will be designed by numerical modelling (such as ANSYS or Plaxis 3D), using bearing capacity and stiffness parameters to determine safe size, depth, reinforcement, and material strength criteria.

The lateral capacity of shallow foundations may be calculated considering the sliding resistance along the base of the foundation. The ultimate sliding resistance at the foundation base may be calculated by multiplying the total vertical load acting on the foundation by the coefficient of friction. A coefficient of friction of 0.4 is recommended between a cast-in-place concrete foundation base and the native clay till bearing surface. A geotechnical resistance factor of 0.8 should be considered to determine the factored lateral capacity of the foundation. The passive earth pressure may also be considered when determining the lateral capacity of shallow foundations.

Bearing surfaces shall be protected from ingress of free water, typically resulting in softening of the soil. Footings must not be placed on fill, organic, disturbed, or frozen soil. Bearing material that becomes frozen, dried, or softened must be removed and replaced with concrete, or the footings shall be extended to reach material in an unaffected condition. It is also essential the foundation soil is not allowed to freeze after the concrete for footings have been placed.

Based on the groundwater level observations in Table 13, groundwater may be encountered in some areas during the foundation preparations. If encountered, we recommend a mud slab to mitigate the effects; however, considering a mud slab of low strength lean mix concrete is already recommended, further mitigation should not be required. The mud slab must be placed immediately after the subgrade has been inspected and approved. The excavation of foundations should be scheduled such that the subgrade inspection and pouring of the mud slab can take place as soon as possible after the completion of the excavation and inspection in order to protect against degradation of the bearing surface.

7.4.2 Geotechnical Design Parameters

7.4.2.1 Bearing Capacity

The subsoil conditions are satisfactory for the use of a mass-concrete footing for the turbine foundation. The mass-concrete footings may be set directly on the very stiff to hard clay till and/or bedrock. It is recommended that a concrete mud slab (75 mm in thickness) be placed to protect the foundation subgrade, particularly if sandy clays are encountered at the base of the excavation.

Bearing capacity estimates for Serviceability Limit State (SLS) and unfactored Ultimate Limit State (ULS) design are provided below and are based on bearing capacity charts and criteria the Canadian Foundation Engineering Manual (5th Edition) as summarized in Table 17.

¹ Resonance is an effect caused when the vibrating frequency of a machine equals the natural frequency of the underlying soil. Resonance leads to excessive displacement or amplitude, which is undesirable for any structural unit.

Table 17: Unfactored Ultimate and Serviceability Bearing Resistance for Turbine Shallow Foundations

Test Hole ID	Drilled Depth (m)	Proposed Embedment Depth (m)	Assumed Design Groundwater Depth (m)	Soil Conditions at the Proposed Embedment Depth	Unfactored Ultimate Bearing Resistance (kPa)	Serviceability Limit State Bearing Capacity (kPa)
BH25-01	12.6	2.7	>3	Very stiff Clay	1,000	335
BH25-02	12.6	2.7	1	Very Stiff Clay	800	265
BH25-03	12.6	2.7	2	Very Stiff Clay Till	1,000	335
BH25-04	14.2	2.7	2	Soft to Firm Clay Till	400	135
BH25-05	15.7	2.7	2	Stiff to Very Stiff Clay Till	700	235
BH25-06	15.7	2.7	1	Dense Sand	950	315
BH25-07	12.6	2.7	1	Soft to Firm Clay Till	1,450	485
BH25-08	20.3	2.7	>3	Very Stiff Clay Till	650	215
BH25-09	12.6	2.7	1	Very Soft Sandy Clay	750	250
BH25-10	14.2	2.7	>3	Stiff Clay Till	550	185
BH25-11B	12.6	2.7	2	Very Stiff Clay Till	1,450	485
BH25-12	12.8	2.7	2	Very Stiff Clay Till	1,500	500
BH25-13	15.9	2.7	3	Firm to Stiff Clay Till	1,250	415
BH25-14	20.3	2.7	>3	Stiff Clay Till	1,450	485
BH25-15	12.6	2.7	2	Stiff Clay Till	1,450	485
BH25-16	13.7	2.7	2	Stiff to Very Stiff Clay Till	1,050	350
BH25-17	12.8	2.7	>3	Stiff Clay Till	1,350	450
BH25-18B	12.6	2.7	>3	Stiff Clay Till	1,900	635
BH25-19	6.5	2.7	>3	Very Stiff Clay Till	1,850	615
BH25-20B	14.2	2.7	>3	Very Stiff Clay Till	1,900	635
BH25-21	14.2	2.7	>3	Stiff Clay Till	1,000	335
BH25-22	15.7	2.7	>3	Firm to Stiff Clay Till	1,150	385
BH25-23B	15.7	2.7	3	Stiff Clay Till	1,300	435
BH25-24	14.2	2.7	>3	Stiff Clay Till	950	315
BH25-25	12.2	2.7	1	Stiff to Very Stiff Clay Till	850	285
BH25-26	14.2	2.7	>3	Very Dense Clayey Sand Till	1,500	500
BH25-27	15.7	2.7	>3	Stiff Clay Till	1,100	365
BH25-28	15.7	2.7	1	Very Stiff Clay Till	1,200	400
BH25-29	12.6	2.7	>3	Very Stiff Clay with sand	1,900	635
BH25-30	12.6	2.7	>3	Stiff Clay Till	1,450	485
BH25-31B	12.6	2.7	>3	Very Stiff Clay Till	1,550	515
BH25-32B	11.3	2.7	>3	Very Stiff Clay Till	1,900	635
BH25-33B	12.8	2.7	>3	Very Stiff Clay Till	1,300	435
BH25-34	12.6	2.7	>3	Hard Stiff Clay Till	1,200	400
BH25-35	12.6	2.7	1	Stiff Clay Till	1,100	365
BH25-36C	12.6	2.7	3	Very Stiff Clay Till	1,400	465
BH25-37B	12.6	2.7	2	Stiff Clay Till	1,400	465

Table 17: Unfactored Ultimate and Serviceability Bearing Resistance for Turbine Shallow Foundations

Test Hole ID	Drilled Depth (m)	Proposed Embedment Depth (m)	Assumed Design Groundwater Depth (m)	Soil Conditions at the Proposed Embedment Depth	Unfactored Ultimate Bearing Resistance (kPa)	Serviceability Limit State Bearing Capacity (kPa)
BH25-38B	12.6	2.7	>3	Very Stiff Clay Till	1,750	585
BH25-39	12.2	2.7	0	Stiff Clay Till	1,000	335
BH25-40	14.2	2.7	1	Very Stiff Clay Till	1,150	385
BH25-41	14.2	2.7	3	Stiff to Very Stiff Clay Till	1,150	385
BH25-42B	15.7	2.7	>3	Soft to Firm Clay Till	1,700	565
BH25-43	12.6	2.7	>3	Very Stiff Clay Till	900	300
BH25-44B	14.2	2.7	3	Stiff Clay Till	950	315
BH25-45	14.2	2.7	1	Stiff Clay Till	1,400	465
BH25-46	14.2	2.7	1	Compact Clayey Sand Till	1,350	450
BH25-47	12.8	2.7	>3	Very Stiff Clay Till	1,300	435
BH25-48	12.6	2.7	>3	Dense Clayey Sand Till	1,500	500
BH25-49B	12.6	2.7	1	Stiff Clay Till	950	315
BH25-50B	12.8	2.7	3	Stiff Clay Till	1,900	635

Notes: m = metres; kPa = kiloPascals

Previous experience has often shown that SLS for rotation limits often governs the required footing sizes in order to satisfy SLS. Analytical results are not yet available in order to assess serviceability criteria and should be reviewed by WSP when they are available.

WSP recommends that a qualified geotechnical professional should evaluate the subgrade conditions at the wind turbine locations to confirm foundation bearing conditions at the time of construction.

For the purposes of design, WSP recommends using the assumed groundwater depths noted in Table 17. As groundwater level measurements and observations were completed in late fall and winter when groundwater levels are anticipated to be lower than average, WSP has conservatively estimated the design groundwater depth to be 1 m above the recorded water level measurements in Table 13 rounded up to the nearest meter unless seepage was noted above the groundwater depth measurement, in which case the design depth was rounded up from the seepage depth.

7.4.2.2 **Overturning**

Middle Third Rule

Footings should have adequate diameter such that the eccentricity of load at the footing base, as measured from the center, is less than B/6 (B = footing diameter, m). This requirement is generally referred to as the ‘middle third rule’ and is used so that the base of the footing does not lose contact with the soil when maximum overturning moments are applied.

The calculated eccentricity of the applied loading exceeds the proposed foundation radius, which implies loss of contact over a portion of the foundation footprint and the potential for rocking behaviour. Under these conditions, conventional bearing pressure assumptions are no longer valid, and foundation performance is expected to be governed by stability considerations. The design should therefore account for rocking and partial contact effects.

Potential mitigation measures include increasing the diameter of the foundation to reduce eccentricity, increasing dead load, or adopting alternative foundation concepts that provide additional resistance to overturning.

Factor of Safety Against Overturning

The minimum recommended factor of safety against overturning is 1.5.

Equivalent Footing Method

A suggested manual method that could be considered for the footing analysis and preliminary sizing of the footing consist of the 'equivalent footing method' (see Taiebert, H & Carter, JP. (2002). *Bearing Capacity of Strip and Circular Foundations on Undrained Clays Subjected to Eccentric Loads*, Géotechnique 52, Pages 51 - 64).

Computer Analyses for Estimating Footing Width and Rotation

Several computer analyses and software could be considered to determine the footing width requirement to satisfy ULS and SLS criteria, including finite element and SIGMA/W, for more detailed stress and settlement analyses.

7.4.2.3 Sliding Resistance at the Bottom

Ultimate sliding resistance at the bottom may be determined by assuming a coefficient of friction, f , of 0.35 between the base and soil. A geotechnical resistance factor of 0.8 should be applied to the ultimate resistance to obtain the factored sliding resistance which must exceed the factored horizontal shear load.

7.4.2.4 Dynamic Properties and Stiffness

Direct measurement of dynamic soil properties using cone penetration testing or geophysical survey was not completed as part of the geotechnical investigation. Therefore, the soil parameters provided are based on published correlations and regional experience. Based on the results of the SPTs conducted in the field, the shear wave velocity can be estimated using the following equation (Prakash and Puri, 1988):

$$V_s = 90N^{0.309}$$

Where:

V_s = shear wave velocity (m/s)

N = Average SPT N-value of the soil

Elastic theory relates shear wave velocity with the dynamic shear modulus at small strain using the following equation:

$$G_{\max} = \rho V_s^2$$

Where:

G_{\max} = small strain dynamic shear modulus (MPa)

ρ = bulk density of soil (kg/m³)

The dynamic shear modulus varies non-linearly with strain amplitude; therefore, the shear modulus should be reduced for larger amplitudes. Moderate strains for wind loads are generally in the order of 10⁻³. Based on published correlations by Fahey, M (1999), the dynamic shear modulus values calculated with the formula above should be reduced as follows for dynamic wind loading conditions:

$$G/G_{max} = 1 - f(q/q_{ult})^g$$

Where:

G = Reduced Shear Modulus (MPa)

f = empirical parameter (assumed to be 1.0)

q = foundation bearing pressure (based on a normal overturning moment of 81,581 kN-m, which is approximately 120 kPa)

q_{ult} = ultimate bearing capacity of the soil (See Table 17)

g = empirical parameter (assumed to be 0.3)

The Young's modulus is computed from:

$$E_s = 2G(1+\nu)$$

Where:

E_s = Young's Modulus

ν = Poisson's Ratio of 0.27 to 0.35

The geotechnical design parameters are presented in Table 18 for the borehole locations.

Table 18: Geotechnical Design Parameters at Anticipated Foundation Level

Borehole ID	Average SPT 'N' Value ^(a)	Shear Wave Velocity, V _s (m/s)	Small Strain Dynamic Shear Modulus, G _{max} (MPa)	Reduced Shear Modulus, G (MPa)	Young's Modulus, E _s (MPa)
SS-BH25-01	36 to 41	270 to 285	150 to 165	120 to 145	315 to 375
SS-BH25-02	28 to 29	250 to 260	125 to 135	100 to 115	265 to 295
SS-BH25-03	31 to 36	260 to 275	135 to 155	110 to 135	285 to 340
SS-BH25-04	18 to 23	215 to 240	95 to 115	70 to 95	195 to 255
SS-BH25-05	33 to 37	260 to 280	140 to 155	115 to 135	295 to 350
SS-BH25-06	27 to 29	245 to 255	125 to 135	100 to 115	260 to 295
SS-BH25-07	44 to 50	285 to 305	170 to 190	150 to 155	380 to 395
SS-BH25-08	16 to 26	210 to 250	90 to 125	65 to 105	180 to 265
SS-BH25-09	31 to 33	260 to 270	135 to 145	115 to 120	300 to 315
SS-BH25-10	21 to 26	225 to 250	105 to 125	80 to 105	220 to 285
SS-BH25-11	44 to 50	290 to 305	170 to 190	150 to 155	390 to 405
SS-BH25-12	36 to 40	270 to 285	150 to 165	120 to 145	315 to 365
SS-BH25-13	28 to 34	250 to 270	125 to 145	100 to 125	260 to 325
SS-BH25-14	29 to 38	250 to 280	130 to 160	100 to 135	285 to 375
SS-BH25-15	32 to 38	260 to 280	140 to 160	110 to 135	295 to 360
SS-BH25-16	24 to 28	240 to 255	115 to 130	90 to 110	245 to 290
SS-BH25-17	32 to 35	260 to 275	135 to 150	110 to 130	290 to 335
SS-BH25-18	45 to 51	290 to 305	170 to 190	150 to 160	385 to 400

Table 18: Geotechnical Design Parameters at Anticipated Foundation Level

Borehole ID	Average SPT 'N' Value ^(a)	Shear Wave Velocity, V_s (m/s)	Small Strain Dynamic Shear Modulus, G_{max} (MPa)	Reduced Shear Modulus, G (MPa)	Young's Modulus, E_s (MPa)
SS-BH25-19	39 to 50	275 to 305	155 to 190	140 to 155	355 to 395
SS-BH25-20	43 to 51	285 to 305	165 to 190	150 to 160	380 to 400
SS-BH25-21	19 to 26	220 to 250	100 to 125	75 to 105	210 to 280
SS-BH25-22	27 to 30	245 to 260	125 to 140	100 to 120	260 to 305
SS-BH25-23	25 to 35	240 to 270	115 to 150	90 to 130	245 to 335
SS-BH25-24	21 to 25	230 to 245	105 to 125	80 to 105	225 to 275
SS-BH25-25	16 to 22	210 to 240	90 to 115	65 to 95	180 to 250
SS-BH25-26	35 to 41	265 to 285	145 to 165	120 to 145	310 to 370
SS-BH25-27	23 to 29	235 to 255	110 to 135	85 to 115	230 to 290
SS-BH25-28	30 to 32	255 to 265	130 to 140	105 to 120	275 to 310
SS-BH25-29	51 to 52	300 to 305	165 to 170	140 to 150	355 to 380
SS-BH25-30	34 to 38	265 to 280	145 to 160	115 to 140	305 to 355
SS-BH25-31	40 to 42	280 to 290	160 to 170	130 to 145	340 to 380
SS-BH25-32	44 to 51	285 to 305	170 to 190	150 to 160	380 to 400
SS-BH25-33	34 to 35	265 to 270	145 to 150	115 to 130	305 to 335
SS-BH25-34	30 to 32	255 to 265	130 to 145	105 to 125	275 to 315
SS-BH25-35	27 to 29	245 to 260	125 to 135	100 to 115	260 to 300
SS-BH25-36	31 to 38	260 to 280	135 to 160	110 to 135	290 to 350
SS-BH25-37	34 to 37	265 to 280	145 to 160	115 to 135	305 to 350
SS-BH25-38	46 to 47	290 to 295	175 to 180	145 to 160	375 to 410
SS-BH25-39	21 to 27	225 to 250	105 to 130	80 to 110	215 to 275
SS-BH25-40	27 to 30	245 to 260	125 to 140	95 to 120	255 to 300
SS-BH25-41	23 to 30	235 to 260	110 to 140	85 to 115	235 to 310
SS-BH25-42	43 to 45	285 to 295	165 to 175	135 to 155	375 to 410
SS-BH25-43	21 to 24	230 to 240	105 to 120	80 to 100	215 to 255
SS-BH25-44	15 to 24	205 to 245	85 to 120	60 to 100	160 to 255
SS-BH25-45	32 to 38	260 to 280	140 to 160	110 to 135	290 to 350
SS-BH25-46	33 to 36	260 to 275	140 to 155	110 to 135	295 to 345
SS-BH25-47	35 to 34	265 to 270	145 to 150	115 to 130	310 to 330
SS-BH25-48	35 to 40	270 to 285	145 to 165	120 to 145	315 to 365
SS-BH25-49	24 to 25	240 to 245	115 to 125	90 to 105	235 to 270
SS-BH25-50	44 to 50	285 to 305	170 to 190	150 to 160	380 to 400

Notes: m/s = meters per second, MPa = MegaPascals

(a) SPT range is based on average SPT obtained between 3 and 10 m vs the entire depth of borehole drilled, neglecting surficial conditions not influencing the turbine foundation.

The estimated foundation stiffness parameters for modes of motion based on the following equations (CFEM 2023):

$$K_h = \frac{4GR}{1-\nu} \quad K_u = \frac{8GR}{2-\nu} \quad K_\psi = \frac{8GR^3}{3(1-\nu)} \quad K_\eta = \frac{16GR^3}{3}$$

Where:

- k_v = vertical stiffness constant, MN/m
- k_u = horizontal stiffness constant, MN/m
- k_ψ = rocking stiffness constant, MN-m/rad
- k_η = torsion stiffness constant, MN-m/rad
- G = reduced soil shear modulus (MPa), as per Table 18
- R = foundation radius (m)
- ν = Poisson's Ratio

The estimated foundation stiffness parameters for various modes of motion are presented in Table 19. The values provided correspond to the approximate foundation depth of 2.7 mbgs and a range of foundation diameters (10 m, 20 m and 40 m)

Table 19: Estimated Foundation Stiffness Parameters for Modes of Motion

Borehole ID	Mode of Motion			
	Vertical, k_v (MN/m)	Horizontal, k_u (MN/m)	Rocking, k_ψ (MN-m/rad)	Torsion, k_η (MN-m/rad)
Foundation Diameter = 10 m				
SS-BH25-01	1,625 to 3,500	1,350 to 2,900	27,400 to 58,400	38,400 to 81,700
SS-BH25-02	1,325 to 2,950	1,075 to 2,425	22,100 to 49,000	31,000 to 68,500
SS-BH25-03	1,500 to 3,200	1,250 to 2,625	25,300 to 53,100	35,400 to 74,300
SS-BH25-04	1,225 to 2,275	950 to 1,800	20,500 to 38,000	26,600 to 49,300
SS-BH25-05	1,525 to 3,300	1,250 to 2,725	25,700 to 54,900	36,100 to 76,800
SS-BH25-06	1,300 to 2,900	1,075 to 2,400	21,900 to 48,100	30,600 to 67,400
SS-BH25-07	1,625 to 4,250	1,375 to 3,600	27,300 to 70,700	39,900 to 103,200
SS-BH25-08	1,225 to 2,000	1,000 to 1,650	20,500 to 33,100	28,800 to 46,300
SS-BH25-09	1,375 to 3,325	1,125 to 2,725	23,000 to 55,100	32,300 to 77,200
SS-BH25-10	1,325 to 2,550	1,050 to 2,000	22,300 to 42,200	29,100 to 54,800
SS-BH25-11	1,700 to 4,425	1,400 to 3,650	28,600 to 73,800	40,000 to 103,200
SS-BH25-12	1,600 to 3,525	1,325 to 2,900	26,900 to 58,600	37,700 to 82,000
SS-BH25-13	1,425 to 2,925	1,175 to 2,400	24,100 to 48,400	33,700 to 67,800
SS-BH25-14	1,775 to 3,400	1,350 to 2,600	29,600 to 56,500	36,700 to 70,000
SS-BH25-15	1,600 to 3,350	1,300 to 2,700	26,800 to 55,500	36,500 to 75,400
SS-BH25-16	1,325 to 2,750	1,075 to 2,225	22,200 to 45,700	30,200 to 62,200
SS-BH25-17	1,475 to 3,200	1,225 to 2,650	24,800 to 53,400	34,800 to 74,700
SS-BH25-18	1,650 to 4,325	1,400 to 3,650	27,700 to 71,700	40,500 to 104,700
SS-BH25-19	1,525 to 4,250	1,275 to 3,600	25,400 to 70,700	37,100 to 103,200
SS-BH25-20	1,625 to 4,300	1,375 to 3,625	27,100 to 71,300	39,600 to 104,100
SS-BH25-21	1,325 to 2,425	1,025 to 1,925	22,100 to 40,300	28,700 to 52,300
SS-BH25-22	1,350 to 2,900	1,100 to 2,400	22,600 to 48,100	31,600 to 67,400

Table 19: Estimated Foundation Stiffness Parameters for Modes of Motion

Borehole ID	Mode of Motion			
	Vertical, k_v (MN/m)	Horizontal, k_u (MN/m)	Rocking, k_ψ (MN-m/rad)	Torsion, k_η (MN-m/rad)
SS-BH25-23	1,525 to 2,775	1,225 to 2,250	25,500 to 45,900	34,700 to 62,400
SS-BH25-24	1,300 to 2,575	1,025 to 2,025	21,600 to 42,800	28,100 to 55,600
SS-BH25-25	1,200 to 2,075	950 to 1,625	20,200 to 34,400	26,300 to 44,700
SS-BH25-26	1,625 to 3,450	1,325 to 2,850	27,100 to 57,400	37,900 to 80,300
SS-BH25-27	1,300 to 2,575	1,075 to 2,125	22,000 to 42,600	30,800 to 59,700
SS-BH25-28	1,375 to 3,075	1,125 to 2,525	23,200 to 50,900	32,500 to 71,300
SS-BH25-29	1,600 to 3,875	1,350 to 3,275	26,700 to 64,300	39,000 to 93,900
SS-BH25-30	1,575 to 3,425	1,275 to 2,825	26,200 to 56,700	36,700 to 79,400
SS-BH25-31	1,650 to 3,775	1,350 to 3,125	27,600 to 62,900	38,700 to 88,000
SS-BH25-32	1,625 to 4,300	1,375 to 3,625	27,300 to 71,300	39,900 to 104,100
SS-BH25-33	1,475 to 3,375	1,200 to 2,775	24,700 to 55,900	34,500 to 78,300
SS-BH25-34	1,400 to 3,100	1,150 to 2,550	23,400 to 51,300	32,800 to 71,800
SS-BH25-35	1,325 to 2,875	1,100 to 2,375	22,200 to 47,900	31,100 to 67,000
SS-BH25-36	1,550 to 3,200	1,275 to 2,650	25,900 to 53,200	36,200 to 74,500
SS-BH25-37	1,550 to 3,400	1,275 to 2,800	25,800 to 56,600	36,100 to 79,300
SS-BH25-38	1,775 to 4,175	1,450 to 3,425	29,500 to 69,300	41,400 to 97,100
SS-BH25-39	1,250 to 2,375	1,025 to 1,950	21,000 to 39,500	29,400 to 55,200
SS-BH25-40	1,350 to 2,850	1,100 to 2,350	22,600 to 47,300	31,600 to 66,200
SS-BH25-41	1,450 to 2,700	1,150 to 2,150	24,300 to 45,000	31,600 to 58,500
SS-BH25-42	1,850 to 4,300	1,450 to 3,400	31,100 to 71,500	40,400 to 92,900
SS-BH25-43	1,150 to 2,425	950 to 2,000	19,400 to 40,200	27,100 to 56,300
SS-BH25-44	1,175 to 1,825	975 to 1,500	19,800 to 30,200	27,700 to 42,300
SS-BH25-45	1,550 to 3,225	1,275 to 2,650	26,000 to 53,600	36,400 to 75,100
SS-BH25-46	1,500 to 3,275	1,250 to 2,700	25,300 to 54,600	35,400 to 76,500
SS-BH25-47	1,450 to 3,450	1,200 to 2,825	24,400 to 57,100	34,200 to 80,000
SS-BH25-48	1,600 to 3,475	1,325 to 2,875	26,900 to 57,900	37,700 to 81,100
SS-BH25-49	1,200 to 2,625	1,000 to 2,175	20,200 to 43,800	28,300 to 61,300
SS-BH25-50	1,625 to 4,275	1,375 to 3,625	27,300 to 71,200	39,800 to 103,900
Foundation Diameter = 20 m				
SS-BH25-01	3,275 to 7,000	2,700 to 5,775	219,800 to 466,500	307,700 to 653,100
SS-BH25-02	2,650 to 5,875	2,175 to 4,850	177,300 to 391,400	248,300 to 547,900
SS-BH25-03	3,025 to 6,375	2,500 to 5,250	202,400 to 424,500	283,400 to 594,300
SS-BH25-04	2,450 to 4,550	1,925 to 3,600	164,000 to 303,300	213,200 to 394,300
SS-BH25-05	3,075 to 6,600	2,525 to 5,425	206,200 to 438,700	288,800 to 614,200
SS-BH25-06	2,625 to 5,775	2,150 to 4,775	175,200 to 384,800	245,200 to 538,800
SS-BH25-07	3,275 to 8,500	2,750 to 7,175	219,100 to 565,500	319,900 to 825,600
SS-BH25-08	2,450 to 3,975	2,025 to 3,275	164,600 to 264,100	230,500 to 369,800
SS-BH25-09	2,750 to 6,625	2,275 to 5,450	184,700 to 440,800	258,600 to 617,100

Table 19: Estimated Foundation Stiffness Parameters for Modes of Motion

Borehole ID	Mode of Motion			
	Vertical, k_v (MN/m)	Horizontal, k_u (MN/m)	Rocking, k_ψ (MN-m/rad)	Torsion, k_η (MN-m/rad)
SS-BH25-10	2,675 to 5,075	2,100 to 4,000	179,100 to 337,100	232,900 to 438,300
SS-BH25-11	3,425 to 8,850	2,825 to 7,300	229,000 to 589,700	320,600 to 825,600
SS-BH25-12	3,225 to 7,050	2,650 to 5,800	215,400 to 468,500	301,600 to 655,900
SS-BH25-13	2,875 to 5,825	2,375 to 4,800	193,000 to 387,000	270,300 to 541,800
SS-BH25-14	3,550 to 6,775	2,700 to 5,200	237,100 to 451,300	294,100 to 559,600
SS-BH25-15	3,200 to 6,675	2,600 to 5,400	214,800 to 443,500	292,200 to 603,100
SS-BH25-16	2,650 to 5,500	2,150 to 4,450	177,900 to 365,400	241,900 to 497,000
SS-BH25-17	2,975 to 6,400	2,450 to 5,275	199,000 to 426,600	278,700 to 597,300
SS-BH25-18	3,325 to 8,625	2,800 to 7,275	222,100 to 573,600	324,300 to 837,500
SS-BH25-19	3,050 to 8,500	2,550 to 7,175	203,300 to 565,500	296,900 to 825,600
SS-BH25-20	3,250 to 8,575	2,750 to 7,225	217,200 to 570,200	317,200 to 832,400
SS-BH25-21	2,650 to 4,850	2,075 to 3,825	177,000 to 321,700	230,200 to 418,200
SS-BH25-22	2,700 to 5,775	2,225 to 4,775	180,800 to 384,800	253,200 to 538,800
SS-BH25-23	3,050 to 5,525	2,475 to 4,475	204,200 to 367,000	277,700 to 499,100
SS-BH25-24	2,600 to 5,150	2,050 to 4,050	173,500 to 342,200	225,500 to 444,800
SS-BH25-25	2,425 to 4,125	1,900 to 3,250	162,100 to 275,000	210,700 to 357,500
SS-BH25-26	3,250 to 6,900	2,675 to 5,675	217,100 to 458,800	303,900 to 642,400
SS-BH25-27	2,625 to 5,125	2,175 to 4,225	176,000 to 340,800	246,500 to 477,100
SS-BH25-28	2,775 to 6,125	2,275 to 5,050	185,800 to 407,000	260,200 to 569,700
SS-BH25-29	3,200 to 7,725	2,700 to 6,525	213,900 to 514,400	312,300 to 751,000
SS-BH25-30	3,150 to 6,825	2,575 to 5,625	210,000 to 453,400	294,100 to 634,800
SS-BH25-31	3,300 to 7,550	2,725 to 6,225	221,300 to 502,900	309,900 to 704,000
SS-BH25-32	3,275 to 8,575	2,750 to 7,225	219,100 to 570,200	319,900 to 832,400
SS-BH25-33	2,950 to 6,725	2,425 to 5,525	197,600 to 447,000	276,700 to 625,700
SS-BH25-34	2,800 to 6,175	2,300 to 5,075	187,600 to 410,100	262,700 to 574,100
SS-BH25-35	2,650 to 5,750	2,200 to 4,750	178,100 to 382,700	249,300 to 535,700
SS-BH25-36	3,100 to 6,400	2,550 to 5,275	207,300 to 425,200	290,300 to 595,300
SS-BH25-37	3,100 to 6,800	2,550 to 5,600	206,600 to 452,700	289,300 to 633,800
SS-BH25-38	3,550 to 8,325	2,900 to 6,850	236,700 to 554,400	331,400 to 776,100
SS-BH25-39	2,525 to 4,750	2,075 to 3,900	168,300 to 315,400	235,600 to 441,600
SS-BH25-40	2,700 to 5,675	2,225 to 4,675	181,000 to 377,800	253,500 to 528,900
SS-BH25-41	2,900 to 5,400	2,300 to 4,275	194,800 to 359,700	253,300 to 467,600
SS-BH25-42	3,725 to 8,575	2,925 to 6,775	248,800 to 571,700	323,500 to 743,200
SS-BH25-43	2,325 to 4,825	1,900 to 3,975	155,300 to 321,500	217,500 to 450,100
SS-BH25-44	2,375 to 3,625	1,950 to 3,000	158,600 to 241,300	222,100 to 337,800
SS-BH25-45	3,100 to 6,450	2,550 to 5,300	208,100 to 428,700	291,400 to 600,200
SS-BH25-46	3,025 to 6,550	2,500 to 5,400	202,500 to 436,700	283,500 to 611,300
SS-BH25-47	2,925 to 6,875	2,400 to 5,650	195,500 to 456,800	273,700 to 639,500

Table 19: Estimated Foundation Stiffness Parameters for Modes of Motion

Borehole ID	Mode of Motion			
	Vertical, k_v (MN/m)	Horizontal, k_u (MN/m)	Rocking, k_ψ (MN-m/rad)	Torsion, k_η (MN-m/rad)
SS-BH25-48	3,225 to 6,950	2,650 to 5,725	215,400 to 463,200	301,600 to 648,400
SS-BH25-49	2,425 to 5,250	2,000 to 4,325	161,900 to 349,900	226,700 to 489,800
SS-BH25-50	3,275 to 8,550	2,750 to 7,225	218,500 to 569,000	319,000 to 830,700
Foundation Diameter = 40 m				
SS-BH25-01	6,575 to 14,000	5,425 to 11,525	1,758,000 to 3,732,000	2,462,000 to 5,225,000
SS-BH25-02	5,300 to 11,750	4,375 to 9,675	1,418,000 to 3,131,000	1,986,000 to 4,383,000
SS-BH25-03	6,050 to 12,750	5,000 to 10,500	1,619,000 to 3,396,000	2,267,000 to 4,755,000
SS-BH25-04	4,900 to 9,100	3,875 to 7,175	1,312,000 to 2,427,000	1,706,000 to 3,155,000
SS-BH25-05	6,175 to 13,175	5,075 to 10,850	1,650,000 to 3,510,000	2,310,000 to 4,914,000
SS-BH25-06	5,250 to 11,550	4,325 to 9,525	1,401,000 to 3,079,000	1,962,000 to 4,310,000
SS-BH25-07	6,550 to 16,975	5,525 to 14,325	1,753,000 to 4,524,000	2,559,000 to 6,605,000
SS-BH25-08	4,925 to 7,925	4,050 to 6,525	1,317,000 to 2,113,000	1,844,000 to 2,958,000
SS-BH25-09	5,525 to 13,225	4,550 to 10,900	1,478,000 to 3,527,000	2,069,000 to 4,937,000
SS-BH25-10	5,375 to 10,125	4,225 to 7,975	1,433,000 to 2,697,000	1,863,000 to 3,506,000
SS-BH25-11	6,850 to 17,700	5,650 to 14,575	1,832,000 to 4,718,000	2,565,000 to 6,605,000
SS-BH25-12	6,450 to 14,075	5,300 to 11,575	1,723,000 to 3,748,000	2,413,000 to 5,248,000
SS-BH25-13	5,775 to 11,625	4,750 to 9,575	1,544,000 to 3,096,000	2,162,000 to 4,335,000
SS-BH25-14	7,100 to 13,550	5,425 to 10,375	1,897,000 to 3,610,000	2,352,000 to 4,477,000
SS-BH25-15	6,425 to 13,325	5,200 to 10,775	1,718,000 to 3,548,000	2,337,000 to 4,825,000
SS-BH25-16	5,325 to 10,975	4,300 to 8,875	1,423,000 to 2,924,000	1,935,000 to 3,976,000
SS-BH25-17	5,950 to 12,800	4,900 to 10,550	1,592,000 to 3,413,000	2,229,000 to 4,778,000
SS-BH25-18	6,650 to 17,225	5,625 to 14,525	1,777,000 to 4,589,000	2,595,000 to 6,700,000
SS-BH25-19	6,100 to 16,975	5,125 to 14,325	1,627,000 to 4,524,000	2,375,000 to 6,605,000
SS-BH25-20	6,500 to 17,125	5,500 to 14,450	1,738,000 to 4,561,000	2,537,000 to 6,659,000
SS-BH25-21	5,300 to 9,675	4,175 to 7,625	1,416,000 to 2,574,000	1,841,000 to 3,346,000
SS-BH25-22	5,425 to 11,550	4,450 to 9,525	1,447,000 to 3,079,000	2,025,000 to 4,310,000
SS-BH25-23	6,125 to 11,025	4,950 to 8,925	1,633,000 to 2,936,000	2,221,000 to 3,993,000
SS-BH25-24	5,200 to 10,275	4,100 to 8,100	1,388,000 to 2,738,000	1,804,000 to 3,559,000
SS-BH25-25	4,850 to 8,250	3,825 to 6,500	1,297,000 to 2,200,000	1,686,000 to 2,860,000
SS-BH25-26	6,500 to 13,775	5,350 to 11,350	1,736,000 to 3,671,000	2,431,000 to 5,139,000
SS-BH25-27	5,275 to 10,225	4,350 to 8,425	1,408,000 to 2,726,000	1,972,000 to 3,817,000
SS-BH25-28	5,575 to 12,225	4,575 to 10,075	1,487,000 to 3,256,000	2,081,000 to 4,558,000
SS-BH25-29	6,400 to 15,450	5,400 to 13,025	1,711,000 to 4,115,000	2,498,000 to 6,008,000
SS-BH25-30	6,300 to 13,625	5,175 to 11,225	1,680,000 to 3,627,000	2,352,000 to 5,078,000
SS-BH25-31	6,625 to 15,100	5,450 to 12,425	1,771,000 to 4,023,000	2,479,000 to 5,632,000
SS-BH25-32	6,550 to 17,125	5,525 to 14,450	1,753,000 to 4,561,000	2,559,000 to 6,659,000
SS-BH25-33	5,925 to 13,425	4,875 to 11,050	1,581,000 to 3,576,000	2,214,000 to 5,006,000
SS-BH25-34	5,625 to 12,325	4,625 to 10,150	1,501,000 to 3,281,000	2,102,000 to 4,593,000

Table 19: Estimated Foundation Stiffness Parameters for Modes of Motion

Borehole ID	Mode of Motion			
	Vertical, k_v (MN/m)	Horizontal, k_u (MN/m)	Rocking, k_ψ (MN-m/rad)	Torsion, k_η (MN-m/rad)
SS-BH25-35	5,325 to 11,500	4,400 to 9,475	1,424,000 to 3,061,000	1,994,000 to 4,286,000
SS-BH25-36	6,200 to 12,775	5,100 to 10,525	1,658,000 to 3,402,000	2,322,000 to 4,763,000
SS-BH25-37	6,200 to 13,600	5,100 to 11,200	1,653,000 to 3,622,000	2,314,000 to 5,071,000
SS-BH25-38	7,100 to 16,650	5,825 to 13,700	1,894,000 to 4,435,000	2,651,000 to 6,209,000
SS-BH25-39	5,050 to 9,475	4,150 to 7,800	1,346,000 to 2,523,000	1,885,000 to 3,533,000
SS-BH25-40	5,425 to 11,350	4,450 to 9,350	1,448,000 to 3,022,000	2,028,000 to 4,231,000
SS-BH25-41	5,825 to 10,800	4,600 to 8,525	1,559,000 to 2,878,000	2,026,000 to 3,741,000
SS-BH25-42	7,450 to 17,150	5,875 to 13,525	1,990,000 to 4,574,000	2,588,000 to 5,946,000
SS-BH25-43	4,650 to 9,650	3,825 to 7,950	1,243,000 to 2,572,000	1,740,000 to 3,601,000
SS-BH25-44	4,750 to 7,250	3,900 to 5,975	1,269,000 to 1,931,000	1,777,000 to 2,703,000
SS-BH25-45	6,225 to 12,875	5,125 to 10,600	1,665,000 to 3,430,000	2,331,000 to 4,802,000
SS-BH25-46	6,075 to 13,100	5,000 to 10,800	1,620,000 to 3,493,000	2,268,000 to 4,891,000
SS-BH25-47	5,850 to 13,725	4,825 to 11,300	1,564,000 to 3,655,000	2,190,000 to 5,116,000
SS-BH25-48	6,450 to 13,900	5,300 to 11,450	1,723,000 to 3,705,000	2,413,000 to 5,187,000
SS-BH25-49	4,850 to 10,500	4,000 to 8,650	1,295,000 to 2,799,000	1,813,000 to 3,918,000
SS-BH25-50	6,550 to 17,075	5,525 to 14,425	1,748,000 to 4,552,000	2,552,000 to 6,646,000

Notes: m = metres; MN = MegaNewtons; MN-m = MegaNewton metre; rad = radian

7.4.3 Temporary Excavations

Generally, conventional excavations with cut slopes are considered to be appropriate for the soil conditions encountered at the borehole locations, however, seepage may occur in sandy soils, with risks for sloughing and seepage into the excavations if the sand layer is saturated at the time of construction, or if the slopes are not properly protected from surface water. Risks associated with sloped excavations should consider the proximity of the excavation to underground utilities, and the potential impacts to the project should a temporary slope fail or need to be stabilized during construction.

As a minimum, excavations should comply with the requirements of Saskatchewan Occupational Health and Safety (SOHS) and Workers Compensation Board (WCB). The excavation work should be undertaken by an experienced contractor and should also be closely supervised by knowledgeable safety and geotechnical personnel. Personnel should not be allowed into open excavations without proper protection and training. Excavations, which experience unusual difficulties, should be brought to the immediate attention of WSP so that engineered solutions to the problem can be appropriately determined.

Notwithstanding, short term, open, excavation slopes that are properly managed and extended to maximum depths in the order of 3 m should not be steeper than 45 degrees (i.e., 1H:1V), from the bottom of the excavation in the clay till encountered at the borehole locations. It is noted that loose sand was encountered within the proposed excavation depths in boreholes SS-BH25-03, 04, 06, 25, 26, 29, and 53. For these locations, or where sloughing or wet sand layers are encountered within the excavation depths, it is recommended that the excavation walls should not be steeper than 18 degrees from the horizontal (3H:1V) or flatter. WSP should review

the proposed excavation layout and provide further guidance if steeper cut slopes are desired, or if excavations are intended to be maintained longer than the short term.

Flatter slopes than the above may be necessary if portions of the excavation encounter weak soils such as silt, or if excavations will extend to below the water table, in which case, WSP should be consulted prior to the excavation so that additional recommendations may be provided. Excavation dewatering during construction may be required for foundation and utility trenches at this site given the observed higher short term ground water conditions observed at many of the piezometers. Excavation dewatering should be considered a requirement prior to proceeding with excavation to the final bearing surface in the event that groundwater seepage is encountered above the bearing elevation. Seepage could occur; despite the fact seepage was not observed at all of the boreholes. If seepage occurs during construction, dewatering is likely to be manageable by sloping the excavations to localized sumps. This should be confirmed at the time of construction. The water should be pumped and discharged to a location sufficiently far away from the excavation such that it will not re-enter.

Excavations must be protected from rain, snow or any ingress of free water. Prolonged exposure of excavated areas should be avoided to prevent deterioration of exposed soil with resultant slope instability. Similarly, excavated materials should be stockpiled away from the excavations to avoid any slope instability and to prevent materials from falling back into the excavations. Temporary surcharge loads, such as stocks of material or heavy equipment, should be kept back from the excavation faces at a distance equal to the excavation depth. For crane pads, the distance should be increased equal to three times to the excavation depth. Surface drainage should be directed away from the crest of the excavations, and the slopes should be protected against potential erosion and water infiltration.

All underground pipes, cables, culverts or utilities must be placed on competent ground. Any soft, loose, organic, or otherwise deleterious soil existing below the pipes must be over-excavated and replaced with suitable well-compacted material. The subgrade soil and bedding soil beneath the pipes should not be allowed to freeze. All fill and backfill material in the trench should be free of wet, organic, and/or frozen soil. All material for filling and backfilling purposes should be placed in lifts not exceeding 200 mm in thickness (loose measure) and compacted to 98% SPMDD.

7.4.4 Backfill Above and Around the Foundation

Backfill placed above the footing should not contain topsoil, cobbles, boulders or other deleterious materials. It should consist of cohesive soils only since the use of granular soils would allow surface water to infiltrate into the backfill and cause buoyancy. Re-use of the on-site clay till above and around the turbine foundations would be the most ideal engineered fill candidate. The higher plastic materials can be considered but they may be difficult to work with to achieve compaction. If high plastic clays are used as backfill, then the top 150 mm of engineered fill around the top of the turbine foundation should consist of imported or on site low to medium plastic materials graded away from the tower centre to help prevent water infiltration down into the foundation.

The surface topsoil should be stripped and wasted or stockpiled in a suitable location for final landscaping. WSP assumes that, for the most part, native cohesive soils excavated to make way for the footing will be used for backfilling above and adjacent to the turbine footings. Cobbles and boulders, if encountered, should preferably be removed from the excavated soils prior to stockpiling.

The cohesive backfill should be placed in thin lifts (300 mm maximum), and each lift should be uniformly compacted to not less than 95% SPMDD within 0 to +2% of OMC. The final surface of the backfill should be

adequately sloped to promote surface drainage away from the turbine tower. The surface elevation of the fill at the outer edges of the foundation should lie above exterior grades, including allowances for long-term fill settlement.

The extent of new fill settlement will be dependent on the type and quality of fill selected and the density to which it is compacted. Experience has shown that the following approximate order of long-term consolidation settlements may be expected for engineered fills, if they have been compacted to a minimum density that is equal to or greater than 95% (cohesive soils) and 100% (granular soils) of SPMDD:

- High plasticity clay 2.5% to 3.5% x Hf
- Glacial Clay Till 1% to 2% x Hf
- Well graded gravel or gravelly sand 0.5% x Hf

Where: Hf = total thickness of each fill type.

7.4.5 Buoyancy Considerations

Buoyancy forces should be considered where footings will be founded on cohesive soils because of potential infiltration of surface water through voids in the backfill and retention of this water above the low permeability cohesive soil (i.e., clay or glacial clay till). Turbine locations where buoyancy conditions are considered unlikely are those where sands extend from above to below the expected footing bearing depth. At a minimum, buoyancy will need to be considered at all borehole locations where shallow groundwater (i.e., about 3.7 mbgs or less) was encountered (see Section 5.2). This applies in particular to Turbine #2, 3, 4, 5, 6, 7, 9, 11, 12, 15, 16, 25, 28, 35, 37, 39, 40, 45, 46, and 49.

At turbine locations where buoyancy need to be considered as per above, it is impossible to predict the level of water than may become perched around and above the footing foundation base. Groundwater levels recorded in the piezometers ranged from approximately 1.7 to 5.5 m below ground surface during winter conditions. However, it is important to note that some of the piezometers were completely dry when checked approximately one month after installation, indicating that groundwater presence in the area is inconsistent and likely discontinuous. During drilling, many of the boreholes were dry immediately upon completion. In cases where boreholes were left open overnight, some water accumulation was observed by the following day, suggesting localized seepage rather than continuous aquifers. No distinct or laterally continuous water-bearing layers were encountered during the investigation—only discontinuous sand seams and lenses within the glacial till and bedrock. Additionally, based on available geological and hydrogeological mapping, there are no mapped shallow aquifers identified within the project area. Given these conditions, groundwater control may be required during construction of turbine foundations, as localized inflows could occur where till lenses or sand seams intersect excavation depths.

For the purposes of design, WSP recommends using the assumed groundwater elevations noted in Table 17. See Section 7.4.2.1 for explanation of design groundwater elevations recommended.

The unit weight of concrete should be assumed to be 23.5 kN/m³ and 13.5 kN/m³ without and with water buoyancy effects, respectively. Assuming the fill is compacted to a density equal to or exceeding 95% SPMDD, the bulk unit weight of clay till fill and clay fill may respectively be assumed to be 21 kN/m³ and 18 kN/m³ under non-buoyant conditions and 11 kN/m³ and 8 kN/m³ under buoyant conditions.

7.4.6 Drainage

The prepared subgrade surface for the proposed development area should be graded to prevent ponding of water on the site. Excavations should be allowed to dry before continuing with construction. At no time should water be allowed to pond on the base of the excavations as it may lead to softening of the subgrade soils. Excess water should be drained or pumped from the site as quickly as possible, both during and after construction.

Based on the investigation findings, groundwater seepage may be encountered within excavations on site. If water seepage is encountered, dewatering of excavations will be dependent upon weather conditions such as the intensity of precipitation and decrease in snow accumulation. Dewatering can also be dependent on the time of year in which the construction begins, as seasonal factors have a significant impact on the fluctuating groundwater levels. If seepage is encountered during construction, groundwater may be controlled by filtered sump pumps inside the excavation. The groundwater level should be maintained to a minimum of 0.5 m below excavation grade at all times.

The potential for water seepage during excavation will need to be considered at all borehole locations where shallow groundwater (i.e., about 3.7 mbgs or less) was encountered (see Section 5.2). This applies in particular to Turbine #2, 6, 7, 9, 11, 12, 15, 16, 25, 28, 35, 39, 40, 45, and 49.

It should be noted that groundwater levels may fluctuate over time, and higher or lower groundwater levels may be experienced during construction.

7.5 MET Mast Foundations

Information regarding size, loading and embedment depths for the MET Mast foundations have not been provided. However, it is assumed that a shallow concrete foundation will be required and should be designed in accordance with the design and construction recommendations of Section 7.4. The preliminary bearing capacity for the MET Mast foundations, assuming an embedment depth of 2.7 mbgs and an approximate size of 2 m x 2 m is as follows:

- Unfactored ULS Geotechnical Bearing Resistance: 800 kPa
- SLS Bearing Capacity: 300 kPa

WSP should be contacted once additional details are known.

If deadman or helical screw anchors are required, WSP can provide this information upon request.

7.6 O&M Building and Substation Foundations

The following recommendations are provided based on boreholes SS-BH25-51 to SS-BH25-54 and are site-specific. The soils encountered in these boreholes generally consisted of about 6.1 to 7.6 m of stiff to hard clay till over very stiff to hard sandy clay/clayey sand to the bottom of the boreholes drilled (boreholes SS-BH25-53 and 54, near the O&M building, had a layer of very stiff to hard clay shale between the till and sandy clay layer). If the location of the O&M Building and/or substation is moved, WSP should be contacted to update the following recommendations.

7.6.1 Design Approach

WSP assumes that geotechnical recommendations for buildings at the site are to be based on Limit States Design (LSD) in accordance with the 2020 National Building Code of Canada (NBCC). For purposes of this report, the

following definitions have been adopted and considered consistent with both the Canadian Foundation Engineering Manual (2023) and the NBCC 2020.

7.6.1.1 Limit States Design

Limit state design (LSD) refers to a design method used in structural engineering. A limit state is a condition of a structure beyond which it no longer fulfills the relevant design criteria. The condition may refer to the degree of loading or other actions on the structure, while the criteria refer to structural integrity, fitness for use, durability or other design requirements. A structure designed by LSD is proportioned to sustain all actions likely to occur during the design life, and to remain fit for use, with an appropriate level of reliability for each limit state.

LSD requires the structure to satisfy two principal criteria: the ultimate limit state (ULS) and the serviceability limit state (SLS).

7.6.1.2 Ultimate Limit State (ULS)

Ultimate limit state (ULS) with respect to soils and foundations is reached when the ultimate load carrying capacity of the soil is exceeded (due to compression, uplift, sliding or overturning), or when soil deformation causes an ULS in the structure without soil failure, or when overall stability is lost.

A structure is deemed to satisfy the ULS criteria if all factored loads ($\Sigma\alpha\cdot P$) are less than the factored resistances ($\Sigma\phi\cdot R$).

7.6.1.3 Serviceability Limit State (SLS)

To satisfy the serviceability limit state (SLS) criteria, a structure must remain functional for its intended use. A structure is deemed to satisfy the SLS when the elements do not deflect by more than limits provided in the NBCC or when other restrictions, such as vibrations, need to be considered.

With respect to foundations used for this project, a SLS is assumed to be present when foundation movements are less than:

- Vertical < 25 mm
- Horizontal < 8 mm

7.6.2 Cast in Place Concrete (CIPC) Friction Pile Foundations

7.6.2.1 Ultimate Limit State

Drilled cast-in-place concrete (CIPC) friction (straight shaft) piles should be designed in accordance with the Limit States design approach based on skin friction resistance only.

For piles designed based on skin friction, the ultimate compressive resistance of drilled CIPC piles may be determined by using the recommended ultimate skin friction values presented in Table 20 applied to the pile perimeter. Geotechnical resistance factors, Φ , of 0.4 and 0.3 should be applied to the ultimate skin friction values for compression and uplift, respectively, to determine the factored compressive and uplift resistance of the pile, respectively.

Table 20: Ultimate Skin Friction Values for CIPC Friction Piles

Depth below existing ground surface (m)	Soil Types	Ultimate Skin Friction Resistance (kPa)
0 to X ^(a)	All Soil Types	0
X ^(a) to 6.7	Very Stiff Clay Till	65
6.7 to 12.6	Very Stiff to Hard Clay	90

Notes: m = metres; kPa = kiloPascals

(a) X is equal to 1.5 m for interior piles of a heated building and 2.5 m for piles under unheated conditions or at the perimeter of a building.

7.6.2.2 Serviceability Limit State (SLS)

Settlement restrictions and service loads for the O&M building and substation structures are currently unknown. WSP can provide a review of the serviceability limit state relative to individual pile loads and pile types once this design information is made available. Reductions to the factored ultimate resistances to satisfy the SLS design are not expected for lightly loaded CIPC piles.

The settlement of a single pile depends on the applied load, strength deformation properties of the foundation soils, load transfer mechanism, and load distribution over the pile embedment depth. A pile settlement limit value was not specified by the structural agent for use in developing geotechnical resistance limits for the serviceability limit state design criterion. Notwithstanding, assuming good workmanship, inclusive of good excavation, the predicted settlement of bored straight-shaft concrete piles at axial compression working loads equal to the SLS values provided may be taken as 0.1% to 0.4% of the shaft diameter, plus elastic shortening due to the compressive load acting on the pile.

7.6.2.3 Additional Recommendations for CIPC Piles

The following recommendations should be used for the design and construction of CIPC piles:

- Piles should be designed in accordance with Limits States design approach and the recommended methodology presented herein.
- For structures exposed to freezing temperatures, adequate pile length embedment must be provided to resist frost jacking. Soil swelling and corresponding uplift adhesion forces along the pile could also occur but will be significantly less than those applied by frost adfreezing forces.
- All pile installations should be monitored and approved on a full-time basis during construction by a geotechnical representative, working directly for the Owner.
- To the extent practicable, provide positive drainage away from the foundation.
- The weight of the embedded portion of the pile may be neglected in the design.
- The contribution from end bearing should be ignored.
- Piles placed in groups or in close proximity to each other should be installed with the greater of the following centre-to-centre spacings:
 - One metre
 - Three (3) times the greatest adjacent diameter

- Group reduction factors may apply to friction CIPC pile groups of four (4) piles or more. WSP should be contacted so that pile group reduction factors, if any, may be established prior to completion of the final design.
- Piles should have a minimum shaft diameter of 400 mm.
- Drilled cast-in-place concrete friction piles should be adequately reinforced over their full length or to such a length deemed adequate by the structural engineer, ensuring that uplift loading can be resisted, and applied pile loads can be adequately transferred from the pile to the soil in both the vertical and lateral directions.
- Full-length, tight-fitting sleeves (temporary casing) should be available at the Site and used as required to prevent caving and to seal off any potential seepage. The steel casing would need to be advanced past any seepage/sloughing zones, if encountered, and into the underlying cohesive soil before drilling extends past this depth. Also, the reinforcing steel and concrete must be placed inside the casing before the casing is retrieved. As the casing is withdrawn, the level of concrete in the sleeve must be maintained such that ingress of soil does not occur and to maintain sufficient head above the seepage zones.
- The excavation of adjacent piles within three (3) pile diameters should be deferred until the concrete in the constructed pile has set.
- Cobbles and boulders should be expected within the glacial clay till and as such, contractors should have proper equipment on Site to remove such obstructions.
- Concrete should be available for placement immediately following approval of the pile by a qualified geotechnical representative.
- All piles should be poured immediately after completion of drilling to reduce the potential for seepage into, and swelling or squeezing of the pile bore, and to mitigate soil stress relief which could negatively impact pile settlement performance. Concrete should be poured in accordance with the latest edition of Canadian Standards Association A23.1 (Concrete Materials and Methods of Concrete Construction). Where required, dewatering of pile bores should be managed using a bailing bucket or a pump, subject to actual field conditions.
- A void space (minimum of 150 mm thick) should be constructed, using a compressible and biodegradable material, below all piles caps and grade beams to accommodate movements of the underlying soil.

7.6.2.4 Tensile Uplift Resistance

The unfactored tensile (uplift) resistance of a single isolated straight shaft pile, including bored straight shaft CIPC friction piles, will be provided by the buoyant weight of the pile, any sustained downward (i.e., opposing) load acting on the pile, and the soil resistance provided over the embedment length of the pile.

The unfactored soil resistance component to tensile loads for a straight shaft concrete pile may be determined as the ultimate shaft friction over the length of pile below the depth of frost penetration (for perimeter piles), as provided in Table 20.

Based on the 2020 National Building Code of Canada (NBCC 2020), a geotechnical resistance factor, Φ , of 0.3 should be applied to the unfactored geotechnical tensile (uplift) resistance of the concrete pile to obtain the factored geotechnical resistance at the Ultimate Limit State (ULS) for tensile loading conditions.

Furthermore, a suitable load factor selected by the structural engineer should be applied to reduce the benefit of any resistance structural loads included the weight of the pile and sustained downward loads. Additional frost design considerations are discussed in Section 7.6.2.7.

7.6.2.5 Lateral Resistance

Piles resist laterally applied loads by deflecting until the necessary resistance is mobilized in the adjacent soils. The lateral load is generally resisted within the upper 4 to 5 m of the soil profile (i.e., the typical point of inflection for the pile). The maximum bending moment typically occurs at 1.5 to 3.0 m below grade depending on the applied loading and soil resistance. The allowable lateral capacity depends upon the properties of the soil and pile material, pile sizes, fixity of the top of the pile, depth of embedment, height of load application above ground, vertical load applied and tolerable deflections.

The analysis of piles for lateral loads and moments requires that strength-deformation characteristics of the adjacent soil be modelled by springs for which values of the modulus of horizontal subgrade reaction (k_h) are required. Where only relatively small deflections of the foundations are tolerable (i.e., less than about 8 mm), the lateral resistance of a pile can be evaluated using the method of Broms, and the recommended values for k_h for cohesive soils given in Table 21.

Table 21: Modulus of Subgrade Reaction (k_h) for Lateral Loads on Piles

Depth range below final grade (m)	Horizontal Subgrade Reaction Coefficient, k_h (MPa/m) ^(a)		
	Sustained Loading	Cyclic Loading	Transient Loading
Above existing grade to 1.0 ^(b)	0	0	0
1.0 to 6.7	8.0/D	5.4/D	12.1/D
6.7 to 12.6	11.4/D	7.6/D	17.1/D

Note: m = metres; MPa = MegaPascals

- (a) D = Diameter. To maintain the lateral displacements within the elastic range of the soil, the above modulus values are recommended for lateral displacements not exceeding 8 mm at the ground line.
- (b) It is recommended that fill used to raise the Site not be accounted for in determining lateral pile resistance.

The use of these parameters for determination of the lateral capacity of piles is based on a deflection criterion of 8 mm or less at the ground line. It should be noted that due to the influence of stress level, pile geometry and the empirical nature of the previously referenced coefficient of horizontal subgrade reaction, the coefficients computed in this manner are subject to a high degree of uncertainty and must be used with caution. Due to shrinkage effects resulting in reduced contact between the pile and soil near the ground line, it is recommended that the top 1 m of the soil profile not be considered as providing resistance to lateral loads and moments.

For pile spacings less than 8 pile diameters in the direction of the lateral load or less than 3 diameters perpendicular to the load direction, group action effects will need to be incorporated. Group effects can be evaluated once pile layout configurations and spacing are known.

Where the lateral load capacities or magnitude of movements of piles are critical, it is recommended that the lateral deflections and design capacities of piles or groups of piles be evaluated using Reese's method of p-y curves. This method models the strength-deformation characteristics using load-displacement curves for the various soil strata, and the non-linear behavior of the soil. With the method of p-y curves, solutions may be obtained through an iterative procedure performed using LPILE Software for single piles and extended to pile groups by using GROUP Software to analyze the behavior of piles in a group subjected to both axial and lateral

loadings. The analytical procedure provides lateral pile deflections, generated bending moments, shear forces, and the soil reaction computed at close intervals over the depth of the pile. This type of analysis with group action effects could be conducted by WSP on request.

If the horizontal resistance of a vertical pile is inadequate to resist the lateral forces transmitted to the foundation, or when the load-deformation response of the pile does not meet serviceability limits, inclined (batter) piles may be considered. The use of inclined piles should be evaluated on an individual basis and in this regard, WSP should be contacted for additional recommendations.

Where either of the above procedures are used, a geotechnical resistance factor of $\Phi = 0.5$ should be applied to the ultimate horizontal pile resistance. The ultimate lateral capacity is equal to the lateral load applied to the pile that either causes the adjacent soil to yield or causes greater than the specified 8 mm of lateral movement and is determined by completing an appropriate lateral pile analysis as described above.

7.6.2.6 Pile Group Effects

For pile groups consisting of four or less piles following the minimum center-to-center pile spacings, the geotechnical resistance of the pile group may be taken as the sum of the individual piles. Where larger pile groups or closer pile spacing is required, WSP should be notified during detailed design and evaluation of the pile group(s) undertaken for possible group interaction effects.

7.6.2.7 Frost Design Considerations for Piles

Resistance to adfreeze and frost heave forces will be provided by the sustained vertical loads on the foundation, the buoyant weight of the foundation, the dead weight of the structure, and the soil uplift resistance component provided by the length of the piles extending below the depth of frost penetration.

Adfreeze forces acting on buried structures and foundation elements may be determined assuming an unfactored unit adfreeze stress of 65 kPa applied only to the exterior surface area of the portion of the structure or foundation element located within the zone of frost penetration. A load factor of 1.25 should be applied to obtain the factored adfreeze stress. The adfreeze stress could be reduced by affixing a 'bond-break' or 'friction reducer', such as greased poly-wrap or geosynthetic liner material, to portions of the structure or foundation element located within the zone of frost penetration. A geotechnical resistance factor, ϕ , of 1.0 should be applied to the unfactored frost uplift resistance to determine the factored uplift resistance. The resistance to frost uplift forces will be provided by the skin friction of that portion of pile extending below the depth of frost penetration using values provided above for resistance to tensile loads. This calculation should be performed on all piles, regardless of pile type.

With respect to frost heave, the potential for frost heave pressures to develop on the underside of foundation elements should be mitigated by one or more of the following optional measures:

- Where the undersides of foundation elements are located above the depth of frost penetration, a void-forming product should be installed beneath the undersides of the grade beams, pile caps, and any other connecting elements located within the depth of frost penetration above the groundwater table. The recommended minimum thickness of the void is 150 mm.
- Alternatively, a compressible material may be used in lieu of a void forming material, and the uplift pressures may be taken as the crushing strength of the compressible medium. It is recommended that a frost heave potential of 150 mm be assumed in determining the required thickness for the void-filler and the associated uplift pressures associated with the thickness used.

- Saturation of the void and/or compressible medium with water will negate the function of the void or compressible medium, if it becomes frozen, and therefore saturation should be avoided. It is recommended that the structure grade be kept as high as possible, and that adequate site grading be provided to promote surface water drainage away from the structure to reduce the potential for water infiltration to the void form.

7.6.2.8 Grade Beam and Pile Caps

Pile caps and grade beams should be constructed with adequate reinforcement. A void space (minimum of 150 mm) should be constructed below all pile caps and grade beams. The void material should be a low compressive strength, biodegradable material, or an alternate purpose-manufactured void form.

A minimum 150 mm thick void form should be placed under all pile caps and grade beams to accommodate soil movements. The void material should be a low compressive strength, preferably biodegradable cardboard material (or reliable non-biodegradable). The intent of the void form is to limit pressures applied to the underside of grade beams, pile caps, etc. due to heaving of the underlying subgrade. Significant frost heave forces may be generated if the void is allowed to become saturated and to freeze. Therefore, the upper 0.3 m of the backfill should consist of compacted clay extending a minimum of 3.0 m from the grade beam with the final surface provided with sufficient gradient to keep water from entering the void space, freezing, and causing significant uplift pressures on the undersides of pile caps and grade beams.

7.7 Grade Supported Concrete Slabs

WSP understands that concrete slabs-on-grade will be constructed at the O&M building and substations. Properly designed and constructed, grade supported concrete slabs at these locations are expected to perform satisfactorily although some heaving should be expected due to seasonal variations in soil moisture. Providing positive surface drainage away from the concrete slabs is recommended to help reduce the extent of heaving.

In addition to the above, key to improving concrete slab-on-grade performance is to prepare the subgrade in accordance with Section 7.7.2 to help reduce the risk of non-uniform performance. Regardless of the steps taken to help reduce heaving of grade supported floor slabs, they will not necessarily eliminate the risk of unacceptable slab performance. If this risk is to be eliminated, a structurally supported concrete slab with a minimum void space of 150 mm below should be used.

Grade supported slabs located in unheated areas are also subject to heave where there is a potential for the subgrade to become frozen. The frost susceptibility of clay and silt is high, particularly if the clay or silt becomes wet. Frost-related slab performance risks are generally limited to exterior slabs and sidewalks. Frost heave is not a significant risk to interior slabs for heated structures unless the slabs will be subjected to freezing conditions during construction. If the subgrade is allowed to freeze after sub-base and base courses have been placed, some differential movements are expected to occur, potentially resulting in mid- to long-term movements of the slab up to (but not limited to) the frost heave amounts. Slabs for spaces that are planned to be heated should not be allowed to freeze once the concrete has been placed. Where portions of the slab are expected to be potentially exposed to frost during service life, i.e., such as at an overhead door if used, these areas should be suitably protected from freezing.

7.7.1 Minimum Gravel Structure and Slab Thickness

Grade supported slabs should be underlain by a minimum 150 mm thick gravel structure consisting of base course material, uniformly compacted to a minimum of 98% and 100% of SPMDD for the sub-base and base course, respectively. This gravel structure is in addition to any additional gravel and/or geotextile required during

subgrade preparation to 'bridge' soft soil and improve subgrade stability for constructability, if encountered during construction. All base and sub-base materials should meet the grading and durability specifications of SMHI Class 33 or 35 Base Course or Type 8 Subbase materials. SMHI Pit Run Aggregate can be used for bridging layers where subgrade repairs are required. Alternative gradations can be reviewed for acceptance upon request.

For the purposes of concrete slab thicknesses and reinforcement design (i.e., rigidity), grade-supported concrete slabs designed on the minimum recommended gravel structure above and constructed on an approved subgrade prepared as outlined in Section 7.7.2 may be designed assuming a Westergaard subgrade reaction modulus (k) of 65 MPa/m on the clay till subgrade at the O&M Building and Substation sites. If additional subgrade stiffness is required, WSP can provide recommendations for additional gravel structure thickness on request.

To reduce the effects of slab movements on the building structure, the following provisions are recommended:

- 1) Design equipment and partition walls bearing on the slab with a void space to minimize the potential for structural damage if the slab heaves.
- 2) Provide control joints at regular intervals in the slab to reduce random cracking.
- 3) Construct the floor independent of structural elements using isolation joints.
- 4) Due to the potential for frost heaving of exterior slabs, all sidewalks and apron slabs (if utilized) should be structurally separate from the structure and should not be dowelled into the grade beam or the interior slabs, except at doorway locations.
- 5) Where it is proposed to dowel exterior slabs into structure components, or where frost related movement of the slab is undesirable, rigid insulation could be placed on the subgrade and below the slab concrete and granular structure, to reduce the effects of frost penetration beneath the slab. Placement of vertical insulation along the vertical sides of grade beams should be avoided to allow beneficial heat loss from the building and lessen frost effects.
- 6) A polyethylene vapour barrier may be utilized directly below floor slabs to limit moisture migration through the slab. It should be noted that curing problems (delays before final finishing), curling of the slab at the edges and shrinkage cracking might be encountered where the concrete slab is cast directly on the vapor barrier. Where the concrete will not require a finished floor covering, a vapour barrier is not necessarily required.

7.7.2 Subgrade Preparation and Construction Recommendations

The following recommendations for subgrade preparation and construction of grade supported interior slabs are provided on the assumption that the risks outlined in Section 7.7 regarding potential slab movements are acceptable to the owner. As noted, if the performance risks and potential movements of grade-supported slabs are not tolerable to the owner, WSP recommends using a structural floor supported on piles designed using the foundation design recommendations presented in this report.

Recommendations for subgrade preparations and construction of grade-supported slabs are as follows:

- 1) Excavate to design subgrade elevation, which should be taken as the top of the slab minus the thickness of the slab and underlying granular fill. Further remove any unsuitable/ deleterious material such as organic soils or fill if discovered during construction. Organic soil may be defined as any soil containing greater than 6% organic content by weight. Subgrade soils are expected to consist of stiff to firm clay.

- 2) Final excavation cuts to subgrade design elevation should be undertaken with an excavator equipped with a smooth bladed bucket and operating from the edge of the excavation. Construction traffic should not be allowed directly on the exposed subgrade.
- 3) Once final subgrade is achieved, the subgrade should be evaluated by qualified personnel to detect soft or weak areas, and to verify that soils are as expected and that no unsuitable materials remain.
- 4) Provided the subgrade can support heavy equipment without excessive disturbance, and where practical, the subgrade should be proof rolled using a fully loaded tandem dump truck to identify soft, weak, or compressible areas. The suitability of the subgrade for proof rolling should be assessed by the geotechnical engineer at the time of construction.
- 5) Where weak zones are observed at or slightly below the subgrade during or prior to proof rolling, the placement of a bridging layer to support construction of the design granular structure would likely be required. The depth of sub-excavation to allow for the placement of this bridging layer would be evaluated at the time of construction based on the elevation of the exposed subgrade surface in relation to the design bottom of granular structure elevation. Actual procedures, sub-excavation depths and recommended sub-excavation backfill materials should be determined by the geotechnical engineer at the time of construction according to the subgrade conditions encountered and the characteristics of the bridging material available.
- 6) Fill materials required to raise grades to the underside of the granular section described above would ideally consist of additional sub-base, placed in maximum 200 mm thick loose lifts, and uniformly compacted to 98% of SPMDD. Granular fill materials should meet the requirements of SMHI Class 33 or 35 base course or Type 8 subbase.
- 7) The subgrade should be protected from frost, desiccation, inundation, and excessive wheel loads at all times except as required for proof-rolling.
- 8) Subgrade preparation and fill placement under freezing conditions should be avoided. The use of frozen soils for fill, placement/compaction of frozen soils, and placement/compaction of soils or concrete slab over frozen subgrade, should also be avoided. These practices carry a risk of differential slab movements upon thawing and could cause slab cracking potentially before the slab is put into service. Before the slab concrete is placed, and depending on the season of construction, the subgrade should be checked for the absence of freezing conditions such as with frost probes. The concrete slab granular design structure provided in this report is intended for use under non-freezing conditions only. If any portion of the design slab structure is exposed to freezing conditions after the concrete has been placed, or if any portion remains frozen during concrete placement, damage to the slab may result. If the slab subgrade is frozen, it must be thawed and potentially repaired before placing fill, allowing time for thaw-settlements to occur. Rolling the subgrade after thawing is complete may be suitable to mitigate thaw-related settlement potential.

7.7.3 Structurally Supported Concrete Slabs

Structurally supported concrete slabs should be designed and constructed so that they have a minimum void space of 150 mm beneath the slab. The void form material should preferably be bio-degradable and should collapse easily when subject to loads exceeding those due to the dead weight of the concrete slab and live loads due to construction equipment and personnel.

Although moisture conditioning of the subgrade to greater than its OMC is not considered necessary to help reduce soil swelling potential where structurally supported slabs are to be used, precautions should still be

undertaken during construction to prevent unacceptable drying and/or disturbance of the subgrade and also to ensure that the subgrade has adequate support strength during the concrete casting and curing stages for a structural floor slab.

7.8 Gravel Pavement Structure

7.8.1 General Discussion

Performance and construction risks for granular pavements are generally similar to those presented in Section 7.7 for grade supported slabs; however, their winter exposure makes them more susceptible to performance issues induced by frost effects such as frost boils, or weakened subgrade conditions during spring thaw, particularly within the seasonal depth of frost penetration. In this regard, raising grades at the Site to the extent practicable above surrounding grades, providing good surface drainage away from the structures towards perimeter drainage features such, and providing regular maintenance will improve the performance of granular pavement structure(s).

7.8.2 Design Traffic Loading

Design traffic loading information was not available at the time of this report, and in this regard, assumptions of anticipated traffic loads and design life were required for providing traffic surface recommendations. Recommended light-duty gravel sections outlined herein have been provided based on the use of the area by light passenger vehicles (i.e., cars with some 1-ton or lighter truck traffic) with an equivalent single axle load (ESAL) of 7×10^4 . Heavy-duty gravel sections are recommended where heavy vehicle loads (i.e., tractor-trailers and delivery trucks) will traffic and have been designed assuming 100,000 passes of a CL-800 or equivalent truck (ESAL = 8×10^5). The gravel sections should be reviewed during detailed design for actual design traffic loading. The proposed design life is 15 years.

The following gravel sections are intended as minimums for the stated design surface life. These sections should be reviewed during detailed design for actual design traffic loading and performance requirements. Where vehicle weights and/or the cumulative average annual traffic load exceeds the assumption above, the performance period of the gravel surface could be expected to be less than the design life stated above.

7.8.3 Granular Surfacing

Soil conditions vary across the area of investigation and may even vary across the access route to each proposed wind turbine location. Group indices were obtained from depths of about 0.6 to 0.9 m at each borehole location and a correlation to the assumed soaked subgrade California Bearing Ratio (CBR) was made using the Saskatchewan Highways subgrade strength evaluation method (SMHI 2001). In general, most surficial soils were composed of glacial clay tills with CBR values ranging from 2.5 to 7.0 with a design CBR of approximately 4.0. Where sands were the predominant surficial soil (such as at boreholes SS-BH25-03, SS-BH25-04, SS-BH25-44 and SS-BH25-53), the CBR ranged from 13 to 15. As such, the recommended granular sections have been divided in three surficial soil groups: Sands (CBR = 14), Average Clay (CBR = 4), and Weak Clay (CBR = 2.5). It is noted that weak clay was only encountered in boreholes SS-BH25-5, SS-BH25-11B, SS-BH25-12, and SS-BH25-32, although the presence of sloughs or water ponding will also indicate weaker soil conditions when encountered during construction. It is assumed that topsoil will be removed prior to construction of any granular surfacing. If site-specific recommendations are required, please contact WSP for additional information.

Recommended gravel surfaces for light and heavy-duty areas constructed above prepared subgrades, as outlined in Section 7.7.2 are summarized in Table 22. The recommended structures are based on the above design assumptions.

If a geogrid is placed between the subgrade and the subbase material, a reduction of the granular thickness may be warranted. WSP has not provided estimated reduction values and recommends that this evaluation should be provided by the specific geogrid provider if the use of a geogrid is being considered.

Table 22: Granular Design Sections

Material	Recommended Minimum Thickness (mm)		
	Weak Clay (CBR = 2.5)	Average Clay (CBR = 4.0)	Sands (CBR = 13.0)
Light Duty Loading (ESAL = 7x10⁴)			
Base Course	125	100	75
Subbase	450	350	150
Total Structure Depth	575	450	225
Heavy Duty Loading (ESAL = 8x10⁵)			
Base Course	200	200	100
Subbase	500	400	200
Total Structure Depth	700	600	300

Notes: mm = millimetres; CBR = California Bearing Ratio

1. Base Course refers to 18 mm maximum, SMHI Type 33 or 35, crushed gravel with a minimum CBR of 60 and compacted to 100% of SPMDD.
2. Sub-base refers to 50 mm maximum, SMHI Type 8 gravel with a minimum CBR of 20 and compacted to not less than 100% of SPMDD.
3. Elevations at the finished gravel surface should be adjusted to allow good surface drainage. A minimum cross slope gradient of two (2) percent is recommended.
4. For graveled traffic surfaces, regular maintenance should be undertaken to maintain grades and surface drainage. Placement of additional granular base may be required in the future.
5. Reinforced concrete pads should be provided for heavily loaded storage areas and where unloading occurs.
6. All granular material should be placed in maximum 150 mm thick lifts and uniformly compacted to a minimum of 100 percent of SPMDD for granular base and 100 percent of SPMDD for granular sub-base. Depending on the subgrade reaction at the time of compaction, it may be necessary to reduce the degree of compaction for the first lift of sub-base, provided any reduction is approved beforehand by the geotechnical engineer.
7. Construction quality control, including approval of granular materials and compaction testing should be performed on a full-time basis by qualified geotechnical representation working directly for the Owner. This is considered to be particularly important for compacted granular material, whereby uniformity of compaction is as important as achieving the minimum compaction specified.
8. The design is based on the minimum design thickness. The recommended granular thicknesses should be re-evaluated when traffic design parameters become available.

The design gravel surfaced sections provided assume a properly compacted structure constructed on a stable subgrade prepared in accordance with subgrade preparation recommendations outlined in Section 7.7.2.

Additional measures recommended to improve long-term granular traffic surface performance are as follows:

- Place a geotextile fabric to separate the subgrade from the design gravel section.
- Maximize drainage slopes.
- Minimize drainage path lengths.
- Maintain finished grades as high as possible.
- Provide regular maintenance of the gravel surface (grading) to prevent rutting and water infiltration and subsequent softening of the subgrade.

- Concrete pavement sections should be provided for any areas where heavy static wheel loads such as delivery trucks will be applied during unloading, and for any areas where trailer dollies will bear on the gravel surface.

Adequate drainage is critical to the performance of granular traffic surfaces. The final granular surface should be graded at a minimum of 2% towards perimeter ditches or to catch basins. Ditches, if used, should be a minimum of 1 m below the bottom of the design granular pavement thickness.

It should be expected that maintenance of a granular surface will be required to provide satisfactory long-term performance. Regular grading and repairs to observed potholes or areas where water may be ponding should be addressed immediately. Ongoing maintenance is essential to remove ruts and reduce the potential for rutting and ponding of water which will otherwise promote softening and further disturbance of the granular traffic surface and subgrade over time. The granular surfaced traffic section is expected to require re-grading as needed and could be as often as daily or weekly depending on environmental conditions and traffic volumes. Due to trafficking, weathering, and re-grading, maintenance should include replenishment of base course materials on a regular basis. Reduced traffic and loading restrictions may need to be considered during spring thaw and during periods of prolonged rainfall to reduce the potential for rutting and deterioration of the subgrade.

Heavy vehicle traffic should be limited to heavy-duty areas. Allowable loads may be reduced during spring thaw, or after prolonged periods of precipitation when subgrade conditions will be at their weakest. Under these conditions, traffic should avoid sharp turns and hard braking.

By mitigating the deterioration of the granular surface and subgrade through proper maintenance and design controls, an increased number of rehabilitation alternatives may be available to lengthen the serviceability of the granular surfaced area.

7.9 Crane Pads

WSP understands that gravel crane pads will be required during the construction of the wind farm turbines. The crane pad subgrade should be prepared as outlined in Section 7.7.2. The recommendations assume that turbine foundation excavations will be backfilled prior to loading cranes to erect the towers and turbines. Otherwise, additional stability assessments shall be required to determine setbacks.

Excavation of all topsoil/organic materials to undisturbed till and/or bedrock will be required to prepare the crane pad subgrade. Following initial excavation, a proof-roll of the exposed crane pad subgrade should be conducted by qualified geotechnical personnel. Any soft/wet areas encountered at the time of the proof-roll will require removal and replacement with an approved structural fill.

Structural fill placement for the crane pad should consist of SMHI Type 8 (or an approved equivalent) for an approximate depth of 600 mm (approximately 300 mm above existing grades). Construction of the crane pad should be in accordance with methods of structural fill placement outlined in Section 7.3.

The granular fill should be placed in lifts not exceeding 150 mm loose thickness and compacted to at least 100% of SPMDD at moisture contents within -3% to +1% of OMC. Depending on the compaction equipment, the moisture content requirements may be omitted for the coarse aggregate if it can be proven that adequate compaction can be met independently of the moisture content in the field. Granular fill should extend at least 1.5 m beyond the edge of the crane pads. Full-time geotechnical inspections and quality control field density and laboratory testing are necessary during the placement of the structural fill.

The factored bearing resistance (ULS) for a granular fill thickness of 600 mm can be taken as 150 kPa.

7.10 Seismic Site Classification and Seismic Hazard

Available information was reviewed to assess the seismic classification of the project site. The reviewed information included the borehole logs, the NBCC 2020 (NCR 2022), and CFEM (CGS 2023).

The site classification for seismic site response is provided in Sections 4.1.8.4 of NBCC 2020, and is determined using the expected shear wave velocity, standard penetration resistance N-value and undrained shear strength within the top 30 m. Based on the available information, the average ground properties in the upper 30 m at the site are inferred to be Site Class D

Liquefaction potential due to an earthquake is very low due to soil type and relative density / consistency. Seismic hazards in the site area are very low, and significant events are very rare.

7.11 Foundation Concrete

Where concrete elements outlined in this report and all other concrete in contact with the local soil will be subjected in service to weathering, sulphate attack, a corrosive environment, or saturated conditions, the concrete should be designed, specified, and constructed in accordance with concrete exposure classifications outlined in the latest edition of CSA Standard A23.1, Concrete Materials and Methods of Concrete Construction. In addition, all concrete must be supplied in accordance with current Saskatchewan and NBCC 2020 requirements.

Soils in Saskatchewan typically have relatively high concentrations of sulphate. Soil chemistry lab test results in Table 14 indicate that the soluble sulphate content in all test hole locations ranges from less than the minimum recordable value (i.e., <0.050%) to 6.87% which indicates the soils across the site range from below moderate to very severe risk of concrete exposure to sulphate attack.

All foundation concrete should be designed in accordance with the latest version of CSA Standard A23.1, Tables 2 and 3, assuming an S-1 (very severe) exposure rating, and the following:

- Concrete class: S-1 (ref.: CSA A23.1-, Table 3).
- Cement type: HS or HSb, HSLb or HSe (ref.: CSA A23.1, Table 6 and Table 7).
- Maximum Water to Cement Ratio: 0.4
- Minimum Specified Compressive Strength: 35 MPa within 56 days
- Air content: Category 1 as per CSA A23.1 Table 4 for 20 mm maximum aggregate size 5% to 8%.

Any imported soils should be tested for water-soluble sulphate concentration and associated sulphate exposure classification.

Concrete properties should be specified by the structural engineer to meet structural requirements and exposure to freeze and thawing and/or chlorides. Note that requirements of American Concrete Institute (ACI) or DNV may govern based on the specific standard to which the concrete for the wind turbines are being designed.

8 DESIGN REVIEW, CONSTRUCTION MONITORING AND MATERIALS TESTING

All engineering design recommendations presented in this report assumed that an adequate level of testing and monitoring will be provided during construction by either the designer or other suitably qualified personnel. Furthermore, it is assumed that all construction will be carried out by a suitably qualified contractor experienced in foundation and earthworks construction.

An adequate level of testing and monitoring is provided in Table 23.

Table 23: Minimum Recommended Quality Control Requirements

Construction Phase	Minimum Recommended Level of Quality Control
Earthworks	Full time monitoring of fill quality and subgrade conditions and compaction testing. Full time monitoring and geotechnical inspection of long-term excavations.
Shallow Foundation	Design review and regular monitoring of each bearing surface during construction
Deep Foundations	Design review and full-time monitoring during construction
Concrete	Testing of plastic and hardened concrete in accordance with the latest editions of CSA A23.1 and A23.2. Review of concrete supplier's mix designs for conformance with prescribed and/or performance concrete specifications.

WSP requests the opportunity to review the design drawings, and the installation of the foundations, to confirm that the geotechnical recommendations have been correctly interpreted. WSP would be pleased to provide any further information that may be needed during design and to advise on the geotechnical aspects of specifications for inclusion in contract documents. WSP can provide design modifications as required at the time of construction should subsurface conditions be found to vary from those described herein.

9 CLOSURE

WSP prepared this report solely for the use of the intended recipient, Enbridge, in accordance with the professional services agreement between the parties. In the event a contract has not been executed, the parties agree that the WSP General Terms for Consultant shall govern their business relationship which was provided to you prior to the preparation of this report.

The report is intended to be used in its entirety. No excerpts may be taken to be representative of the findings in the assessment.

The conclusions presented in this report are based on work performed by trained, professional and technical staff, in accordance with their reasonable interpretation of current and accepted engineering and scientific practices at the time the work was performed.

The content and opinions contained in the present report are based on the observations and/or information available to WSP at the time of preparation, using investigation techniques and engineering analysis methods consistent with those ordinarily exercised by WSP and other engineering/scientific practitioners working under similar conditions, and subject to the same time, financial and physical constraints applicable to this project.

WSP disclaims any obligation to update this report if, after the date of this report, any conditions appear to differ significantly from those presented in this report; however, WSP reserves the right to amend or supplement this report based on additional information, documentation or evidence.

WSP makes no other representations whatsoever concerning the legal significance of its findings.

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WSP has provided services to the intended recipient in accordance with the professional services agreement between the parties and in a manner consistent with that degree of care, skill and diligence normally provided by members of the same profession performing the same or comparable services in respect of projects of a similar nature in similar circumstances. It is understood and agreed by WSP and the recipient of this report that WSP provides no warranty, express or implied, of any kind. Without limiting the generality of the foregoing, it is agreed and understood by WSP and the recipient of this report that WSP makes no representation or warranty whatsoever as to the sufficiency of its scope of work for the purpose sought by the recipient of this report.

In preparing this report, WSP has relied in good faith on information provided by others, as noted in the report. WSP has reasonably assumed that the information provided is correct and WSP is not responsible for the accuracy or completeness of such information.

Benchmark and elevations used in this report are primarily to establish relative elevation differences between the specific testing and/or sampling locations and should not be used for other purposes, such as grading, excavating, construction, planning, development, etc.

Design recommendations given in this report are applicable only to the project and areas as described in the text and then only if constructed in accordance with the details stated in this report. The comments made in this report on potential construction issues and possible methods are intended only for the guidance of the designer. The number of testing and/or sampling locations may not be sufficient to determine all the factors that may affect construction methods and costs. We accept no responsibility for any decisions made or actions taken as a result of this report unless we are specifically advised of and participate in such action, in which case our responsibility will be as agreed to at that time.

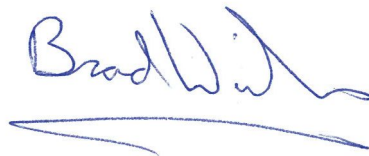
Overall conditions can only be extrapolated to an undefined limited area around these testing and sampling locations. The conditions that WSP interprets to exist between testing and sampling points may differ from those that actually exist. The accuracy of any extrapolation and interpretation beyond the sampling locations will depend on natural conditions, the history of Site development and changes through construction and other activities. In addition, analysis has been carried out for the identified chemical and physical parameters only, and it should not be inferred that other chemical species or physical conditions are not present. WSP cannot warrant against undiscovered environmental liabilities or adverse impacts off-Site.

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This limitations statement is considered an integral part of this report.

Signature Page

WSP Canada Inc.



Lisa Nehring, P.Eng.
Lead Geotechnical Engineer

Brad Wiebe, M.Sc., P.Eng.
Senior Principal Geotechnical Engineer

LDN/BW/jlb

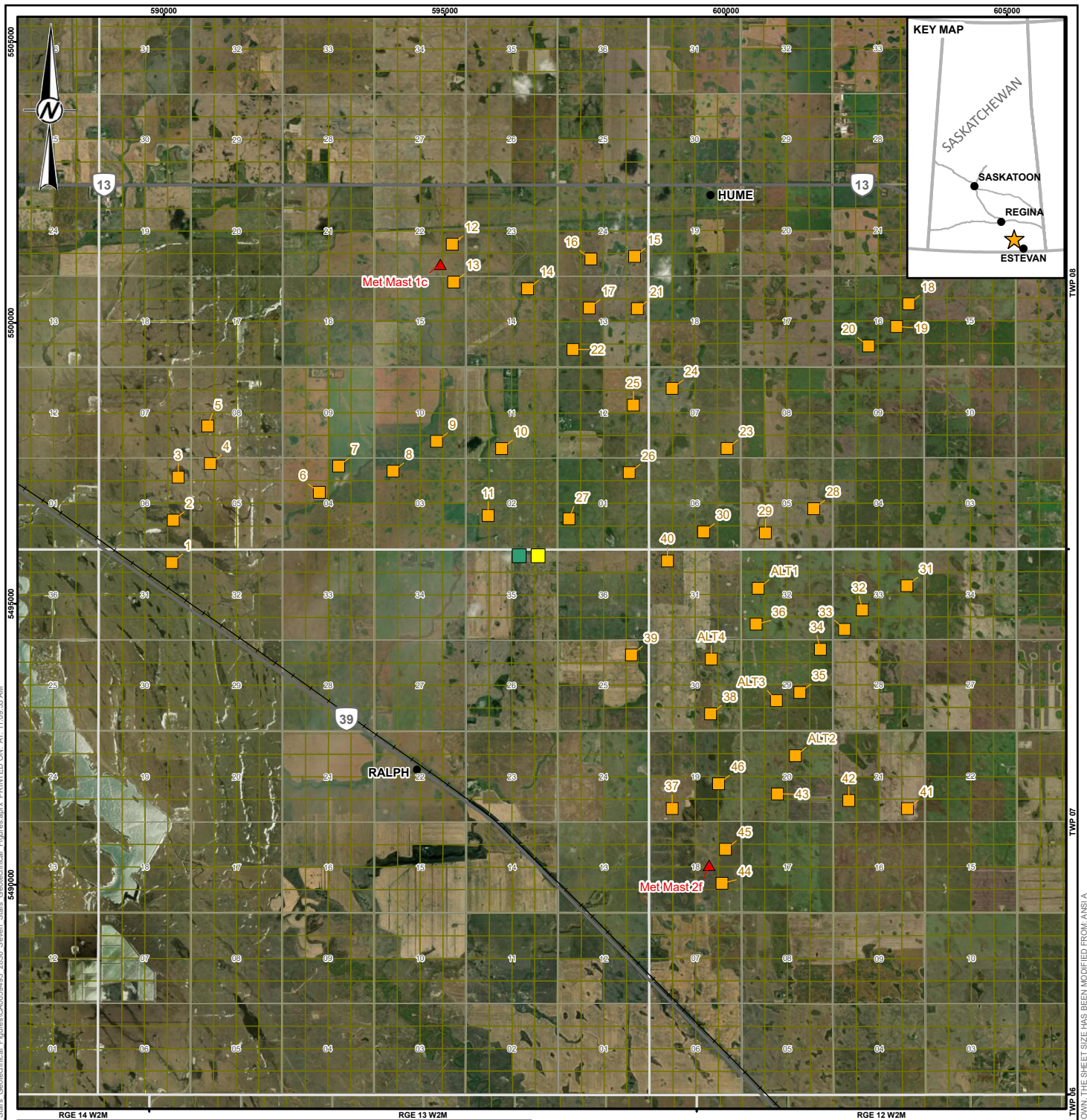
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Discipline	Sk.	Reg. No.	Signature
GEOTECHNICAL		13265	
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10 REFERENCES

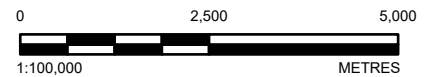
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Figures



LEGEND

- POPULATED PLACE
- PRIMARY HIGHWAY
- RAILWAY
- LEGAL SUBDIVISION
- ▲ MET MAST
- O&M BUILDING
- SUBSTATION
- TURBINE



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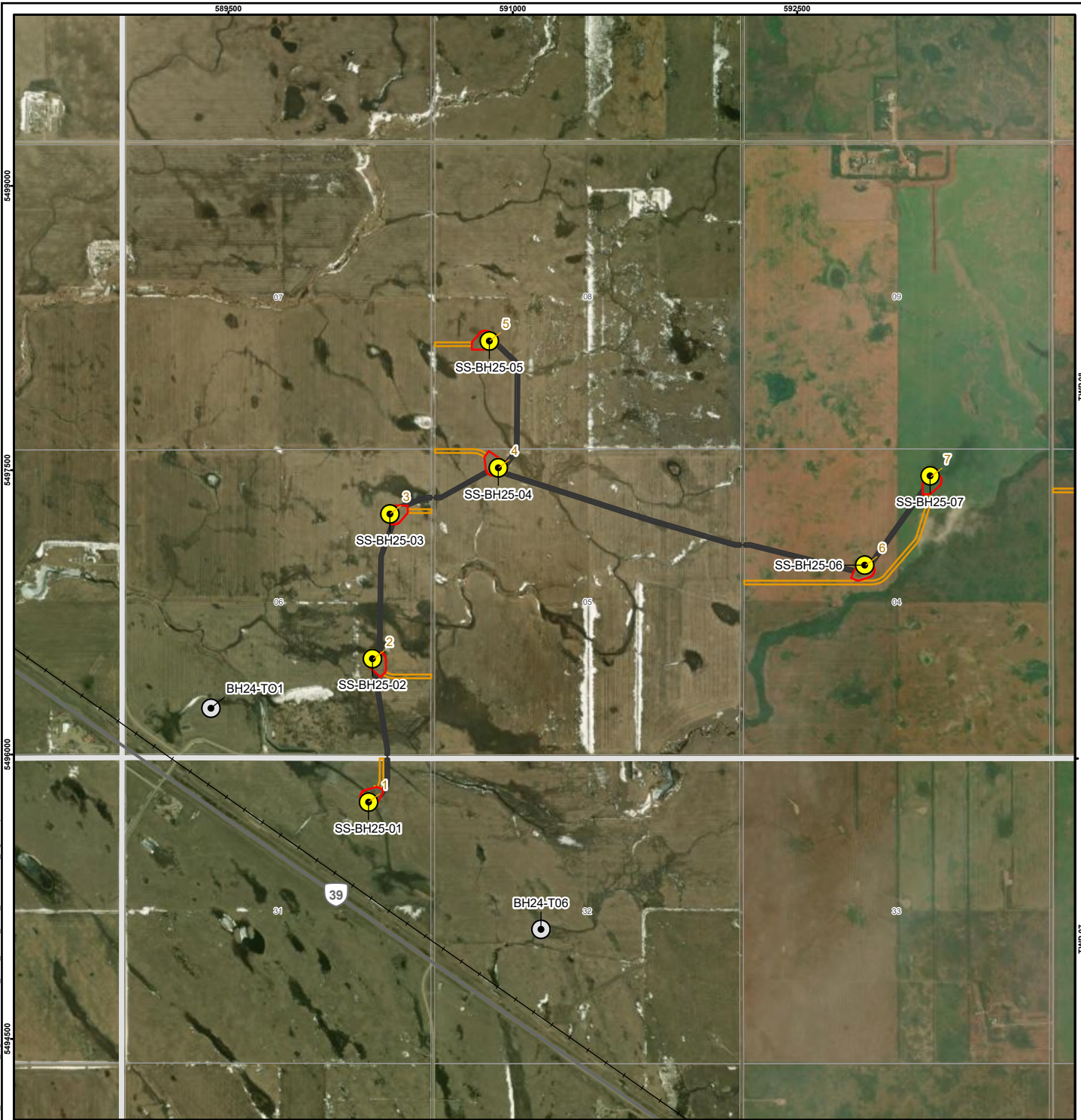
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PREPARED	RA
REVIEWED	LN
APPROVED	BW

PROJECT
ENBRIDGE SEVEN STARS WIND FARM GEOTECHNICAL INVESTIGATION

TITLE
SITE LOCATION PLAN AND KEY PLAN

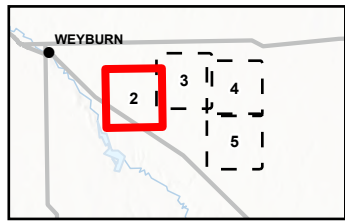
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LEGEND

- PIEZOMETER
- HISTORIC BOREHOLE
- POPULATED PLACE
- PRIMARY HIGHWAY
- RAILWAY
- PROPOSED ACCESS ROAD
- PROPOSED CRANE WALK
- PROPOSED TURBINE PAD



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TITLE
BOREHOLE LOCATION PLAN

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PREPARED	RA
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APPROVED	BW

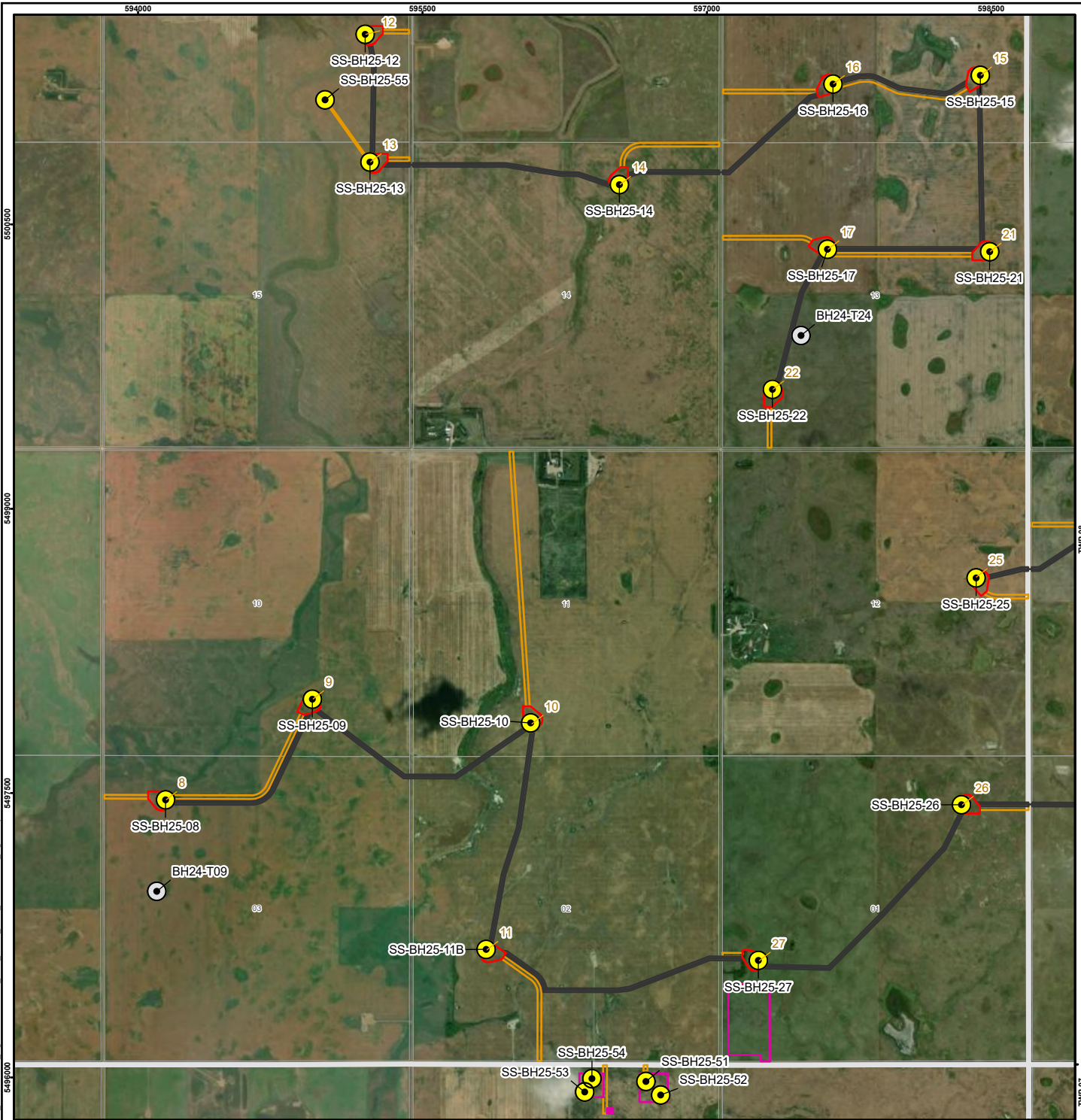
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TWP.07

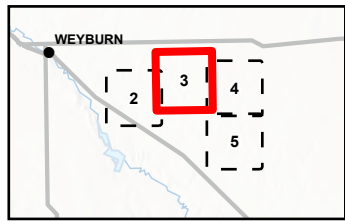
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LEGEND

- PIEZOMETER
- HISTORIC BOREHOLE
- POPULATED PLACE
- PROPOSED ACCESS ROAD
- PROPOSED BUILDING PAD
- PROPOSED CRANE WALK
- PROPOSED TURBINE PAD



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TITLE
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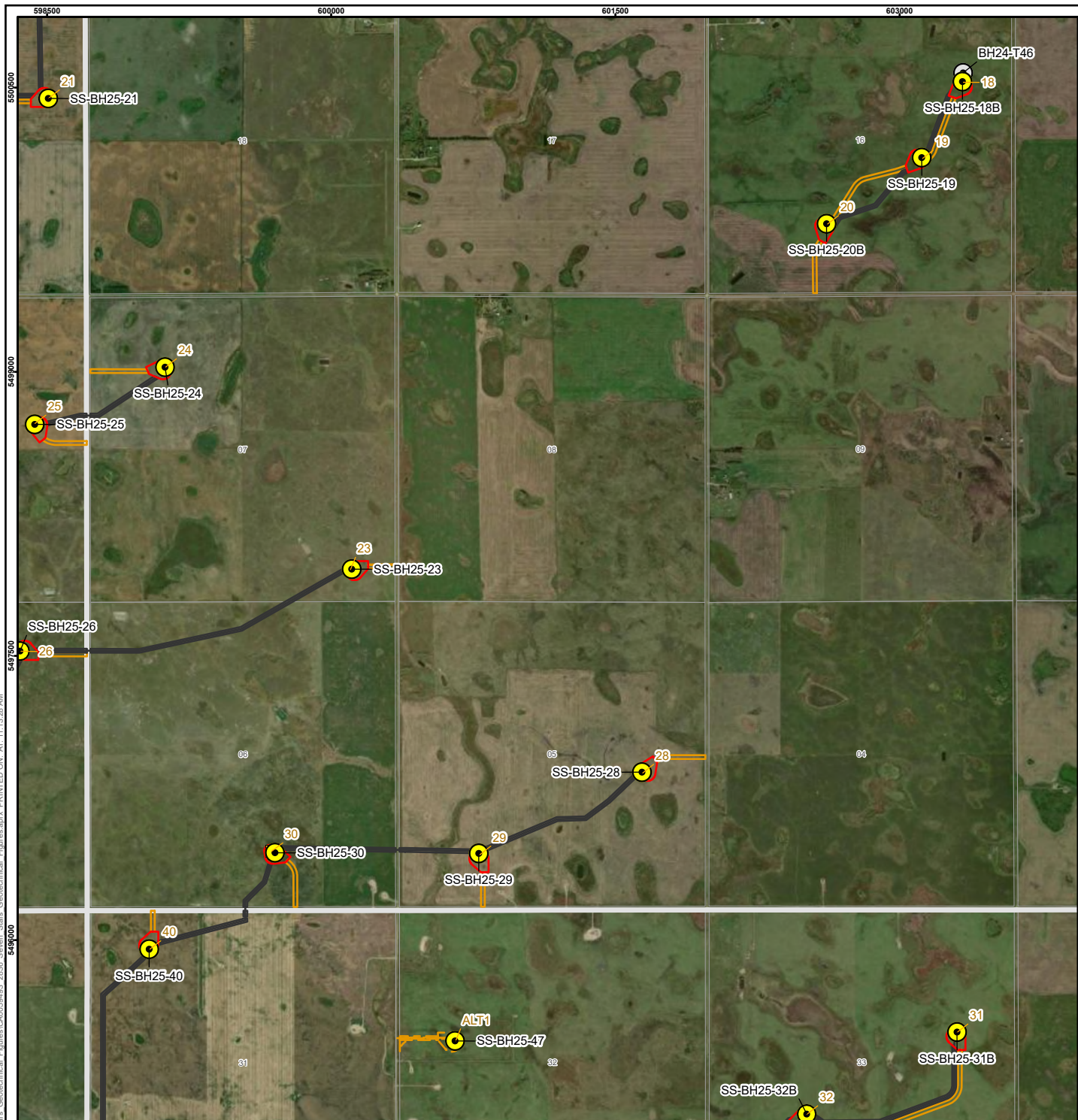
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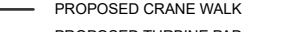
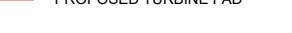

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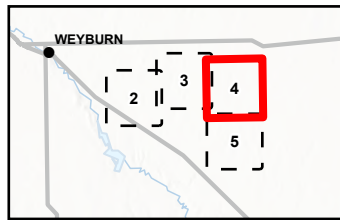
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LEGEND

-  PIEZOMETER
-  HISTORIC BOREHOLE
-  POPULATED PLACE
-  PROPOSED ACCESS ROAD
-  PROPOSED ALTERNATIVE ROAD
-  PROPOSED CRANE WALK
-  PROPOSED TURBINE PAD



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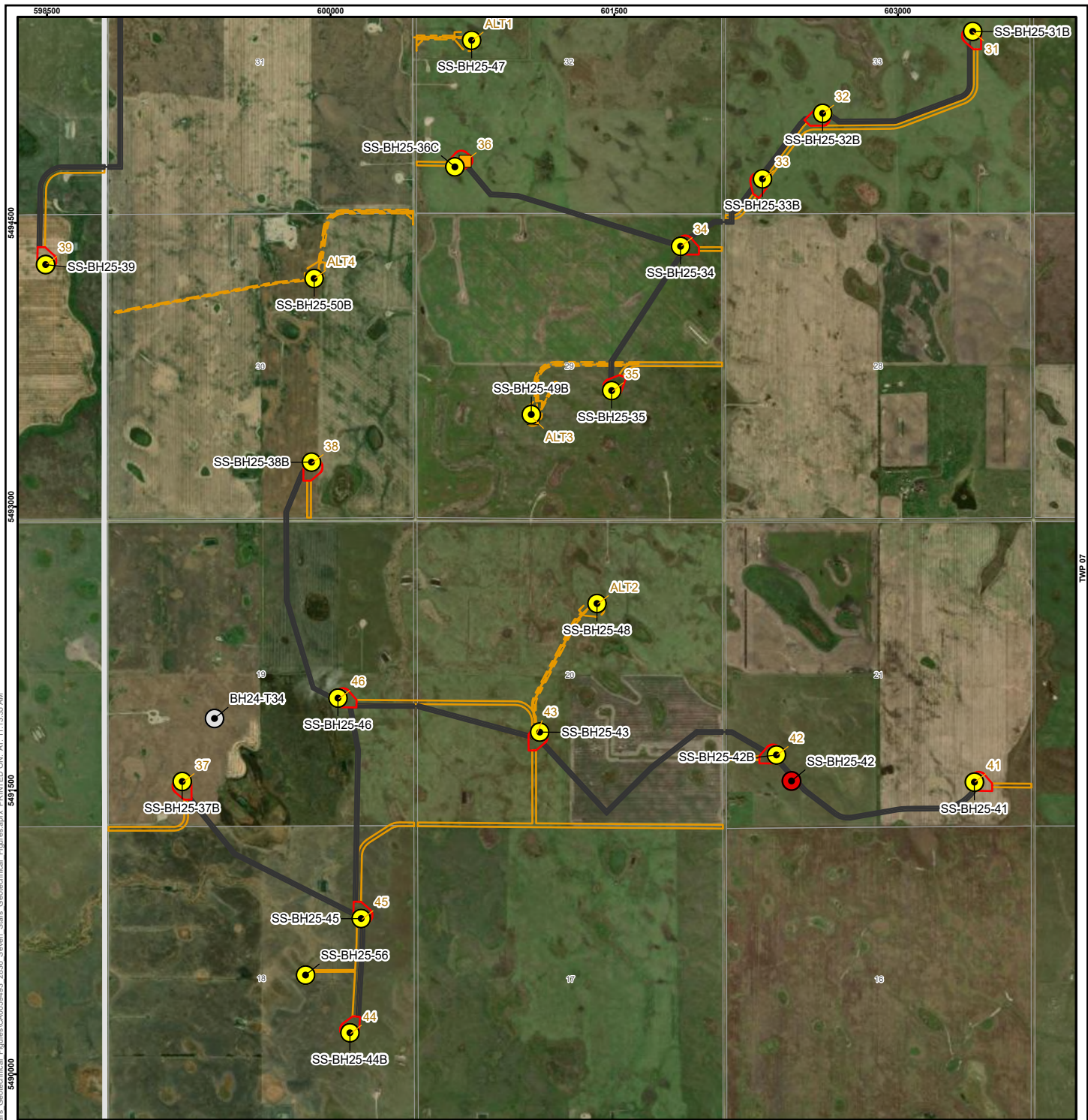
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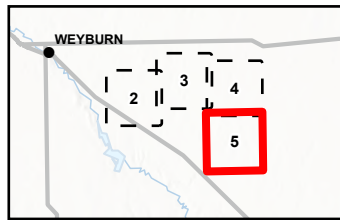
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TWP 07

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LEGEND

- BOREHOLE
- PIEZOMETER
- HISTORIC BOREHOLE
- POPULATED PLACE
- PROPOSED ACCESS ROAD
- - - PROPOSED ALTERNATIVE ROAD
- PROPOSED CRANE WALK
- PROPOSED TURBINE PAD



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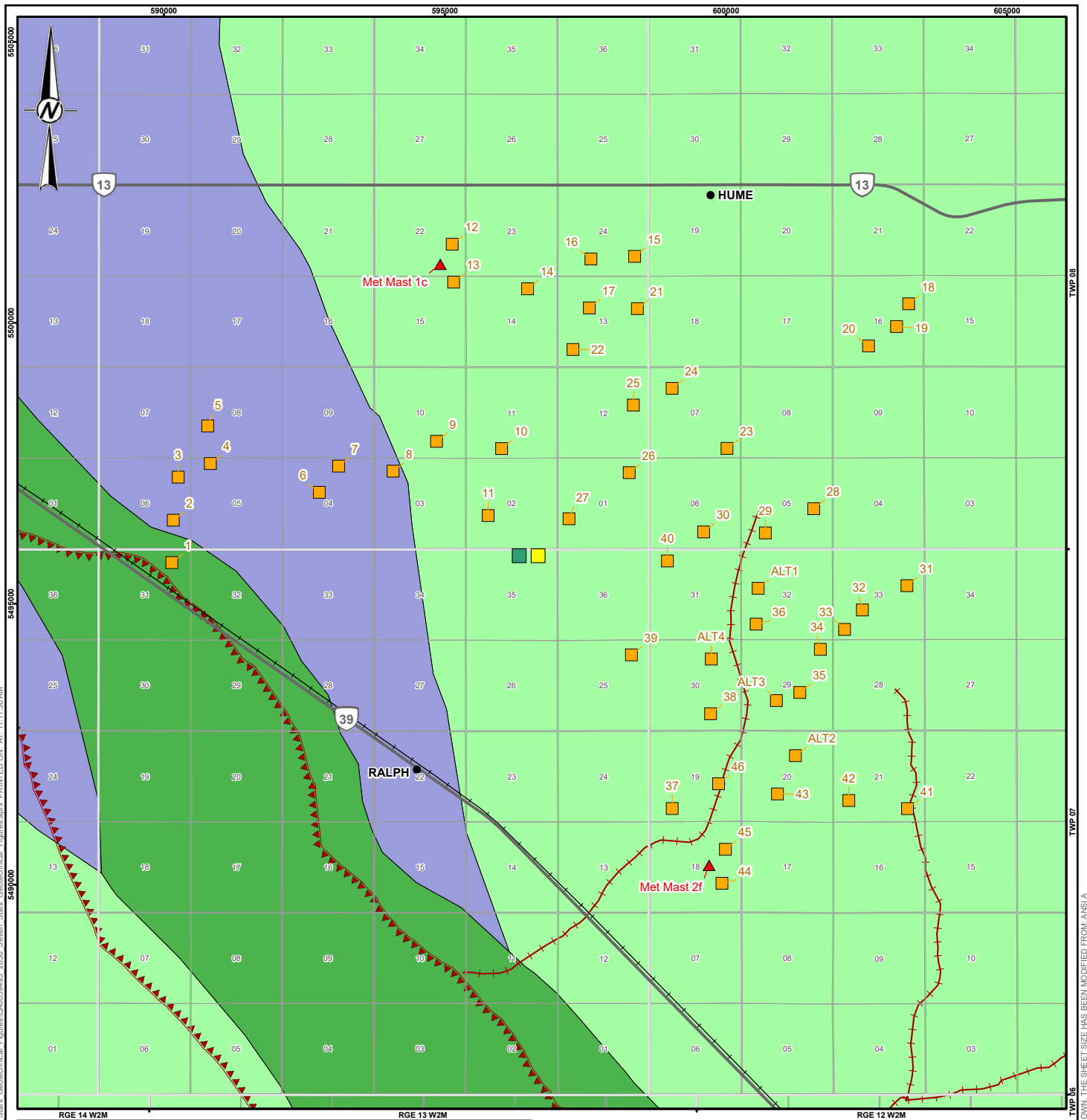
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CONSULTANT



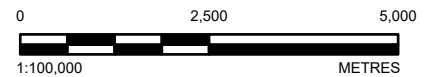
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APPROVED	BW

PROJECT NO.	CONTROL	REV.	FIGURE
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LEGEND

- | | |
|-------------------|---|
| ▲ MET MAST | SURFICIAL GEOLOGY - LINEAR LANDFORMS (1:250K SCALE) |
| ■ O&M BUILDING | ▼▼▼ SPILLWAY, MELT WATER CHANNEL (MAJOR) |
| ● POPULATED PLACE | —+— MELT WATER CHANNEL (MINOR) |
| ■ SUBSTATION | SURFICIAL GEOLOGY (1:1M SCALE) |
| ■ TURBINE | GLp |
| — PRIMARY HIGHWAY | Me |
| —+ RAILWAY | Mp |



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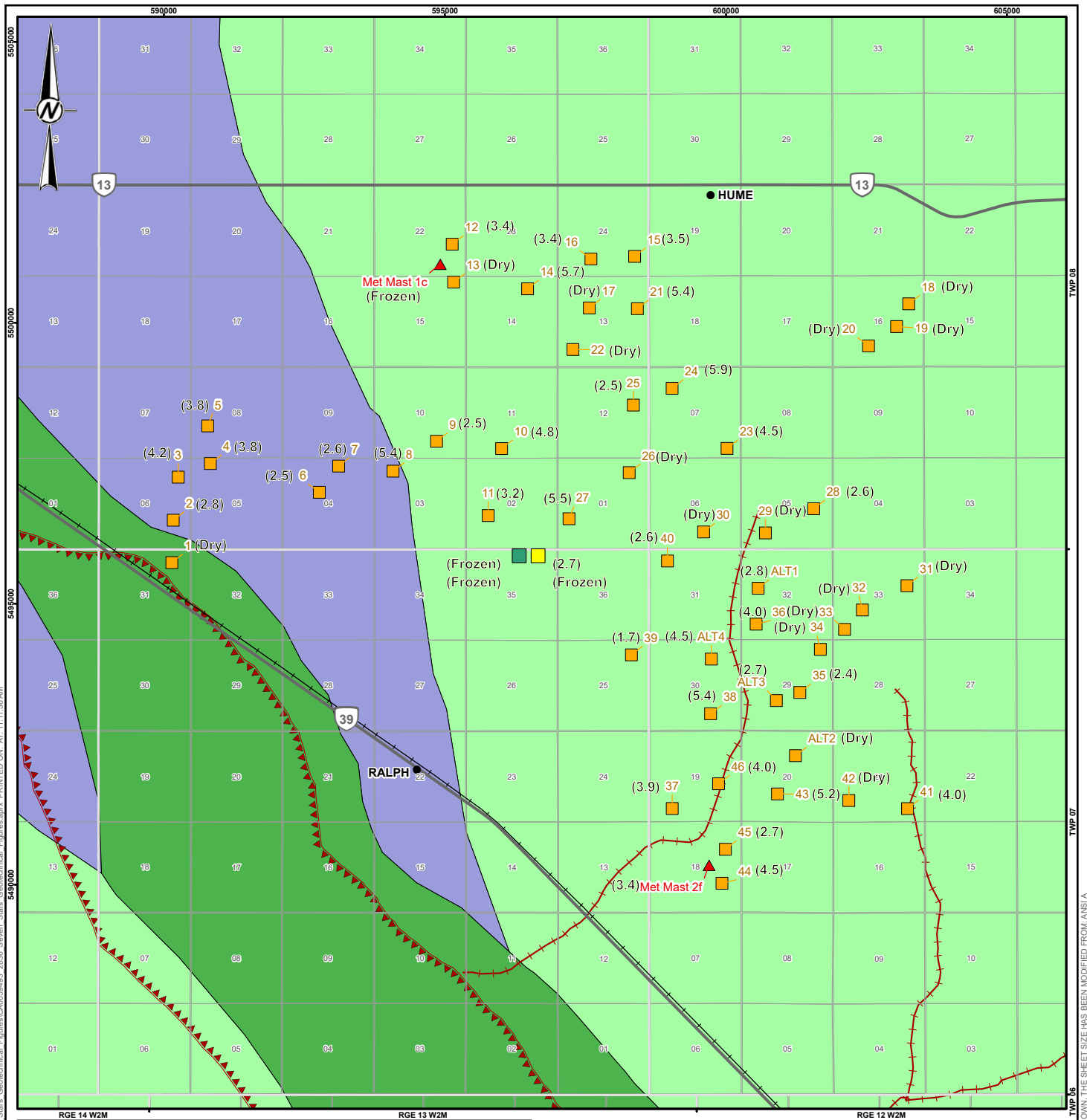
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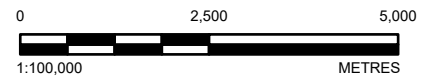
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 TITLE
SURFICIAL GEOLOGY

PROJECT NO.	CONTROL	REV.	FIGURE
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LEGEND

- | | |
|--------------------------|---|
| ▲ MET MAST | SURFICIAL GEOLOGY - LINEAR LANDFORMS (1:250K SCALE) |
| ■ O&M BUILDING | ▼▼▼ SPILLWAY, MELTWATER CHANNEL (MAJOR) |
| ● POPULATED PLACE | —+— MELTWATER CHANNEL (MINOR) |
| ■ SUBSTATION | — SURFICIAL GEOLOGY (1:1M SCALE) |
| ■ TURBINE | GLp |
| — PRIMARY HIGHWAY | Me |
| — RAILWAY | Mp |
| (X.X) PIEZOMETER READING | |



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PREPARED	RA
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PROJECT
ENBRIDGE SEVEN STARS WIND FARM GEOTECHNICAL INVESTIGATION

TITLE
STANDPIPE PIEZOMETER MEASUREMENT

PROJECT NO.	CONTROL	REV.	FIGURE
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APPENDIX A

Historical Borehole Records

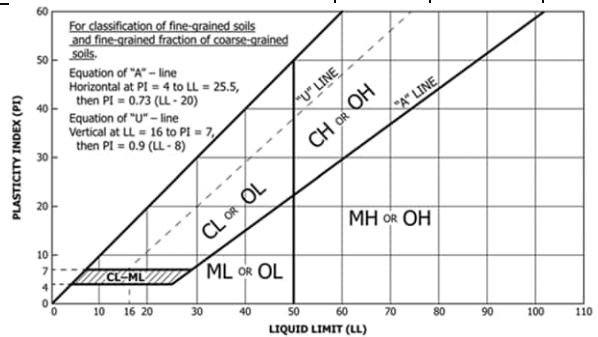
METHOD OF SOIL CLASSIFICATION

The WSP Canada Soil Classification¹ System is based on the Unified Soil Classification System (USCS) (after ASTM D2487)

Organic or Inorganic	Soil Group	Type of Soil	Gradation or Plasticity	$C_u = \frac{D_{60}}{D_{10}}$		$C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$		Organic Content ^{6,9}	USCS Group Symbol ^{5,5,7}	Primary Group Name ²	
				≥ 4	(and)	≥ 1	≤ 3				< 4
INORGANIC (Organic Content <30% by mass)	COARSE-GRAINED SOILS (>50% by mass is larger than 0.075 mm)	GRAVELS (>50% by mass of coarse fraction is larger than 4.75 mm)	Clean Gravels with <5% fines ³ (by mass)	Well Graded	≥ 4	(and)	≥ 1	≤ 3	≤30%	GW	Well-graded GRAVEL ^{4,6}
			Poorly Graded	< 4	(and/or)	< 1	> 3	GP		Poorly graded GRAVEL ^{4,6}	
			Gravels with >12% fines ³ (by mass)	Below A Line	n/a		GM	SILTY GRAVEL ^{4,6}			
			Above A Line	n/a		GC	CLAYEY GRAVEL ^{4,5,6}				
		SANDS (≥50% by mass of coarse fraction is smaller than 4.75 mm)	Clean Sands with <5% fines ⁷ (by mass)	Well Graded	≥ 6	(and)	≥ 1	≤ 3		SW	Well-graded SAND ^{6,8}
			Poorly Graded	< 6	(and/or)	< 1	> 3	SP		Poorly graded SAND ^{6,8}	
			Sands with >12% fines ⁷ (by mass)	Below A Line	n/a		SM	SILTY SAND ^{6,8}			
			Above A Line	n/a		SC	CLAYEY SAND ^{5,6,8}				
Organic or Inorganic	Soil Group	Type of Soil	Laboratory Tests	Field Indicators					Organic Content ^{8,11}	USCS Group Symbol ^A	Primary Group Name ^A
				Dilatancy	Dry Strength	Shine Test	Thread Diameter (mm)	Toughness (of 3 mm thread)			
INORGANIC (Organic Content <30% by mass)	FINE-GRAINED SOILS (≥50% by mass is smaller than 0.075 mm)	SILTS (Nonplastic or PI and LL plot below A-Line on Plasticity Chart below)	Liquid Limit <50 ^D	Rapid	None to Low	Dull to None	3 to >6	Low/can't roll 3 mm	<15%	ML	SILT ^H
			>50 ^D	None to Slow	Low to Medium	Dull to Slight	3 to 6	Low	15% to 30%	OL	ORGANIC SILT
			Liquid Limit <50 ^D	None to V.Slow	Low to Medium	Slight	3 to 6	Low to Medium	<15%	MH	ELASTIC SILT ^H
			>50 ^D	None	Medium to High	Dull to Slight	1 to 3	Low to Medium	15% to <30%	OH	ORGANIC SILT
		CLAYS (PI and LL plot above A-Line on Plasticity Chart below)	Liquid Limit <50 ^D	None to Medium Slow	Medium to High	Slight to Shiny	1 to 3	Medium	<15%	CL	LEAN CLAY ^{A,E,F,G,H}
			>50 ^D	None to V.Slow	Medium to High	Slight to Shiny	1 to 3	Medium	15% to <30%	OL	ORGANIC CLAY ^{E,F,G}
			Liquid Limit <50 ^D	None	High to V.High	Shiny	<1	High	<15%	CH	FAT CLAY ^{E,F,G,H}
			>50 ^D	None	High	Shiny	<1 to 1	High	15% to <30%	OH	ORGANIC CLAY ^{E,F,G}
HIGHLY ORGANIC SOILS (Organic Content >30% by mass)	Peat and mineral soil mixtures	Relatively lightweight, possibly spongy. Some water may squeeze from sample. Some shrinkage may occur on air drying. Sand fraction may be visible. Low to high dilatancy. Thread weak near plastic limit. Low to medium dry strength.						30% to <75%	PT	SILTY PEAT, SANDY PEAT	
	Predominantly peat, may contain some mineral soil, fibrous or amorphous peat	Lightweight, spongy. Much water squeezes from sample. Shrinks considerably on air drying (i.e., very high water content). Plant structure identifiable to altered.						75% to 100%		PEAT	

Coarse-Grained Soil Note(s):

- Based on the material passing the 75 mm sieve.
- If field sample contains or drilling observations indicate cobbles or boulders or both, add, "with cobbles" or "with cobbles and boulders". Include notes on the depth(s) encountered, and sizes if possible.
- Gravels with 5% to 12% fines require dual symbols:
(GW-GM) Well-graded GRAVEL with silt,
(GW-GC) Well-graded GRAVEL with clay,
(GP-GM) Poorly graded GRAVEL with silt,
(GP-GC) Poorly graded GRAVEL with clay.
- If soil contains ≥15% sand, add "with sand" to Group Name.
- If fines classify as CL-ML, use dual symbol (GC-GM) or (SC-SM) for Group Symbol.
- If the soil has an organic content (OC) 15% ≤ OC < 30% the prefix "Organic" should be added before the Group Name. If the soil has an organic content 3% ≤ OC < 15% add "with organic fines" to Group Name. If the soil contains >0% to ≤3% organics, the descriptor "trace organics" may be added.
- Sands with 5% to 12% fines require dual symbols:
(SW-SM) Well-graded SAND with silt,
(SW-SC) Well-graded SAND with clay,
(SP-SM) Poorly graded SAND with silt,
(SP-SC) Poorly graded SAND with clay.
- If soil contains ≥15% gravel, add "with gravel" to Group Name.



Fine-Grained Soil Note(s):

- If Atterberg limits plot above the A-line but in the 'hatched' area on the plasticity chart, soil is a (CL-ML) SILTY CLAY.
- If the soil contains >0% to ≤3% organics, the descriptor "trace organics" may be added.
- If fine-grained materials are nonplastic (i.e., a plastic limit (PL) cannot be measured), soil is a (ML) SILT.
- If soil has a liquid limit (LL) >30% to <50%, the term 'medium plasticity' may be included in the description, but the Group Name/Symbol is not changed.
- If soil contains 15% to <30% +No.200, add "with sand" or "with gravel".
- If soil contains ≥30% +No.200 mainly sand, add "Sandy" to Group Name.
- If soil contains ≥30% +No.200 mainly gravel, add "Gravelly" to Group Name.
- If the soil has an organic content (OC) 3% ≤ OC < 15% add "with organic fines" to Group Name.

ABBREVIATIONS AND TERMS USED ON RECORDS OF BOREHOLES AND TEST PITS

PARTICLE SIZES OF CONSTITUENTS

Soil Constituent	Particle Size Description	Millimetres	Inches (US Std. Sieve Size)
BOULDERS	Not Applicable	>300	>12
COBBLES	Not Applicable	75 to 300	3 to 12
GRAVEL	Coarse	19 to 75	0.75 to 3
	Fine	4.75 to 19	(4) to 0.75
SAND	Coarse	2.00 to 4.75	(10) to (4)
	Medium	0.425 to 2.00	(40) to (10)
	Fine	0.075 to 0.425	(200) to (40)
SILT/CLAY	Classified by plasticity	<0.075	< (200)

GRADATIONAL COMPONENT TERMS

% (by mass)	Term
≤ 5	Use "trace"
> 5 to ≤ 12	Use "few"
> 12 to <30	Use "little"
≥ 30 to <50	Use "some"
≥ 50	Use "mostly"

PENETRATION RESISTANCE

Standard Penetration Resistance (SPT), N:

The number of blows by a 63.5 kg (140 lb) hammer dropped 760 mm (30 in.) required to drive a 50 mm (2 in.) split-spoon sampler for a distance of 300 mm (12 in.). Values reported are as recorded in the field and are uncorrected.

Cone Penetration Test (CPT)

An electronic cone penetrometer with a 60° conical tip and a project end area of 10 cm² pushed through ground at a penetration rate of 2 cm/s. Measurements of tip resistance (q_t), porewater pressure (u) and sleeve frictions are recorded electronically at 25 mm penetration intervals.

Dynamic Cone Penetration Resistance (DCPT); Nd:

The number of blows by a 63.5 kg (140 lb) hammer dropped 760 mm (30 in.) to drive uncased a 50 mm (2 in.) diameter, 60° cone attached to "A" size drill rods for a distance of 300 mm (12 in.).

PH: Sampler advanced by hydraulic pressure

PM: Sampler advanced by manual pressure

WH: Sampler advanced by static weight of hammer

WR: Sampler advanced by weight of sampler and rod

SAMPLES

AS	Auger sample
BS	Block sample
CS	Chunk sample
DD	Diamond Drilling
DO or DP	Seamless open ended, driven, pushed tube sampler, or geoprobe macro-core – note size
DS	Denison type sample
FS	Foil Sample
GS	Grab Sample
MC	Modified California Samples – note sample diameter and hammer weight
MS	Modified Shelby (for frozen soil)
RC	Rock core
SC	Soil core
SS	Split-spoon sampler (50 mm OD); larger sizes use MC
ST	Slotted tube
TO	Thin-walled, open – note size (Shelby tube)
TP	Thin-walled, piston – note size (Shelby tube)
WS	Wash sample

SOIL TESTS

w	water content
PL, w _p	plastic limit
LL, w _L	liquid limit
C	consolidation (oedometer) test
CHEM	chemical analysis (refer to text)
CID	consolidated isotropically drained triaxial test ¹
CIU	consolidated isotropically undrained triaxial test with porewater pressure measurement ¹
D _R	relative density (specific gravity, G _s)
DS	direct shear test
GS	specific gravity
M	sieve analysis for particle size
MH	combined sieve and hydrometer (H) analysis
MPC	Modified Proctor compaction test
SPC	Standard Proctor compaction test
OC	organic content test
SO ₄	concentration of water-soluble sulphates
UC	unconfined compression test
UU	unconsolidated undrained triaxial test
V (FV)	field vane (LV-laboratory vane test)
γ	unit weight

1. Tests anisotropically consolidated prior to shear are shown as CAD, CAU.

NON-COHESIVE (COHESIONLESS) SOILS

Compactness²

Term	SPT 'N' (blows/0.3m) ¹
Very Loose	0 to 4
Loose	4 to 10
Compact	10 to 30
Dense	30 to 50
Very Dense	>50

1. SPT 'N' in general accordance with ASTM D1586, uncorrected for the effects of overburden pressure.

2. Definition of compactness terms are based on SPT 'N' ranges as provided in Terzaghi, Peck and Mesri (1996). Many factors affect the recorded SPT 'N' value, including hammer efficiency (which may be greater than 60% in automatic trip hammers), overburden pressure, groundwater conditions, and grain size. As such, the recorded SPT 'N' value(s) should be considered only an approximate guide to the soil compactness. These factors need to be considered when evaluating the results, and the stated compactness terms should not be relied upon for design or construction.

Field Moisture Condition

Term	Description
Dry	Soil flows freely through fingers.
Moist	Soils are darker than in the dry condition and may feel cool.
Wet	As moist, but with free water forming on hands when handled.

COHESIVE SOILS

Consistency

Term	Undrained Shear Strength (kPa)	SPT 'N' ^{1,2} (blows/0.3m)
Very Soft	<12	0 to 2
Soft	12 to 25	2 to 4
Firm	25 to 50	4 to 8
Stiff	50 to 100	8 to 15
Very Stiff	100 to 200	15 to 30
Hard	>200	>30

1. SPT 'N' in general accordance with ASTM D1586, uncorrected for overburden pressure effects; approximate only.

2. SPT 'N' values should be considered ONLY an approximate guide to consistency; for sensitive clays (e.g., Champlain Sea clays), the N-value approximation for consistency terms does NOT apply. Rely on direct measurement of undrained shear strength or other manual observations.

Water Content

Term	Description
w < PL	Material is estimated to be drier than the Plastic Limit.
w ~ PL	Material is estimated to be close to the Plastic Limit.
w > PL	Material is estimated to be wetter than the Plastic Limit.

LIST OF SYMBOLS

Unless otherwise stated, the symbols employed in the report are as follows:

I. GENERAL

π	3.1416
$\ln x$	natural logarithm of x
$\log_{10} x$	x or log x, logarithm of x to base 10
g	acceleration due to gravity
t	time

II. STRESS AND STRAIN

γ	shear strain
Δ	change in, e.g. in stress: $\Delta \sigma$
ε	linear strain
ε_v	volumetric strain
η	coefficient of viscosity
ν	Poisson's ratio
σ	total stress
σ'	effective stress ($\sigma' = \sigma - u$)
σ'_{vo}	initial effective overburden stress
$\sigma_1, \sigma_2, \sigma_3$	principal stress (major, intermediate, minor)
σ_{oct}	mean stress or octahedral stress $= (\sigma_1 + \sigma_2 + \sigma_3)/3$
τ	shear stress
u	porewater pressure
E	modulus of deformation
G	shear modulus of deformation
K	bulk modulus of compressibility

III. SOIL PROPERTIES

(a) Index Properties

$\rho(\gamma)$	bulk density (bulk unit weight)*
$\rho_d(\gamma_d)$	dry density (dry unit weight)
$\rho_w(\gamma_w)$	density (unit weight) of water
$\rho_s(\gamma_s)$	density (unit weight) of solid particles
γ'	unit weight of submerged soil ($\gamma' = \gamma - \gamma_w$)
D_R	relative density (specific gravity) of solid particles ($D_R = \rho_s / \rho_w$) (formerly G_s)
e	void ratio
n	porosity
S	degree of saturation

(a) Index Properties (continued)

w	water content
w_l or LL	liquid limit
w_p or PL	plastic limit
I_p or PI	plasticity index = $(w_l - w_p)$
NP	nonplastic
w_s	shrinkage limit
I_L	liquidity index = $(w - w_p) / I_p$
I_C	consistency index = $(w_l - w) / I_p$
e_{max}	void ratio in loosest state
e_{min}	void ratio in densest state
I_D	density index = $(e_{max} - e) / (e_{max} - e_{min})$ (formerly relative density)

(b) Hydraulic Properties

h	hydraulic head or potential
q	rate of flow
v	velocity of flow
i	hydraulic gradient
k	hydraulic conductivity (coefficient of permeability)
j	seepage force per unit volume

(c) Consolidation (one-dimensional)

C_c	compression index (normally consolidated range)
C_r	recompression index (over-consolidated range)
C_s	swelling index
C_α	secondary compression index
m_v	coefficient of volume change
C_v	coefficient of consolidation (vertical direction)
C_h	coefficient of consolidation (horizontal direction)
T_v	time factor (vertical direction)
U	degree of consolidation
σ'_p	pre-consolidation stress
OCR	over-consolidation ratio = σ'_p / σ'_{vo}

(d) Shear Strength

τ_p, τ_r	peak and residual shear strength
ϕ'	effective angle of internal friction
δ	angle of interface friction
μ	coefficient of friction = $\tan \delta$
c'	effective cohesion
c_u, s_u	undrained shear strength ($\phi = 0$ analysis)
p	mean total stress $(\sigma_1 + \sigma_3)/2$
p'	mean effective stress $(\sigma'_1 + \sigma'_3)/2$
q	$(\sigma_1 - \sigma_3)/2$ or $(\sigma'_1 - \sigma'_3)/2$
q_u	compressive strength $(\sigma_1 - \sigma_3)$
S_t	sensitivity

* Density symbol is ρ . Unit weight symbol is γ where $\gamma = \rho g$ (i.e. mass density multiplied by acceleration due to gravity)

Notes: 1
2

$$\tau = c' + \sigma' \tan \phi'$$

$$\text{shear strength} = (\text{compressive strength})/2$$

RECORD OF BOREHOLE: BH24-T01

Sheet 1 of 2

CLIENT: EDF Renewables Development Inc.	DATE: April 23, 2024	ELEVATION: Data Not Available
PROJECT: Weyburn SK Wind		COORDINATES: Lat: 49.612306° Long: -103.761489°
PROJECT NO: CA0026414.7023	INCLINATION: 90.0°	COORD SYS: Geographical Coordinates
LOCATION: Weyburn, SK	CONTRACTOR: All Service Drilling Inc	HORZ DATUM: NAD27 VERT DATUM: NAVD88
		HOLE LOC: Crop field

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		GRADATION %		DYNAMIC PENETRATION		ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	GRAVEL	SAND				FINES	SISTANCE, BLOW/0.3m	
																				1	2
			TOPSOIL				0.00														
			(CL) Sandy Lean Clay, mostly low plasticity FINES, trace gravel; light brown; moist, stiff to hard, (Clay till).	CL			0.20														
1					S-1	SS	72	7-6-6	12										0.00 - 0.46 m bgs: Backfill		
2					S-2	SS	106	3-5-6	11							192			0.46 - 0.91 m bgs: Bentonite Chips 1		
					GS	GS										192					
					UD-1	TO	100														
3					S-3	SS	100	3-7-9	16							192			0.91 - 6.10 m bgs: Backfill		
4					S-4	SS	100	6-10-11	21							192					
5					S-5	SS	100	6-10-13	23							287			3.66 - 6.10 m bgs: Screen Interval		
6					S-6	SS	100	6-12-17	29							383					
7																					
8					S-7	SS	100	11-14-19	33												
9																					
10					S-8	SS	100	8-14-20	34												

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic



LOGGED: Philip Chong
CHECKED: Jerry Leung

REV:
DATE: Apr 23, 2024
DATE: May 30, 2024

RECORD OF BOREHOLE: BH24-T06

CLIENT: EDF Renewables Development Inc. DATE: April 23, 2024 ELEVATION: Data Not Available
 PROJECT: Weyburn SK Wind COORDINATES: Lat: 49.601825° Long: -103.737384°
 PROJECT NO: CA0026414.7023 INCLINATION: 90.0° COORD SYS: Geographical Coordinates
 LOCATION: Weyburn, SK CONTRACTOR: All Service Drilling Inc. HORZ DATUM: NAD27 VERT DATUM: NAVD88
 HOLE LOC: Crop field

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE				SAMPLES				WATER CONTENT		GRADATION %			DYNAMIC PENETRATION RESISTANCE, BLOW/0.3m 1 2 3 4 5 6 7 8 9	ADDITIONAL OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H O NP	Plastic & Liquid Limits (%) Water Content (%) Nonplastic	GRAVEL	SAND			FINES	Nat Vane Rem Vane Pocket Pen	Pipe Stickup: 0.91 m
0.00			TOPSOIL																	
0.20			(CL) Lean Clay, mostly low plasticity FINES; trace gravel, trace sand, light brown; calcareous, moist, stiff, (Clay till). - 0.61 to 3.66 m: coal inclusions	CL																
0.20					S-1	SS	72	7-6-8	14											
0.20					S-2	SS	100	5-10-14	24											
0.20					S-3	SS	100	7-9-11	20											
0.20					S-4	SS	100	6-8-11	19											
0.20					S-5	SS	100	6-10-11	21											
3.60			(CH) Fat Clay, mostly high plasticity FINES, trace gravel, trace sand, light brown; moist, stiff to hard, (Clay till). - 3.66 to 6.10 m: shale bedrock	CH																
3.60					S-4	SS	100	6-8-11	19											
3.60					S-5	SS	100	6-10-11	21											
6.10			(CL) Lean Clay, mostly low plasticity FINES, trace sand, trace gravel; light brown; moist, very stiff to hard, (Clay till). - 7.62 to 11.58 m: becoming brown	CL																
6.10					S-6	SS	100	7-11-15	26											
6.10					S-7	SS	100	13-13-22	35											
6.10					S-8	SS	100	11-20-24	44											

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic



LOGGED: Philip Chong
CHECKED: Jerry Leung

DATE: Apr 23, 2024
DATE: May 30, 2024

REV:

RECORD OF BOREHOLE: BH24-T06

CLIENT: EDF Renewables Development Inc.	DATE: April 23, 2024	ELEVATION: Data Not Available
PROJECT: Weyburn SK Wind		COORDINATES: Lat: 49.601825° Long: -103.737384°
PROJECT NO: CA0026414.7023	INCLINATION: 90.0°	COORD SYS: Geographical Coordinates
LOCATION: Weyburn, SK	CONTRACTOR: All Service Drilling Inc	HORZ DATUM: NAD27 VERT DATUM: NAVD88
		HOLE LOC: Crop field

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE				SAMPLES				WATER CONTENT				GRADATION %			DYNAMIC PENETRATION RESISTANCE, BLOW/0.3m 1 2 3 4 5 6 7 8 9	ADDITIONAL OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H O NP	Plastic & Liquid Limits (%) Water Content (%) Nonplastic	GRAVEL	SAND	FINES	Nat Vane Rem Vane Pocket Pen			Pipe Stickup:				
																				0.91 m				
11	CME 55 Track Solid Stem Auger		(CL) Lean Clay, mostly low plasticity FINES, trace sand, trace gravel; light brown; moist, very stiff to hard, (Clay till).	CL		S-9	SS	100	8-10-22	32											6.10 - 15.62 m bgs: Backfill			
12						S-10	SS	95	20-25-50/27mm															
13						S-11	SS	98	20-41-50/14-2mm															
14						S-12	SS	96	91-47-50/96mm															
15																								
16			End of hole at 15.62 m. Backfilled with cuttings and bentonite. Standpipe installed and dry upon completion. No water encountered on May 20, 2024.																					
17																								
18																								
19																								
20																								

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic



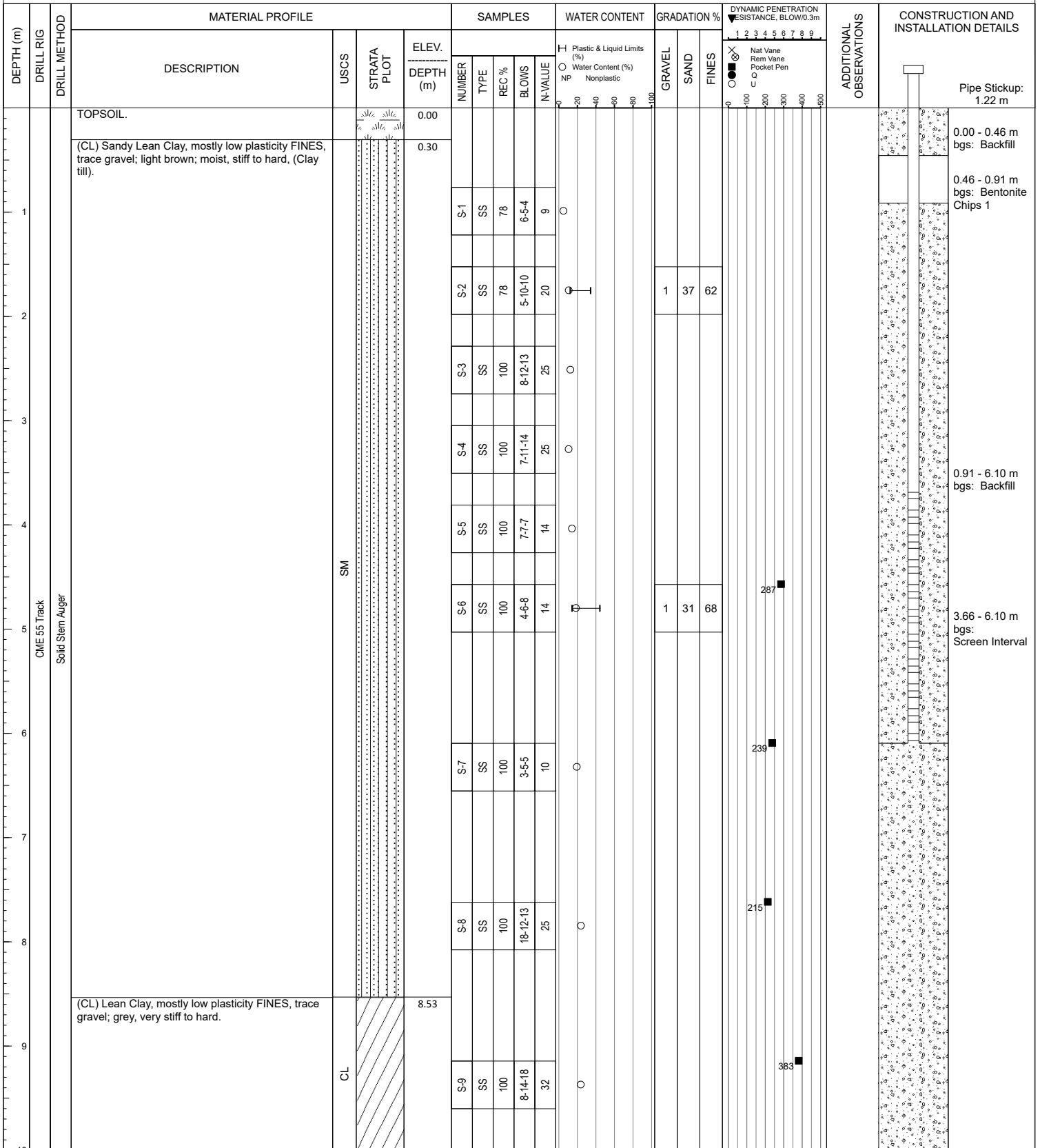
LOGGED: Philip Chong
CHECKED: Jerry Leung

DATE: Apr 23, 2024
DATE: May 30, 2024

REV:

RECORD OF BOREHOLE: BH24-T09

CLIENT: EDF Renewables Development Inc.	DATE: April 23, 2024	ELEVATION: Data Not Available
PROJECT: Weyburn SK Wind		COORDINATES: Lat: 49.618177° Long: -103.696167°
PROJECT NO: CA0026414.7023	INCLINATION: 90.0°	COORD SYS: Geographical Coordinates
LOCATION: Weyburn, SK	CONTRACTOR: All Service Drilling Inc	HORZ DATUM: NAD27 VERT DATUM: NAVD88
		HOLE LOC: Crop field



Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic



LOGGED: Philip Chong
CHECKED: Jerry Leung

DATE: Apr 23, 2024
DATE: May 30, 2024

REV:

RECORD OF BOREHOLE: BH24-T09

CLIENT: EDF Renewables Development Inc. **DATE:** April 23, 2024 **ELEVATION:** Data Not Available
PROJECT: Weyburn SK Wind **COORDINATES:** Lat: 49.618177° Long: -103.696167°
PROJECT NO: CA0026414.7023 **INCLINATION:** 90.0° **COORD SYS:** Geographical Coordinates
LOCATION: Weyburn, SK **CONTRACTOR:** All Service Drilling Inc **HORIZ DATUM:** NAD27 **VERT DATUM:** NAVD88
HOLE LOC: Crop field

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE				SAMPLES				WATER CONTENT		GRADATION %		DYNAMIC PENETRATION RESISTANCE, BLOW/0.3m	ADDITIONAL OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS																	
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H O	NP	GRAVEL	SAND		FINES	0	1	2	3	4	5	6	7	8	9	Pipe Stickup: 1.22 m	6.10 - 15.70 m bgs: Backfill					
11	CME 55 Track Solid Stem Auger	CL					(CL) Lean Clay, mostly low plasticity FINES, trace gravel; grey, very stiff to hard.	CL	CL			S-10	SS	89	7-18-18	36		O																
12																																		
13																																		
14																																		
15																																		
16			End of hole at 15.70 m. Backfilled with cuttings and bentonite. Standpipe installed and dry upon completion. No water encountered on May 20, 2024.					S-11	SS	89	14-34-31	65		O																				
17																																		
18																																		
19																																		
20								S-12	SS	78	18-44-49	93		O																				
								S-13	SS	78	20-24-31	55		O																				

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic



LOGGED: Philip Chong
CHECKED: Jerry Leung

DATE: Apr 23, 2024
DATE: May 30, 2024

REV:

RECORD OF BOREHOLE: BH24-T24

CLIENT: EDF Renewables Development Inc. DATE: April 24, 2024 ELEVATION: Data Not Available
 PROJECT: Weyburn SK Wind COORDINATES: Lat: 49.644550° Long: -103.649101°
 PROJECT NO: CA0026414.7023 INCLINATION: 90.0° COORD SYS: Geographical Coordinates
 LOCATION: Weyburn, SK CONTRACTOR: All Service Drilling Inc HORZ DATUM: NAD27 VERT DATUM: NAVD88
 HOLE LOC: Crop field

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		GRADATION %			DYNAMIC PENETRATION RESISTANCE, BLOW/0.3m 1 2 3 4 5 6 7 8 9	ADDITIONAL OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%) O Water Content (%) NP Nonplastic	GRAVEL	SAND			
0.00			TOPSOIL														
0.20			(CL) Sandy Lean Clay, mostly low plasticity FINES, trace gravel; light brown; calcareous, moist, very stiff, (Clay till).	CL													0.00 - 0.46 m bgs: Backfill
0.46					S-1	SS	78	7-11-13	24								0.46 - 0.91 m bgs: Bentonite Chips 1
0.91					S-2	SS	78	7-13-17	30								
1.22					UD-1	TO	100										
3.35			(SM) Silty SAND, little non plastic fines; light brown; moist, compact.	SM													0.91 - 6.10 m bgs: Backfill
3.66					S-3	SS	78	7-11-14	25								
4.72			(CL) Lean clay with sand, mostly low plasticity FINES, few sand, trace gravel; mottled orangish brown; moist, very stiff to hard.	CL													3.66 - 6.10 m bgs: Screen Interval
4.91					S-4	SS	89	7-8-11	19								
6.10			- 6.10 to 12.19 m: oxide stains														
6.36					S-5	SS	100	6-6-8	14								
6.60					S-6	SS	100	7-8-10	18								
6.91																	
7.18					S-7	SS	100	17-29-46	75								
7.44																	
7.70					S-8	SS	100	9-21-24	45								

Continued on Next Page

DEPTH SCALE: 1:51

HAMMER TYPE: Automatic



LOGGED: Philip Chong

CHECKED: Jerry Leung

DATE: Apr 24, 2024

DATE: May 30, 2024

REV:

RECORD OF BOREHOLE: BH24-T25

CLIENT: EDF Renewables Development Inc.	DATE: April 24, 2024	ELEVATION: Data Not Available
PROJECT: Weyburn SK Wind	COORDINATES: Lat: 49.593049° Long: -103.644967°	
PROJECT NO: CA0026414.7023	INCLINATION: 90.0°	COORD SYS: Geographical Coordinates
LOCATION: Weyburn, SK	CONTRACTOR: All Service Drilling Inc	HORZ DATUM: NAD27 VERT DATUM: NAVD88
		HOLE LOC: Crop field

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE				SAMPLES				WATER CONTENT		GRADATION %			DYNAMIC PENETRATION RESISTANCE, BLOW/0.3m 1 2 3 4 5 6 7 8 9	ADDITIONAL OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H O NP	Plastic & Liquid Limits (%) Water Content (%) Nonplastic	GRAVEL	SAND				FINES
0.00			TOPSOIL																
0.25			(CL) Fat Clay, mostly high plasticity FINES, trace sand, trace gravel; light brown; moist, stiff to hard, (Clay till).	CH															
0.25					S-1	SS	100	5-6-6	12										
0.25					S-2	SS	100	4-24-15	39			3	4	93					
2.74			(SM) Silty SAND, little non plastic fines; light brown; moist, loose to compact.	SM															
2.74					S-3	SS	100	9-6-6	12										
2.74					S-4	SS	100	4-3-5	8			34	66						
2.74			- 3.96 to 6.40 m: increased moisture content and plasticity		S-5	SS	100	3-3-3	6										
6.40			(CL) Lean clay with sand, mostly low plasticity FINES, trace gravel; light brown; moist, very stiff.	CL															
6.40					S-6	SS	100	4-7-8	15										
6.40					S-7	SS	100	6-10-11	21										
8.23			(ML) Sandy Silt, mostly low plasticity FINES, little sand; light grey, weathered; moist.	ML															
8.23					S-8	SS	100	6-12-18	30										

Continued on Next Page

DEPTH SCALE: 1:51

HAMMER TYPE: Automatic



LOGGED: Philip Chong

CHECKED: Jerry Leung

DATE: Apr 24, 2024

DATE: May 30, 2024

REV:

RECORD OF BOREHOLE: BH24-T25

CLIENT: EDF Renewables Development Inc.	DATE: April 24, 2024	ELEVATION: Data Not Available
PROJECT: Weyburn SK Wind		COORDINATES: Lat: 49.593049° Long: -103.644967°
PROJECT NO: CA0026414.7023	INCLINATION: 90.0°	COORD SYS: Geographical Coordinates
LOCATION: Weyburn, SK	CONTRACTOR: All Service Drilling Inc	HORZ DATUM: NAD27 VERT DATUM: NAVD88
		HOLE LOC: Crop field

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE				SAMPLES				WATER CONTENT			GRADATION %			DYNAMIC PENETRATION RESISTANCE, BLOW/0.3m	ADDITIONAL OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H O NP	Plastic & Liquid Limits (%) Water Content (%) Nonplastic	GRAVEL	SAND	FINES	X U C P		Nat Vane Rem Vane Pocket Pen	Pipe Stickup: 1.22 m		
11			(ML) Sandy Silt, mostly low plasticity FINES, little sand; light grey, weathered; moist. - 10.06 to 10.36 m: coal inclusions - 11.28 to 15.70 m: increased clay content - 12.19 to 12.50 m: coal inclusions	ML														287	6.10 - 15.70 m bgs: Backfill			
12					S-9	SS	100	9-13-16	29	O												
13	CME 55 Track Solid Stem Auger				S-10	SS	100	8-12-17	29	O												
14					S-11	SS	100	11-16-22	38	O												
15																						
16			SS	100	11-22-34	56		O														
17			End of hole at 15.70 m. Backfilled with cuttings and bentonite. Standpipe installed and water at 15.5 mbgs upon completion. No water encountered on May 20, 2024.																			
18																						
19																						
20																						

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic



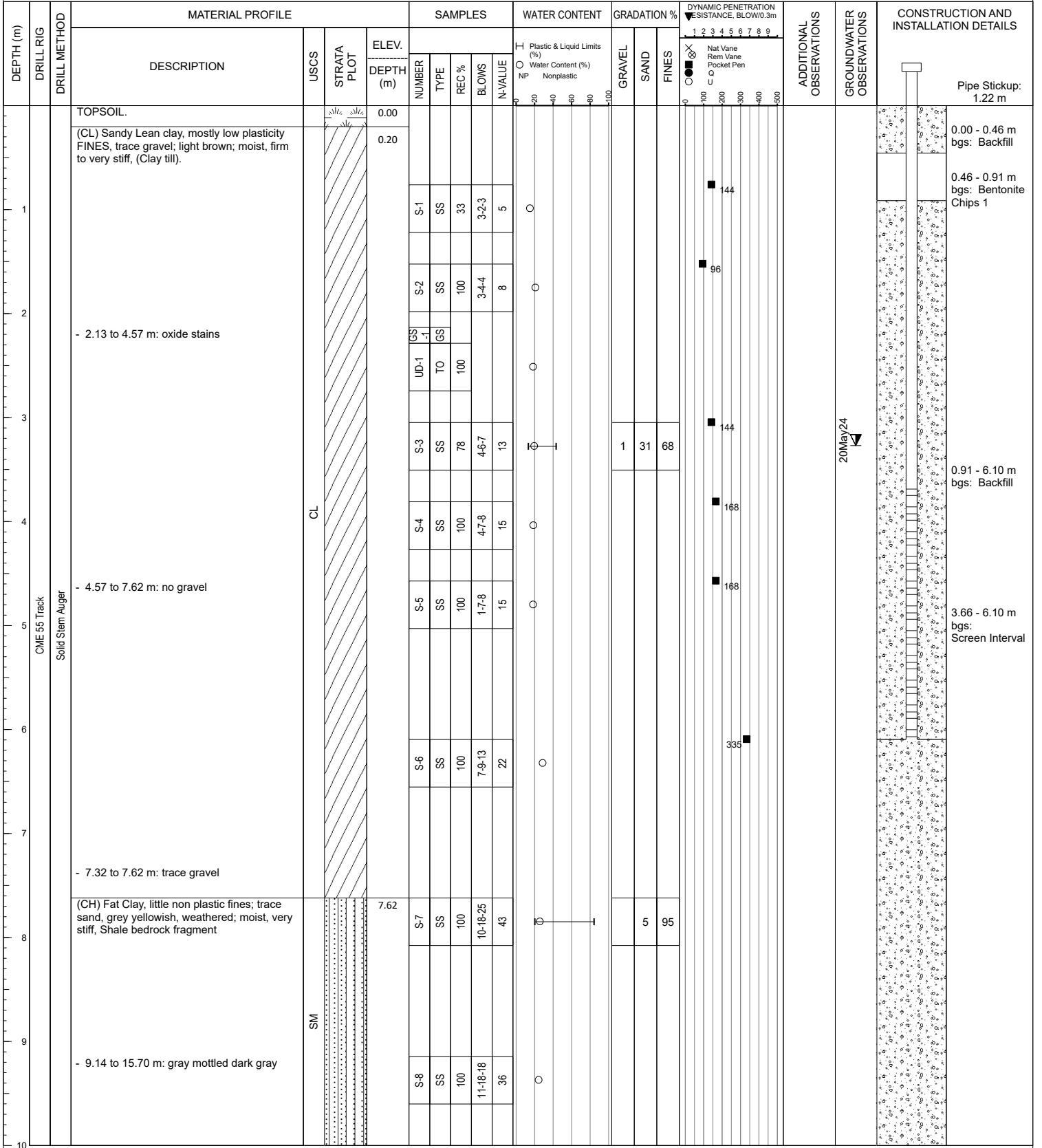
LOGGED: Philip Chong
CHECKED: Jerry Leung

DATE: Apr 24, 2024
DATE: May 30, 2024

REV:

RECORD OF BOREHOLE: BH24-T34

CLIENT: EDF Renewables Development Inc. DATE: April 24, 2024 ELEVATION: Data Not Available
 PROJECT: Weyburn SK Wind COORDINATES: Lat: 49.571510° Long: -103.624500°
 PROJECT NO: CA0026414.7023 INCLINATION: 90.0° COORD SYS: Geographical Coordinates
 LOCATION: Weyburn, SK CONTRACTOR: All Service Drilling Inc HORZ DATUM: NAD27 VERT DATUM: NAVD88
 HOLE LOC: Crop field



Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic



LOGGED: Philip Chong
 CHECKED: Jerry Leung

DATE: Apr 24, 2024
 DATE: May 30, 2024

REV:

RECORD OF BOREHOLE: BH24-T34

CLIENT: EDF Renewables Development Inc. DATE: April 24, 2024 ELEVATION: Data Not Available
 PROJECT: Weyburn SK Wind COORDINATES: Lat: 49.571510° Long: -103.624500°
 PROJECT NO: CA0026414.7023 INCLINATION: 90.0° COORD SYS: Geographical Coordinates
 LOCATION: Weyburn, SK CONTRACTOR: All Service Drilling Inc HORZ DATUM: NAD27 VERT DATUM: NAVD88
 HOLE LOC: Crop field

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				GRADATION %			DYNAMIC PENETRATION SISTANCE, BLOW/0.3m									ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS												
			DESCRIPTION	USCS	STRATA PLOT	ELEV.	DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic	GRAVEL	SAND	FINES	1	2	3	4	5	6	7			8	9	X Nat Vane	c Rem Vane	P Pocket Pen	Pipe Stickup: 1.22 m							
																																		0	100	200	300	400	500	
11	CME 55 Track Solid Stem Auger		(CH) Fat Clay, little non plastic fines; trace sand, grey yellowish, weathered; moist, very stiff, Shale bedrock fragment	SM		S-9	SS	100	9-13-15	28																						6.10 - 15.70 m bgs: Backfill								
12						S-10	SS	100	11-22-25	47																														
13						S-11	SS	100	16-18-31	49																														
14						S-12	SS	100	11-24-27	51																														
15			- 14.02 to 14.17 m: water seepage observed during drilling																																					
16			End of hole at 15.70 m. Backfilled with cuttings and bentonite. Standpipe installed and dry upon completion. Water seepage at 14.0 mbgs during drilling. Water Level measured at 3.22 mbgs on May 20, 2024.																																					
17																																								
18																																								
19																																								
20																																								

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic



LOGGED: Philip Chong DATE: Apr 24, 2024
 CHECKED: Jerry Leung DATE: May 30, 2024

REV:

Goldner Log Metric - Letter / Soil-Gradation w DP low / Goldner - 1 Metric Global / ASTM D2487 Auto (most common ASTM) / 2024-06-06

RECORD OF BOREHOLE: BH24-T46

CLIENT: EDF Renewables Development Inc.	DATE: April 25, 2024	ELEVATION: Data Not Available
PROJECT: Weyburn SK Wind		COORDINATES: Lat: 49.649681° Long: -103.568409°
PROJECT NO: CA0026414.7023	INCLINATION: 90.0°	COORD SYS: Geographical Coordinates
LOCATION: Weyburn, SK	CONTRACTOR: All Service Drilling Inc	HORZ DATUM: NAD27 VERT DATUM: NAVD88
		HOLE LOC: Crop field

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		GRADATION %			DYNAMIC PENETRATION SISTANCE, BLOW/0.3m	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%) O Water Content (%) NP Nonplastic	GRAVEL	SAND					FINES
0.00			TOPSOIL																
0.20			(SM) Silty SAND with gravel, little gravel, little non plastic fines; light brown; dry to moist, compact.	SM														0.00 - 0.46 m bgs: Backfill	
1.22			(CL) Sandy Lean Clay, mostly low plasticity FINES, trace gravel; light brown; moist, very stiff, (Clay till).	CL	S-1	SS	44	7-10-11	21									0.46 - 0.91 m bgs: Bentonite Chips 1	
2.13			(SM) Silty SAND, little non plastic fines, trace gravel; light brown; moist, compact.	SM	S-2	SS	17	6-10-13	23	Q	I								
2.74			(CL) Sandy Lean Clay, mostly low plasticity FINES, trace gravel; light brown mottled brown; moist, hard, iron oxide stains.	CL	S-3	SS	56	13-16-21	37	Q	I								
3.66			(SM) Silty SAND, little non plastic fines, trace gravel; light brown; moist, compact.	SM	S-4	SS	100	13-14-16	30										
4.57			(CL) Sandy Lean Clay, mostly low plasticity FINES, trace gravel; brown mottled; moist, hard, iron oxide stain.	CL	S-5	SS	99	7m	m										
					S-6	SS	56	11-21-31	52										
					S-7	SS	67	8-21-24	45										
					S-8	SS	72	9-21-28	49										

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic



LOGGED: Philip Chong
CHECKED: Jerry Leung

DATE: Apr 25, 2024
DATE: May 30, 2024

REV:

RECORD OF BOREHOLE: BH24-T46

CLIENT: EDF Renewables Development Inc. DATE: April 25, 2024 ELEVATION: Data Not Available
 PROJECT: Weyburn SK Wind COORDINATES: Lat: 49.649681° Long: -103.568409°
 PROJECT NO: CA0026414.7023 INCLINATION: 90.0° COORD SYS: Geographical Coordinates
 LOCATION: Weyburn, SK CONTRACTOR: All Service Drilling Inc HORZ DATUM: NAD27 VERT DATUM: NAVD88
 HOLE LOC: Crop field

DEPTH (m)	DRILL RIG DRILL METHOD	MATERIAL PROFILE			SAMPLES					WATER CONTENT					GRADATION %					DYNAMIC PENETRATION SISTANCE, BLOW/0.3m									ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
		DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H ○ Plastic & Liquid Limits (%) ○ Water Content (%) NP Nonplastic	GRAVEL	SAND	FINES	X	1 2 3 4 5 6 7 8 9									Pipe Stickup: 1.22 m							
																										Nat Vane Rem Vane Pocket Pen						
11	CME 55 Track Solid Stem Auger	(CL) Sandy Lean Clay, mostly low plasticity FINES, trace gravel; brown mottled; moist, hard, iron oxide stain.	CL		S-9	SS	67	10-13-24	37	○																6.10 - 15.52 m bgs: Backfill						
12					S-10	SS	67	10-21-27	48	○																						
13																																
14						- 14.02 to 14.17 m: water seepage			S-11	SS	811	12-24-26	50	○																		
15																																
16		End of hole at 15.52 m. Backfilled with cuttings and bentonite. Standpipe installed and dry upon completion. Water Level measured at 3.80 mbgs on May 20, 2024.																														
17																																
18																																
19																																
20																																

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic



LOGGED: Philip Chong
 CHECKED: Jerry Leung

DATE: Apr 25, 2024
 DATE: May 30, 2024

REV:

APPENDIX B

WSA Water Well Records

Well Name: Gutzke	WWDR #: 3598
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Well Location			
Land Location	NW-16-08-12-2	Location of Well (in Quarter)	
LSD		700 ft from N/S Boundary	N
Reserve		800 ft from E/W Boundary	W
RM:	66		
NTS Map:	62E12	Major Basin:	
Elevation (ft)	2000	SubBasin:	24
Aquifer			

Well Information						
Driller	S & L Drilling	Length (ft)	Btm (ft)	Dia (in)	Well Casings	
Completion Date	1961.11.22	0	122	4.5	Material	
Hole #					Steel	
Install Method	Drilled					
Borehole Depth (ft)	132	Well Screens				
Bit Dia (in)	6.7	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	10	8	130	4	25	Unknown
Flowing Head	0					
Water Use	Domestic	Pump Test				
Well Use	Withdrawal	Draw Down		0 ft		
Completion Method	Well Screen	Duration		32 hrs		
E-Log	None	Pumping Rate		1 igpm		
		Temperature		deg. F		
		Rec. Pumping Rate		0 igpm		

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
30	Till	Brown	Unknown
90	Till	Blue	Unknown
119	Till	Black	Boulders
130	Sand	Unknown	Angular
132	Till	Blue	Unknown



Well Name: Chessall	WWDR #: 3599
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Well Location	
Land Location	SW-17-08-12-2
Location of Well (in Quarter)	
LSD	300 ft from N/S Boundary N
Reserve	100 ft from E/W Boundary W
RM:	66
NTS Map:	62E12
Elevation (ft)	2000
Aquifer	
Major Basin:	
SubBasin:	24

Well Information	
Driller	Al's Drilling
Completion Date	1969.08.15
Hole #	
Install Method	Drilled
Borehole Depth (ft)	30
Bit Dia (in)	0
Water Level	11
Flowing Head	0
Water Use	Domestic
Well Use	Water Test Hole
Completion Method	
E-Log	None

		Well Casings				
		Length (ft)	Btm (ft)	Dia (in)	Material	
Well Screens						
		Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Pump Test						
		Draw Down			0 ft	
		Duration			0 hrs	
		Pumping Rate			0 igpm	
		Temperature			deg. F	
		Rec. Pumping Rate			0 igpm	

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
20	Till	Yellow	Unknown
23	Sand	Unknown	Medium
25	Till	Blue	Unknown
26	Sand	Unknown	Medium
30	Till	Blue	Unknown



Well Name: Chessall	WWDR #: 3600
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Well Location	
Land Location	SW-17-08-12-2
LSD	Location of Well (in Quarter)
Reserve	ft from N/S Boundary
RM:	66
NTS Map:	62E12
Elevation (ft)	2000
Aquifer	Major Basin:
	SubBasin: 24

Well Information					
Driller	Cardele Water Well Contractors	Length (ft)	Well Casings	Btm (ft)	Dia (in)
Completion Date	1970.06.16	0		26	30
Hole #					Material
Install Method	Bored				Corrugated Metal
Borehole Depth (ft)	28		Well Screens		
Bit Dia (in)	30	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Water Level	16	0	26	0	0
Flowing Head	0				Material
Water Use	Domestic				Unknown
Well Use	Withdrawal		Pump Test		
Completion Method	Curbed	Draw Down			0 ft
E-Log	None	Duration			0 hrs
		Pumping Rate			0 igpm
		Temperature			deg. F
		Rec. Pumping Rate			5 igpm

Lithology List

Depth (ft):	Material	Colour	Description
19	Sandy Clay	Unknown	Unknown
28	Sand	Unknown	Unknown



Well Name: Jordan	WWDR #: 3601
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Well Location

Land Location	NE-19-08-12-2	Location of Well (in Quarter)	
LSD		ft from N/S Boundary	
Reserve		ft from E/W Boundary	
RM:	66		
NTS Map:	62E12	Major Basin:	
Elevation (ft)	2011	SubBasin:	24
Aquifer			

Well Information

Driller	Al's Drilling	Length (ft)	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	1969.08.15					
Hole #						
Install Method	Drilled					
Borehole Depth (ft)	100		Well Screens			
Bit Dia (in)	0	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	0					
Flowing Head	0					
Water Use	Domestic		Pump Test			
Well Use	Water Test Hole	Draw Down				0 ft
Completion Method		Duration				0 hrs
E-Log	None	Pumping Rate				0 igpm
		Temperature				deg. F
		Rec. Pumping Rate				0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
20	Till	Yellow	Unknown
54	Till	Blue	Unknown
57	Gravel & Rocks	Unknown	Unknown
100	Till	Blue	Boulders



Well Name: Wagner	WWDR #: 3602
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Well Location	
Land Location	SE-19-08-12-2
Location of Well (in Quarter)	
LSD	ft from N/S Boundary
Reserve	ft from E/W Boundary
RM:	66
NTS Map:	62E12
Elevation (ft)	2011
Aquifer	
Major Basin:	
SubBasin:	24

Well Information					
Driller	Cardele Water Well Contractors	Length (ft)	0	Btm (ft)	40
Completion Date	1972.07.07			Dia (in)	30
Hole #	001			Material	Corrugated Metal
Install Method	Bored	Well Casings			
Borehole Depth (ft)	40	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Bit Dia (in)	30	0	0	0	0
Water Level	22			Material	Galvanized Iron
Flowing Head	0	Well Screens			
Water Use	Domestic	Pump Test			
Well Use	Withdrawal	Draw Down	0 ft		
Completion Method	Curbed	Duration	0 hrs		
E-Log	None	Pumping Rate	0 igpm		
		Temperature	deg. F		
		Rec. Pumping Rate	30 igpm		

Lithology List

Depth (ft):	Material	Colour	Description
5	Clay	Yellow	Unknown
20	Clay	Yellow	Sand Streaks
27	Clay	Blue	Unknown
37	Sand	Unknown	Unknown
40	Clay	Blue	Unknown



Well Name: Cugnet	WWDR #: 3670
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Well Location	
Land Location	SW-27-07-13-2
Location of Well (in Quarter)	
LSD	300 ft from N/S Boundary N
Reserve	1000 ft from E/W Boundary W
RM:	67
NTS Map:	62E12
Elevation (ft)	1893
Aquifer	
Major Basin:	
SubBasin:	24

Well Information	
Driller	S & L Drilling
Completion Date	1960.07.02
Hole #	
Install Method	Drilled
Borehole Depth (ft)	100
Bit Dia (in)	0
Water Level	0
Flowing Head	0
Water Use	Domestic
Well Use	Water Test Hole
Completion Method	
E-Log	None
Well Casings	
Length (ft)	Btm (ft) Dia (in) Material
Well Screens	
Length (ft)	Bottom (ft) Dia (in) Slot (in) Material
Pump Test	
Draw Down	0 ft
Duration	0 hrs
Pumping Rate	0 igpm
Temperature	deg. F
Rec. Pumping Rate	0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
2	Topsoil	Unknown	Unknown
10	Clay	Brown	Gritty
30	Clay	Brown	Unknown
100	Clay	Blue	Unknown



Well Name: Cugnet	WWDR #: 3671
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Well Location	
Land Location	SW-27-07-13-2
Location of Well (in Quarter)	
LSD	400 ft from N/S Boundary N
Reserve	1100 ft from E/W Boundary W
RM:	67
NTS Map:	62E12
Elevation (ft)	1893
Aquifer	
Major Basin:	
SubBasin:	24

Well Information	
Driller	S & L Drilling
Completion Date	1960.11.24
Hole #	
Install Method	Drilled
Borehole Depth (ft)	105
Bit Dia (in)	4.7
Water Level	0
Flowing Head	0
Water Use	Domestic
Well Use	Water Test Hole
Completion Method	
E-Log	None

		Well Casings				
		Length (ft)	Btm (ft)	Dia (in)	Material	
Well Screens						
		Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Pump Test						
		Draw Down			0 ft	
		Duration			0 hrs	
		Pumping Rate			0 igpm	
		Temperature			deg. F	
		Rec. Pumping Rate			0 igpm	

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
20	Clay	Brown	Boulders
30	Clay	Brown	Unknown
105	Clay	Blue	Unknown



Well Name: Cugnet

WWDR #: 3672

Well Location

Land Location	SW-27-07-13-2	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	67	
NTS Map:	62E12	Major Basin:
Elevation (ft)	1893	SubBasin: 24
Aquifer		

Well Information

Driller	S & L Drilling	Length (ft)	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	1959.05.13					
Hole #						
Install Method	Drilled					
Borehole Depth (ft)	315		Well Screens			
Bit Dia (in)	4.7	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	0					
Flowing Head	0					
Water Use	Domestic		Pump Test			
Well Use	Water Test Hole	Draw Down				0 ft
Completion Method		Duration				0 hrs
E-Log	None	Pumping Rate				0 igpm
		Temperature				deg. F
		Rec. Pumping Rate				0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
42	Clay	Brown	Boulders
315	Clay	Grey	Boulders



Well Name: Wagner	WWDR #: 3674
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Well Location	
Land Location	SE-12-08-13-2
Location of Well (in Quarter)	
LSD	300 ft from N/S Boundary S
Reserve	1700 ft from E/W Boundary E
RM:	67
NTS Map:	62E12
Elevation (ft)	1985
Aquifer	
Major Basin:	
SubBasin:	24

Well Information	
Driller	S & L Drilling
Completion Date	1963.02.05
Hole #	
Install Method	Drilled
Borehole Depth (ft)	200
Bit Dia (in)	0
Water Level	0
Flowing Head	0
Water Use	Domestic
Well Use	Water Test Hole
Completion Method	
E-Log	None
Well Casings	
Length (ft)	Btm (ft) Dia (in) Material
Well Screens	
Length (ft)	Bottom (ft) Dia (in) Slot (in) Material
Pump Test	
Draw Down	0 ft
Duration	0 hrs
Pumping Rate	0 igpm
Temperature	deg. F
Rec. Pumping Rate	0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
20	Till	Yellow	Unknown
30	Till	Brown	Unknown
200	Till	Blue	Unknown



Well Name: Looker	WWDR #: 42689
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Well Location	
Land Location	SE-19-08-12-2
	Location of Well (in Quarter)
LSD	ft from N/S Boundary
Reserve	ft from E/W Boundary
RM:	66
NTS Map:	62E12
Elevation (ft)	2000
Aquifer	Major Basin:
	SubBasin: 24

Well Information						
Driller	Cardele Water Well Contractors	Length (ft)	Btm (ft)	Dia (in)	Material	
Completion Date	1974.12.04	0	25	30	Copper Bearing Steel	
Hole #						
Install Method	Bored					
Borehole Depth (ft)	25					
Bit Dia (in)	30	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
		20	25	30	60	Unknown
Water Level	10					
Flowing Head	0					
Water Use	Domestic					
Well Use	Withdrawal					
Completion Method	Curbed					
E-Log	None					
			Pump Test			
			Draw Down	0 ft		
			Duration	0 hrs		
			Pumping Rate	0 igpm		
			Temperature	deg. F		
			Rec. Pumping Rate	10 igpm		

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
16	Clay	Yellow	Unknown
18	Boulders	Unknown	Unknown
20	Sand	Unknown	Water
25	Clay	Blue	Boulders



Well Name: Guldner	WWDR #: 42720
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Well Location

Land Location	NE-10-08-13-2	Location of Well (in Quarter)	
LSD		ft from N/S Boundary	
Reserve		ft from E/W Boundary	
RM:	67		
NTS Map:	62E12	Major Basin:	
Elevation (ft)	1950	SubBasin:	24
Aquifer			

Well Information

Driller	Cardele Water Well Contractors	Length (ft)	0	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	1975.10.16				26	30	Copper Bearing Steel
Hole #							
Install Method	Bored						
Borehole Depth (ft)	24			Well Screens			
Bit Dia (in)	30	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material	
Water Level	8	9	26	30	6	Unknown	
Flowing Head	0						
Water Use	Domestic			Pump Test			
Well Use	Withdrawal	Draw Down				0 ft	
Completion Method	Curbed	Duration				0 hrs	
E-Log	None	Pumping Rate				0 igpm	
		Temperature				deg. F	
		Rec. Pumping Rate				1 igpm	

Lithology List

Depth (ft):	Material	Colour	Description
10	Sandy Clay	Unknown	Unknown
12	Gravel	Unknown	Water
24	Sand	Blue	Unknown



Well Name: Kwochka	WWDR #: 49044
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Well Location	
Land Location	NE-09-08-12-2
	Location of Well (in Quarter)
LSD	ft from N/S Boundary
Reserve	ft from E/W Boundary
RM:	66
NTS Map:	62E12
Elevation (ft)	2000
Aquifer	
	Major Basin:
	SubBasin: 24

Well Information					
Driller	Cardele Water Well Contractors	Length (ft)	Btm (ft)	Dia (in)	Material
Completion Date	1977.02.16	24	22	36	Copper Bearing Steel
Hole #					
Install Method	Bored				
Borehole Depth (ft)	22				
Bit Dia (in)	42	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Water Level	0	18	22	36	60
Flowing Head	0				Unknown
Water Use	Domestic				
Well Use	Withdrawal				
Completion Method	Curbed				
E-Log	None				
		Draw Down			0 ft
		Duration			0 hrs
		Pumping Rate			2 igpm
		Temperature			deg. F
		Rec. Pumping Rate			2 igpm

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
8	Clay	Yellow	Unknown
9	Rock	Unknown	Unknown
21	Sand	Unknown	Water
22	Rock	Unknown	Unknown



Well Name: Bauer	WWDR #: 50607
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Well Location	
Land Location	NW-20-08-12-2
LSD	
Reserve	
RM:	66
NTS Map:	62E12
Elevation (ft)	2000
Aquifer	
Location of Well (in Quarter)	
ft from N/S Boundary	
ft from E/W Boundary	
Major Basin:	
SubBasin:	24

Well Information					
Driller	M & D Drilling	Length (ft)	Well Casings		
Completion Date	1977.07.14	48	Btm (ft)	Dia (in)	Material
Hole #			46	30	Galvanized Iron
Install Method	Bored				
Borehole Depth (ft)	46	Well Screens			
Bit Dia (in)	0	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Water Level	0				
Flowing Head	0				
Water Use	Domestic	Pump Test			
Well Use	Withdrawal	Draw Down	23 ft		
Completion Method	Curbed	Duration	1 hrs		
E-Log	None	Pumping Rate	30 igpm		
		Temperature	deg. F		
		Rec. Pumping Rate	30 igpm		

Lithology List

Depth (ft):	Material	Colour	Description
15	Clay	Yellow	Unknown
22	Clay	Brown	Unknown
45	Sand	Unknown	Unknown
46	Clay	Blue	Unknown



Well Name: Thompson

WWDR #: 50609

Well Location

Land Location	19-08-12-2	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:		
NTS Map:		Major Basin:
Elevation (ft)	2000	SubBasin: 24
Aquifer		

Well Information

Driller	M & D Drilling	Length (ft)	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	1977.07.15	32		30	30	Galvanized Iron
Hole #						
Install Method	Bored					
Borehole Depth (ft)	30		Well Screens			
Bit Dia (in)	0	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	0					
Flowing Head	0					
Water Use	Domestic					
Well Use	Withdrawal		Pump Test			
Completion Method	Curbed	Draw Down				25 ft
E-Log	None	Duration				1 hrs
		Pumping Rate				3 igpm
		Temperature				deg. F
		Rec. Pumping Rate				3 igpm

Lithology List

Depth (ft):	Material	Colour	Description
15	Clay	Yellow	Unknown
25	Clay	Blue	Unknown
30	Sand	Blue	Clayey



Well Name: Ganczar	WWDR #: 53948
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Well Location	
Land Location	19-08-12-2
Location of Well (in Quarter)	
LSD	ft from N/S Boundary
Reserve	ft from E/W Boundary
RM:	
NTS Map:	Major Basin:
Elevation (ft)	2000
	SubBasin: 24
Aquifer	

Well Information					
Driller	Cardele Water Well Contractors	Length (ft)	Well Casings		
Completion Date	1978.04.21	Btm (ft)	Dia (in)	Material	
Hole #	001				
Install Method	Augered				
Borehole Depth (ft)	43	Well Screens			
Bit Dia (in)	6	Length (ft)	Bottom (ft)	Dia (in)	Slot (in) Material
Water Level	0				
Flowing Head	0				
Water Use	Domestic	Pump Test			
Well Use	Water Test Hole	Draw Down	0 ft		
Completion Method		Duration	0 hrs		
E-Log	None	Pumping Rate	0 igpm		
		Temperature	deg. F		
		Rec. Pumping Rate	0 igpm		

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
35	Till	Yellow	Unknown
42	Till	Unknown	Sandy
43	Rock	Unknown	Unknown



Well Name: Ganczar	WWDR #: 53949
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Well Location

Land Location	19-08-12-2	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:		
NTS Map:		Major Basin:
Elevation (ft)	2000	SubBasin: 24
Aquifer		

Well Information

Driller	Cardele Water Well Contractors	Length (ft)	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	1978.04.21					
Hole #	002					
Install Method	Augered					
Borehole Depth (ft)	40		Well Screens			
Bit Dia (in)	6	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	0					
Flowing Head	0					
Water Use	Domestic		Pump Test			
Well Use	Water Test Hole	Draw Down				0 ft
Completion Method		Duration				0 hrs
E-Log	None	Pumping Rate				0 igpm
		Temperature				deg. F
		Rec. Pumping Rate				0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
39	Till	Brown	Unknown
40	Rock	Unknown	Unknown



Well Name: Ganczar

WWDR #: 53950

Well Location

Land Location	19-08-12-2	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:		
NTS Map:		Major Basin:
Elevation (ft)	2000	SubBasin: 24
Aquifer		

Well Information

Driller	Cardele Water Well Contractors	Length (ft)	Well Casings		
Completion Date	1978.04.21		Btm (ft)	Dia (in)	Material
Hole #	003				
Install Method	Augered		Well Screens		
Borehole Depth (ft)	88	Length (ft) Bottom (ft)	Dia (in)	Slot (in)	Material
Bit Dia (in)	6				
Water Level	0				
Flowing Head	0				
Water Use	Domestic		Pump Test		
Well Use	Water Test Hole	Draw Down			0 ft
Completion Method		Duration			0 hrs
E-Log	None	Pumping Rate			0 igpm
		Temperature			deg. F
		Rec. Pumping Rate			0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
25	Till	Brown	Unknown
88	Till	Blue	Unknown



Well Name: Gutzke	WWDR #: 54308
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Well Location	
Land Location	NW-16-08-12-2
Location of Well (in Quarter)	
LSD	400 ft from N/S Boundary S
Reserve	600 ft from E/W Boundary W
RM:	66
NTS Map:	62E12
Elevation (ft)	2000
Aquifer	
Major Basin:	
SubBasin:	24

Well Information					
Driller	Al's Drilling	Length (ft)	Well Casings		
Completion Date	1978.04.28	127	Btm (ft)	Dia (in)	Material
Hole #	001		126	5	Plastic
Install Method	Drilled				
Borehole Depth (ft)	136	Well Screens			
Bit Dia (in)	7.9	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Water Level	0	10	136	5	15
Flowing Head	0				
Water Use	Domestic	Pump Test			
Well Use	Withdrawal	Draw Down	48 ft		
Completion Method	Well Screen And Gravel	Duration	6 hrs		
E-Log	Pack None	Pumping Rate	4 igpm		
		Temperature	deg. F		
		Rec. Pumping Rate	4 igpm		

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
13	Till	Yellow	Unknown
24	Till	Brown	Unknown
117	Till	Blue	Unknown
136	Sand	Unknown	Medium



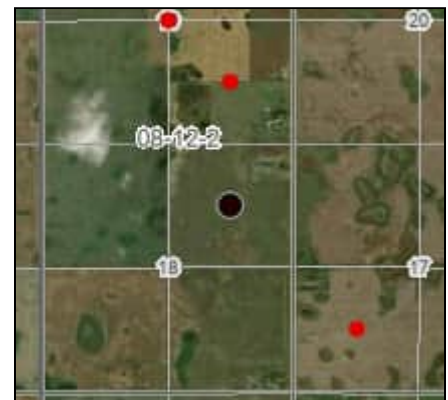
Well Name: Looker	WWDR #: 61151
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Well Location	
Land Location	NE-18-08-12-2
Location of Well (in Quarter)	
LSD	ft from N/S Boundary
Reserve	ft from E/W Boundary
RM:	66
NTS Map:	62E12
Elevation (ft)	2000
Aquifer	
Major Basin:	
SubBasin:	24

Well Information					
Driller	Cardele Water Well Contractors	Length (ft)	Well Casings		
Completion Date	1980.05.26	Btm (ft)	Dia (in)	Material	
Hole #	001				
Install Method	Augered				
Borehole Depth (ft)	25	Well Screens			
Bit Dia (in)	6	Length (ft)	Bottom (ft)	Dia (in)	Slot (in) Material
Water Level	0				
Flowing Head	0				
Water Use	Domestic	Pump Test			
Well Use	Water Test Hole	Draw Down	0 ft		
Completion Method		Duration	0 hrs		
E-Log	None	Pumping Rate	0 igpm		
		Temperature	deg. F		
		Rec. Pumping Rate	0 igpm		

Lithology List

Depth (ft):	Material	Colour	Description
15	Till	Brown	Unknown
18	Sand	Unknown	Unknown
20	Clay	Black	Unknown
25	Clay	Blue	Unknown



Well Name: Looker	WWDR #: 61152
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Well Location	
Land Location	NE-18-08-12-2
LSD	
Reserve	
RM:	66
NTS Map:	62E12
Elevation (ft)	2000
Aquifer	

Well Information	
Driller	Cardele Water Well Contractors
Completion Date	1980.05.26
Hole #	002
Install Method	Augered
Borehole Depth (ft)	30
Bit Dia (in)	6
Water Level	0
Flowing Head	0
Water Use	Domestic
Well Use	Water Test Hole
Completion Method	
E-Log	None

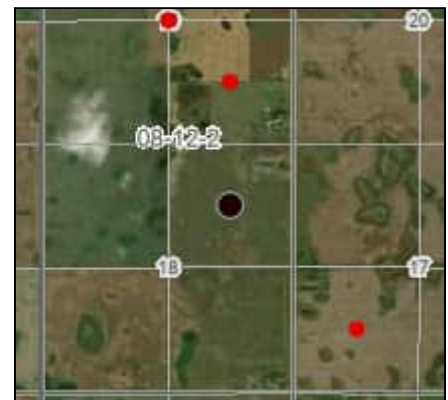
		Well Casings			
	Length (ft)	Btm (ft)	Dia (in)	Material	

		Well Screens			
	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material

		Pump Test	
	Draw Down		0 ft
	Duration		0 hrs
	Pumping Rate		0 igpm
	Temperature		deg. F
	Rec. Pumping Rate		0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
15	Till	Brown	Unknown
18	Sand	Unknown	Unknown
25	Clay	Brown	Unknown
28	Sand	Unknown	Fine
30	Clay	Blue	Unknown



Well Name: Looker	WWDR #: 61486
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Well Location

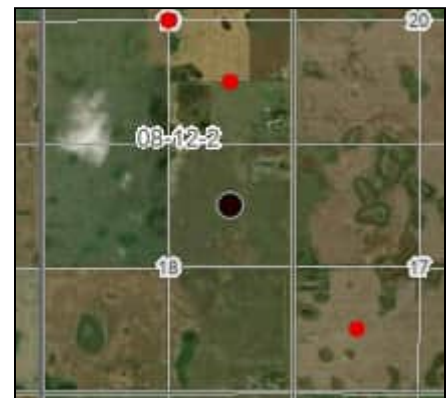
Land Location	NE-18-08-12-2	Location of Well (in Quarter)	
LSD		ft from N/S Boundary	
Reserve		ft from E/W Boundary	
RM:	66		
NTS Map:	62E12	Major Basin:	
Elevation (ft)	2000	SubBasin:	24
Aquifer			

Well Information

Driller	Cardele Water Well Contractors	Length (ft)	36	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	1980.06.11				34	30	Copper Bearing Steel
Hole #	002						
Install Method	Bored						
Borehole Depth (ft)	34						
Bit Dia (in)	0	Length (ft)	Bottom (ft)	Well Screens			
Water Level	0	18	34	Dia (in)	Slot (in)	Material	
Flowing Head	0			30	0	Unknown	
Water Use	Domestic						
Well Use	Withdrawal			Pump Test			
Completion Method	Perforated Casing			Draw Down		31 ft	
E-Log	None			Duration		0 hrs	
				Pumping Rate		7 igpm	
				Temperature		deg. F	
				Rec. Pumping Rate		5 igpm	

Lithology List

Depth (ft):	Material	Colour	Description
15	Till	Brown	Boulders
19	Sand	Unknown	Unknown
23	Clay	Brown	Unknown
26	Sand	Unknown	Fine
34	Clay	Blue	Unknown



Well Name: Looker

WWDR #: 61487

Well Location

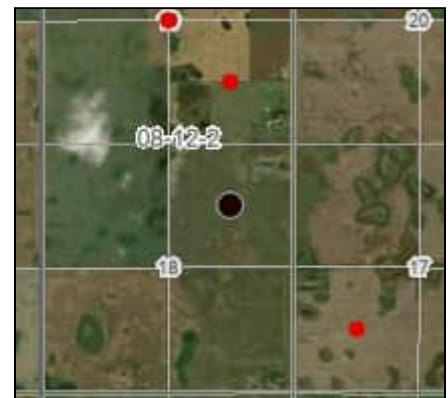
Land Location	NE-18-08-12-2	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	66	
NTS Map:	62E12	Major Basin:
Elevation (ft)	2000	SubBasin: 24
Aquifer		

Well Information

Driller	Cardele Water Well Contractors	Length (ft)	36	Well Casings	Btm (ft)	34	Dia (in)	0	Material	Copper Bearing Steel	
Completion Date	1980.06.11										
Hole #	002										
Install Method	Bored										
Borehole Depth (ft)	16			Well Screens							
Bit Dia (in)	0	Length (ft)	18	Bottom (ft)	34	Dia (in)	30	Slot (in)	0	Material	Unknown
Water Level	0										
Flowing Head	0										
Water Use	Domestic			Pump Test							
Well Use	Water Test Hole	Draw Down							31 ft		
Completion Method	Perforated Casing	Duration							0 hrs		
E-Log	None	Pumping Rate							7 igpm		
		Temperature							deg. F		
		Rec. Pumping Rate							5 igpm		

Lithology List

Depth (ft):	Material	Colour	Description
15	Till	Brown	Boulders
16	Sand	Unknown	Unknown



Well Name: Goranson

WWDR #: 66474

Well Location

Land Location	NE-09-08-13-2	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	67	
NTS Map:	62E12	Major Basin:
Elevation (ft)	1925	SubBasin: 24
Aquifer		

Well Information

Driller	Cardele Water Well Contractors	Length (ft)	Btm (ft)	Dia (in)	Material
Completion Date	1981.06.10	34	33	30	Copper Bearing Steel
Hole #					
Install Method	Bored				
Borehole Depth (ft)	33				
Bit Dia (in)	42	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Water Level	0	24	33	30	10
Flowing Head	0				Material
Water Use	Domestic				Unknown
Well Use	Withdrawal				
Completion Method	Perforated Casing				
E-Log	None				

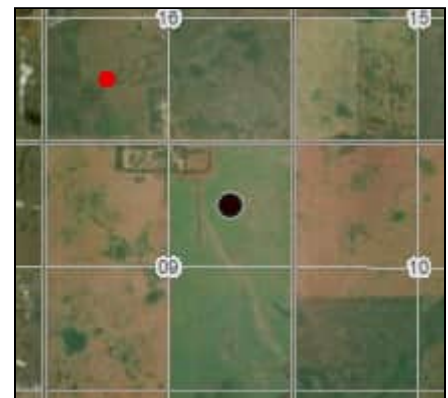
		Well Casings			
		Length (ft)	Btm (ft)	Dia (in)	Material
		34	33	30	Copper Bearing Steel

		Well Screens			
		Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
		24	33	30	10
					Material
					Unknown

		Pump Test		
		Draw Down		0 ft
		Duration		0 hrs
		Pumping Rate		0 igpm
		Temperature		deg. F
		Rec. Pumping Rate		10 igpm

Lithology List

Depth (ft):	Material	Colour	Description
6	Till	Brown	Unknown
11	Sand	Unknown	Dry
21	Sand	Grey	Unknown
32	Sand	Unknown	Unknown
33	Till	Blue	Unknown



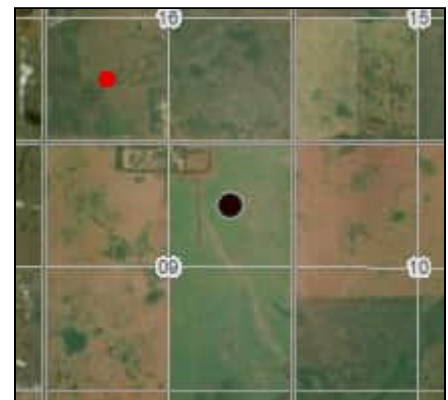
Well Name: Goranson	WWDR #: 67233
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Well Location	
Land Location	NE-09-08-13-2
LSD	
Reserve	
RM:	67
NTS Map:	62E12
Elevation (ft)	1925
Aquifer	
Location of Well (in Quarter)	
ft from N/S Boundary	
ft from E/W Boundary	
Major Basin:	
SubBasin:	24

Well Information					
Driller	Cardele Water Well Contractors	Length (ft)	Well Casings		
Completion Date	1981.05.12		Btm (ft)	Dia (in)	Material
Hole #					
Install Method	Augered		Well Screens		
Borehole Depth (ft)	45	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Bit Dia (in)	0				Material
Water Level	0				
Flowing Head	0				
Water Use	Domestic		Pump Test		
Well Use	Water Test Hole	Draw Down			0 ft
Completion Method		Duration			0 hrs
E-Log	None	Pumping Rate			0 igpm
		Temperature			deg. F
		Rec. Pumping Rate			0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
6	Till	Brown	Unknown
11	Gravel	Unknown	Dry
34	Gravel	Unknown	Water
45	Till	Grey	Unknown



Well Name: Allen	WWDR #: 70633
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Well Location

Land Location	SW-16-08-13-2	Location of Well (in Quarter)
LSD		200 ft from N/S Boundary S
Reserve		50 ft from E/W Boundary E
RM:	67	
NTS Map:	62E12	Major Basin:
Elevation (ft)	1925	SubBasin: 24
Aquifer		

Well Information

		Well Casings			
Driller	Al's Drilling	Length (ft)	Btm (ft)	Dia (in)	Material
		52	51	5	Plastic
Completion Date	1982.02.17				
Hole #	001				
Install Method	Drilled				
		Well Screens			
Borehole Depth (ft)	60	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Bit Dia (in)	4.5	5	56	5	15
Water Level	16				
Flowing Head	0				
Water Use	Domestic	Pump Test			
Well Use	Withdrawal	Draw Down	19 ft		
Completion Method	Well Screen And Gravel	Duration	3 hrs		
E-Log	Pack None	Pumping Rate	3 igpm		
		Temperature	deg. F		
		Rec. Pumping Rate	3 igpm		

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
14	Till	Yellow	Unknown
26	Till	Blue	Unknown
60	Sand	Unknown	Unknown



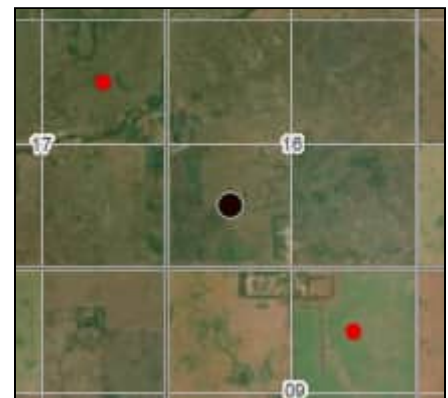
Well Name: Allen	WWDR #: 72345
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Well Location	
Land Location	SW-16-08-13-2
LSD	
Reserve	
RM:	67
NTS Map:	62E12
Elevation (ft)	1925
Aquifer	
Location of Well (in Quarter)	
ft from N/S Boundary	
ft from E/W Boundary	
Major Basin:	
SubBasin:	24

Well Information	
Driller	M & D Drilling
Completion Date	1982.03.30
Hole #	001
Install Method	Augered
Borehole Depth (ft)	18
Bit Dia (in)	0
Water Level	0
Flowing Head	0
Water Use	Domestic
Well Use	Water Test Hole
Completion Method	
E-Log	None
Well Casings	
Length (ft)	
Btm (ft)	
Dia (in)	
Material	
Well Screens	
Length (ft)	
Bottom (ft)	
Dia (in)	
Slot (in)	
Material	
Pump Test	
Draw Down	0 ft
Duration	0 hrs
Pumping Rate	0 igpm
Temperature	deg. F
Rec. Pumping Rate	0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
7	Clay	Brown	Unknown
10	Sand	Unknown	Unknown
18	Clay	Blue	Unknown



Well Name: Allen

WWDR #: 72346

Well Location

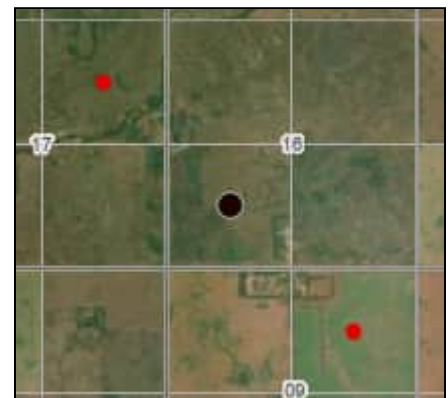
Land Location	SW-16-08-13-2	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	67	
NTS Map:	62E12	Major Basin:
Elevation (ft)	1925	SubBasin: 24
Aquifer		

Well Information

Driller	M & D Drilling	Length (ft)	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	1982.03.30					
Hole #	006					
Install Method	Augered					
Borehole Depth (ft)	20		Well Screens			
Bit Dia (in)	0	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	0					
Flowing Head	0					
Water Use	Domestic		Pump Test			
Well Use	Water Test Hole	Draw Down		0	ft	
Completion Method		Duration		0	hrs	
E-Log	None	Pumping Rate		0	igpm	
		Temperature			deg. F	
		Rec. Pumping Rate		0	igpm	

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
16	Clay	Brown	Unknown
20	Clay	Blue	Unknown



Well Name: Allen

WWDR #: 72347

Well Location

Land Location	SW-16-08-13-2	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	67	
NTS Map:	62E12	Major Basin:
Elevation (ft)	1925	SubBasin: 24
Aquifer		

Well Information

Driller	M & D Drilling	Length (ft)	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	1982.03.30					
Hole #	005					
Install Method	Augered					
Borehole Depth (ft)	18		Well Screens			
Bit Dia (in)	0	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	0					
Flowing Head	0					
Water Use	Domestic		Pump Test			
Well Use	Water Test Hole	Draw Down				0 ft
Completion Method		Duration				0 hrs
E-Log	None	Pumping Rate				0 igpm
		Temperature				deg. F
		Rec. Pumping Rate				0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
18	Clay	Brown	Unknown



Well Name: Allen	WWDR #: 72348
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Well Location	
Land Location	SW-16-08-13-2
LSD	
Reserve	
RM:	67
NTS Map:	62E12
Elevation (ft)	1925
Aquifer	
Location of Well (in Quarter)	
ft from N/S Boundary	
ft from E/W Boundary	
Major Basin:	
SubBasin:	24

Well Information					
Driller	M & D Drilling	Length (ft)	Well Casings	Btm (ft)	Dia (in) Material
Completion Date	1982.03.30				
Hole #	004				
Install Method	Augered				
Borehole Depth (ft)	23		Well Screens		
Bit Dia (in)	0	Length (ft) Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	0				
Flowing Head	0				
Water Use	Domestic		Pump Test		
Well Use	Water Test Hole	Draw Down		0	ft
Completion Method		Duration		0	hrs
E-Log	None	Pumping Rate		0	igpm
		Temperature			deg. F
		Rec. Pumping Rate		0	igpm

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
14	Clay	Brown	Unknown
23	Clay	Blue	Unknown



Well Name: Allen	WWDR #: 72349
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Well Location	
Land Location	SW-16-08-13-2
LSD	
Reserve	
RM:	67
NTS Map:	62E12
Elevation (ft)	1925
Aquifer	
Location of Well (in Quarter)	
ft from N/S Boundary	
ft from E/W Boundary	
Major Basin:	
SubBasin:	24

Well Information	
Driller	M & D Drilling
Completion Date	1982.03.30
Hole #	003
Install Method	Augered
Borehole Depth (ft)	18
Bit Dia (in)	0
Water Level	0
Flowing Head	0
Water Use	Domestic
Well Use	Water Test Hole
Completion Method	
E-Log	None
Well Casings	
Length (ft)	
Btm (ft)	
Dia (in)	
Material	
Well Screens	
Length (ft)	
Bottom (ft)	
Dia (in)	
Slot (in)	
Material	
Pump Test	
Draw Down	0 ft
Duration	0 hrs
Pumping Rate	0 igpm
Temperature	deg. F
Rec. Pumping Rate	0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
7	Clay	Yellow	Unknown
15	Clay	Brown	Unknown
18	Clay	Blue	Unknown



Well Name: Allen	WWDR #: 72350
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Well Location	
Land Location	SW-16-08-13-2
LSD	
Reserve	
RM:	67
NTS Map:	62E12
Elevation (ft)	1925
Aquifer	
Location of Well (in Quarter)	
ft from N/S Boundary	
ft from E/W Boundary	
Major Basin:	
SubBasin:	24

Well Information	
Driller	M & D Drilling
Completion Date	1982.03.30
Hole #	002
Install Method	Augered
Borehole Depth (ft)	23
Bit Dia (in)	0
Water Level	0
Flowing Head	0
Water Use	Domestic
Well Use	Water Test Hole
Completion Method	
E-Log	None
Well Casings	
Length (ft)	
Btm (ft)	
Dia (in)	
Material	
Well Screens	
Length (ft)	
Bottom (ft)	
Dia (in)	
Slot (in)	
Material	
Pump Test	
Draw Down	0 ft
Duration	0 hrs
Pumping Rate	0 igpm
Temperature	deg. F
Rec. Pumping Rate	0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
12	Clay	Brown	Unknown
23	Clay	Blue	Unknown



Well Name: Blaine	WWDR #: 86268
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Well Location	
Land Location	SW-26-07-13-2
LSD	
Reserve	
RM:	67
NTS Map:	62E12
Elevation (ft)	1900
Aquifer	
Location of Well (in Quarter)	
ft from N/S Boundary	
ft from E/W Boundary	
Major Basin:	
SubBasin:	24

Well Information					
Driller	Cardele Water Well Contractors	Length (ft)	5	Well Casings	
Completion Date	1987.11.03	Btm (ft)	22	Dia (in)	30
Hole #	1	Material			Fiberglass
Install Method	Bored				
Borehole Depth (ft)	22	Well Screens			
Bit Dia (in)	0	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Water Level	0	4	21	30	40
Flowing Head	0				Material
Water Use	Domestic				Stainless Steel
Well Use	Withdrawal	Pump Test			
Completion Method	Perforated Casing	Draw Down			0 ft
E-Log	None	Duration			0 hrs
		Pumping Rate			0 igpm
		Temperature			deg. F
		Rec. Pumping Rate			2 igpm

Lithology List

Depth (ft):	Material	Colour	Description
20	Sand	Unknown	Water
22	Clay	Grey	Silty



Well Name: Hallberg

WWDR #: 88611

Well Location

Land Location	NE-24-08-13-2	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	67	
NTS Map:	62E12	Major Basin:
Elevation (ft)	2000	SubBasin: 24
Aquifer		

Well Information

Driller	Cardele Water Well Contractors	Length (ft)	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	1988.07.06					
Hole #	1					
Install Method	Augered					
Borehole Depth (ft)	90		Well Screens			
Bit Dia (in)	6	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	0					
Flowing Head	0					
Water Use	Domestic		Pump Test			
Well Use	Water Test Hole	Draw Down				0 ft
Completion Method		Duration				0 hrs
E-Log	None	Pumping Rate				0 igpm
		Temperature				deg. F
		Rec. Pumping Rate				0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
14	Clay	Brown	Unknown
90	Till	Blue	Unknown



Well Name: Prospect Water Users Co-op

WWDR #: 90408

Well Location

Land Location	SE-12-08-14-2	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	67	
NTS Map:	62E12	Major Basin:
Elevation (ft)	1875	SubBasin: 24
Aquifer		

Well Information

Driller	Rick's Water Well Service	Length (ft)	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	1988.08.26					
Hole #	1					
Install Method	Drilled					
Borehole Depth (ft)	140		Well Screens			
Bit Dia (in)	0	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	0					
Flowing Head	0					
Water Use	Industrial		Pump Test			
Well Use	Water Test Hole	Draw Down		0	ft	
Completion Method		Duration		0	hrs	
E-Log	None	Pumping Rate		0	igpm	
		Temperature			deg. F	
		Rec. Pumping Rate		0	igpm	

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
34	Till	Yellow	Unknown
140	Till	Blue	Unknown



Well Name: Prospect Water Users Co-op	WWDR #: 90409
---------------------------------------	---------------

Well Location	
Land Location	SE-12-08-14-2
LSD	
Reserve	
RM:	67
NTS Map:	62E12
Elevation (ft)	1875
Aquifer	

Well Information	
Driller	Rick's Water Well Service
Completion Date	1988.08.26
Hole #	2
Install Method	Drilled
Borehole Depth (ft)	220
Bit Dia (in)	0
Water Level	0
Flowing Head	0
Water Use	Industrial
Well Use	Water Test Hole
Completion Method	
E-Log	None

		Well Casings			
	Length (ft)	Btm (ft)	Dia (in)	Material	

		Well Screens			
	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material

		Pump Test	
		Draw Down	0 ft
		Duration	0 hrs
		Pumping Rate	0 igpm
		Temperature	deg. F
		Rec. Pumping Rate	0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
16	Till	Yellow	Unknown
22	Till	Brown	Unknown
158	Till	Blue	Unknown
218	Sand	Unknown	Fine
220	Till	Blue	Unknown



Well Name: Prospect Water Users Co-op

WWDR #: 90410

Well Location

Land Location	SE-12-08-14-2	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	67	
NTS Map:	62E12	Major Basin:
Elevation (ft)	1875	SubBasin: 24
Aquifer		

Well Information

Driller	Rick's Water Well Service	Length (ft)	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	1988.08.26					
Hole #	1					
Install Method	Drilled					
Borehole Depth (ft)	230		Well Screens			
Bit Dia (in)	0	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	0					
Flowing Head	0					
Water Use	Industrial		Pump Test			
Well Use	Water Test Hole	Draw Down				0 ft
Completion Method		Duration				0 hrs
E-Log	None	Pumping Rate				0 igpm
		Temperature				deg. F
		Rec. Pumping Rate				0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
18	Till	Brown	Unknown
168	Till	Blue	Unknown
192	Sand	Unknown	Fine
202	Till	Blue	Unknown
230	Sand & Gravel	Unknown	Coarse



Well Name: Ganczar	WWDR #: 96019
--------------------	---------------

Well Location

Land Location	NE-19-08-12-2	Location of Well (in Quarter)	
LSD		150 ft from N/S Boundary	N
Reserve		100 ft from E/W Boundary	W
RM:	66		
NTS Map:	62E12	Major Basin:	
Elevation (ft)	2000	SubBasin:	24
Aquifer			

Well Information

Driller	Aquafind Water Well Drilling	Length (ft)	30	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	1989.08.24				30	5	P.V.C.
Hole #	1						
Install Method	Drilled						
Borehole Depth (ft)	135			Well Screens			
Bit Dia (in)	4.8	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material	
		5	35	5	15	Stainless Steel	
Water Level	14						
Flowing Head	0						
Water Use	Domestic			Pump Test			
Well Use	Withdrawal	Draw Down				13 ft	
Completion Method	Well Screen And Gravel	Duration				4 hrs	
E-Log	Pack None	Pumping Rate				1 igpm	
		Temperature				deg. F	
		Rec. Pumping Rate				1 igpm	

Lithology List

Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
22	Till	Yellow	Unknown
30	Till	Blue	Sand Streaks
35	Sand & Gravel	Unknown	Fine
73	Till	Blue	Unknown
120	Silt	Grey	Unknown
124	Bentonite	Unknown	Unknown
135	Till	Blue	Unknown

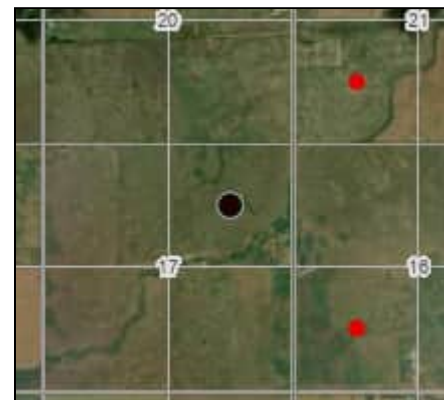


Well Name: McNaughton	WWDR #: 117675
-----------------------	----------------

Well Location	
Land Location	NE-17-08-13-2
	Location of Well (in Quarter)
LSD	ft from N/S Boundary
Reserve	ft from E/W Boundary
RM:	67
NTS Map:	62E12
Elevation (ft)	1925
Aquifer	Major Basin:
	SubBasin: 24

Well Information					
Driller	Earth Drilling Co. Ltd.		Well Casings		
		Length (ft)	Btm (ft)	Dia (in)	Material
Completion Date	2002.03.12	42	40	30	Fiberglass
Hole #	001				
Install Method	Bored		Well Screens		
Borehole Depth (ft)	35	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Bit Dia (in)	42	25	40	30	38
Water Level	9				
Flowing Head	0				
Water Use	Domestic		Pump Test		
Well Use	Withdrawal	Draw Down			0 ft
Completion Method	Perforated Casing	Duration			2 hrs
E-Log	None	Pumping Rate			35 igpm
		Temperature			deg. F
		Rec. Pumping Rate			12 igpm

Lithology List			
Depth (ft):	Material	Colour	Description
1	Topsoil	Unknown	Unknown
9	Sand	Unknown	Dry
20	Sand	Yellow	Water
22	Clay	Grey	Unknown
33	Sand	Grey	Water
40	Till	Grey	Unknown



Well Name: Heidinger	WWDR #: 215020
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Well Location	
Land Location	SW-21-08-13-2
LSD	
Reserve	
RM:	67
NTS Map:	62E12
Elevation (ft)	1936
Aquifer	
Location of Well (in Quarter)	
ft from N/S Boundary	
ft from E/W Boundary	
Major Basin:	
SubBasin:	24

Well Information					
Driller	Andrews & Sons Drilling Ltd.	Length (ft)	Well Casings		
Completion Date	2010.09.09	Btm (ft)	Dia (in)	Material	
Hole #	00000001				
Install Method	Drilled				
Borehole Depth (ft)	60	Well Screens			
Bit Dia (in)	5.2	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)
Water Level	0				Material
Flowing Head	0				
Water Use	Domestic	Pump Test			
Well Use	Water Test Hole	Draw Down			0 ft
Completion Method		Duration			0 hrs
E-Log	Recd	Pumping Rate			0 igpm
		Temperature			deg. F
		Rec. Pumping Rate			0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
2	Till	Brown	Unknown
46	Till	Brown	Unknown
60	Clay	Grey	Noncalcareous



Well Name: Schmidt

WWDR #: 215021

Well Location

Land Location	SW-21-08-13-2	Location of Well (in Quarter)
LSD		ft from N/S Boundary
Reserve		ft from E/W Boundary
RM:	67	
NTS Map:	62E12	Major Basin:
Elevation (ft)	1936	SubBasin: 24
Aquifer		

Well Information

Driller	Andrews & Sons Drilling Ltd.	Length (ft)	Well Casings	Btm (ft)	Dia (in)	Material
Completion Date	2010.09.09					
Hole #	00000002					
Install Method	Drilled					
Borehole Depth (ft)	40		Well Screens			
Bit Dia (in)	5.2	Length (ft)	Bottom (ft)	Dia (in)	Slot (in)	Material
Water Level	0					
Flowing Head	0					
Water Use	Domestic		Pump Test			
Well Use	Water Test Hole	Draw Down				0 ft
Completion Method		Duration				0 hrs
E-Log	None	Pumping Rate				0 igpm
		Temperature				deg. F
		Rec. Pumping Rate				0 igpm

Lithology List

Depth (ft):	Material	Colour	Description
32	Till	Brown	Unknown
38	Till	Brown	Unknown
40	Clay	Grey	Noncalcareous



APPENDIX C

Photo Log

Photograph #1: Post-Drilling SS-BH25-01



Photograph #2: SS-BH25-01 Sample SS4



GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

CLIENT: Enbridge

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE 1

Photograph #3: Post-Drilling SS-BH25-02



Photograph #4: SS-BH25-02 Sample SS5



CLIENT: Enbridge

**GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK**

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE 2

Photograph #5: Post-Drilling SS-BH25-03



Photograph #6: SS-BH25-03 Sample SS1



GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

CLIENT: Enbridge

MADE BY: DP

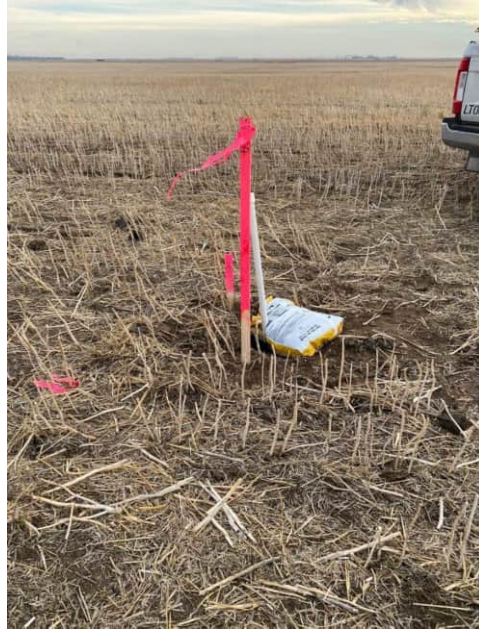
SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE 3

Photograph #7: Post-Drilling SS-BH25-04



Photograph #8: Post-Drilling SS-BH25-05



CLIENT: Enbridge

**GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK**

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE 4

Photograph #9: Post-Drilling SS-BH25-06



Photograph #10: SS-BH25-06 Sample SS6



GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

CLIENT: Enbridge

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE 5

Photograph #11: Post-Drilling SS-BH25-07



Photograph #12: Post-Drilling SS-BH25-08



GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

CLIENT: Enbridge

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE 6

Photograph #13: SS-BH25-08 Sample SS2



Photograph #14: Post-Drilling SS-BH25-09



CLIENT: Enbridge

GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE 7

Photograph #15: Post-Drilling SS-BH25-10



Photograph #16: SS-BH25-10 Sample SS5



CLIENT: Enbridge

GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE 8

Photograph #17: Post-Drilling SS-BH25-11B



Photograph #18: Post-Drilling SS-BH25-12



CLIENT: Enbridge

**GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK**

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE 9

Photograph #19: Post-Drilling SS-BH25-13



Photograph #20: SS-BH25-14 During Drilling



CLIENT: Enbridge

GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
10

Photograph #21: Post-Drilling SS-BH25-15



Photograph #22: Post-Drilling SS-BH25-16



CLIENT: Enbridge

**GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK**

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

**PAGE
11**

Photograph #23: Post-Drilling SS-BH25-17



Photograph #24: Post-Drilling SS-BH25-18B



CLIENT: Enbridge

GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
12

Photograph #25: Post-Drilling SS-BH25-19



Photograph #26: Post-Drilling SS-BH25-20B



CLIENT: Enbridge

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Seven Stars Wind Farm
East of Weyburn, SK

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DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
13

Photograph #27: Post-Drilling SS-BH25-21



Photograph #28: Post-Drilling SS-BH25-22



CLIENT: Enbridge

**GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK**

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

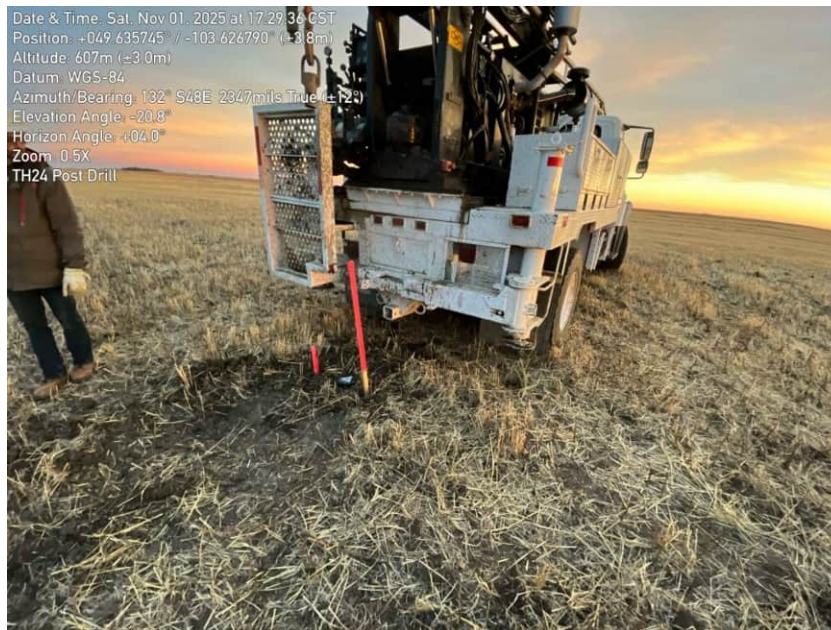
PROJECT NO. CA0059493.2836

**PAGE
14**

Photograph #29: Post-Drilling SS-BH25-23B



Photograph #30: Post-Drilling SS-BH25-24



GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

CLIENT: Enbridge

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
15

Photograph #31: SS-BH25-22 Sample SS6



Photograph #32: Post-Drilling SS-BH25-25



CLIENT: Enbridge

GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

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SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
16

Photograph #33: Post-Drilling SS-BH25-26



Photograph #34: Post-Drilling SS-BH25-27



GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

CLIENT: Enbridge

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SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
17

Photograph #35: SS-BH25-27 Sample SS3



Photograph #36: Post-Drilling SS-BH25-28



CLIENT: Enbridge

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Seven Stars Wind Farm
East of Weyburn, SK

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DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
18

Photograph #37: SS-BH25-28 Sample SS3



Photograph #38: Post-Drilling SS-BH25-29



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Seven Stars Wind Farm
East of Weyburn, SK

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DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
19

Photograph #39: Post-Drilling SS-BH25-30



Photograph #40: Post-Drilling SS-BH25-31B



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Seven Stars Wind Farm
East of Weyburn, SK**

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

**PAGE
20**

Photograph #41: Post-Drilling SS-BH25-32B



Photograph #42: Post-Drilling SS-BH25-33B



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Seven Stars Wind Farm
East of Weyburn, SK

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SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
21

Photograph #43: Post-Drilling SS-BH25-34



Photograph #44: SS-BH25-34 Sample SS4



CLIENT: Enbridge

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Seven Stars Wind Farm
East of Weyburn, SK

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
22

Photograph #45: Post-Drilling SS-BH25-35



Photograph #46: Post-Drilling SS-BH25-36C



CLIENT: Enbridge

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Seven Stars Wind Farm
East of Weyburn, SK**

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SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

**PAGE
23**

Photograph #47: Post-Drilling SS-BH25-37B



Photograph #48: Post-Drilling SS-BH25-38B



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Seven Stars Wind Farm
East of Weyburn, SK**

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SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

**PAGE
24**

Photograph #49: Post-Drilling SS-BH25-39



Photograph #50: SS-BH25-39 Sample SS6



GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

CLIENT: Enbridge

MADE BY: DP

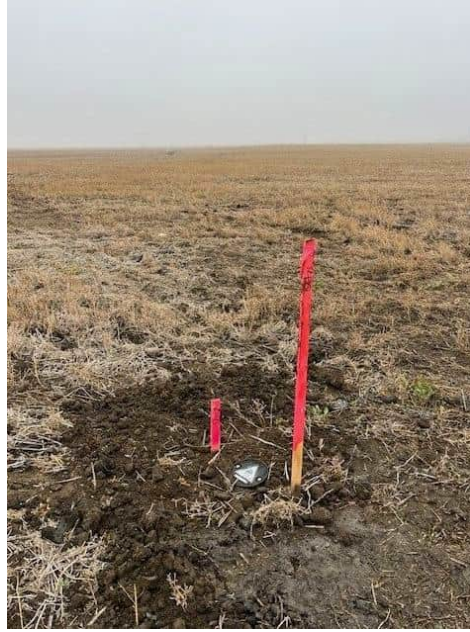
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DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
25

Photograph #51: Post-Drilling SS-BH25-40



Photograph #52: Post-Drilling SS-BH25-41



CLIENT: Enbridge

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Seven Stars Wind Farm
East of Weyburn, SK**

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DATE: 2026-02-09

PROJECT NO. CA0059493.2836

**PAGE
26**

Photograph #53: Post-Drilling SS-BH25-42



Photograph #54: SS-BH25-42 Sample SS3



CLIENT: Enbridge

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Seven Stars Wind Farm
East of Weyburn, SK

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SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
27

Photograph #55: SS-BH25-42B During Drilling



Photograph #56: Post-Drilling SS-BH25-44B



CLIENT: Enbridge

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Seven Stars Wind Farm
East of Weyburn, SK**

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SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

**PAGE
28**

Photograph #57: Post-Drilling SS-BH25-45



Photograph #58: SS-BH25-46 During Drilling



CLIENT: Enbridge

**GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK**

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

**PAGE
29**

Photograph #59: SS-BH25-47 During Drilling



Photograph #60: Post-Drilling SS-BH25-48



CLIENT: Enbridge

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Seven Stars Wind Farm
East of Weyburn, SK

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
30

Photograph #61: Post-Drilling SS-BH25-49B



Photograph #62: Post-Drilling SS-BH25-50B



CLIENT: Enbridge

GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
31

Photograph #63: Post-Drilling SS-BH25-51



Photograph #64: Post-Drilling SS-BH25-52



GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

CLIENT: Enbridge

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
32

Photograph #65: SS-BH25-52 Sample SS2



Photograph #66: Post-Drilling SS-BH25-53



CLIENT: Enbridge

GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
33

Photograph #67: Post-Drilling SS-BH25-54



Photograph #68: Post-Drilling SS-BH25-55



CLIENT: Enbridge

**GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK**

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

**PAGE
34**

Photograph #69: Post-Drilling SS-BH25-56



GEOTECHNICAL INVESTIGATION
Seven Stars Wind Farm
East of Weyburn, SK

CLIENT: Enbridge

MADE BY: DP

SCALE: N/A

DATE: 2026-02-09

PROJECT NO. CA0059493.2836

PAGE
35

APPENDIX D

Borehole Logs

METHOD OF SOIL CLASSIFICATION

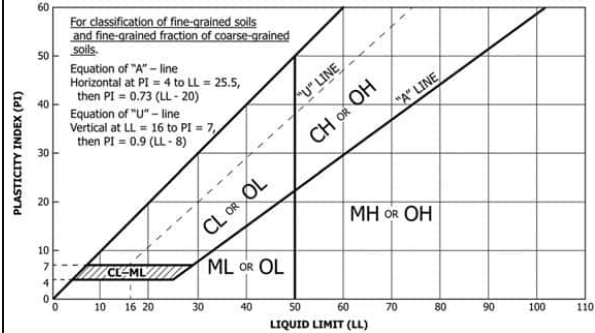
The WSP Canada Soil Classification¹ System is based on the Unified Soil Classification System (USCS) (after ASTM D2487)

Organic or Inorganic	Soil Group	Type of Soil	Gradation or Plasticity	$Cu = \frac{D_{60}}{D_{10}}$	$Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$	Organic Content ^{6,9}	USCS Group Symbol ^{5,7}	Primary Group Name ²	
INORGANIC (Organic Content <30% by mass)	COARSE-GRAINED SOILS (>50% by mass is larger than 0.075 mm)	GRAVELS (>50% by mass of coarse fraction is larger than 4.75 mm)	Clean Gravels with <5% fines ³ (by mass)	Well Graded	≥4 (and)	≥1 to ≤3	≤30%	GW	Well-graded GRAVEL ^{4,6}
				Poorly Graded	<4 (and/or)	<1 or >3		GP	Poorly graded GRAVEL ^{4,6}
			Gravels with >12% fines ³ (by mass)	Below A Line	n/a	GM		SILTY GRAVEL ^{4,6}	
				Above A Line	n/a	GC		CLAYEY GRAVEL ^{4,5,6}	
		SANDS (≥50% by mass of coarse fraction is smaller than 4.75 mm)	Clean Sands with <5% fines ⁷ (by mass)	Well Graded	≥6 (and)	≥1 to ≤3		SW	Well-graded SAND ^{6,8}
				Poorly Graded	<6 (and/or)	<1 or >3		SP	Poorly graded SAND ^{6,8}
			Sands with >12% fines ⁷ (by mass)	Below A Line	n/a	SM		SILTY SAND ^{6,8}	
				Above A Line	n/a	SC		CLAYEY SAND ^{5,6,8}	

Organic or Inorganic	Soil Group	Type of Soil	Laboratory Tests	Field Indicators					Organic Content ^{8,H}	USCS Group Symbol ^A	Primary Group Name ^A
				Dilatancy	Dry Strength	Shine Test	Thread Diameter (mm)	Toughness (of 3 mm thread)			
INORGANIC (Organic Content <30% by mass)	FINE-GRAINED SOILS (≥50% by mass is smaller than 0.075 mm)	SILTS (Nonplastic or PI and LL plot below A-Line on Plasticity Chart below)	Liquid Limit <50 ^D	Rapid	None to Low	Dull to None	3 to >6	Low/can't roll 3 mm	<15%	ML	SILT ^H
				None to Slow	Low to Medium	Dull to Slight	3 to 6	Low	15% to 30%	OL	ORGANIC SILT
			Liquid Limit ≥50 ^D	None to V.Slow	Low to Medium	Slight	3 to 6	Low to Medium	<15%	MH	ELASTIC SILT ^H
				None	Medium to High	Dull to Slight	1 to 3	Low to Medium	15% to <30%	OH	ORGANIC SILT
		CLAYS (PI and LL plot above A-Line on Plasticity Chart below) ^A	Liquid Limit <50 ^D	None to Medium Slow	Medium to High	Slight to Shiny	1 to 3	Medium	<15%	CL	LEAN CLAY ^{A,E,F,G,H}
				None to V.Slow	Medium to High	Slight to Shiny	1 to 3	Medium	15% to <30%	OL	ORGANIC CLAY ^{E,F,G}
			Liquid Limit ≥50 ^D	None	High to V.High	Shiny	<1	High	<15%	CH	FAT CLAY ^{E,F,G,H}
				None	High	Shiny	<1 to 1	High	15% to <30%	OH	ORGANIC CLAY ^{E,F,G}
HIGHLY ORGANIC SOILS (Organic Content >30% by mass)	Peat and mineral soil mixtures	Relatively lightweight, possibly spongy. Some water may squeeze from sample. Some shrinkage may occur on air drying. Sand fraction may be visible. Low to high dilatancy. Thread weak near plastic limit. Low to medium dry strength.					30% to <75%	PT	SILTY PEAT, SANDY PEAT		
	Predominantly peat, may contain some mineral soil, fibrous or amorphous peat	Lightweight, spongy. Much water squeezes from sample. Shrinks considerably on air drying (i.e., very high water content). Plant structure identifiable to altered.					75% to 100%		PEAT		

Coarse-Grained Soil Note(s):

- Based on the material passing the 75 mm sieve.
- If field sample contains or drilling observations indicate cobbles or boulders or both, add, "with cobbles" or "with cobbles and boulders". Include notes on the depth(s) encountered, and sizes if possible.
- Gravels with 5% to 12% fines require dual symbols:
(GW-GM) Well-graded GRAVEL with silt,
(GW-GC) Well-graded GRAVEL with clay,
(GP-GM) Poorly graded GRAVEL with silt,
(GP-GC) Poorly graded GRAVEL with clay.
- If soil contains ≥15% sand, add "with sand" to Group Name.
- If fines classify as CL-ML, use dual symbol (GC-GM) or (SC-SM) for Group Symbol.
- If the soil has an organic content (OC) 15% ≤ OC < 30% the prefix "Organic" should be added before the Group Name. If the soil has an organic content 3% ≤ OC < 15% add "with organic fines" to Group Name. If the soil contains >0% to ≤3% organics, the descriptor "trace organics" may be added to the Group Name.
- Sands with 5% to 12% fines require dual symbols:
(SW-SM) Well-graded SAND with silt,
(SW-SC) Well-graded SAND with clay,
(SP-SM) Poorly graded SAND with silt,
(SP-SC) Poorly graded SAND with clay.
- If soil contains ≥15% gravel, add "with gravel" to Group Name.



Fine-Grained Soil Note(s):

- If Atterberg limits plot above the A-line but in the 'hatched' area on the plasticity chart, soil is a (CL-ML) SILTY CLAY.
- If the soil contains >0% to ≤3% organics, the descriptor "trace organics" may be added to the Group Name.
- If fine-grained materials are nonplastic (i.e., a plastic limit (PL) cannot be measured), soil is a (ML) SILT.
- If soil has a liquid limit (LL) >30% to <50%, the term 'medium plasticity' may be included in the description, but the Group Name/Symbol is not changed.
- If soil contains 15% to <30% +No.200, add "with sand" or "with gravel".
- If soil contains ≥30% +No.200 mainly sand, add "Sandy" to Group Name.
- If soil contains ≥30% +No.200 mainly gravel, add "Gravelly" to Group Name.
- If the soil has an organic content (OC) 3% ≤ OC < 15% add "with organic fines" to Group Name.

ABBREVIATIONS AND TERMS USED ON RECORDS OF BOREHOLES AND TEST PITS

PARTICLE SIZES OF CONSTITUENTS

Soil Constituent	Particle Size Description	Millimetres	Inches (US Std. Sieve Size)
BOULDERS	Not Applicable	>300	>12
COBBLES	Not Applicable	75 to 300	3 to 12
GRAVEL	Coarse	19 to 75	0.75 to 3
	Fine	4.75 to 19	(4) to 0.75
SAND	Coarse	2.00 to 4.75	(10) to (4)
	Medium	0.425 to 2.00	(40) to (10)
	Fine	0.075 to 0.425	(200) to (40)
SILT/CLAY	Classified by plasticity	<0.075	< (200)

GRADATIONAL COMPONENT TERMS

% (by mass)	Term
< 5	Use "trace"
≥ 5 to ≤ 12	Use "few"
> 12 to <30	Use "little"
≥ 30 to <50	Use "some"
≥ 50	Use "mostly"

PENETRATION RESISTANCE

Standard Penetration Resistance (SPT), N:

The number of blows by a 63.5 kg (140 lb) hammer dropped 760 mm (30 in.) required to drive a 50 mm (2 in.) split-spoon sampler for a distance of 300 mm (12 in.). Values reported are as recorded in the field and are uncorrected.

Cone Penetration Test (CPT)

An electronic cone penetrometer with a 60° conical tip and a project end area of 10 cm² pushed through ground at a penetration rate of 2 cm/s. Measurements of tip resistance (q), porewater pressure (u) and sleeve frictions are recorded electronically at 25 mm penetration intervals.

Dynamic Cone Penetration Resistance (DCPT); Nd:

The number of blows by a 63.5 kg (140 lb) hammer dropped 760 mm (30 in.) to drive uncased a 50 mm (2 in.) diameter, 60° cone attached to "A" size drill rods for a distance of 300 mm (12 in.).

PH: Sampler advanced by hydraulic pressure

PM: Sampler advanced by manual pressure

WH: Sampler advanced by static weight of hammer

WR: Sampler advanced by weight of sampler and rod

SAMPLES

AS	Auger sample
BS	Block sample
CS	Chunk sample
DD	Diamond Drilling
DO or DP	Seamless open ended, driven, pushed tube sampler, or geoprobe macro-core – note size
DS	Denison type sample
FS	Foil Sample
GS	Grab Sample
MC	Modified California Samples – note sample diameter and hammer weight
MS	Modified Shelby (for frozen soil)
RC	Rock core
SC	Soil core
SS	Split-spoon sampler (50 mm OD); larger sizes use MC
ST	Slotted tube
TO	Thin-walled, open – note size (Shelby tube)
TP	Thin-walled, piston – note size (Shelby tube)
WS	Wash sample

SOIL TESTS

PL, W _p	plastic limit
LL, W _L	liquid limit
C	consolidation (oedometer) test
CHEM	chemical analysis (refer to text)
CID	consolidated isotropically drained triaxial test ¹
CIU	consolidated isotropically undrained triaxial test with porewater pressure measurement ¹
D _R	relative density (specific gravity, G _s)
DS	direct shear test
GS	specific gravity
M	sieve analysis for particle size
MH	combined sieve and hydrometer (H) analysis
MPC	Modified Proctor compaction test
SPC	Standard Proctor compaction test
OC	organic content test
SO ₄	concentration of water-soluble sulphates
UC	unconfined compression test
UU	unconsolidated undrained triaxial test
V (FV)	field vane (LV-laboratory vane test)
γ	unit weight

1. Tests anisotropically consolidated prior to shear are shown as CAD, CAU.

NON-COHESIVE (COHESIONLESS) SOILS	COHESIVE SOILS																																	
Compactness² <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th>Term</th> <th>SPT 'N' (blows/0.3m)¹</th> </tr> </thead> <tbody> <tr><td>Very Loose</td><td>0 to 4</td></tr> <tr><td>Loose</td><td>4 to 10</td></tr> <tr><td>Compact</td><td>10 to 30</td></tr> <tr><td>Dense</td><td>30 to 50</td></tr> <tr><td>Very Dense</td><td>>50</td></tr> </tbody> </table> <p style="font-size: small; margin-top: 10px;">1. SPT 'N' in general accordance with ASTM D1586, uncorrected for the effects of overburden pressure. 2. Definition of compactness terms are based on SPT 'N' ranges as provided in Terzaghi, Peck and Mesri (1996). Many factors affect the recorded SPT 'N' value, including hammer efficiency (which may be greater than 60% in automatic trip hammers), overburden pressure, groundwater conditions, and grain size. As such, the recorded SPT 'N' value(s) should be considered only an approximate guide to the soil compactness. These factors need to be considered when evaluating the results, and the stated compactness terms should not be relied upon for design or construction.</p>	Term	SPT 'N' (blows/0.3m) ¹	Very Loose	0 to 4	Loose	4 to 10	Compact	10 to 30	Dense	30 to 50	Very Dense	>50	Consistency <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th>Term</th> <th>Undrained Shear Strength (kPa)</th> <th>SPT 'N'^{1,2} (blows/0.3m)</th> </tr> </thead> <tbody> <tr><td>Very Soft</td><td><12</td><td>0 to 2</td></tr> <tr><td>Soft</td><td>12 to 25</td><td>2 to 4</td></tr> <tr><td>Firm</td><td>25 to 50</td><td>4 to 8</td></tr> <tr><td>Stiff</td><td>50 to 100</td><td>8 to 15</td></tr> <tr><td>Very Stiff</td><td>100 to 200</td><td>15 to 30</td></tr> <tr><td>Hard</td><td>>200</td><td>>30</td></tr> </tbody> </table> <p style="font-size: small; margin-top: 10px;">1. SPT 'N' in general accordance with ASTM D1586, uncorrected for overburden pressure effects; approximate only. 2. SPT 'N' values should be considered ONLY an approximate guide to consistency; for sensitive clays (e.g., Champlain Sea clays), the N-value approximation for consistency terms does NOT apply. Rely on direct measurement of undrained shear strength or other manual observations.</p>	Term	Undrained Shear Strength (kPa)	SPT 'N' ^{1,2} (blows/0.3m)	Very Soft	<12	0 to 2	Soft	12 to 25	2 to 4	Firm	25 to 50	4 to 8	Stiff	50 to 100	8 to 15	Very Stiff	100 to 200	15 to 30	Hard	>200	>30
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LIST OF SYMBOLS

Unless otherwise stated, the symbols employed in the report are as follows.

I. GENERAL

π	3.1416
$\ln x$	natural logarithm of x
\log_{10}	x or log x, logarithm of x to base 10
g	acceleration due to gravity
t	time

II. STRESS AND STRAIN

γ	shear strain
Δ	change in, e.g. in stress: $\Delta \sigma$
ε	linear strain
ε_v	volumetric strain
η	coefficient of viscosity
ν	Poisson's ratio
σ	total stress
σ'	effective stress ($\sigma' = \sigma - u$)
σ'_{vo}	initial effective overburden stress
$\sigma_1, \sigma_2, \sigma_3$	principal stress (major, intermediate, minor)
σ_{oct}	mean stress or octahedral stress $= (\sigma_1 + \sigma_2 + \sigma_3)/3$
τ	shear stress
u	porewater pressure
E	modulus of deformation
G	shear modulus of deformation
K	bulk modulus of compressibility

III. SOIL PROPERTIES

(a) Index Properties

$\rho(\gamma)$	bulk density (bulk unit weight)*
$\rho_d(\gamma_d)$	dry density (dry unit weight)
$\rho_w(\gamma_w)$	density (unit weight) of water
$\rho_s(\gamma_s)$	density (unit weight) of solid particles
γ'	unit weight of submerged soil ($\gamma' = \gamma - \gamma_w$)
D_R	relative density (specific gravity) of solid particles ($D_R = \rho_s / \rho_w$) (formerly G_s)
e	void ratio
n	porosity
S	degree of saturation
w	water content
w_l or LL	liquid limit
w_p or PL	plastic limit
I_p or PI	plasticity index = $(w_l - w_p)$
NP	nonplastic
w_s	shrinkage limit
LI	liquidity index = $(w - w_p) / I_p$
CI	consistency index = $(w_l - w) / I_p$
e_{max}	void ratio in loosest state
e_{min}	void ratio in densest state
Id	density index = $(e_{max} - e) / (e_{max} - e_{min})$ (formerly relative density)

(b) Hydraulic Properties

h	hydraulic head or potential
q	rate of flow
v	velocity of flow
i	hydraulic gradient
k	hydraulic conductivity (coefficient of permeability)
j	seepage force per unit volume

(c) Consolidation (one-dimensional)

C_c	compression index (normally consolidated range)
C_r	recompression index (over-consolidated range)
C_s	swelling index
C_{α}	secondary compression index
m_v	coefficient of volume change
C_v	coefficient of consolidation (vertical direction)
C_h	coefficient of consolidation (horizontal direction)
T_v	time factor (vertical direction)
U	degree of consolidation
σ'_p	pre-consolidation stress
OCR	over-consolidation ratio = σ'_p / σ'_{vo}

(d) Shear Strength

τ_p, τ_r	peak and residual shear strength
ϕ'	effective angle of internal friction
δ	angle of interface friction
μ	coefficient of friction = $\tan \delta$
c'	effective cohesion
c_u, s_u	undrained shear strength ($\phi = 0$ analysis)
p	mean total stress $(\sigma_1 + \sigma_3)/2$
p'	mean effective stress $(\sigma'_1 + \sigma'_3)/2$
q	$(\sigma_1 - \sigma_3)/2$ or $(\sigma'_1 - \sigma'_3)/2$
q_u	compressive strength $(\sigma_1 - \sigma_3)$
S_t	sensitivity

Notes

- * Density symbol is ρ . Unit weight symbol is γ where $\gamma = \rho g$ (i.e. mass density multiplied by acceleration due to gravity)
- 1. $\tau = c' + \sigma' \tan \phi'$
- 2. shear strength = (compressive strength)/2

RECORD OF BOREHOLE: SS-BH25-01

CLIENT: Enbridge DATE: November 02, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5495782.0 m E: 690312.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	W Water Content (%)					NP Nonplastic
0.00			TOPSOIL; clayey; brownish black, friable.															
0.30			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w~ PL, very stiff.	CL		1	AS											
			- 1.52 m: becomes stiff, w>PL			2	AS											
			- 2.13 m: becomes little fine to coarse sand, trace fine gravel, very stiff			3	AS											
						1	SS		6-6.8	14								
2.74			(CL) Lean clay, mostly medium plasticity FINES, trace fine sand; brown, iron oxide staining; cohesive, w~ PL, very stiff, slightly blocky structure.	CL		4	AS											
						5	AS											
						2	SS		8.9-11	20								
4.57			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; brown to grey, blocky, iron oxide staining, (SHALE); cohesive, w < PL, hard.	CH		3	SS		4-14-18	32								
						7	AS											
						4	SS		12-17-24	41								
						8	AS											
6.10			- 6.10 m: becomes hard	CH		1	TO		54									
						9	AS											
						5	SS		18-24-45	69								
						10	AS											

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Nov 02, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-01

CLIENT: Enbridge DATE: November 02, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5495782.0 m E: 690312.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane	
												H	U	NP	U							
11	R501/OME75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, trace fine sand; brown to grey, blocky, iron oxide staining, (SHALE); cohesive, w < PL, hard.	CH	[Strata Plot]																	
12						- 12.19 m: iron oxide staining, grey																
13						End of hole at 12.65 m. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 12.0 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 16/25, hole backfilled with bentonite to surface after removal. -No water observed in standpipe prior to removal. -Borehole remained open to 12.0 m upon completion of drilling.																
14																						
15																						
16																						
17																						
18																						
19																						
20																						

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Nov 02, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-02

CLIENT: Enbridge DATE: November 02, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5496539.0 m E: 590319.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)					NP Nonplastic	Nat Vane
0.00			TOPSOIL; silty clay; brown, friable.																
0.30			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w < PL, very stiff.	CL	[Strata Plot]	1	AS												
		2				AS													
		3				AS													
1.52			- 1.52 m: w>PL																
1.98			(CL) Lean clay, mostly medium plasticity FINES, trace fine sand; brown; cohesive, w > PL, very stiff, trace sandy inclusions.	CL	[Strata Plot]	1	SS		5-9-10	19									
		4				AS													
		5				AS													
3.05			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; dark brownish grey, blocky, iron oxide staining, (SHALE); cohesive, w < PL, hard, fine sand laminations.	CH	[Strata Plot]	2	SS		6-8-9	17									
		6				AS													
		7				AS													
3.66			- 3.66 m: becomes hard																
6.10			- 6.10 m: becomes very stiff																
6.71				CH	[Strata Plot]	1	TO		67										
		7				AS													
		8				AS													
8.23			- 8.23 m: no iron oxide staining, becomes w~PL						6-12-15	27									
8.23				CH	[Strata Plot]	4	SS		7-10-18	28									
		9				AS													
		10				AS													
9.14			- 9.14 to 9.60 m: fine sand seam, w>PL						10-17-23	40									
10.00																			

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Nov 02, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-02

CLIENT: Enbridge DATE: November 02, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5496539.0 m E: 590319.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane		
												H	U	NP	u								
11	R501/CM75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, trace fine sand; dark brownish grey, blocky, iron oxide staining, (SHALE); cohesive, w < PL, hard, fine sand laminations.	CH	[Strata Plot]	2	TO																
12						- 11.28 m: dark grey	11	AS						○									
12.19						- 12.19 m: iron oxide staining, becomes hard	6	SS	12-14-20	34					○						12.19 m: Seepage Observed		
13			End of hole at 12.65 m. -Seepage observed between 9.2 m and 9.8 m and below 12.2 m during drilling. -Sloughing not observed during drilling. -Test hole remained open to 12.65 m with water accumulated to 5.49 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 16/25, hole backfilled with bentonite to surface after removal. -Water observed at 2.8 m in standpipe prior to removal-Borehole remained open to 12.65 m upon completion of drilling.																				
14																							
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17																							
18																							
19																							
20																							

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Nov 02, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-03

CLIENT: Enbridge	DATE: November 03, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm		COORDINATES: N: 5497304.0 m E: 590398.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			TOPSOIL; silty clay; brownish black.														
0.15			(SC) Clayey sand, mostly fine to medium SAND, some low plasticity fines; light brown; non-cohesive, damp, loose (inf.).	SC			1	AS									
1.22			(CL) Lean clay with sand, mostly low plasticity FINES, few fine to coarse sand, trace fine gravel; brown, TILL; cohesive, w~ PL, stiff.	CL			3	AS									
2.13			- 2.13 m: becomes very stiff				1	SS	6-6-7	13							
3.05			(SM) Silty sand, mostly fine to coarse SAND, little non plastic fines; brown; non-cohesive, damp, dense.	SM			2	SS	50-26-16	42							
3.48			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w > PL, very stiff.	CL			6	AS									
4.90			(SM) Silty sand, mostly fine to coarse SAND, little non plastic fines; brown; non-cohesive, wet, compact.	SM			3A	SS	8-8-14	22							
5.18			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; dark brown, TILL; cohesive, w > PL, very stiff.	CL			7	AS									
6.10			(SM) Silty sand, mostly fine to coarse SAND, little non plastic fines; brown; non-cohesive, wet, compact (inf.).	SM			1	TO									
6.40			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; dark brown, TILL; cohesive, w > PL, very stiff (inf.).	CL			8	AS									
6.71			- 6.71 m: hard														
7.62			(CH) Fat clay, mostly high plasticity FINES, trace fine sand, trace fine gravel; dark grey, blocky, iron oxide staining, (SHALE); cohesive, w < PL, very stiff.	CH			4	SS	9-10-14	24							
8.23			- 8.23 m: hard				9	AS									
8.53			- 8.53 m: wet sand lens ~ 20 mm thick														
9.14			- 9.14 m: no iron oxide staining				5	SS	12-17-20	37							

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
CHECKED: LN

DATE: Nov 03, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-03

CLIENT: Enbridge DATE: November 03, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5497304.0 m E: 590398.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane
												H	NP	O	NP						
11	R501/CM75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, trace fine sand, trace fine gravel; dark grey, blocky, iron oxide staining, (SHALE); cohesive, w < PL, very stiff.	CH	[Strata Plot]	6	SS		50/50mm		○				○			10.67 m: Crushed Rock (Shale) Blocking Split Spoon Entrance			
12						11	AS				○			■		220.5					
13						7	SS	15-17.25	42	○		■	220.5								
14			End of hole at 12.65 m. -Seepage observed between 3.1 m and 3.5 m, and 4.9 m and 5.2 m during drilling. -Sloughing observed between 4.88 m and 5.18 m, 6.10 m and 6.40 m, and at 8.53 m during drilling. -Test hole remained open to 12.20 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 16/25, hole backfilled with bentonite to surface after removal. -Water observed at 4.2 m in standpipe prior to removal.																		
15																					
16																					
17																					
18																					
19																					
20																					

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Nov 03, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-04

CLIENT: Enbridge DATE: October 25, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5497557.5 m E: 590965.5 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
			DESCRIPTION	USCS	STRATA PLOT	ELEV. (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)					NP Nonplastic
0.00			(SM) Silty sand, mostly fine to medium SAND, little non plastic fines, trace fine to coarse gravel; brown; non-cohesive, damp, very loose (inf.), trace organics.	SM			1	AS										
1.52			(SC-SM) Silty, clayey sand, mostly fine to medium SAND, little low plasticity fines; brown; non-cohesive, damp, very loose.	SC-SM			1	SS	2-1-2	3								
2.44			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand; brown, TILL; cohesive, w > PL, soft to firm.	CL			4	AS										
3.05			- 3.05 m: becomes trace fine gravel, firm to stiff					2	SS	4-4-4	8			24.5				
4.27			- 4.27 m: becomes stiff					6	AS									
4.57			- 4.57 m: becomes w~PL, very stiff					3	SS	4-6-12	18							
6.10			(CL) Lean clay, mostly medium plasticity FINES; brown, iron oxide staining; cohesive, w~ PL, firm.					7	AS									
7.32			- 7.32 m: becomes very stiff				8	AS										
8.9							4	SS	8-9-10	19								
9.15			(CH) Fat clay, mostly high plasticity FINES; grey, blocky, iron oxide staining, (SHALE); cohesive, w > PL, very stiff.	CH			5	SS	8-10-16	26								

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Oct 25, 2025
 DATE: Jan 26, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-04

CLIENT: Enbridge DATE: October 25, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5497557.5 m E: 590965.5 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS					
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic	Nat Vane					Rem Vane	Pocket Pen Su	u	Torvane	
																								9-13-18
11	R601/CME75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES; grey, blocky, iron oxide staining, (SHALE); cohesive, w > PL, very stiff. - 10.36 m: wet sand lens ~ 50 mm thick - 10.67 m: becomes w-PL - 11.89 m: becomes hard - 13.41 to 13.72 m: very thinly bedded coarse sand	CH		10	AS													6.10 - 14.17 m bgs: Bentonite				
						2	TO	100															10.67 - 10.72 m: Seepage observed 10.67 m: Dry Density-Sample TO2=1638 kg/m3	
						11	AS																	
						6	SS		9-13-18	31														
						12	AS																	
14					7	SS		9-16-19	35															
15			End of hole at 14.17 m. -Seepage observed at 10.7 m during drilling. -Sloughing was not observed during drilling. -Test hole remained open to 14.17 m with water accumulated to 6.4 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 16/25, hole backfilled with bentonite to surface after removal. -Water observed at 3.8 m in standpipe prior to removal.																					
16																								
17																								
18																								
19																								
20																								

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Oct 25, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-05

CLIENT: Enbridge DATE: October 26, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5498225.7 m E: 590906.5 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			TOPSOIL; moist, friable.														
0.30			(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand, trace fine gravel; brown, TILL; cohesive, w~ PL, stiff.	CH													
1.52			- 1.52 m: w<PL	CH													
2.74			- 2.74 m: stiff to very stiff	CH													
3.05			(CL) Lean clay, mostly medium plasticity FINES; brown, iron oxide staining; w < PL, very stiff.	CL													
3.05			- 3.05 m: presence of cobbles/boulders	CL													
4.27			- 4.27 m: w>PL	CL													
4.57			- 4.57 m: trace fine gravel (Shale)	CL													
6.10			- 6.10 m: trace medium to coarse sand	CL													
7.32			- 7.32 m: hard	CL													
7.62			(CH) Fat clay, mostly high plasticity FINES, trace fine sand, trace gravel; brown, blocky, iron oxide staining, (SHALE); cohesive, w~ PL, hard, occasional hard angular shale fragments.	CH													
9.14			- 9.14 m: becomes w~PL	CH													

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Oct 26, 2025
 DATE: Jan 26, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-05

CLIENT: Enbridge DATE: October 26, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5498225.7 m E: 590906.5 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic	Nat Vane					Rem Vane	Pocket Pen Su	Torvane	
																							10
11	R601/CME75 SSA - 125-mm Hole Dia.	CH	(CH) Fat clay, mostly high plasticity FINES, trace fine sand, trace gravel; brown, blocky, iron oxide staining, (SHALE); cohesive, w-PL, hard, occasional hard angular shale fragments. - 10.14 m: becomes w>PL	CH	10	AS														26 Oct 25 6.10 - 15.70 m bgs: Bentonite			
12					6	SS				10-15-17	32												
13					11	AS																	12.19 m: Unconfined Compressive Strength- Sample TO2: Max Stress = 8 kPa Strain at Failure = 10.3% Dry Density = 1117 kg/m3 12.20 - 12.80 m: Seepage Inferred
14					12	AS																	
15					2	TO			62														
16					12	AS																	
17					7	SS				17-19-23	42												
18					13	AS																	
19					10	SS				19-25-31	56												
20																							
16			End of hole at 15.70 m. -Auger refused on inferred boulder/cobbles at 3.1 m. Moved test hole 2 m and redrilled. Auger refused at 3.1 m. Moved test hole 2 m and redrilled. -Seepage observed between 12.2 m to 12.8 m during drilling. -Sloughing was not observed during drilling. -Test hole remained open to 15.7 m with water accumulated to 10.36 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 16/25, hole backfilled with bentonite to surface after removal. -Water observed at 3.8 m in standpipe prior to removal.																				

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



REV: 0

LOGGED: MR
 CHECKED: LN
 DATE: Oct 26, 2025
 DATE: Jan 26, 2026

RECORD OF BOREHOLE: SS-BH25-06

CLIENT: Enbridge DATE: November 03, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5497078.0 m E: 592907.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT	SHEAR STRENGTH (kPa)	ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %						
0.00			TOPSOIL; clayey; greyish brown.			0.00									
0.30			(CL) Sandy lean clay, mostly low plasticity FINES, some fine to coarse sand; light brown; cohesive, w > PL, very stiff.	CL	[Strata Plot]	0.30	1	AS							
1.22			(SP) Poorly graded sand, mostly fine SAND, trace non plastic fines; brown, few medium sand; non-cohesive, wet, loose.	SP	[Strata Plot]	1.22	3	AS							
1.98			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w > PL, stiff.	CL	[Strata Plot]	1.98	1	SS		4-4	8				
2.44															
2.44			(SP) Poorly graded sand, mostly fine to medium SAND; bluish grey; non-cohesive, wet, dense, (inf.).	SP	[Strata Plot]	2.44	4	AS							
3.05			- 3.05 m: becomes dense, presence of cobbles (inf)	SP	[Strata Plot]	3.05	5	AS							
3.66			(SC-SM) Silty, clayey sand, mostly fine to medium SAND, little low plasticity fines; bluish grey; non-cohesive, moist, very dense (inf.).	SC-SM	[Strata Plot]	3.66	2	SS		17-21-25	46				
4.57															
4.57			- 4.57 m: becomes very dense	SC-SM	[Strata Plot]	4.57	6	AS							
5.18			(SC) Clayey sand, mostly fine to coarse SAND, some high plasticity fines, trace gravel; bluish grey; cohesive, w- PL, very stiff (inf.), occasional hard angular shale fragments.	SC	[Strata Plot]	5.18	3	SS		17-50/130mm					
6.10															
6.10			- 6.10 m: becomes w>PL, very stiff	SC	[Strata Plot]	6.10	7	AS							
6.71			(CH) Fat clay, mostly high plasticity FINES, few fine sand; grey, blocky, (SHALE); cohesive, w- PL, hard.	CH	[Strata Plot]	6.71	4	SS		8-9-12	21				
7.8															
7.8						7.8	8	AS							
7.8						7.8	9	AS							
7.8						7.8	10	AS							
7.8						7.8	11	AS							
7.8						7.8	12	AS							
7.8						7.8	13	AS							
7.8						7.8	14	AS							
7.8						7.8	15	AS							
7.8						7.8	16	AS							
7.8						7.8	17	AS							
7.8						7.8	18	AS							
7.8						7.8	19	AS							
7.8						7.8	20	AS							
7.8						7.8	21	AS							
7.8						7.8	22	AS							
7.8						7.8	23	AS							
7.8						7.8	24	AS							
7.8						7.8	25	AS							
7.8						7.8	26	AS							
7.8						7.8	27	AS							
7.8						7.8	28	AS							
7.8						7.8	29	AS							
7.8						7.8	30	AS							
7.8						7.8	31	AS							
7.8						7.8	32	AS							
7.8						7.8	33	AS							
7.8						7.8	34	AS							
7.8						7.8	35	AS							
7.8						7.8	36	AS							
7.8						7.8	37	AS							
7.8						7.8	38	AS							
7.8						7.8	39	AS							
7.8						7.8	40	AS							
7.8						7.8	41	AS							
7.8						7.8	42	AS							
7.8						7.8	43	AS							
7.8						7.8	44	AS							
7.8						7.8	45	AS							
7.8						7.8	46	AS							
7.8						7.8	47	AS							
7.8						7.8	48	AS							
7.8						7.8	49	AS							
7.8						7.8	50	AS							

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Nov 03, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-06

CLIENT: Enbridge DATE: November 03, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5497078.0 m E: 592907.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS					
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane			
												H	NP	u	Torvane									
11	R601/CME75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, few fine sand; grey, blocky, (SHALE); cohesive, w- PL, hard.	CH		7	SS		10-12:15	27										6.40 - 15.70 m bgs: Bentonite				
						11	AS																	
12						8	SS		9-12:17	29														
						12	AS																	
14						9	SS		12-13:19	32														
						13	AS																	
15						10	SS		10-13:19	32														
16								End of hole at 15.70 m. -Auger/SPT refused on inferred cobbles at 3.1 m. Moved test hole 2 m W and redrilled. -Sloughing observed between 2.4 m and 5.2 m during drilling. -Seepage observed between 2.4 and 3.1 m during drilling. -Test hole remained open to 14.8 m with water accumulated to 14.3 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 16/25, hole backfilled with bentonite to surface after removal. -Water observed at 2.5 m in standpipe prior to removal.																
17																								
18																								
19																								
20																								

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Nov 03, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-07

CLIENT: Enbridge START DATE: November 29, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm END DATE: November 30, 2025 COORDINATES: N: 5497555.0 m E: 593244.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)					NP Nonplastic	Shear Strength Symbols
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse SAND, trace fine gravel; dark brown, TILL; cohesive, w~ PL, frozen to 0.3 m, trace organics to 0.91 m. - 0.91 m: becomes very stiff, occasional iron oxide staining - 1.52 m: becomes stiff - 2.13 m: becomes w>PL, soft to firm, little fine to coarse sand - 2.90 m: becomes w~PL, stiff	CL		1	AS							171.5					
1		2				AS									122.5	GI	0.91 m: %Fines = 51		
2		3				AS									122.5	ALS	1.22 m: Analytical Testing Results : pH = 8.33 Total Sulfate = <0.050% Soluble Sulfate = NR Chloride = <20 mg/L ORP = 268 mV Resistivity = 3000 ohm cm Chloride = <10 mg/k		
3		4				AS				5-6-8	14				24.5	MH	2.29 m: Grain Size Analysis-Sample AS4: Gravel = 1% Sand = 35% Silt = 41% Clay = 23% 3.35 - 4.88 m: Seepage Observed		0.00 - 3.05 m bgs: Bentonite
4		5				AS									78.5				
3.35			(SM) Silty sand, mostly fine to coarse SAND, some non plastic FINES; brown; wet, very dense, (No silty sand observed in redrilled borehole).	SM		2	SS			16-72-70	142								
4		6				AS													
5		3				SS			20-28-53	81									
4.88			(CH) Fat clay with sand, mostly high plasticity FINES, few fine to coarse sand, trace fine gravel; brown, iron oxide staining, TILL; cohesive, w < PL, hard, occasional white crystals to 6.10 m. - 5.94 m: becomes some fine to coarse sand, grey - 7.62 m: presence of cobbles/boulders	CH		7	AS												
6		1				TO	100								171.5	UC	6.10 m: Unconfined Compressive Strength-Sample TO1: Max Stress = 301 kPa Strain at Failure = 14.0% Dry Density = 1858 kg/m3		
7		8				AS									171.5				
8		4				SS			26-140-33	173					122.5		7.62 m: Auger Refusal on inferred cobbles/boulders		3.05 - 6.10 m bgs: Filter Sand 3.05 - 6.10 m bgs: Screen Interval
9		5				AS			30-40-34	74					147.0				
10																	6.10 - 12.65 m bgs: Bentonite		

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 29, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-07

CLIENT: Enbridge	START DATE: November 29, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 30, 2025	COORDINATES: N: 5497555.0 m E: 593244.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane		
												H	NP	u	Torvane								
11	R501/CM75	SSA - 125-mm Hole Dia.	(CH) Fat clay with sand, mostly high plasticity FINES, few fine to coarse sand, trace fine gravel; brown, iron oxide staining, TILL; cohesive, w < PL, hard, occasional white crystals to 6.10 m. - 10.52 m: becomes little fine to coarse sand	CH		10	AS																
12						2	TO																
13						6	SS	AS	40-60-24	84													
14			End of hole at 12.65 m. -Auger Refusal on inferred cobbles/boulders at 7.62 m. Moved borehole 3 m and redrilled. -Sloughing was not observed during drilling. -Seepage observed between 3.4 and 4.9 m during drilling.-Test hole remained open to 12.65 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 16/25, hole backfilled bentonite to surface after removal. -Water observed at 2.6 m in standpipe prior to removal.																				
15																							
16																							
17																							
18																							
19																							
20																							

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 29, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-08

CLIENT: Enbridge	START DATE: October 28, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: October 29, 2025	COORDINATES: N: 5497479.0 m E: 594216.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)						Rem Vane	
												W	PL					u	t
0.00			TOPSOIL - (SM) Silty sand, mostly SAND, trace fine gravel; friable.	SM			1	AS											
0.46			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, trace fine gravel; brown, TILL; cohesive, w~PL, very stiff.	CL			2	AS						GI	0.61 m: %Fines = 71				
1.52			- 1.52 m: becomes w>PL, iron oxide staining				3	AS						ALS	1.22 m: Analytical Testing Results: pH = 8.32 Total Sulfate = 3.13% Soluble Sulfate = 2.82% Chloride = 45 mg/L ORP = 287 mV Resistivity = 232 ohm-cm Chloride = 28 mg/kg		0.00 - 2.44 m bgs: Bentonite		
2.13			- 2.13 m: trace fine to coarse gravel				4	AS											
3.05			- 3.05 m: becomes stiff, some fine to coarse sand to 3.20 m				5	AS											
3.20			- 3.20 m: becomes few fine to coarse gravel				6	SS/AS	6-8-10	18									
3.50			- 3.50 m: some fine grained sand				7	AS											
4.57			(SC) Clayey sand, mostly fine to medium SAND, some low plasticity FINES; brown; non-cohesive, moist, compact.	SC			8	AS											
5.18			- 5.18 m: trace fine to coarse gravel				9	AS											
6.10			(CL) Lean clay with sand, mostly medium plasticity FINES, few fine to coarse sand, trace fine to coarse gravel; mottled brownish grey, TILL; cohesive, w~PL, stiff.	CL			10	AS											
6.71			- 6.71 m: becomes very stiff				11	AS											
7.62			- 7.62 m: w>PL, stiff, trace fine grained sand and gravel, mostly medium plastic fines				12	SS	5-6-8	14									
8.23			- 8.23 m: becomes very stiff				13	AS											
9.14			- 9.14 m: becomes w~PL				14	SS											
9.45			- 9.45 m: wet silty sand seam (~1 mm thick)				15	SS	4-6-11	17									
9.75			- 9.75 m: becomes stiff to very stiff				16	AS											

Continued on Next Page

DEPTH SCALE: 1:51

HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS

CHECKED: LN

DATE: Oct 28, 2025

DATE: Jan 26, 2026

REV:

0

RECORD OF BOREHOLE: SS-BH25-08

CLIENT: Enbridge	START DATE: October 28, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: October 29, 2025	COORDINATES: N: 5497479.0 m E: 594216.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	RSD / CME75 DRILL RIG SSA - 125-mm HORIZONTAL METHOD	MATERIAL PROFILE			SAMPLES					WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
		DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%) O Water Content (%) NP Nonplastic	Nat Vane Rem Vane Pocket Pen Su u Torvane	X				
21 22 23 24 25 26 27 28 29 30		(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, (SHALE); cohesive, w < PL, hard. End of hole at 20.27 m. -Sloughing observed between 4.6 m and 6.1 m during drilling. -Seepage observed at 9.5, 9.8, 11.1, 12.8 m during drilling. -Test hole remained open to 20.27 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec. 16/25, hole backfilled with bentonite to surface after removal. -Water observed at 5.4 m in standpipe prior to removal.	CH	[Strata Plot]		11	SS	17-24-32	56								

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



REV: 0

LOGGED: JS
CHECKED: LN
DATE: Oct 28, 2025
DATE: Jan 26, 2026

RECORD OF BOREHOLE: SS-BH25-09

CLIENT: Enbridge START DATE: October 26, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm END DATE: October 27, 2025 COORDINATES: N: 5498022.9 m E: 594982.3 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT	SHEAR STRENGTH (kPa)	ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %						
0.00			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, trace fine gravel; brown, TILL; cohesive, w < PL, friable to 0.3 m.	CL	[Pattern]	0.00	1	AS							
0.91			- 0.91 m: becomes w>PL, soft				2	AS				12.5	GI	0.91 m: %Fines = 83	
1.37			- 1.37 m: becomes w~PL, soft to firm				3	AS				24.5	ALS	1.37 m: Analytical Testing Results: pH = 8.78 Total Sulfate = 0.844% Soluble Sulfate = 0.862% Chloride = 127 mg/L ORP = 391 mV Resistivity = 243 ohm-cm	
1.52			- 1.52 m: becomes firm to stiff			1.80	1	SS							
			(CH) Sandy fat clay, mostly high plasticity FINES, some fine sand; brown; cohesive, w < PL, very soft.				4	AS				0.0			
						3.05	5	AS				0.0	GI	Chloride = 125 mg/kg 1.83 - 2.74 m: Seepage Inferred	
			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; brown, iron oxide staining; cohesive, w~ PL, stiff (inf.).				1	TO							
							6	AS				147.0			
			- 4.42 m: becomes very stiff				2	SS		9-10-14	24				
							7	AS				161.5			
							3	SS		9-12-16	28				
							8	AS							
						7.47	4	SS		22-24-23	47		GI	7.47 m: %Fines = 99	
							9	AS				122.5	UC	9.14 m: Unconfined Compressive Strength- Sample TO2: Max Stress = 266.8 kPa	
			- 8.99 m: becomes very stiff				2	TO	100						

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Oct 26, 2025
 DATE: Jan 26, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-09

CLIENT: Enbridge	START DATE: October 26, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: October 27, 2025	COORDINATES: N: 5498022.9 m E: 594982.3 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS					
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic	X Nat Vane					Rem Vane	Pocket Pen Su	q	u	Torvane
11	R601 / CME75	SSA - 125-mm Hole Dia.	(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, (SHALE); cohesive, w < PL, hard.	CH	[Strata Plot]	12.65	10	AS																
12																								
13			- 10.67 m: fine sand lamination				5	SS		9-10-17	27													
14			- 12.19 m: becomes hard				11	AS																
15			End of hole at 12.65 m. -Sloughing was not observed during drilling. -Seepage observed between 1.8 and 2.7 m during drilling. -Test hole remained open to 12.65 m with water accumulated to 3.05 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 16/25, hole backfilled with bentonite to surface after removal. -Water observed at 2.5 m in standpipe prior to removal.				6	SS		15-19-16	35													
16																								
17																								
18																								
19																								
20																								

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Oct 26, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-10

CLIENT: Enbridge	DATE: October 29, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm		COORDINATES: N: 5497918.0 m E: 596186.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS						
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)					NP Nonplastic	Nat Vane	Rem Vane	Pocket Pen Su	u	Torvane
0.00			TOPSOIL																				
0.30			(CH) Fat clay with sand, mostly high plasticity FINES, little sand; brown; cohesive, w > PL, stiff.	CH																			
1.22			(CL) Lean clay, mostly medium plasticity FINES, trace fine to coarse sand, trace fine gravel; brown, TILL; cohesive, w ~ PL, stiff. - 1.52 m: becomes few to coarse sand, iron staining, occasional sand inclusions - 2.13 m: becomes trace fine to coarse gravel, hard - 2.74 m: becomes little fine to coarse sand, w>PL - 3.05 m: becomes very stiff	CL																			
7.62			(CH) Fat clay, mostly high plasticity FINES, few fine sand; grey, (SHALE); cohesive, w < PL, very stiff, trace coal inclusions blocky.	CH																			
9.14			- 9.14 m: becomes trace fine sand																				

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
CHECKED: LN

DATE: Oct 29, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-10

CLIENT: Enbridge DATE: October 29, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5497918.0 m E: 596186.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic	●					○	u
11	R601 / CME75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, few fine sand; grey, (SHALE); cohesive, w < PL, very stiff, trace coal inclusions blocky.	CH															6.10 - 14.17 m bgs: Bentonite		
12			(SM) Silty sand, mostly fine SAND, some non plastic fines; bluish grey; non-cohesive, wet, dense (inf.). - 12.19 m: becomes dense	SM		11	AS	TO	100												
13			(CH) Fat clay, mostly high plasticity FINES, few fine sand; grey, (SHALE); cohesive, w > PL, hard.	CH		6	SS		17-20-25	45											
14						12	AS														
15			End of hole at 14.17 m. -Sloughing and seepage observed between 11.3 m and 12.7 m during drilling. -Test hole remained open to 10.1 m with water accumulated to 7.6 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 16/25, hole backfilled with bentonite to surface after removal. -Water observed at 4.8 m in standpipe prior to removal.																		
16																					
17																					
18																					
19																					
20																					

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Oct 29, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-11B

CLIENT: Enbridge DATE: November 30, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5496719.0 m E: 595922.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			TOPSOIL														
0.61			(CL) Lean clay with sand, mostly medium plasticity FINES, few fine to coarse sand, trace fine gravel; brown, iron oxide staining, TILL; cohesive, w < PL, very stiff, occasional white crystal inclusions.	CL													
1.52			- 1.52 m: becomes little fine to coarse sand, w~PL														
3.05			- 3.05 m: becomes hard														
3.66			- 3.66 m: frequent iron oxide stains														
5.94			- 5.94 m: becomes stiff to very stiff														
6.10			(CH) Fat clay, mostly high plasticity FINES, few fine to coarse sand; brown, iron oxide staining; cohesive, w < PL, very stiff.	CH													
7.47			- 7.47 m: becomes little fine sand, trace medium to coarse sand, w>PL, trace coal inclusions														
7.62			- 7.62 m: becomes few fine to coarse sand, grey, hard														
9.14			- 9.14 m: clayey fine sand layer, damp														

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 30, 2025
 DATE: Jan 26, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-11B

CLIENT: Enbridge DATE: November 30, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5496719.0 m E: 595922.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane
												H	NP	u	Torvane						
11	R601 / CME75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, few fine to coarse sand; brown, iron oxide staining; cohesive, w < PL, very stiff. - 10.52 m: becomes w-PL, stiff to very stiff	CH	[Strata Plot]		10	AS				○	○	■	98.0						
12							2	TO				○	○	■	147.0	MH	12.04 m: Grain Size Analysis-Sample AS1: Gravel = 0% Sand = 28% Silt = 47% Clay = 25%				
12.04							11	AS				○	○	■	147.0						
13			End of hole at 12.65 m. -Sloughing was not observed during drilling. -Seepage observed between 7.6 and 7.9 m during drilling. -Test hole remained open to 12.65 m with water accumulated to 9.4 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 16/25, hole backfilled with bentonite to surface after removal. -Water observed at 3.2 m in standpipe prior to removal				6	SS	AS	30-20-26	46										

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 30, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-12

CLIENT: Enbridge DATE: November 12, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5501535.0 m E: 595200.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			(CH) Fat clay with sand, mostly high plasticity FINES, little fine to coarse sand, little fine to coarse gravel; light brown, TILL; cohesive, w < PL, friable to 0.5 m.	CH		1	AS										
1			- 0.91 m: becomes stiff to very stiff			2	AS										
2			- 1.52 m: becomes few fine to coarse gravel, brown, very stiff, trace iron oxide staining - 1.98 m: becomes trace fine to coarse gravel, trace fine to coarse sand			3	AS										
						1	SS		5-6.9	15							
						4	AS										
3			- 3.05 m: becomes w>PL			5	AS										
						2	SS		8-10-13	23							
4																	
5			(CL) Sandy lean clay, mostly medium plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; brown, iron oxide staining, TILL; cohesive, w < PL, very stiff. - 4.57 m: becomes hard - 5.33 m: becomes few fine to coarse gravel	CL		6	AS										
						3	SS		14-18-28	46							
6						7	AS										
						1	TO		100								
7																	
8			(CH) Fat clay, mostly high plasticity FINES, few fine sand; brown, (SHALE); cohesive, w ~ PL, very stiff. - 9.14 m: becomes hard - 9.75 m: becomes trace coarse sand, dark brown	CH		8	AS										
						4	SS		8-10-15	25							
						9	AS										
						5	SS		44-38-46	84							

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 12, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-12

CLIENT: Enbridge	DATE: November 12, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm		COORDINATES: N: 5501535.0 m E: 595200.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT			SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)							Shear Strength Symbols
												W (%)	PL (%)	LL (%)					
11	R501 / CMET5	SSA - 125-mm Hole Dia.	(CH) Fat clay, mostly high plasticity FINES, few fine sand; brown, (SHALE); cohesive, w ~ PL, very stiff.	CH															
12																			
13			End of hole at 12.75 m. -After pushing Shelby Tube, auger refused at 12.50 m. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 12.5 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -Water observed at 3.4 m in standpipe prior to removal																
14																			
15																			
16																			
17																			
18																			
19																			
20																			

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



REV:
0

LOGGED: MR
 CHECKED: LN

DATE: Nov 12, 2025
 DATE: Jan 26, 2026

RECORD OF BOREHOLE: SS-BH25-13

CLIENT: Enbridge DATE: October 22, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5501535.4 m E: 595236.6 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT	SHEAR STRENGTH (kPa)	ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %						
0.00			TOPSOIL; sandy clay, trace gravel, brown; w<PL, friable.												
0.30			(CL) Sandy lean clay with gravel, mostly medium plasticity FINES, little fine to coarse sand, little coarse gravel; brown, TILL; cohesive, w < PL, very stiff, friable to 1.7 m.	CL											
1.52			- 1.52 m: becomes few fine gravel, little fine to coarse sand, very stiff												
2.13			- 2.13 m: becomes firm to stiff												
3.05			- 3.05 m: becomes very stiff, trace coarse sand												
4.27			- 4.27 m: becomes w>PL												
6.10			(CL) Lean clay, mostly medium plasticity FINES, trace fine to coarse sand; brown; cohesive, w ~ PL, very stiff.	CL											
7.92			- 7.92 m: becomes some fine sand, trace coarse sand, w<PL, hard, grey												
8.84			- 8.84 m: becomes very stiff												
9.14			- 9.14 m: becomes trace fine sand, w~PL												

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Oct 22, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-13

CLIENT: Enbridge DATE: October 22, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5501535.4 m E: 595236.6 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane	Pocket Pen Su	Torvane
												H	NP	O	U								
11	R601/CME75 SSA - 125-mm Hole Dia.		(CL) Lean clay, mostly medium plasticity FINES, trace fine to coarse sand; brown; cohesive, w ~ PL, very stiff.	CL		10.67	10	AS															
			(CH) Fat clay, mostly high plasticity FINES; grey to dark grey, (SHALE); cohesive, w > PL, hard, (inf.).	CH			2	TO															
12			- 11.89 m: becomes hard				11	AS															
13							6	SS		13-17-23	40												
14							12	AS															
15							7	SS		15-23-28	51												
16							3	TO															
17			End of hole at 15.85 m. -Neither sloughing nor seepage observed during drilling. - Test hole drilled to 6.1 m on Oct. 21. No slough or water accumulated observed on Oct. 22 when drilling resumed. -Test hole remained open to 15.85 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 7.6 m. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -No water observed in standpipe prior to removal																				
18																							
19																							
20																							

7.62 - 15.85 m bgs: Bentonite

15.24 m:
Unconfined Compressive Strength-Sample TO3:
Max Stress = 384 kPa
Strain At Failure = 2.4%
Dry Density = 1633 kg/m

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Oct 22, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-14

CLIENT: Enbridge	START DATE: October 20, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: October 21, 2025	COORDINATES: N: 5500766.0 m E: 596555.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS					
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)					NP Nonplastic	Nat Vane	Rem Vane	Pocket Pen Su	Torvane
0.00	RS01/CME75 SSA - 125-mm Hole Dia.		(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, trace gravel; brown, TILL; cohesive, w < PL, very stiff. - 0.31 m: becomes w~PL - 1.22 m: becomes very stiff - 1.52 m: becomes w>PL, stiff	CL		0.00	1	AS														
						2	AS															
						3	AS															
						1	SS		3-3.5	8												
						4	AS															
					(CL) Lean clay, mostly medium plasticity FINES, few fine sand; grey brown; cohesive, w > PL, very stiff.	CL		3.05	5	AS												
			2	SS					11-12-16	28												
			6	AS																		
			3	SS					6-9-13	22												
			7	AS																		
			(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand; grey; cohesive, w~ PL, very stiff.	CH		6.10	1	TO														
	8	AS																				
	4	SS					9-10-15	25														
	9	AS																				
	5	SS					14-19-21	40														
			- 9.14 m: becomes hard, some fine sand																			

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Oct 20, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-14

CLIENT: Enbridge START DATE: October 20, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm END DATE: October 21, 2025 COORDINATES: N: 5500766.0 m E: 596555.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS					
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)					NP Nonplastic	⊕ Nat Vane ⊕ Rem Vane ⊕ Pocket Pen Su ⊕ Torvane			
																				20 40 60 80 100	200 400 600 800	
11	R501/CM75 SSA - 125-mm Hole Dia.	R501/CM75 SSA - 125-mm Hole Dia.	(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand; grey; cohesive, w~ PL, very stiff.	CH	15.24	10	AS															
12						6	SS		18-21/25	46												
13						7	SS		13-17/21	38												
14						8	SS		10-19/21	40												
15						13	AS															
16						2	TO															
17						14	AS															
17						9	SS		13-21/24	45												
18						15	AS															
19						10	SS		15-21/25	46												
19						16	AS															
20																						

6.10 - 20.27 m bgs:
Bentonite

10.36 m: Pocket
penetrometer
readings
affected by sand
content

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Oct 20, 2025
DATE: Jan 26, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-14

CLIENT: Enbridge	START DATE: October 20, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: October 21, 2025	COORDINATES: N: 5500766.0 m E: 596555.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	R001/CME75 DRILL RIG SSA - 125-mm HORIZONTAL METHOD	MATERIAL PROFILE			SAMPLES					WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS						
		DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic					X Nat Vane	Rem Vane	Pocket Pen Su	q	u	Torvane
21		(CH) Sandy fat clay, mostly high plasticity FINES, some fine SAND; grey; cohesive, w~ PL, hard.	CH			11	SS		13-21-33	54													
22		End of hole at 20.27 m. -Neither sloughing nor seepage was not observed during drilling. -Test hole remained open to 20.27 m with water accumulated to 8.8 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -Water observed at 5.7 m in standpipe prior to removal																					
23																							
24																							
25																							
26																							
27																							
28																							
29																							
30																							

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Oct 20, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-15

CLIENT: Enbridge DATE: November 12, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5501375.7 m E: 5984484.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS						
			DESCRIPTION	USCS	STRAITA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)					NP Nonplastic	X Nat Vane	Rem Vane	Pocket Pen Su	u	Torvane
1	R501/CME75 SSA - 125-mm Hole Dia.		(CH) Fat clay with sand, mostly high plasticity FINES, little fine to coarse sand, trace coarse gravel; brown, TILL; cohesive, w < PL, very stiff, friable to 0.5 m.	CH	0.00	1	AS				0												
2			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w~ PL, stiff.	CL	1.52	2	AS				0												
3			- 2.94 m: becomes firm - 3.05 m: becomes very stiff			3	AS				0												
4						4	AS				0												
5			- 4.42 m: becomes stiff			1	SS		3-4.6	10	0												
6						2	AS				0												
7			- 6.10 m: becomes very stiff			4	AS				0												
8						5	AS				0												
9						6	AS				0												
10						7	AS				0												
7			(SC) Clayey sand, mostly fine to medium SAND, some high plasticity fines, trace fine to coarse gravel; brown; moist, dense.	SC	6.71	8	AS																
8			- 7.62 m: becomes wet			4	SS																
9						5	SS																
10						5	SS																

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 12, 2025
 DATE: Jan 26, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-15

CLIENT: Enbridge	DATE: November 12, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm		COORDINATES: N: 5501375.7 m E: 5984484.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)						Water Content (%)	
												NP	NP					u	Torvane
11	R501/OME75 SSA - 125-mm Hole Dia.		(SC) Clayey sand, mostly fine to medium SAND, some high plasticity fines, trace fine to coarse gravel; brown; moist, dense.	SC		10	AS				○	○							
12						2	TO	6	SS	47-70-103	173	○	○						
13			End of hole at 12.65 m. -Sloughing was inferred below 6.7 m during drilling. -Seepage observed below 7.6 m during drilling. -Test hole remained open to 12.65 m with water accumulated to 7.6 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -Water observed at 3.5 m in standpipe prior to removal			7	AS			37-70-100	170	○							
14																			
15																			
16																			
17																			
18																			
19																			
20																			

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 12, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-16

CLIENT: Enbridge DATE: November 13, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5501316.0 m E: 597672.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS					
			DESCRIPTION	USCS	STRAITA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)						Water Content (%)				
												H	NP					O	NP			
1	RS01/CMET5 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, few fine to coarse sand, trace fine to coarse gravel; dark brown, iron oxide staining, TILL; cohesive, w < PL, very stiff, iron oxide staining, friable to 0.3 m. - 0.31 m: becomes stiff to very stiff - 0.91 m: becomes very stiff	CH		0.00	1	AS														
			2			AS																
2			(CL) Lean clay with sand, mostly medium plasticity FINES, few fine to coarse sand, trace fine to coarse gravel; brown, iron oxide staining, TILL; cohesive, w < PL, stiff, iron oxide staining. - 2.13 m: becomes stiff to very stiff - 3.05 m: becomes w~PL, very stiff			CL	1.52	3	AS													
			4				AS															
			5				AS															
			6				AS															
			7				AS															
			8				AS															
			9				AS															
			10				AS															
			(SC) Clayey sand, mostly fine to medium SAND, some high plasticity FINES; grey; non-cohesive, moist, dense (inf).	SC			8.99	9	AS													

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR DATE: Nov 13, 2025
 CHECKED: LN DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-16

CLIENT: Enbridge DATE: November 13, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5501316.0 m E: 597672.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS					
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)					NP Nonplastic	Nat Vane	Rem Vane	Pocket Pen Su	Torvane
11	RS01/CM75	SSA - 125-mm Hole Dia.	(SC) Clayey sand, mostly fine to medium SAND, some high plasticity FINES; grey; non-cohesive, moist, dense (inf). - 10.67 m: becomes dense	SC	[Strata Plot: Diagonal Hatching]	10.97	10	AS														
			(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand; grey; cohesive, w > PL, hard.	CH	[Strata Plot: Horizontal Hatching]		5	SS		11-14-19	33											
12						12.19	11	AS														
			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, (SHALE); cohesive, w > PL, hard.		6	SS		9-14-20	34													
13																						
14			End of hole at 13.72 m. -Test hole terminated due to SPT refusal at 13.72 m. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 14.17 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -Water observed at 3.4 m in standpipe prior to removal				12	SS		50 (mm)												
15																						
16																						
17																						
18																						
19																						
20																						

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 13, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-17

CLIENT: Enbridge	START DATE: November 13, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 14, 2025	COORDINATES: N: 5500444.0 m E: 597658.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)					NP Nonplastic	Nat Vane
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w < PL, stiff, friable to 0.6 m, iron oxide staining. - 0.61 m: becomes w>PL, soft to firm - 1.37 m: becomes w<PL, very stiff - 2.13 m: becomes stiff - 3.05 m: becomes very stiff - 3.35 m: becomes trace fine to coarse sand - 4.57 m: becomes w~PL - 6.10 m: becomes w<PL, hard - 7.01 m: becomes dark brown	CL															
1						1	AS												
						2	AS												
						3	AS												
2						1	SS		10-9-9	18									0.00 - 3.05 m bgs: Bentonite
						4	AS												
						5	AS												
						2	SS		5-8-14	22									
						6	AS												
						3	SS		6-7-10	17									3.05 - 6.10 m bgs: Filter Sand 3.05 - 6.10 m bgs: Screen Interval
6				7	AS														
				1	TO	91											6.10 - 6.71 m: Unconfined Compressive Strength- Sample TO1: Max Stress = 417 kPa Strain at Failure = 10.7% Dry Density = 1915 kg/m3		
7				8	AS														
				4	SS		10-14-20	34											
8			(CH) Fat clay, mostly high plasticity FINES, trace fine to coarse sand, trace gravel; brownish grey, (SHALE); cohesive, w < PL, hard, iron oxide staining, occasional hard angular shale fragments.	CH															
					9	AS													
					5	SS		12-23-30	53										6.10 - 12.80 m bgs: Bentonite
9																			
10																			

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 13, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-17

CLIENT: Enbridge	START DATE: November 13, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 14, 2025	COORDINATES: N: 5500444.0 m E: 597658.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane	
												U	NP	u	U							
11	R501/CM75	SSA - 125-mm Hole Dia.	(CH) Fat clay, mostly high plasticity FINES, trace fine to coarse sand, trace gravel; brownish grey, (SHALE); cohesive, w < PL, hard, iron oxide staining, occasional hard angular shale fragments. - 10.67 m: becomes trace coarse sand, grey	CH	[Strata Plot]		10	AS		30-50/2.5mm						196.0						
6							SS	102														
11							AS															
12							2	TO	91						196.0							
13			End of hole at 12.80 m. -Test hole drilled to 10.7 m on Nov 13. No slough or water accumulation observed on Nov 14 when drilling resumed. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 12.8 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -No water observed in standpipe prior to removal																			
14																						
15																						
16																						
17																						
18																						
19																						
20																						

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 13, 2025
DATE: Jan 26, 2026

REV:

0

RECORD OF BOREHOLE: SS-BH25-18B

CLIENT: Enbridge	START DATE: November 28, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 29, 2025	COORDINATES: N: 5500619.0 m E: 603838.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)						Shear Strength (kPa)	
												W	L					u	t
0.00			(CL) Lean clay, mostly medium plasticity FINES, few fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w < PL, firm, friable to 0.6 m.	CL															
1.00			- 0.61 m: becomes little fine to coarse sand																
1.50			- 0.91 m: becomes w~PL, soft to firm												0.91 m: %Fines = 72				
2.00			- 1.37 m: becomes w<PL - 1.52 m: becomes stiff, trace coal specks - 1.67 m: becomes occasional iron oxide staining, white crystal inclusions												1.37 m: Analytical Testing Results pH = 8.25 Total Sulfate = 0.257% Soluble Sulfate = 0.287% Chloride = 84 mg/L ORP = 203 mV Resistivity = 684 ohm-cm Chloride = 44 mg/kg		0.00 - 3.05 m bgs: Bentonite		
2.50			- 2.13 m: becomes w>PL																
3.00			- 2.59 m: becomes frequent iron oxide staining - 2.90 m: becomes stiff to very stiff - 3.05 m: becomes w>PL, hard																
4.00																			
4.50			- 4.42 m: becomes stiff to very stiff - 4.57 m: cobbles (up to 150 mm), w>PL																
5.00	RS01/CME75 SSA - 125-mm Hole Dia.																		
5.50																			
6.00			- 5.94 m: becomes w>PL - 6.10 m: becomes hard																
6.50																			
7.00			- 6.40 m: becomes occasional iron oxide staining, white crystal inclusions																
8.00																			
8.50																			
9.00			- 9.14 m: becomes grey																
9.50																			
10.00																			

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 28, 2025
DATE: Jan 26, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-18B

CLIENT: Enbridge	START DATE: November 28, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 29, 2025	COORDINATES: N: 5500619.0 m E: 603838.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORIZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)				ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)		Nonplastic						Torvane	
												H	NP	u	u	u	u					u	u
11	R501/CM75	SSA - 125-mm Hole Dia.	(CL) Lean clay, mostly medium plasticity FINES, few fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w < PL, firm, friable to 0.6 m.	Cl	[Strata Plot]	10	AS																
						5	SS		42-27-35	62													
12						11	AS																
						6	SS		10-17-30	47													
13			End of hole at 12.65 m. -Auger/SPT refused on inferred cobbles at 4.72m. Moved borehole 3 m and redrilled. -Test hole drilled 6.1 m on Nov. 28. No slough or water accumulation observed on Nov. 29 when drilling resumed. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 12.65 m with no water accumulated prior to standpipe installation. -Standpipe removed on Dec 17/25, hole backfilled to grade with bentonite to surface after removal. -No water observed in standpipe prior to removal.																				
14																							
15																							
16																							
17																							
18																							
19																							
20																							

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 28, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-19

CLIENT: Enbridge DATE: November 28, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5500214.0 m E: 603130.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic	Shear Strength Symbols				
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, few fine to medium gravel; brown, TILL; cohesive, w < PL, firm, friable to 1.2 m.	CL															
1.00			- 1.37 m: becomes soft to firm																
1.53			- 1.53 m: becomes very stiff, trace coarse sand and fine gravel																
2.13			- 2.13 m: becomes w~PL																
3.05			- 3.05 m: occasional white crystal inclusions																
4.57			- 4.57 m: becomes hard																
5.94			- 5.94 m: becomes stiff to very stiff																
6.10			- 6.10 m: becomes w<PL, hard																
6.55			End of hole at 6.55 m.																
6.10			-Auger refused on inferred boulder at 6.10 m. Moved borehole 4 m north and re-drilled.																
6.40			-Auger refused at 6.10 m. Moved borehole 2 m north and re-drilled. Auger refused at 6.40 m after completing SPT.																
6.55			-Neither sloughing nor seepage observed during drilling.																
6.55			-Test hole remained open to 6.55 m with no water accumulated prior to standpipe installation.																
6.10			-Flush mount piezometer installed to 6.1 m.																
6.10			-Standpipe removed on Dec 17/25, hole backfilled to grade with bentonite to surface after removal.																
6.10			-No water observed in standpipe prior to removal																
0.00 - 3.05 m																		0.00 - 3.05 m bgs: Bentonite	
3.05 - 6.10 m																		3.05 - 6.10 m bgs: Filter Sand 3.05 - 6.10 m bgs: Screen Interval	
6.10 - 6.55 m																		6.10 - 6.55 m bgs: Bentonite	

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN
 DATE: Nov 28, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-20B

CLIENT: Enbridge DATE: November 27, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5499856.0 m E: 602634.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
			DESCRIPTION	USCS	STRAITA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)					NP Nonplastic
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, few fine to coarse gravel; brown, TILL; cohesive, w < PL, friable to 0.30 m. - 0.31 m: becomes little fine to coarse sand - 0.91 m: becomes firm to stiff - 1.52 m: becomes trace fine to coarse sand, stiff to very stiff - 2.13 m: becomes some fine to coarse sand, very stiff, w~PL - 2.90 m: becomes hard - 3.05 m: becomes w>PL - 4.42 m: becomes very stiff - 4.57 m: becomes hard - 5.18 m: becomes dark brown - 5.94 m: becomes very stiff	CL														
6.25			(SC) Clayey sand, mostly fine to medium SAND, some medium plasticity fines, few fine to coarse gravel; brown; non-cohesive, wet, very dense.	SC														
9.30			(CH) Fat clay with sand, mostly high plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; grey; cohesive, w < PL, hard.	CH														

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 27, 2025
 DATE: Jan 26, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-20B

CLIENT: Enbridge DATE: November 27, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5499856.0 m E: 602634.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)				ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)		Nonplastic						Torvane	
												H	NP	○	○	●	○					○	○
11	R601/CMET5 SSA - 125-mm Hole Dia.		(CH) Fat clay with sand, mostly high plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; grey; cohesive, w < PL, hard.	CH		10.52	10	AS															
12			(SC) Clayey sand, mostly fine to coarse SAND, some low plasticity FINES, trace fine to coarse gravel; grey; non-cohesive, wet, dense, (inf).	SC																			
13			- 12.19 m: sandy clay to clayey sand lenses																				
14																							
15																							
16			End of hole at 15.24 m. -Sloughing and seepage observed from 6.3 to 9.3 m and inferred from 10.7 to 15.2m during drilling. -Test hole remained open to 6.6 m with no water accumulated above slough prior to standpipe installation.-Flush mount piezometer installed to 6.1 m.-Standpipe removed on Dec 17/25, hole backfilled to grade with bentonite to surface after removal.-No water observed in standpipe prior to removal																				
17																							
18																							
19																							
20																							

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 27, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-21

CLIENT: Enbridge	START DATE: November 12, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 13, 2025	COORDINATES: N: 5500446.0 m E: 598514.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES					WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)	NP Nonplastic				
0.00			(CH) Fat clay with sand, mostly high plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w < PL, friable to 0.9 m.	CH			1	AS										
0.91			- 0.91 m: becomes stiff to very stiff	CH			2	AS										
1.52			- 1.52 m: becomes very stiff, iron oxide staining	CH			3	AS										
2.13			(CL) Lean clay with sand, mostly medium plasticity FINES, few fine to coarse sand, trace fine to coarse gravel; brown, iron oxide staining, TILL; cohesive, w ~ PL, stiff.	CL			1	SS			4-6-9	15						
3.05			- 3.05 m: becomes w>PL	CL			2	SS			5-6-7	13						
5.18			- 5.18 m: becomes dark brown	CL			3	SS			5-6-8	14						
5.94			- 5.94 m: becomes w<PL	CL			4	SS										
6.10			- 6.10 m: becomes hard	CL			5	SS										
6.71			- 6.71 m: becomes trace fine to coarse sand, dark grey to brown	CL			6	SS										
7.47			- 7.47 m: becomes very stiff	CL			7	AS										
7.62			- 7.62 m: becomes grey	CL			8	AS										
9.14			(CH) Fat clay, mostly high plasticity FINES, trace fine to coarse sand, trace fine to coarse gravel; grey, (SHALE); cohesive, w < PL, hard.	CH			9	AS										
				CH			5	SS			7-15-20	35						

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 12, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-21

CLIENT: Enbridge	START DATE: November 12, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 13, 2025	COORDINATES: N: 5500446.0 m E: 598514.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane	
												H	NP	O	NP							
11	R601/CME75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, trace fine to coarse sand, trace fine to coarse gravel; grey, (SHALE); cohesive, w < PL, hard. - 10.67 m: becomes w-PL, hard	CH		10	AS												6.10 - 14.17 m bgs: Bentonite			
12						2	TO	100														10.67 - 11.28 m: Unconfined Compressive Strength-Sample TO2: Max Stress = 416 kPa Strain at Failure = 15.0% Dry Density = 1523 kg/m3
13						6	SS		8-14-19	33												
14						7	SS		12-20-25	45												
15			End of hole at 14.17 m. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 14.17 m with no water accumulated prior to standpipe installation. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -Water observed at 5.4 m prior to standpipe removal.																			
16																						
17																						
18																						
19																						
20																						

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 12, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-22

CLIENT: Enbridge DATE: October 24, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5499699.7 m E: 597380.6 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)					NP Nonplastic
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine sand, trace fine gravel; brown, TILL; cohesive, w < PL, few organics, friable to 1.8 m.	CL														
1.52			becomes w~PL, very stiff															
2.29			becomes firm to stiff															
3.05			becomes little fine to medium sand, w>PL, very stiff															
4.27			becomes stiff to very stiff															
4.57			becomes w~PL, very stiff															
6.10			becomes hard															
6.71			(CL) Lean clay, mostly medium plasticity FINES, trace fine sand, trace gravel; brown, (SHALE); cohesive, w < PL, very stiff, (inf). - 7.01 to 9.45 m: trace angular hard shale fragments															
7.32			becomes very stiff															
7.62			becomes w~PL															
8.84			becomes hard															
9.14			becomes brown/grey mottled, w<PL															

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Oct 24, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-22

CLIENT: Enbridge DATE: October 24, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5499699.7 m E: 597380.6 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS					
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane	Pocket Pen Su	Torvane	
												H	NP	u	w									
11	R601/CME75 SSA - 125-mm Hole Dia.		(CL) Lean clay, mostly medium plasticity FINES, trace fine sand, trace gravel; brown, (SHALE); cohesive, w < PL, very stiff, (inf). - 10.67 m: becomes w-PL, very stiff, occasional iron oxide staining	CL		11.13	10	AS												6.10 - 15.69 m bgs: Bentonite				
						6	SS			10-12:15	27													
12			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, iron oxide staining, (SHALE); cohesive, w > PL, very stiff, (inf). - 11.89 m: becomes very stiff	CH		11.13	11	AS																
							2	TO																
13			- 13.41 m: becomes hard																					
14			- 13.72 m: becomes w-PL																					
15																								
16																								
17																								
18																								
19																								
20																								
16			End of hole at 15.70 m. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 15.7 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -No water observed in standpipe prior to removal																					

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Oct 24, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-23B

CLIENT: Enbridge	DATE: November 15, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm		COORDINATES: N: 5497989.0 m E: 600159.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES					WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS					
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic					X Nat Vane	Rem Vane	Pocket Pen Su	u	Torvane
0.00			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, trace fine gravel; brown, TILL; cohesive, w < PL, friable to 0.45 m.	CL																			
0.91			- 0.91 m: becomes w>PL, stiff		1	AS																	
1.37			- 1.37 m: becomes w~PL		2	AS																	
1.86			- 1.86 m: frequent iron oxide staining, occasional white minerals		3	AS																	
2.13			- 2.13 m: becomes w>PL		4	AS																	
3.05			(CH) Fat clay with sand, mostly high plasticity FINES, little fine to medium sand; brown; cohesive, w~ PL, very stiff. - 3.05 m: becomes stiff to very stiff		5	AS																	
4.57			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; brown, iron oxide staining, (SHALE); cohesive, w > PL, very stiff.		6	AS																	
6.10			(CH) Sandy fat clay, mostly high plasticity FINES, some fine to medium sand; grey; cohesive, w > PL, very stiff, (inf).		7	AS																	
8.23					8	AS																	
9.14			- 9.14 m: becomes w~PL, hard		9	AS																	
					10	AS																	

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 15, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-23B

CLIENT: Enbridge DATE: November 15, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5497989.0 m E: 600159.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS						
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane				
												H	NP	○	○										
11	R601/CME75 SSA - 125-mm Hole Dia.	SSA - 125-mm Hole Dia.	(CH) Sandy fat clay, mostly high plasticity FINES, some fine to medium sand; grey; cohesive, w > PL, very stiff, (inf).	CH	[Strata Plot: Diagonal Hatching]	10	AS													6.10 - 14.93 m bgs: Bentonite					
						6	SS		15-25-29	54															
12										11	AS														
										2	TO														
										12	AS														
14										7	SS		17-20-23	43											
										14.94															
15								(SC) Clayey sand, mostly fine SAND, some high plasticity FINES; grey; non-cohesive, damp, very dense, (inf). - 15.24 m: becomes very dense	SC	[Strata Plot: Dotted]	13	AS													14.93 - 15.70 m bgs: Slough
											8	SS		30-31-40	71										
16								End of hole at 15.70 m. -Sloughing observed below 14.9 m during drilling. -Seepage observed below 15.5 m during drilling. -Test hole remained open to 14.9 m with water accumulated to 14.6 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -Water observed at 4.5 m in standpipe prior to removal.																	
17																									
18																									
19																									
20																									

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 15, 2025
 DATE: Jan 26, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-24

CLIENT: Enbridge DATE: November 01, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5499038.0 m E: 599155.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane
												H	O	NP	u						
0.00			TOPSOIL; clay; black, friable.																		
0.15			(CL) Sandy lean clay, mostly medium plasticity FINES, little fine to coarse sand, trace fine gravel; brown, TILL; cohesive, w ~ PL, stiff, friable to 0.3. - 0.61 m: becomes very stiff	CL																	
1.52			- 1.52 m: becomes w>PL, stiff																		
1.98			- 1.98 m: iron oxide staining																		
3.66			- 3.66 m: becomes trace fine to coarse gravel																		
5.18			- 5.18 m: no iron oxide staining																		
6.10			- 6.10 m: becomes very stiff																		
7.62																					
8.23			(CH) Fat clay, mostly high plasticity FINES, few fine sand; dark grey to brown; cohesive, w > PL, very stiff, Shale. - 8.23 m: becomes grey, hard	CH																	
9.14			(CH) Sandy fat clay, mostly high plasticity FINES, some fine SAND; grey, bedded; cohesive, w < PL, hard. - 9.75 m: becomes very stiff																		

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Nov 01, 2025
 DATE: Jan 30, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-24

CLIENT: Enbridge DATE: November 01, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5499038.0 m E: 599155.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane	Pocket Pen Su	Torvane
												H	NP	O	NP								
11	R601/CME75 SSA - 125-mm Hole Dia.	CH	(CH) Sandy fat clay, mostly high plasticity FINES, some fine SAND; grey, bedded; cohesive, w < PL, hard.																				
12			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; dark grey, blocky; cohesive, w ~ PL, hard, Shale.																				
13			- 11.20 m: sand lens (10 mm), iron oxide staining - 11.28 m: becomes greyish brown, w<PL																				
14			- 12.19 m: becomes grey																				
14.17			End of hole at 14.17 m. -Seepage observed and sloughing inferred from 9.14-10.67 during drilling. -Test hole remained open to 13.1 m with no water accumulated above slough prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 17/25. Test hole backfilled with bentonite to surface after removal. -Water observed at 5.9 m in standpipe prior to removal.																				
15																							
16																							
17																							
18																							
19																							
20																							

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Nov 01, 2025
 DATE: Jan 30, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-25

CLIENT: Enbridge START DATE: October 23, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm END DATE: October 24, 2025 COORDINATES: N: 5498723.9 m E: 598472.4 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)					NP Nonplastic
0.00			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, few fine gravel; dark brown, TILL; cohesive, w~ PL, hard, trace organics to 1.2 m.	CL														
1			- 0.91 m: becomes very stiff			1	AS											
			- 1.22 m: silty, clayey sand seam (~300mm), light brown, moist			2	AS											
			- 1.52 m: becomes few fine to coarse			3	AS											
2			- 2.29 m: becomes w~PL, occasional white mineral inclusions			1	SS		5-6-9	15								
			- 2.74 m: becomes stiff to very stiff			4	AS											
			- 3.05 m: becomes w>PL, stiff			5	AS											
3			- 4.27 m: becomes soft to firm		2	SS		5-5-7	12									
			- 4.57 m: becomes little fine to coarse sand, w~PL, stiff, frequent iron		6	AS												
			- 5.80 m: becomes very stiff, w>PL		3	SS		4-5-6	11									
6			(CH) Fat clay, mostly high plasticity FINES, trace fine to coarse sand; grey, (SHALE); cohesive, w < PL, very stiff, (inf).	CH														
			- 7.32 m: becomes hard			1	TO											
			- 7.62 m: becomes grey, w~PL, very stiff			8	AS											
8			- 8.84 m: becomes hard			4	SS		8-10-14	24								
						9	AS											
9					2	TO												
10																		

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Oct 23, 2025
 DATE: Jan 26, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-25

CLIENT: Enbridge	START DATE: October 23, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: October 24, 2025	COORDINATES: N: 5498723.9 m E: 598472.4 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nonplastic	
												U	NP	u	NP					u	NP
11	R501/OME75 SSA - 125-mm Hole Dia.			CH	(CH) Fat clay, mostly high plasticity FINES, trace fine to coarse sand; grey, (SHALE); cohesive, w < PL, very stiff, (inf).	10	AS										Strain at Failure = 4.0% Dry Density = 1656 kg/m3				
12						5	SS		8-13-18	31			○								
13						6	SS		10-13-21	34			○								
14					End of hole at 12.65 m. -Test hole drilled to 6.1 m on Oct. 23. Test hole open to 4.6 m and water accumulated to 4.0 m on Oct. 24 when drilling resumed. -Sloughing was inferred from 4.6 to 6.1 m during drilling. -Seepage observed from 3.1 to 6.1 m during drilling. -Test hole remained open to 12.65 m with water accumulated to 6.1 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -Water observed at 2.5 m in standpipe prior to removal.																
15																					
16																					
17																					
18																					
19																					
20																					

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Oct 23, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-26

CLIENT: Enbridge DATE: November 14, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5497526.0 m E: 598416.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	W Water Content (%)					NP Nonplastic	⊗ Nat Vane	⊠ Rem Vane	○ Pocket Pen Su
0.00			(SC) Clayey sand, mostly fine to medium SAND, some medium plasticity fines, trace fine to coarse gravel; tan, TILL; non-cohesive, damp, loose, (inf). - 1.37 m: becomes dry - 1.52 m: becomes brown, very dense, occasional iron oxide staining - 2.13 m: becomes damp - 3.05 m: becomes compact	SC		1	AS											0.00 - 3.05 m bgs: Bentonite			
1		2				AS															
2		1				SS	100-33-27	60													
3		4				AS															
4		2				SS	14-11-14	25													
4.57			(CL) Lean clay with sand, mostly medium plasticity FINES, few fine sand, trace fine gravel; brown, TILL; cohesive, w > PL, very stiff.	CL		3	SS											3.05 - 6.10 m bgs: Filter Sand 3.05 - 6.10 m bgs: Screen Interval			
5		6				AS															
6		7				AS															
6.40			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; brown, (SHALE); cohesive, w < PL, hard, (inf).	CH		1	TO	33													
7		8				AS															
8		4				SS	19-27-35	62													
9		5				AS															
10		5				SS	17-24-37	61													

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 14, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-26

CLIENT: Enbridge DATE: November 14, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5497526.0 m E: 598416.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS						
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane				
												H	NP	O	NP										
11	R601/CME75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, trace fine sand; brown, (SHALE); cohesive, w < PL, hard, (inf). - 10.67 m: becomes hard	CH	[Strata Plot]		10	AS												6.10 - 14.17 m bgs: Bentonite					
							6	SS			22-35-40	75													
12								11	AS																
13								2	TO																
14								12	AS																
15																									
16																									
17																									
18																									
19																									
20																									

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 14, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-27

CLIENT: Enbridge	DATE: November 01, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm		COORDINATES: N: 5496686.0 m E: 597359.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)				
0.00			TOPSOIL; silty clay; brown, friable.			0.00											
0.30			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, trace fine gravel; brown, TILL; cohesive, w < PL, friable to 1.5.			0.30	1	AS									
1.52			- 1.52 m: becomes very stiff, greyish brown, iron oxide staining				2	AS									
2.13			- 2.13 m: becomes w~PL				3	AS									
2.59			- 2.59 m: becomes some fine to coarse sand, brown, stiff				4	AS									
3.05			(SC) Clayey sand, mostly fine to coarse SAND, some medium plasticity fines, trace fine gravel; brown, TILL; non-cohesive, moist, dense.	CL		3.05	1	SS	10-12:14	26							
3.66			(CL) Sandy lean clay, mostly medium plasticity FINES, little fine to coarse sand, trace fine gravel; brown, iron oxide staining, TILL; cohesive, w~ PL, very stiff.	SC		3.66	2	SS	50-18:23	41							
4.57			- 4.57 m: becomes hard				6	AS									
5.19			- 5.19 m: becomes very stiff				7	AS									
6.71			- 6.71 m: becomes greyish brown, stiff				8	AS									
7.62			- 7.62 m: becomes stiff				3	SS	5-6:10	16							
7.92			- 7.92 m: fine sand seam (~10 mm thick)				4	SS	4-6:8	14							
8.08			(SC) Clayey sand, mostly fine to medium SAND, some low plasticity FINES; grey; non-cohesive, moist, compact, (inf).	CL		8.08	9	AS									
9.48			(CH) Fat clay, mostly high plasticity FINES; dark grey, iron oxide staining, (SHALE); cohesive, w > PL, very stiff.	SC		9.48	5A	SS	6-10:11	21							
				CH			10	AS									

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
CHECKED: LN

DATE: Nov 01, 2025
DATE: Jan 30, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-27

CLIENT: Enbridge DATE: November 01, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5496686.0 m E: 597359.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane	Pocket Pen Su	Torvane
												H	O	NP	u								
11	R601/CME75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES; dark grey, iron oxide staining, (SHALE); cohesive, w > PL, very stiff.	CH		12.19	6	SS		10-12:15	27									6.10 - 15.70 m bgs: Bentonite			
						11	AS																
12			(SC) Clayey sand, mostly fine SAND, little high plasticity fines; bluish grey; non-cohesive, moist, dense.	SC		12.19	7	SS		10-15:18	33												
							12	AS															
13					- 10.97 m: becomes w-PL, bluish grey																		
14					- 13.72 m: becomes moist to wet																		
15					- 14.33 m: becomes moist																		
16					(SP) Poorly graded sand, mostly fine SAND, trace low plasticity fines; bluish grey; non-cohesive, moist, very dense.	SP		15.24	8	SS		12-20:30	50										
17			End of hole at 15.70 m. -Sloughing not observed during drilling. -Seepage observed from 13.7 to 14.3 m during drilling. -Test hole remained open to 15.24 m with water accumulated to 7.0 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -Water observed at 5.5 m in standpipe prior to removal.																				
18																							
19																							
20																							

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Nov 01, 2025
 DATE: Jan 30, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-28

CLIENT: Enbridge	START DATE: October 30, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: October 31, 2025	COORDINATES: N: 5496944.0 m E: 601710.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES					WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic					⊕ Nat Vane
0.00			TOPSOIL; clay; black, moist, soft to firm (inf.).			0.00	1	AS											
1.07			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to medium sand; brown, TILL; cohesive, w > PL, stiff. - 1.52 m: becomes few fine to coarse sand, trace fine gravel, w~PL - 2.13 m: becomes very stiff	CL		1.07	2	AS											
3.30			(SM) Silty sand, mostly fine to medium SAND, little low plasticity fines; brown; non-cohesive, w~ PL, compact.	SM		3.30	1	SS			3-4-7	11							
3.51			(CL) Lean clay, mostly medium plasticity FINES, few fine to medium sand; brown; cohesive, w > PL, very stiff.	CL		3.51	2B	SS			6-12-12	24							
6.10			(SC) Clayey sand, mostly fine SAND, some high plasticity FINES; grey; non-cohesive, moist, dense.	SC		6.10	1	TO				100							
6.71			(CH) Sandy fat clay, mostly high plasticity FINES, some fine SAND; grey; cohesive, w ~ PL, very stiff.	CH		6.71	8	AS											
7.62			(SC) Clayey sand, mostly fine SAND, little high plasticity FINES; light grey; non-cohesive, moist, compact.	SC		7.62	4	SS			10-12-17	29							
8.23			(SP-SC) Poorly graded sand with clay, mostly fine SAND, few low plasticity fines; bluish grey; non-cohesive, moist, compact.	SP-SC		8.23	9	AS											
9.22			- 9.14 m: becomes very dense (SC) Clayey sand, mostly fine SAND, some high plasticity FINES; bluish grey, iron oxide staining; non-cohesive, moist, compact.	SC		9.22	5	SS			8-10-150/60mm	25							
9.22						9.22	6	SS											
9.22						9.22	10	AS											

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DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
CHECKED: LN

DATE: Oct 30, 2025
DATE: Jan 30, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-28

CLIENT: Enbridge	START DATE: October 30, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: October 31, 2025	COORDINATES: N: 5496944.0 m E: 601710.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane
												H	NP	O	NP						
11	R601/CME75 SSA - 125-mm Hole Dia.		(SC) Clayey sand, mostly fine SAND, some high plasticity FINES; bluish grey, iron oxide staining; non-cohesive, moist, compact.	SC		10.67													6.10 - 15.70 m bgs: Bentonite		
			(CH) Fat clay with sand, mostly high plasticity FINES; little fine sand; grey; cohesive, w < PL, hard.	CH		7	SS		12-15-16	31							122.5				
			- 11.28 m: becomes very stiff			11	AS											183.8			
			- 12.19 m: becomes hard			2	TO											220.5			
			- 12.80 m: becomes some fine sand, bluish grey, w < PL, stiff to very stiff			12	AS											98.0			
			- 13.72 m: becomes w-PL, hard			8	SS		10-12-19	31											
			- 14.33 m: becomes very stiff			13	AS											171.5			
	- 15.24 m: becomes hard, w < PL	8	SS		12-20-30	50															
16			End of hole at 15.70 m. -Test hole drilled to 8.1 m on Oct. 30. Water accumulated to 6.1 m on Oct. 31 when drilling resumed. -Sloughing was not observed during drilling. -Seepage observed from 6.1 to 6.7 m and at 12.2 m during drilling. -Test hole remained open to 15.24 m with water accumulated to 12.2 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -Water observed at 2.6 m in standpipe prior to removal.																		
17																					
18																					
19																					
20																					

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS	DATE: Oct 30, 2025
CHECKED: LN	DATE: Jan 30, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-29

CLIENT: Enbridge DATE: November 29, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5496500.0 m E: 600856.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT	SHEAR STRENGTH (kPa)	ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %						
0.00			(SC) Clayey sand, mostly fine to medium SAND, some high plasticity FINES, trace fine gravel; brown, TILL; non-cohesive, damp, loose, (inf), little organics.	SC											
1.52			- 1.52 m: becomes very dense												
1.98			(CH) Fat clay with sand, mostly high plasticity FINES, little fine to medium sand; brown; cohesive, w > PL, very stiff.												
3.05			- 3.05 m: becomes hard												
4.57			- 4.57 m: becomes stiff												
5.18			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, iron oxide staining, (SHALE); cohesive, w > PL, hard, (inf).	CH											
6.10			- 6.10 m: becomes hard												
7.47 to 7.62			- 7.47 to 7.62 m: becomes strongly cemented, grey, w<PL, frequent angular hard shale fragments												
9.14			- 9.14 m: becomes w~PL												

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 29, 2025
 DATE: Jan 30, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-29

CLIENT: Enbridge	DATE: November 29, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm		COORDINATES: N: 5496500.0 m E: 600856.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic	Nat Vane					Rem Vane	Pocket Pen Su	Torvane	
																							20
11	R501/OME75	SSA - 125-mm Hole Dia.	(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, iron oxide staining, (SHALE); cohesive, w > PL, hard, (inf).	CH		10	AS																
2						TO																	
11						AS																	
12						6	SS		54-36-48	84													
13			End of hole at 12.65 m. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 12.65 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -No water observed in standpipe prior to removal																				
14																							
15																							
16																							
17																							
18																							
19																							
20																							

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 29, 2025
DATE: Jan 30, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-30

CLIENT: Enbridge DATE: December 03, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5496485.0 m E: 599780.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)					NP Nonplastic	⊗ Nat Vane	⊕ Rem Vane
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, little fine to coarse sand, few fine gravel; brown, TILL; cohesive, w ~ PL, firm to stiff.	CL		0.00	1	AS												
1.22		- 1.22 m: becomes few fine to coarse sand				2	AS													
1.52		- 1.52 m: becomes stiff				3	AS													
2.13		- 2.13 m: becomes w>PL				1	SS		4-6-8	14										
2.90		- 2.90 m: becomes very stiff				4	AS													
3.35			(CL) Lean clay, mostly medium plasticity FINES, trace fine sand; brown, iron oxide staining, (SHALE); cohesive, w > PL, very stiff, white mineral inclusions.	CL		3.35	2	SS		11-9-17	26									
4.42		- 4.42 m: becomes stiff	6			AS														
4.57		- 4.57 m: becomes very stiff	1			TO		92												
5.18			(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand; brown; cohesive, w ~ PL, very stiff, (inf).	CH		5.18	1	AS												
6.40		- 6.40 m: becomes some fine sand, grey	3			SS		10-12-15	27											
7.62		- 7.62 m: becomes w<PL, hard	4			SS		23-60-25	85											
191.0			2			TO														
220.5			9			AS														
220.5																				

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DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Dec 03, 2025
 DATE: Jan 26, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-30

CLIENT: Enbridge DATE: December 03, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5496485.0 m E: 599780.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane
												H	NP	O	NP						
11	R501/OME75 SSA - 125-mm Hole Dia.		(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand; brown; cohesive, w ~ PL, very stiff, (inf). (CH) Fat clay, mostly high plasticity FINES, few fine sand; grey, (SHALE); cohesive, w ~ PL, very stiff, (inf). - 10.67 m: becomes hard	CH	10.06																
12					5	SS	AS		12-18-23	41	○			■	147.0						
13					6	SS	AS		19-21-27	48	○			■	147.0						
13			End of hole at 12.65 m. -Test hole drilled to 6.1 m on Dec. 3. No slough or water accumulation observed on Dec. 4 when drilling resumed. -Neither sloughing nor seepage observed during drilling.-Test hole remained open to 12.65 m with no water accumulated prior to standpipe installation.-Flush mount piezometer installed to 6.1 m.-Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal.-No water observed in standpipe prior to removal																		
14																					
15																					
16																					
17																					
18																					
19																					
20																					

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Dec 03, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-31B

CLIENT: Enbridge DATE: December 03, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5495601.0 m E: 603397.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			(CH) Fat clay with sand, mostly high plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w < PL, friable to 1.4 m.														
1.52			- 1.52 m: becomes very stiff														
2.00																	
3.05			- 3.05 m: becomes hard														
4.42			- 4.42 m: becomes stiff to very stiff														
5.18			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; brown, iron oxide staining, (SHALE); cohesive, w ~ PL, very stiff, (inf).														
6.10			- 6.10 m: becomes w>PL, very stiff														
7.16			- 7.16 m: becomes hard, occasional angular hard shale fragments and coal lenses														
7.62			- 7.62 m: becomes w~PL, hard														
9.45			- 9.45 m: becomes grey														

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Dec 03, 2025
 DATE: Jan 30, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-31B

CLIENT: Enbridge DATE: December 03, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5495601.0 m E: 603397.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)						Shear Strength			
												W	L					Nat Vane	Rem Vane		
11	R501/OME75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, trace fine sand; brown, iron oxide staining, (SHALE); cohesive, w ~ PL, very stiff, (inf).	CH	[Strata Plot]	12.19	10	AS				○	■	196.0							
2							TO														
11							AS										■	220.5			
12			(CH) Fat clay with sand, mostly high plasticity FINES, little fine to coarse sand; dark grey; cohesive, w ~ PL, hard. - 12.20 m: becomes little fine to coarse sand, dark grey			6	SS		34-47-52	99	○										
13			End of hole at 12.65 m. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 12.50 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal. -No water observed in standpipe prior to removal																		
14																					
15																					
16																					
17																					
18																					
19																					
20																					

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Dec 03, 2025
 DATE: Jan 30, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-32B

CLIENT: Enbridge DATE: December 01, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5495154.0 m E: 602611.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)						Water Content (%)	
												NP	NP					u	Torvane
0.00																			
1			(CH) Fat clay with sand, mostly high plasticity FINES, few fine to coarse sand, trace fine to coarse gravel; brown, TILL; w < PL, friable to 1.37 m.																
			- 1.37 m: becomes firm to stiff																
			- 1.52 m: becomes very stiff																
2																			
			- 2.13 m: becomes w~PL, stiff																
			- 2.44 m: becomes little fine sand, trace fine gravel, iron oxide staining																
3																			
			- 3.05 m: becomes w<PL, hard																
4																			
5																			
6																			
			- 6.10 m: becomes trace fine to coarse sand, w~PL																
7																			
8																			
			- 7.62 m: becomes w < PL																
			- 7.92 m: becomes dark brown																
9																			
10																			

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Dec 01, 2025
 DATE: Jan 26, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-32B

CLIENT: Enbridge	DATE: December 01, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm		COORDINATES: N: 5495154.0 m E: 602611.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)						Shear Strength (kPa)	
												W	L					u	t
11	R601/CMET5	SSA - 125-mm Hole Dia.	(CH) Fat clay with sand, mostly high plasticity FINES, few fine to coarse sand, trace fine to coarse gravel; brown, TILL; w < PL, friable to 1.37 m.	CH	[Hatched Box]														
12			End of hole at 11.28 m. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 11.28 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal. -No water observed in standpipe prior to removal																
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Dec 01, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-33B

CLIENT: Enbridge DATE: December 02, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5494802.0 m E: 602299.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS						
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)					NP Nonplastic	X Nat Vane	Rem Vane	Pocket Pen Su	u	Torvane
0.00			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w < PL, friable to 0.3 m.	CL																			
1			- 0.91 m: becomes soft to firm		1	AS								GI	0.91 m: %Fines = 72								
2			- 1.37 m: becomes firm to stiff - 1.52 m: becomes very stiff, trace fine gravel, iron oxide staining		2	AS								ALS	1.37 m: Analytical Testing Results pH = 8.48 Total Sulfate = 1.80% Soluble Sulfate = 1.26% Chloride = 54 mg/L ORP = 235 mV Resistivity = 276 ohm-cm Chloride = 47 mg/kg 1.52 - 3.05 m: Bulk Sample: Thermal Critical Moisture=6.7% SPMDD = 1710 kg/m3		0.00 - 2.44 m bgs: Bentonite						
3			- 3.05 m: becomes hard		3	AS																	
4					4	AS																	
5			- 4.42 m: becomes very stiff		5	AS																	
5.18			(CH) Fat clay, mostly high plasticity FINES; brown, (SHALE); cohesive, w > PL, very stiff, (inf).	CH																			
6			- 5.94 m: becomes very stiff		6	AS																	
7					7	AS																	
8			- 7.62 m: becomes hard - 7.77 m: becomes few fine to coarse sand, grey, occasional angular hard shale fragments		8	AS																	
9			- 9.14 m: becomes w~PL		9	AS																	
10					10	AS																	

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Dec 02, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-33B

CLIENT: Enbridge DATE: December 02, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5494802.0 m E: 602299.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane		
												H	NP	○	○								
11	R501/CM75	SSA - 125-mm Hole Dia.	(CH) Fat clay, mostly high plasticity FINES; brown, (SHALE); cohesive, w > PL, very stiff, (inf). - 10.97 m: becomes trace fine sand	CH	[Strata Plot]		10	AS								■	171.5						
6							SS																
11							AS													■	171.5		
12							2	TO	92						▲	225.0	UC						
13			End of hole at 12.80 m. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 12.8 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal. -No water observed in standpipe prior to removal																				
14																							
15																							
16																							
17																							
18																							
19																							
20																							

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Dec 02, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-34

CLIENT: Enbridge DATE: November 04, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5494438.0 m E: 601872.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	W Water Content (%)				
0.00			TOPSOIL: clayey.														
0.15			(CL) Sandy lean clay, mostly medium plasticity FINES, little medium to coarse sand, trace fine to coarse gravel; brown, iron oxide staining, TILL; w ~ PL, stiff. - 0.61 m: becomes very stiff														
1.52			- 1.52 m: becomes stiff														
2.13			- 2.13 m: becomes very stiff														
2.74			- 2.74 m: becomes hard														
3.05			- 3.05 m: becomes very stiff														
3.51			(CL) Lean clay, mostly medium plasticity FINES, few fine to medium sand; brown, (SHALE); w ~ PL, very stiff.														
4.57			- 4.57 m: becomes w<PL, hard														
5.18			- 5.18 m: becomes w~PL														
6.10			- 6.10 m: becomes hard														
8.23			- 8.23 m: becomes few fine sand, grey, w~PL, laminated structure														
9.14			(CH) Sandy fat clay, mostly high plasticity FINES, some fine SAND; grey; w < PL, hard.														

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Nov 04, 2025
 DATE: Jan 29, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-34

CLIENT: Enbridge DATE: November 04, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5494438.0 m E: 601872.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Torvane		
												H	NP	u	Su					u	Su	
11	R501/ICME75 SSA - 125-mm Hole Dia.		(CH) Sandy fat clay, mostly high plasticity FINES, some fine SAND; grey; w < PL, hard.	CH			2	TO														
			- 11.28 m: becomes bluish grey																			
12							(SC) Clayey sand, mostly fine SAND, some high plasticity fines; bluish grey, (SHALE); dense.	SC		12.19	6	SS		12-20-21	41							
13			End of hole at 12.65 m. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 12.19 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal. -No water observed in standpipe prior to removal																			
14																						
15																						
16																						
17																						
18																						
19																						
20																						

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Nov 04, 2025
 DATE: Jan 29, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-35

CLIENT: Enbridge DATE: November 18, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5493669.0 m E: 601521.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			TOPSOIL			0.00											
0.15			(CL) Sandy lean clay, mostly medium plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; brown, iron oxide staining, TILL; cohesive, w < PL, firm to stiff.			0.15	1	AS									
0.91			- 0.91 m: becomes w>PL				2	AS							GI	0.91 m: %Fines = 69	
1.37			- 1.37 m: becomes w~PL				3	AS							ALS	1.37 m: Analytical Testing Results pH = 8.43 Total Sulfate = 2.22% Soluble Sulfate = 2.20% Chloride = 162 mg/L ORP = 215 mV Resistivity = 300 ohm-cm Chloride = 100 mg/kg 2.13 - 6.86 m: Seepage inferred	
1.52			- 1.52 m: becomes hard				1	SS	10-13-17	30							
2.13			- 2.13 m: becomes stiff				4	AS									
2.90			- 2.90 m: becomes stiff to very stiff				5	AS									
3.05			- 3.05 m: becomes very stiff				2	SS	7-10-15	25							
3.51			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand; brown; cohesive, w > PL, very stiff.	CL		3.51	6	AS							MH	4.42 m: Grain Size Analysis-Sample AS6: Gravel = 0% Sand = 29% Silt = 51% Clay = 20%	
4.42							3	SS	8-10-17	27							
6.10			- 6.10 m: becomes stiff to very stiff				7	AS									
6.86			(CH) Fat clay, mostly high plasticity FINES; grey, (SHALE); cohesive, w ~ PL, very stiff.	CH		6.86	1	TO									
8.14							8	AS									
9.14			- 9.14 m: becomes hard				4	SS	6-10-15	25							
9.14							9	AS									
9.14							5	SS	8-14-17	31						9.14 - 10.06 m: Seepage observed	

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 18, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-35

CLIENT: Enbridge DATE: November 18, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5493669.0 m E: 601521.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane
												H	NP	O	NP						
11	R501/ICME75	SSA - 125-mm Hole Dia.	(CH) Fat clay, mostly high plasticity FINES; grey, (SHALE); cohesive, w ~ PL, very stiff.	SC		10.06	2	TO	AS	100							UC	10.67 m: Unconfined Compressive Strength-Sample TO1: Max Stress = 141 kPa Strain at Failure = 2.3% Dry Density = 1703 kg/m3	18Nov25 ▼		
			10																		
12			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey; cohesive, w < PL, hard, (inf), white mineral inclusions.	CH																	
			- 12.20 m: becomes hard				6	SS	AS		8-15-24	39									
13			End of hole at 12.65 m. -Sloughing was not observed during drilling. -Seepage observed from 2.1 to 6.9 m during drilling. -Test hole remained open to 12.8 m with water accumulated to 12.0 m prior to standpipe installation. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal. -Water observed at 2.4 m in standpipe prior to removal.																		
14																					
15																					
16																					
17																					
18																					
19																					
20																					

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 18, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-36C

CLIENT: Enbridge	DATE: December 03, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm		COORDINATES: N: 5494837.0 m E: 600671.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS						
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)					NP Nonplastic	X Nat Vane	Rem Vane	Pocket Pen Su	u	Torvane
0.00			(CH) Sandy fat clay, mostly high plasticity FINES, little fine to coarse sand, trace fine gravel; brown, TILL; cohesive, w < PL, very stiff, friable to 1.5 m.	CH																			
1.00																							
2.13			- 2.13 m: becomes w~PL																				
3.05			- 3.05 m: becomes w>PL																				
3.51			(CL) Sandy lean clay, mostly low plasticity FINES, some fine SAND; brown; cohesive, w ~ PL, very stiff.	CL																			
4.57			- 4.57 m: becomes hard																				
5.18			- 5.18 to 6.10 m: strong cementation bedding																				
6.86			- 6.86 m: trace cementations																				
7.62			(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand; grey, (SHALE); cohesive, w ~ PL, very stiff.	CH																			
8.13																							
9.14			- 9.14 m: becomes w<PL, hard																				

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Dec 03, 2025
DATE: Jan 26, 2026

REV:

0

RECORD OF BOREHOLE: SS-BH25-36C

CLIENT: Enbridge DATE: December 03, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5494837.0 m E: 600671.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)						Water Content (%)	
												U	NP					W	L
11 12	R501/OME75 SSA - 125-mm Hole Dia.		(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand; grey, (SHALE); cohesive, w ~ PL, very stiff.	CH															
- 12.19 m: becomes w~PL																			10
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Dec 03, 2025
 DATE: Jan 26, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-37B

CLIENT: Enbridge DATE: December 01, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5491563.0 m E: 599286.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)					NP Nonplastic
0.00			(CL) Sandy lean clay, mostly low plasticity FINES, some fine to coarse sand, trace fine gravel; brown, TILL; cohesive, w ~ PL, friable to 0.3m.	CL		1	AS											
1			- 0.91 m: becomes firm to stiff			2	AS											
2			- 1.52 m: becomes stiff			1	SS		5-6-7	13								
			- 1.83 m: occasional iron oxide staining			4	AS											
			- 1.98 m: becomes medium plasticity fines			5	AS											
3			- 3.05 m: becomes very stiff			2	SS		5-9-10	19								
			- 3.35 to 4.57 m: occasional coal lenses			6	AS											
4			- 4.42 m: becomes stiff			1	TO		100									
			- 4.57 m: becomes w<PL, hard, occasional iron oxide staining			7	AS											
5			- 5.94 m: becomes stiff			3	SS		7-8-10	18								
			- 6.10 m: becomes w~PL, very stiff		4	SS		23-30-32	62									
6			(SC) Clayey sand, mostly fine to medium SAND, some high plasticity FINES; grey; non-cohesive, moist, compact.	SC		8	AS											
7			- 7.62 m: becomes wet, very dense			9	AS											
8			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, (SHALE); cohesive, w < PL, hard.	CH		5	SS		40-42-38	80								
9			- 9.14 m: becomes hard															
10			(CH) Sandy fat clay, mostly high plasticity FINES, some fine to medium SAND; grey; cohesive, w < PL, hard.															

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Dec 01, 2025
 DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-37B

CLIENT: Enbridge	DATE: December 01, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm		COORDINATES: N: 5491563.0 m E: 599286.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane		
												H	NP	O	NP								
11	R501/OME75 SSA - 125-mm Hole Dia.		(CH) Sandy fat clay, mostly high plasticity FINES, some fine to medium SAND; grey; cohesive, w < PL, hard.	CH		11.13	10	AS															
			2				TO	71															
12			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, (SHALE); cohesive, w < PL, hard.																				
13			End of hole at 12.65 m. -Test hole drilled to 1.5 m on Nov. 30. No slough or water accumulation observed on Dec. 1 when drilling resumed. -Seepage inferred from 7.6-8.5m during drilling. Sloughing not observed during drilling. -Test hole remained open to 12.19 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal. -Water observed at 3.9 m in standpipe prior to removal																				
14																							
15																							
16																							
17																							
18																							
19																							
20																							

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Dec 01, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-38B

CLIENT: Enbridge DATE: November 25, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5493263.0 m E: 599940.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			TOPSOIL - (CL) Lean clay with sand, mostly low plasticity FINES, few fine to coarse sand; brown; cohesive, w < PL, friable, trace organics.														
0.61			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, trace fine gravel; brown, TILL; cohesive, w < PL, stiff, occasional white mineral inclusions.														
1.37			- 1.37 m: becomes w~PL														
1.52			- 1.52 m: becomes little fine to coarse sand, stiff to very stiff, occasional iron oxide staining														
2.13			- 2.13 m: becomes very stiff														
4.57			- 4.57 m: becomes hard														
5.94			- 5.94 m: becomes few fine to coarse sand														
8.08			(SC) Clayey sand, mostly fine SAND, some medium plasticity FINES; grey; non-cohesive, moist, very dense, (inf).														
9.14			- 9.14 m: becomes very dense														
9.75			(CH) Sandy fat clay, mostly high plasticity FINES, some fine sand; grey; cohesive, w~PL, very stiff, occasional sand laminations.														

RECORD OF BOREHOLE: SS-BH25-38B

CLIENT: Enbridge	DATE: November 25, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm		COORDINATES: N: 5493263.0 m E: 599940.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic	Nat Vane					Rem Vane	Pocket Pen Su	Torvane
11	R501/CM75	SSA - 125-mm Hole Dia.	(CH) Sandy fat clay, mostly high plasticity FINES, some fine sand; grey; cohesive, w~PL, very stiff, occasional sand laminations.	CH	[Strata Plot]	10.7	10	AS														
12							2	TO														
			- 12.19 m: becomes w~PL				11	AS														
							6	SS		40-42-45	87											
13			End of hole at 12.65 m. -Sloughing not observed during drilling. - Seepage observed from 10.7 to 11.1 m during drilling. -Test hole remained open to 12.65 m with water accumulated to 10.7 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal. -Water observed at 5.4 m in standpipe prior to removal																			
14																						
15																						
16																						
17																						
18																						
19																						
20																						

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 25, 2025
DATE: Jan 26, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-39

CLIENT: Enbridge	START DATE: October 27, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: October 28, 2025	COORDINATES: N: 5494283.0 m E: 598516.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			TOPSOIL; silty sand, trace gravel; dark brown, most.														
0.91			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w > PL, soft to firm.	CL													
2.13			- 2.13 m: becomes stiff														
4.57			- 4.57 m: becomes very stiff														
5.03			(CH) Fat clay, mostly high plasticity FINES, trace fine to medium sand; grey, (SHALE); cohesive, w < PL, hard.	CH													
6.10			- 6.10 m: becomes very stiff, w>PL														
6.71			- 6.71 m: becomes w<PL, hard, blocky														
7.62			- 7.62 m: becomes w>PL, thinly laminated, occasional thin sand laminations														
8.23			- 8.23 m: becomes w~PL,														
9.14			- 9.14 m: becomes w>PL, very stiff														
10																	

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Oct 27, 2025
DATE: Jan 29, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-39

CLIENT: Enbridge	START DATE: October 27, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: October 28, 2025	COORDINATES: N: 5494283.0 m E: 598516.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Torvane			
												H	NP	u	q								
11	R501/CM75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, trace fine to medium sand; grey, (SHALE); cohesive, w < PL, hard. - 10.67 m: becomes w-PL, hard - 11.13 m: clayey sand lens - 11.28 m: becomes very stiff - 12.19 m: becomes hard	CH																			
						5	SS		12-18-20	38							220.5						
						11	AS											147.0					
						6	SS		16-19-21	40								220.5					
13			End of hole at 12.65 m. -Sloughing was not observed during drilling. -Seepage observed from 10.7-11.1 m during drilling. -Test hole remained open to 12.19 m with water accumulated to 11.6 m at completion of drilling. -Test hole left open overnight and sloughed to 9.8 m with water accumulated to 9.4 m prior to piezometer installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal. -Water observed at 1.7 m in standpipe prior to removal.																				
14																							
15																							
16																							
17																							
18																							
19																							
20																							

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Oct 27, 2025
DATE: Jan 29, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-40

CLIENT: Enbridge START DATE: November 15, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm END DATE: November 16, 2025 COORDINATES: N: 5491633.0 m E: 603476.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	W Water Content (%)					NP Nonplastic	Nat Vane
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, little medium to coarse sand, trace fine gravel; brown, TILL; cohesive, w ~ PL, friable to 0.15 m. - 0.15 m: becomes stiff to very stiff	CL		0.00	1	AS											
1			- 0.91 m: becomes w<PL, very stiff				2	AS											
2			- 2.13 m: becomes w~PL				3	AS											
							1	SS		6-7-9	16								
							4	AS											
							5	AS											
3					2	SS		6-7-9	16										
4					6	AS													
5			- 4.57 m: becomes hard - 4.88 m: frequent medium sand lenses		1	TO	96												
6			- 5.94 m: becomes very stiff - 6.10 m: becomes hard - 6.25 to 6.40 m: thinly bedded coal		7	AS													
					3	SS		15-17-19	36										
7			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine sand; grey; non-cohesive, dense, (inf), fine coal inclusions.																
					8	AS													
8			(CH) Fat clay, mostly high plasticity FINES; grey, (SHALE); cohesive, w > PL, very stiff. - 7.62 m: becomes very stiff	CH		7.32	4	SS		6-11-17	28								
							9	AS											
							2	TO											
9			- 8.99 m: becomes w>PL, hard - 9.14 to 9.75 m: frequent coal inclusions																
10																			

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 15, 2025
 DATE: Jan 29, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-40

CLIENT: Enbridge	START DATE: November 15, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 16, 2025	COORDINATES: N: 5491633.0 m E: 603476.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic	Nat Vane					Rem Vane	Pocket Pen Su	Torvane
11	R601/CME75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES; grey, (SHALE); cohesive, w > PL, very stiff.	CH		10.06																
			(CH) Sandy fat clay, mostly high plasticity FINES, some fine to medium SAND; grey; cohesive, w > PL, very stiff, coal staining.			10.67	10	AS								220.5						
			(CH) Fat clay, mostly high plasticity FINES; grey to black, (SHALE); cohesive, w < PL, hard.				5	SS			10-14-20	34										
			- 12.19 m: becomes w>PL, frequent coal inclusions																			
14			End of hole at 14.17 m.																			
15			-Test hole drilled to 10.7 m on Nov 15 and water observed at bottom of the borehole. Water accumulated to 7.62 m on Nov 16 when drilling resumed.																			
16			-Sloughing inferred from 10.07-10.67m during drilling.																			
17			-Seepage observed between 8.99-10.67m during drilling.																			
18			-Test hole remained open to 10.67 m with water accumulated to 7.6 m prior to standpipe installation.																			
19			-Flush mount piezometer installed to 6.1 m.																			
20			-Standpipe removed on Dec 17/25, hole backfilled with bentonite to surface after removal.																			
			-Water observed at 2.6 m in standpipe prior to removal.																			

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 15, 2025
DATE: Jan 29, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-41

CLIENT: Enbridge DATE: October 24, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5491633.0 m E: 603476.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)				
0.00			TOPSOIL ; brown.														
0.61			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, trace fine gravel; brown, TILL; cohesive, w~PL, stiff.	CL													
1.52			- 1.52 m: becomes trace fine to coarse gravel, w>PL, occasional iron oxide staining														
2.29			- 2.29 m: becomes stiff to very stiff														
3.05			- 3.05 m: becomes very stiff														
4.57			- 4.57 m: becomes stiff														
4.88			(CL) Lean clay with sand, mostly low plasticity FINES, little fine sand; brown; cohesive, w > PL, stiff.	CL													
6.23			(SC) Clayey sand, mostly fine SAND, some high plasticity FINES; greyish brown; non-cohesive, moist, dense, (inf).	SC													
7.62			- 7.62 m: becomes dense														
9.14			- 9.14 m: becomes wet, compact														
9.75			(CH) Fat clay, mostly high plasticity FINES, few coarse sand; grey, (SHALE); cohesive, w > PL, very stiff.	CH													

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Oct 24, 2025
 DATE: Jan 29, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-41

CLIENT: Enbridge	DATE: October 24, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm		COORDINATES: N: 5491633.0 m E: 603476.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane	Pocket Pen Su	Torvane
												H	NP	u	w								
11	R601/CME75 SSA - 125-mm Hole Dia.	CH	(CH) Fat clay, mostly high plasticity FINES, few coarse sand; grey, (SHALE); cohesive, w > PL, very stiff.	CH	10.67	10	AS																
			- 10.52 m: becomes very stiff			2	TO																
			(CH) Sandy fat clay, mostly high plasticity FINES, some fine SAND; grey brown; cohesive, w~ PL, very stiff.																				
12					- 12.19 m: becomes hard		11	AS															
								6	SS		15-20-21	41											
								7	SS		15-27-35	62											
13																							
14																							
15			End of hole at 14.17 m. -Sloughing inferred from 9.1-9.5 m during drilling. -Seepage observed between 9.1-10.7m during drilling. -Test hole remained open to 12.5 m with water accumulated to 11.3 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal. -Water observed at 4.0 m in standpipe prior to removal.																				
16																							
17																							
18																							
19																							
20																							

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Oct 24, 2025
DATE: Jan 29, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-42

CLIENT: Enbridge DATE: October 30, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5491622.0 m E: 602508.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)						Water Content (%)	
												NP	PL					u	o
0.00			TOPSOIL; sandy silty clay.																
0.38			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w < PL, very stiff, occasional white mineral inclusions.	CL															
1.52			- 1.52 m: becomes w>PL, stiff, occasional sand inclusions																
2.29			- 2.29 m: occasional oxide staining, and black coal inclusions																
188.8																			
208.2																			
183.8																			
147.0																			
147.0																			
147.0																			
134.8																			
147.0																			
134.8																			
225.0																			
208.2			(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand; light grey; cohesive, w~ PL, very stiff.	CH															
7.62			- 7.62 m: sand lens (<1mm), wet												7.62 m: Seepage observed				
208.2																			
147.0																			
208.2			- 9.14 m: becomes some fine sand												9.14 - 11.13 m: Sloughing inferred				
98.0																			

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Oct 30, 2025
 DATE: Jan 29, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-42

CLIENT: Enbridge DATE: October 30, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5491622.0 m E: 602508.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)	NP Nonplastic	Nat Vane					Rem Vane
11	R601/CME75 SSA - 125-mm Hole Dia.		(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand; light grey; cohesive, w~ PL, very stiff.	CH	[Strata Plot]	11.13	6	SS		10-11-14	25					183.8	11.28 - 11.58 m: Seepage observed			
12			(CH) Fat clay, mostly high plasticity FINES; grey, (SHALE); cohesive, w < PL, hard. - 11.35 m: fine to coarse wet sand seam (~ 20 mm thick)			11	AS													220.5
13			- 12.80 m: becomes blocky, very stiff			2	TO													220.5
14			- 13.72 m: becomes hard			12	AS										147.0			
15			(SP) Poorly graded sand, mostly fine SAND, trace low plasticity fines; light grey; non-cohesive, moist to wet, dense.			SP	14.02	7A	SS		19-21-25	46								
		13	AS																	
16			End of hole at 15.70 m. -Sloughing inferred from 9.1 to 11.1 m during drilling. -Seepage observed at 7.6 m, 11.3 to 11.6 m and from 14.0 to 15.7 m during drilling. -Test hole remained open to 10.1 m with no water accumulated above slough prior to backfilling. -No standpipe installed in hole. -Test hole backfilled with bentonite.				8	SS		11-20-25	45									
17																				
18																				
19																				
20																				

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Oct 30, 2025
 DATE: Jan 29, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-42B

CLIENT: Enbridge DATE: November 26, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5491758.0 m E: 602426.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w < PL, very stiff, friable to 1.5 m.	CL													
1.52			- 1.52 m: becomes very stiff														0.00 - 3.05 m bgs: Bentonite
2.13			- 2.13 m: becomes w~PL, soft to firm														
2.94			- 2.94 m: becomes firm to stiff														
3.05			- 3.05 m: becomes hard														
4.42			- 4.42 m: becomes stiff to very stiff														
4.53			- 4.53 m: becomes trace fine gravel, occasional iron oxide staining														
4.57			- 4.57 m: becomes hard														
6.10			- 6.10 m: becomes w>PL														3.05 - 6.10 m bgs: Filter Sand 3.05 - 6.10 m bgs: Screen Interval
7.47			- 7.47 m: becomes very stiff														
7.62			(CH) Fat clay, mostly high plasticity FINES; brown, (SHALE); cohesive, w ~ PL, hard, occasional hard shale fragments.	CH													
16.17																	
15.22																	
17.15																	
17.15																	
171.5																	6.10 - 12.65 m bgs: Bentonite

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 26, 2025
 DATE: Jan 29, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-42B

Sheet 2 of 2

CLIENT: Enbridge DATE: November 26, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5491758.0 m E: 602426.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE				SAMPLES				WATER CONTENT					SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS							
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)					Nat Vane					Rem Vane						
												Water Content (%)																
11	R501/CM75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES; brown, (SHALE); cohesive, w ~ PL, hard, occasional hard shale fragments.	CH	10	AS	TO			171.5	220.5	196.0																
12					2																							
13					6	11	AS		20-22-30	52																		
14																												
13			End of hole at 12.65 m. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 12.65 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 18/25, hole backfilled to grade with bentonite to surface after removal. -No water observed in standpipe prior to removal.																									
14																												
15																												
16																												
17																												
18																												
19																												
20																												

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

REV: 0
 DATE: Nov 26, 2025
 DATE: Jan 29, 2026

RECORD OF BOREHOLE: SS-BH25-43

CLIENT: Enbridge
 PROJECT: Enbridge Seven Stars Wind Farm
 PROJECT NO: CA0059493.2836
 LOCATION: Weyburn, SK

DATE: November 16, 2025
 CONTRACTOR: Forged Drilling Company

ELEVATION: Data Not Available
 COORDINATES: N: 5491857.0 m E: 601172.0 m
 COORD SYS: UTM Zone 13N
 HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT (%)	SHEAR STRENGTH (kPa)	ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRAITA PLOT	ELEV. (m)	NUMBER	TYPE	REC %						
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w~ PL, stiff, friable to 0.6 m.	CL											
1			- 0.91 m: becomes w>PL												
			- 1.37 m: becomes w~PL - 1.52 m: becomes hard												
2			- 2.13 m: becomes very stiff												
3															
4															
5	RS01/CME75	SSA - 125-mm Hole Dia.													
6			(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand; dark grey; cohesive, w ~ PL, very stiff.	CH											
7															
8			- 7.47 m: frequent iron oxide stains												
9			- 8.99 m: becomes hard												
10															

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 16, 2025
 DATE: Jan 29, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-43

CLIENT: Enbridge DATE: November 16, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5491857.0 m E: 601172.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane
												H	O	NP	u						
11	R601/CME75 SSA - 125-mm Hole Dia.		(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand; dark grey; cohesive, w ~ PL, very stiff. (CH) Fat clay, mostly high plasticity FINES, few fine sand; grey, (SHALE); cohesive, w < PL, hard.	CH	10.06														6.10 - 14.17 m bgs: Bentonite		
					10	AS							O	■	196.0						
					2	TO															
					11	AS									■	220.5					
					6	SS	12-14-17	31					O								
					12	AS									■	171.5					
					7	SS	10-12-15	27					O								
15			End of hole at 14.17 m. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 14.17 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal. -Water observed at 5.2 m in standpipe prior to removal																		
16																					
17																					
18																					
19																					
20																					

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 16, 2025
 DATE: Jan 29, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-44B

CLIENT: Enbridge DATE: November 17, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5490250.0 m E: 600196.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRAITA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)					NP Nonplastic	Nat Vane	Rem Vane	Pocket Pen Su
0.00	RS01/CME75 SSA - 125-mm Hole Dia.		(SC) Clayey sand, mostly fine to coarse SAND, some low plasticity fines, trace fine to coarse gravel; light brown, TILL; non-cohesive, dry to damp, loose, (inf). - 1.52 m: becomes compact	SC	[Hatched Pattern]	0.00	1	AS													
						2	AS														
						3	AS														
2.13					(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to medium sand, trace fine to coarse gravel; brown, TILL; cohesive, w > PL, stiff. - 2.94 m: becomes very stiff - 3.05 m: becomes w<PL, stiff	CL	[Diagonal Pattern]	2.13	4	AS											
			5	AS																	
			2	SS	8-7.6			13													
			6	AS																	
5.48					(CL) Sandy lean clay, mostly medium plasticity FINES, some fine SAND; grey; cohesive, w ~ PL, very stiff. - 4.42 m: becomes w~PL, stiff - 4.57 m: becomes very stiff	CL	[Diagonal Pattern]	5.48	1	TO	100										
			2	SS	4-6.8			14													
			3	SS																	
	7	AS																			
8.53			(CH) Sandy fat clay, mostly high plasticity FINES, some fine SAND; grey; cohesive, w < PL, very stiff. - 7.62 m: becomes hard	CH	[Diagonal Pattern]	8.53	2	TO													
	3	SS	10-12-16			28															
	4	SS	11-15-25			40															
							9	AS													
							2	TO													

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 17, 2025
 DATE: Jan 29, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-44B

CLIENT: Enbridge DATE: November 17, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5490250.0 m E: 600196.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane	
												H	NP	O	NP							
11	R601/CME75 SSA - 125-mm Hole Dia.	SSA - 125-mm Hole Dia.	(CH) Sandy fat clay, mostly high plasticity FINES, some fine SAND; grey; cohesive, w < PL, very stiff. - 10.67 m: becomes w>PL, hard	CH	12.19	10	AS											10.97 - 12.19 m: Seepage observed		6.10 - 14.17 m bgs: Bentonite		
5						SS			20-25-30	55												
12						11	AS															
13						6	SS			12-15-23	38											
14						12	AS										220.5					
15						7	SS			15-16-23	39											
16																						
17																						
18																						
19																						
20																						

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 17, 2025
 DATE: Jan 29, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-45

CLIENT: Enbridge DATE: November 18, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5490855.0 m E: 600245.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w~ PL, friable to 0.45m.	CL													
1			- 0.91 m: becomes very stiff				1	AS									
			- 1.37 m: becomes w<PL				2	AS									
2			- 2.13 m: becomes w~PL, stiff				1	SS	5-8-10	18							
			- 3.05 m: becomes very stiff				4	AS									
3							5	AS									
3.51			(SC) Clayey sand, mostly fine to medium SAND, some high plasticity FINES; grey; non-cohesive, moist, dense, (inf).	SC			2	SS	5-7-9	16							
4							6	AS									
5							1	TO	100								
6			- 6.10 m: becomes dense				7	AS									
							3	SS	12-17-21	38							
7							8	AS									
8							4	SS	9-17-19	36							
9			- 8.90 m: abundant iron oxide staining				9	AS									
9.14			(CH) Sandy fat clay, mostly high plasticity FINES, some medium to coarse SAND; dark grey; cohesive, w < PL, hard, occasional coal inclusions.	CH			5	SS	9-16-21	37							
10																	

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 18, 2025
 DATE: Jan 29, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-45

CLIENT: Enbridge DATE: November 18, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5490855.0 m E: 600245.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane
												H	NP	O	NP						
11	R601/CME75 SSA - 125-mm Hole Dia.		(CH) Sandy fat clay, mostly high plasticity FINES, some medium to coarse SAND; dark grey; cohesive, w < PL, hard, occasional coal inclusions. - 10.52 m: becomes very stiff	CH	[Strata Plot]	11.28	10	AS												8.23 - 14.17 m bgs: Slough	
12			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; dark brown, (SHALE); cohesive, w > PL, very stiff, (inf). - 12.19 m: becomes hard			11	AS														
13						6	SS	16-27-42	69												
14						7	SS	16-30-40	70												
15			End of hole at 14.17 m. -Sloughing observed below 8.2 m during drilling. -Seepage observed below 5.0 m during drilling. -Test hole remained open to 8.2 m with water accumulated to 5.0 m prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal. -Water observed at 2.7 m in standpipe prior to removal.																		
16																					
17																					
18																					
19																					
20																					

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 18, 2025
 DATE: Jan 29, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-46

CLIENT: Enbridge	START DATE: November 16, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 17, 2025	COORDINATES: N: 5492018.0 m E: 600102.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES					WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS					
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic					X Nat Vane	Rem Vane	Pocket Pen Su	u	Torvane
0.00			TOPSOIL																				
0.30			(CL) Sandy lean clay, mostly medium plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; tan brown, iron oxide staining, TILL; cohesive, w > PL, stiff, (inf).	CL				1	AS														
1.52			(SC) Clayey sand, mostly fine to coarse SAND, some medium plasticity fines; brown, TILL; non-cohesive, moist to wet, compact.	SC				3	AS														
3.05			(CL) Lean clay with sand, mostly medium plasticity FINES, little fine to coarse sand, trace fine gravel; brown, TILL; cohesive, w ~ PL, very stiff.	CL				5	AS														
4.57			(SP) Poorly graded sand with gravel, mostly fine to coarse SAND, some fine to coarse GRAVEL; grey, non-cohesive, wet, dense.	SP				6	AS														
5.18			(CL) Lean clay, mostly medium plasticity FINES; grey, (SHALE); cohesive, w ~ PL, hard.	CL				3	SS	8-24	16												
5.18								4	AS														
5.18								7	AS														
5.18								1	TO	87													
5.18								8	AS														
5.18								4	SS	20-23	27												
5.18								5	AS														
5.18								9	AS														
5.18								5	SS	6-8	15												
5.18								23															
8.99			(CH) Sandy fat clay, mostly high plasticity FINES, some fine SAND; grey; cohesive, w > PL, stiff. - 9.14 m: becomes very stiff	CH				9	AS														
8.99								5	SS	6-8	15												
8.99								23															
73.5																							

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 16, 2025
DATE: Jan 29, 2026

REV:

0

RECORD OF BOREHOLE: SS-BH25-46

CLIENT: Enbridge	START DATE: November 16, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 17, 2025	COORDINATES: N: 5492018.0 m E: 600102.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane	
												H	NP	O	NP							
11	R501/CME75 SSA - 125-mm Hole Dia.		(CH) Sandy fat clay, mostly high plasticity FINES, some fine SAND; grey; cohesive, w > PL, stiff.	CH		10.52																
			(CH) Fat clay, mostly high plasticity FINES, trace fine to medium sand; grey, (SHALE); cohesive, w < PL, hard. - 10.67 m: becomes hard				6	SS		12-21-30	51											
12			- 12.04 m: becomes w<PL - 12.19 m: becomes few fine to medium sand				11	AS														
13			End of hole at 12.80 m. -Test hole drilled to 6.1 m on Nov. 16. Water accumulated to 5.2m on Nov. 17 when drilling resumed. Sloughing not observed during drilling. -Seepage observed from 1.5 to 3.1 m and 4.6 to 5.2m during drilling, -Test hole remained open to 12.5 0 m with no water accumulated prior to standpipe installation. -Flush mount piezometer installed to 6.1 m. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal. -Water observed at 4.0 m in standpipe prior to removal																			
14																						
15																						
16																						
17																						
18																						
19																						
20																						

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 16, 2025
DATE: Jan 29, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-47

CLIENT: Enbridge	START DATE: November 27, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: December 02, 2025	COORDINATES: N: 5495508.0 m E: 600748.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Badger Hydrovac / Forged Drilling C	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT (%)	SHEAR STRENGTH (kPa)	ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %							BLOWS	N-VALUE	
0.00	Hydrovac	150-mm Hole Dia.	(CL) Lean clay, mostly medium plasticity FINES, few fine to coarse sand; brown, TILL; cohesive, w > PL, stiff.	CL		0.00	1	GS										
1.68						2	GS											
2.13						3	GS											
2.90						4	GS											
3.05	R601/CME75	125-mm Hole Dia.	(CH) Fat clay, mostly high plasticity FINES, trace fine sand; brown, (SHALE); cohesive, w ~ PL, stiff.	CH		3.05	1	SS		4-5-6	11			GI	3.05 m: %Fines = 97			
4.42						2	AS		9-13-15	28						4.42 m: Analytical Testing Results pH = 8.77 Total Sulfate = 0.100% Soluble Sulfate = NR Chloride = 39 mg/L ORP = 184 mV Resistivity = 489 ohm-cm Chloride = 48 mg/kg		
4.57						1	AS										4.57 m: Unconfined Compressive Strength- Sample TO1: Max Stress = 279 kPa Strain at Failure = 4.1% Dry Density = 1609 kg/m3	
5.94						2	AS											
5.94	R601/CME75	125-mm Hole Dia.	(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand; brown; cohesive, w > PL, very stiff.	CH		5.94	1	TO	100					UC				
7.62						3	AS											
7.92						3	SS		19-25-30	55								
8.99	R601/CME75	125-mm Hole Dia.	(CH) Fat clay, mostly high plasticity FINES, few fine sand; grey, (SHALE); cohesive, w ~ PL, hard.	CH		8.99	4	AS		10-20-25	45							
8.99						4	SS											

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop,
 N/A



LOGGED: MR / JS
 CHECKED: LN

REV:
0

DATE: Nov 27, 2025
 DATE: Jan 29, 2026

RECORD OF BOREHOLE: SS-BH25-47

CLIENT: Enbridge START DATE: November 27, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm END DATE: December 02, 2025 COORDINATES: N: 5495508.0 m E: 600748.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Badger Hydrovac / Forged Drilling C HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane
												H	NP	u	Torvane						
11	R501/OME75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, few fine sand; grey, (SHALE); cohesive, w ~ PL, hard.	CH	[Strata Plot]	10.52	5	AS				○		■	147.0						
12			(CH) Fat clay with sand, mostly high plasticity FINES, little fine sand; grey; cohesive, w ~ PL, very stiff. - 10.52 m: becomes little fine sand, very stiff - 12.19 m: becomes hard			2	TO							○		■	220.5				
13						6	AS								○		■	171.5			
14			End of hole at 12.65 m. -Hole hydrovac'd to 3.0 m on Nov. 27 prior to the start of drilling. -Neither sloughing nor seepage observed during drilling. -Flush mount piezometer installed to 6.1 m. -Test hole remained open to 12.65 m with no water accumulated prior to standpipe installation. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal.-No water observed in standpipe prior to removal																		
15																					
16																					
17																					
18																					
19																					
20																					

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop,
 N/A



LOGGED: MR / JS
 CHECKED: LN

DATE: Nov 27, 2025
 DATE: Jan 29, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-48

CLIENT: Enbridge	START DATE: November 25, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 26, 2025	COORDINATES: N: 5492542.0 m E: 601463.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRAITA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)					NP Nonplastic	Shear Strength Symbols		
0.00	R501/CME75 SSA - 125-mm Hole Dia.		(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, trace fine gravel; brown, TILL; cohesive, w < PL, stiff, friable to 1.0.	CL		0.00	1	AS													
1.52			2			AS															
1.98			1			SS	64-24-18	42													
1.98			4			AS															
3.05			5			AS															
3.66			2			SS	18-15-17	32													
3.66			6			AS															
4.57			1			TO	97														
5.94			7			AS															
7.01			3			SS	15-12-12	24													
7.01	8	AS																			
7.01	4	SS	20-30-37	67																	
9.14	9	AS																			
9.14	2	TO																			

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 25, 2025
DATE: Jan 29, 2026

REV:

0

RECORD OF BOREHOLE: SS-BH25-48

CLIENT: Enbridge	START DATE: November 25, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 26, 2025	COORDINATES: N: 5492542.0 m E: 601463.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS						
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)					NP Nonplastic	Nat Vane	Rem Vane	Pocket Pen Su	u	Torvane
11	RS01/CM75	SSA - 125-mm Hole Dia.	(CH) Sandy fat clay, mostly high plasticity FINES, some fine sand; grey; cohesive, w < PL, hard, (inf).	CH	[Hatched Pattern]																		
12			- 10.67 m: becomes hard																				
13																							
14																							
15																							
16																							
17																							
18																							
19																							
20																							

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 25, 2025
 DATE: Jan 29, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-49B

CLIENT: Enbridge START DATE: November 24, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm END DATE: November 25, 2025 COORDINATES: N: 5493535.0 m E: 601098.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)					NP Nonplastic
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w~ PL, stiff, friable to 0.61.	CL		1	AS											
0.91			- 0.91 m: becomes w~PL, stiff			2	AS											
1.37			- 1.37 m: becomes w>PL			3	AS											
2.13			- 2.13 m: becomes little fine to coarse sand, occasional iron oxide staining			1	SS		5-5-7	12								
2.13						4	AS											
3.66			- 3.66 m: becomes trace fine to coarse sand, dark brown			5	AS											
4.42			- 4.42 m: becomes w>PL, stiff to very stiff		6	AS												
4.88			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; mottled grey brown, (SHALE); cohesive, w~ PL, stiff, blocky.	CH		1	TO	46										
6.10			- 6.10 m: becomes w>PL			7	AS											
7.32			- 7.32 m: becomes few fine to medium sand			3	SS		8-10-14	24								
7.77			(CH) Sandy fat clay, mostly high plasticity FINES, some fine to medium sand; grey; cohesive, w > PL, hard.			4	SS		9-14-20	34								
9.14			- 9.14 m: becomes w~PL, very stiff			9	AS											
9.45			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, (SHALE); cohesive, w > PL, very stiff.		5	SS		6-12-14	26									

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 24, 2025
 DATE: Jan 29, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-49B

CLIENT: Enbridge	START DATE: November 24, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 25, 2025	COORDINATES: N: 5493535.0 m E: 601098.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)						Water Content (%)		
												NP	Nonplastic					u	Torvane	
11	R501/CM75	SSA - 125-mm Hole Dia.	(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, (SHALE); cohesive, w > PL, very stiff.	CH	[Strata Plot]	10	AS													
12						6	SS	8-14-16	30											
12.19						11	AS													
13			End of hole at 12.80 m. -Test hole drilled to 9.1 m on Nov. 24. Water accumulated to 4.7 m on Nov. 25 when drilling resumed. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 12.80 m with no water accumulated prior to standpipe installation. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal. -Water observed at 2.7 m in standpipe prior to removal.			2	TO													

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 24, 2025
DATE: Jan 29, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-50B

CLIENT: Enbridge	START DATE: November 26, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 27, 2025	COORDINATES: N: 5494234.0 m E: 599937.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS	
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)					NP Nonplastic
0.00			TOPSOIL; 150 mm.															
0.15			(CL) Sandy lean clay, mostly medium plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; brown, TILL; cohesive, w~ PL, friable to 1.52.	CL														
0.91			- 0.91 m: becomes w>PL, iron oxide staining		1	AS												0.91 m: %Fines = 76
1.37			- 1.37 m: becomes w~PL		2	AS												
1.52			- 1.52 m: becomes very stiff		3	AS												
2.13			- 2.13 m: becomes w>PL, stiff		1	SS		4-8-10	18									
2.13					4	AS												
3.05			- 3.05 m: becomes hard		5	AS												
3.35			- 3.35 m: coarse sand lens (20 mm thick)		2	SS		35-70-20	90									
4.88					3	SS		12-24-25	49									
4.88			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to medium sand; brown; cohesive, w > PL, hard.		CH													
5.94			- 5.94 m: becomes stiff to very stiff	7		AS												
6.10			- 6.10 m: becomes very stiff	1		TO												
6.40			(CH) Fat clay, mostly high plasticity FINES, few fine sand; grey, (SHALE); cohesive, w~ PL, very stiff.	CH														
7.62			- 7.62 m: becomes hard		8	AS												
7.77			- 7.77 m: becomes some fine sand		4	SS		30-30-30	60									
7.92			- 7.92 m: becomes trace fine sand		5	AS												
7.92					9	AS												
8.00				5	SS		16-24-27	51										

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 26, 2025
DATE: Jan 29, 2026

REV:

0

RECORD OF BOREHOLE: SS-BH25-50B

CLIENT: Enbridge	START DATE: November 26, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 27, 2025	COORDINATES: N: 5494234.0 m E: 599937.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic	Nat Vane					Rem Vane	Pocket Pen Su	Torvane
11	R501/OME75	SSA - 125-mm Hole Dia.	(CH) Fat clay, mostly high plasticity FINES, few fine sand; grey, (SHALE); cohesive, w~PL, very stiff.	CH	[Strata Plot]		10	AS														
							2	TO	58													
12			- 12.19 m: becomes w<PL				11	AS														
13			End of hole at 12.65 m. -Test hole drilled to 9.1 m on Nov 26, water accumulated to 3.4 m on Nov 27 when drilling resumed. -Seepage observed at 3.35 m and from 4.88-6.55 m during drilling. -Sloughing was not observed during drilling. -Test hole remained open to 12.65 m with no water accumulated prior to standpipe installation. -Standpipe removed on Dec 18/25, hole backfilled with bentonite to surface after removal. -Water observed at 4.5 m in standpipe prior to removal.				6	SS		70-37-40	77											
14																						
15																						
16																						
17																						
18																						
19																						
20																						

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 26, 2025
DATE: Jan 29, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-51

CLIENT: Enbridge DATE: November 10, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5496037.0 m E: 596777.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			(CL) Sandy lean clay with gravel, mostly medium plasticity FINES, little fine to coarse sand, little fine to coarse gravel; brown, TILL; cohesive, w < PL, trace organics and friable to 0.61.	CL													
1			- 0.91 m: becomes very stiff														
2			- 1.52 m: becomes few fine to coarse sand, few fine gravel, w~PL, stiff, iron oxide staining														
3			- 2.13 m: becomes stiff to very stiff														
4																	
5																	
6																	
7																	
8			(SC) Clayey sand, mostly fine to coarse SAND, some low plasticity FINES, trace fine to coarse gravel; grey, non-cohesive, moist, dense.	SC													
9																	
10			(CH) Sandy fat clay, mostly high plasticity FINES, little fine sand; grey; cohesive, w ~ PL, hard.	CH													

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 10, 2025
 DATE: Jan 28, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-51

CLIENT: Enbridge DATE: November 10, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5496037.0 m E: 596777.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS			
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)	NP Nonplastic	X Nat Vane					Rem Vane	Pocket Pen Su	u Torvane
11	RB01/CME75	SSA - 125-mm Hole Dia.	(CH) Sandy fat clay, mostly high plasticity FINES, little fine sand; grey; cohesive, w ~ PL, hard.	CH	10.67	10	AS												8.23 - 12.62 m bgs: Slough			
12			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, (SHALE); cohesive, w ~ PL, very stiff.			2	TO															10.67 m: Unconfined Compressive Strength-Sample TO2: Max Stress=211.6 kPa Strain at Failure=3% Dry Density = 1625 kg/m3
12.04			- 12.04 m: becomes hard			11	AS															
13			End of hole at 12.62 m. -SPT refusal at 12.62 m on Nov. 10 with no accumulation of slough or seepage at end of drilling. -Sloughing inferred from 7.9 m to 9.8 m during drilling. -Seepage was not observed during drilling. -Test hole open to 8.3 m with water accumulated to 4.4 m prior to standpipe installation on Nov. 11. -Standpipe removed on Mar5/26, hole backfilled with bentonite to surface after removal. -Water observed at 2.7 m in standpipe prior to removal.			6	SS															
14																						
15																						
16																						
17																						
18																						
19																						
20																						

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 10, 2025
 DATE: Jan 28, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-52

CLIENT: Enbridge DATE: November 04, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5495967.0 m E: 596856.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	W Water Content (%)				
0.00			TOPSOIL			0.00											
0.15			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse SAND, trace fine to coarse gravel; brown, TILL; cohesive, w~ PL, very stiff. - 0.61 m: becomes w<PL	CL		0.15	1	AS					122.5	GI	0.00 - 2.29 m: Bulk Sample: SPMDD=1810 kg/m3 OMC=14.5% 0.27 m: Frozen 3/5/2026 12:00:00 AM 0.91 m: % Fines = 57 1.22 m: Analytical Testing Results: pH = 8.67 Total Sulfate = 2.11% Soluble Sulfate = 2.72% Chloride = 88 mg/L ORP = 212 mV Resistivity = 274 ohm-cm Chloride = 54 mg/kg 3.05 m: Unconfined Compressive Strength-Sample TO1: Max Stress= 273 kPa Strain at Failure = 11.9% Dry Density= 1718 kg/m3 5.00 - 5.79 m: Seepage and sloughing observed 5.18 m: Sieve Analysis-Sample AS7: Gravel=5% Sand=69% Fines=26%	05Mar26 05Nov25	0.00 - 1.98 m bgs: Bentonite 1.98 - 5.49 m bgs: Filter Sand 3.05 - 6.10 m bgs: Screen Interval
1.52		- 1.52 m: becomes w~PL, stiff	CL			2	AS					147.0					
2.74		- 2.74 m: becomes stiff to very stiff	CL			3	AS					122.5					
3.05		- 3.05 m: becomes w>PL, very stiff	CL			4	AS					147.0					
3.57			CL			1	SS	100	3-5-7	12							
3.79			CL			5	AS					73.5					
3.88			CL			6	AS					98.0					
3.99			CL			1	TO	100				188.8	UC				
4.10			CL			6	AS					196.0					
4.16			CL			2	SS		6-7-9	16		159.2					
5.01			(SC) Clayey sand, mostly fine to coarse SAND, little medium plasticity fines, trace fine to coarse gravel; brown; non-cohesive, wet, very loose, (inf.).	SC		5.01	7	AS						M			
5.79			(CL) Sandy lean clay, mostly medium plasticity FINES, little fine to medium sand, trace fine to medium gravel; grey, TILL; cohesive, w > PL, very stiff.	CL		5.79	3	SS		6-7-10	17						
5.88			(CL) Sandy lean clay, mostly medium plasticity FINES, little fine to medium sand, trace fine to medium gravel; grey, TILL; cohesive, w > PL, very stiff.	CL			8	AS					147.0				
7.62			(CH) Sandy fat clay, mostly high plasticity FINES, little fine sand; bluish grey; cohesive, w > PL, very stiff.	CH		7.62	4	SS		6-9-12	21						
7.73			(CH) Sandy fat clay, mostly high plasticity FINES, little fine sand; bluish grey; cohesive, w > PL, very stiff.	CH			9	AS					220.3				
7.83			(CH) Sandy fat clay, mostly high plasticity FINES, little fine sand; bluish grey; cohesive, w > PL, very stiff.	CH			5	SS		9-12-18	30						
7.93			(CH) Sandy fat clay, mostly high plasticity FINES, little fine sand; bluish grey; cohesive, w > PL, very stiff.	CH			10	AS					220.3				
9.14			- 9.14 m: becomes w~PL, hard	CH									220.3				
9.24			- 9.14 m: becomes w~PL, hard	CH									220.3				
9.34			- 9.14 m: becomes w~PL, hard	CH									220.3				
9.44			- 9.14 m: becomes w~PL, hard	CH									220.3				
9.54			- 9.14 m: becomes w~PL, hard	CH									220.3				
9.64			- 9.14 m: becomes w~PL, hard	CH									220.3				
9.74			- 9.14 m: becomes w~PL, hard	CH									220.3				
9.84			- 9.14 m: becomes w~PL, hard	CH									220.3				
9.94			- 9.14 m: becomes w~PL, hard	CH									220.3				
10.04			- 9.14 m: becomes w~PL, hard	CH									220.3				

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: JS
 CHECKED: LN

DATE: Nov 04, 2025
 DATE: Jan 28, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-53

CLIENT: Enbridge DATE: November 11, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5495976.0 m E: 596455.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			(SC) Clayey sand with gravel, mostly fine to coarse SAND, little low plasticity fines, little fine to coarse gravel; brown; non-cohesive, damp, loose, (inf).	SC			0.00	1	AS								
1.83			(CL) Lean clay, mostly medium plasticity FINES, few fine to coarse sand, trace fine to coarse gravel; brown, iron oxide staining, TILL; cohesive, w~ PL, very stiff.	CL			1.83	1	SS	4-7.8	15						
6.71			(CL) Lean clay, mostly medium plasticity FINES, trace fine sand; grey; cohesive, w > PL, stiff.	CL			6.71	4	AS								
7.32			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, iron oxide staining, (SHALE); cohesive, w > PL, very stiff. - 7.62 m: becomes firm	CH			7.32	1	TO	88							
8.99			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, iron oxide staining, (SHALE); cohesive, w > PL, very stiff. - 8.99 m: becomes very stiff	CH			8.99	5	AS	5-10-15	25						

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 11, 2025
 DATE: Jan 28, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-53

CLIENT: Enbridge DATE: November 11, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5495976.0 m E: 596455.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane
												W	L	NP	U						
11	R501/CM75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, iron oxide staining, (SHALE); cohesive, w > PL, very stiff.	CH	[Strata Plot]	10.67	10	AS							■	171.5					
12			(CH) Sandy fat clay, mostly high plasticity FINES, little fine sand; grey; cohesive, w > PL, very stiff.			6	SS		7-11-15	26		○									
13						11	AS					○					■	122.5			▼
14			End of hole at 12.80 m. -Sloughing not observed during drilling. -Seepage observed from 6.4 to 8.5 m during drilling. -Test hole remained open to 12.65 m with water accumulated to 12.34 m prior to standpipe installation. -Standpipe removed on Mar5/26, hole backfilled with bentonite to surface after removal. -Water frozen to 0.20 m in standpipe prior to removal.			2	TO														

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 11, 2025
 DATE: Jan 28, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-54

CLIENT: Enbridge	START DATE: November 10, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 11, 2025	COORDINATES: N: 5496047.0 m E: 596492.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, little fine to coarse sand, trace fine to coarse gravel; brown, iron oxide staining, TILL; cohesive, w < PL, friable to 0.61m.	CL													
1			- 0.91 m: becomes w~PL, stiff to very stiff														
2			- 1.37 m: becomes w<PL - 1.52 m: becomes very stiff														
3			- 2.13 m: becomes w~PL														
4																	
5																	
6																	
7			(CL) Sandy lean clay, mostly medium plasticity FINES, little fine sand; brown grey, iron oxide staining; cohesive, w~ PL, very stiff, (inf).	CL													
8			- 7.62 m: becomes very stiff														
9			(CH) Sandy fat clay, mostly high plasticity FINES, little fine sand; grey, iron oxide staining; cohesive, w < PL, very stiff, (inf).	CH													
10			- 9.14 m: becomes very stiff														

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 10, 2025
DATE: Jan 28, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-54

CLIENT: Enbridge	START DATE: November 10, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 11, 2025	COORDINATES: N: 5496047.0 m E: 596492.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane
												H	NP	W	u						
11	R501/OME75 SSA - 125-mm Hole Dia.		(CH) Sandy fat clay, mostly high plasticity FINES, little fine sand; grey, iron oxide staining; cohesive, w < PL, very stiff, (inf).	CH		10.36	10	AS													
			(CH) Fat clay, mostly high plasticity FINES, trace fine sand; grey, (SHALE); cohesive, w < PL, hard.			10.97	2	TO	50												
12			(CH) Sandy fat clay, mostly high plasticity FINES, little fine sand; grey; cohesive, w < PL, very stiff, (inf).																		
13			End of hole at 12.65 m. -Sloughing not observed during drilling. -Seepage observed from 6.7 to 8.5 m during drilling. -Test hole remained open to 12.65 m with water accumulated to 7.9 m prior to standpipe installation. -Standpipe removed on Mar5/26, hole backfilled with bentonite to surface after removal. -Water frozen to 0.21 m in standpipe prior to removal.																		
14																					
15																					
16																					
17																					
18																					
19																					
20																					

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 10, 2025
DATE: Jan 28, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-55

CLIENT: Enbridge DATE: November 14, 2025 ELEVATION: Data Not Available
 PROJECT: Enbridge Seven Stars Wind Farm COORDINATES: N: 5501186.0 m E: 594994.0 m
 PROJECT NO: CA0059493.2836 COORD SYS: UTM Zone 13N
 LOCATION: Weyburn, SK CONTRACTOR: Forged Drilling Company HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	Water Content (%)				
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, trace fine gravel; brown, iron oxide staining, TILL; cohesive, w < PL.	CL	[Strata Plot]	0.00	1	AS							0.12 m: Frozen 3/5/2026 12:00:00 AM	05Mar26	
0.91			- 0.91 m: becomes very stiff	CL	[Strata Plot]		2	AS						GI	0.91 m: % Fines = 65		
1.83			(SC) Clayey sand, mostly fine to medium SAND, little medium plasticity fines; brown; non-cohesive, moist, compact.	SC	[Strata Plot]	1.83	1	SS	6-8-13	21				ALS	1.37 m: Analytical Testing Results: pH=8.31 Total Sulfate=0.642% Soluble Sulfate=0.716% Chloride=<20 mg/L ORP=195 mV Resistivity=433 ohm-cm Chloride=<20 mg/kg 3.05 - 4.57 m: Bulk Sample Collected		0.00 - 3.05 m bgs: Bentonite
3.05			- 3.05 m: becomes dense	SC	[Strata Plot]		4	AS									
3.35			(CL) Lean clay, mostly medium plasticity FINES, trace fine to coarse sand, trace fine gravel; brown, iron oxide staining, TILL; cohesive, w ~ PL, very stiff.	CL	[Strata Plot]	3.35	2	SS	8-16-20	36							
5.49			(CL) Lean clay, mostly medium plasticity FINES, trace fine sand; brown, blocky. (SHALE); cohesive, w < PL, very stiff. (inf).	CL	[Strata Plot]	5.49	6	AS									
6.10			- 6.10 m: becomes hard	CL	[Strata Plot]		1	TO									
9.14			(CH) Fat clay, mostly high plasticity FINES, trace fine sand, trace fine angular gravel; brown, iron oxide staining. (SHALE); cohesive, w ~ PL, hard.	CH	[Strata Plot]	9.14	2	SS	11-14-20	34							
				CH	[Strata Plot]		3	AS									
				CH	[Strata Plot]		4	SS	16-24-30	54							
				CH	[Strata Plot]		5	AS									
				CH	[Strata Plot]		8	AS									
				CH	[Strata Plot]		9	AS									
				CH	[Strata Plot]		9	SS	14-17-20	37							

Continued on Next Page

DEPTH SCALE: 1:51
 HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
 CHECKED: LN

DATE: Nov 14, 2025
 DATE: Jan 28, 2026

REV:
 0

RECORD OF BOREHOLE: SS-BH25-55

CLIENT: Enbridge	DATE: November 14, 2025	ELEVATION: Data Not Available	
PROJECT: Enbridge Seven Stars Wind Farm		COORDINATES: N: 5501186.0 m E: 594994.0 m	
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N	
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27	

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS				
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane		
												U	NP	u	U								
11	R501/OME75 SSA - 125-mm Hole Dia.		(CH) Fat clay, mostly high plasticity FINES, trace fine sand, trace fine angular gravel; brown, iron oxide staining, (SHALE); cohesive, w ~ PL, hard.	CH	[Strata Plot]		10	AS				○											
12							- 10.97 m: becomes grey	2	TO														
12.19							- 12.19 m: becomes w~PL	6	AS	14-27-34	61	○					●	195.0					
13			End of hole at 12.65 m. -Neither sloughing nor seepage observed during drilling. -Test hole remained open to 12.65 m with no water accumulated prior to standpipe installation. -Standpipe removed on Mar5/26, hole backfilled with bentonite to surface after removal. -Water frozen to 0.13 m in standpipe prior to removal.																				
14																							
15																							
16																							
17																							
18																							
19																							
20																							

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 14, 2025
DATE: Jan 28, 2026

REV:
0

RECORD OF BOREHOLE: SS-BH25-56

CLIENT: Enbridge	START DATE: November 17, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 18, 2025	COORDINATES: N: 5490551.0 m E: 599956.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT		SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS						
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	H Plastic & Liquid Limits (%)	O Water Content (%)					NP Nonplastic	X Nat Vane	Rem Vane	Pocket Pen Su	u	Torvane
0.00			(CL) Sandy lean clay, mostly medium plasticity FINES, some fine to coarse sand, trace gravel; brown, TILL; cohesive, w - PL, friable to 0.46m.	CL																			
1.00			- 0.91 m: becomes soft to firm											GI	0.91 m: %Fines = 66								
1.37			- 1.37 m: becomes firm											ALS	1.37 m: Analytical Testing Results: pH = 8.51 Total Sulfate = 3.37% Soluble Sulfate = 4.23% Chloride = <20 mg/L ORP = 191 mV Resistivity = 263 ohm-cm Chloride = <13 mg/kg								
1.52			- 1.52 m: becomes hard, trace fine to coarse sand																				
2.13			- 2.13 m: becomes very stiff																				
4.57			(CH) Fat clay, mostly high plasticity FINES; grey; cohesive, w > PL, very stiff.	CH																			
6.10			(CH) Fat clay, mostly high plasticity FINES; grey, (SHALE); cohesive, w~ PL, very stiff.	CH																			
7.47			- 7.47 m: becomes hard																				
8.99			- 8.99 m: becomes some fine to medium																				

Continued on Next Page

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 17, 2025
DATE: Jan 28, 2026

REV: 0

RECORD OF BOREHOLE: SS-BH25-56

CLIENT: Enbridge	START DATE: November 17, 2025	ELEVATION: Data Not Available
PROJECT: Enbridge Seven Stars Wind Farm	END DATE: November 18, 2025	COORDINATES: N: 5490551.0 m E: 599956.0 m
PROJECT NO: CA0059493.2836		COORD SYS: UTM Zone 13N
LOCATION: Weyburn, SK	CONTRACTOR: Forged Drilling Company	HORZ DATUM: NAD27

DEPTH (m)	DRILL RIG	DRILL METHOD	MATERIAL PROFILE			SAMPLES				WATER CONTENT				SHEAR STRENGTH (kPa)		ADDITIONAL LAB TESTING	ADDITIONAL OBSERVATIONS	GROUNDWATER OBSERVATIONS	CONSTRUCTION AND INSTALLATION DETAILS		
			DESCRIPTION	USCS	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	REC %	BLOWS	N-VALUE	Plastic & Liquid Limits (%)		Water Content (%)						Nat Vane	Rem Vane
												W	L	NP	U						
11	R501/OME75	SSA - 125-mm Hole Dia.	(CH) Fat clay, mostly high plasticity FINES; grey, (SHALE); cohesive, w- PL, very stiff.	CH	[Strata Plot]	10	AS	29	15-25-27	52	2	TO	29	○	○	147.0	g				
12											11	AS			○	○					171.5
13											6	SS			○						
14			End of hole at 12.65 m. -Sloughing was not observed during drilling. -Seepage observed below 9.1 m during drilling. -Test hole remained open to 12.65 m with water accumulated to 11.1 m prior to standpipe installation. -Standpipe removed on Mar5/26, hole backfilled with bentonite to surface after removal. -Water observed at 3.4 m in standpipe prior to removal.																		
15																					
16																					
17																					
18																					
19																					
20																					

DEPTH SCALE: 1:51
HAMMER TYPE: Automatic, 140lb, 30" drop



LOGGED: MR
CHECKED: LN

DATE: Nov 17, 2025
DATE: Jan 28, 2026

REV: 0

APPENDIX E

Soil Resistivity Testing



REPORT

Seven Stars Wind Project

Soil Resistivity Testing

Submitted to:

Enbridge Power Development Canada Inc.

119 9th Ave. N.
Regina, SK S4N 7L2

Submitted by:

WSP Canada Inc.

237 - 4 Avenue SW, Calgary, AB
T2P 4K3 Canada

(403) 243-8380

CA0059493.2836

March 31, 2026



Distribution List

1 electronic-copy Enbridge Power Development Canada Inc.

1 electronic-copy WSP Canada Inc.

Table of Contents

1 INTRODUCTION 1

2 BACKGROUND AND SCOPE OF WORK 1

3 METHOD 1

4 FIELD CONDITIONS AND DATA COLLECTION 3

5 RESULTS 4

6 IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT 4

7 REFERENCES 5

8 CLOSURE 6

TABLES

Table 1: VES Test Location 3

FIGURES

Plate 1: Typical 4-Pin Wenner Array Expansion 2

Plate 2: Field Photos 3

In order following the text:

Figure 1A – Soil Resistivity Testing Field Data

Figure 1B – Soil Resistivity Testing Modelled Data

1 INTRODUCTION

WSP Canada Inc. (WSP) was retained by Enbridge Power Development Canada Inc. (Enbridge) to complete a geotechnical investigation to support the design of the proposed Seven Stars Wind Farm Project located near Weyburn, SK (the Project). The purpose of the geotechnical investigation was to evaluate the subsurface and groundwater conditions and to provide geotechnical design parameters and construction recommendations for the proposed wind farm.

As part of the investigation, WSP collected soil resistivity testing information to provide inputs for grounding design for a proposed substation for the Project. Data were collected using the 4-Pin Wenner method, also known as vertical electrical sounding (VES), to estimate electrical resistivity of the soils for input to electrical ground grid design. Field work for this investigation was conducted on 7 November 2025.

This factual report summarizes the methods used, conditions, and results of the investigation. Use of this report is subject to the conditions outlined in the “*Important Information and Limitations of this Report*” section, which follows the main text and forms an integral part of this document.

2 BACKGROUND AND SCOPE OF WORK

The Project is located approximately 15 kilometres (km) southwest of the city of Weyburn, SK. The locations of forty-six (46) proposed wind turbines, four alternate wind turbines, two meteorological stations, the proposed substation and proposed operations and maintenance (O&M) building were provided by Enbridge. The Project extends across agricultural land consisting of crop land, pasture, wetlands, and numerous oilfield developments.

The soil resistivity testing scope of work included:

- Pre-field planning, coordination and preparation of a Project Risk Assessment and Safety Plan and other health and safety documentation.
- Mobilization and demobilization of geophysics crew and equipment to and from the Project.
- Collection of soil resistivity data at one test location, with testing arrays expanded along orthogonal transects centred about a common midpoint located within the proposed sub station footprint.
- 4-Pin Wenner probe a-spacings of 1, 2, 3, 6 and 12 metres (m).
- Data collection and calculations using ASTM G57-20 and IEEE 81-2025 standards as guidelines.
- Record the position of the actual test location with a sub-metre GPS device.
- Prepare a report summarizing the field investigation, data processing, and results.

3 METHOD

The VES method (also known as the 4-pin Wenner method) is typically employed for the purposes of determining soil resistivity properties versus depth to assist in electrical grounding design for infrastructure and is described by ASTM G57-20 and ANSI/IEEE 81-2025 standards. Four evenly spaced steel electrodes are inserted into the soil in a straight line and a direct current or alternating current is applied to the outer two electrodes, producing a potential difference which is measured between the inner two electrodes. Apparent resistivity is calculated as the potential difference divided by the applied current and multiplied by the geometric factor for the array of electrodes. True resistivity of the ground with respect to depth is then modelled by applying an inversion process to the measured apparent resistivity data.

To test for vertical changes in the resistivity of the subsurface, the Wenner array is kept centred over a central point, while the electrode spacing “a” between the current electrodes “C” and potential electrodes “P” is increased stepwise in order to achieve greater depth penetration (see Plate 1 below). Effective investigation depth increases with increasing electrode separation to yield a vertical electrical sounding of the subsurface. This approach highlights any significant vertical stratification in electrical properties of the ground. Additionally, the array is typically laid out and expanded in two orthogonal spreads about a common midpoint (e.g., north-south and east-west) to investigate the possibility of planar anisotropy in the ground.

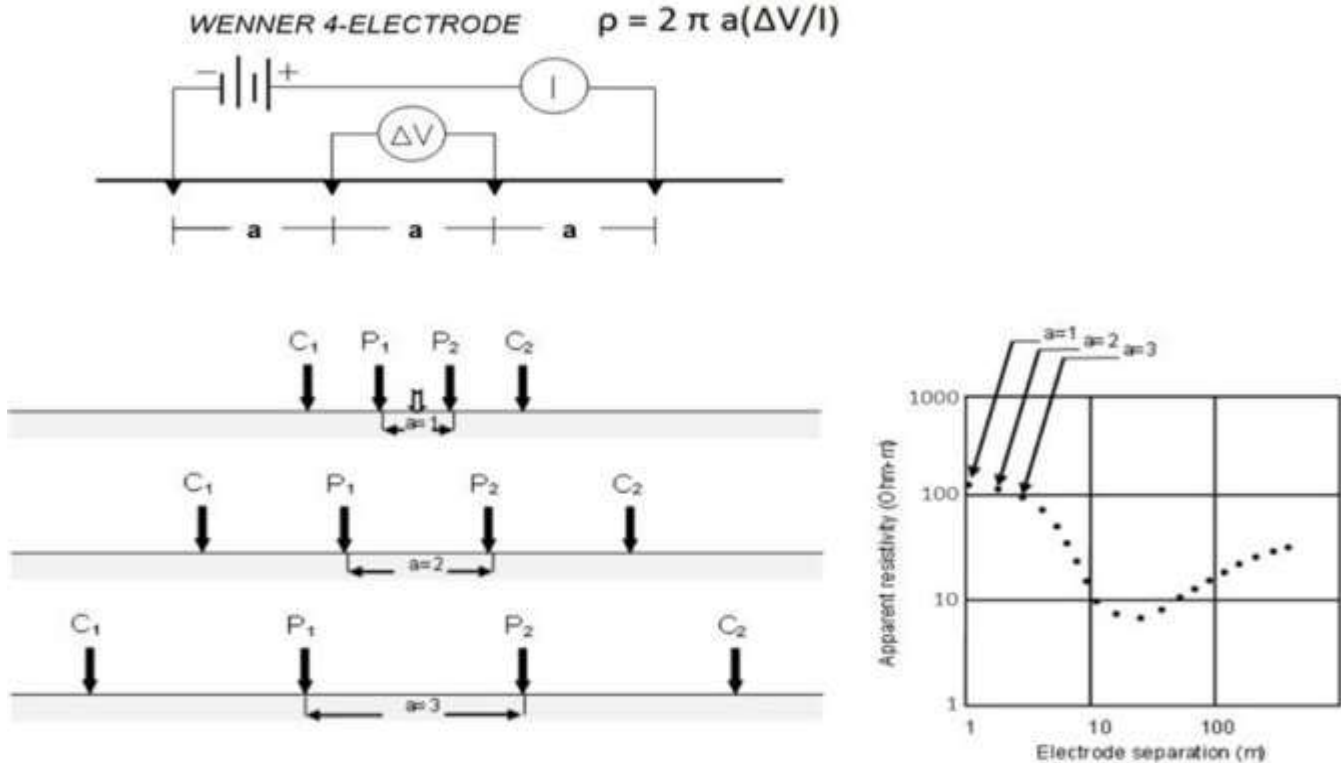


Plate 1: Typical 4-Pin Wenner Array Expansion

The measured field data are an apparent resistivity, which is a bulk or average resistivity assuming that the volume of material being measured is homogeneous. In homogenous soil conditions, the apparent resistivity values are a good approximation of “true resistivity.” However, to derive “true resistivity” values at “true depth,” apparent resistivity values must be modelled via an inversion process to provide information on the thickness and resistivity of individual layers within the subsurface. For the Wenner array, the maximum depth of investigation is approximately a/2. For example, varying the electrode spacing “a” from 1 to 20 m will typically provide information from the surface down to a maximum depth of approximately 10 metres below ground surface (mbgs), depending in part on ground resistivity. Depth of investigation may be limited by obstacles, such as buildings, roads, or dense vegetation, which limit the distance the surface array can be expanded. Buried metallic infrastructure (e.g., pipelines, communication cables) or sources of electrical interference (e.g., high voltage powerlines, buried power grids) can negatively impact VES results and produce unrepresentative results. It is important to select soil resistivity testing locations that are free from sources of interference.

4 FIELD CONDITIONS AND DATA COLLECTION

Field work for this investigation was conducted on November 7, 2025. Access to the test area was by a combination of 4x4 truck and on foot. Travel along VES transects was on foot.

The VES transects were located within a flat grass field. The ground was unfrozen at the time of data collection, and near surface soils consisted of topsoil underlain by silty clay. VES electrode arrays were expanded in orthogonal directions (east-west and north-south) about a common midpoint at a pre-selected location within the proposed substation footprint. Electrode “a”-spacings followed the prescribed values of 1, 2, 3, 6, and 12 m.

Table 1 displays the VES test location midpoint coordinates.

Table 1: VES Test Location

Test ID	Easting (Z13N)	Northing (Z13N)
SR1	596817	5496003

The survey was completed using an AEMC-6470 soil resistivity meter manufactured by AEMC Instruments and a survey method using ASTM G57-20 and ANSI/IEEE 81-2025 standards as a guideline. The test location was confirmed in the field and its position recorded using a Trimble GeoXH differential GPS device. Positions were post-processed to improve precision, generally resulting in sub-metre precision in the horizontal. Positions are presented in Universal Transverse Mercator coordinates referenced to the 1983 North American Datum (NAD83), zone 13N.

Plate 2 presents photos taken at the centre test point looking towards northeast, southeast and south.



Plate 2: Field Photos

No buried utilities were identified within the testing area and no other sources of interference impeded data acquisition.

5 RESULTS

Figure 1A (following the text) presents field-recorded data for the soil resistivity testing. A small inset map indicates the profile locations superimposed on background imagery.

Figure 1B presents modelled resistivity versus depth results for the orthogonal resistivity test. Resistivity models were calculated using IX1D, a commercial software produced by Interpex. The panels on the left-hand side of the figure display the inversion-derived resistivity-depth structure along with the achieved best fit of the measured apparent resistivities (values measured in the field), represented by purple squares on the graphs. A modelled resistivity versus depth plot is presented on the right-hand side of the figure, with the two orthogonal tests superimposed on the same plot. Modelled resistivity versus depth information is also presented in tabular format on the figure. Differences in resistivity structure between the two orthogonal surveys may indicate horizontal anisotropy. A small inset map indicates the actual profile locations, superimposed on background imagery.

The soil resistivity models consist of an upper layer approximately 0.5 m thick with resistivity values ranging from 19 to 25 ohm-m underlain by resistivity values less than 10 ohm-m at greater depths. The ranges of resistivity values are consistent with predominantly fine-grained soils.

6 IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT

WSP prepared this report solely for the use of the intended recipient in accordance with the professional services agreement between the parties. In the event a contract has not been executed, the parties agree that the WSP General Terms for Consultant shall govern their business relationship which was provided to you prior to the preparation of this report.

The report is intended to be used in its entirety. No excerpts may be taken to be representative of the findings in the assessment.

The conclusions presented in this report are based on work performed by trained, professional and technical staff, in accordance with their reasonable interpretation of current and accepted engineering and scientific practices at the time the work was performed.

The content and opinions contained in the present report are based on the observations and/or information available to WSP at the time of preparation, using investigation techniques and engineering analysis methods consistent with those ordinarily exercised by WSP and other engineering/scientific practitioners working under similar conditions, and subject to the same time, financial and physical constraints applicable to this project.

WSP disclaims any obligation to update this report if, after the date of this report, any conditions appear to differ significantly from those presented in this report; however, WSP reserves the right to amend or supplement this report based on additional information, documentation or evidence.

WSP makes no other representations whatsoever concerning the legal significance of its findings.

The intended recipient is solely responsible for the disclosure of any information contained in this report. If a third party makes use of, relies on, or makes decisions in accordance with this report, said third party is solely responsible for such use, reliance or decisions. WSP does not accept responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken by said third party based on this report.

WSP has provided services to the intended recipient in accordance with the professional services agreement between the parties and in a manner consistent with that degree of care, skill and diligence normally provided by

members of the same profession performing the same or comparable services in respect of projects of a similar nature in similar circumstances. It is understood and agreed by WSP and the recipient of this report that WSP provides no warranty, express or implied, of any kind. Without limiting the generality of the foregoing, it is agreed and understood by WSP and the recipient of this report that WSP makes no representation or warranty whatsoever as to the sufficiency of its scope of work for the purpose sought by the recipient of this report.

In preparing this report, WSP has relied in good faith on information provided by others, as noted in the report. WSP has reasonably assumed that the information provided is correct and WSP is not responsible for the accuracy or completeness of

Overall conditions can only be extrapolated to an undefined limited area around these testing and sampling locations. The conditions that WSP interprets to exist between testing and sampling points may differ from those that actually exist. The accuracy of any extrapolation and interpretation beyond the sampling locations will depend on natural conditions, the history of Site development and changes through construction and other activities. In addition, analysis has been carried out for the identified chemical and physical parameters only, and it should not be inferred that other chemical species or physical conditions are not present. WSP cannot warrant against undiscovered environmental liabilities or adverse impacts off-Site.

The original of this digital file will be kept by WSP for a period of not less than 11 years. As the digital file transmitted to the intended recipient is no longer under the control of WSP, its integrity cannot be assured. As such, WSP does not guarantee any modifications made to this digital file subsequent to its transmission to the intended recipient.

This limitations statement is considered an integral part of this report.

7 REFERENCES

ASTM Standard G57, 2020, "Standard Test Method for Field Measurement of Soil Resistivity Using the Wenner Four-Electrode Method," ASTM International, West Conshohocken, PA.

IEEE Standard 81, 2025, "Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Grounding System," The Institute of Electrical and Electronics Engineers, Inc., New York, NY, USA.

8 CLOSURE

We trust that the information presented in this technical memorandum meets your present requirements. Please contact the undersigned if there are any questions or concerns.

WSP Canada Inc.



Drew Fossen
Specialist



Spencer Maxwell, P.Ge.
Principal Geophysicist



DF/SM

[https://wsponlinecan.sharepoint.com/sites/ca-ca0059493.2836/shared documents/05. technical/05.10_geophysics/report/rev 0/report_ca0059493.2836_enbridge seven stars wind project_soil resistivity testing_rev0.docx](https://wsponlinecan.sharepoint.com/sites/ca-ca0059493.2836/shared%20documents/05.%20technical/05.10_geophysics/report/rev%200/report_ca0059493.2836_enbridge%20seven%20stars%20wind%20project_soil%20resistivity%20testing_rev0.docx)

Figures

Project #:	CA0059493.2836	Client:	Enbridge	Instrument:	AEMC 6470
Date:	07-Nov-25	Project:	Seven Stars		
Time:	10:00	Site:	SR1		
Soil type and conditions:	Cultivated field, dark brown topsoil. Some snow on the ground.				
Weather:	Cloudy	Temp:	-4 Degrees C		

Field Data

ID:	SR1-NS									
Coordinates :	596817 E, 5496003 N, Zone 13N									
Orientation:	N-S									
Electrode Spacing (m)	Electrode Depth (m)	Resistance Ohms	App. Resistivity Ohm m	C2 Ohms	C1 Ohms	P2 Ohms	P1 Ohms	Voltage (mV)	Current (mA)	Water Added (Y/N?)
1.0	0.2	1.530	9.6							N
2.0	0.2	0.525	6.6							N
3.0	0.2	0.381	7.2							N
6.0	0.2	0.171	6.4							N
12.0	0.2	0.075	5.7							N
Comment	None									

ID:	SR1-EW									
Coordinates :	596817 E, 5496003 N, Zone 13N									
Orientation:	E-W									
Electrode Spacing (m)	Electrode Depth (m)	Resistance Ohms	App. Resistivity Ohm m	C2 Ohms	C1 Ohms	P2 Ohms	P1 Ohms	Voltage (mV)	Current (mA)	Water Added (Y/N?)
1.0	0.2	1.682	10.6							N
2.0	0.2	0.426	5.4							N
3.0	0.2	0.288	5.4							N
6.0	0.2	0.157	5.9							N
12.0	0.2	0.078	5.9							N
Comment	None									

C1 = Current Electrode 1, C2 = Current Electrode 2, P1 = Potential Electrode 1, P2 = Potential Electrode 2



MAP LEGEND

— VES SURVEY LINE

SCALE:
MAP SCALE 1:5,000

SURVEY SPECIFICATIONS
DATES: November 7, 2025
ARRAY: WENNER

- NOTES**
1. GEODETIC DATUM NAD83 UTM ZONE 13N. ALL MEASUREMENTS ARE IN METRES.
 2. GEOPHYSICS SURVEY POSITIONED USING A HANDHELD DIFFERENTIAL GPS UNIT.
 3. GEOREFERENCING OF AERIAL IMAGERY IS APPROXIMATE AND POSITIONING MAY VARY FROM GROUND CONDITIONS.
 4. AERIAL IMAGERY PROVIDED BY GOOGLE EARTH.

DISCLAIMER
GEOPHYSICAL INTERPRETATIONS MAY BE INACCURATE WHERE TARGETS OF INTEREST ARE TOO SMALL OR HAVE INHERENTLY SIMILAR PHYSICAL PROPERTIES TO THE SURROUNDING MATERIAL. GEOPHYSICAL DATA REPRESENT IN SITU PHYSICAL PROPERTIES OF THE SUBSURFACE AND MAY NOT RESOLVE ALL STRUCTURAL VARIATIONS.

CLIENT
ENBRIDGE

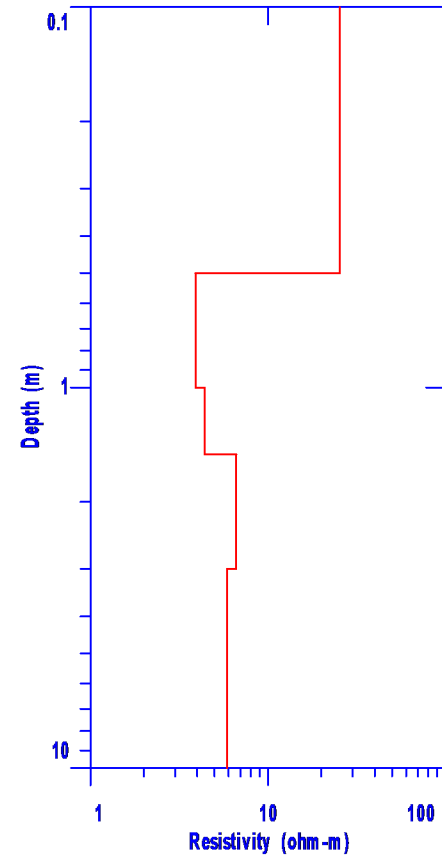
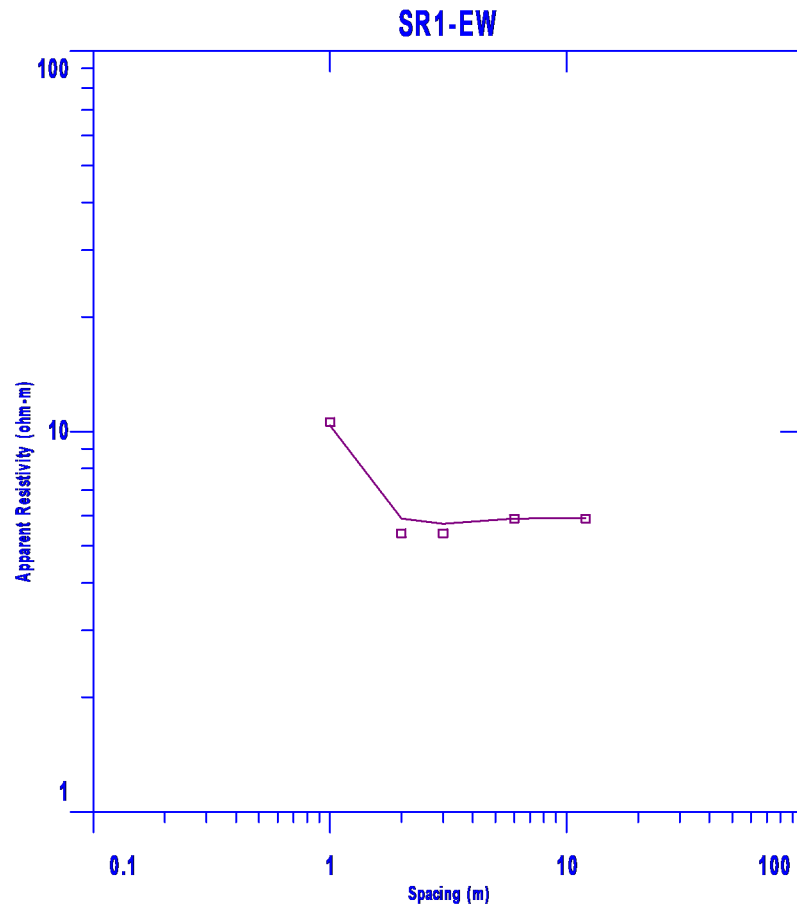
PROJECT
Enbridge Seven Stars Wind Farm
Geotechnical Investigation

TITLE
Soil Resistivity Testing Field Data

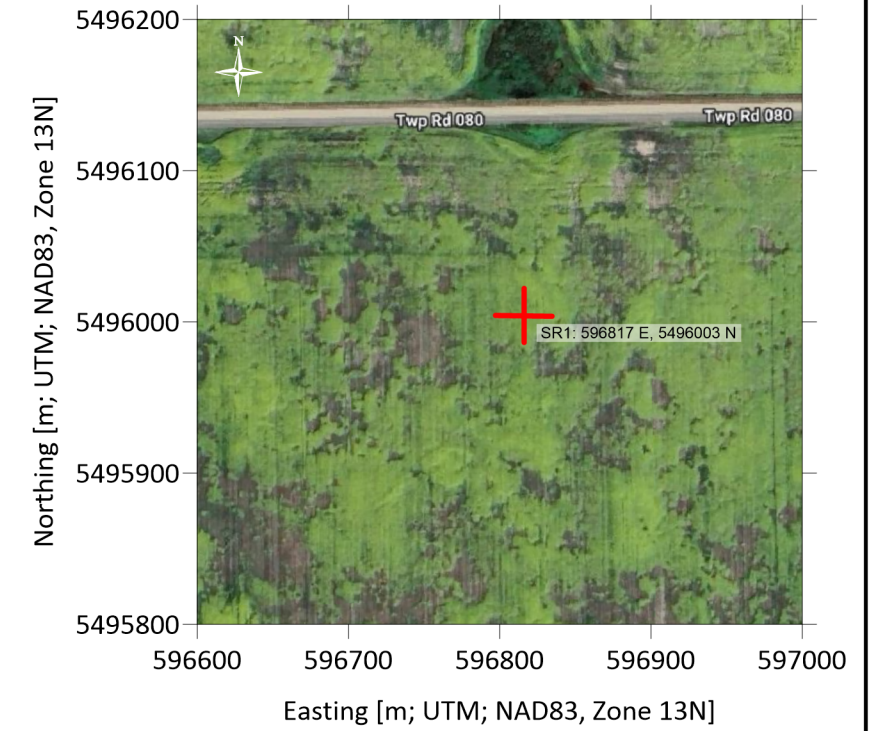
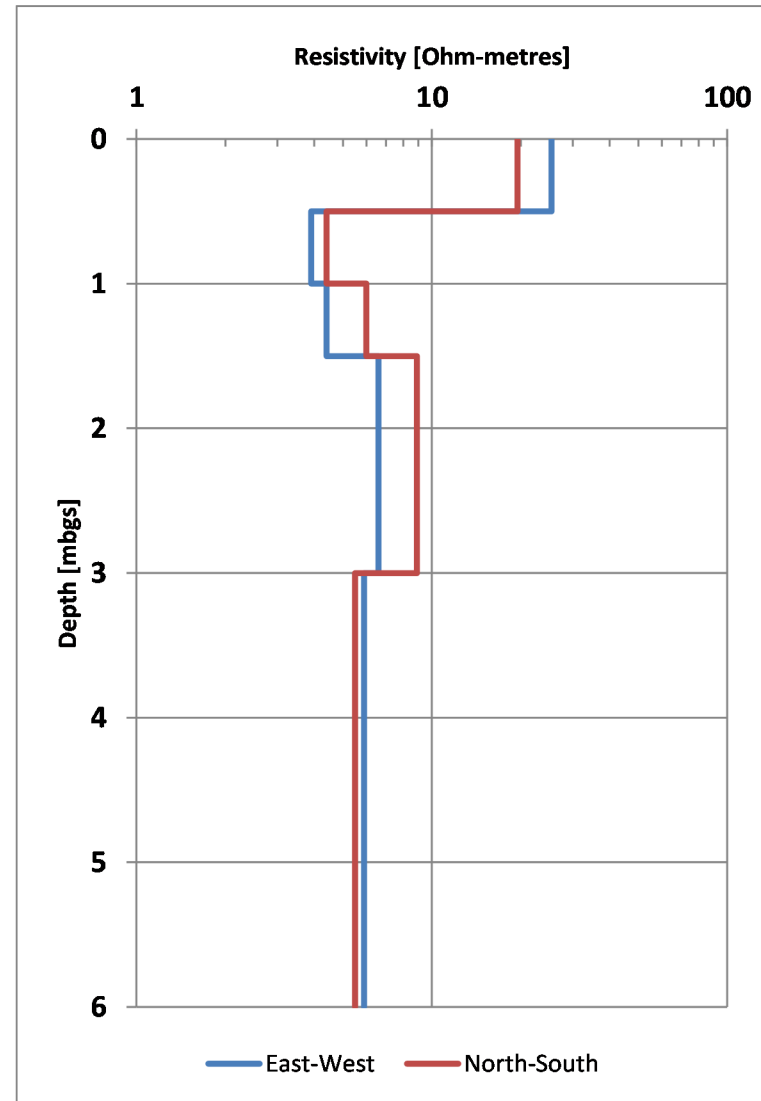
CONSULTANT	YYYY-MM-DD	2026-03-31
	PREPARED	D. FOSSEN
	DESIGN	D. FOSSEN
	REVIEW	S. MAXWELL
	APPROVED	S. MAXWELL

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

VES Sounding SR1-EW



VES Sounding Crossplot:



MAP LEGEND

— VES SURVEY LINE

SCALE:
MAP SCALE 1:5,000

SURVEY SPECIFICATIONS
DATES: November 7, 2025
ARRAY: WENNER

NOTES

1. GEODETIC DATUM NAD83 UTM ZONE 13N. ALL MEASUREMENTS ARE IN METRES.
2. GEOPHYSICS SURVEY POSITIONED USING A HANDHELD DIFFERENTIAL GPS UNIT.
3. GEOREFERENCING OF AERIAL IMAGERY IS APPROXIMATE AND POSITIONING MAY VARY FROM GROUND CONDITIONS.
4. AERIAL IMAGERY PROVIDED BY GOOGLE EARTH.

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CLIENT

ENBRIDGE

PROJECT

Enbridge Seven Stars Wind Farm
Geotechnical Investigation

TITLE

Soil Resistivity Testing Modelled Results

CONSULTANT



YYYY-MM-DD	2026-03-31
PREPARED	D. FOSSEN
DESIGN	D. FOSSEN
REVIEW	S. MAXWELL
APPROVED	S. MAXWELL

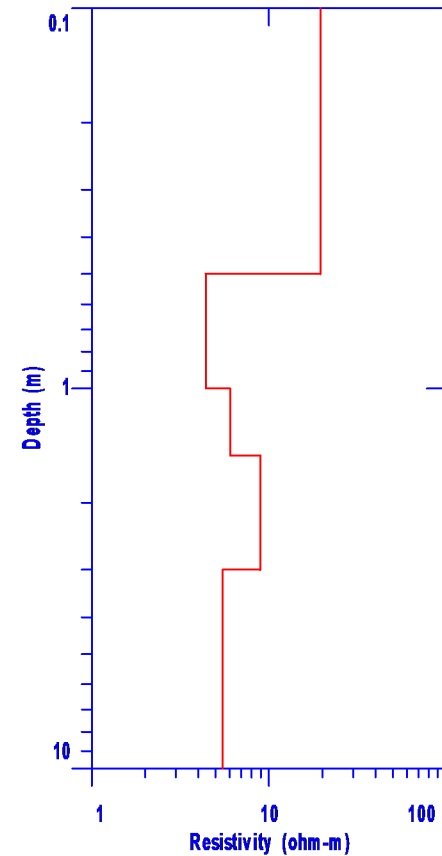
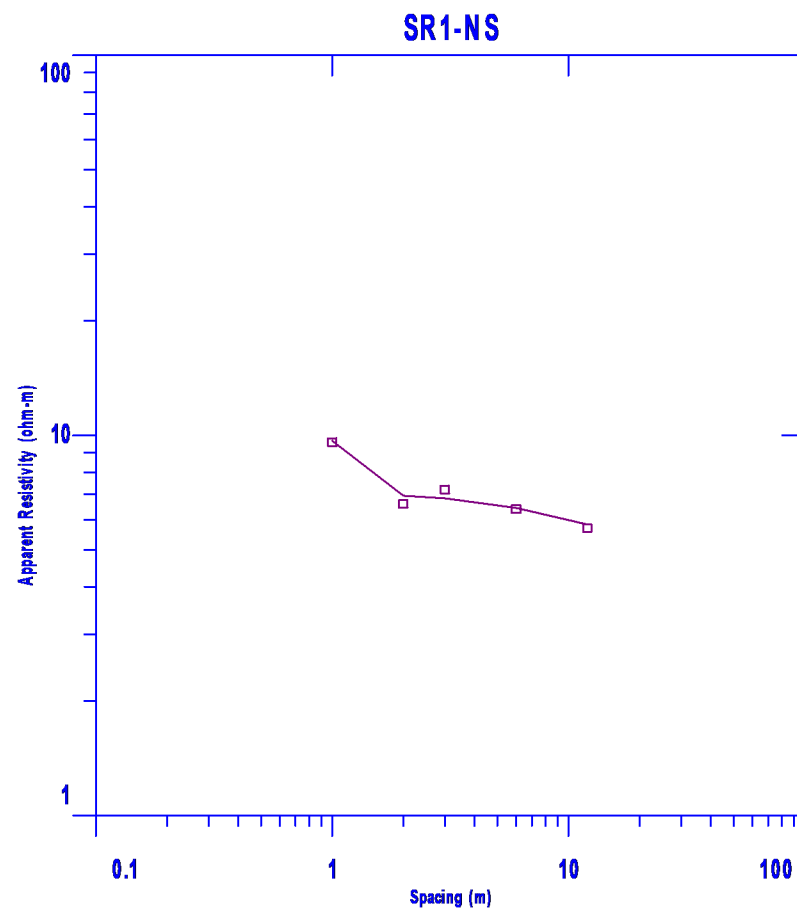
PROJECT No.
CA0059493.2836

SCALE
AS SHOWN

Rev.
0

FIG
1B

VES Sounding SR1-NS:



VES Sounding Tabular Results:

VES Modelled Resistivity			
Sounding (W-E)		Sounding (N-S)	
Depth (mbgs)	Resistivity (Ωm)	Depth (mbgs)	Resistivity (Ωm)
0.5	25.4	0.5	19.5
1	3.9	1	4.4
1.5	4.4	1.5	6
3	6.6	3	8.9
6	5.9	6	5.5
Average:	9	Average:	9

25 mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

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APPENDIX F

Laboratory Test Results



GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1

Lab #: RL131

Tested by: SB / EB

Date: January 16, 2026

Sample Identification					Laboratory Test Results							
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index	Pocket Penetrometer (kPa)	Lab Vane (kPa)
SS-BH25-12	AS-1	0.15-0.30	AS	RL131-001	13.3							
SS-BH25-12	AS-2	0.91-1.07	AS	RL131-002	15.8	23	55	32	77.4	19.0		
SS-BH25-12	AS-3	1.37-1.52	AS	RL131-003								
SS-BH25-12	SS-1	1.52-1.98	SS	RL131-004	17.1							
SS-BH25-12	AS-4	2.13-2.29	AS	RL131-005	19.0							
SS-BH25-12	AS-5	2.90-3.05	AS	RL131-006								
SS-BH25-12	SS-2	3.05-3.51	SS	RL131-007	26.0							
SS-BH25-12	AS-6	4.42-4.57	AS	RL131-008		23	46	23				
SS-BH25-12	SS-3	4.57-5.03	SS	RL131-009	15.6							
SS-BH25-12	AS-7	5.94-6.10	AS	RL131-010	17.4							
SS-BH25-12	TO-1	6.10-6.71	TO	RL131-011								
SS-BH25-12	AS-8	7.47-7.62	AS	RL131-012								
SS-BH25-12	SS-4	7.62-8.08	SS	RL131-013	21.1							
SS-BH25-12	AS-9	8.99-9.14	AS	RL131-014								
SS-BH25-12	SS-5	9.14-9.60	SS	RL131-015	14.9							
SS-BH25-12	AS-10	10.52-10.67	AS	RL131-016								
SS-BH25-12	SS-6	10.67-11.13	SS	RL131-017	20.8							
SS-BH25-12	AS-11	12.04-12.19	AS	RL131-018	18.0							
SS-BH25-12	TO-2	12.19-12.80	TO	RL131-019								
SS-BH25-15	AS-1	0.15-0.30	AS	RL131-020	11.4							
SS-BH25-15	AS-2	0.91-1.07	AS	RL131-021	12.4	24	51	27	68.8	15.4		
SS-BH25-15	AS-3	1.37-1.52	AS	RL131-022								
SS-BH25-15	SS-1	1.52-1.98	SS	RL131-023	14.8							
SS-BH25-15	AS-4	2.13-2.29	AS	RL131-024	20.0							
SS-BH25-15	AS-5	2.90-3.05	AS	RL131-025								
SS-BH25-15	SS-2	3.05-3.51	SS	RL131-026	17.9							
SS-BH25-15	AS-6	4.42-4.57	AS	RL131-027	17.8							
SS-BH25-15	TO-1	4.57-5.18	TO	RL131-028								
SS-BH25-15	AS-7	5.94-6.10	AS	RL131-029								
SS-BH25-15	SS-3	6.10-6.55	SS	RL131-030	17.5							
SS-BH25-15	AS-8	7.47-7.62	AS	RL131-031								
SS-BH25-15	SS-4	7.62-8.08	SS	RL131-032	15.2							
SS-BH25-15	AS-9	8.99-9.14	AS	RL131-033								
SS-BH25-15	SS-5	9.14-9.60	SS	RL131-034	14.8							
SS-BH25-15	AS-10	10.52-10.67	AS	RL131-035	18.6							

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1

Lab #: RL131

Tested by: SB / EB

Date: January 16, 2026

Sample Identification					Laboratory Test Results							
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index	Pocket Penetrometer (kPa)	Lab Vane (kPa)
SS-BH25-15	TO-2	10.67-10.97	TO	RL131-036								
SS-BH25-15	SS-6	10.97-11.43	SS	RL131-037	14.1							
SS-BH25-15	AS-11	12.04-12.19	AS	RL131-038								
SS-BH25-15	SS-7	12.19-12.65	SS	RL131-039	16.5							
SS-BH25-16	AS-1	0.15-0.30	AS	RL131-040	14.7							
SS-BH25-16	AS-2	0.91-1.07	AS	RL131-041	20.5	28	68	40	92.2	20.0		
SS-BH25-16	AS-3	1.37-1.52	AS	RL131-042								
SS-BH25-16	SS-1	1.52-1.98	SS	RL131-043								
SS-BH25-16	AS-4	2.13-2.29	AS	RL131-044	17.2							
SS-BH25-16	AS-5	2.90-3.05	AS	RL131-045								
SS-BH25-16	SS-2	3.05-3.51	SS	RL131-046	20.5							
SS-BH25-16	AS-6	4.42-4.57	AS	RL131-047	20.7							
SS-BH25-16	TO-1	4.57-6.71	TO	RL131-048								
SS-BH25-16	AS-7	5.94-6.10	AS	RL131-049								
SS-BH25-16	SS-3	6.10-6.55	SS	RL131-050	20.0							
SS-BH25-16	AS-8	7.47-7.62	AS	RL131-051								
SS-BH25-16	SS-4	7.62-8.08	SS	RL131-052	20.2							
SS-BH25-16	AS-9	8.99-9.14	AS	RL131-053								
SS-BH25-16	TO-2	9.14-9.75	TO	RL131-054	24.9							
SS-BH25-16	AS-10	10.52-10.67	AS	RL131-055								
SS-BH25-16	SS-5	10.67-11.13	SS	RL131-056	23.5							
SS-BH25-16	AS-11	12.04-12.19	AS	RL131-057								
SS-BH25-16	SS-6	12.19-12.65	SS	RL131-058								
SS-BH25-16	AS-12	13.56-13.72	AS	RL131-059								
SS-BH25-16	SS-7	13.72-14.17	SS	RL131-060								
SS-BH25-17	AS-1	0.15-0.30	AS	RL131-061	11.8							
SS-BH25-17	AS-2	0.91-1.07	AS	RL131-062	25.2	21	46	25	68	13.6		
SS-BH25-17	AS-3	1.37-1.52	AS	RL131-063								
SS-BH25-17	SS-1	1.52-1.98	SS	RL131-064								
SS-BH25-17	AS-4	2.13-2.29	AS	RL131-065	13.4							
SS-BH25-17	AS-5	2.90-3.05	AS	RL131-066								
SS-BH25-17	SS-2	3.05-3.51	SS	RL131-067	16.3							
SS-BH25-17	AS-6	4.42-4.57	AS	RL131-068								
SS-BH25-17	SS-3	4.57-5.03	SS	RL131-069	20.2							
SS-BH25-17	AS-7	5.94-6.10	AS	RL131-070	19.7							

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1

Lab #: RL131

Tested by: SB / EB

Date: January 16, 2026

Sample Identification					Laboratory Test Results							
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index	Pocket Penetrometer (kPa)	Lab Vane (kPa)
SS-BH25-17	TO-1	6.10-6.71	TO	RL131-071								
SS-BH25-17	AS-8	7.47-7.62	AS	RL131-072								
SS-BH25-17	SS-4	7.62-8.08	SS	RL131-073	20.6							
SS-BH25-17	AS-9	8.99-9.14	AS	RL131-074								
SS-BH25-17	SS-5	9.14-9.60	SS	RL131-075	18.6							
SS-BH25-17	AS-10	10.52-10.67	AS	RL131-076								
SS-BH25-17	SS-6	10.67-11.13	SS	RL131-077	17.6							
SS-BH25-17	AS-11	12.04-12.19	AS	RL131-078	18.0							
SS-BH25-17	TO-2	12.19-12.80	TO	RL131-079								
SS-BH25-21	AS-1	0.15-0.30	AS	RL131-080	15.6							
SS-BH25-21	AS-2	0.91-1.07	AS	RL131-081	16.8	25	53	28	77.2	17.8		
SS-BH25-21	AS-3	1.37-1.52	AS	RL131-082								
SS-BH25-21	SS-1	1.52-1.98	SS	RL131-083								
SS-BH25-21	AS-4	2.13-2.29	AS	RL131-084	19.4							
SS-BH25-21	AS-5	2.90-3.05	AS	RL131-085								
SS-BH25-21	SS-2	3.05-3.51	SS	RL131-086	21.2							
SS-BH25-21	AS-6	4.42-4.57	AS	RL131-087								
SS-BH25-21	SS-3	4.57-5.03	SS	RL131-088	23.5							
SS-BH25-21	AS-7	5.94-6.10	AS	RL131-089	14.4							
SS-BH25-21	TO-1	6.10-6.71	TO	RL131-090								
SS-BH25-21	AS-8	7.47-7.62	AS	RL131-091	15.6	19	41	22				
SS-BH25-21	SS-4	7.62-8.08	SS	RL131-092	15.7							
SS-BH25-21	AS-9	8.99-9.14	AS	RL131-093								
SS-BH25-21	SS-5	9.14-9.60	SS	RL131-094	15.7							
SS-BH25-21	AS-10	10.52-10.67	AS	RL131-095	22.1							
SS-BH25-21	TO-2	10.67-11.28	TO	RL131-096								
SS-BH25-21	AS-11	12.04-12.19	AS	RL131-097								
SS-BH25-21	SS-6	12.19-12.65	SS	RL131-098	19.8							
SS-BH25-21	AS-12	13.56-13.72	AS	RL131-099								
SS-BH25-21	SS-7	13.72-14.17	SS	RL131-100	17.2							
SS-BH25-51	AS-1	0.15-0.30	AS	RL131-101	12.4							
SS-BH25-51	AS-2	0.91-1.07	AS	RL131-102	13.0	21	49	28	61.8	13.8		
SS-BH25-51	AS-3	1.37-1.52	AS	RL131-103								
SS-BH25-51	SS-1	1.52-1.98	SS	RL131-104	19.3							
SS-BH25-51	AS-4	2.13-2.29	AS	RL131-105	19.3							

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1

Lab #: RL131

Tested by: SB / EB

Date: January 16, 2026

Sample Identification					Laboratory Test Results							
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index	Pocket Penetrometer (kPa)	Lab Vane (kPa)
SS-BH25-51	AS-5	2.90-3.05	AS	RL131-106								
SS-BH25-51	SS-2	3.05-3.51	SS	RL131-107	21.9							
SS-BH25-51	AS-6	4.42-4.57	AS	RL131-108	21.5							
SS-BH25-51	TO-1	4.57-5.18	TO	RL131-109								
SS-BH25-51	BULK	4.57-6.10	BS	RL131-110								
SS-BH25-51	AS-7	5.94-6.10	AS	RL131-111								
SS-BH25-51	SS-3	6.10-6.55	SS	RL131-112	20.6							
SS-BH25-51	AS-8	7.47-7.62	AS	RL131-113								
SS-BH25-51	SS-4	7.62-8.08	SS	RL131-114	17.1							
SS-BH25-51	AS-9	8.99-9.14	AS	RL131-115	19.3	22	32	10				
SS-BH25-51	SS-5	9.14-9.60	SS	RL131-116								
SS-BH25-51	AS-10	10.52-10.67	AS	RL131-117	22.0							
SS-BH25-51	TO-2	10.67-11.28	TO	RL131-118								
SS-BH25-51	AS-11	12.04-12.19	AS	RL131-119								
SS-BH25-51	SS-6	12.19-12.65	SS	RL131-120	26.0							
SS-BH25-53	AS-1	0.15-0.30	AS	RL131-121	10.1							
SS-BH25-53	AS-2	0.91-1.07	AS	RL131-122	7.9	18	28	10	28.3	0.0		
SS-BH25-53	AS-3	1.37-1.52	AS	RL131-123								
SS-BH25-53	SS-1	1.52-1.98	SS	RL131-124								
SS-BH25-53	AS-4	2.13-2.29	AS	RL131-125	19.7							
SS-BH25-53	AS-5	2.90-3.05	AS	RL131-126								
SS-BH25-53	SS-2	3.05-3.51	SS	RL131-127	19.2							
SS-BH25-53	BULK	3.05-4.57	BS	RL131-128								
SS-BH25-53	AS-6	4.42-4.57	AS	RL131-129								
SS-BH25-53	SS-3	4.57-5.03	SS	RL131-130	31.5							
SS-BH25-53	AS-7	5.94-6.10	AS	RL131-131								
SS-BH25-53	SS-4	6.10-6.55	SS	RL131-132	18.3							
SS-BH25-53	AS-8	7.47-7.62	AS	RL131-133	29.5							
SS-BH25-53	TO-1	7.62-8.23	TO	RL131-134								
SS-BH25-53	AS-9	8.99-9.14	AS	RL131-135								
SS-BH25-53	SS-5	9.14-9.60	SS	RL131-136	29.6							
SS-BH25-53	AS-10	10.52-10.67	AS	RL131-137								
SS-BH25-53	SS-6	10.67-11.13	SS	RL131-138	25.3							
SS-BH25-53	AS-11	12.04-12.19	AS	RL131-139	27.0							
SS-BH25-53	TO-2	12.19-12.80	TO	RL131-140								

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1

Lab #: RL131

Tested by: SB / EB

Date: January 16, 2026

Sample Identification					Laboratory Test Results							
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index	Pocket Penetrometer (kPa)	Lab Vane (kPa)
SS-BH25-54	AS-1	0.15-0.30	AS	RL131-141	13.2							
SS-BH25-54	AS-2	0.91-1.07	AS	RL131-142	21.9	19	41	22	69.1	11.8		
SS-BH25-54	AS-3	1.37-1.52	AS	RL131-143								
SS-BH25-54	SS-1	1.52-1.98	SS	RL131-144								
SS-BH25-54	AS-4	2.13-2.29	AS	RL131-145	19.4							
SS-BH25-54	AS-5	2.90-3.05	AS	RL131-146								
SS-BH25-54	SS-2	3.05-3.51	SS	RL131-147	19.8							
SS-BH25-54	BULK	3.05-4.57	BS	RL131-148								
SS-BH25-54	AS-6	4.42-4.57	AS	RL131-149	19.0							
SS-BH25-54	TO-1	4.57-5.18	TO	RL131-150								
SS-BH25-54	AS-7	5.94-6.10	AS	RL131-151								
SS-BH25-54	SS-3	6.10-6.55	SS	RL131-152	22.0							
SS-BH25-54	AS-8	7.47-7.62	AS	RL131-153								
SS-BH25-54	SS-4	7.62-8.08	SS	RL131-154	19.3							
SS-BH25-54	AS-9	8.99-9.14	AS	RL131-155								
SS-BH25-54	SS-5	9.14-9.60	SS	RL131-156	24.5	34	64	30				
SS-BH25-54	AS-10	10.52-10.67	AS	RL131-157	26.6							
SS-BH25-54	TO-2	10.67-11.28	TO	RL131-158								
SS-BH25-54	AS-11	12.04-12.19	AS	RL131-159								
SS-BH25-54	SS-6	12.19-12.65	SS	RL131-160	27.7							
SS-BH25-55	AS-1	0.15-0.30	AS	RL131-161	15.6							
SS-BH25-55	AS-2	0.91-1.07	AS	RL131-162	5.1	20	48	28	64.9	14.4		
SS-BH25-55	AS-3	1.37-1.52	AS	RL131-163								
SS-BH25-55	SS-1	1.52-1.98	SS	RL131-164								
SS-BH25-55	AS-4	2.13-2.29	AS	RL131-165	18.4							
SS-BH25-55	AS-5	2.90-3.05	AS	RL131-166								
SS-BH25-55	SS-2	3.05-3.51	SS	RL131-167	17.8							
SS-BH25-55	COMP	3.05-4.57	BS	RL131-168								
SS-BH25-55	AS-6	4.42-4.57	AS	RL131-169	23.6							
SS-BH25-55	AS-7	5.94-6.10	AS	RL131-170								
SS-BH25-55	SS-3	6.10-6.55	SS	RL131-171	23.2							
SS-BH25-55	AS-8	7.47-7.62	AS	RL131-172								
SS-BH25-55	SS-4	7.62-8.08	SS	RL131-173	23.8							
SS-BH25-55	AS-9	8.99-9.14	AS	RL131-174								
SS-BH25-55	SS-5	9.14-9.60	SS	RL131-175	24.7							

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1

Lab #: RL131

Tested by: SB / EB

Date: January 16, 2026

Sample Identification					Laboratory Test Results							
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index	Pocket Penetrometer (kPa)	Lab Vane (kPa)
SS-BH25-55	AS-10	10.52-10.67	AS	RL131-176	23.7							
SS-BH25-55	AS-11	12.04-12.19	AS	RL131-177								
SS-BH25-55	SS-6	12.19-12.65	SS	RL131-178	21.2							

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GENERAL TESTING RESULTS

Project #: CA0059493.2836	Task : 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: SL7917
Tested by: MM / JH / SS / EB / AR	Date: December 5, 2025

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-04	1	0.30-0.46	AS	SL7917-001	9.2					
SS-BH25-04	2	0.91-1.07	AS	SL7917-002	10.3					
SS-BH25-04	3	1.22-1.37	AS	SL7917-003						
SS-BH25-04	4	2.29-2.44	AS	SL7917-004	9.1	15	19	4	28.4	0.0
SS-BH25-04	5	2.74-2.90	AS	SL7917-005						
SS-BH25-04	6	4.27-4.42	AS	SL7917-006	20.4					
SS-BH25-04	7	5.79-5.94	AS	SL7917-007						
SS-BH25-04	8	7.32-7.47	AS	SL7917-008						
SS-BH25-04	9	8.84-8.99	AS	SL7917-009	29.1					
SS-BH25-04	10	10.36-10.52	AS	SL7917-010						
SS-BH25-04	11	11.89-12.04	AS	SL7917-011						
SS-BH25-04	12	13.41-13.56	AS	SL7917-012						
SS-BH25-04	1	1.52-1.98	SS	SL7917-013	10.1					
SS-BH25-04	2	3.05-3.51	SS	SL7917-014	20.3					
SS-BH25-04	3	4.57-5.03	SS	SL7917-015	17.1					
SS-BH25-04	4	7.62-8.08	SS	SL7917-016	18.0					
SS-BH25-04	5	9.14-9.60	SS	SL7917-017	25.7					
SS-BH25-04	6	12.19-12.65	SS	SL7917-018	23.0					
SS-BH25-04	7	13.72-14.17	SS	SL7917-019	24.3					
SS-BH25-04	1	6.10-6.71	TO	SL7917-020						
SS-BH25-04	2	9.14-9.75	TO	SL7917-021						
SS-BH25-05	1	0.30-0.46	AS	SL7917-022	20.9					
SS-BH25-05	2	0.91-1.07	AS	SL7917-023	18.9	20	56	36	76.5	19.2
SS-BH25-05	3	1.22-1.37	AS	SL7917-024						
SS-BH25-05	4	2.29-2.44	AS	SL7917-025	15.3					
SS-BH25-05	5	2.74-2.90	AS	SL7917-026						
SS-BH25-05	6	4.27-4.42	AS	SL7917-027	28.6					
SS-BH25-05	7	5.79-5.94	AS	SL7917-028	27.5					
SS-BH25-05	8	7.32-7.47	AS	SL7917-029						
SS-BH25-05	9	8.84-8.99	AS	SL7917-030	21.1					
SS-BH25-05	10	10.36-10.52	AS	SL7917-031						
SS-BH25-05	11	11.89-12.04	AS	SL7917-032						
SS-BH25-05	12	13.41-13.56	AS	SL7917-033						
SS-BH25-05	13	14.94-15.09	AS	SL7917-034						
SS-BH25-05	1	1.52-1.98	SS	SL7917-035	8.8					
SS-BH25-05	2	3.05-3.51	SS	SL7917-036	15.0					

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GENERAL TESTING RESULTS

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: MM / JH / SS / EB / AR

Task : 300-Lab Testing
 Lab #: SL7917
 Date: December 5, 2025

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-05	3	6.10-6.55	SS	SL7917-037	26.3					
SS-BH25-05	4	7.62-8.08	SS	SL7917-038	23.1					
SS-BH25-05	5	9.14-9.60	SS	SL7917-039	25.2	27	90	63		
SS-BH25-05	6	10.67-11.13	SS	SL7917-040	30.5					
SS-BH25-05	7	13.72-14.17	SS	SL7917-041	29.3					
SS-BH25-05	8	15.24-15.70	SS	SL7917-042	29.9					
SS-BH25-05	1	4.57-5.18	TO	SL7917-043						
SS-BH25-05	2	12.19-12.80	TO	SL7917-044						
SS-BH25-13	1	0.30-0.46	AS	SL7917-045	6.9					
SS-BH25-13	2	0.91-1.07	AS	SL7917-046	10.0	11	37	26	65.4	12.5
SS-BH25-13	3	1.22-1.37	AS	SL7917-047						
SS-BH25-13	4	2.29-2.44	AS	SL7917-048	12.5					
SS-BH25-13	5	2.74-2.90	AS	SL7917-049						
SS-BH25-13	6	4.27-4.42	AS	SL7917-050	24.6					
SS-BH25-13	7	5.79-5.94	AS	SL7917-051						
SS-BH25-13	8	7.32-7.47	AS	SL7917-052						
SS-BH25-13	9	8.84-8.99	AS	SL7917-053	15.6					
SS-BH25-13	10	10.36-10.52	AS	SL7917-054	27.0					
SS-BH25-13	11	11.89-12.04	AS	SL7917-055						
SS-BH25-13	12	13.41-13.56	AS	SL7917-056						
SS-BH25-13	13	14.94-15.09	AS	SL7917-057	19.7					
SS-BH25-13	1	1.52-1.98	SS	SL7917-058	12.7					
SS-BH25-13	2	3.05-3.51	SS	SL7917-059	12.2					
SS-BH25-13	3	6.10-6.55	SS	SL7917-060	22.7					
SS-BH25-13	4	7.62-8.08	SS	SL7917-061	17.2					
SS-BH25-13	5	9.14-9.60	SS	SL7917-062	21.6					
SS-BH25-13	6	12.19-12.65	SS	SL7917-063	22.9					
SS-BH25-13	7	13.72-14.17	SS	SL7917-064	21.3					
SS-BH25-13	1	4.57-5.18	TO	SL7917-065						
SS-BH25-13	2	10.67-11.28	TO	SL7917-066						
SS-BH25-13	3	15.24-15.85	TO	SL7917-067						
SS-BH25-14	1	0.30-0.46	AS	SL7917-068	11.3	13	39	26	59.9	11.4
SS-BH25-14	2	0.91-1.07	AS	SL7917-069						
SS-BH25-14	3	1.22-1.37	AS	SL7917-070						
SS-BH25-14	4	2.29-2.44	AS	SL7917-071	30.2					
SS-BH25-14	5	2.74-2.90	AS	SL7917-072						

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GENERAL TESTING RESULTS

Project #: CA0059493.2836	Task : 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: SL7917
Tested by: MM / JH / SS / EB / AR	Date: December 5, 2025

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-14	6	4.27-4.42	AS	SL7917-073						
SS-BH25-14	7	5.79-5.94	AS	SL7917-074						
SS-BH25-14	8	7.32-7.47	AS	SL7917-075						
SS-BH25-14	9	8.84-8.99	AS	SL7917-076						
SS-BH25-14	10	10.36-10.52	AS	SL7917-077						
SS-BH25-14	11	11.89-12.04	AS	SL7917-078						
SS-BH25-14	12	13.41-13.56	AS	SL7917-079						
SS-BH25-14	13	14.94-15.09	AS	SL7917-080						
SS-BH25-14	14	16.46-16.61	AS	SL7917-081						
SS-BH25-14	15	17.98-18.14	AS	SL7917-082						
SS-BH25-14	16	19.51-19.66	AS	SL7917-083	20.3					
SS-BH25-14	1	1.52-1.98	SS	SL7917-084	16.9					
SS-BH25-14	2	3.05-3.51	SS	SL7917-085	23.5					
SS-BH25-14	3	4.57-5.03	SS	SL7917-086	27.9					
SS-BH25-14	4	6.10-6.55	SS	SL7917-087	19.8					
SS-BH25-14	5	7.62-8.08	SS	SL7917-088	19.1					
SS-BH25-14	6	9.14-9.60	SS	SL7917-089	19.5					
SS-BH25-14	7	10.67-11.13	SS	SL7917-090	20.9					
SS-BH25-14	8	12.19-12.65	SS	SL7917-091	24.6					
SS-BH25-14	9	13.72-14.17	SS	SL7917-092	18.5					
SS-BH25-14	10	15.24-15.70	SS	SL7917-093	20.9					
SS-BH25-14	11	16.76-17.22	SS	SL7917-094	19.3					
SS-BH25-14	1	6.10-6.71	TO	SL7917-095						
SS-BH25-14	2	15.24-15.85	TO	SL7917-096						
SS-BH25-22	1	0.30-0.46	AS	SL7917-097	6.9					
SS-BH25-22	2	0.91-1.07	AS	SL7917-098	6.4	13	33	20	63.8	9.8
SS-BH25-22	3	1.22-1.37	AS	SL7917-099						
SS-BH25-22	4	2.29-2.44	AS	SL7917-100	12.9					
SS-BH25-22	5	2.74-2.90	AS	SL7917-101						
SS-BH25-22	6	4.27-4.42	AS	SL7917-102						
SS-BH25-22	7	5.79-5.94	AS	SL7917-103						
SS-BH25-22	8	7.32-7.47	AS	SL7917-104						
SS-BH25-22	9	8.84-8.99	AS	SL7917-105						
SS-BH25-22	10	10.36-10.52	AS	SL7917-106						
SS-BH25-22	11	11.89-12.04	AS	SL7917-107						
SS-BH25-22	12	13.41-13.56	AS	SL7917-108						

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GENERAL TESTING RESULTS

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: MM / JH / SS / EB / AR

Task : 300-Lab Testing
 Lab #: SL7917
 Date: December 5, 2025

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-22	13	14.94-15.09	AS	SL7917-109						
SS-BH25-22	1	1.52-1.98	SS	SL7917-110	12.9					
SS-BH25-22	2	3.05-3.51	SS	SL7917-111	15.1					
SS-BH25-22	3	4.57-5.03	SS	SL7917-112	18.6					
SS-BH25-22	4	7.62-8.08	SS	SL7917-113	26.6					
SS-BH25-22	5	9.14-9.60	SS	SL7917-114	21.8					
SS-BH25-22	6	10.67-11.13	SS	SL7917-115	24.2					
SS-BH25-22	7	13.72-14.17	SS	SL7917-116	25.3					
SS-BH25-22	8	15.24-15.70	SS	SL7917-117	25.2					
SS-BH25-22	1	6.10-6.71	TO	SL7917-118						
SS-BH25-22	2	12.19-12.80	TO	SL7917-119						
SS-BH25-25	1	0.30-0.46	AS	SL7917-120	15.4	16	48	32	74.1	17.4
SS-BH25-25	2	0.91-1.07	AS	SL7917-121	14.9					
SS-BH25-25	3	1.52-1.68	AS	SL7917-122						
SS-BH25-25	4	2.29-2.44	AS	SL7917-123	15.9					
SS-BH25-25	5	2.74-2.90	AS	SL7917-124						
SS-BH25-25	6	4.27-4.42	AS	SL7917-125						
SS-BH25-25	7	5.79-5.94	AS	SL7917-126	22.6					
SS-BH25-25	8	7.32-7.47	AS	SL7917-127						
SS-BH25-25	9	8.84-8.99	AS	SL7917-128	23.8					
SS-BH25-25	10	10.36-10.52	AS	SL7917-129						
SS-BH25-25	11	11.89-12.04	AS	SL7917-130						
SS-BH25-25	1	1.52-1.98	SS	SL7917-131	11.0					
SS-BH25-25	2	3.05-3.51	SS	SL7917-132	18.8					
SS-BH25-25	3	4.57-5.03	SS	SL7917-133	16.1					
SS-BH25-25	4	7.62-8.08	SS	SL7917-134	23.9					
SS-BH25-25	5	10.67-11.13	SS	SL7917-135	25.2					
SS-BH25-25	6	12.19-12.65	SS	SL7917-136	25.4					
SS-BH25-25	1	6.10-6.71	TO	SL7917-137						
SS-BH25-25	2	7.62-8.23	TO	SL7917-138						
SS-BH25-39	1	0.30-0.46	AS	SL7917-139	14.7	13	37	24	77.1	13.6
SS-BH25-39	2	0.91-1.07	AS	SL7917-140	21.4					
SS-BH25-39	3	1.22-1.37	AS	SL7917-141						
SS-BH25-39	4	2.29-2.44	AS	SL7917-142	18.7					
SS-BH25-39	5	2.74-2.90	AS	SL7917-143						
SS-BH25-39	6	3.66-3.81	AS	SL7917-144						

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GENERAL TESTING RESULTS

Project #: CA0059493.2836	Task : 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: SL7917
Tested by: MM / JH / SS / EB / AR	Date: December 5, 2025

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-39	7	5.18-5.33	AS	SL7917-145						
SS-BH25-39	8	6.71-6.86	AS	SL7917-146	17.3					
SS-BH25-39	9	8.23-8.38	AS	SL7917-147	22.4					
SS-BH25-39	10	9.75-9.91	AS	SL7917-148						
SS-BH25-39	11	11.28-11.43	AS	SL7917-149						
SS-BH25-39	1	3.05-3.51	SS	SL7917-150	18.6					
SS-BH25-39	2	4.57-5.03	SS	SL7917-151	16.9					
SS-BH25-39	3	6.10-6.55	SS	SL7917-152	30.6					
SS-BH25-39	4	9.14-9.60	SS	SL7917-153	24.1					
SS-BH25-39	5	10.67-11.13	SS	SL7917-154	21.3					
SS-BH25-39	6	12.19-12.65	SS	SL7917-155	22.3					
SS-BH25-39	1	1.52-2.13	TO	SL7917-156						
SS-BH25-39	2	7.62-8.23	TO	SL7917-157						
SS-BH25-41	1	0.30-0.46	AS	SL7917-158	12.4					
SS-BH25-41	2	0.91-1.07	AS	SL7917-159	16.0					
SS-BH25-41	3	1.22-1.37	AS	SL7917-160						
SS-BH25-41	4	2.29-2.44	AS	SL7917-161	17.0					
SS-BH25-41	5	3.05-3.20	AS	SL7917-162						
SS-BH25-41	6	4.57-4.72	AS	SL7917-163	18.0					
SS-BH25-41	7	6.10-6.25	AS	SL7917-164	22.0					
SS-BH25-41	8	7.62-7.77	AS	SL7917-165	18.6					
SS-BH25-41	9	9.14-9.30	AS	SL7917-166						
SS-BH25-41	10	10.67-10.82	AS	SL7917-167	28.0					
SS-BH25-41	11	12.19-12.34	AS	SL7917-168	22.9					
SS-BH25-41	12	13.72-13.87	AS	SL7917-169	20.8					
SS-BH25-41	1	1.52-1.98	SS	SL7917-170	16.5					
SS-BH25-41	2	3.05-3.51	SS	SL7917-171	16.8	14	39	25		
SS-BH25-41	3	4.57-5.03	SS	SL7917-172						
SS-BH25-41	4	7.62-8.08	SS	SL7917-173						
SS-BH25-41	5	9.14-9.60	SS	SL7917-174	29.1	21	78	57		
SS-BH25-41	6	12.19-12.65	SS	SL7917-175						
SS-BH25-41	7	13.72-14.17	SS	SL7917-176						
SS-BH25-41	1	6.10-6.71	TO	SL7917-177						
SS-BH25-41	2	10.67-11.28	TO	SL7917-178						
SS-BH25-01	1	0.15-0.30	AS	SL7917-179	11.1					
SS-BH25-01	2	0.61-0.76	AS	SL7917-180	12.6	14	45	31	65.0	14.8

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GENERAL TESTING RESULTS

Project #: CA0059493.2836	Task : 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: SL7917
Tested by: MM / JH / SS / EB / AR	Date: December 5, 2025

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-01	3	1.22-1.37	AS	SL7917-181						
SS-BH25-01	4	2.13-2.29	AS	SL7917-182	29.2					
SS-BH25-01	5	2.74-2.90	AS	SL7917-183	29.3					
SS-BH25-01	6	3.66-3.81	AS	SL7917-184						
SS-BH25-01	7	5.18-5.33	AS	SL7917-185						
SS-BH25-01	8	6.71-6.86	AS	SL7917-186	23.7					
SS-BH25-01	9	8.23-8.38	AS	SL7917-187	23.7					
SS-BH25-01	10	9.75-9.91	AS	SL7917-188						
SS-BH25-01	11	11.28-11.43	AS	SL7917-189						
SS-BH25-01	1	1.52-1.98	SS	SL7917-190	23.3					
SS-BH25-01	2	3.05-3.51	SS	SL7917-191	28.0					
SS-BH25-01	3	4.57-5.03	SS	SL7917-192	22.7	30	96	66	99.2	20.0
SS-BH25-01	4	6.10-6.55	SS	SL7917-193	22.8					
SS-BH25-01	5	9.14-9.60	SS	SL7917-194	23.2					
SS-BH25-01	6	10.67-11.13	SS	SL7917-195	23.5					
SS-BH25-01	7	12.19-12.65	SS	SL7917-196	23.8					
SS-BH25-01	1	7.62-8.23	TO	SL7917-197						
SS-BH25-02	1	0.15-0.30	AS	SL7917-198	11.9					
SS-BH25-02	2	0.61-0.76	AS	SL7917-199	9.5	15	37	22	69.1	11.6
SS-BH25-02	3	1.22-1.37	AS	SL7917-200						
SS-BH25-02	4	2.13-2.29	AS	SL7917-201	27.9					
SS-BH25-02	5	2.74-2.90	AS	SL7917-202	30.2					
SS-BH25-02	6	3.66-3.81	AS	SL7917-203	29.0					
SS-BH25-02	7	5.18-5.33	AS	SL7917-204	28.3					
SS-BH25-02	8	6.71-6.86	AS	SL7917-205						
SS-BH25-02	9	8.23-8.38	AS	SL7917-206	25.1	24	72	48		
SS-BH25-02	10	9.75-9.91	AS	SL7917-207	25.9					
SS-BH25-02	11	11.28-11.43	AS	SL7917-208	27.0					
SS-BH25-02	1	1.52-1.98	SS	SL7917-209	19.3					
SS-BH25-02	2	3.05-3.51	SS	SL7917-210	29.9					
SS-BH25-02	3	6.10-6.55	SS	SL7917-211	27.6					
SS-BH25-02	4	7.62-8.08	SS	SL7917-212	27.5					
SS-BH25-02	5	9.14-9.60	SS	SL7917-213	29.6					
SS-BH25-02	6	12.19-12.65	SS	SL7917-214	28.9					
SS-BH25-02	1	4.57-5.18	TO	SL7917-215						
SS-BH25-02	2	10.67-11.28	TO	SL7917-216						

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GENERAL TESTING RESULTS

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: MM / JH / SS / EB / AR

Task : 300-Lab Testing
 Lab #: SL7917
 Date: December 5, 2025

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-03	1	0.15-0.30	AS	SL7917-217	8.6					
SS-BH25-03	2	0.61-0.76	AS	SL7917-218	5.5	13	25	12	39.2	1.3
SS-BH25-03	3	1.22-1.37	AS	SL7917-219						
SS-BH25-03	4	2.13-2.29	AS	SL7917-220	14.6					
SS-BH25-03	5	2.74-2.90	AS	SL7917-221						
SS-BH25-03	6	3.66-3.81	AS	SL7917-222						
SS-BH25-03	7	5.18-5.33	AS	SL7917-223	16.4					
SS-BH25-03	8	6.71-6.86	AS	SL7917-224	29.2					
SS-BH25-03	9	8.23-8.38	AS	SL7917-225						
SS-BH25-03	10	9.75-9.91	AS	SL7917-226						
SS-BH25-03	11	11.28-11.43	AS	SL7917-227	23.8					
SS-BH25-03	1	1.52-1.98	SS	SL7917-228	12.1					
SS-BH25-03	2	3.05-3.51	SS	SL7917-229	9.2					
SS-BH25-03	3A	4.57-4.90	SS	SL7917-230	14.9					
SS-BH25-03	3B	4.90-5.03	SS	SL7917-231	17.2					
SS-BH25-03	4	7.62-8.08	SS	SL7917-232	28.6					
SS-BH25-03	5	9.14-9.60	SS	SL7917-233	26.3					
SS-BH25-03	6	10.67-11.13	SS	SL7917-234	8.2					
SS-BH25-03	7	12.19-12.65	SS	SL7917-235	23.7					
SS-BH25-03	1	6.10-6.71	TO	SL7917-236						
SS-BH25-03	17A / 2/	10.67-10.82	TO	SL7917-237						
SS-BH25-06	1	0.15-0.30	AS	SL7917-238	15.6					
SS-BH25-06	2	0.61-0.76	AS	SL7917-239	16.7	13	29	16	58.7	7.1
SS-BH25-06	3	1.22-1.37	AS	SL7917-240						
SS-BH25-06	4	2.13-2.29	AS	SL7917-241	20.3					
SS-BH25-06	5	2.74-2.90	AS	SL7917-242	19.4					
SS-BH25-06	6	3.66-3.81	AS	SL7917-243						
SS-BH25-06	7	5.18-5.33	AS	SL7917-244	18.7					
SS-BH25-06	8	6.71-6.86	AS	SL7917-245						
SS-BH25-06	9	8.23-8.38	AS	SL7917-246	25.5					
SS-BH25-06	10	9.75-9.91	AS	SL7917-247						
SS-BH25-06	11	11.28-11.43	AS	SL7917-248						
SS-BH25-06	12	12.80-12.95	AS	SL7917-249						
SS-BH25-06	13	14.33-14.48	AS	SL7917-250						
SS-BH25-06	1	1.52-1.98	SS	SL7917-251	11.6					
SS-BH25-06	2	3.05-3.51	SS	SL7917-252	17.1					

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GENERAL TESTING RESULTS

Project #: CA0059493.2836	Task : 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: SL7917
Tested by: MM / JH / SS / EB / AR	Date: December 5, 2025

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-06	3	4.57-5.03	SS	SL7917-253	16.1					
SS-BH25-06	4	6.10-6.55	SS	SL7917-254	24.8	18	64	46		
SS-BH25-06	5	7.62-8.08	SS	SL7917-255	28.0					
SS-BH25-06	6	9.14-9.60	SS	SL7917-256	25.4					
SS-BH25-06	7	10.67-11.13	SS	SL7917-257	23.5					
SS-BH25-06	8	12.19-12.65	SS	SL7917-258	22.8					
SS-BH25-06	9	13.72-14.17	SS	SL7917-259	22.3					
SS-BH25-06	10	15.24-15.70	SS	SL7917-260	22.5					
SS-BH25-08	1	0.15-0.30	AS	SL7917-261	8.6					
SS-BH25-08	2	0.61-0.76	AS	SL7917-262	15.2	14	41	27	70.6	14.1
SS-BH25-08	3	1.22-1.37	AS	SL7917-263						
SS-BH25-08	4	2.13-2.29	AS	SL7917-264	21.0					
SS-BH25-08	5	2.74-2.90	AS	SL7917-265	22.1					
SS-BH25-08	6	3.05-3.20	AS	SL7917-266	16.1					
SS-BH25-08	7	3.66-3.81	AS	SL7917-267						
SS-BH25-08	8	5.18-5.33	AS	SL7917-268	16.2	14	22	8		
SS-BH25-08	9	6.71-6.86	AS	SL7917-269	15.3					
SS-BH25-08	10	8.23-8.38	AS	SL7917-270						
SS-BH25-08	11	9.75-9.91	AS	SL7917-271	19.3					
SS-BH25-08	12	11.28-11.43	AS	SL7917-272						
SS-BH25-08	13	12.80-12.95	AS	SL7917-273						
SS-BH25-08	14	14.33-14.48	AS	SL7917-274						
SS-BH25-08	15	15.85-16.00	AS	SL7917-275						
SS-BH25-08	16	17.37-17.53	AS	SL7917-276						
SS-BH25-08	17	18.90-19.05	AS	SL7917-277						
SS-BH25-08	1	1.52-1.98	SS	SL7917-278	18.1					
SS-BH25-08	2	3.05-3.51	SS	SL7917-279	19.2					
SS-BH25-08	3	4.57-5.03	SS	SL7917-280	17.3					
SS-BH25-08	4	7.62-8.08	SS	SL7917-281	28.3	16	47	31		
SS-BH25-08	5	9.14-9.60	SS	SL7917-282	18.6					
SS-BH25-08	6	10.67-11.13	SS	SL7917-283	17.7					
SS-BH25-08	7	13.72-14.17	SS	SL7917-284	18.7					
SS-BH25-08	8	15.24-15.70	SS	SL7917-285	18.9					
SS-BH25-08	9	16.76-17.22	SS	SL7917-286	20.1					
SS-BH25-08	10	18.29-18.75	SS	SL7917-287	24.8					
SS-BH25-08	11	19.81-20.27	SS	SL7917-288	25.5					

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GENERAL TESTING RESULTS

Project #: CA0059493.2836	Task : 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: SL7917
Tested by: MM / JH / SS / EB / AR	Date: December 5, 2025

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-08	1	6.10-6.71	TO	SL7917-289						
SS-BH25-08	2	12.19-12.80	TO	SL7917-290						
SS-BH25-10	1	0.15-0.30	AS	SL7917-291	13.9					
SS-BH25-10	2	0.61-0.76	AS	SL7917-292	21.8	17	72	55	79.3	20.0
SS-BH25-10	3	1.22-1.37	AS	SL7917-293						
SS-BH25-10	4	2.13-2.29	AS	SL7917-294	16.3					
SS-BH25-10	5	2.74-2.90	AS	SL7917-295	19.5	16	48	32		
SS-BH25-10	6	3.66-3.81	AS	SL7917-296	20.6					
SS-BH25-10	7	5.18-5.33	AS	SL7917-297	19.8					
SS-BH25-10	8	6.71-6.86	AS	SL7917-298						
SS-BH25-10	9	8.23-8.38	AS	SL7917-299						
SS-BH25-10	10	9.75-9.91	AS	SL7917-300	29.5					
SS-BH25-10	11	11.28-11.43	AS	SL7917-301	23.4					
SS-BH25-10	12	12.80-12.95	AS	SL7917-302	29.5					
SS-BH25-10	1	1.52-1.98	SS	SL7917-303	18.2					
SS-BH25-10	2	3.05-3.51	SS	SL7917-304						
SS-BH25-10	3	6.10-6.55	SS	SL7917-305	19.9					
SS-BH25-10	4	7.62-8.08	SS	SL7917-306	28.5					
SS-BH25-10	5	9.14-9.60	SS	SL7917-307	28.9					
SS-BH25-10	6	12.19-12.65	SS	SL7917-308	23.7					
SS-BH25-10	7	13.72-14.17	SS	SL7917-309	26.9					
SS-BH25-10	1	4.57-5.18	TO	SL7917-310						
SS-BH25-10	2	10.67-11.28	TO	SL7917-311						
SS-BH25-24	1	0.15-0.30	AS	SL7917-312	12.7					
SS-BH25-24	2	0.61-0.76	AS	SL7917-313	13.1	13	37	24	78.9	13.6
SS-BH25-24	3	1.22-1.37	AS	SL7917-314						
SS-BH25-24	4	2.13-2.29	AS	SL7917-315	20.4					
SS-BH25-24	5	2.74-2.90	AS	SL7917-316	19.8					
SS-BH25-24	6	3.66-3.81	AS	SL7917-317						
SS-BH25-24	7	5.18-5.33	AS	SL7917-318	19.0					
SS-BH25-24	8	6.71-6.86	AS	SL7917-319	20.9					
SS-BH25-24	9	8.23-8.38	AS	SL7917-320						
SS-BH25-24	10	9.75-9.91	AS	SL7917-321						
SS-BH25-24	11	11.28-11.43	AS	SL7917-322	26.5					
SS-BH25-24	1	1.52-1.98	SS	SL7917-323	21.7					
SS-BH25-24	2	3.05-3.51	SS	SL7917-324	21.2					

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GENERAL TESTING RESULTS

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: MM / JH / SS / EB / AR

Task : 300-Lab Testing
 Lab #: SL7917
 Date: December 5, 2025

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-24	3	4.57-5.03	SS	SL7917-325	21.7					
SS-BH25-24	4	7.62-8.08	SS	SL7917-326	30.6					
SS-BH25-24	5	9.14-9.60	SS	SL7917-327	22.1					
SS-BH25-24	6	10.67-11.13	SS	SL7917-328	25.1					
SS-BH25-24	7	13.72-14.17	SS	SL7917-329	26.1	30	108	78		
SS-BH25-24	1	6.10-6.71	TO	SL7917-330						
SS-BH25-24	2	12.19-12.80	TO	SL7917-331						
SS-BH25-27	1	0.15-0.30	AS	SL7917-332	9.1					
SS-BH25-27	2	0.61-0.76	AS	SL7917-333	9.9	18	44	26	71.7	14.5
SS-BH25-27	3	1.22-1.37	AS	SL7917-334						
SS-BH25-27	4	2.13-2.29	AS	SL7917-335	16.6					
SS-BH25-27	5	2.74-2.90	AS	SL7917-336						
SS-BH25-27	6	3.66-3.81	AS	SL7917-337	17.1					
SS-BH25-27	7	5.18-5.33	AS	SL7917-338	20.5					
SS-BH25-27	8	6.71-6.86	AS	SL7917-339	18.8					
SS-BH25-27	9	8.23-8.38	AS	SL7917-340						
SS-BH25-27	10	9.75-9.91	AS	SL7917-341						
SS-BH25-27	11	11.28-11.43	AS	SL7917-342						
SS-BH25-27	12	12.80-12.95	AS	SL7917-343	23.8					
SS-BH25-27	13	14.33-14.48	AS	SL7917-344	25.7					
SS-BH25-27	1	1.52-1.98	SS	SL7917-345	10.4					
SS-BH25-27	2	3.05-3.51	SS	SL7917-346	10.6					
SS-BH25-27	3	6.10-6.55	SS	SL7917-347	20.3					
SS-BH25-27	4	7.62-8.08	SS	SL7917-348	20.4					
SS-BH25-27	5A	9.14-9.47	SS	SL7917-349	19.8					
SS-BH25-27	5B	9.47-9.60	SS	SL7917-350	37.1					
SS-BH25-27	6	10.67-11.13	SS	SL7917-351	24.4					
SS-BH25-27	7	12.19-12.65	SS	SL7917-352	25.0					
SS-BH25-27	8	15.24-15.70	SS	SL7917-353	23.6					
SS-BH25-27	1	4.57-5.18	TO	SL7917-354						
SS-BH25-27	2	13.72-14.33	TO	SL7917-355						
SS-BH25-28	1	0.15-0.30	AS	SL7917-356	30.6					
SS-BH25-28	2	0.61-0.76	AS	SL7917-357	26.2					
SS-BH25-28	3	1.22-1.37	AS	SL7917-358	23.0	16	49	33	77.7	17.8
SS-BH25-28	4	2.13-2.29	AS	SL7917-359	16.9					
SS-BH25-28	5	2.74-2.90	AS	SL7917-360						

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GENERAL TESTING RESULTS

Project #: CA0059493.2836	Task : 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: SL7917
Tested by: MM / JH / SS / EB / AR	Date: December 5, 2025

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-28	6	3.66-3.81	AS	SL7917-361	30.8					
SS-BH25-28	7	5.18-5.33	AS	SL7917-362	21.9					
SS-BH25-28	8	6.71-6.86	AS	SL7917-363	21.2					
SS-BH25-28	9	8.23-8.38	AS	SL7917-364	19.5					
SS-BH25-28	10	9.75-9.91	AS	SL7917-365		21	59	38		
SS-BH25-28	11	11.28-11.43	AS	SL7917-366						
SS-BH25-28	12	12.80-12.95	AS	SL7917-367	19.6					
SS-BH25-28	13	14.33-14.48	AS	SL7917-368						
SS-BH25-28	1	1.52-1.98	SS	SL7917-369						
SS-BH25-28	2A	3.05-3.30	SS	SL7917-370						
SS-BH25-28	2B	3.30-3.51	SS	SL7917-371	20.3					
SS-BH25-28	3	4.57-5.03	SS	SL7917-372	28.4					
SS-BH25-28	4	7.62-8.08	SS	SL7917-373	20.7					
SS-BH25-28	5	9.14-9.22	SS	SL7917-374	15.0					
SS-BH25-28	6	9.14-9.60	SS	SL7917-375	22.0					
SS-BH25-28	7	10.67-11.13	SS	SL7917-376	23.8					
SS-BH25-28	8	13.72-14.17	SS	SL7917-377	24.8					
SS-BH25-28	9	15.24-15.70	SS	SL7917-378	21.0					
SS-BH25-28	1	6.10-6.71	TO	SL7917-379						
SS-BH25-28	2	12.19-12.80	TO	SL7917-380						
SS-BH25-34	1	0.15-0.30	AS	SL7917-381	18.5					
SS-BH25-34	2	0.61-0.76	AS	SL7917-382	16.7	15	45	30	67.1	15.2
SS-BH25-34	3	1.22-1.37	AS	SL7917-383						
SS-BH25-34	4	2.13-2.29	AS	SL7917-384	18.3					
SS-BH25-34	5	2.74-2.90	AS	SL7917-385	18.2					
SS-BH25-34	6	3.66-3.81	AS	SL7917-386						
SS-BH25-34	7	5.18-5.33	AS	SL7917-387	24.4					
SS-BH25-34	8	6.71-6.86	AS	SL7917-388						
SS-BH25-34	9	8.23-8.38	AS	SL7917-389	21.6					
SS-BH25-34	10	9.75-9.91	AS	SL7917-390	21.3	24	64	40		
SS-BH25-34	11	11.28-11.43	AS	SL7917-391	25.0					
SS-BH25-34	1	1.52-1.98	SS	SL7917-392	18.9					
SS-BH25-34	2	3.05-3.51	SS	SL7917-393	20.4					
SS-BH25-34	3	6.10-6.55	SS	SL7917-394	23.8					
SS-BH25-34	4	7.62-8.08	SS	SL7917-395	26.3					
SS-BH25-34	5	9.14-9.60	SS	SL7917-396						

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GENERAL TESTING RESULTS

Project #: CA0059493.2836	Task : 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: SL7917
Tested by: MM / JH / SS / EB / AR	Date: December 5, 2025

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-34	6	12.19-12.65	SS	SL7917-397	20.3					
SS-BH25-34	1	4.57-5.18	TO	SL7917-398						
SS-BH25-34	2	10.67-11.28	TO	SL7917-399						
SS-BH25-42	1	0.15-0.30	AS	SL7917-400						
SS-BH25-42	2	0.61-0.76	AS	SL7917-401						
SS-BH25-42	3	1.22-1.37	AS	SL7917-402						
SS-BH25-42	4	2.13-2.29	AS	SL7917-403						
SS-BH25-42	5	2.74-2.90	AS	SL7917-404						
SS-BH25-42	6	3.66-3.81	AS	SL7917-405						
SS-BH25-42	7	5.18-5.33	AS	SL7917-406						
SS-BH25-42	8	6.71-6.86	AS	SL7917-407						
SS-BH25-42	9	8.23-8.38	AS	SL7917-408						
SS-BH25-42	10	9.75-9.91	AS	SL7917-409						
SS-BH25-42	11	11.28-11.43	AS	SL7917-410						
SS-BH25-42	12	12.80-12.95	AS	SL7917-411						
SS-BH25-42	13	14.33-14.48	AS	SL7917-412						
SS-BH25-42	1	1.52-1.98	SS	SL7917-413						
SS-BH25-42	2	3.05-3.51	SS	SL7917-414						
SS-BH25-42	3	4.57-5.03	SS	SL7917-415						
SS-BH25-42	4	7.62-8.08	SS	SL7917-416						
SS-BH25-42	5	9.14-9.60	SS	SL7917-417						
SS-BH25-42	6	10.67-11.13	SS	SL7917-418						
SS-BH25-42	7A	13.72-14.02	SS	SL7917-419						
SS-BH25-42	7B	14.02-14.17	SS	SL7917-420						
SS-BH25-42	8	15.24-15.70	SS	SL7917-421						
SS-BH25-42	1	6.10-6.71	TO	SL7917-422						
SS-BH25-42	2	12.19-12.80	TO	SL7917-423						
SS-BH25-52	1	0.15-0.30	AS	SL7917-424	18.9	17	45	28	56.9	12.1
SS-BH25-52	2	0.61-0.76	AS	SL7917-425	14.1					
SS-BH25-52	3	1.22-1.37	AS	SL7917-426						
SS-BH25-52	4	2.13-2.29	AS	SL7917-427	18.8					
SS-BH25-52	5	2.74-2.90	AS	SL7917-428	17.8					
SS-BH25-52	6	3.66-3.81	AS	SL7917-429	20.6					
SS-BH25-52	7	5.18-5.33	AS	SL7917-430						
SS-BH25-52	8	6.71-6.86	AS	SL7917-431						
SS-BH25-52	9	8.23-8.38	AS	SL7917-432						

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GENERAL TESTING RESULTS

Project #: CA0059493.2836	Task : 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: SL7917
Tested by: MM / JH / SS / EB / AR	Date: December 5, 2025

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-52	10	9.75-9.91	AS	SL7917-433	27.8					
SS-BH25-52	11	11.28-11.43	AS	SL7917-434	28.1					
SS-BH25-52	1	1.52-1.98	SS	SL7917-435	19.5					
SS-BH25-52	2	4.57-5.03	SS	SL7917-436	19.8	13	32	19		
SS-BH25-52	3	6.10-6.55	SS	SL7917-437	21.4					
SS-BH25-52	4	7.62-8.08	SS	SL7917-438	26.6					
SS-BH25-52	5	9.14-9.60	SS	SL7917-439	22.4					
SS-BH25-52	6	12.19-12.65	SS	SL7917-440	27.0					
SS-BH25-52	1	3.05-3.66	TO	SL7917-441						
SS-BH25-52	2	10.67-11.28	TO	SL7917-442						
SS-BH25-52	COMP	0.00-2.29	BS	SL7917-443						

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-07	AS-1	0.15-0.30	AS	SL7934-001	15.5					
SS-BH25-07	AS-2	0.91-1.07	AS	SL7934-002	14.1	16	39	23	50.9	7.9
SS-BH25-07	AS-3	1.37-1.52	AS	SL7934-003						
SS-BH25-07	SS-1	1.52-1.98	SS	SL7934-004	17.7					
SS-BH25-07	AS-4	2.13-2.29	AS	SL7934-005	19.2					
SS-BH25-07	AS-5	2.90-3.05	AS	SL7934-006						
SS-BH25-07	SS-2	3.05-3.51	SS	SL7934-007	17.8					
SS-BH25-07	AS-6	4.42-4.57	AS	SL7934-008						
SS-BH25-07	SS-3	4.57-5.03	SS	SL7934-009	14.1					
SS-BH25-07	AS-7	5.94-6.10	AS	SL7934-010	16.9					
SS-BH25-07	AS-8	7.47-7.62	AS	SL7934-011						
SS-BH25-07	SS-4	7.62-8.08	SS	SL7934-012	17.3					
SS-BH25-07	AS-9	8.99-9.14	AS	SL7934-013						
SS-BH25-07	SS-5	9.14-9.60	SS	SL7934-014	19.1					
SS-BH25-07	AS-10	10.52-10.67	AS	SL7934-015	18.1					
SS-BH25-07	AS-11	12.04-12.19	AS	SL7934-016						
SS-BH25-07	SS-6	12.19-12.65	SS	SL7934-017	15.1					
SS-BH25-09	AS-1	0.15-0.30	AS	SL7934-018	13.0					
SS-BH25-09	AS-2	0.91-1.07	AS	SL7934-019	20.5	17	45	28	82.7	16.2
SS-BH25-09	AS-3	1.37-1.52	AS	SL7934-020						
SS-BH25-09	SS-1	1.52-1.98	SS	SL7934-021						
SS-BH25-09	AS-4	2.13-2.29	AS	SL7934-022	23.9					
SS-BH25-09	AS-5	2.90-3.05	AS	SL7934-023	23.7	17	28	11	68.7	7.1
SS-BH25-09	AS-6	4.42-4.57	AS	SL7934-024						
SS-BH25-09	SS-2	4.57-5.03	SS	SL7934-025	25.5					
SS-BH25-09	AS-7	5.94-6.10	AS	SL7934-026						
SS-BH25-09	SS-3	6.10-6.55	SS	SL7934-027	26.1					
SS-BH25-09	AS-8	7.47-7.62	AS	SL7934-028	26.0	28	91	63	99.1	20.0
SS-BH25-09	SS-4	7.62-8.08	SS	SL7934-029	23.6					
SS-BH25-09	AS-9	8.99-9.14	AS	SL7934-030	25.2					
SS-BH25-09	AS-10	10.52-10.67	AS	SL7934-031						
SS-BH25-09	SS-5	10.67-11.13	SS	SL7934-032	25.8					
SS-BH25-09	AS-11	12.04-12.19	AS	SL7934-033						
SS-BH25-09	SS-6	12.19-12.65	SS	SL7934-034	29.9					
SS-BH25-11B	AS-1	0.15-0.30	AS	SL7934-035	21.5					

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-11B	AS-2	0.91-1.07	AS	SL7934-036	16.1	19	57	38	79.3	19.4
SS-BH25-11B	AS-3	1.37-1.52	AS	SL7934-037						
SS-BH25-11B	SS-1	1.52-1.98	SS	SL7934-038						
SS-BH25-11B	AS-4	2.13-2.29	AS	SL7934-039	18.3					
SS-BH25-11B	AS-5	2.90-3.05	AS	SL7934-040						
SS-BH25-11B	SS-2	3.05-3.51	SS	SL7934-041	19.4					
SS-BH25-11B	AS-6	4.42-4.57	AS	SL7934-042						
SS-BH25-11B	SS-3	4.57-5.03	SS	SL7934-043	20.3					
SS-BH25-11B	AS-7	5.94-6.10	AS	SL7934-044	21.2					
SS-BH25-11B	AS-8	7.47-7.62	AS	SL7934-045		22	62	40		
SS-BH25-11B	SS-4	7.62-8.08	SS	SL7934-046	29.4					
SS-BH25-11B	AS-9	8.99-9.14	AS	SL7934-047						
SS-BH25-11B	SS-5	9.14-9.60	SS	SL7934-048	25.3					
SS-BH25-11B	AS-10	10.52-10.67	AS	SL7934-049	23.6					
SS-BH25-11B	AS-11	12.04-12.19	AS	SL7934-050						
SS-BH25-11B	SS-6	12.19-12.65	SS	SL7934-051	27.6					
SS-BH25-18B	AS-1	0.15-0.30	AS	SL7934-052	11.2					
SS-BH25-18B	AS-2	0.91-1.07	AS	SL7934-053	12.9	14	36	22	72.4	12.3
SS-BH25-18B	AS-3	1.37-1.52	AS	SL7934-054						
SS-BH25-18B	SS-1	1.52-1.98	SS	SL7934-055						
SS-BH25-18B	AS-4	2.13-2.29	AS	SL7934-056	19.2					
SS-BH25-18B	AS-5	2.90-3.05	AS	SL7934-057						
SS-BH25-18B	SS-2	3.05-3.51	SS	SL7934-058	14.6					
SS-BH25-18B	AS-6	4.42-4.57	AS	SL7934-059						
SS-BH25-18B	SS-3	4.57-5.03	SS	SL7934-060	17.9					
SS-BH25-18B	AS-7	5.94-6.10	AS	SL7934-061	11.1					
SS-BH25-18B	AS-8	7.47-7.62	AS	SL7934-062						
SS-BH25-18B	SS-4	7.62-8.08	SS	SL7934-063	10.5					
SS-BH25-18B	AS-9	8.99-9.14	AS	SL7934-064	10.8					
SS-BH25-18B	AS-10	10.52-10.67	AS	SL7934-065						
SS-BH25-18B	SS-5	10.67-11.13	SS	SL7934-066	10.9					
SS-BH25-18B	AS-11	12.04-12.19	AS	SL7934-067						
SS-BH25-18B	SS-6	12.19-12.56	SS	SL7934-068	9.9					
SS-BH25-19	AS-1	0.15-0.30	AS	SL7934-069	10.9					
SS-BH25-19	AS-2	0.91-1.07	AS	SL7934-070	10.7	17	45	28	64.7	13.9

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-19	AS-3	1.37-1.52	AS	SL7934-071						
SS-BH25-19	SS-1	1.52-1.98	SS	SL7934-072						
SS-BH25-19	AS-4	2.13-2.29	AS	SL7934-073	16.9					
SS-BH25-19	AS-5	2.90-3.05	AS	SL7934-074	18.2					
SS-BH25-19	AS-6	4.42-4.57	AS	SL7934-075						
SS-BH25-19	SS-2	4.57-5.03	SS	SL7934-076	20.7					
SS-BH25-19	AS-7	5.94-6.10	AS	SL7934-077						
SS-BH25-19	SS-3	6.10-6.55	SS	SL7934-078	11.1					
SS-BH25-20B	AS-1	0.15-0.30	AS	SL7934-079	11.0					
SS-BH25-20B	AS-2	0.91-1.07	AS	SL7934-080	12.3	18	45	27	70.5	14.8
SS-BH25-20B	AS-3	1.37-1.52	AS	SL7934-081						
SS-BH25-20B	SS-1	1.52-1.98	SS	SL7934-082						
SS-BH25-20B	AS-4	2.13-2.29	AS	SL7934-083	17.3					
SS-BH25-20B	AS-5	2.90-3.05	AS	SL7934-084						
SS-BH25-20B	SS-2	3.05-3.51	SS	SL7934-085	17.6					
SS-BH25-20B	AS-6	4.42-4.57	AS	SL7934-086						
SS-BH25-20B	SS-3	4.57-5.09	SS	SL7934-087	18.4	14	34	20		
SS-BH25-20B	AS-7	5.94-6.10	AS	SL7934-088						
SS-BH25-20B	SS-3A	6.25-6.71	SS	SL7934-089	10.4					
SS-BH25-20B	AS-8	7.47-7.62	AS	SL7934-090						
SS-BH25-20B	SS-4	7.62-8.08	SS	SL7934-091	18.7					
SS-BH25-20B	AS-9	8.99-9.14	AS	SL7934-092						
SS-BH25-20B	SS-5	9.14-9.60	SS	SL7934-093	15.0					
SS-BH25-20B	AS-10	10.52-10.67	AS	SL7934-094						
SS-BH25-20B	SS-6	10.67-11.13	SS	SL7934-095						
SS-BH25-20B	AS-11	12.04-12.19	AS	SL7934-096	15.3	10	24	14		
SS-BH25-20B	SS-7	12.19-12.65	SS	SL7934-097						
SS-BH25-20B	AS-12	13.56-13.72	AS	SL7934-098	16.0					
SS-BH25-20B	AS-13	15.09-15.24	AS	SL7934-099	12.8					
SS-BH25-23	AS-1	0.15-0.30	AS	SL7934-100	14.6					
SS-BH25-23	AS-2	0.91-1.07	AS	SL7934-101	21.0	17	43	26	71.6	14.3
SS-BH25-23	AS-3	1.37-1.52	AS	SL7934-102						
SS-BH25-23	SS-1	1.52-1.98	SS	SL7934-103						
SS-BH25-23	AS-4	2.13-2.29	AS	SL7934-104	20.4					
SS-BH25-23	AS-5	2.90-3.05	AS	SL7934-105						

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-23	SS-2	3.05-3.51	SS	SL7934-106	18.8	17	50	33	74.3	17.8
SS-BH25-23	AS-6	4.42-4.57	AS	SL7934-107						
SS-BH25-23	SS-3	4.57-5.03	SS	SL7934-108	23.2					
SS-BH25-23	AS-7	5.94-6.10	AS	SL7934-109	22.3					
SS-BH25-23	AS-8	7.47-7.62	AS	SL7934-110						
SS-BH25-23	SS-4	7.62-8.08	SS	SL7934-111	29.5					
SS-BH25-23	AS-9	8.99-9.14	AS	SL7934-112						
SS-BH25-23	SS-5	9.14-9.60	SS	SL7934-113	20.4					
SS-BH25-23	AS-10	10.52-10.67	AS	SL7934-114						
SS-BH25-23	SS-6	10.67-11.13	SS	SL7934-115	19.3					
SS-BH25-23	AS-11	12.04-12.19	AS	SL7934-116	21.5					
SS-BH25-23	AS-12	13.56-13.72	AS	SL7934-117						
SS-BH25-23	SS-7	13.72-14.17	SS	SL7934-118	21.1					
SS-BH25-23	AS-13	15.09-15.24	AS	SL7934-119						
SS-BH25-23	SS-8	15.24-15.70	SS	SL7934-120	22.1					
SS-BH25-26	AS-1	0.15-0.30	AS	SL7934-121	9.7					
SS-BH25-26	AS-2	0.91-1.07	AS	SL7934-122	6.1	15	34	19	49.1	5.9
SS-BH25-26	AS-3	1.37-1.52	AS	SL7934-123						
SS-BH25-26	SS-1	1.52-1.98	SS	SL7934-124						
SS-BH25-26	AS-4	2.13-2.29	AS	SL7934-125	12.8					
SS-BH25-26	AS-5	2.90-3.05	AS	SL7934-126						
SS-BH25-26	SS-2	3.05-3.51	SS	SL7934-127	9.2					
SS-BH25-26	AS-6	4.42-4.57	AS	SL7934-128	10.9					
SS-BH25-26	AS-7	5.94-6.10	AS	SL7934-129						
SS-BH25-26	SS-3	4.57-5.03	SS	SL7934-130	7.7					
SS-BH25-26	AS-8	7.47-7.62	AS	SL7934-131						
SS-BH25-26	SS-4	7.62-8.08	SS	SL7934-132	16.7					
SS-BH25-26	AS-9	8.99-9.14	AS	SL7934-133						
SS-BH25-26	SS-5	9.14-9.60	SS	SL7934-134	16.5					
SS-BH25-26	AS-10	10.52-10.67	AS	SL7934-135						
SS-BH25-26	SS-6	10.67-11.13	SS	SL7934-136	17.2					
SS-BH25-26	AS-11	12.04-12.19	AS	SL7934-137	17.4					
SS-BH25-26	AS-12	13.56-13.72	AS	SL7934-138						
SS-BH25-26	SS-7	13.72-14.17	SS	SL7934-139	18.0					
SS-BH25-29	AS-1	0.15-0.30	AS	SL7934-140	12.5					

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-29	AS-2	0.91-1.07	AS	SL7934-141	18.1	15	53	38	40.2	6.4
SS-BH25-29	AS-3	1.37-1.52	AS	SL7934-142						
SS-BH25-29	SS-1	1.52-1.98	SS	SL7934-143						
SS-BH25-29	AS-4	2.13-2.29	AS	SL7934-144	26.8	20	70	50		
SS-BH25-29	AS-5	2.90-3.05	AS	SL7934-145						
SS-BH25-29	SS-2	3.05-3.51	SS	SL7934-146	26.2					
SS-BH25-29	AS-6	4.42-4.57	AS	SL7934-147	28.1					
SS-BH25-29	AS-7	5.94-6.10	AS	SL7934-148						
SS-BH25-29	SS-3	6.10-6.55	SS	SL7934-149	27.6					
SS-BH25-29	AS-8	7.47-7.62	AS	SL7934-150						
SS-BH25-29	SS-4	7.62-8.08	SS	SL7934-151	14.9					
SS-BH25-29	AS-9	8.99-9.14	AS	SL7934-152						
SS-BH25-29	SS-5	9.14-9.60	SS	SL7934-153	22.7					
SS-BH25-29	AS-10	10.52-10.67	AS	SL7934-154	22.1					
SS-BH25-29	AS-11	12.04-12.19	AS	SL7934-155						
SS-BH25-29	SS-6	12.19-12.65	SS	SL7934-156	23.4					
SS-BH25-30	AS-1	0.15-0.30	AS	SL7934-157	12.5					
SS-BH25-30	AS-2	0.91-1.07	AS	SL7934-158	13.8	12	39	27	65.6	12.9
SS-BH25-30	AS-3	1.37-1.52	AS	SL7934-159						
SS-BH25-30	SS-1	1.52-1.98	SS	SL7934-160						
SS-BH25-30	AS-4	2.13-2.29	AS	SL7934-161	19.4					
SS-BH25-30	AS-5	2.90-3.05	AS	SL7934-162						
SS-BH25-30	SS-2	3.05-3.51	SS	SL7934-163	21.2	17	49	32		
SS-BH25-30	AS-6	4.42-4.57	AS	SL7934-164	21.6					
SS-BH25-30	AS-7	5.94-6.10	AS	SL7934-165						
SS-BH25-30	SS-3	6.25-6.71	SS	SL7934-166	24.1					
SS-BH25-30	AS-8	7.47-7.62	AS	SL7934-167						
SS-BH25-30	SS-4	7.62-8.08	SS	SL7934-168	21.7					
SS-BH25-30	AS-9	8.99-9.14	AS	SL7934-169	19.9					
SS-BH25-30	AS-10	10.52-10.67	AS	SL7934-170						
SS-BH25-30	SS-5	10.67-11.28	SS	SL7934-171	22.6					
SS-BH25-30	AS-11	12.04-12.19	AS	SL7934-172						
SS-BH25-30	SS-6	12.19-12.65	SS	SL7934-173	21.4					
SS-BH25-31B	AS-1	0.15-0.30	AS	SL7934-174	13.9					
SS-BH25-31B	AS-2	0.91-1.07	AS	SL7934-175	14.4	21	54	33	83	18.8

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-31B	AS-3	1.37-1.52	AS	SL7934-176						
SS-BH25-31B	SS-1	1.52-1.98	SS	SL7934-177						
SS-BH25-31B	AS-4	2.13-2.29	AS	SL7934-178	17.8					
SS-BH25-31B	AS-5	2.90-3.05	AS	SL7934-179						
SS-BH25-31B	SS-2	3.05-3.51	SS	SL7934-180	18.5					
SS-BH25-31B	AS-6	4.42-4.57	AS	SL7934-181	19.7					
SS-BH25-31B	AS-7	5.94-6.10	AS	SL7934-182						
SS-BH25-31B	SS-3	6.10-6.55	SS	SL7934-183	25.2	19	58	39		
SS-BH25-31B	AS-8	7.47-7.62	AS	SL7934-184						
SS-BH25-31B	SS-4	7.62-8.08	SS	SL7934-185	20.5					
SS-BH25-31B	AS-9	8.99-9.14	AS	SL7934-186						
SS-BH25-31B	SS-5	9.14-9.60	SS	SL7934-187	20.1					
SS-BH25-31B	AS-10	10.52-10.67	AS	SL7934-188	20.6					
SS-BH25-31B	AS-11	12.04-12.19	AS	SL7934-189						
SS-BH25-31B	SS-6	12.19-12.65	SS	SL7934-190	20.3					
SS-BH25-32B	AS-1	0.15-0.30	AS	SL7934-191	14.5	18	51	33	90.6	9.2
SS-BH25-32B	AS-2	0.91-1.07	AS	SL7934-192	15.8					
SS-BH25-32B	AS-3	1.37-1.52	AS	SL7934-193						
SS-BH25-32B	SS-1	1.52-1.98	SS	SL7934-194						
SS-BH25-32B	AS-4	2.13-2.29	AS	SL7934-195	20.9					
SS-BH25-32B	AS-5	2.90-3.05	AS	SL7934-196						
SS-BH25-32B	SS-2	3.05-3.51	SS	SL7934-197	15.9					
SS-BH25-32B	AS-6	4.42-4.57	AS	SL7934-198	16.8					
SS-BH25-32B	AS-7	5.94-6.10	AS	SL7934-199						
SS-BH25-32B	SS-3	6.10-6.55	SS	SL7934-200	20.7					
SS-BH25-32B	AS-8	7.47-7.62	AS	SL7934-201						
SS-BH25-32B	SS-4	7.62-8.08	SS	SL7934-202	16.5					
SS-BH25-32B	AS-9	8.99-9.14	AS	SL7934-203						
SS-BH25-32B	SS-5	9.14-9.60	SS	SL7934-204	16.7					
SS-BH25-32B	AS-10	10.52-10.67	AS	SL7934-205	14.8					
SS-BH25-33B	AS-1	0.15-0.30	AS	SL7934-206	14.6					
SS-BH25-33B	AS-2	0.91-1.07	AS	SL7934-207	14.3	18	47	29	71.7	16.2
SS-BH25-33B	AS-3	1.37-1.52	AS	SL7934-208						
SS-BH25-33B	SS-1	1.52-1.98	SS	SL7934-210						
SS-BH25-33B	AS-4	2.13-2.29	AS	SL7934-211	18.2					

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-33B	AS-5	2.74-2.90	AS	SL7934-212						
SS-BH25-33B	SS-2	3.05-3.51	SS	SL7934-213	18.6					
SS-BH25-33B	AS-6	4.42-4.57	AS	SL7934-214						
SS-BH25-33B	SS-3	4.57-5.03	SS	SL7934-215	20.8					
SS-BH25-33B	AS-7	5.94-6.10	AS	SL7934-216	27.0					
SS-BH25-33B	AS-8	7.47-7.62	AS	SL7934-217						
SS-BH25-33B	SS-4	7.62-8.08	SS	SL7934-218	29.2					
SS-BH25-33B	AS-9	8.99-9.14	AS	SL7934-219						
SS-BH25-33B	SS-5	9.14-9.60	SS	SL7934-220	25.6					
SS-BH25-33B	AS-10	10.52-10.67	AS	SL7934-221						
SS-BH25-33B	SS-6	10.67-11.13	SS	SL7934-222	26.3					
SS-BH25-33B	AS-11	12.04-12.19	AS	SL7934-223	25.6					
SS-BH25-35	AS-1	0.15-0.30	AS	SL7934-224	9.0					
SS-BH25-35	AS-2	0.91-1.07	AS	SL7934-225	19.4	14	44	30	69	15.5
SS-BH25-35	AS-3	1.37-1.52	AS	SL7934-226						
SS-BH25-35	SS-1	1.52-1.98	SS	SL7934-227						
SS-BH25-35	AS-4	2.13-2.29	AS	SL7934-228	19.3					
SS-BH25-35	AS-5	2.90-3.05	AS	SL7934-229						
SS-BH25-35	SS-2	3.05-3.51	SS	SL7934-230	20.5					
SS-BH25-35	AS-6	4.42-4.57	AS	SL7934-231	20.0	14	30	16		
SS-BH25-35	SS-3	4.57-5.03	SS	SL7934-232						
SS-BH25-35	AS-7	5.94-6.10	AS	SL7934-233	18.8					
SS-BH25-35	AS-8	7.47-7.62	AS	SL7934-234						
SS-BH25-35	SS-4	7.62-8.08	SS	SL7934-235	29.2					
SS-BH25-35	AS-9	8.99-9.14	AS	SL7934-236						
SS-BH25-35	SS-5	9.14-9.60	SS	SL7934-237	28.5					
SS-BH25-35	AS-10	10.52-10.67	AS	SL7934-238	22.5					
SS-BH25-35	AS-11	12.04-12.19	AS	SL7934-239						
SS-BH25-35	SS-6	12.19-12.65	SS	SL7934-240	25.9					
SS-BH25-35	AS-12	13.56-13.72	AS	SL7934-241						
SS-BH25-36C	AS-1	0.15-0.30	AS	SL7934-242	10.2					
SS-BH25-36C	AS-2	0.91-1.07	AS	SL7934-243	11.7	18	51	33	70	16.9
SS-BH25-36C	AS-3	1.37-1.52	AS	SL7934-244						
SS-BH25-36C	SS-1	1.52-1.98	SS	SL7934-245						
SS-BH25-36C	AS-4	2.13-2.29	AS	SL7934-246	19.4					

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-36C	AS-5	2.90-3.05	AS	SL7934-247						
SS-BH25-36C	SS-2	3.05-3.51	SS	SL7934-248	27.2					
SS-BH25-36C	AS-6	4.42-4.57	AS	SL7934-249	23.8					
SS-BH25-36C	AS-7	5.94-6.10	AS	SL7934-250						
SS-BH25-36C	SS-4	6.10-6.55	SS	SL7934-251	19.2					
SS-BH25-36C	AS-8	7.47-7.62	AS	SL7934-252						
SS-BH25-36C	SS-5	7.62-8.08	SS	SL7934-253	25.8					
SS-BH25-36C	AS-9	8.99-9.14	AS	SL7934-254	21.9					
SS-BH25-36C	AS-10	10.52-10.67	AS	SL7934-255						
SS-BH25-36C	SS-6	10.67-11.13	SS	SL7934-256	21.8					
SS-BH25-36C	AS-11	12.04-12.19	AS	SL7934-257						
SS-BH25-36C	SS-7	12.19-12.65	SS	SL7934-258	24.3					
SS-BH25-37B	AS-1	0.15-0.30	AS	SL7934-259	13.5					
SS-BH25-37B	AS-2	0.91-1.07	AS	SL7934-260	11.9	13	26	13	64.4	7.1
SS-BH25-37B	AS-3	1.37-1.52	AS	SL7934-261						
SS-BH25-37B	SS-1	1.52-1.98	SS	SL7934-262						
SS-BH25-37B	AS-4	2.13-2.29	AS	SL7934-263	18.8					
SS-BH25-37B	AS-5	2.90-3.05	AS	SL7934-264						
SS-BH25-37B	SS-2	3.05-3.51	SS	SL7934-265	19.6					
SS-BH25-37B	AS-6	4.42-4.57	AS	SL7934-266	19.2					
SS-BH25-37B	AS-7	5.94-6.10	AS	SL7934-267						
SS-BH25-37B	SS-3	6.10-6.55	SS	SL7934-268	19.4					
SS-BH25-37B	AS-8	7.47-7.62	AS	SL7934-269						
SS-BH25-37B	SS-4	7.62-8.08	SS	SL7934-270	31.0					
SS-BH25-37B	AS-9	8.99-9.14	AS	SL7934-271	21.6					
SS-BH25-37B	AS-10	10.52-10.67	AS	SL7934-272	21.0					
SS-BH25-37B	AS-11	12.04-12.19	AS	SL7934-273						
SS-BH25-37B	SS-6	12.19-12.65	SS	SL7934-274	21.3					
SS-BH25-38B	AS-1	0.15-0.30	AS	SL7934-275						
SS-BH25-38B	AS-2	0.91-1.07	AS	SL7934-276	12.5	16	40	24	63.9	11.4
SS-BH25-38B	AS-3	1.37-1.52	AS	SL7934-277						
SS-BH25-38B	SS-1	1.52-1.98	SS	SL7934-278						
SS-BH25-38B	AS-4	2.13-2.29	AS	SL7934-279	16.7					
SS-BH25-38B	AS-5	2.90-3.05	AS	SL7934-280						
SS-BH25-38B	SS-2	3.05-3.51	SS	SL7934-281	17.0					

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-38B	AS-6	4.42-4.57	AS	SL7934-282						
SS-BH25-38B	SS-3	4.57-5.03	SS	SL7934-283	17.5					
SS-BH25-38B	AS-7	5.94-6.10	AS	SL7934-284	15.4					
SS-BH25-38B	AS-8	7.47-7.62	AS	SL7934-285						
SS-BH25-38B	SS-4	7.62-8.08	SS	SL7934-286	15.4					
SS-BH25-38B	AS-9	8.99-9.14	AS	SL7934-287						
SS-BH25-38B	SS-5	9.14-9.60	SS	SL7934-288	21.4					
SS-BH25-38B	AS-10	10.52-10.67	AS	SL7934-289						
SS-BH25-38B	AS-11	12.04-12.19	AS	SL7934-290						
SS-BH25-38B	SS-6	12.19-12.65	SS	SL7934-291	26.4					
SS-BH25-40	AS-1	0.15-0.30	AS	SL7934-292	19.3					
SS-BH25-40	AS-2	0.91-1.07	AS	SL7934-293	15.3	18	44	26	73.3	14.8
SS-BH25-40	AS-3	1.37-1.52	AS	SL7934-294						
SS-BH25-40	SS-1	1.52-1.98	SS	SL7934-295						
SS-BH25-40	AS-4	2.13-2.29	AS	SL7934-296	18.9					
SS-BH25-40	AS-5	2.90-3.05	AS	SL7934-297						
SS-BH25-40	SS-2	3.05-3.51	SS	SL7934-298	21.1					
SS-BH25-40	AS-6	4.42-4.57	AS	SL7934-299	21.4					
SS-BH25-40	AS-7	5.94-6.10	AS	SL7934-300						
SS-BH25-40	SS-3	6.10-6.55	SS	SL7934-301	25.7					
SS-BH25-40	AS-8	7.47-7.62	AS	SL7934-302						
SS-BH25-40	SS-4	7.62-8.08	SS	SL7934-303	25.0					
SS-BH25-40	AS-9	8.99-9.14	AS	SL7934-304	30.3					
SS-BH25-40	AS-10	10.52-10.67	AS	SL7934-305						
SS-BH25-40	SS-5	10.67-11.13	SS	SL7934-306	25.9					
SS-BH25-40	AS-11	12.04-12.19	AS	SL7934-307						
SS-BH25-40	SS-6	12.19-12.65	SS	SL7934-308	38.4					
SS-BH25-40	AS-12	13.56-13.72	AS	SL7934-309						
SS-BH25-40	SS-7	13.72-14.17	SS	SL7934-310	36.7					
SS-BH25-42B	AS-1	0.15-0.30	AS	SL7934-311	8.2					
SS-BH25-42B	AS-2	0.91-1.07	AS	SL7934-312	8.6	13	35	22	68.5	11.5
SS-BH25-42B	AS-3	1.37-1.52	AS	SL7934-313						
SS-BH25-42B	SS-1	1.52-1.98	SS	SL7934-314						
SS-BH25-42B	AS-4	2.13-2.29	AS	SL7934-315	13.9					
SS-BH25-42B	AS-5	2.90-3.05	AS	SL7934-316						

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-42B	SS-2	3.05-3.51	SS	SL7934-317	15.2					
SS-BH25-42B	AS-6	4.42-4.57	AS	SL7934-318	13.7					
SS-BH25-42B	AS-7	5.94-6.10	AS	SL7934-319						
SS-BH25-42B	SS-3	6.10-6.55	SS	SL7934-320	18.0					
SS-BH25-42B	AS-8	7.47-7.62	AS	SL7934-321						
SS-BH25-42B	SS-4	7.62-8.08	SS	SL7934-322	24.4					
SS-BH25-42B	AS-9	8.99-9.14	AS	SL7934-323						
SS-BH25-42B	SS-5	9.14-9.60	SS	SL7934-324	22.1					
SS-BH25-42B	AS-10	10.52-10.67	AS	SL7934-325	26.6					
SS-BH25-42B	AS-11	12.04-12.19	AS	SL7934-326						
SS-BH25-42B	SS-6	12.19-12.65	SS	SL7934-327	27.5					
SS-BH25-43	AS-1	0.15-0.30	AS	SL7934-328	12.2					
SS-BH25-43	AS-2	0.91-1.07	AS	SL7934-329	15.1	13	47	34	64.3	14.9
SS-BH25-43	AS-3	1.37-1.52	AS	SL7934-330						
SS-BH25-43	SS-1	1.52-1.98	SS	SL7934-331						
SS-BH25-43	AS-4	2.13-2.29	AS	SL7934-332	16.5					
SS-BH25-43	AS-5	2.90-3.05	AS	SL7934-333						
SS-BH25-43	SS-2	3.05-3.51	SS	SL7934-334	17.5					
SS-BH25-43	AS-6	4.42-4.57	AS	SL7934-335	17.1					
SS-BH25-43	AS-7	5.94-6.10	AS	SL7934-336						
SS-BH25-43	SS-3	6.10-6.55	SS	SL7934-337	31.5					
SS-BH25-43	AS-8	7.47-7.62	AS	SL7934-338						
SS-BH25-43	SS-4	7.62-8.08	SS	SL7934-339	31.2					
SS-BH25-43	AS-9	8.99-9.14	AS	SL7934-340						
SS-BH25-43	SS-5	9.14-9.60	SS	SL7934-341	27.0					
SS-BH25-43	AS-10	10.52-10.67	AS	SL7934-342	31.2					
SS-BH25-43	AS-11	12.04-12.19	AS	SL7934-343						
SS-BH25-43	SS-6	12.19-12.65	SS	SL7934-344	28.5					
SS-BH25-43	AS-12	13.56-13.72	AS	SL7934-345						
SS-BH25-43	SS-7	13.72-14.17	SS	SL7934-346	26.5					
SS-BH25-44B	AS-1	0.15-0.30	AS	SL7934-347	3.9					
SS-BH25-44B	AS-2	0.91-1.07	AS	SL7934-348	4.4	11	22	11	30.7	0.2
SS-BH25-44B	AS-3	1.37-1.52	AS	SL7934-349						
SS-BH25-44B	SS-1	1.52-1.98	SS	SL7934-350						
SS-BH25-44B	AS-4	2.13-2.29	AS	SL7934-351	21.6					

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-44B	AS-5	2.90-3.05	AS	SL7934-352						
SS-BH25-44B	SS-2	3.05-3.51	SS	SL7934-353	15.6					
SS-BH25-44B	AS-6	4.42-4.57	AS	SL7934-354	17.9					
SS-BH25-44B	AS-7	5.94-6.10	AS	SL7934-355						
SS-BH25-44B	SS-3	6.10-6.55	SS	SL7934-356	21.3					
SS-BH25-44B	AS-8	7.47-7.62	AS	SL7934-357						
SS-BH25-44B	SS-4	7.62-8.08	SS	SL7934-358	20.6					
SS-BH25-44B	AS-9	8.99-9.14	AS	SL7934-359	18.4					
SS-BH25-44B	AS-10	10.52-10.67	AS	SL7934-360						
SS-BH25-44B	SS-5	10.67-11.13	SS	SL7934-361	29.0					
SS-BH25-44B	AS-11	12.04-12.19	AS	SL7934-362						
SS-BH25-44B	SS-6	12.19-12.65	SS	SL7934-363	30.7					
SS-BH25-44B	AS-12	13.56-13.72	AS	SL7934-364						
SS-BH25-44B	SS-7	13.72-14.17	SS	SL7934-365	32.1					
SS-BH25-45	AS-1	0.15-0.30	AS	SL7934-366	13.3					
SS-BH25-45	AS-2	0.91-1.07	AS	SL7934-367	14.2	14	35	21	62.8	10.0
SS-BH25-45	AS-3	1.37-1.52	AS	SL7934-368						
SS-BH25-45	SS-1	1.52-1.98	SS	SL7934-369						
SS-BH25-45	AS-4	2.13-2.29	AS	SL7934-370	15.8					
SS-BH25-45	AS-5	2.90-3.05	AS	SL7934-371	17.0					
SS-BH25-45	SS-2	3.05-3.51	SS	SL7934-372						
SS-BH25-45	AS-6	4.42-4.57	AS	SL7934-373	20.1					
SS-BH25-45	AS-7	5.94-6.10	AS	SL7934-374	18.7					
SS-BH25-45	SS-3	6.10-6.55	SS	SL7934-375						
SS-BH25-45	AS-8	7.47-7.62	AS	SL7934-376	17.3					
SS-BH25-45	SS-4	7.62-8.08	SS	SL7934-377						
SS-BH25-45	AS-9	8.99-9.14	AS	SL7934-378	23.7					
SS-BH25-45	SS-5	9.14-9.60	SS	SL7934-379	19.7					
SS-BH25-45	AS-10	10.52-10.67	AS	SL7934-380	18.2					
SS-BH25-45	AS-11	12.04-12.19	AS	SL7934-381	45.7					
SS-BH25-45	SS-6	12.19-12.65	SS	SL7934-382						
SS-BH25-45	AS-12	13.56-13.72	AS	SL7934-383	39.2					
SS-BH25-45	SS-7	13.72-14.17	SS	SL7934-384						
SS-BH25-46	AS-1	0.15-0.30	AS	SL7934-385	22.5					
SS-BH25-46	AS-2	0.91-1.07	AS	SL7934-386	17.9	13	44	31	69.1	15.5

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-46	AS-3	1.37-1.52	AS	SL7934-387						
SS-BH25-46	SS-1	1.52-1.98	SS	SL7934-388						
SS-BH25-46	AS-4	2.13-2.29	AS	SL7934-389	25.2					
SS-BH25-46	AS-5	2.90-3.05	AS	SL7934-390						
SS-BH25-46	SS-2	3.05-3.51	SS	SL7934-391	17.1					
SS-BH25-46	AS-6	4.42-4.57	AS	SL7934-392						
SS-BH25-46	SS-3	4.57-5.03	SS	SL7934-393	7.5					
SS-BH25-46	AS-7	5.94-6.10	AS	SL7934-394	23.2					
SS-BH25-46	AS-8	7.47-7.62	AS	SL7934-395						
SS-BH25-46	SS-4	7.62-8.08	SS	SL7934-396	27.4					
SS-BH25-46	AS-9	8.99-9.14	AS	SL7934-397	19.5	18	43	25	51.1	8.9
SS-BH25-46	SS-5	9.14-9.60	SS	SL7934-398	35.6					
SS-BH25-46	AS-10	10.52-10.67	AS	SL7934-399						
SS-BH25-46	SS-6	10.67-11.13	SS	SL7934-400	26.8					
SS-BH25-46	AS-11	12.04-12.19	AS	SL7934-401	19.4					
SS-BH25-ALT 1	GS-1	0.61-0.76	GS	SL7934-402	15.3					
SS-BH25-ALT 1	GS-2	1.68-1.83	GS	SL7934-403	17.0					
SS-BH25-ALT 1	GS-3	2.13-2.21	GS	SL7934-404	22.5					
SS-BH25-ALT 1	GS-4	2.90-3.05	GS	SL7934-405	21.3					
SS-BH25-47	SS-1	3.05-3.51	SS	SL7934-406	32.9	21	72	51	97.3	20.0
SS-BH25-47	AS-1	4.42-4.57	AS	SL7934-407						
SS-BH25-47	SS-2	4.57-5.03	SS	SL7934-408	19.8					
SS-BH25-47	AS-2	4.42-4.57	AS	SL7934-409	25.0					
SS-BH25-47	AS-3	5.94-6.10	AS	SL7934-410						
SS-BH25-47	SS-3	6.10-6.55	SS	SL7934-411	23.9					
SS-BH25-47	AS-4	7.47-7.62	AS	SL7934-412						
SS-BH25-47	SS-4	7.62-8.08	SS	SL7934-413	21.0					
SS-BH25-47	AS-5	8.99-9.14	AS	SL7934-414	21.8					
SS-BH25-47	AS-6	10.52-10.67	AS	SL7934-415						
SS-BH25-47	SS-5	10.67-11.13	SS	SL7934-416	23.1					
SS-BH25-48	AS-1	0.15-0.30	AS	SL7934-417	7.8					
SS-BH25-48	AS-2	0.91-1.07	AS	SL7934-418	6.7	15	38	23	62	10.6
SS-BH25-48	AS-3	1.37-1.52	AS	SL7934-419						
SS-BH25-48	SS-1	1.52-1.98	as	SL7934-420						
SS-BH25-48	AS-4	2.13-2.29	AS	SL7934-421	14.5					

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-48	AS-5	2.90-3.05	AS	SL7934-422						
SS-BH25-48	SS-2	3.05-3.51	SS	SL7934-423	22.5					
SS-BH25-48	AS-6	4.42-4.57	AS	SL7934-424	20.0					
SS-BH25-48	AS-7	5.94-6.10	AS	SL7934-425						
SS-BH25-48	SS-3	6.10-6.55	SS	SL7934-426	15.8					
SS-BH25-48	AS-8	7.47-7.62	AS	SL7934-427						
SS-BH25-48	SS-4	7.62-8.08	SS	SL7934-428	26.5					
SS-BH25-48	AS-9	8.99-9.14	AS	SL7934-429	24.1					
SS-BH25-48	AS-10	10.52-10.67	AS	SL7934-430						
SS-BH25-48	SS-5	10.67-11.13	SS	SL7934-431	26.9					
SS-BH25-48	AS-11	12.04-12.19	AS	SL7934-432						
SS-BH25-48	SS-6	12.19-12.65	SS	SL7934-433	21.7					
SS-BH25-49B	AS-1	0.15-0.30	AS	SL7934-434	10.4					
SS-BH25-49B	AS-2	0.91-1.07	AS	SL7934-435	12.7	14	39	25	50.4	8.4
SS-BH25-49B	AS-3	1.37-1.52	AS	SL7934-436						
SS-BH25-49B	SS-1	1.52-1.98	SS	SL7934-437						
SS-BH25-49B	AS-4	2.13-2.29	AS	SL7934-438	18.9					
SS-BH25-49B	AS-5	2.90-3.05	AS	SL7934-439						
SS-BH25-49B	SS-2	3.05-3.51	SS	SL7934-440	14.1					
SS-BH25-49B	AS-6	4.42-4.57	AS	SL7934-441	18.2					
SS-BH25-49B	AS-7	5.94-6.10	AS	SL7934-442						
SS-BH25-49B	SS-3	6.10-6.55	SS	SL7934-443	22.6	19	85	66		
SS-BH25-49B	AS-8	7.47-7.62	AS	SL7934-444						
SS-BH25-49B	SS-4	7.62-8.08	SS	SL7934-445	21.5					
SS-BH25-49B	AS-9	8.99-9.14	AS	SL7934-446						
SS-BH25-49B	SS-5	9.14-9.75	SS	SL7934-447	26.9					
SS-BH25-49B	AS-10	10.52-10.67	AS	SL7934-448						
SS-BH25-49B	SS-6	10.67-11.13	SS	SL7934-449	28.6					
SS-BH25-49B	AS-11	12.04-12.19	AS	SL7934-450						
SS-BH25-50B	AS-1	0.15-0.30	AS	SL7934-451	14.5					
SS-BH25-50B	AS-2	0.91-1.07	AS	SL7934-452	19.0	14	44	30	76	16.8
SS-BH25-50B	AS-3	1.37-1.52	AS	SL7934-453						
SS-BH25-50B	SS-1	1.52-1.98	SS	SL7934-454						
SS-BH25-50B	AS-4	2.13-2.29	AS	SL7934-455	19.9					
SS-BH25-50B	AS-5	2.90-3.05	AS	SL7934-456						

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation

Lab #: SL7934

Tested by: MM / JH / AP / SS / EB

Date: January 20, 2026

Sample Identification					Laboratory Test Results					
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	% Passing #200	SHT Group Index
SS-BH25-50B	SS-2	3.05-3.51	SS	SL7934-457	18.0					
SS-BH25-50B	AS-6	4.42-4.57	AS	SL7934-458	19.2					
SS-BH25-50B	AS-7	5.94-6.10	AS	SL7934-459						
SS-BH25-50B	AS-8	7.47-7.62	AS	SL7934-460						
SS-BH25-50B	SS-4	7.62-8.08	SS	SL7934-461	23.0					
SS-BH25-50B	AS-9	8.99-9.14	AS	SL7934-462						
SS-BH25-50B	SS-5	9.14-9.75	SS	SL7934-463	22.8					
SS-BH25-50B	AS-10	10.52-10.67	AS	SL7934-464						
SS-BH25-50B	AS-11	12.04-12.19	AS	SL7934-465	19.5					
SS-BH25-52	BULK	-	BS	SL7934-466						
SS-BH25-56	AS-1	0.15-0.30	AS	SL7934-467	12.9					
SS-BH25-56	AS-2	0.91-1.07	AS	SL7934-486	16.0	14	39	25	65.8	12.2
SS-BH25-56	AS-3	1.37-1.52	AS	SL7934-487						
SS-BH25-56	SS-1	1.52-1.98	SS	SL7934-488						
SS-BH25-56	AS-4	2.13-2.29	AS	SL7934-489	16.8					
SS-BH25-56	AS-5	2.90-3.05	AS	SL7934-490						
SS-BH25-56	SS-2	3.05-3.51	SS	SL7934-491	21.0					
SS-BH25-56	COMP	3.05-4.57	BS	SL7934-492						
SS-BH25-56	AS-6	4.42-4.57	AS	SL7934-493						
SS-BH25-56	SS-3	4.57-5.03	SS	SL7934-494	26.2					
SS-BH25-56	AS-7	5.94-6.10	AS	SL7934-495	25.5					
SS-BH25-56	AS-8	7.47-7.62	AS	SL7934-496						
SS-BH25-56	SS-4	7.62-8.08	SS	SL7934-497	26.3					
SS-BH25-56	AS-9	8.99-9.14	AS	SL7934-498						
SS-BH25-56	SS-5	9.14-9.60	SS	SL7934-499	21.7					
SS-BH25-56	AS-10	10.52-10.67	AS	SL7934-500	19.6					
SS-BH25-56	AS-11	12.04-12.19	AS	SL7934-501						
SS-BH25-56	SS-6	12.19-12.65	SS	SL7934-502	24.2					

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938

Tested by: SS / JH / EB / MM / AP

Date: January 23, 2026

Sample Identification					Laboratory Test Results			
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Dry Density (Kg/m ³)	Pocket Penetrometer (kPa)	Lab Vane (kPa)
SS-BH25-01	TO-1	7.62-8.23	TO	SL7938-01			>200	>250
SS-BH25-02	TO-1	4.57-5.18	TO	SL7938-02				
SS-BH25-02	TO-2	10.67-11.28	TO	SL7938-03			>200	>250
SS-BH25-03	TO-1	6.10-6.71	TO	SL7938-04				
SS-BH25-03	TO-2	10.67-10.82	TO	SL7938-05				
SS-BH25-04	TO-1	6.10-6.71	TO	SL7938-06			>200	>250
SS-BH25-04	TO-2	9.14-9.75	TO	SL7938-07	22.2	1638	>200	87.3
SS-BH25-05	TO-1	4.57-5.18	TO	SL7938-08	27.9	1539	>200	>250
SS-BH25-05	TO-2	12.19-12.80	TO	SL7938-09			>200	>250
SS-BH25-07	TO-1	6.10-6.71	TO	SL7938-10			>200	>250
SS-BH25-07	TO-2	10.67-11.28	TO	SL7938-11				
SS-BH25-08	TO-1	6.10-6.71	TO	SL7938-12			168	201.2
SS-BH25-08	TO-2	12.19-12.80	TO	SL7938-13	18.3	1826	>200	>250
SS-BH25-09	TO-1	3.05-3.66	TO	SL7938-14				
SS-BH25-09	TO-2	9.14-9.75	TO	SL7938-15			>200	>250
SS-BH25-10	TO-1	4.57-5.18	TO	SL7938-16			>200	>250
SS-BH25-10	TO-2	10.67-11.28	TO	SL7938-17				
SS-BH25-11B	TO-1	6.10-6.71	TO	SL7938-18			>200	123.37
SS-BH25-11B	TO-2	10.67-11.28	TO	SL7938-19				
SS-BH25-13	TO-1	4.57-5.18	TO	SL7938-20				
SS-BH25-13	TO-2	10.67-11.28	TO	SL7938-21				
SS-BH25-13	TO-3	15.24-15.85	TO	SL7938-22			>200	>250
SS-BH25-14	TO-1	6.10-6.71	TO	SL7938-23			>200	>250
SS-BH25-14	TO-2	15.24-15.85	TO	SL7938-24				
SS-BH25-18B	TO-1	6.10-6.71	TO	SL7938-25	7.9			
SS-BH25-18B	TO-2	9.14-9.75	TO	SL7938-26			>200	>250
SS-BH25-19	TO-1	3.05-3.66	TO	SL7938-27				
SS-BH25-20B	TO-1	6.10-6.25	TO	SL7938-28				
SS-BH25-22	TO-1	6.10-6.71	TO	SL7938-29			216	231.6
SS-BH25-22	TO-2	12.19-12.80	TO	SL7938-30				
SS-BH25-23	TO-1	6.10-6.71	TO	SL7938-31			>200	>250
SS-BH25-23	TO-2	12.19-12.80	TO	SL7938-32				
SS-BH25-24	TO-1	6.10-6.71	TO	SL7938-33			84	47.5
SS-BH25-24	TO-2	12.19-12.80	TO	SL7938-34				

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938

Tested by: SS / JH / EB / MM / AP

Date: January 23, 2026

Sample Identification					Laboratory Test Results			
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Dry Density (Kg/m ³)	Pocket Penetrometer (kPa)	Lab Vane (kPa)
SS-BH25-25	TO-1	6.10-6.71	TO	SL7938-35				
SS-BH25-25	TO-2	7.62-8.23	TO	SL7938-36			>200	>250
SS-BH25-26	TO-1	6.10-6.71	TO	SL7938-37			>200	>250
SS-BH25-26	TO-2	12.19-12.80	TO	SL7938-38				
SS-BH25-27	TO-1	4.57-5.18	TO	SL7938-39				
SS-BH25-27	TO-2	13.72-14.33	TO	SL7938-40			48	91.1
SS-BH25-28	TO-1	6.10-6.71	TO	SL7938-41			96	167
SS-BH25-28	TO-2	12.19-12.80	TO	SL7938-42				
SS-BH25-29	TO-1	4.57-5.18	TO	SL7938-43			>200	>250
SS-BH25-29	TO-2	10.67-11.28	TO	SL7938-44				
SS-BH25-30	TO-1	4.57-5.18	TO	SL7938-45			>200	227.8
SS-BH25-30	TO-2	9.14-9.60	TO	SL7938-46				
SS-BH25-31B	TO-1	4.57-5.18	TO	SL7938-47			192	>250
SS-BH25-31B	TO-2	10.67-11.28	TO	SL7938-48				
SS-BH25-32B	TO-1	4.57-5.18	TO	SL7938-49			>200	>250
SS-BH25-32B	TO-2	10.67-11.28	TO	SL7938-50				
SS-BH25-33B	TO-1	6.10-6.71	TO	SL7938-51				
SS-BH25-33B	TO-2	12.19-12.65	TO	SL7938-52			>200	>250
SS-BH25-34	TO-1	4.57-5.18	TO	SL7938-53			>200	>250
SS-BH25-34	TO-2	10.67-11.28	TO	SL7938-54				
SS-BH25-35	TO-1	6.10-6.71	TO	SL7938-55				
SS-BH25-35	TO-2	10.67-11.28	TO	SL7938-56			>200	>250
SS-BH25-36C	TO-1	4.57-5.18	TO	SL7938-57			>200	>250
SS-BH25-36C	TO-2	9.14-9.75	TO	SL7938-58				
SS-BH25-37B	TO-1	4.57-5.18	TO	SL7938-59	16.2	1873	216	212.6
SS-BH25-37B	TO-2	10.67-11.28	TO	SL7938-60			>200	>250
SS-BH25-38B	TO-1	6.10-6.71	TO	SL7938-61			>200	>250
SS-BH25-38B	TO-2	10.67-11.28	TO	SL7938-62				
SS-BH25-39	TO-1	1.52-2.13	TO	SL7938-63				
SS-BH25-39	TO-2	7.62-8.23	TO	SL7938-64			204	>250
SS-BH25-40	TO-1	4.57-5.18	TO	SL7938-65			>200	>250
SS-BH25-40	TO-2	9.14-9.75	TO	SL7938-66				
SS-BH25-41	TO-1	6.10-6.71	TO	SL7938-67			180	153.7
SS-BH25-41	TO-2	10.67-11.28	TO	SL7938-68				

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GENERAL TESTING RESULTS

Project #: CA0059493.2836

Task : 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938

Tested by: SS / JH / EB / MM / AP

Date: January 23, 2026

Sample Identification					Laboratory Test Results			
Borehole #	Sample #	Depth (m)	Sample Type	Lab Sample #	Water Content (%)	Dry Density (Kg/m ³)	Pocket Penetrometer (kPa)	Lab Vane (kPa)
SS-BH25-42	TO-1	6.10-6.71	TO	SL7938-69			>200	>250
SS-BH25-42	TO-2	12.19-12.80	TO	SL7938-70				
SS-BH25-42B	TO-1	4.57-5.18	TO	SL7938-71			>200	>250
SS-BH25-42B	TO-2	10.67-11.28	TO	SL7938-72				
SS-BH25-43	TO-1	4.57-5.18	TO	SL7938-73			>200	>250
SS-BH25-43	TO-2	10.67-11.28	TO	SL7938-74				
SS-BH25-44B	TO-1	4.57-5.18	TO	SL7938-75			>200	>250
SS-BH25-44B	TO-2	9.14-9.75	TO	SL7938-76				
SS-BH25-45	TO-1	4.57-5.18	TO	SL7938-77			>200	>250
SS-BH25-45	TO-2	10.67-11.28	TO	SL7938-78				
SS-BH25-46	TO-1	6.10-6.71	TO	SL7938-79			>200	>250
SS-BH25-46	TO-2	12.19-12.80	TO	SL7938-80				
SS-BH25-47	TO-1	4.57-5.18	TO	SL7938-81			>200	>250
SS-BH25-47	TO-2	9.14-9.75	TO	SL7938-82				
SS-BH25-48	TO-1	4.57-5.18	TO	SL7938-83			>200	237.3
SS-BH25-48	TO-2	9.14-9.75	TO	SL7938-84				
SS-BH25-49B	TO-1	4.57-5.18	TO	SL7938-85			168	212.6
SS-BH25-49B	TO-2	12.19-12.80	TO	SL7938-86	18.0			
SS-BH25-50B	TO-1	6.10-6.71	TO	SL7938-87				
SS-BH25-50B	TO-2	10.67-11.28	TO	SL7938-88			>200	>250
SS-BH25-52	TO-1	3.05-3.66	TO	SL7938-89			96	155.6
SS-BH25-52	TO-2	10.67-11.28	TO	SL7938-90				
SS-BH25-56	TO-1	6.10-6.71	TO	SL7938-91			>200	>250
SS-BH25-56	TO-2	10.67-11.28	TO	SL7938-92	18.4	1679	12	60.7

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PRAIRIES AND NORTH LABORATORIES

ATTN: Lisa Nehring
Lead Geotechnical Engineer
WSP Canada Inc.

Received: 12-Jan-26
Report Date: 29-Jan-26
Version: Final

GEOTECHNICAL LABORATORY TEST REPORT

Client: Enbridge Employee Services Canada Inc.
Project Title: CA-Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
Project No.: CA0059493.2836 Task 300
LWO No.: H005



Jeff Stone, M.Eng., P.Eng.
Lead Geotechnical Engineer
WSP Canada Inc.

Our liability is limited to the cost of the test requested. The test results only relate to the sample as received. No liability in whole or in part is assumed for the collection, handling or transport of the sample, application or interpretation of the test data or results.

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GENERAL LAB TESTING SUMMARY

Project No.: CA0059493.2836 Task: 300
Short Title: CA-Enbridge Seven Stars Wind Farm Geotechnical Investigation_1 LWO No.: H005
Tested By: AD / KS Date: 29-Jan-26

Sample Identification				Laboratory Test Results				
Borehole No.	Sample No.	Depth (m)		Lab No.	As Received Water Content (%)	Standard Proctor Compaction Test		Thermal Resistivity, Critical Moisture (%)
		from	to			Maximum Dry Density (SPC) (kg/m ³)	Optimum w (%)	
SS-BH25-33B	Comp-1	1.52	3.05	H005-001	26.1	1710	19.8	6.7

Note: Thermal resistivity dry-out specimen was reconstituted targeting 98% compaction at +/- 2% of optimum water content



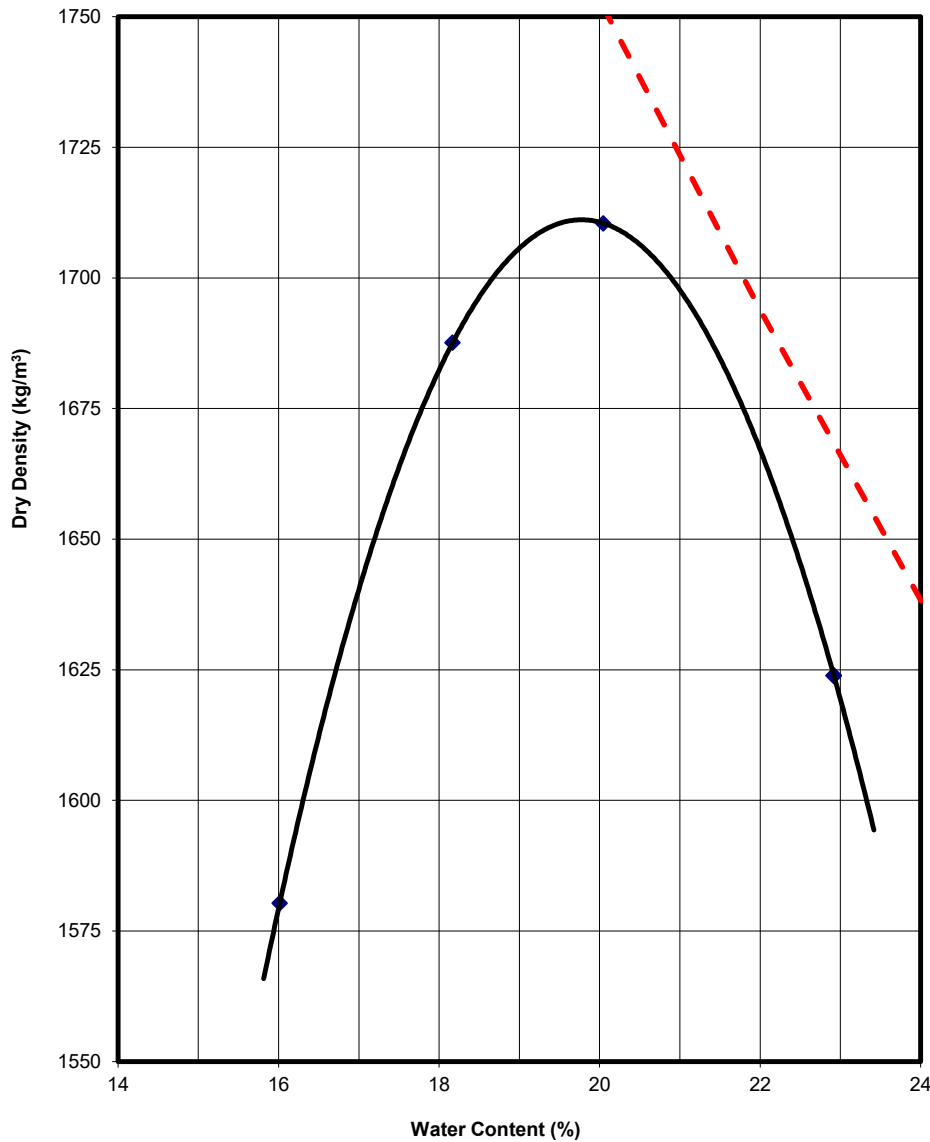
LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT

(ASTM D698)

Project No.: CA0059493.2836 Task: 300
Short Title: CA-Enbridge Seven Stars Wind Farm Geotechnical Investigation_1 Lab No.: H005-001
Tested By: AD Test Date: 13-Jan-26

Borehole No.: SS-BH25-33B Date Sampled: 2-Dec-25
Sample No.: Comp-1 Source: Seven Stars Wind Farm
Sampled By: M. Maier (WSP) Depth: 1.52 - 3.05 (m)

MOISTURE DENSITY RELATIONSHIP



◆ Dry Density - - - ZAV (2.70) — Density Curve

Maximum Dry Density

Max. Dry Density 1710 kg/m³
Optimum w 19.8 %

Method A

Rock Correction (if required)

% Oversize _____ %

Max. Dry Density _____ kg/m³
Optimum w _____ %

Assumed Specific Gravity: 2.70

Note:

Results are valid for <40 % retained on 4.75 mm sieve and <30 % retained on 19 mm sieve as per ASTM D4718

Sample Description:

(CL) LEAN CLAY with sand; mostly medium plasticity clayey fines, little fine sand; dark brown; cohesive, moist.

As Received Water Content: 26.1%



Thermal Conductivity of Soil by Thermal Needle Probe

(ASTM D5334)

Project No.: CA0059493.2836

Task: 300

Short Title: CA-Enbridge Seven Stars Wind Farm Geotechnical Investigation_1

Tested by: KS

Date: 15-Jan-26

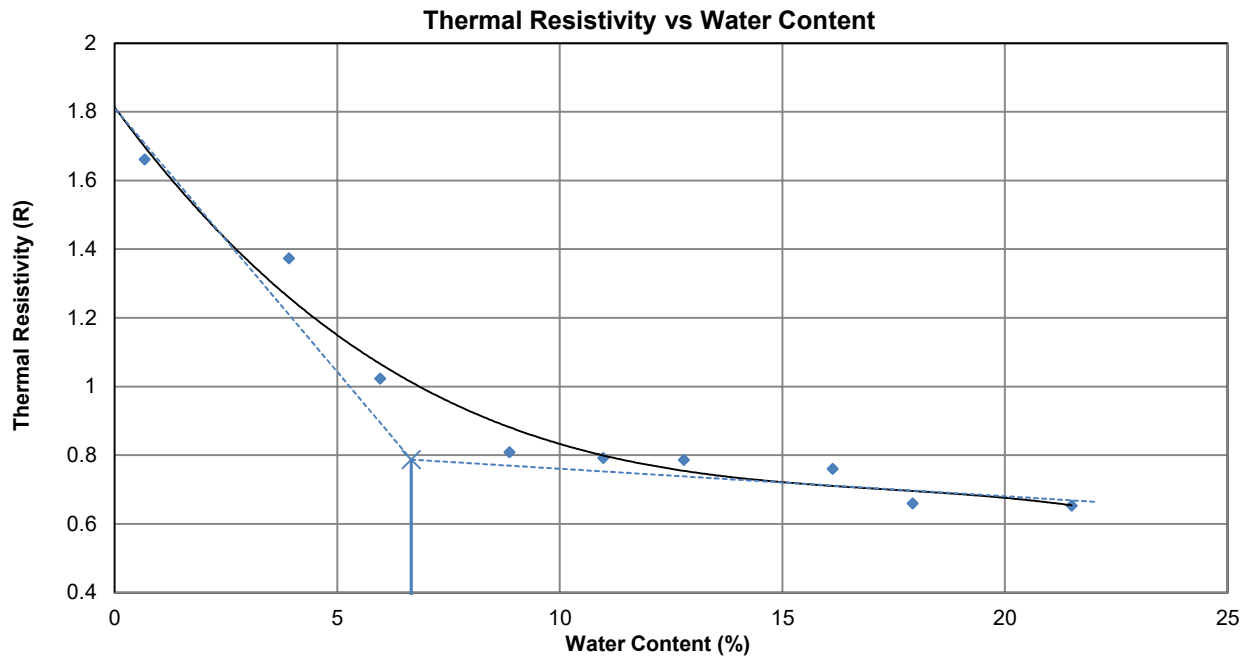
Test: H005-001
 Sample No.: SS-BH25-33B Comp-1
 Height (mm): 157.3
 Diameter (mm): 69.8
 Thermal Probe No.: TR-00697
 Probe Length (mm): 100

Undist. or Reconstituted: Reconstituted
 Initial Target Dry Density (kg/m³): 1676
 Initial Water Content (%): 21.5

Thermal Dryout Curve Test Results Single Specimen

Critical Water Content: 6.7 %

Test No.	Water Content (%)	Wet Density (kg/m ³)	Thermal Conductivity, K (W/m.K)	Thermal Resistivity, R (m.K/W)
1	21.5	2027	1.531	0.653
2	17.9	1968	1.515	0.660
3	16.1	1938	1.315	0.760
4	12.8	1882	1.271	0.787
5	11.0	1852	1.262	0.792
6	8.9	1817	1.236	0.809
7	6.0	1768	0.978	1.022
8	3.9	1734	0.728	1.374
9	0.7	1680	0.602	1.661



Remarks:

Thermal conductivity value has a precision of +/- 10%

Test conducted using KD2-Pro Thermal Properties Analyzer



STANDARD PROCTOR (ASTM D698)

Project #: CA0059493.2836	Task: 300
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: RL131-128
Tested by: AS	Date: January 16, 2026

Borehole #: SS-BH25-53	Sample #: BULK	
Source: near Weyburn, SK		
Visual Description of Sample: (CL) LEAN CLAY, trace sand; brown; cohesive, w>PL		
Date Sample Received: November 17, 2025		

Compaction Test Results:

water content (%)	dry density (kg/m ³)
15.3	1602
17.1	1628
19.4	1614
21.2	1599

Maximum dry density: 1629 kg/m³
Corrected for oversize material: N/A kg/m³

Optimum water content: 17.3 %
Corrected for oversize material: N/A %

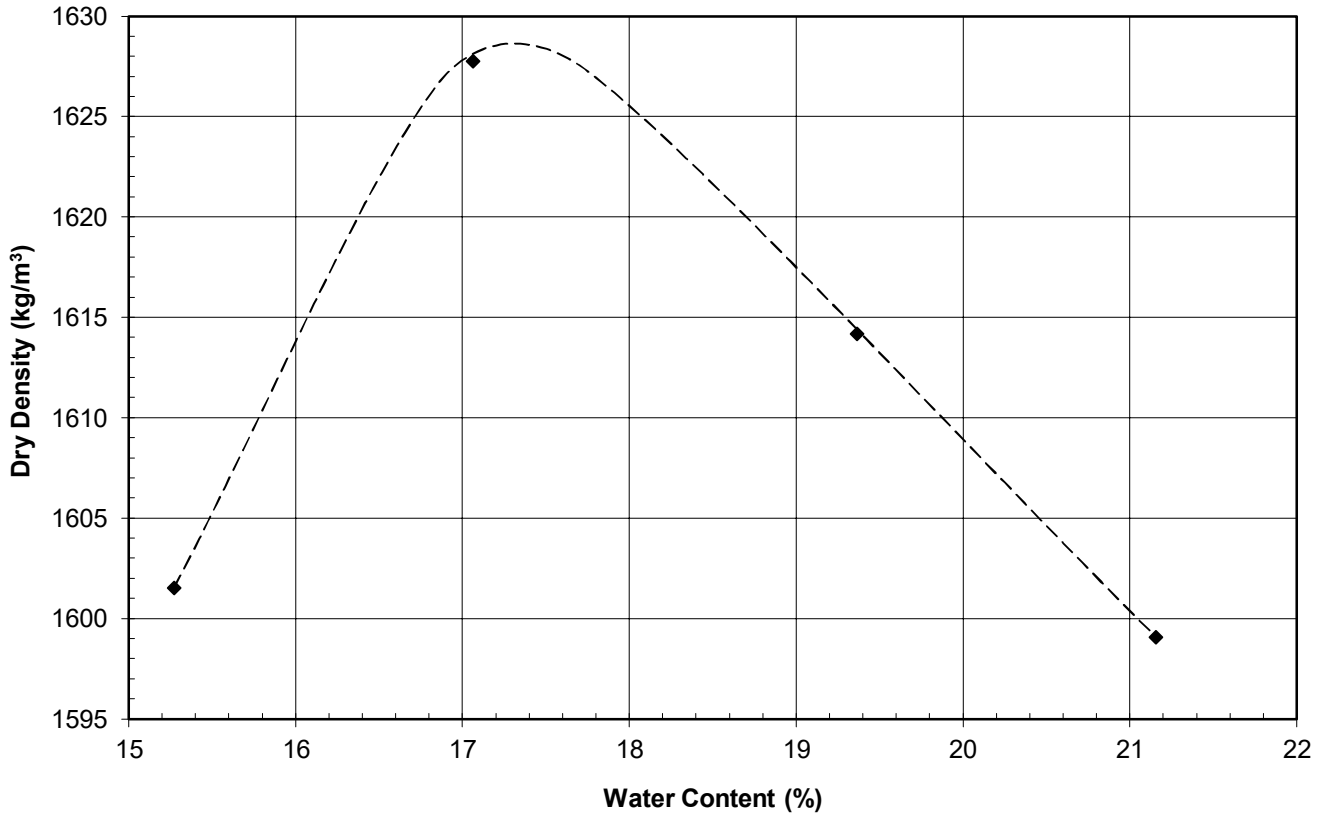
Test Summary:
 Method used: A
 Material used passing: 4.75 mm sieve
 Preparation method: dry
 Rammer type: manual

Oversize Correction Data (if applicable):
 Oversize fraction: N/A
 Bulk Specific Gravity: N/A
 Water content: N/A

100% Saturation Curve Data:
 Specific Gravity: 2.65 value: assumed

Comments:
 Water content of sample as received in lab: 24.1 %

Graphical Analysis



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STANDARD PROCTOR (ASTM D698)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation
 Tested by: MM / AP

Task: 300-Lab Testing
 Lab #: SL7934-466
 Date: January 15, 2026

Borehole #: SS-BH25-52 Sample #: Bulk
 Source:

Visual Description of Sample: (CL) sandy LEAN CLAY; trace gravel; brown; cohesive, w>PL.

Date Sample Received: December 5, 2025

Compaction Test Results:

water content (%)	dry density (kg/m ³)
12.6	1689
13.7	1785
15.6	1789
18.2	1711

Maximum dry density: 1810 kg/m³
Corrected for oversize material: N/A kg/m³

Optimum water content: 14.5 %
Corrected for oversize material: N/A %

Test Summary:

Method used: A
 Material used passing: 4.75 mm sieve
 Preparation method: dry
 Rammer type: manual

Oversize Correction Data (if applicable):

Oversize fraction: 0.1 %
 Bulk Specific Gravity: N/A
 Water content: N/A

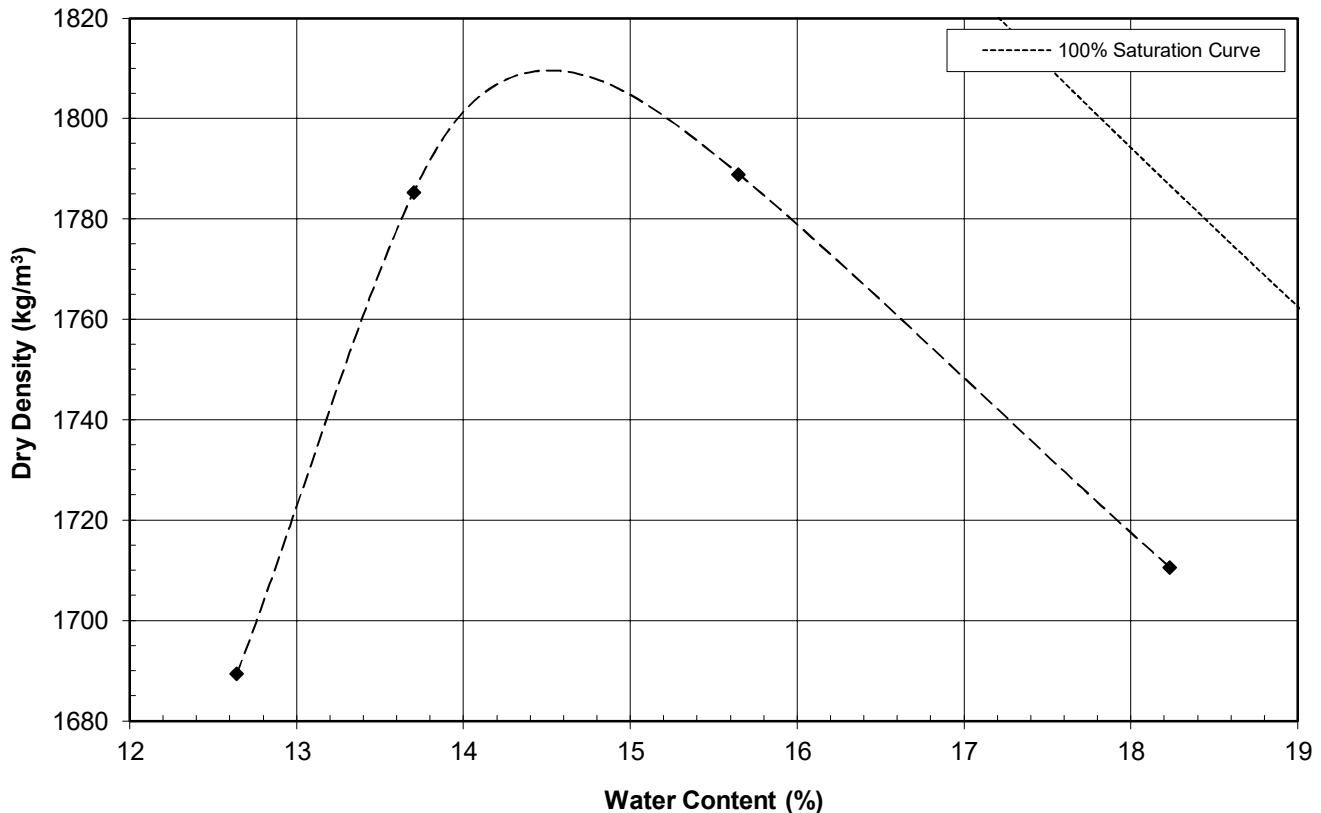
100% Saturation Curve Data:

Specific Gravity: 2.65 value: assumed

Comments:

Water content of sample as received in lab: 19.6 %

Graphical Analysis



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STANDARD PROCTOR (ASTM D698)

Project #: CA0059493.2836	Task: 300
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: RL131-148
Tested by: AS	Date: January 16, 2026

Borehole #: SS-BH25-54	Sample #: BULK
Source: near Weyburn, SK	
Visual Description of Sample: (CL) LEAN CLAY, trace sand; brown; cohesive, w>PL	
Date Sample Received: November 17, 2025	

Compaction Test Results:

water content (%)	dry density (kg/m ³)
12.7	1601
15.5	1673
19.2	1721
23.2	1600

Maximum dry density: 1730 kg/m³
Corrected for oversize material: N/A kg/m³

Optimum water content: 18.5 %
Corrected for oversize material: N/A %

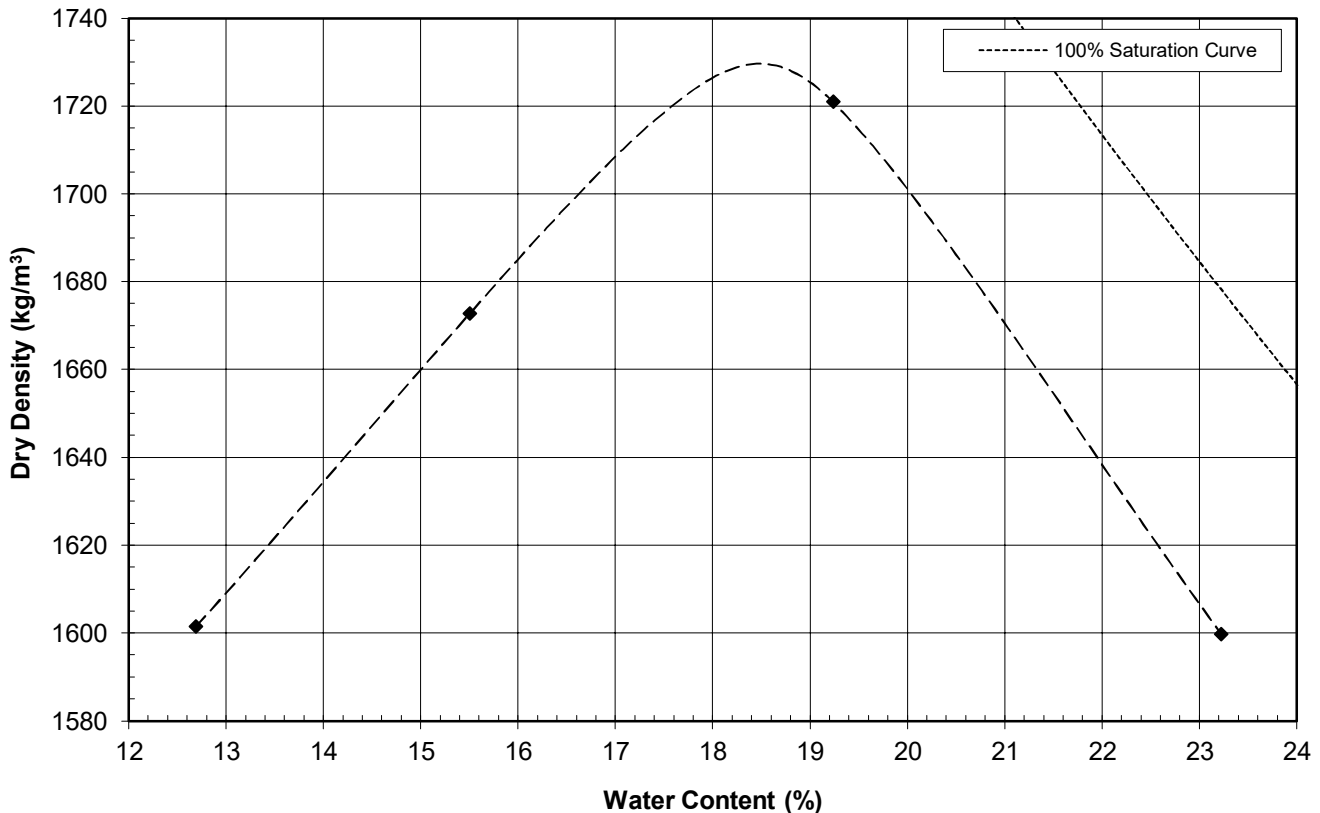
Test Summary:
 Method used: A
 Material used passing: 4.75 mm sieve
 Preparation method: dry
 Rammer type: manual

Oversize Correction Data (if applicable):
 Oversize fraction: N/A
 Bulk Specific Gravity: N/A
 Water content: N/A

100% Saturation Curve Data:
 Specific Gravity: 2.75 value: assumed

Comments:
 Water content of sample as received in lab: 19.8 %

Graphical Analysis



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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: SB

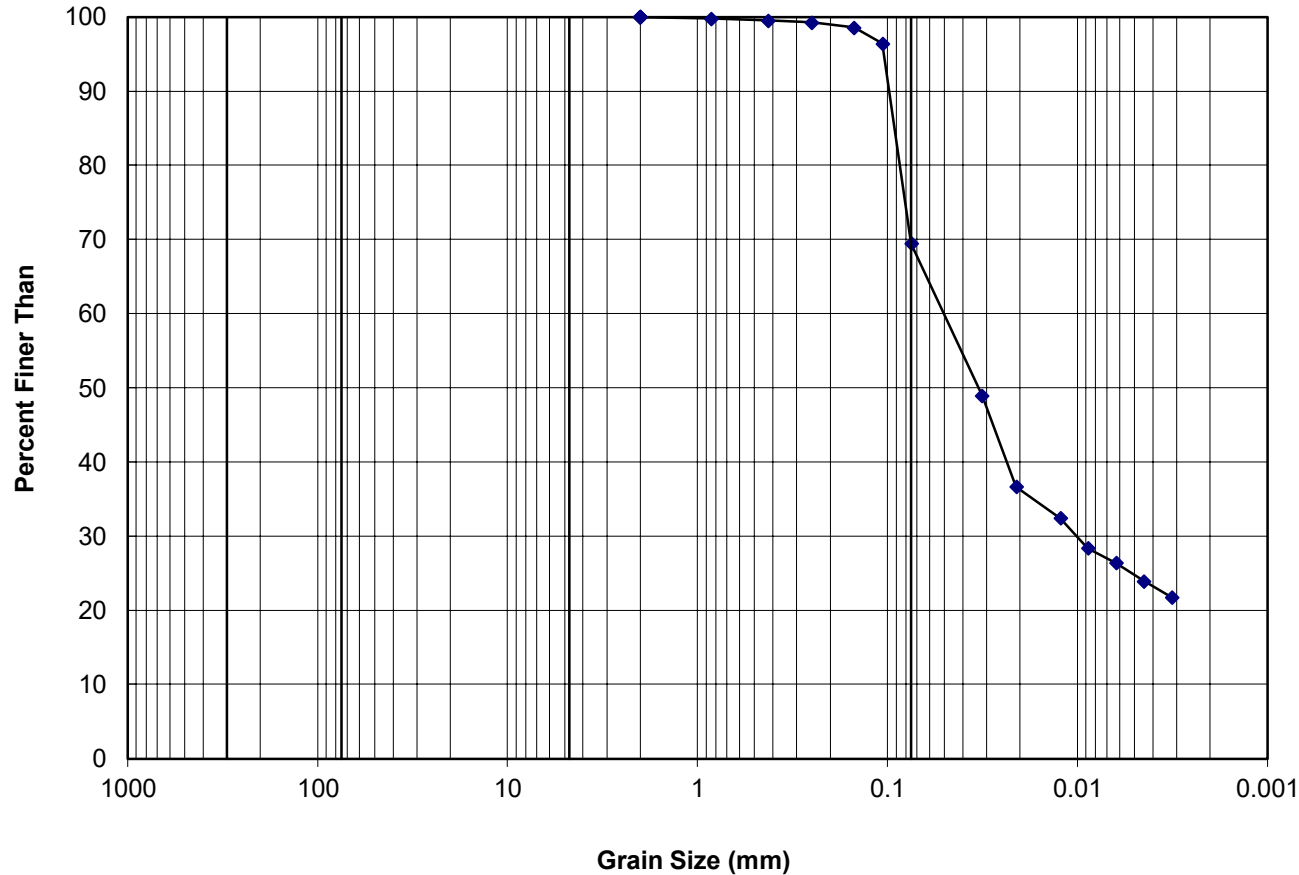
Task 300-Lab Testing
 Lab #: RL131-008
 Date: January 9, 2026

Borehole #: SS-BH25-12 Sample #: AS-6 Depth: 4.42 - 4.57 m
 Source:
 Date Sample Received: November 17, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	100
0.850	100
0.425	100
0.250	99
0.150	99
0.106	96
0.075	69
0.032	49
0.021	37
0.012	32
0.009	28
0.006	26
0.004	24
0.003	22
0.001	16

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: SB

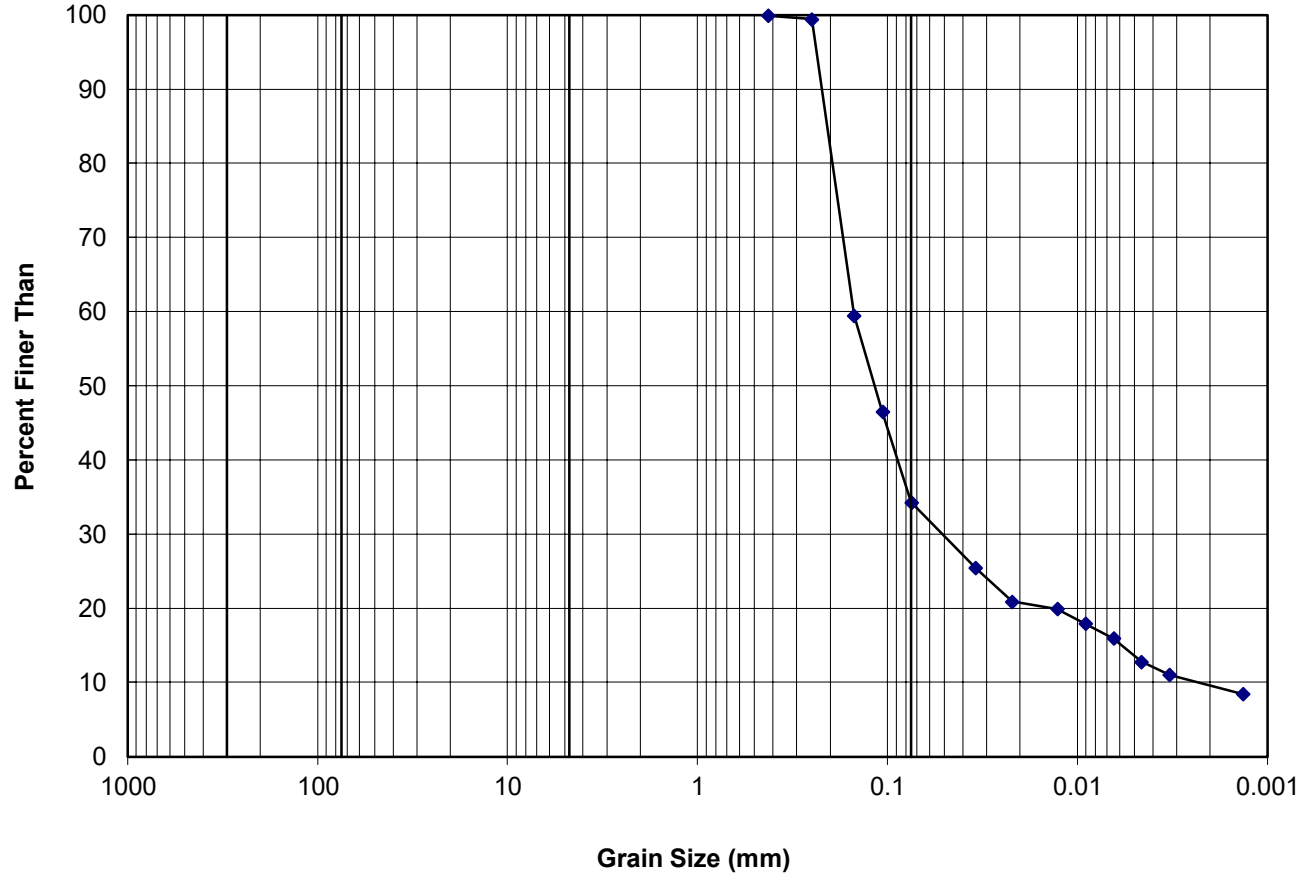
Task 300-Lab Testing
 Lab #: RL131-115
 Date: January 9, 2026

Borehole #: SS-BH25-51 Sample #: AS-9 Depth: 8.99 - 9.14 m
 Source:
 Date Sample Received: November 17, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	100
0.850	100
0.425	100
0.250	99
0.150	59
0.106	46
0.075	34
0.034	25
0.022	21
0.013	20
0.009	18
0.006	16
0.005	13
0.003	11
0.001	8.4

Graphical Analysis



Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: SB

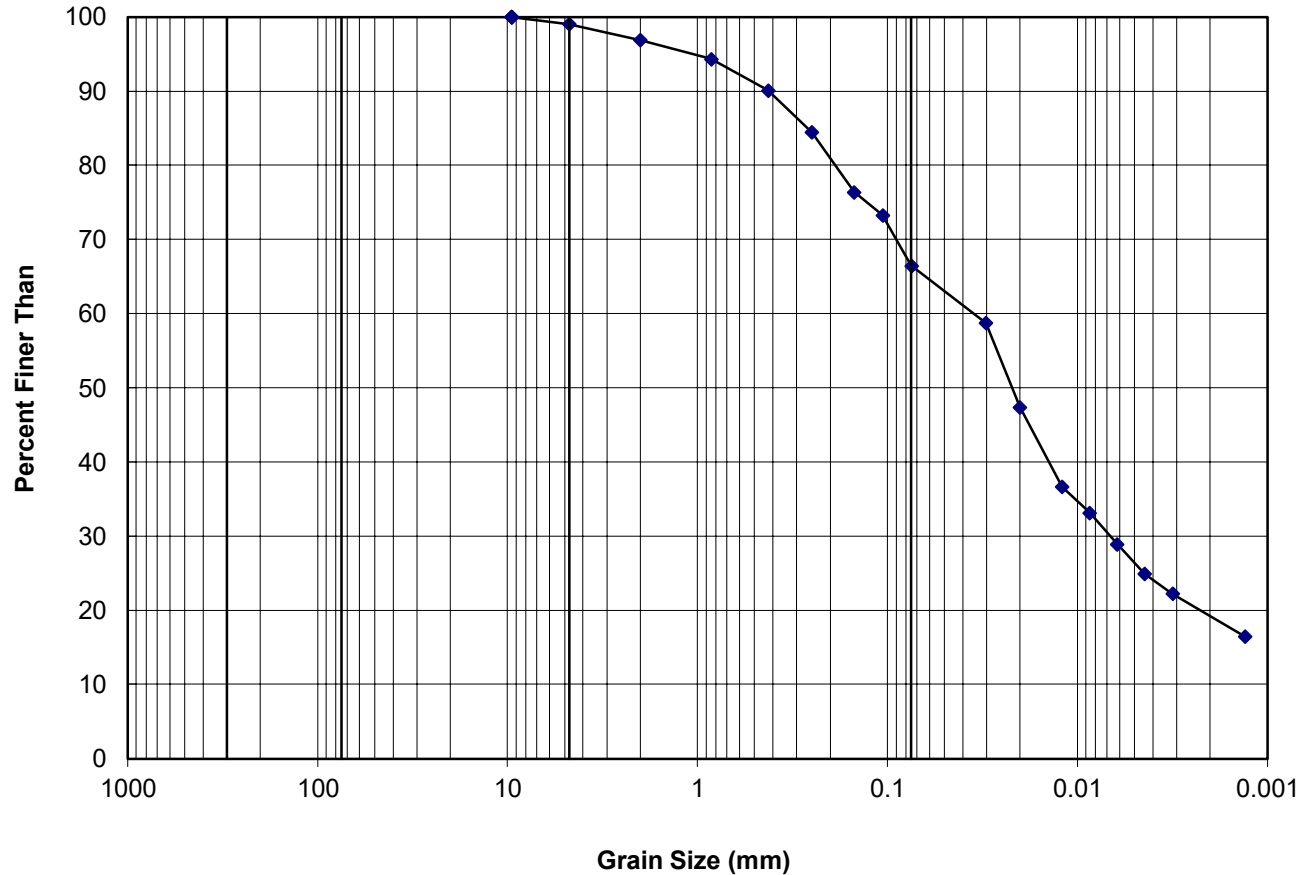
Task 300-Lab Testing
 Lab #: RL131-149
 Date: January 9, 2026

Borehole #: SS-BH25-54 Sample #: AS-6 Depth: 4.42 - 4.57 m
 Source:
 Date Sample Received: November 17, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	99
2.0	97
0.850	94
0.425	90
0.250	84
0.150	76
0.106	73
0.075	66
0.030	59
0.020	47
0.012	37
0.009	33
0.006	29
0.004	25
0.003	22
0.001	16

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

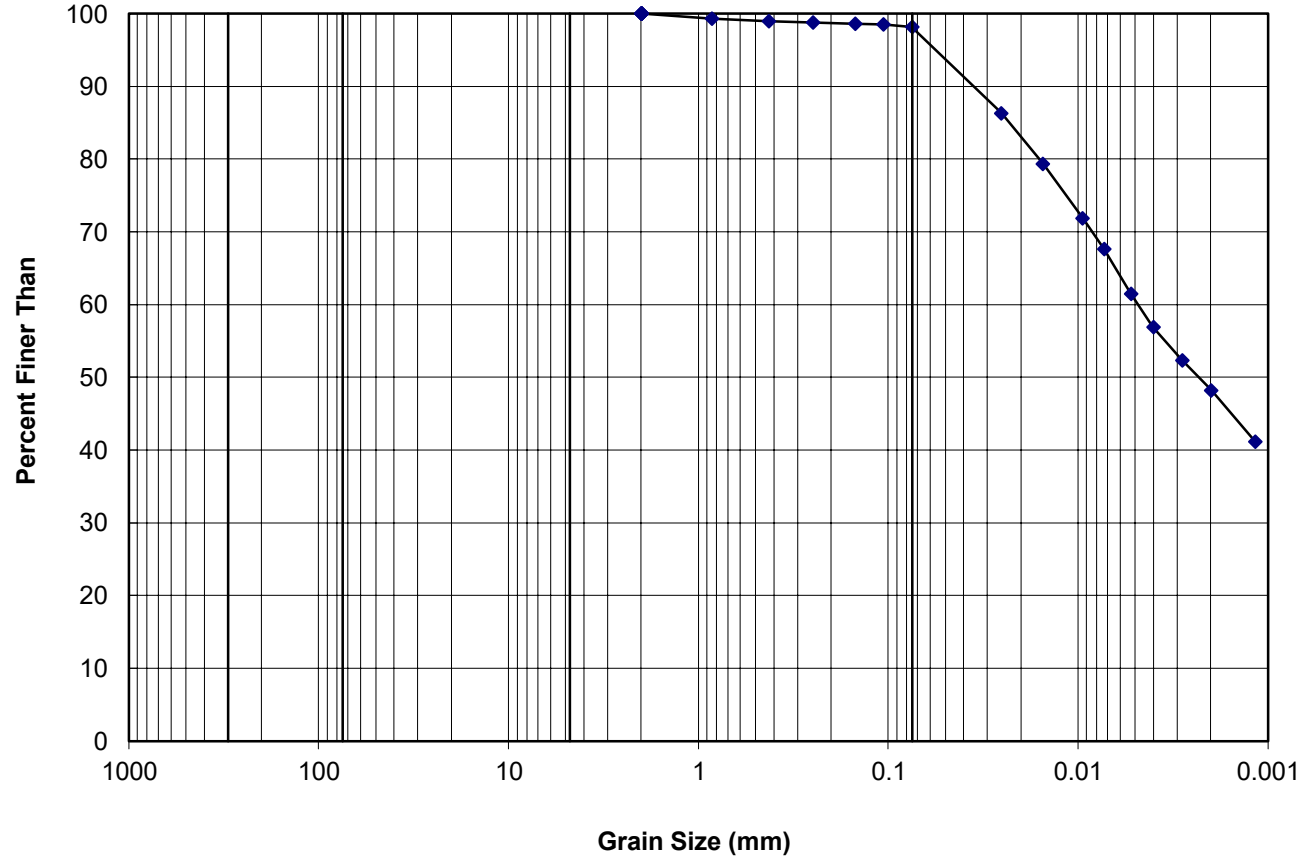
Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: MM
 Borehole #: SS-BH25-05 Sample #: AS-9 Depth: 8.84 - 8.99 m
 Source:
 Date Sample Received: November 18, 2025

Task 300
 Lab #: SL7917-030
 Date: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	100
0.850	99
0.425	99
0.250	99
0.150	99
0.106	99
0.075	98
0.025	86
0.015	79
0.010	72
0.007	68
0.005	62
0.004	57
0.003	52
0.002	48
0.001	41

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

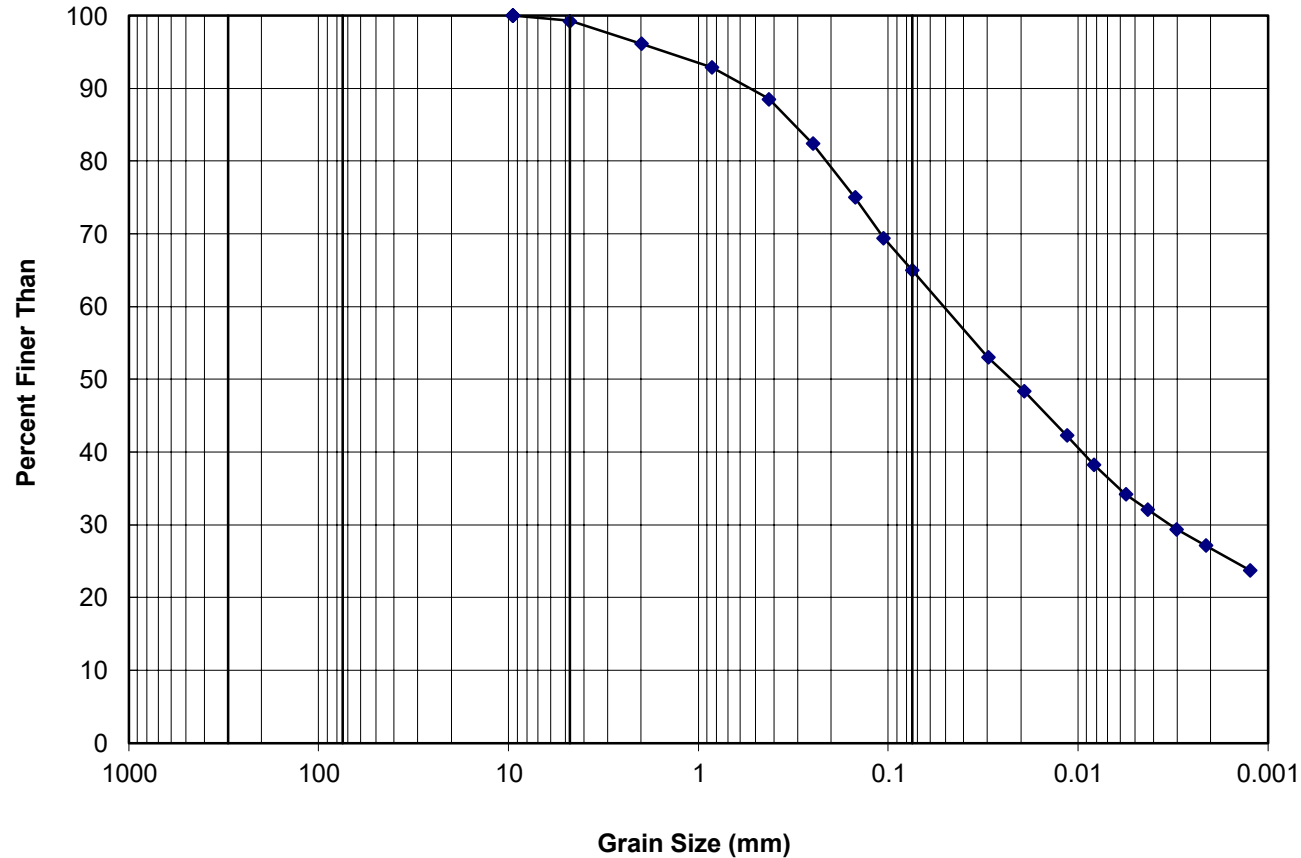
Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: MM
 Borehole #: SS-BH25-41 Sample #: AS-5 Depth: 3.05 - 3.20 m
 Source:
 Date Sample Received: November 18, 2025

Task 300
 Lab #: SL7917-162
 Date: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	99
2.0	96
0.850	93
0.425	89
0.250	82
0.150	75
0.106	69
0.075	65
0.030	53
0.019	48
0.011	42
0.008	38
0.006	34
0.004	32
0.003	29
0.002	27
0.001	24

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

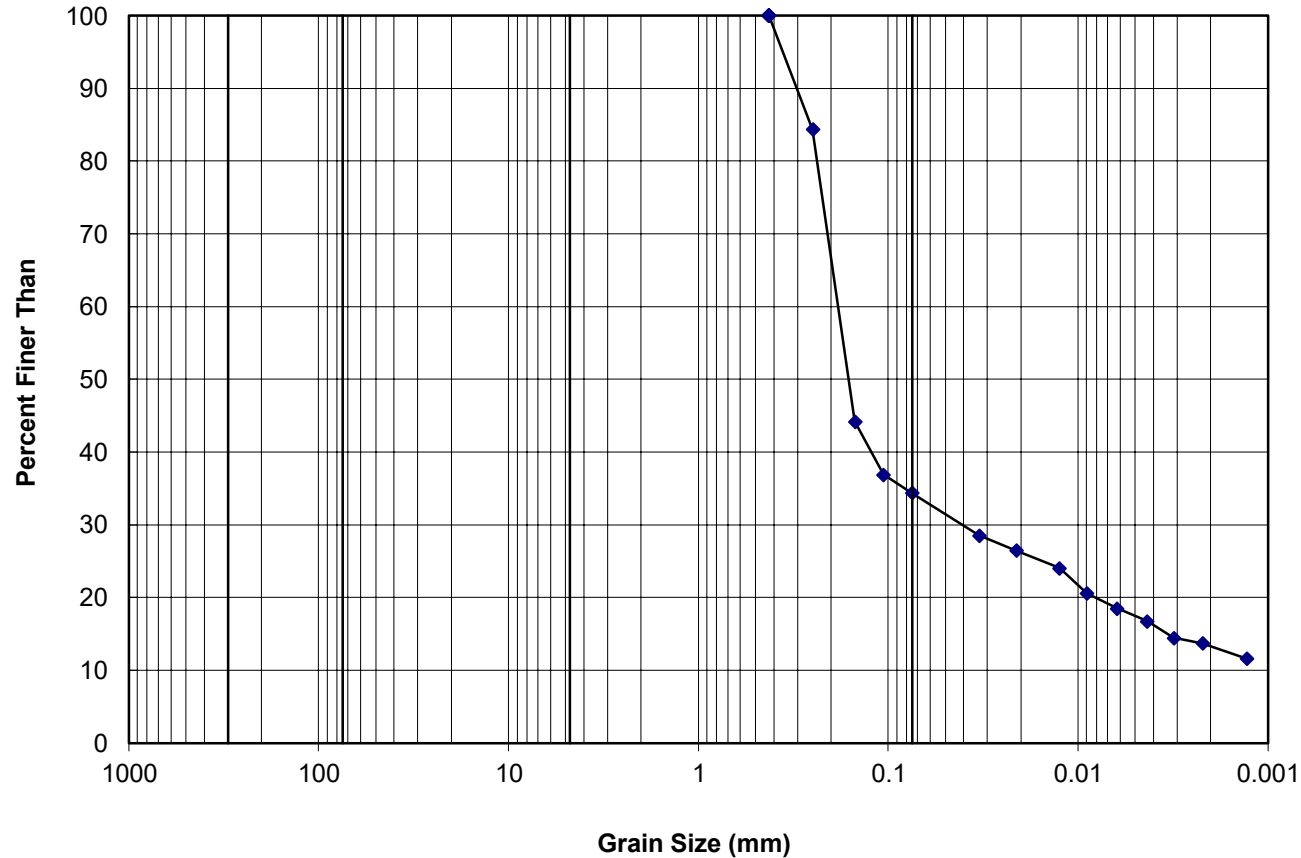
Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: MM
 Borehole #: SS-BH25-41 Sample #: AS-9 Depth: 9.14 - 9.30 m
 Source:
 Date Sample Received: November 18, 2025

Task 300
 Lab #: SL7917-166
 Date: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	100
0.850	100
0.425	100
0.250	84
0.150	44
0.106	37
0.075	34
0.033	29
0.021	26
0.013	24
0.009	21
0.006	19
0.004	17
0.003	14
0.002	14
0.001	12

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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WSP Canada Inc.
 1721 8th Street E.,
 Saskatoon, Saskatchewan S7N 0T4

Reviewed by: 
 Stephanie Huber, P.Tech.



GRAIN SIZE ANALYSIS

(AASHTO T88)

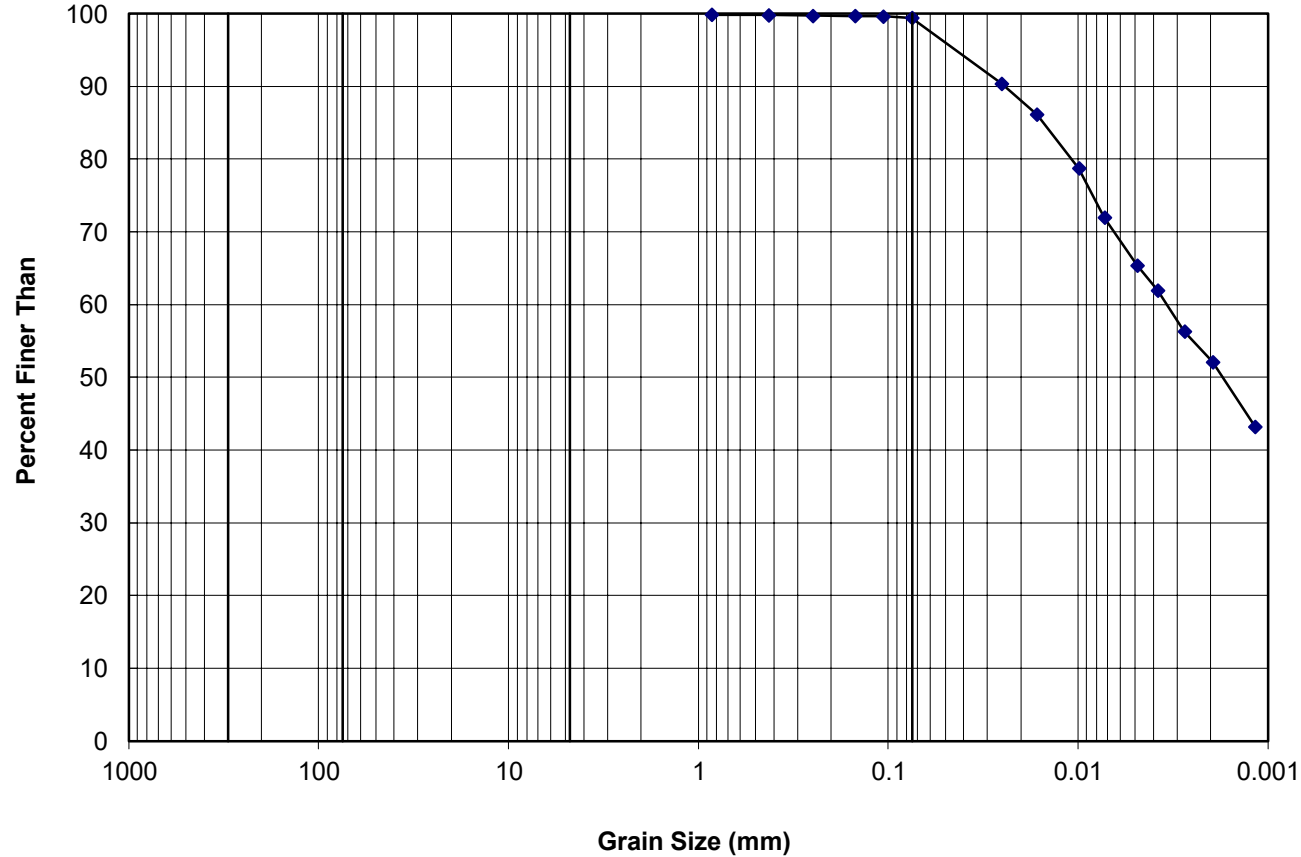
Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: MM
 Borehole #: SS-BH25-02 Sample #: AS-9 Depth: 8.23 - 8.38 m
 Source:
 Date Sample Received: November 18, 2025

Task 300
 Lab #: SL7917-206
 Date: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	100
0.850	100
0.425	100
0.250	100
0.150	100
0.106	100
0.075	99
0.025	90
0.016	86
0.010	79
0.007	72
0.005	65
0.004	62
0.003	56
0.002	52
0.001	43

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

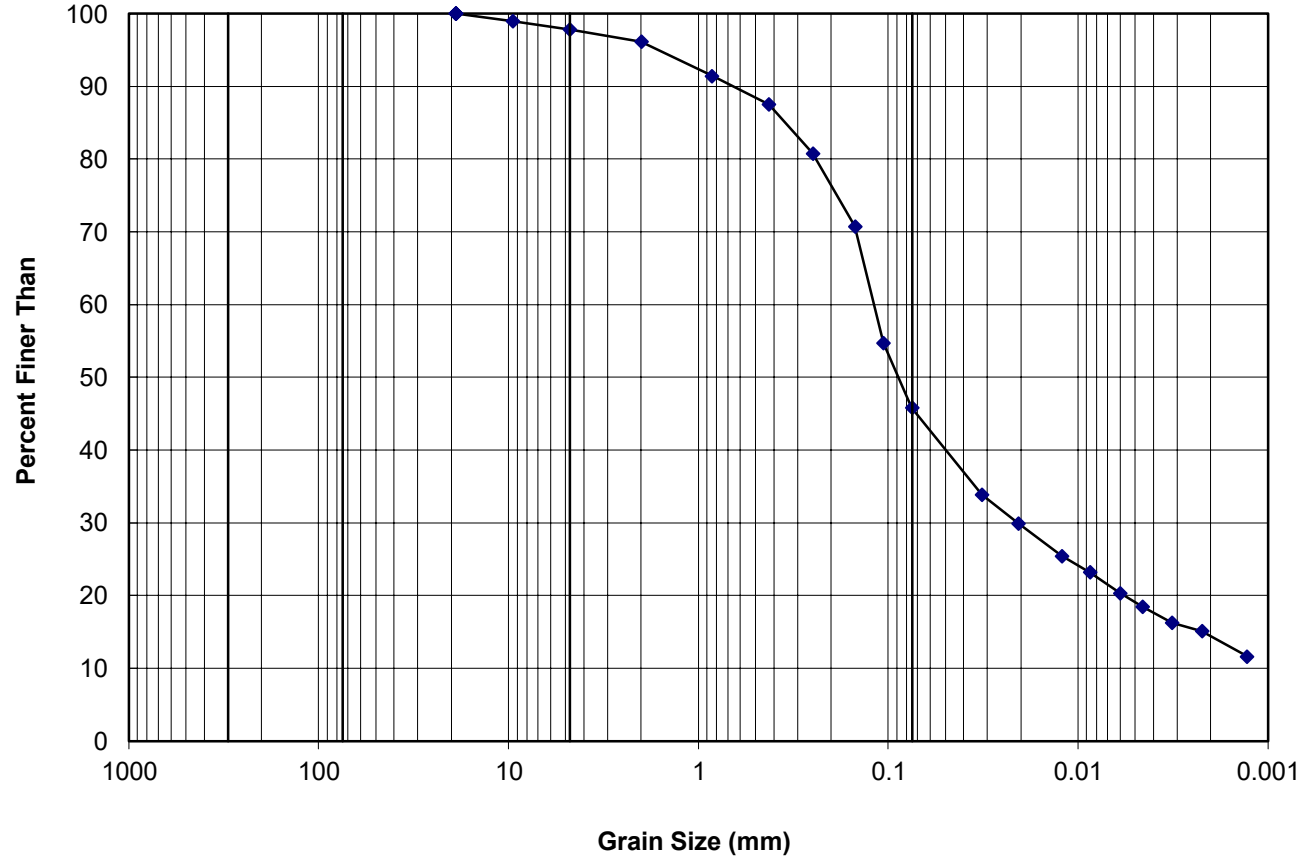
Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: MM
 Borehole #: SS-BH25-06 Sample #: AS-8 Depth: 6.71 - 6.86 m
 Source:
 Date Sample Received: November 18, 2025

Task 300
 Lab #: SL7917-245
 Date: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	99
4.75	98
2.0	96
0.850	91
0.425	88
0.250	81
0.150	71
0.106	55
0.075	46
0.032	34
0.021	30
0.012	25
0.009	23
0.006	20
0.005	18
0.003	16
0.002	15
0.001	12

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1

Tested by: MM

Task 300

Lab #: SL7917-295

Date: December 5, 2025

Borehole #: SS-BH25-10

Sample #: AS-5

Depth: 2.74 - 2.90 m

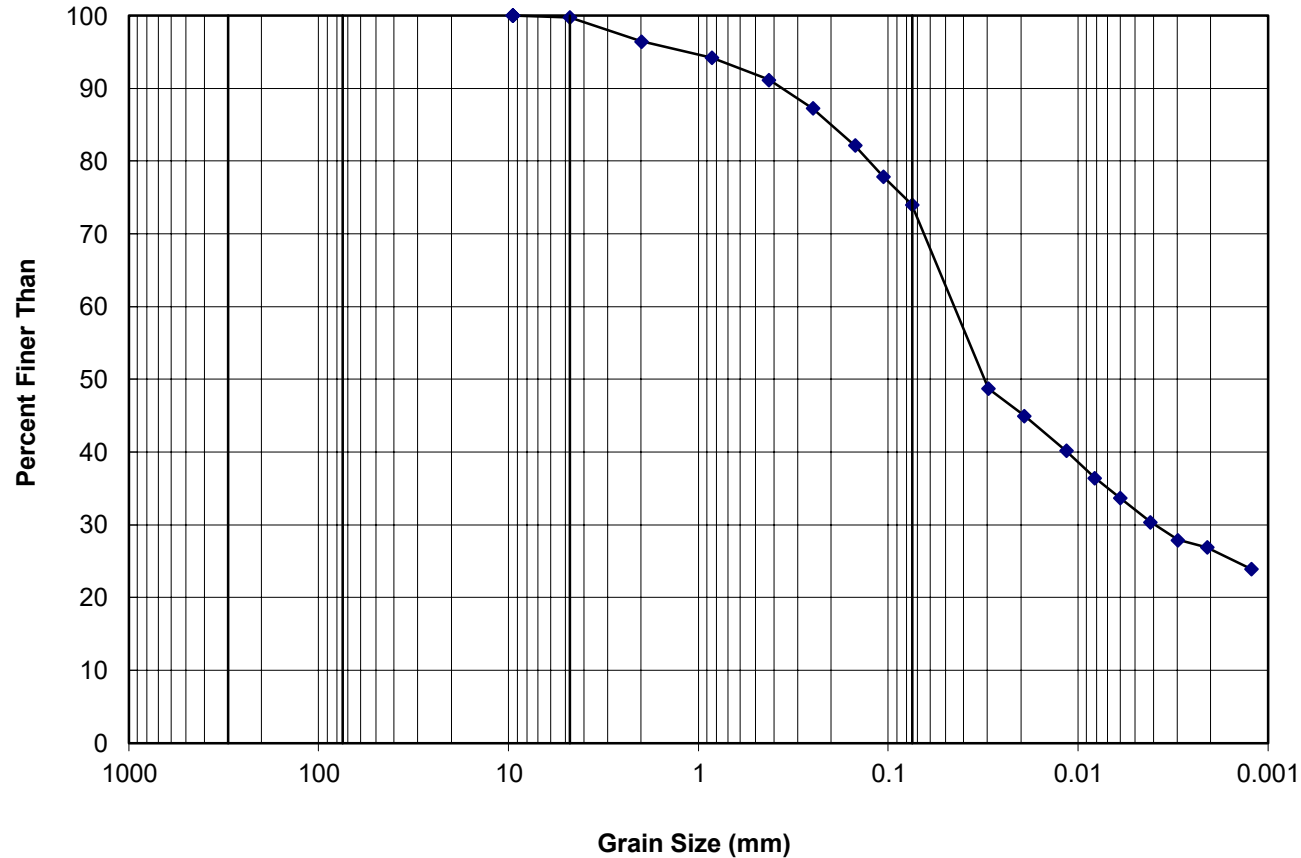
Source:

Date Sample Received: November 18, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	96
0.850	94
0.425	91
0.250	87
0.150	82
0.106	78
0.075	74
0.030	49
0.019	45
0.012	40
0.008	36
0.006	34
0.004	30
0.003	28
0.002	27
0.001	24

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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WSP Canada Inc.
1721 8th Street E.,
Saskatoon, Saskatchewan S7N 0T4

Reviewed by: _____

Stephanie Huber, P.Tech.



GRAIN SIZE ANALYSIS

(AASHTO T88)

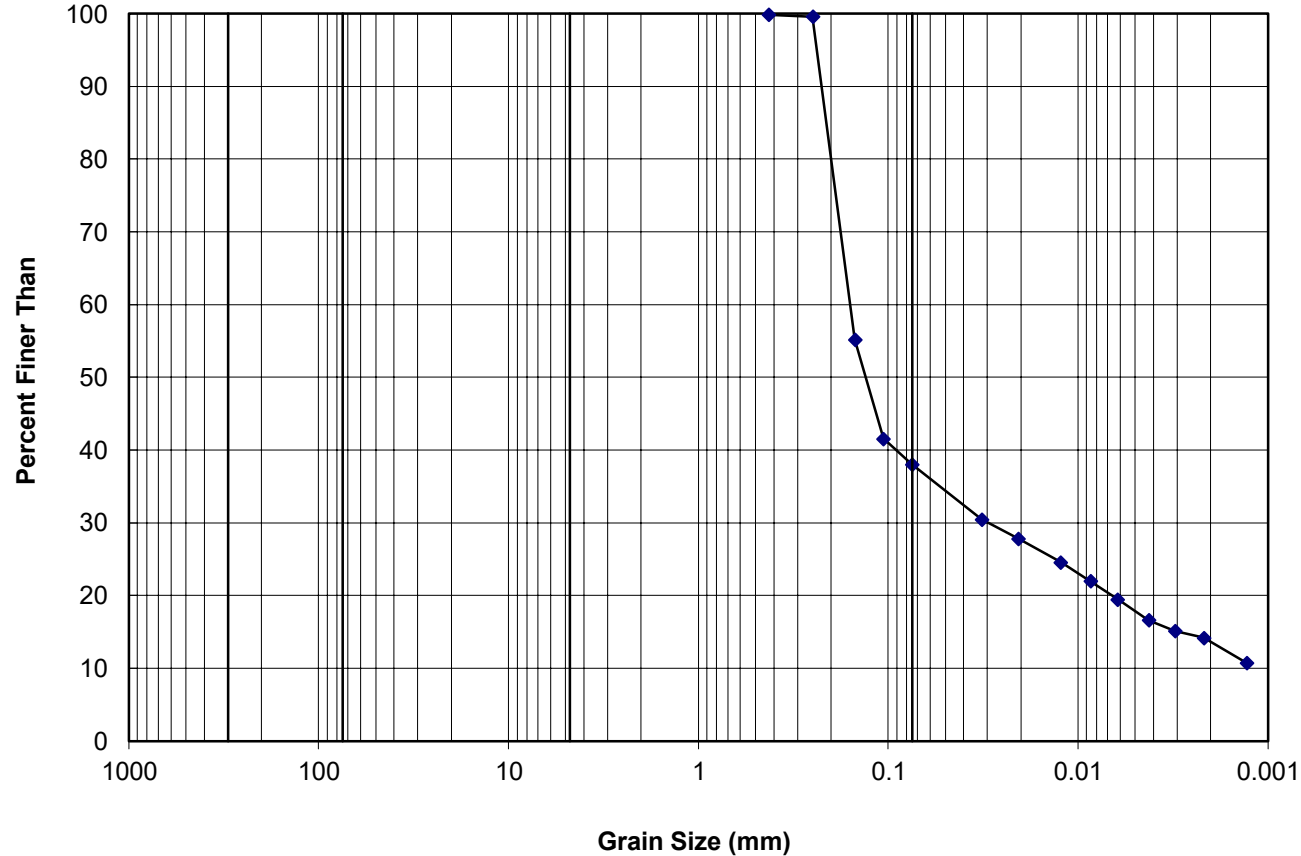
Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: MM
 Borehole #: SS-BH25-28 Sample #: SS-6 Depth: 9.14 - 9.60 m
 Source:
 Date Sample Received: November 18, 2025

Task 300
 Lab #: SL7917-375
 Date: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	100
0.850	100
0.425	100
0.250	100
0.150	55
0.106	42
0.075	38
0.032	30
0.021	28
0.012	25
0.009	22
0.006	19
0.004	17
0.003	15
0.002	14
0.001	11

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

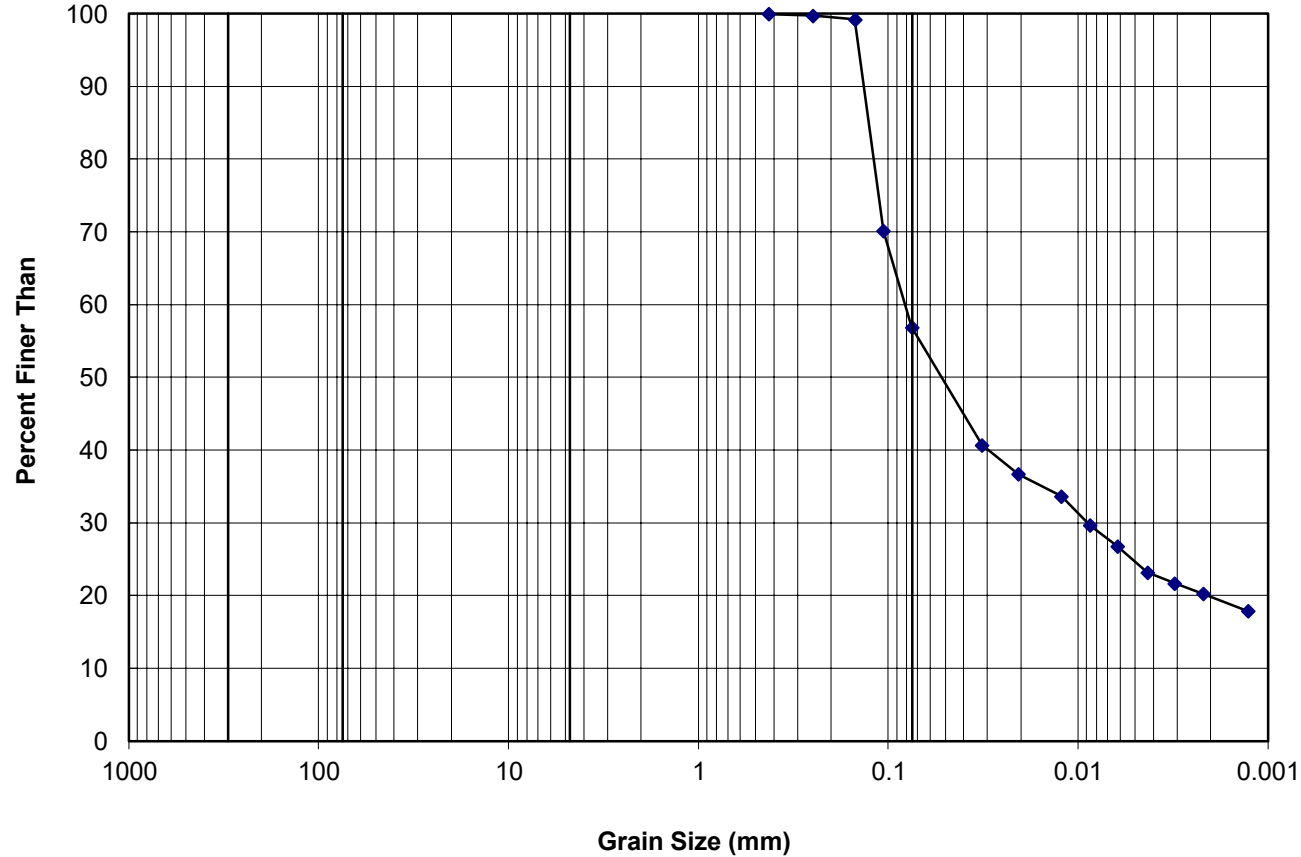
Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: MM
 Borehole #: SS-BH25-34 Sample #: AS-10 Depth: 9.75 - 9.91 m
 Source:
 Date Sample Received: November 18, 2025

Task 300
 Lab #: SL7917-390
 Date: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	100
0.850	100
0.425	100
0.250	100
0.150	99
0.106	70
0.075	57
0.032	41
0.021	37
0.012	34
0.009	30
0.006	27
0.004	23
0.003	22
0.002	20
0.001	18

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation
 Tested by: AP / MM / JH / SS

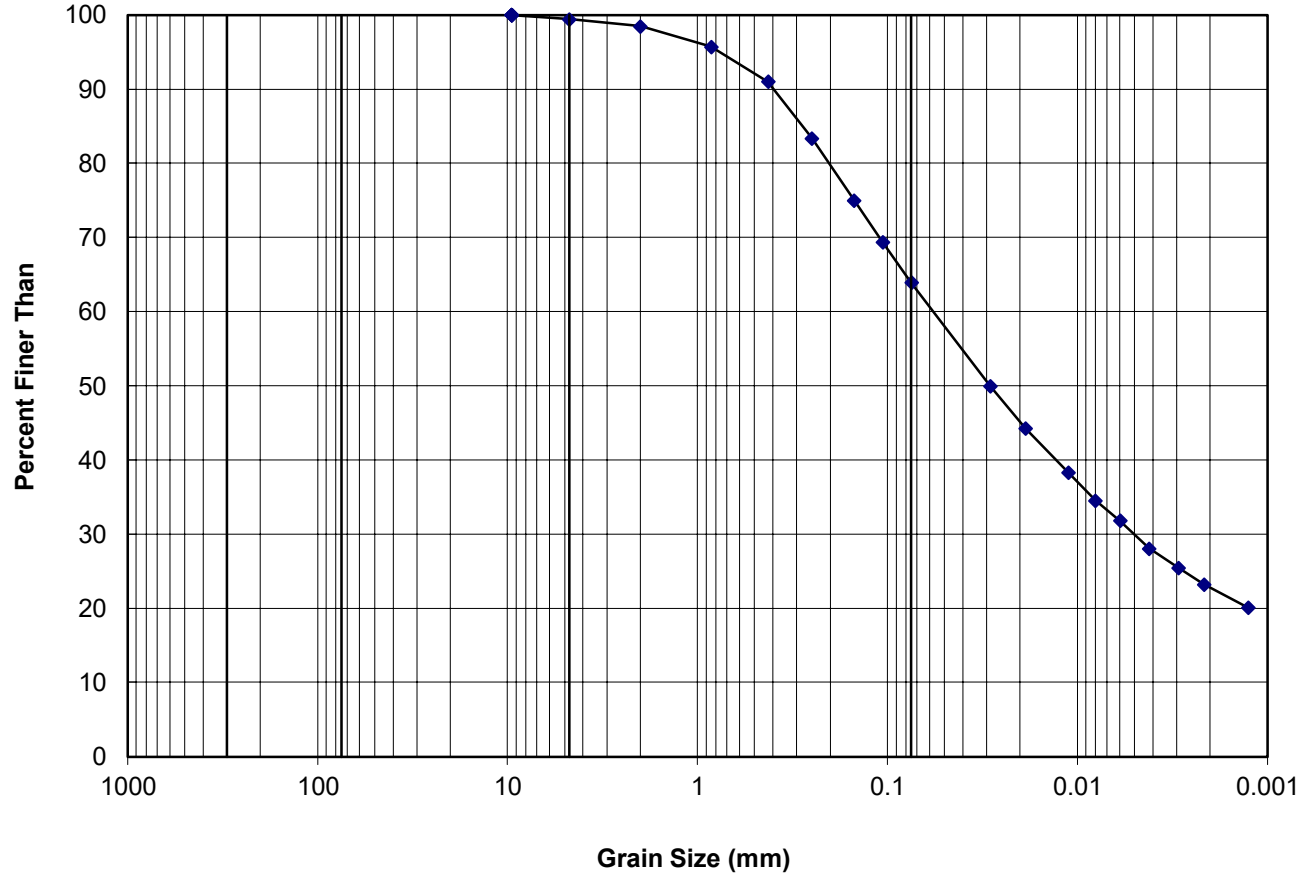
Task 300-Lab Testing
 Lab #: SL7934-005
 Date: January 15, 2026

Borehole #: SS-BH25-07 Sample #: AS-4 Depth: 2.13 - 2.29 m
 Source:
 Date Sample Received: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	99
2.0	98
0.850	96
0.425	91
0.250	83
0.150	75
0.106	69
0.075	64
0.029	50
0.019	44
0.011	38
0.008	35
0.006	32
0.004	28
0.003	25
0.002	23
0.001	20

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation
 Tested by: AP / MM / JH

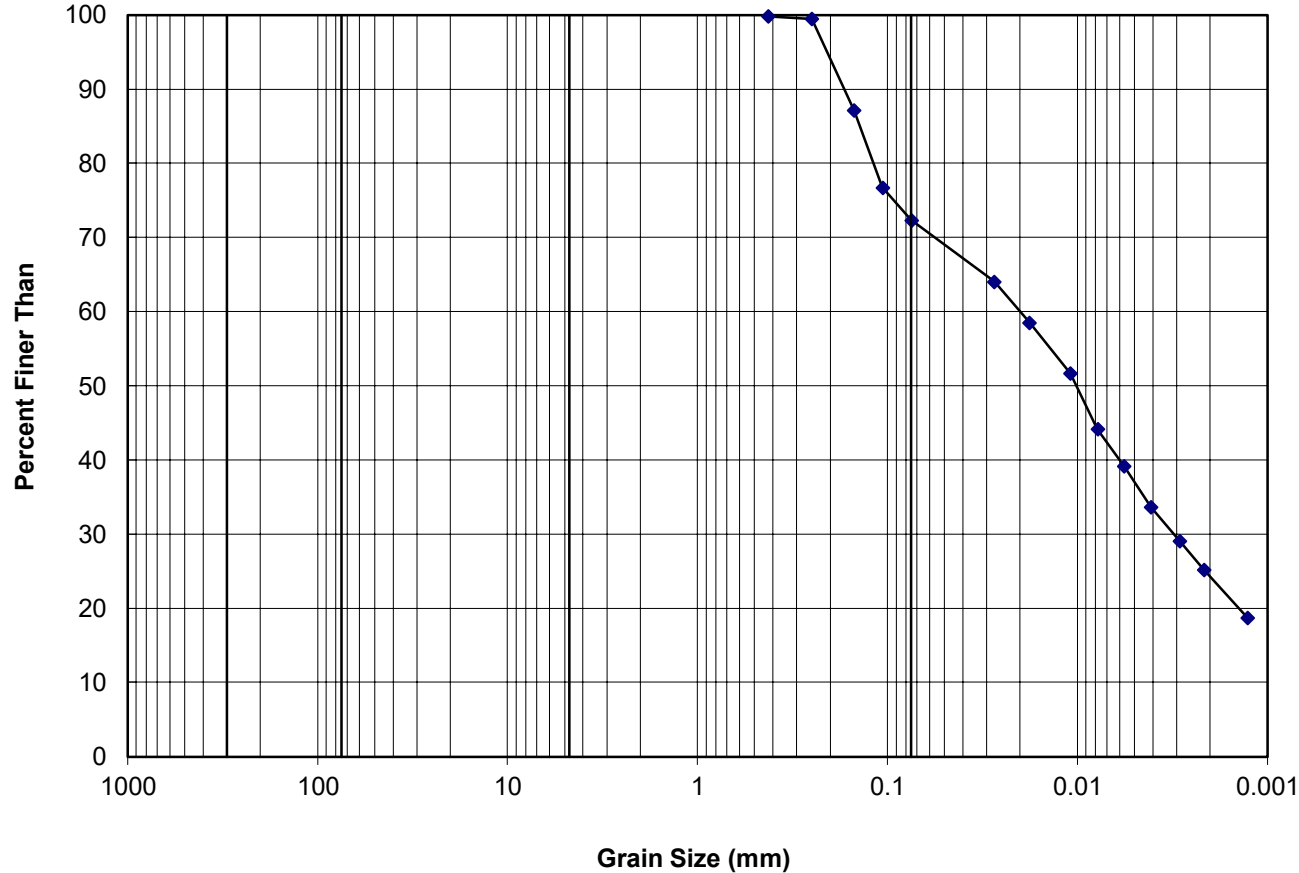
Task 300-Lab Testing
 Lab #: SL7934-050
 Date: January 15, 2026

Borehole #: SS-BH25-11B Sample #: AS-11 Depth: 12.04 - 12.19 m
 Source:
 Date Sample Received: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	100
0.850	100
0.425	100
0.250	99
0.150	87
0.106	77
0.075	72
0.027	64
0.018	59
0.011	52
0.008	44
0.006	39
0.004	34
0.003	29
0.002	25
0.001	19

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation
 Tested by: AP / MM / JH

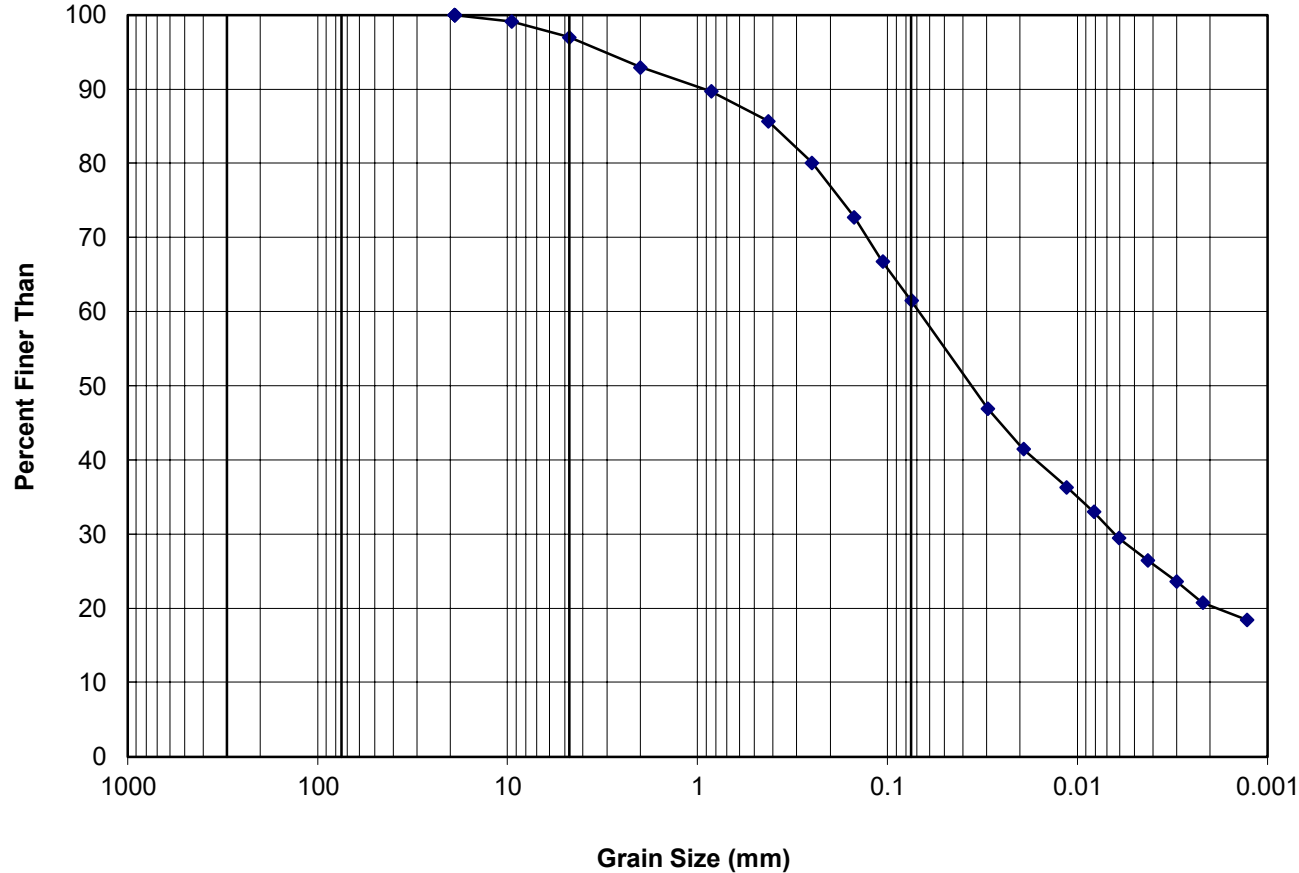
Task 300-Lab Testing
 Lab #: SL7934-086
 Date: January 15, 2026

Borehole #: SS-BH25-20B Sample #: AS-6 Depth: 4.42 - 4.57 m
 Source:
 Date Sample Received: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	99
4.75	97
2.0	93
0.850	90
0.425	86
0.250	80
0.150	73
0.106	67
0.075	61
0.030	47
0.019	41
0.011	36
0.008	33
0.006	29
0.004	26
0.003	24
0.002	21
0.001	18

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation
 Tested by: AP / MM / JH

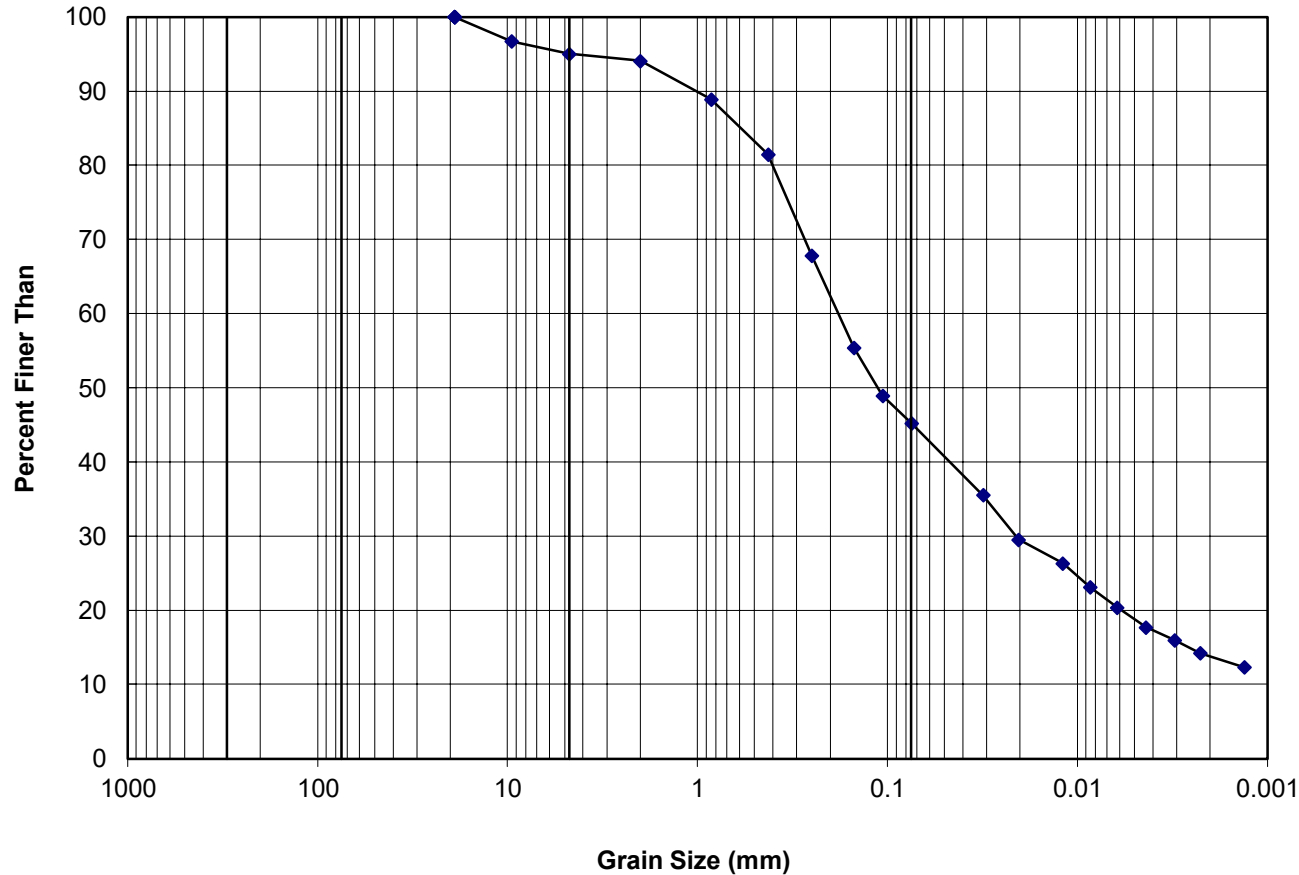
Task 300-Lab Testing
 Lab #: SL7934-094
 Date: January 15, 2026

Borehole #: SS-BH25-20B Sample #: AS-10 Depth: 10.52 - 10.67 m
 Source:
 Date Sample Received: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	97
4.75	95
2.0	94
0.850	89
0.425	81
0.250	68
0.150	55
0.106	49
0.075	45
0.031	36
0.020	30
0.012	26
0.009	23
0.006	20
0.004	18
0.003	16
0.002	14
0.001	12

Graphical Analysis



Comments: Entire sample provided used for testing.
 Sample size was less than required by AASHTO T88; therefore, results may not be accurate.

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation
 Tested by: AP / MM / JH

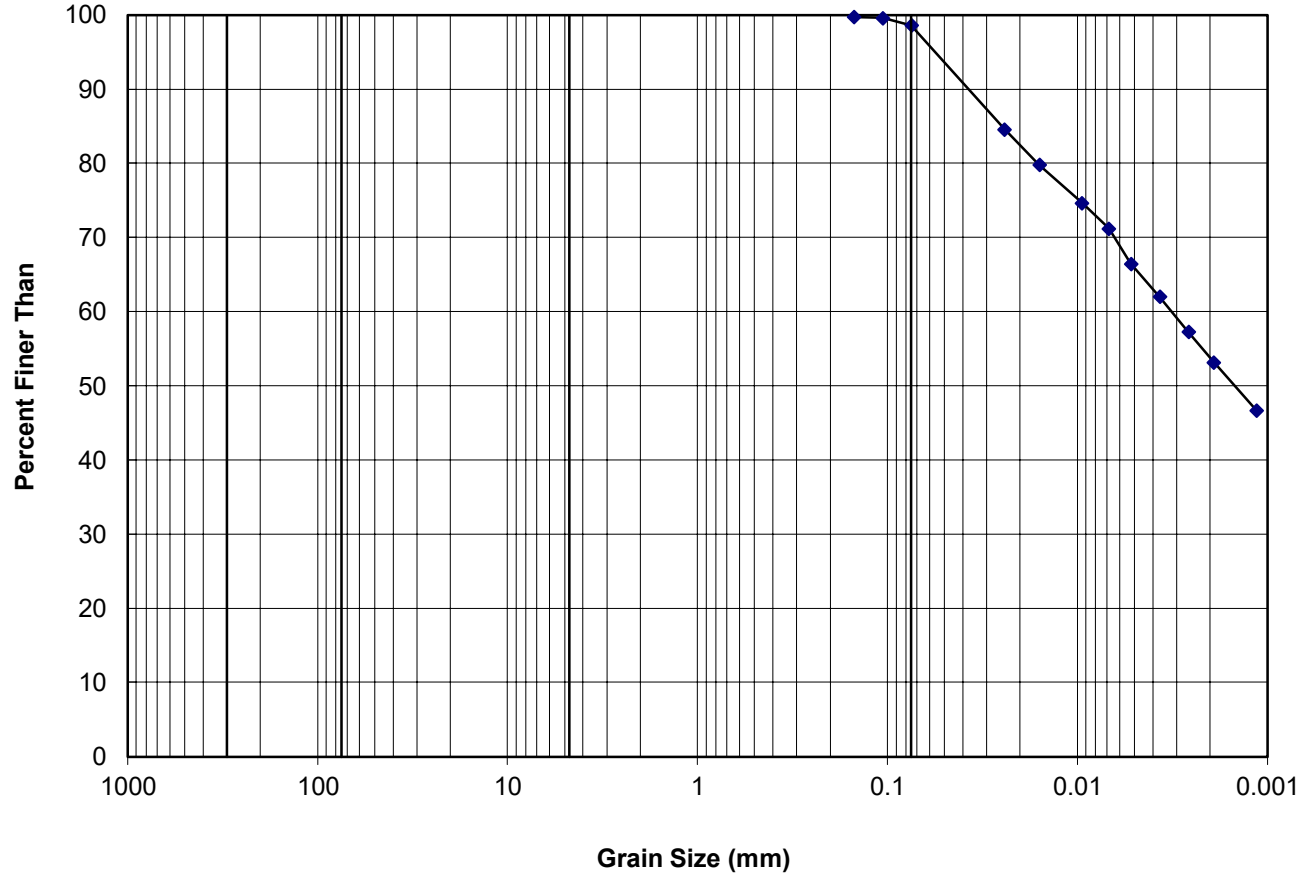
Task 300-Lab Testing
 Lab #: SL7934-110
 Date: January 15, 2026

Borehole #: SS-BH25-23 Sample #: AS-8 Depth: 7.47 - 7.62 m
 Source:
 Date Sample Received: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	100
0.850	100
0.425	100
0.250	100
0.150	100
0.106	100
0.075	99
0.024	85
0.016	80
0.009	75
0.007	71
0.005	66
0.004	62
0.003	57
0.002	53
0.001	47

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation
 Tested by: AP / MM / JH

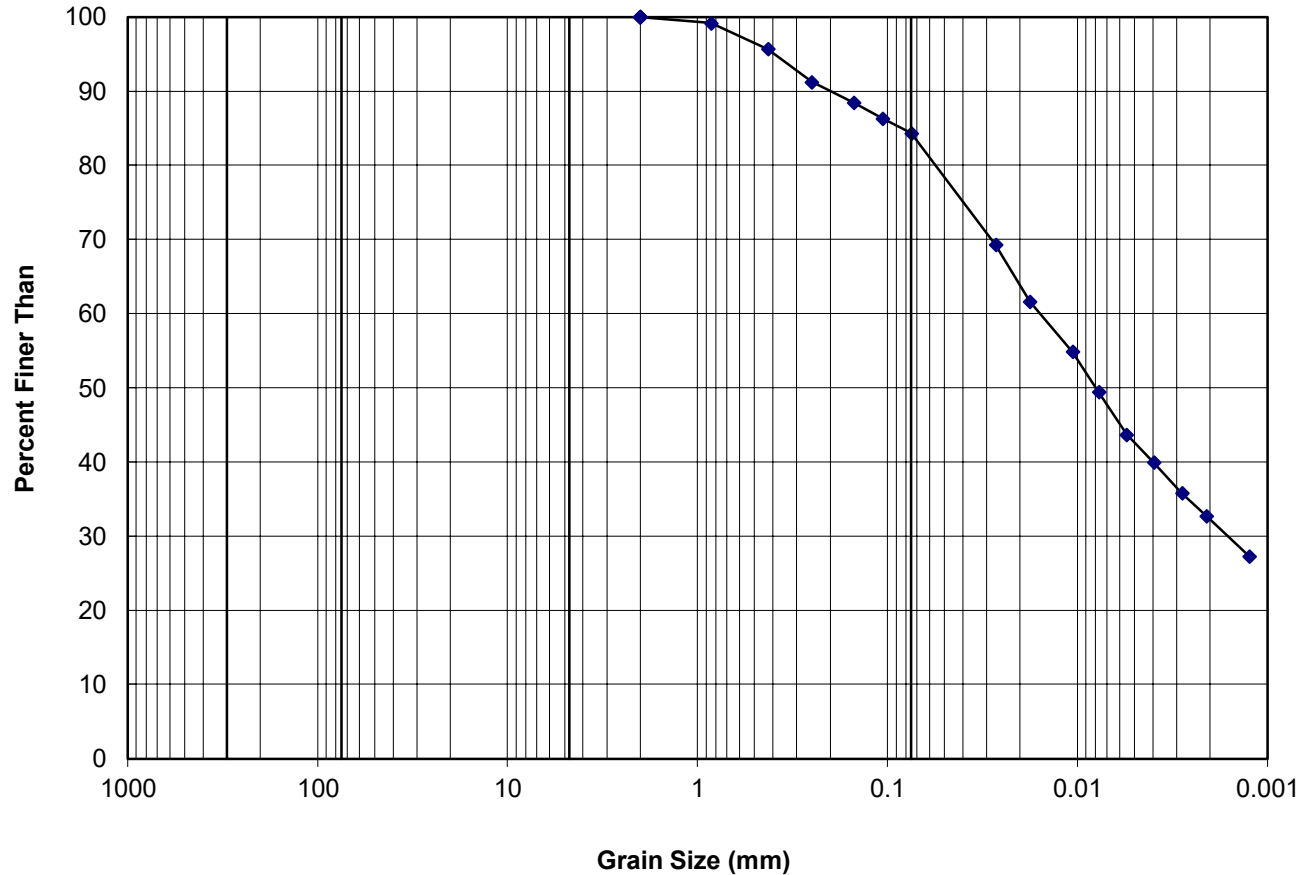
Task 300-Lab Testing
 Lab #: SL7934-146
 Date: January 15, 2026

Borehole #: SS-BH25-29 Sample #: SS-2 Depth: 3.05 - 3.51 m
 Source:
 Date Sample Received: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	100
0.850	99
0.425	96
0.250	91
0.150	88
0.106	86
0.075	84
0.027	69
0.018	62
0.011	55
0.008	49
0.006	44
0.004	40
0.003	36
0.002	33
0.001	27

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation
 Tested by: AP / MM / JH

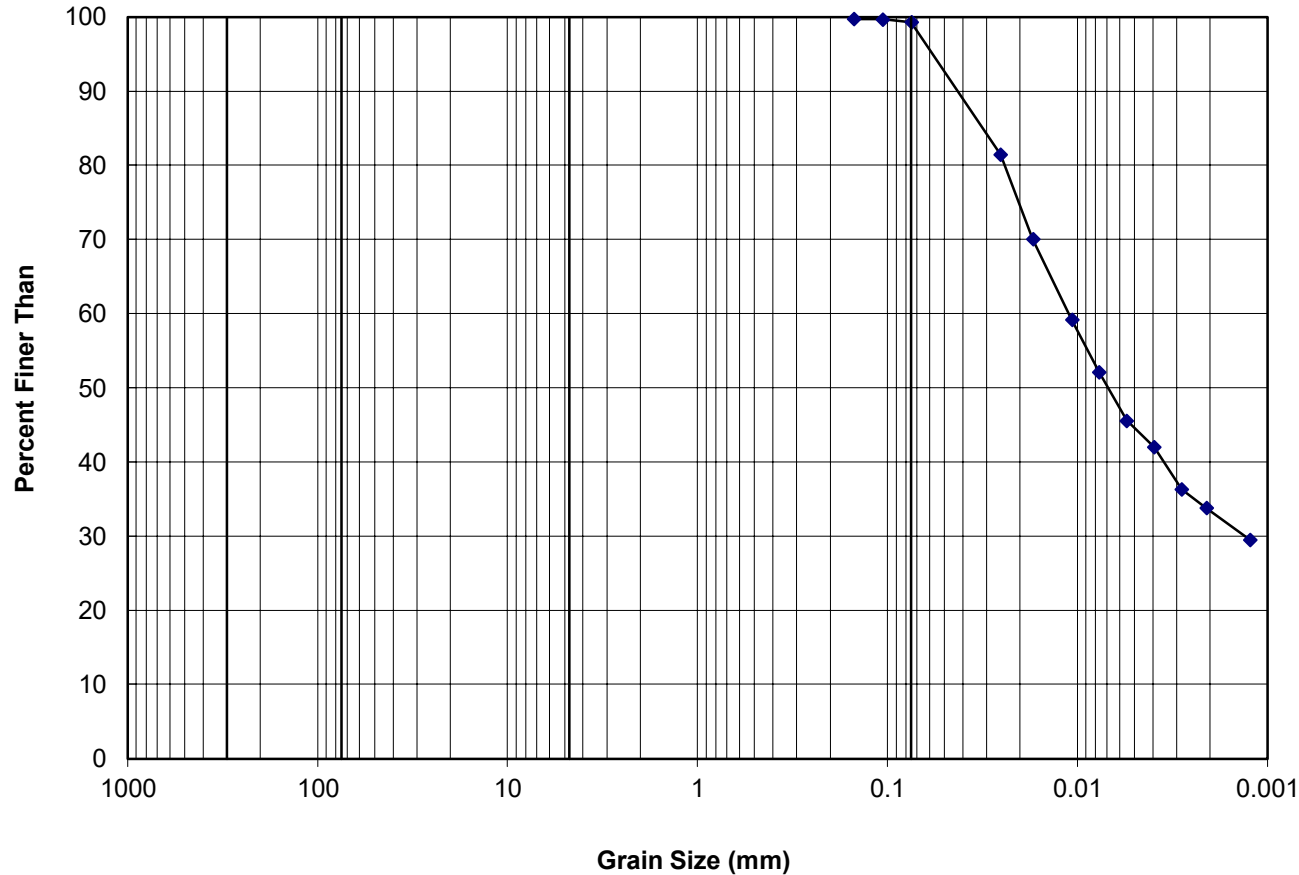
Task 300-Lab Testing
 Lab #: SL7934-182
 Date: January 15, 2026

Borehole #: SS-BH25-31B Sample #: AS-7 Depth: 5.94 - 6.10 m
 Source:
 Date Sample Received: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	100
0.850	100
0.425	100
0.250	100
0.150	100
0.106	100
0.075	99
0.025	81
0.017	70
0.011	59
0.008	52
0.006	46
0.004	42
0.003	36
0.002	34
0.001	29

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation
 Tested by: AP / MM / JH

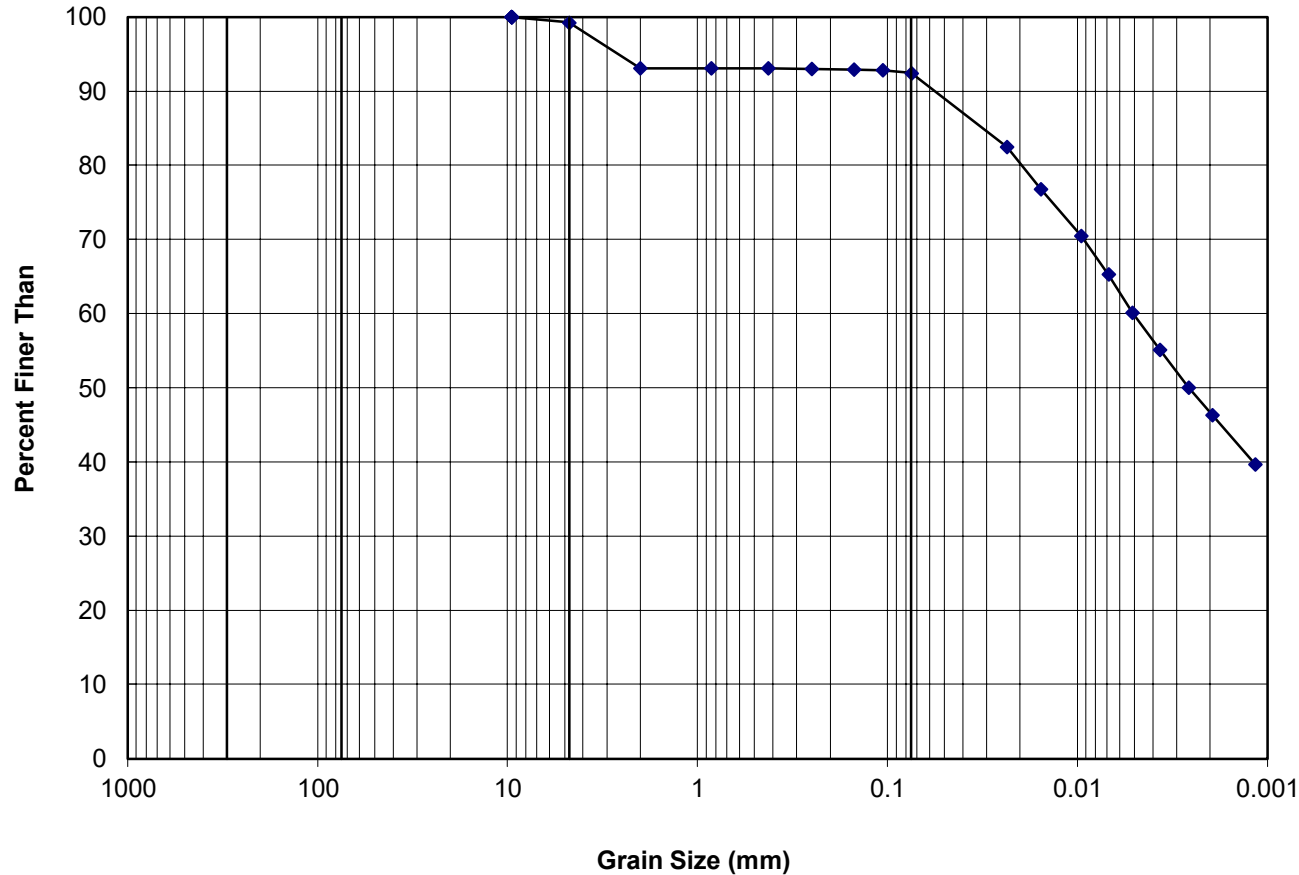
Task 300-Lab Testing
 Lab #: SL7934-218
 Date: January 15, 2026

Borehole #: SS-BH25-33B Sample #: SS-4 Depth: 7.62 - 8.08 m
 Source:
 Date Sample Received: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	99
2.0	93
0.850	93
0.425	93
0.250	93
0.150	93
0.106	93
0.075	92
0.023	82
0.016	77
0.010	70
0.007	65
0.005	60
0.004	55
0.003	50
0.002	46
0.001	40

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation
 Tested by: AP / MM / JH

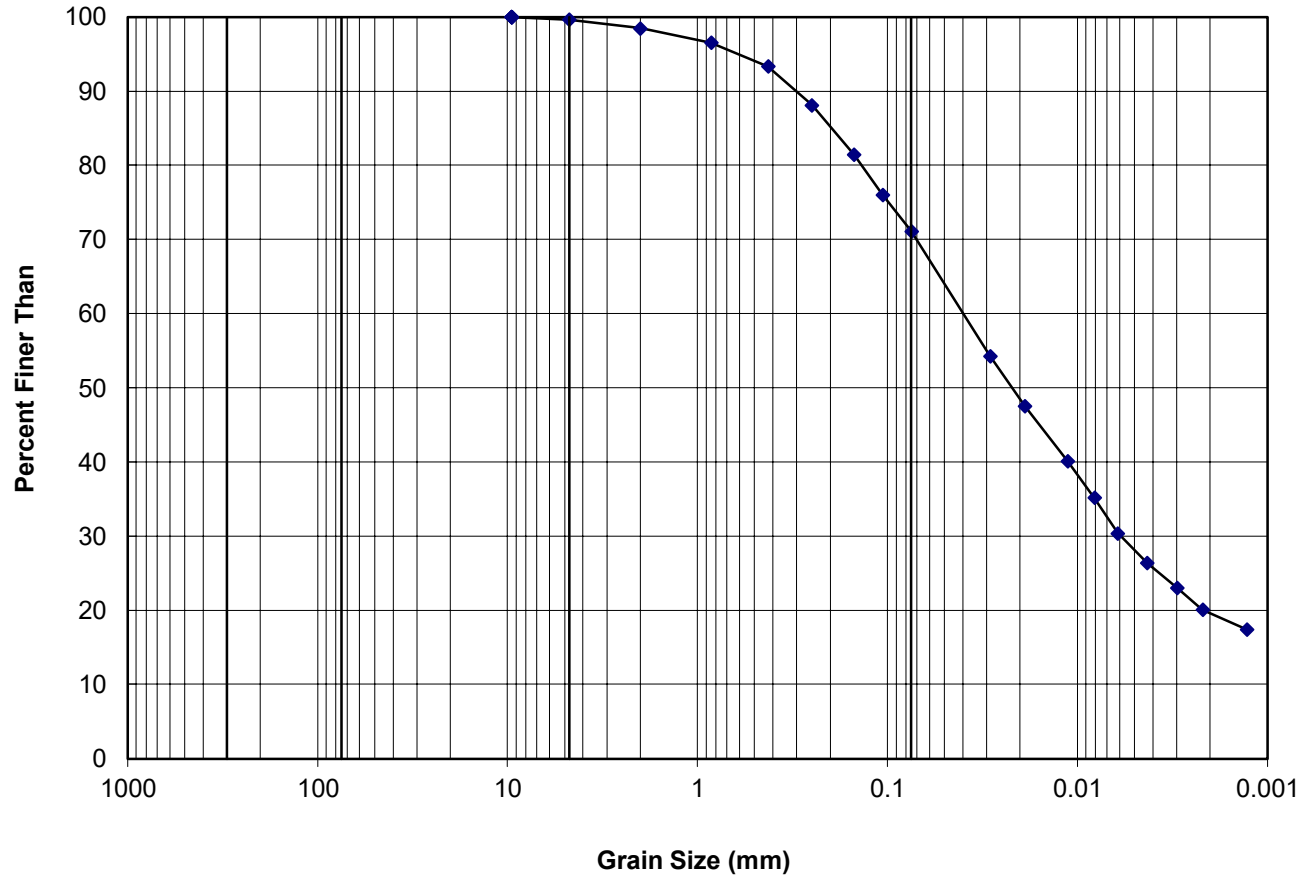
Task 300-Lab Testing
 Lab #: SL7934-231
 Date: January 15, 2026

Borehole #: SS-BH25-35 Sample #: AS-6 Depth: 4.42 - 4.57 m
 Source:
 Date Sample Received: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	98
0.850	97
0.425	93
0.250	88
0.150	81
0.106	76
0.075	71
0.029	54
0.019	48
0.011	40
0.008	35
0.006	30
0.004	26
0.003	23
0.002	20
0.001	17

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation
 Tested by: AP / MM / JH

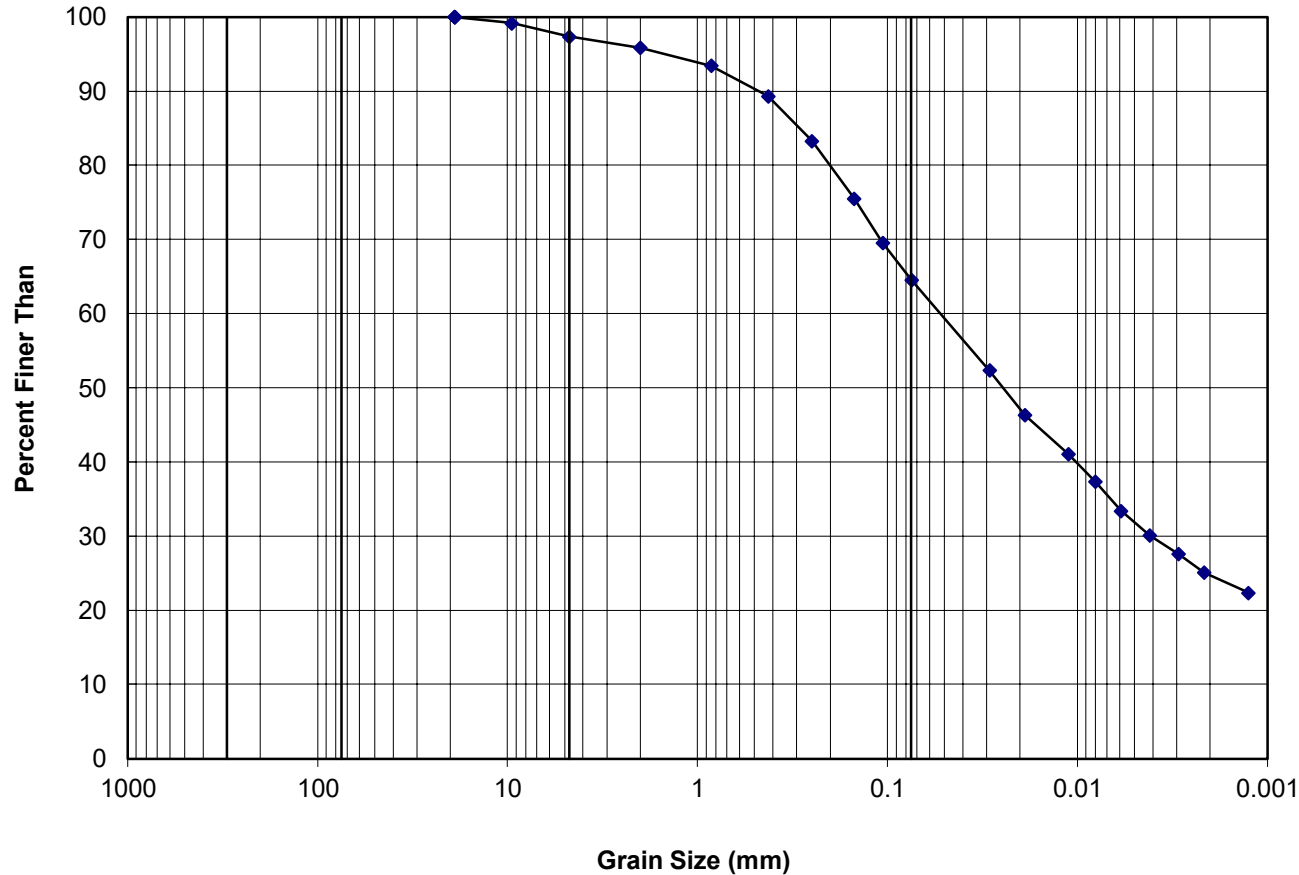
Task 300-Lab Testing
 Lab #: SL7934-267
 Date: January 15, 2026

Borehole #: SS-BH25-37B Sample #: AS-7 Depth: 5.94 - 6.10 m
 Source:
 Date Sample Received: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	99
4.75	97
2.0	96
0.850	93
0.425	89
0.250	83
0.150	76
0.106	70
0.075	65
0.029	52
0.019	46
0.011	41
0.008	37
0.006	33
0.004	30
0.003	28
0.002	25
0.001	22

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation
 Tested by: AP / MM / JH

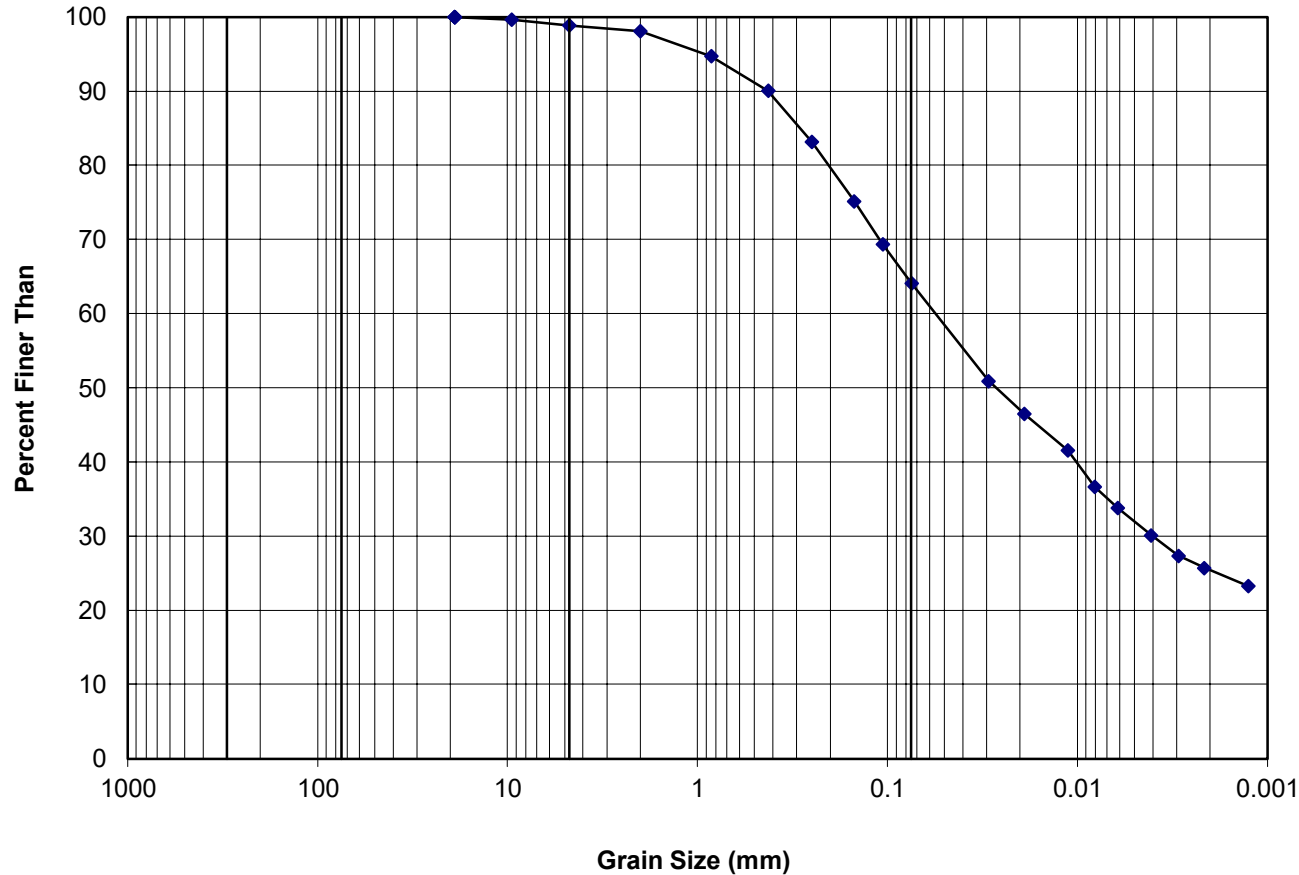
Task 300-Lab Testing
 Lab #: SL7934-280
 Date: January 15, 2026

Borehole #: SS-BH25-38B Sample #: AS-5 Depth: 2.90 - 3.05 m
 Source:
 Date Sample Received: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	99
2.0	98
0.850	95
0.425	90
0.250	83
0.150	75
0.106	69
0.075	64
0.029	51
0.019	46
0.011	42
0.008	37
0.006	34
0.004	30
0.003	27
0.002	26
0.001	23

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS

(AASHTO T88)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation
 Tested by: AP / MM / JH

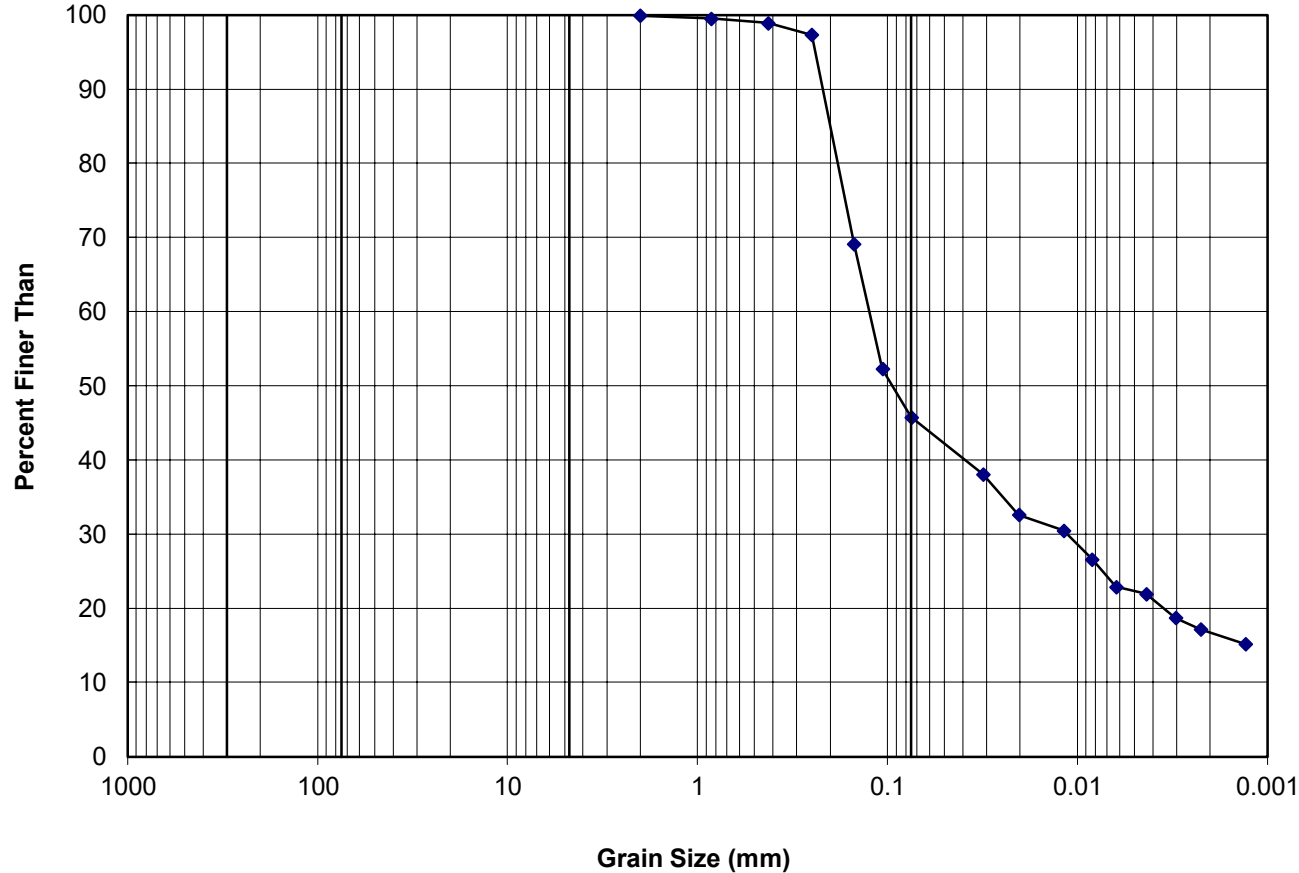
Task 300-Lab Testing
 Lab #: SL7934-373
 Date: January 15, 2026

Borehole #: SS-BH25-45 Sample #: AS-6 Depth: 4.42 - 4.57 m
 Source:
 Date Sample Received: December 5, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
51	100
38	100
25	100
19	100
9.5	100
4.75	100
2.0	100
0.850	100
0.425	99
0.250	97
0.150	69
0.106	52
0.075	46
0.031	38
0.020	33
0.012	30
0.008	27
0.006	23
0.004	22
0.003	19
0.002	17
0.001	15

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

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GRAIN SIZE ANALYSIS (ASTM C136)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: SB

Task: 300
 Lab #: RL131-031
 Date: January 16, 2026

Borehole #: SS-BH25-15 Sample #: AS-8 Depth: 7.62 - 8.08 m

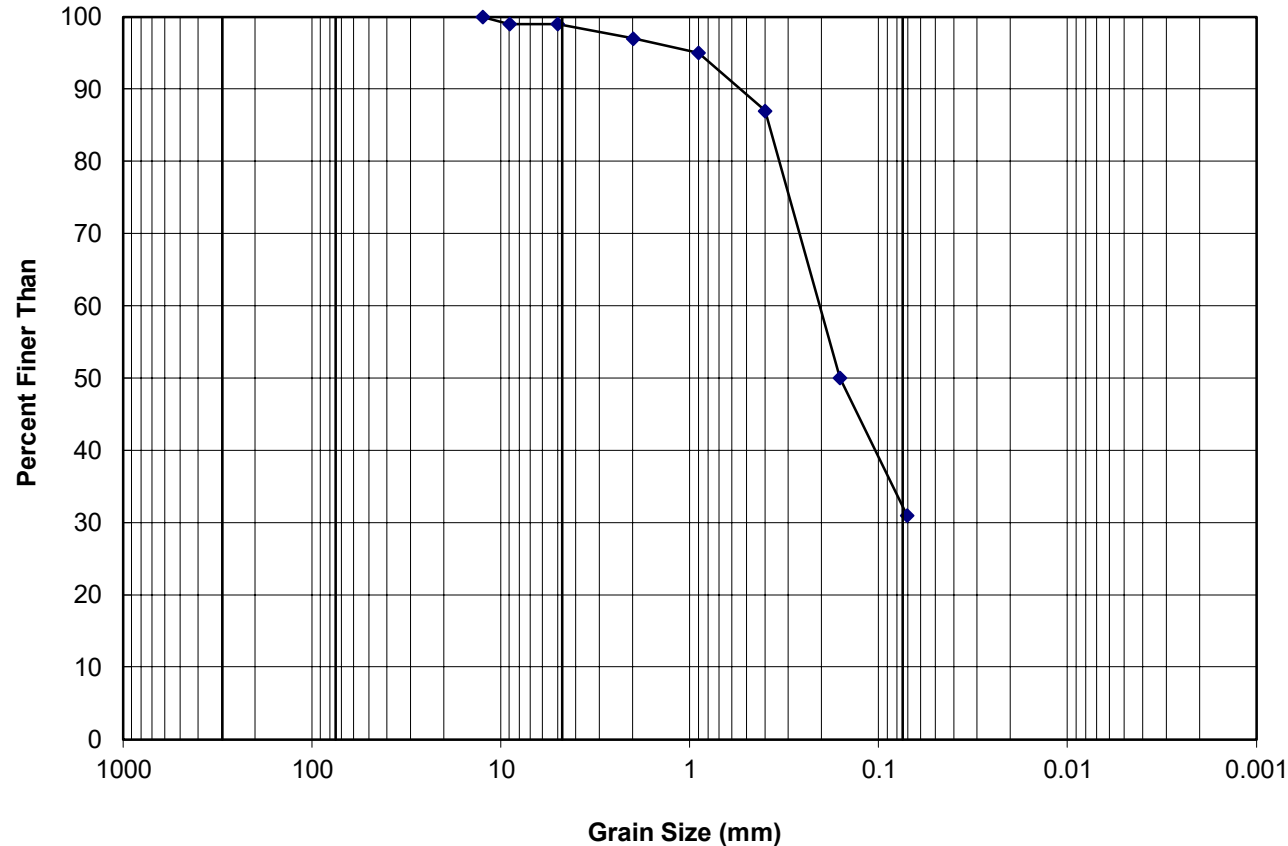
Source:
 Date Sample Received: November 17, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
-----------------	---------------------------

12.5	100
9.0	99
5.0	99
2.0	97
0.900	95
0.400	87
0.160	50
0.071	31

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

Water content as received in lab (%): 11.3

The testing services reported herein have been performed in accordance with the indicated recognized standard, or in accordance with local industry practice. This report is for the sole use of the designated client. This report constitutes a testing service only and does not represent any results interpretation or opinion regarding specification compliance or material suitability. Engineering interpretation can be provided by WSP Canada Inc. upon request.



WSP Canada Inc.
 1727 Francis St #1, Regina,
 Saskatchewan S4N 7N2

Reviewed by:
 Stephanie Huber, P.Tech.



GRAIN SIZE ANALYSIS

(ASTM C136)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: JH

Task: 300
 Lab #: SL7917-159
 Date: December 5, 2025

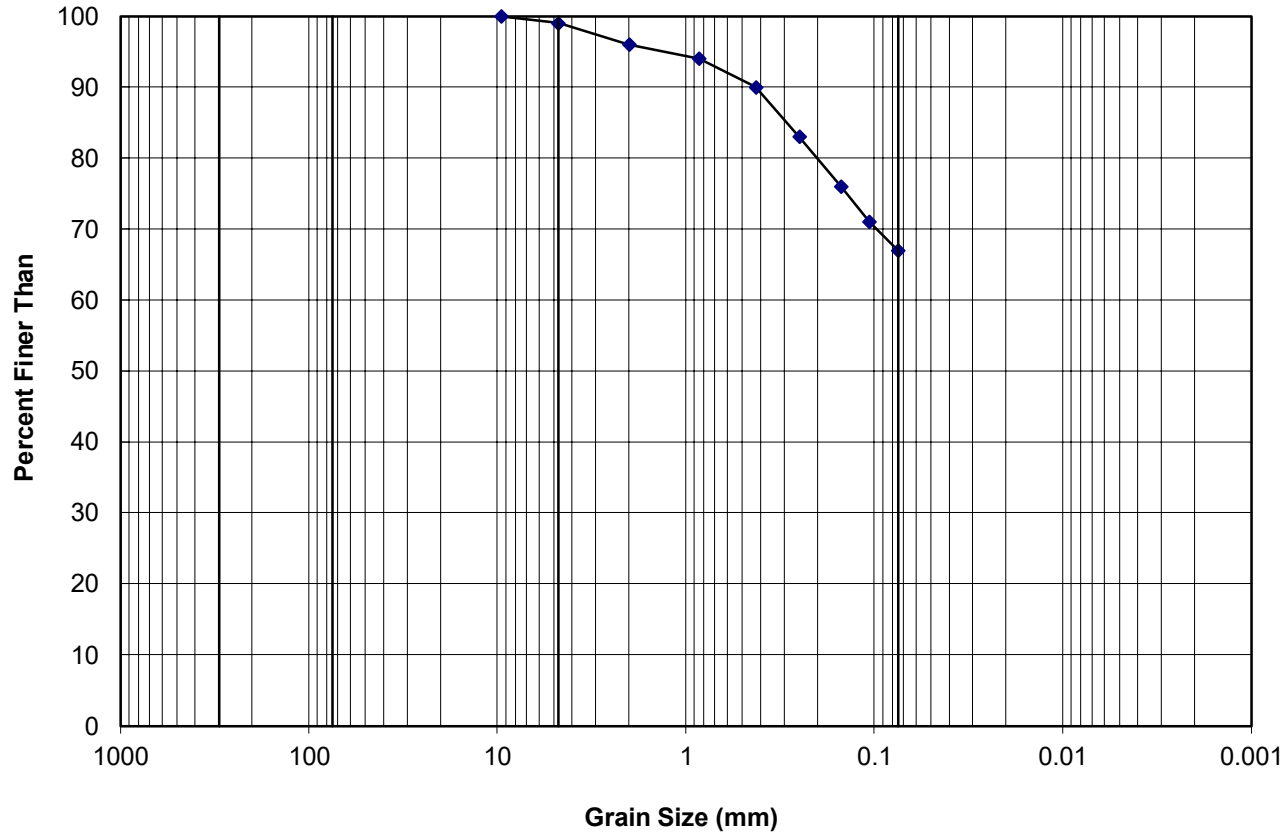
Borehole #: SS-BH25-41 Sample #: AS-2 Depth: 0.91 - 1.07 m
 Source:
 Date Sample Received: November 18, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
--------------	---------------------

9.5	100
4.75	99
2.0	96
0.850	94
0.425	90
0.250	83
0.150	76
0.106	71
0.075	67

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

Water content as received in lab (%): 16.2

The testing services reported herein have been performed in accordance with the indicated recognized standard, or in accordance with local industry practice. This report is for the sole use of the designated client. This report constitutes a testing service only and does not represent any results interpretation or opinion regarding specification compliance or material suitability. Engineering interpretation can be provided by WSP Canada Inc. upon request.



WSP Canada Inc.
 1721 8th Street E.,
 Saskatoon, Saskatchewan S7N 0T4

Reviewed by:
 Stephanie Huber, P.Tech.



GRAIN SIZE ANALYSIS

(ASTM C136)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: JH

Task: 300
 Lab #: SL7917-229
 Date: December 5, 2025

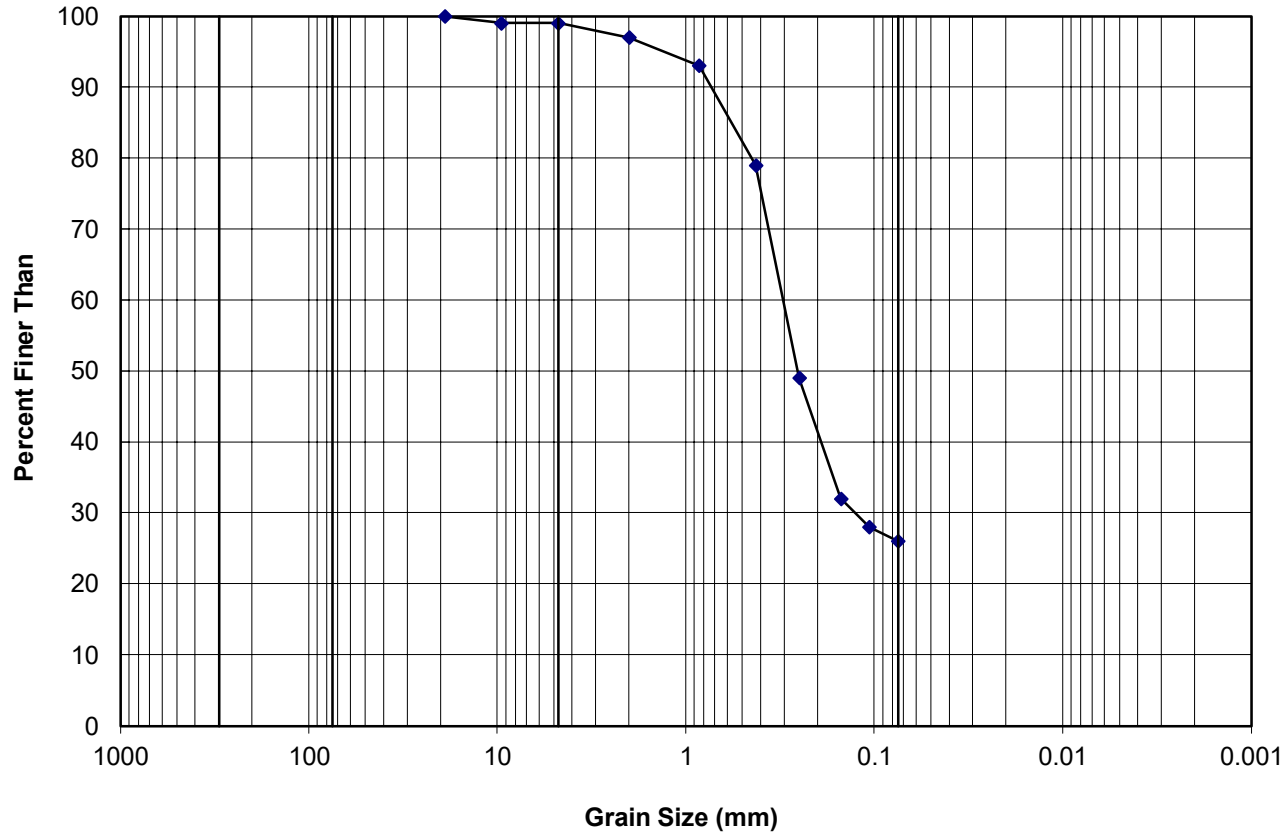
Borehole #: SS-BH25-03 Sample #: SS-2 Depth: 3.05 - 3.51 m
 Source:
 Date Sample Received: November 18, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
--------------	---------------------

19	100
9.5	99
4.75	99
2.0	97
0.850	93
0.425	79
0.250	49
0.150	32
0.106	28
0.075	26

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

Water content as received in lab (%): 8.9

The testing services reported herein have been performed in accordance with the indicated recognized standard, or in accordance with local industry practice. This report is for the sole use of the designated client. This report constitutes a testing service only and does not represent any results interpretation or opinion regarding specification compliance or material suitability. Engineering interpretation can be provided by WSP Canada Inc. upon request.



WSP Canada Inc.
 1721 8th Street E.,
 Saskatoon, Saskatchewan S7N 0T4

Reviewed by: Stephanie Huber, P.Tech.



GRAIN SIZE ANALYSIS (ASTM C136)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: JH

Task: 300
 Lab #: SL7917-308
 Date: December 5, 2025

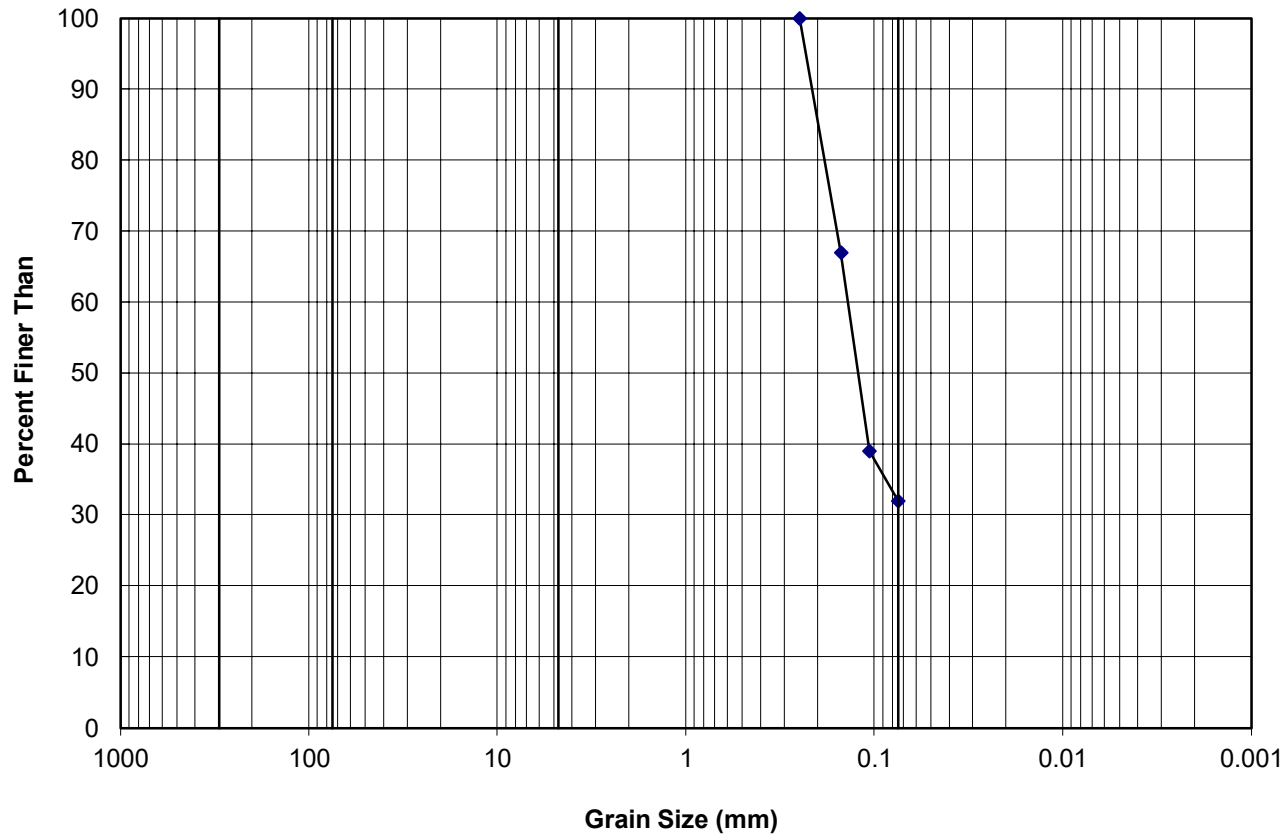
Borehole #: SS-BH25-10 Sample #: SS-6 Depth: 12.19 - 12.65 m
 Source:
 Date Sample Received: November 18, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
--------------	---------------------

0.250	100
0.150	67
0.106	39
0.075	32

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

Water content as received in lab (%): 22.7

The testing services reported herein have been performed in accordance with the indicated recognized standard, or in accordance with local industry practice. This report is for the sole use of the designated client. This report constitutes a testing service only and does not represent any results interpretation or opinion regarding specification compliance or material suitability. Engineering interpretation can be provided by WSP Canada Inc. upon request.



WSP Canada Inc.
 1721 8th Street E.,
 Saskatoon, Saskatchewan S7N 0T4

Reviewed by:
 Stephanie Huber, P.Tech.



GRAIN SIZE ANALYSIS (ASTM C136)

Project #: CA0059493.2836
 Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1
 Tested by: JH

Task: 300
 Lab #: SL7917-430
 Date: December 5, 2025

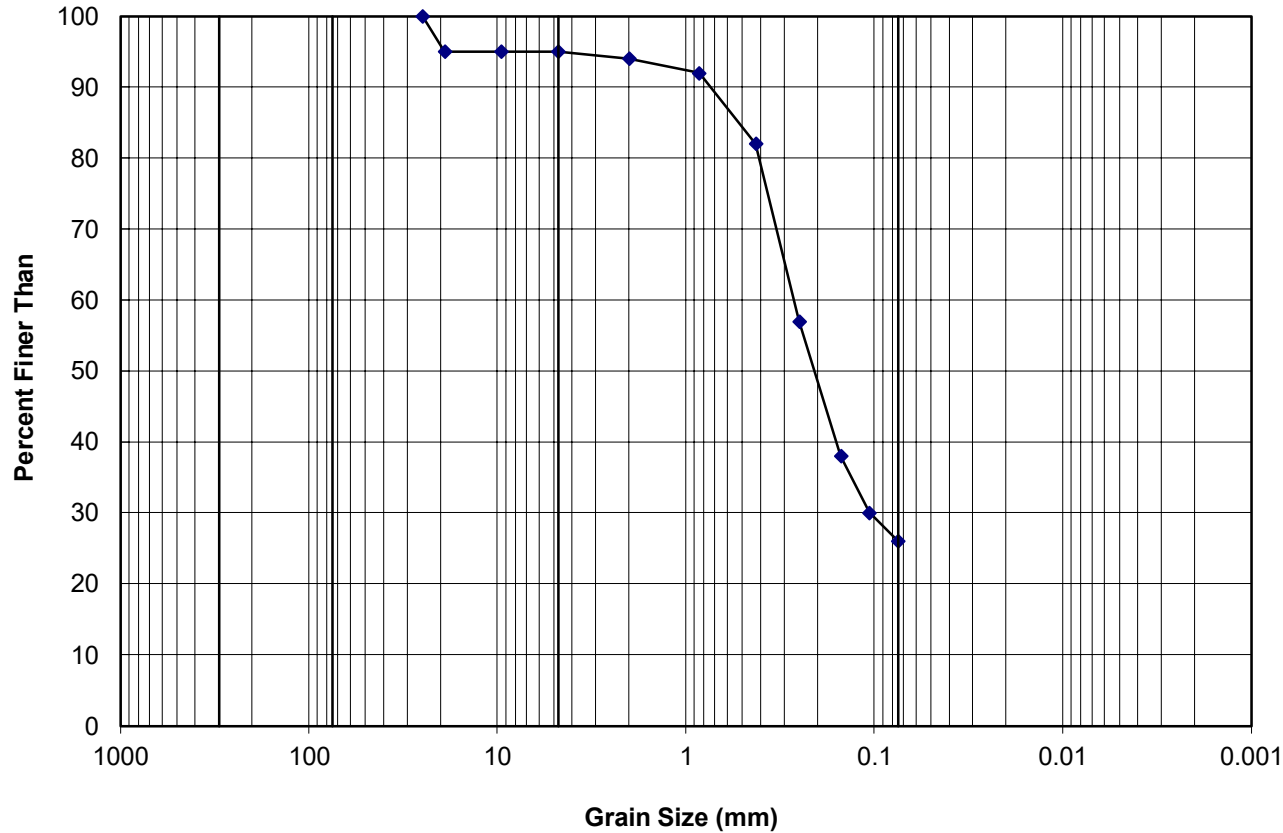
Borehole #: SS-BH25-52 Sample #: AS-7 Depth: 5.18 - 5.33 m
 Source:
 Date Sample Received: November 18, 2025

Grain Size Analysis Results:

Opening (mm)	Percent Passing (%)
--------------	---------------------

25	100
19	95
9.5	95
4.75	95
2.0	94
0.850	92
0.425	82
0.250	57
0.150	38
0.106	30
0.075	26

Graphical Analysis



BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		Coarse	Fine	Coarse	Medium	Fine	

Comments:

Water content as received in lab (%): 25.2

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WSP Canada Inc.
 1721 8th Street E.,
 Saskatoon, Saskatchewan S7N 0T4

Reviewed by:
 Stephanie Huber, P.Tech.



UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-01

Tested by: JH / SS

Date: January 22, 2026

Borehole #: SS-BH25-01

Sample #: TO-1

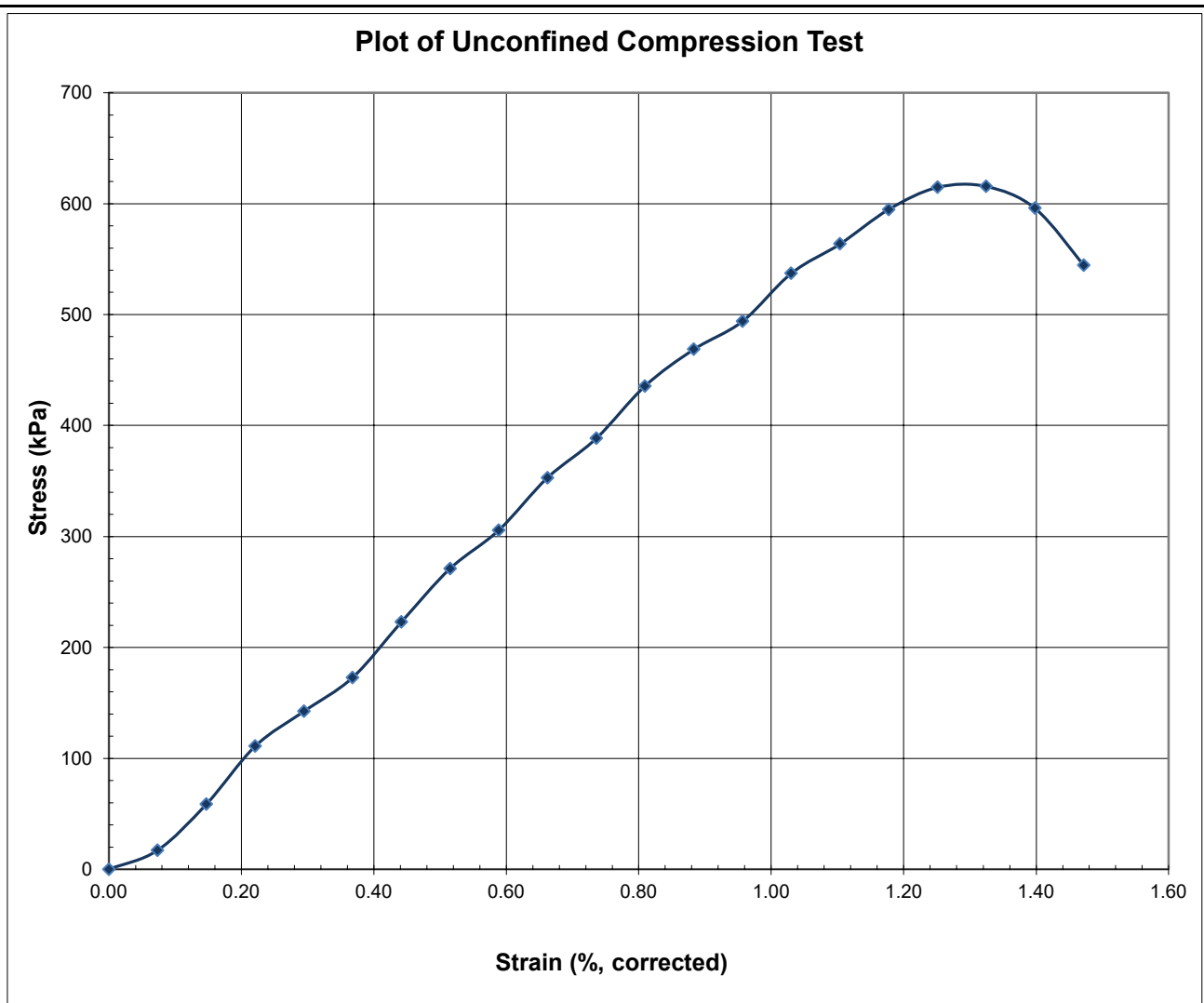
Depth: 7.62 - 8.23 m

Visual Description of Sample: (CL) LEAN CLAY; trace sand; light brown; cohesive, w<PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>615.5</u>	Time of Failure (min:sec): <u>1.5</u>
Strain at Failure (%): <u>1.3</u>	After Compression: Water Content (%): <u>21.5</u>
Undrained Shear Strength (kPa): <u>307.8</u>	Initial Dry Density (Kg/m ³): <u>1590</u>



Comments:

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WSP Canada Inc.
1721 8th Street E.,
Saskatoon, Saskatchewan S7N 0T4

Reviewed by:
Stephanie Huber, P.Tech.

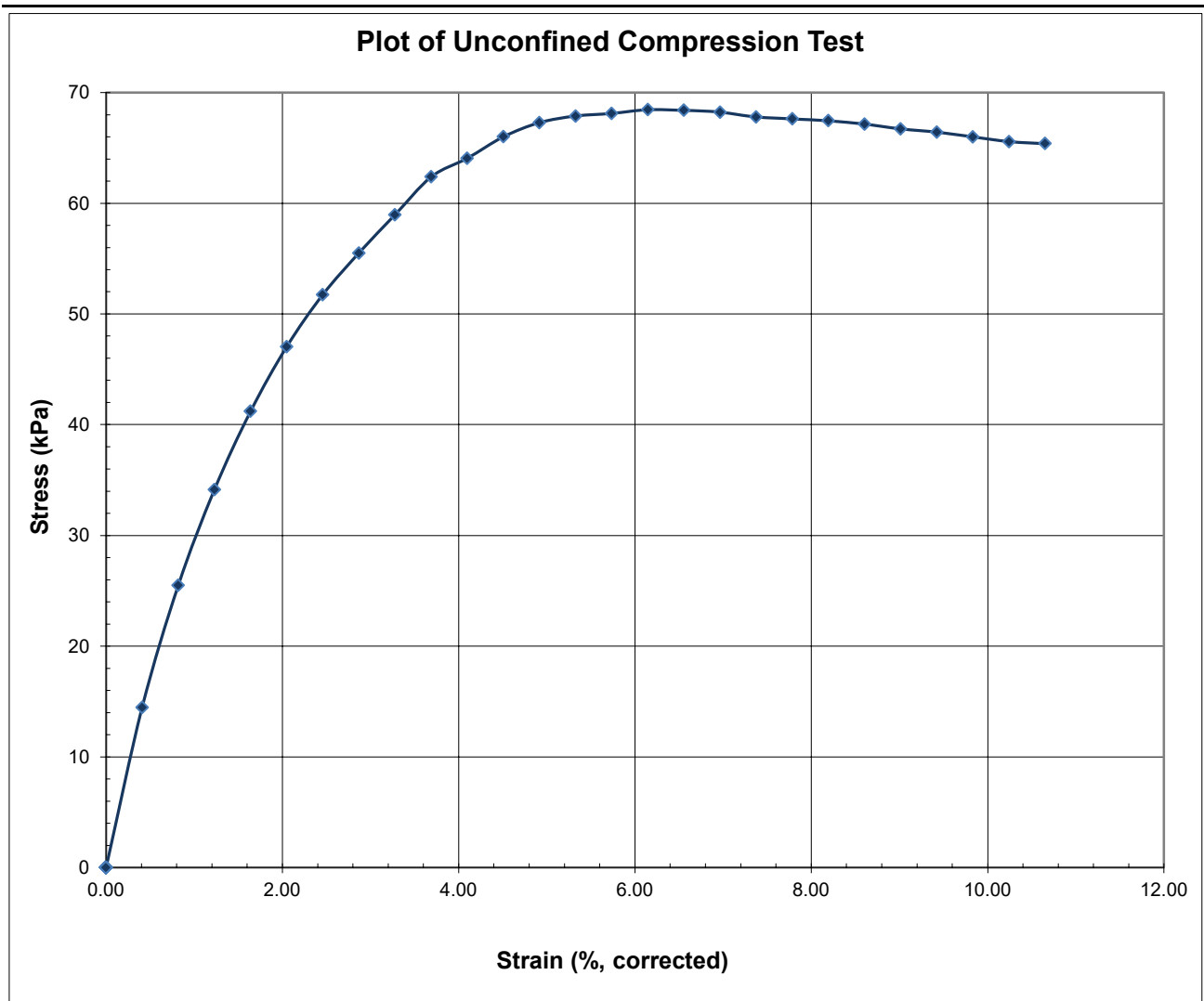


UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836 Task: 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3 Lab #: SL7938-06
Tested by: EB / SS Date: January 22, 2026

Borehole #: SS-BH25-04 Sample #: TO-1 Depth: 6.10 - 6.71 m
Visual Description of Sample: (CL) LEAN CLAY; some sand; dark brown; cohesive, w>PL.
Date Sample Received: December 10, 2025 Specimen Preparation: Intact

Compressive Stress at Failure (kPa):	<u>68.5</u>	Time of Failure (min:sec):	<u>7.5</u>
Strain at Failure (%):	<u>6.1</u>	After Compression: Water Content (%):	<u>16.2</u>
Undrained Shear Strength (kPa):	<u>34.2</u>	Initial Dry Density (Kg/m ³):	<u>1614</u>



Comments:

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WSP Canada Inc.
1721 8th Street E.,
Saskatoon, Saskatchewan S7N 0T4

Reviewed by:
Stephanie Huber, P.Tech.



UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-09

Tested by: JH / SS

Date: January 16, 2026

Borehole #: SS-BH25-05

Sample #: TO-2

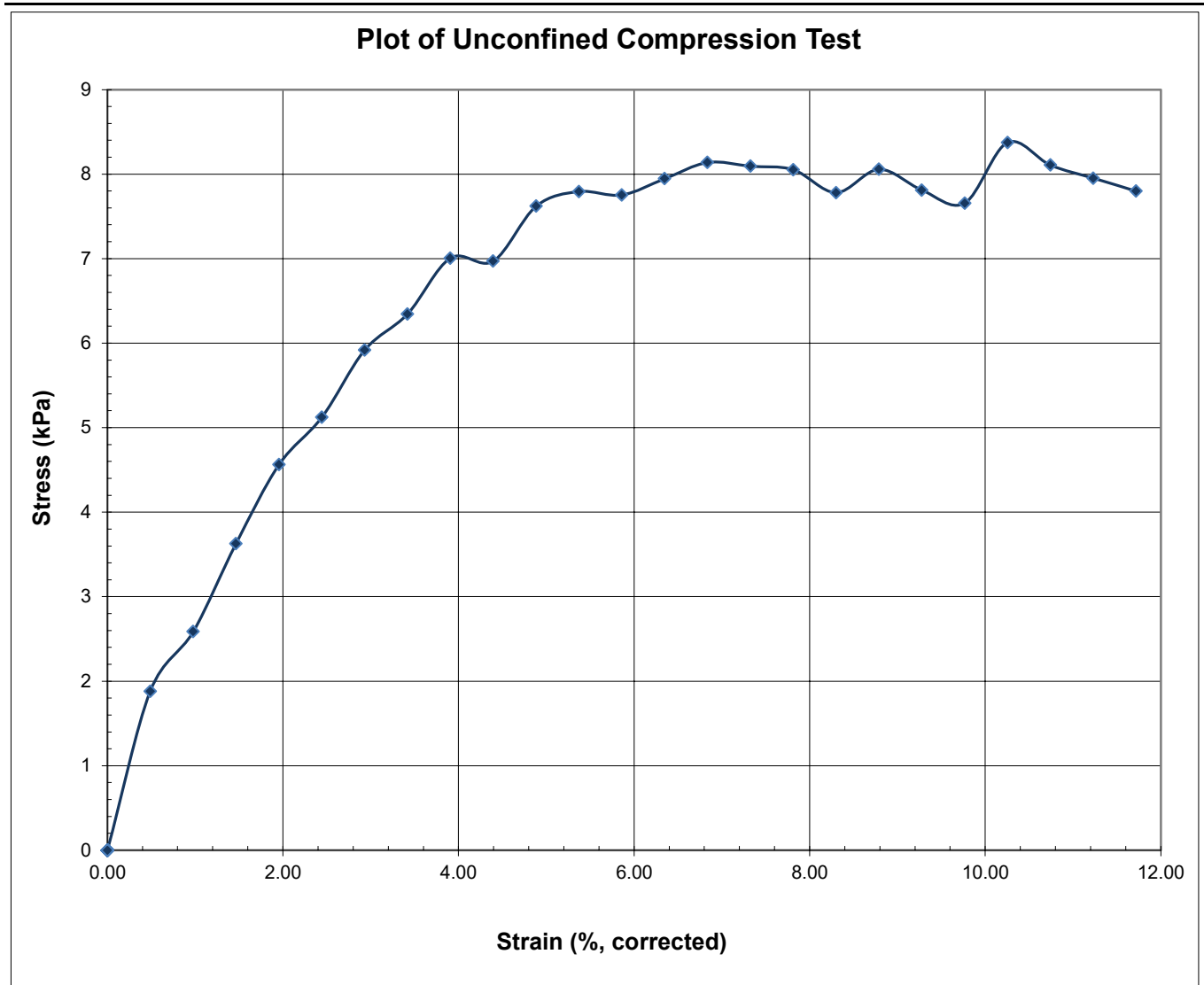
Depth: 12.19 - 12.80 m

Visual Description of Sample: (CL) LEAN CLAY; trace sand; light brown; cohesive, w>PL, soft.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>8.4</u>	Time of Failure (min): <u>10.5</u>
Strain at Failure (%): <u>10.3</u>	After Compression: Water Content (%): <u>52.5</u>
Undrained Shear Strength (kPa): <u>4.2</u>	Initial Dry Density (Kg/m ³): <u>1117</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-10

Tested by: JH / SS

Date: January 16, 2026

Borehole #: SS-BH25-07

Sample #: TO-1

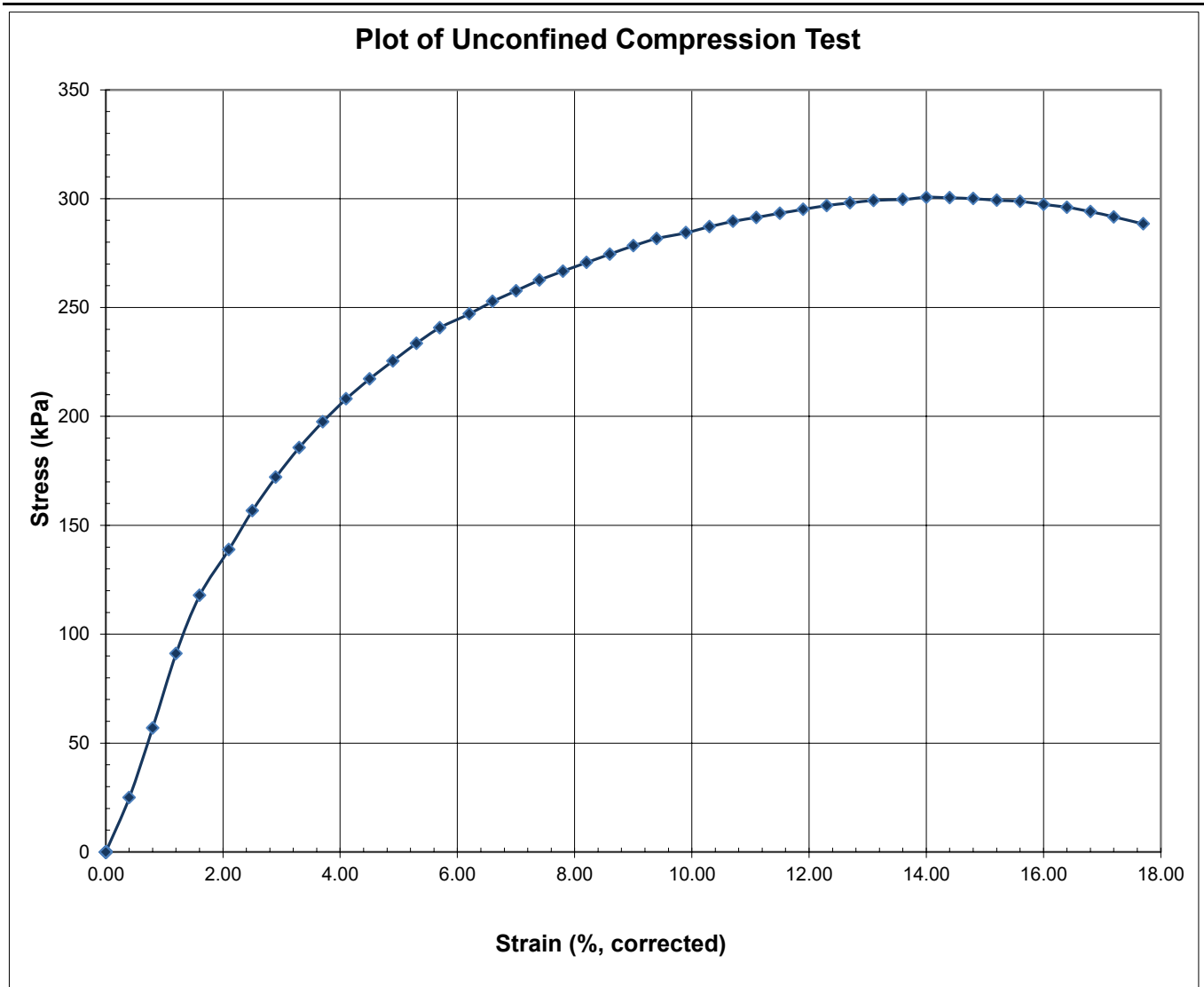
Depth: 6.10 - 6.71 m

Visual Description of Sample: (CH) FAT CLAY; few sand; dark brown; cohesive w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>300.7</u>	Time of Failure (min:sec): <u>17.0</u>
Strain at Failure (%): <u>14.0</u>	After Compression: Water Content (%): <u>17.4</u>
Undrained Shear Strength (kPa): <u>150.3</u>	Initial Dry Density (Kg/m ³): <u>1858</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO #
3

Lab #: SL7938-12

Tested by: EB / SS

Date: January 22, 2026

Borehole #: SS-BH25-08

Sample #: TO-1

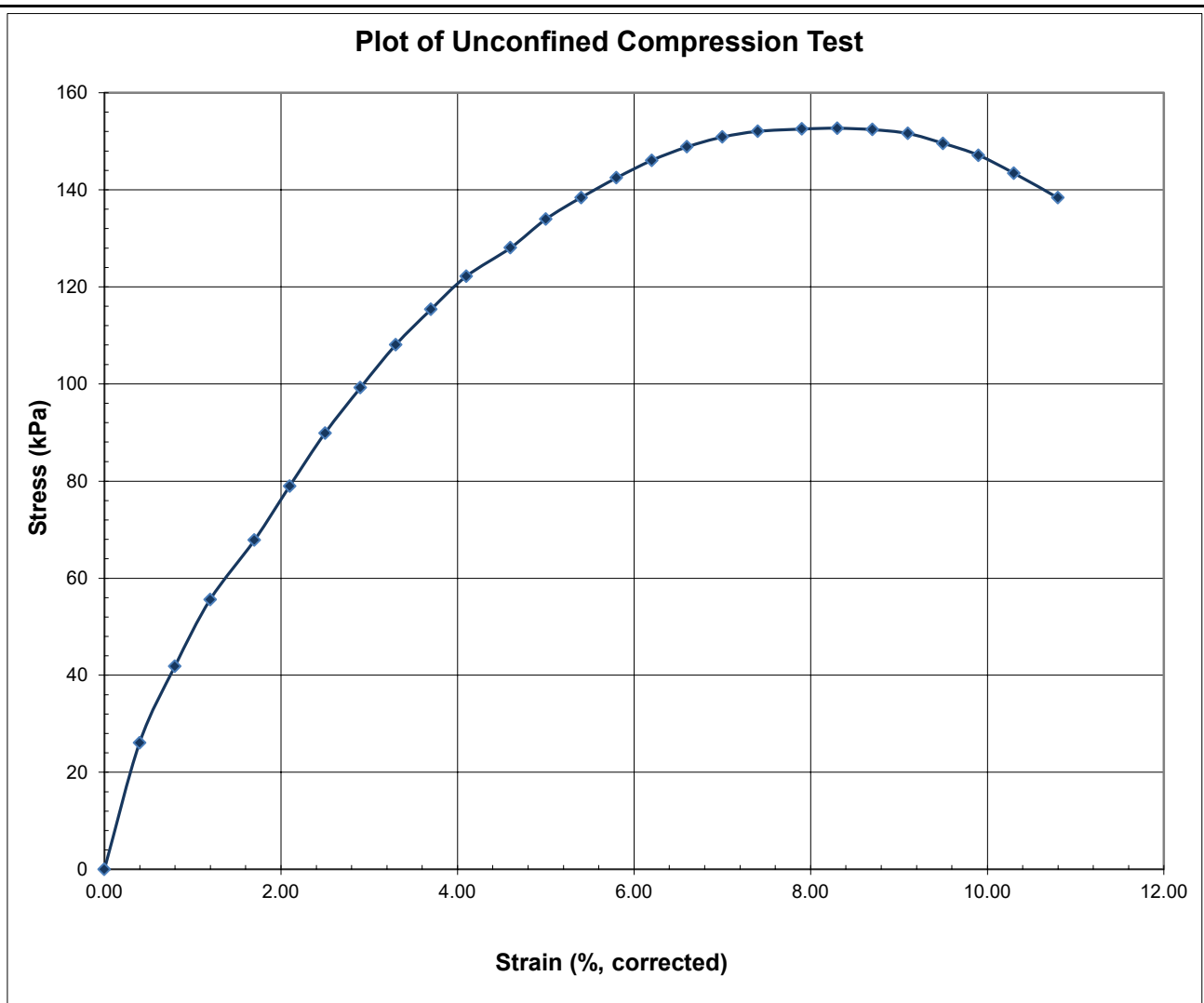
Depth: 6.10 - 6.71 m

Visual Description of Sample: (CH) FAT CLAY; few sand; dark brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>152.7</u>	Time of Failure (min:sec): <u>10.0</u>
Strain at Failure (%): <u>8.3</u>	After Compression: Water Content (%): <u>14.3</u>
Undrained Shear Strength (kPa): <u>76.3</u>	Initial Dry Density (Kg/m ³): <u>1890</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO #
3

Lab #: SL7938-15

Tested by: AP / SS

Date: January 22, 2026

Borehole #: SS-BH25-09

Sample #: TO-2

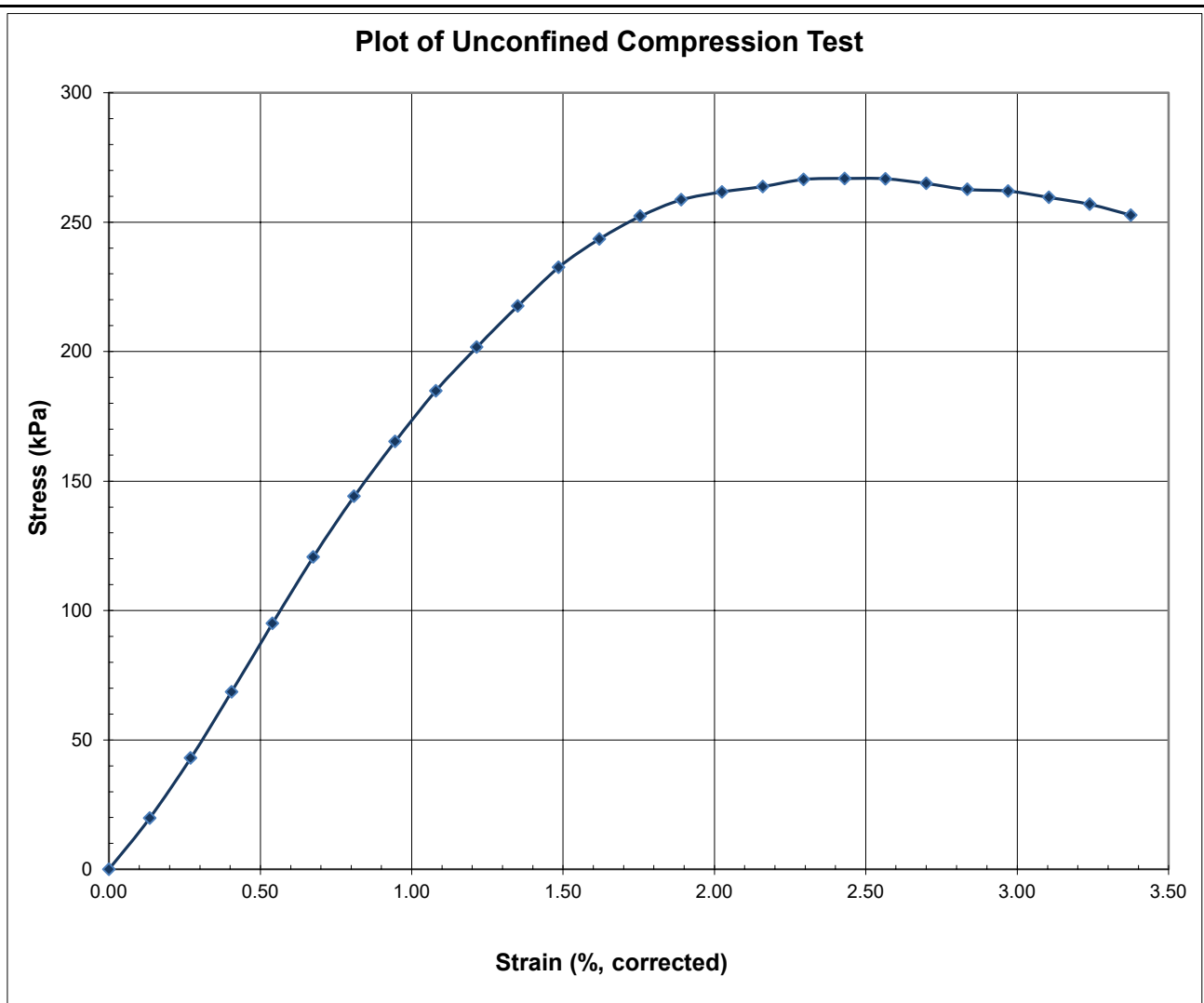
Depth: 9.14 - 9.75 m

Visual Description of Sample: (CL) LEAN CLAY; grey; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>266.9</u>	Time of Failure (min:sec): <u>3.0</u>
Strain at Failure (%): <u>2.4</u>	After Compression: Water Content (%): <u>22.0</u>
Undrained Shear Strength (kPa): <u>133.4</u>	Initial Dry Density (Kg/m ³): <u>1643</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO #
3

Lab #: SL7938-16

Tested by: JH / SS

Date: January 22, 2026

Borehole #: SS-BH25-10

Sample #: TO-1

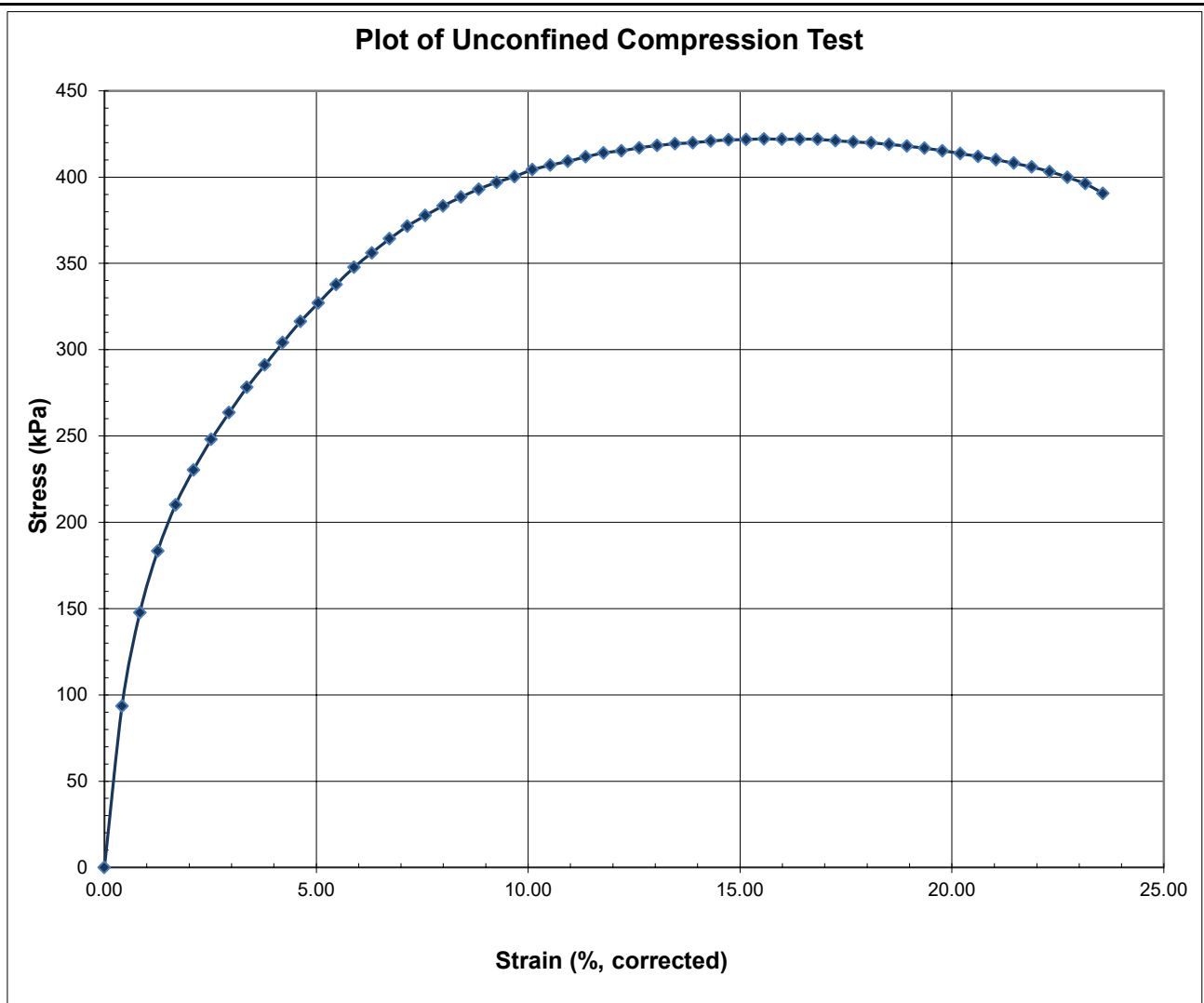
Depth: 4.57 - 5.18 m

Visual Description of Sample: (CL) LEAN CLAY; some sand; brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at 15% Strain (kPa): <u>421.7</u>	Time of Failure (min:sec): <u>17.8</u>
Strain at Failure (%): <u>15.0</u>	After Compression: Water Content (%): <u>20.3</u>
Undrained Shear Strength (kPa): <u>210.9</u>	Initial Dry Density (Kg/m ³): <u>1700</u>



Comments:

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Reviewed by:
Stephanie Huber, P.Tech.



UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO #
3

Lab #: SL7938-18

Tested by: EB / MM

Date: January 23, 2026

Borehole #: SS-BH25-11B

Sample #: TO-1

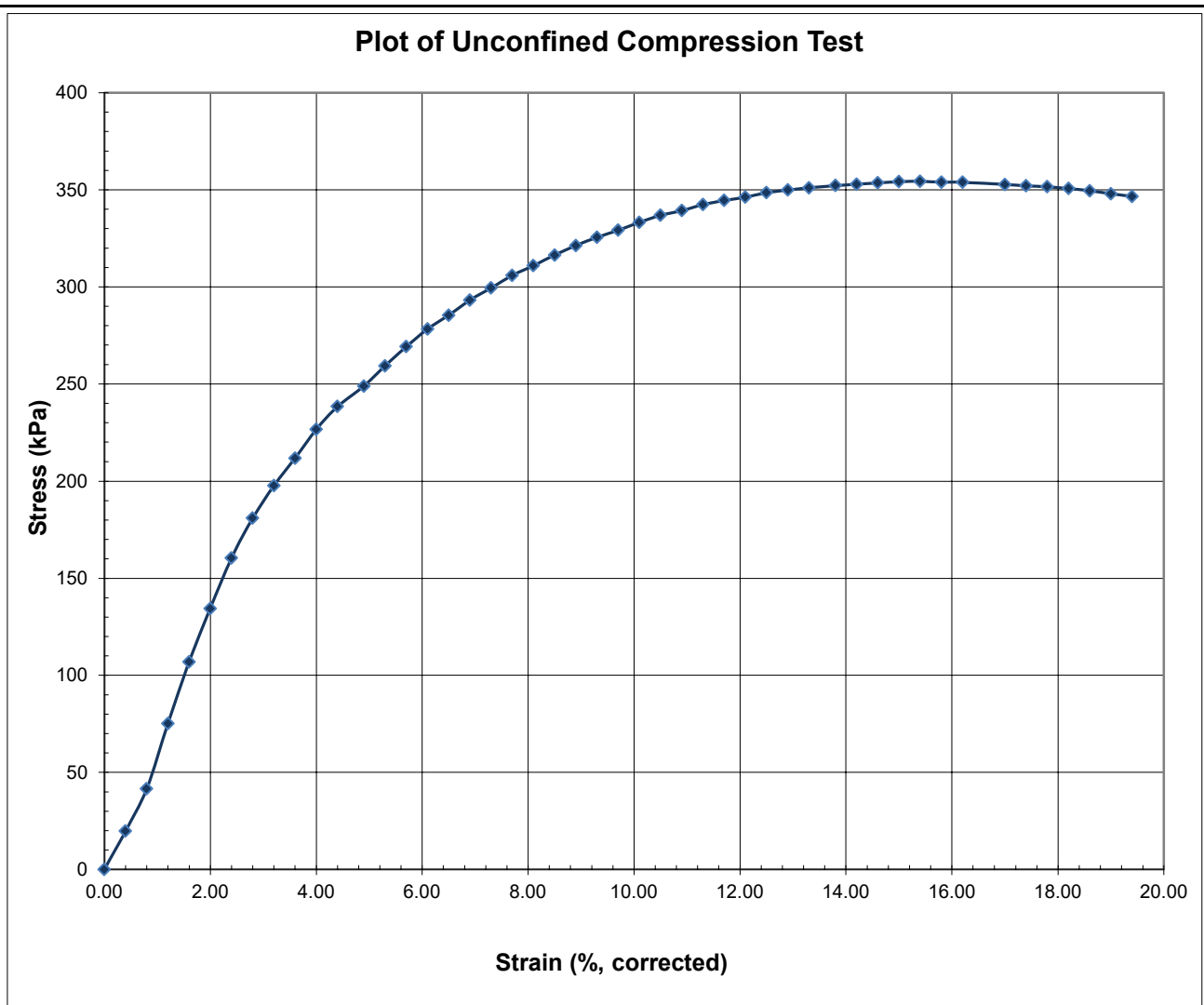
Depth: 6.10 - 6.71 m

Visual Description of Sample: (CH) FAT CLAY; dark brown; cohesive, w~PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at 15% Strain (kPa): <u>354.2</u>	Time of Failure (min:sec): <u>18.5</u>
Strain at Failure (%): <u>15.0</u>	After Compression: Water Content (%): <u>18.9</u>
Undrained Shear Strength (kPa): <u>177.1</u>	Initial Dry Density (Kg/m ³): <u>1635</u>



Comments:

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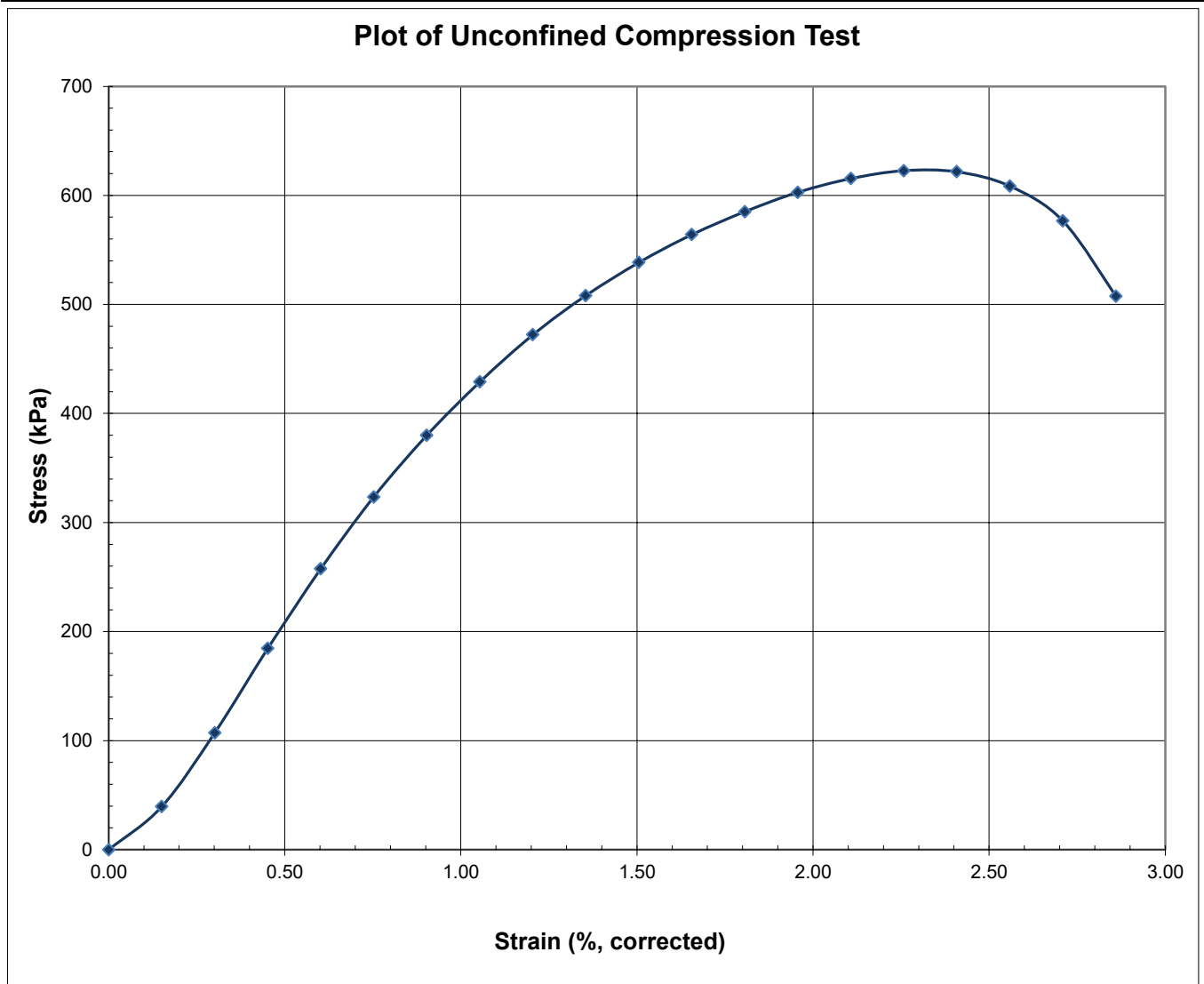




UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836	Task: 300-Lab Testing	
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: RL131-011	
Tested by: EB / SS	Date: January 22, 2026	
Borehole #: SS-BH25-12	Sample #: TO-1	Depth: 6.10 - 6.71 m
Visual Description of Sample: (CL) LEAN CLAY; some sand; dark brown; cohesive, w<PL.		
Date Sample Received: December 10, 2025		Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>622.6</u>	Time of Failure (min:sec): <u>2.5</u>
Strain at Failure (%): <u>2.3</u>	After Compression: Water Content (%): <u>20.1</u>
Undrained Shear Strength (kPa): <u>311.3</u>	Initial Dry Density (Kg/m ³): <u>1729</u>



Comments:

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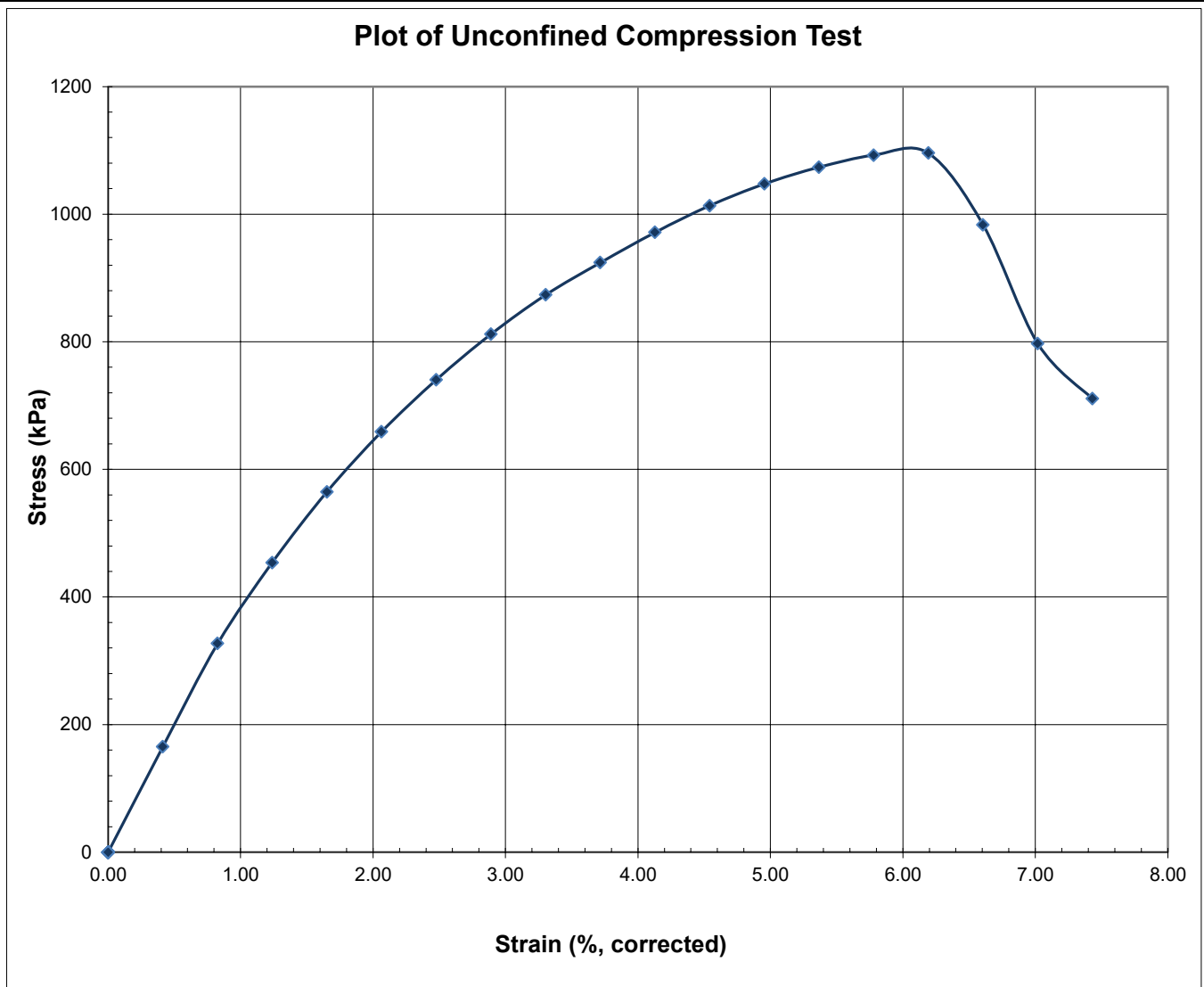
Reviewed by:
Stephanie Huber, P.Tech.



UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836		Task: 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1		Lab #: RL131-019
Tested by: JH / SS		Date: January 22, 2026
Borehole #: SS-BH25-12	Sample #: TO-2	Depth: 12.19 - 12.80 m
Visual Description of Sample: (CH) FAT CLAY; some sand, few gravel; grey-brown; cohesive, w<PL.		
Date Sample Received: December 10, 2025		Specimen Preparation: Intact

Compressive Stress at Failure (kPa):	<u>1095.8</u>	Time of Failure (min:sec):	<u>7.5</u>
Strain at Failure (%):	<u>6.2</u>	After Compression: Water Content (%):	<u>18.3</u>
Undrained Shear Strength (kPa):	<u>547.9</u>	Initial Dry Density (Kg/m ³):	<u>1755</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-22

Tested by: JH / SS

Date: January 19, 2026

Borehole #: SS-BH25-13

Sample #: TO-3

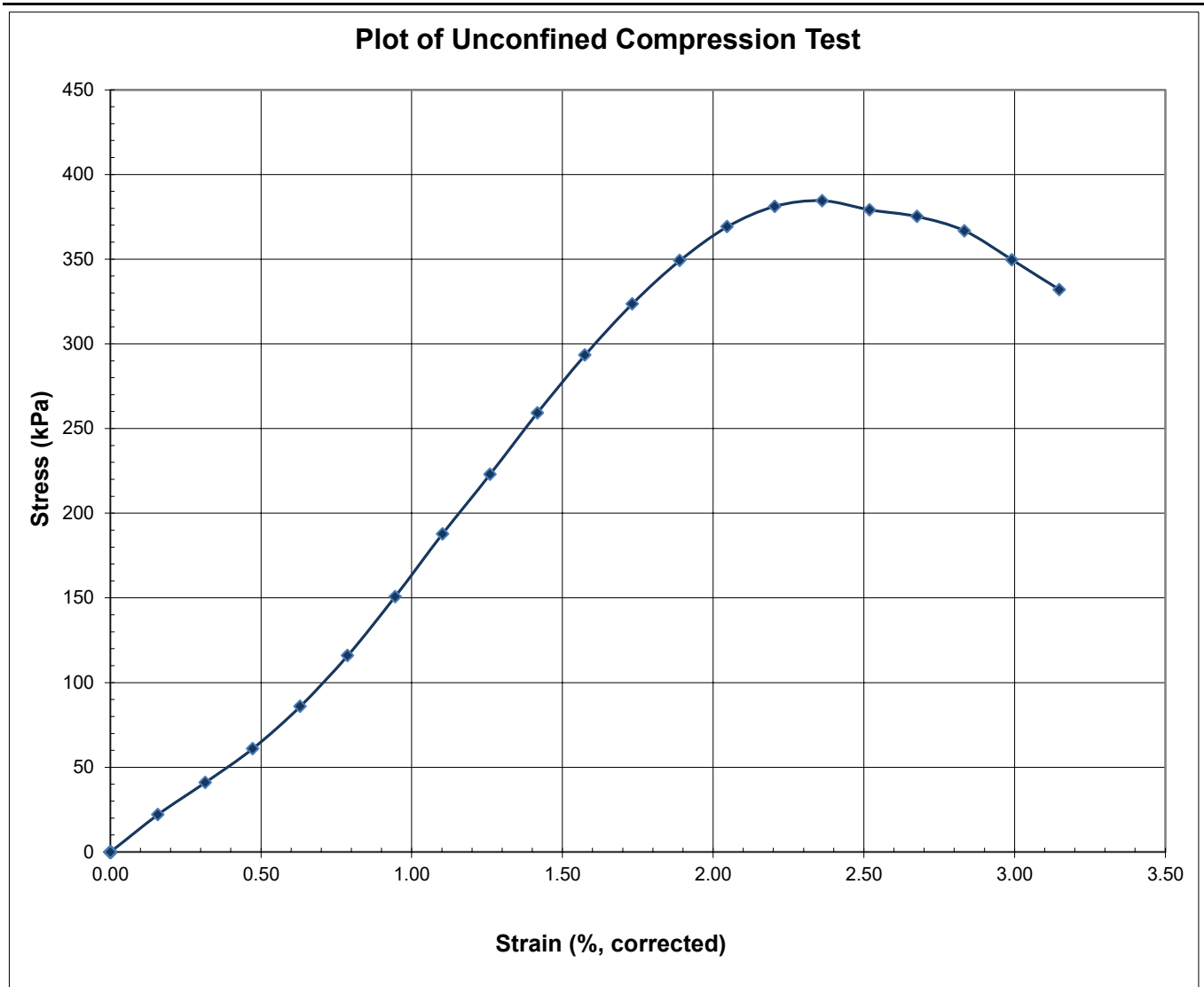
Depth: 15.24 - 15.85 m

Visual Description of Sample: (CL) LEAN CLAY; few fine sand; light brown.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>384.6</u>	Time of Failure (min:sec): <u>2.5</u>
Strain at Failure (%): <u>2.4</u>	After Compression: Water Content (%): <u>20.3</u>
Undrained Shear Strength (kPa): <u>192.3</u>	Initial Dry Density (Kg/m ³): <u>1633</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-23

Tested by: JH / SS

Date: January 16, 2026

Borehole #: SS-BH25-14

Sample #: TO-1

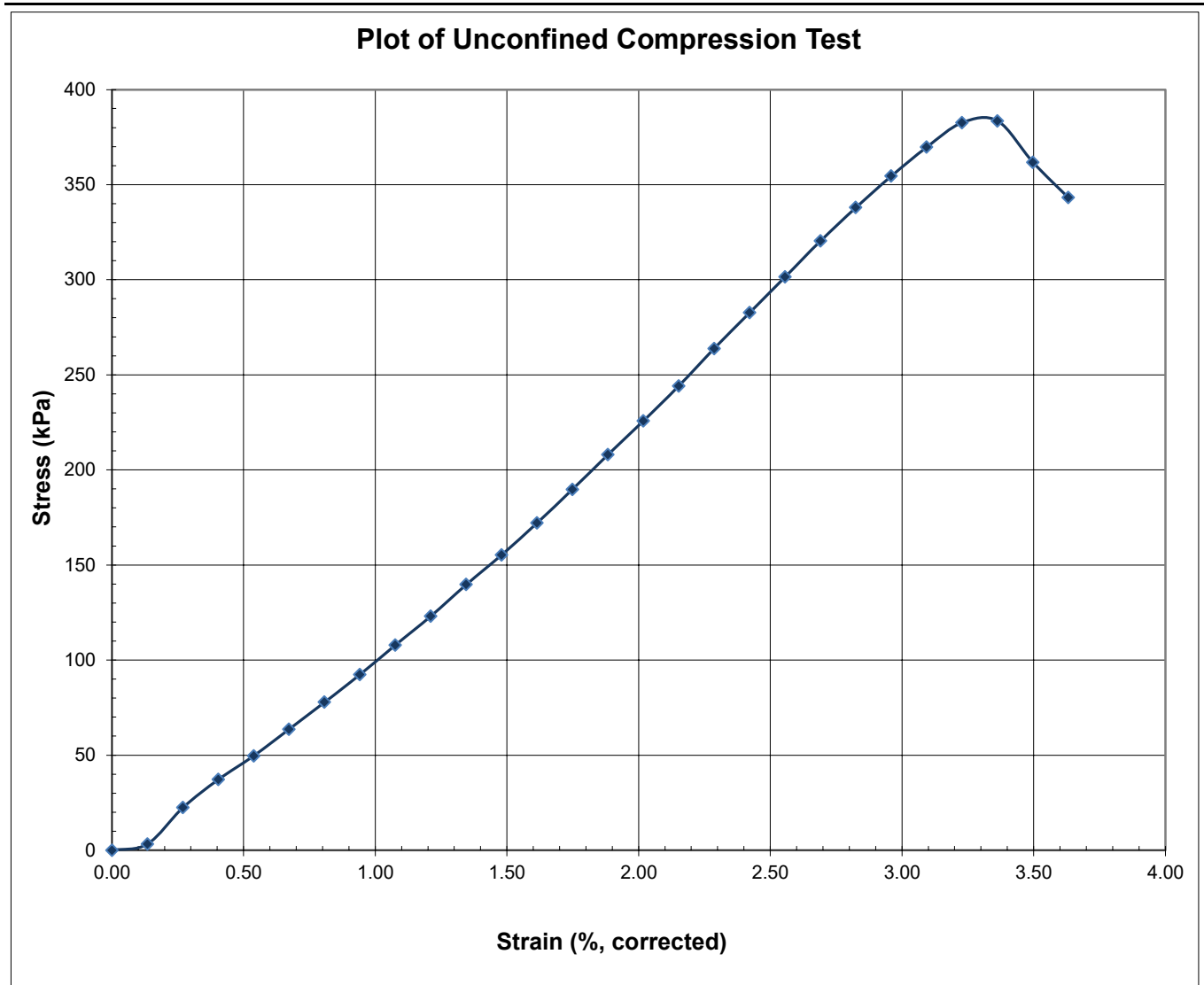
Depth: 6.10 - 6.71 m

Visual Description of Sample: (MH) ELASTIC SILT; few clay; light brown-yellow; cohesive; w~PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>383.6</u>	Time of Failure (min:sec): <u>4.2</u>
Strain at Failure (%): <u>3.4</u>	After Compression: Water Content (%): <u>17.8</u>
Undrained Shear Strength (kPa): <u>191.8</u>	Initial Dry Density (Kg/m ³): <u>1807</u>



Comments:

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Reviewed by:
Stephanie Huber, P.Tech.



UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1

Lab #: RL131-028

Tested by: EB / SS

Date: January 22, 2026

Borehole #: SS-BH25-15

Sample #: TO-1

Depth: 4.57 - 5.18 m

Visual Description of Sample: (CH) FAT CLAY; some sand; light brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): 201.0

Time of Failure (min:sec): 2.7

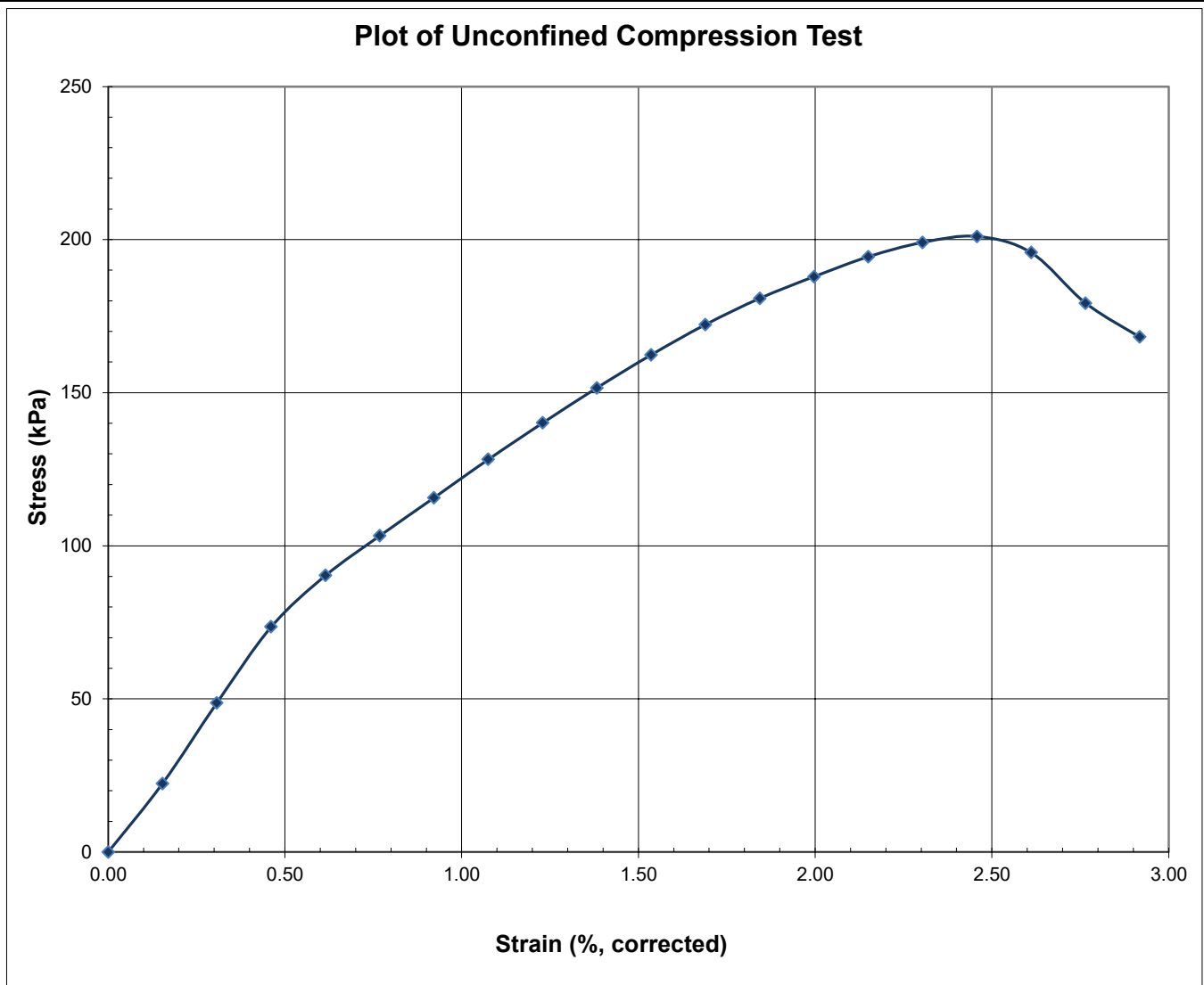
Strain at Failure (%): 2.5

After Compression: Water Content (%): 16.5

Undrained Shear Strength (kPa): 100.5

Initial Dry Density (Kg/m³): 1811

Plot of Unconfined Compression Test



Comments:

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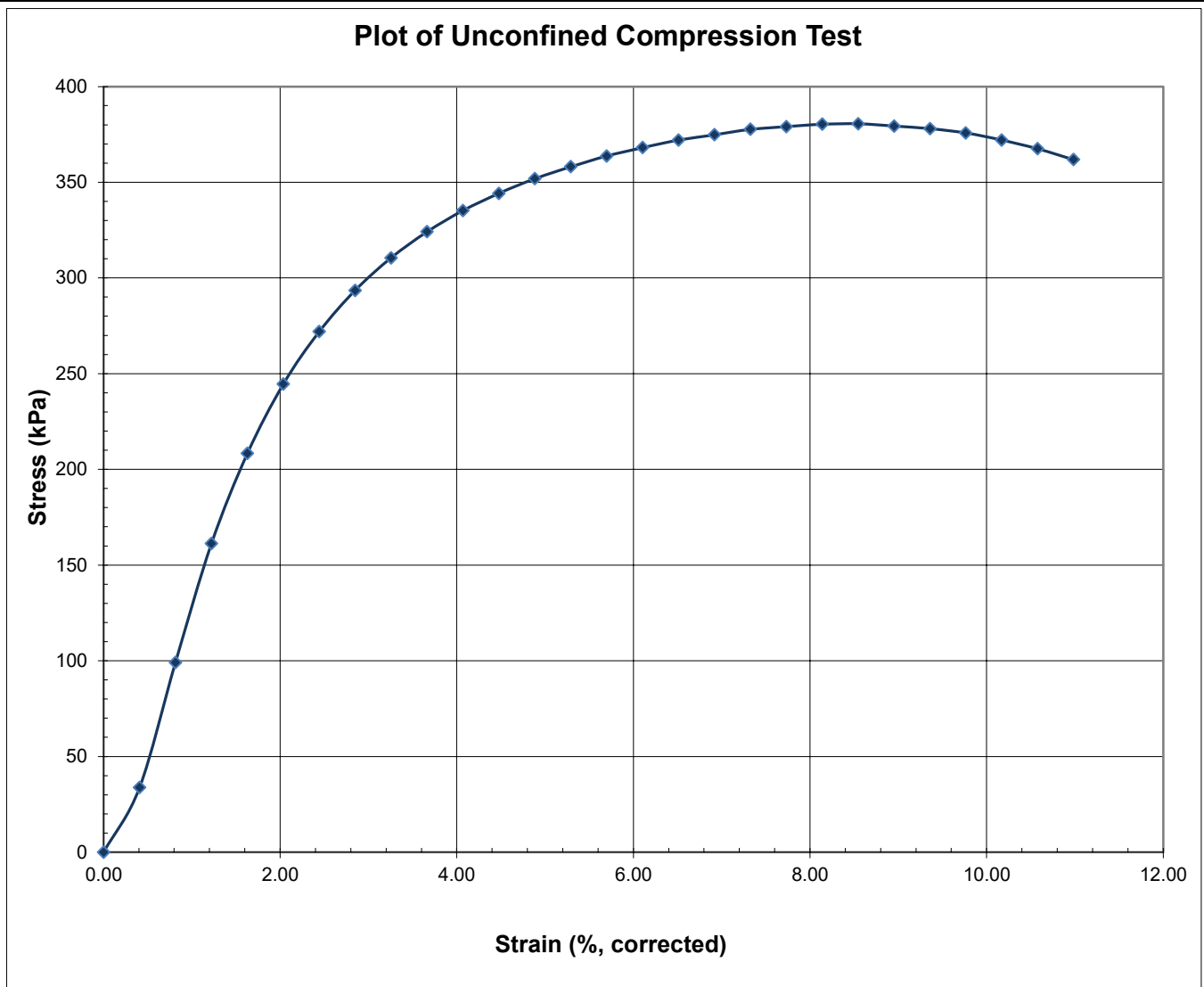




UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836		Task: 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1		Lab #: RL131-048
Tested by: AP / SS		Date: January 22, 2026
Borehole #: SS-BH25-16	Sample #: TO-1	Depth: 4.57 - 6.71 m
Visual Description of Sample: (CH) silty FAT CLAY; brown; cohesive, w>PL.		
Date Sample Received: December 10, 2025		Specimen Preparation: Intact

Compressive Stress at Failure (kPa):	<u>380.6</u>	Time of Failure (min:sec):	<u>10.5</u>
Strain at Failure (%):	<u>8.5</u>	After Compression: Water Content (%):	<u>18.4</u>
Undrained Shear Strength (kPa):	<u>190.3</u>	Initial Dry Density (Kg/m ³):	<u>1777</u>



Comments:

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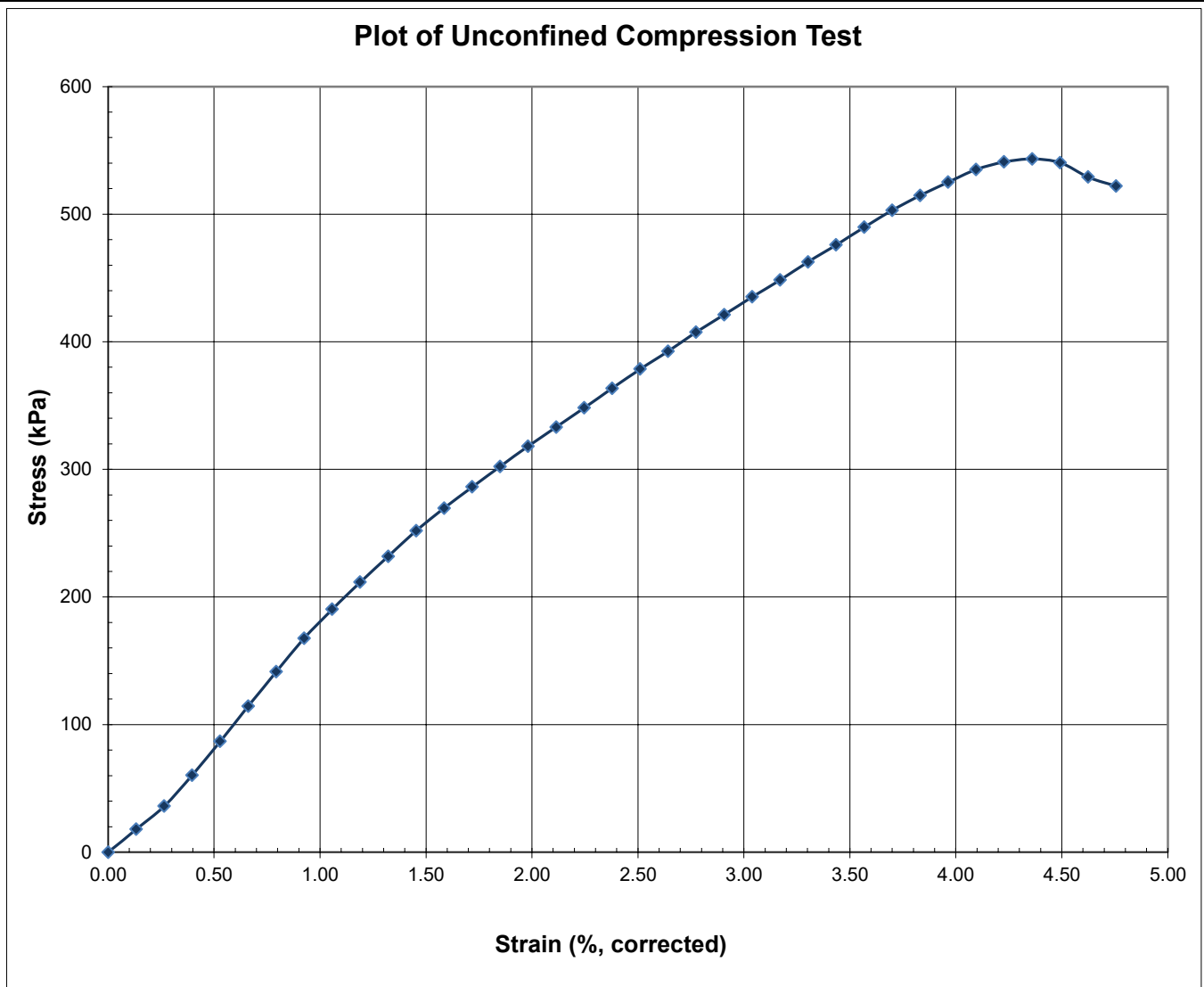




UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836		Task: 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1		Lab #: RL131-054
Tested by: EB / SS		Date: January 22, 2026
Borehole #: SS-BH25-16	Sample #: TO-2	Depth: 9.14 - 9.75 m
Visual Description of Sample: (CL) LEAN CLAY; some silt; light brown; cohesive, w<PL.		
Date Sample Received: December 10, 2025		Specimen Preparation: Intact

Compressive Stress at Failure (kPa):	<u>543.3</u>	Time of Failure (min:sec):	<u>5.5</u>
Strain at Failure (%):	<u>4.4</u>	After Compression: Water Content (%):	<u>21.8</u>
Undrained Shear Strength (kPa):	<u>271.7</u>	Initial Dry Density (Kg/m ³):	<u>1687</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1

Lab #: RL131-071

Tested by: EB / SS

Date: January 22, 2026

Borehole #: SS-BH25-17

Sample #: TO-1

Depth: 6.10 - 6.71 m

Visual Description of Sample: (CL) LEAN CLAY; few gravel; dark brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): 417.2

Time of Failure (min:sec): 13.0

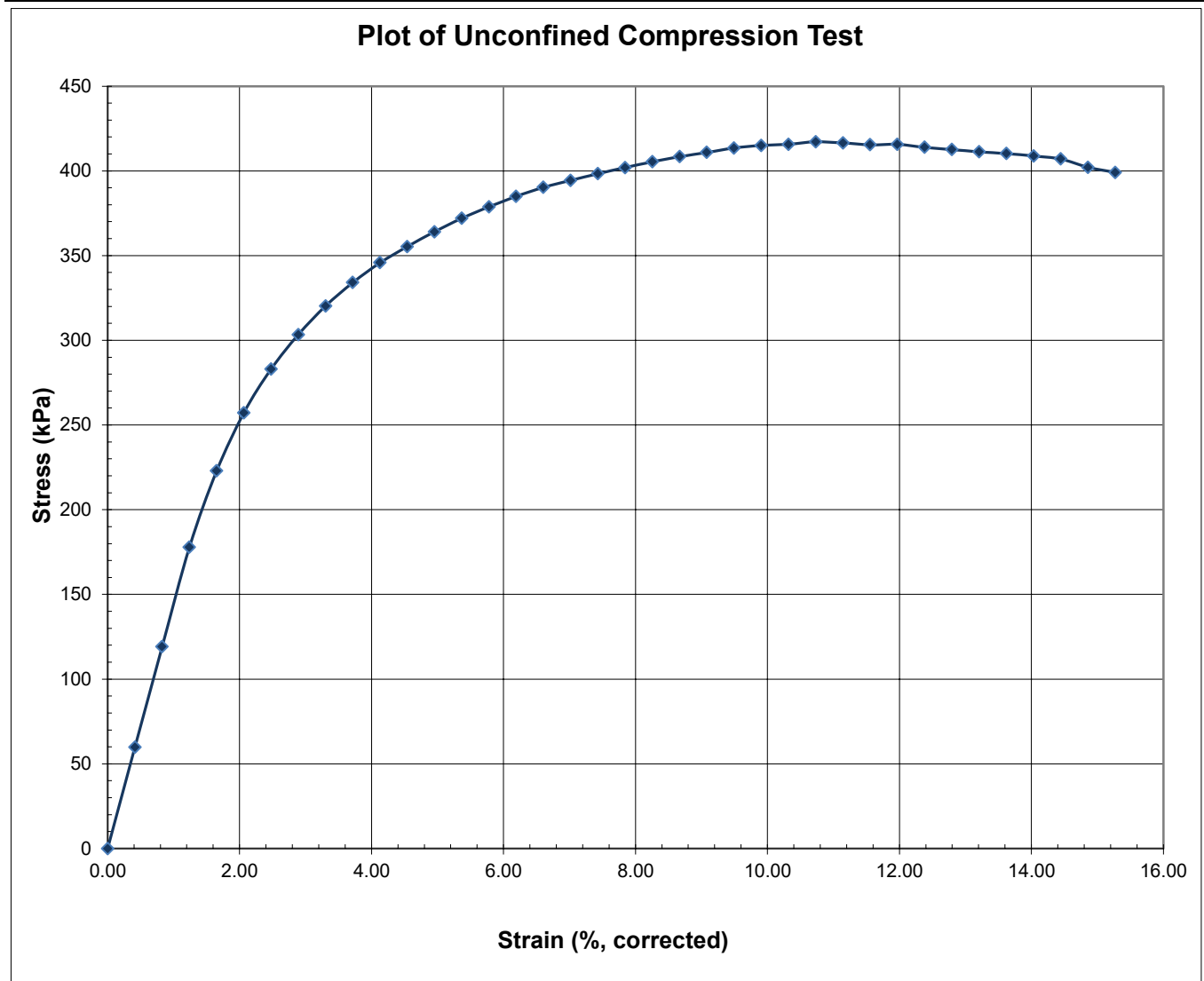
Strain at Failure (%): 10.7

After Compression: Water Content (%): 14.3

Undrained Shear Strength (kPa): 208.6

Initial Dry Density (Kg/m³): 1915

Plot of Unconfined Compression Test



Comments:

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Reviewed by:
Stephanie Huber, P.Tech.

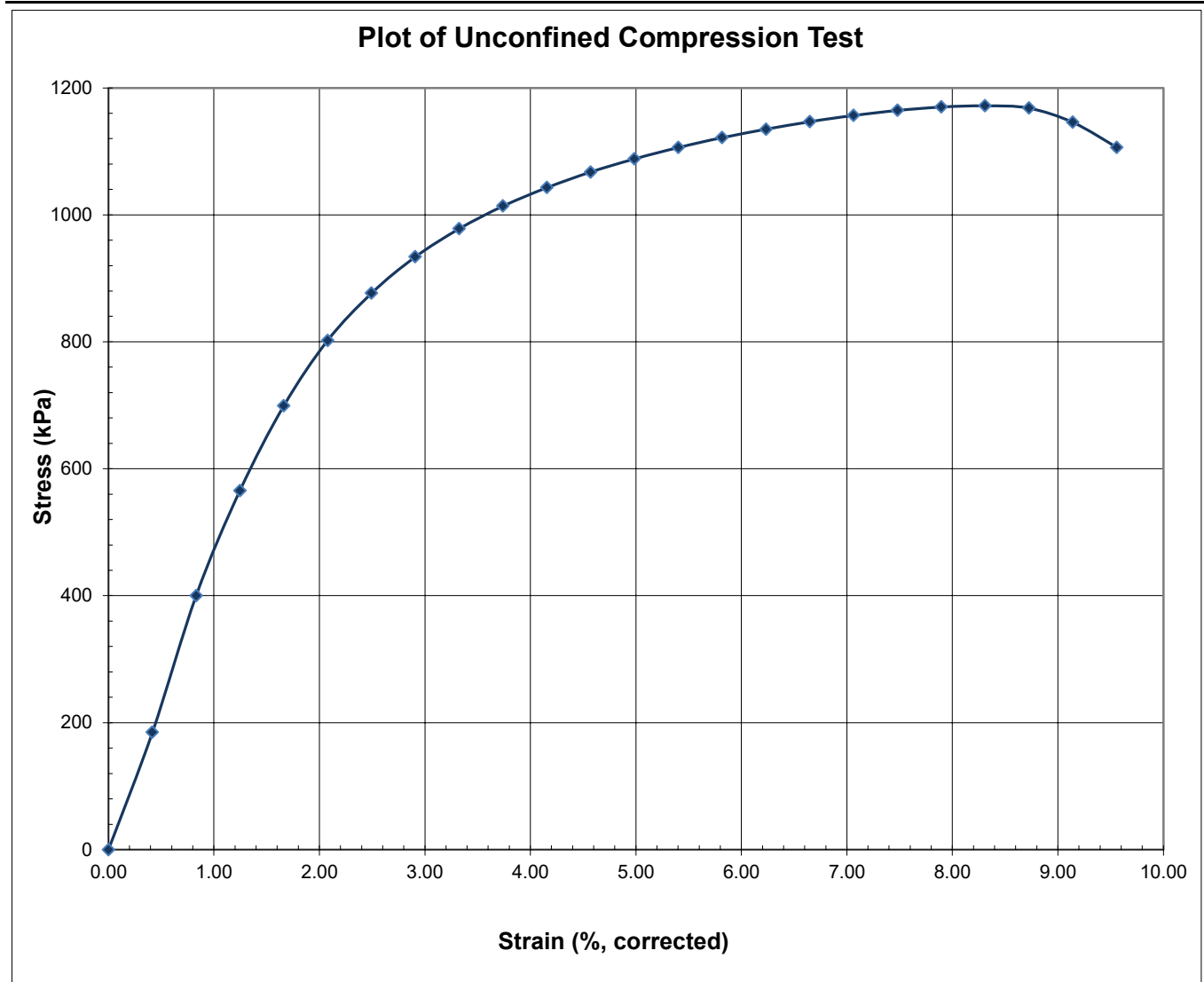


UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836	Task: 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: RL131-079
Tested by: EB / SS	Date: January 22, 2026

Borehole #: SS-BH25-17	Sample #: TO-2	Depth: 12.19 - 12.80 m
Visual Description of Sample: (CL) LEAN CLAY; some sand; dark brown; cohesive, w<PL.		
Date Sample Received: December 10, 2025	Specimen Preparation: Intact	

Compressive Stress at Failure (kPa): <u>1171.9</u>	Time of Failure (min:sec): <u>10.0</u>
Strain at Failure (%): <u>8.3</u>	After Compression: Water Content (%): <u>17.3</u>
Undrained Shear Strength (kPa): <u>586.0</u>	Initial Dry Density (Kg/m ³): <u>1845</u>



Comments:

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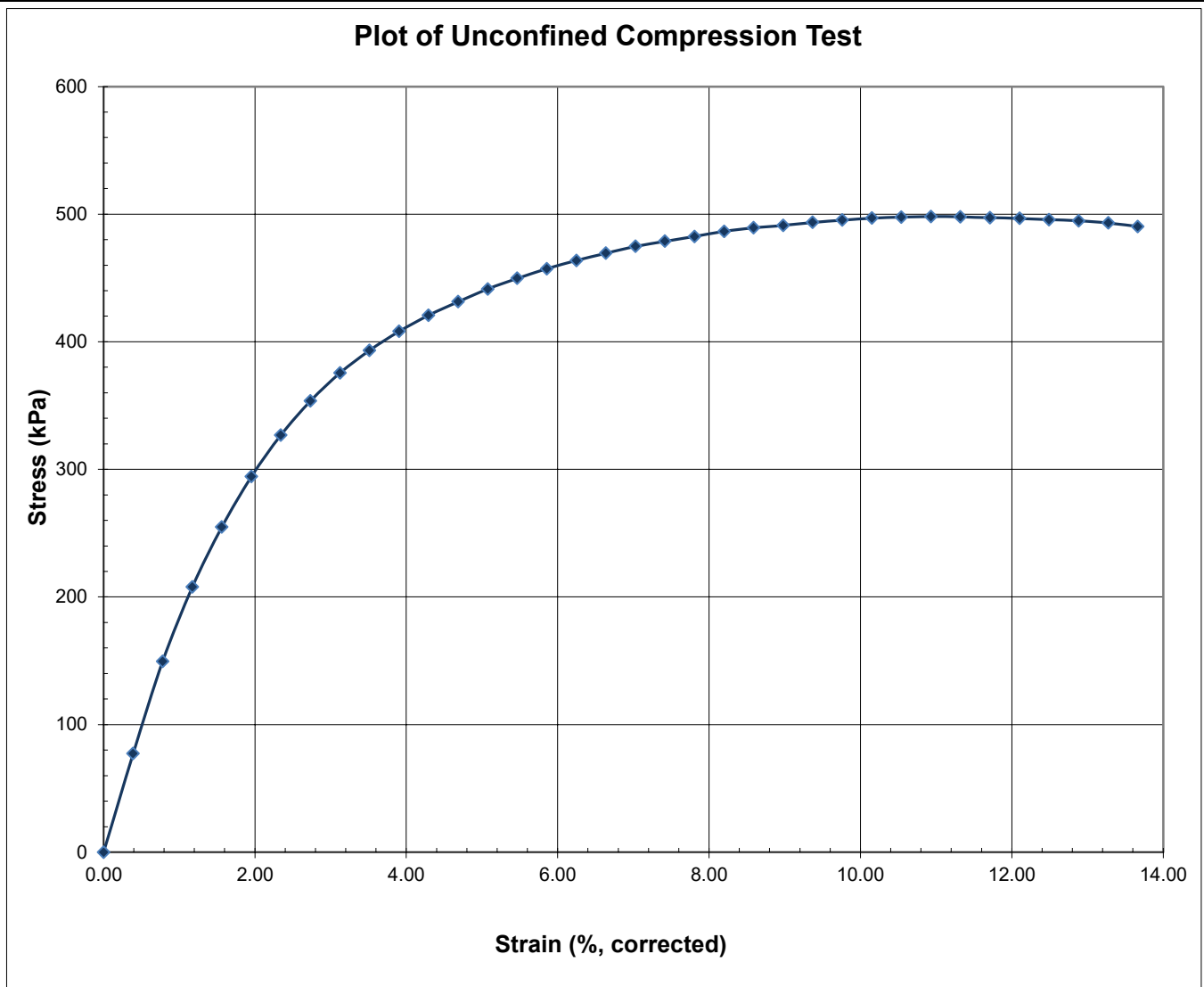




UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836		Task: 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1		Lab #: RL131-090
Tested by: EB / SS		Date: January 22, 2026
Borehole #: SS-BH25-21	Sample #: TO-1	Depth: 6.10 - 6.71 m
Visual Description of Sample: (CL) LEAN CLAY; few sand; dark brown; cohesive, w~PL.		
Date Sample Received: December 10, 2025		Specimen Preparation: Intact

Compressive Stress at Failure (kPa):	<u>498.1</u>	Time of Failure (min:sec):	<u>14.0</u>
Strain at Failure (%):	<u>10.9</u>	After Compression: Water Content (%):	<u>13.6</u>
Undrained Shear Strength (kPa):	<u>249.1</u>	Initial Dry Density (Kg/m ³):	<u>1960</u>



Comments:

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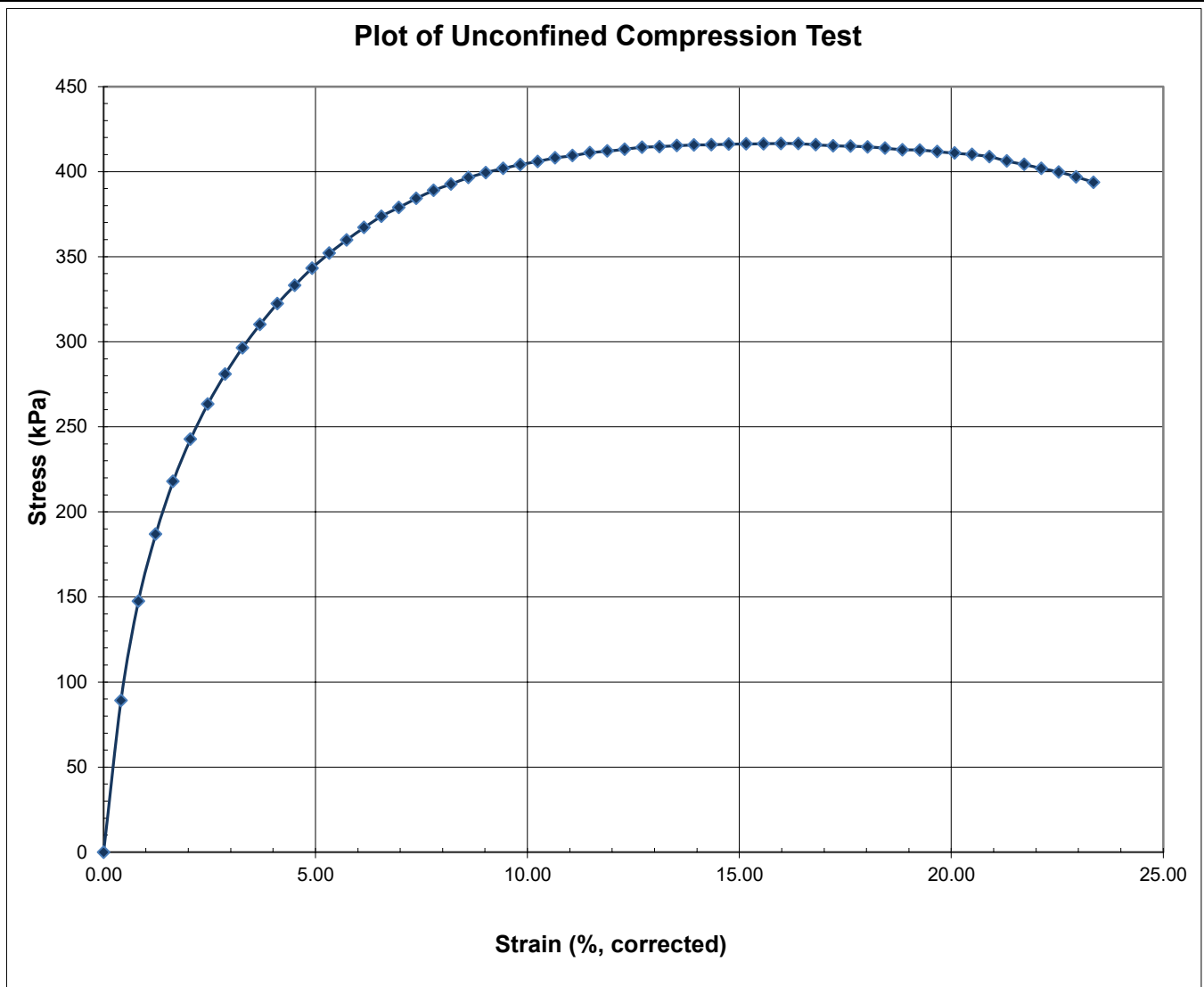




UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836		Task: 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1		Lab #: RL131-096
Tested by: EB / SS		Date: January 22, 2026
Borehole #: SS-BH25-21	Sample #: TO-2	Depth: 10.67 - 11.28 m
Visual Description of Sample: (CL) LEAN CLAY; few sand; dark brown; cohesive, w~PL.		
Date Sample Received: December 10, 2025		Specimen Preparation: Intact

Compressive Stress at 15% Strain (kPa): <u>416.2</u>	Time of Failure (min:sec): <u>18.3</u>
Strain at Failure (%): <u>15.0</u>	After Compression: Water Content (%): <u>26.7</u>
Undrained Shear Strength (kPa): <u>208.1</u>	Initial Dry Density (Kg/m ³): <u>1523</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-29

Tested by: JH / SS

Date: January 16, 2026

Borehole #: SS-BH25-22

Sample #: TO-1

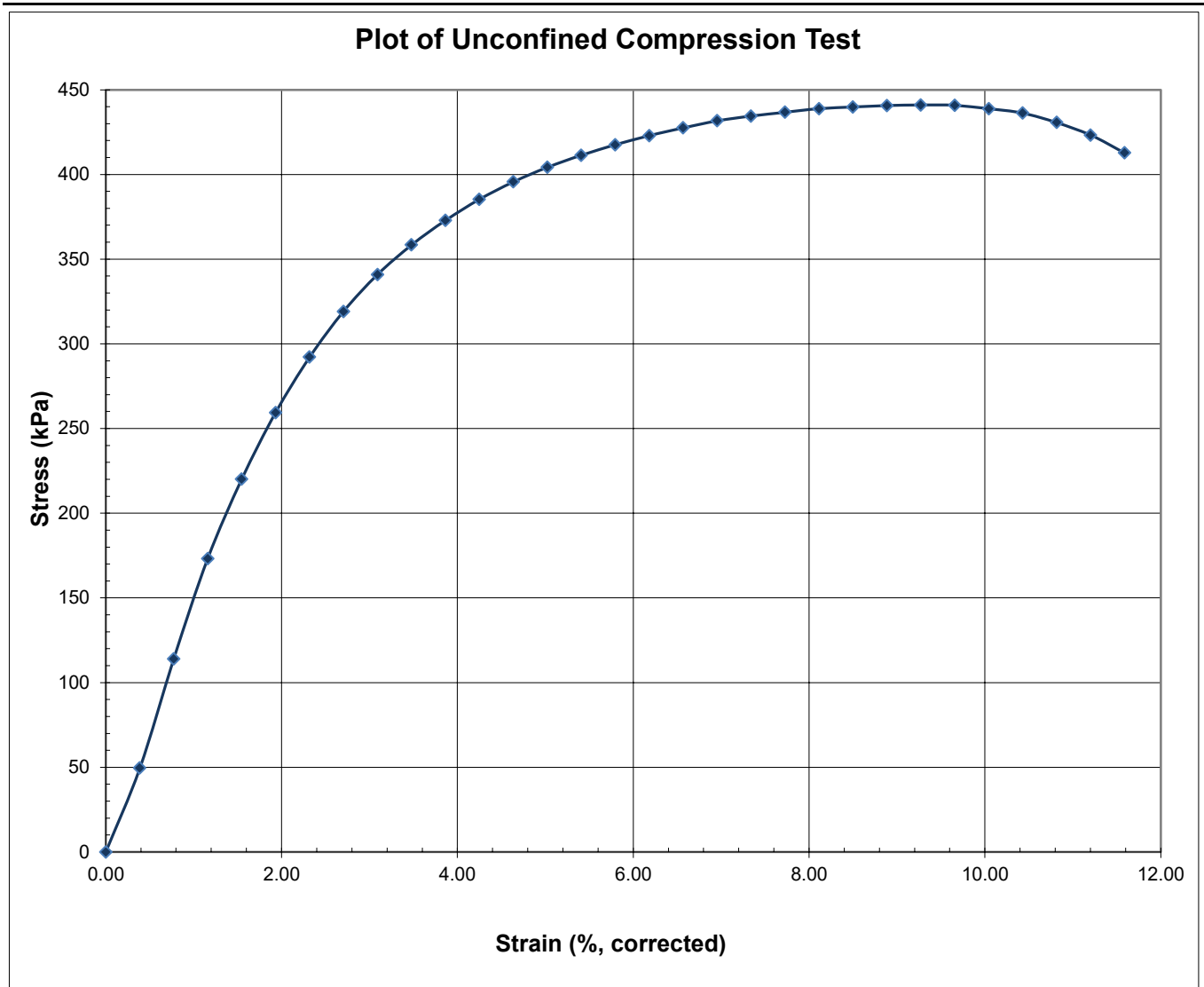
Depth: 6.10 - 6.71 m

Visual Description of Sample: (CH) FAT CLAY; few sand; light brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>441.1</u>	Time of Failure (min:sec): <u>12.0</u>
Strain at Failure (%): <u>9.3</u>	After Compression: Water Content (%): <u>19.0</u>
Undrained Shear Strength (kPa): <u>220.5</u>	Initial Dry Density (Kg/m ³): <u>1735</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO #
3

Lab #: SL7938-31

Tested by: JH / SS

Date: January 22, 2026

Borehole #: SS-BH25-23

Sample #: TO-1

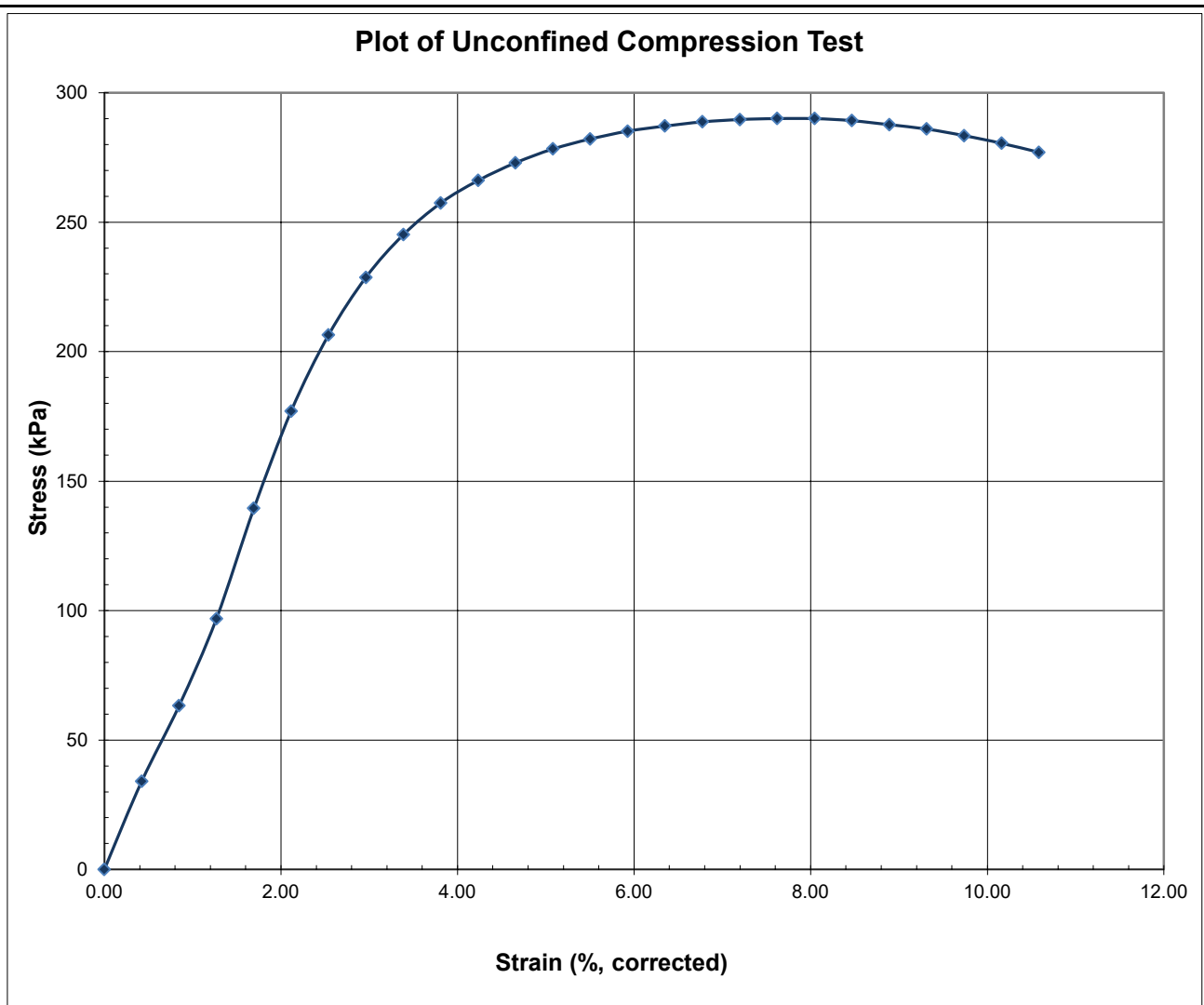
Depth: 6.10 - 6.71 m

Visual Description of Sample: (CH) FAT CLAY; few sand; brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>290.1</u>	Time of Failure (min:sec): <u>9.0</u>
Strain at Failure (%): <u>7.6</u>	After Compression: Water Content (%): <u>22.2</u>
Undrained Shear Strength (kPa): <u>145.0</u>	Initial Dry Density (Kg/m ³): <u>1669</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-33

Tested by: EB / SS

Date: January 22, 2026

Borehole #: SS-BH25-24

Sample #: TO-1

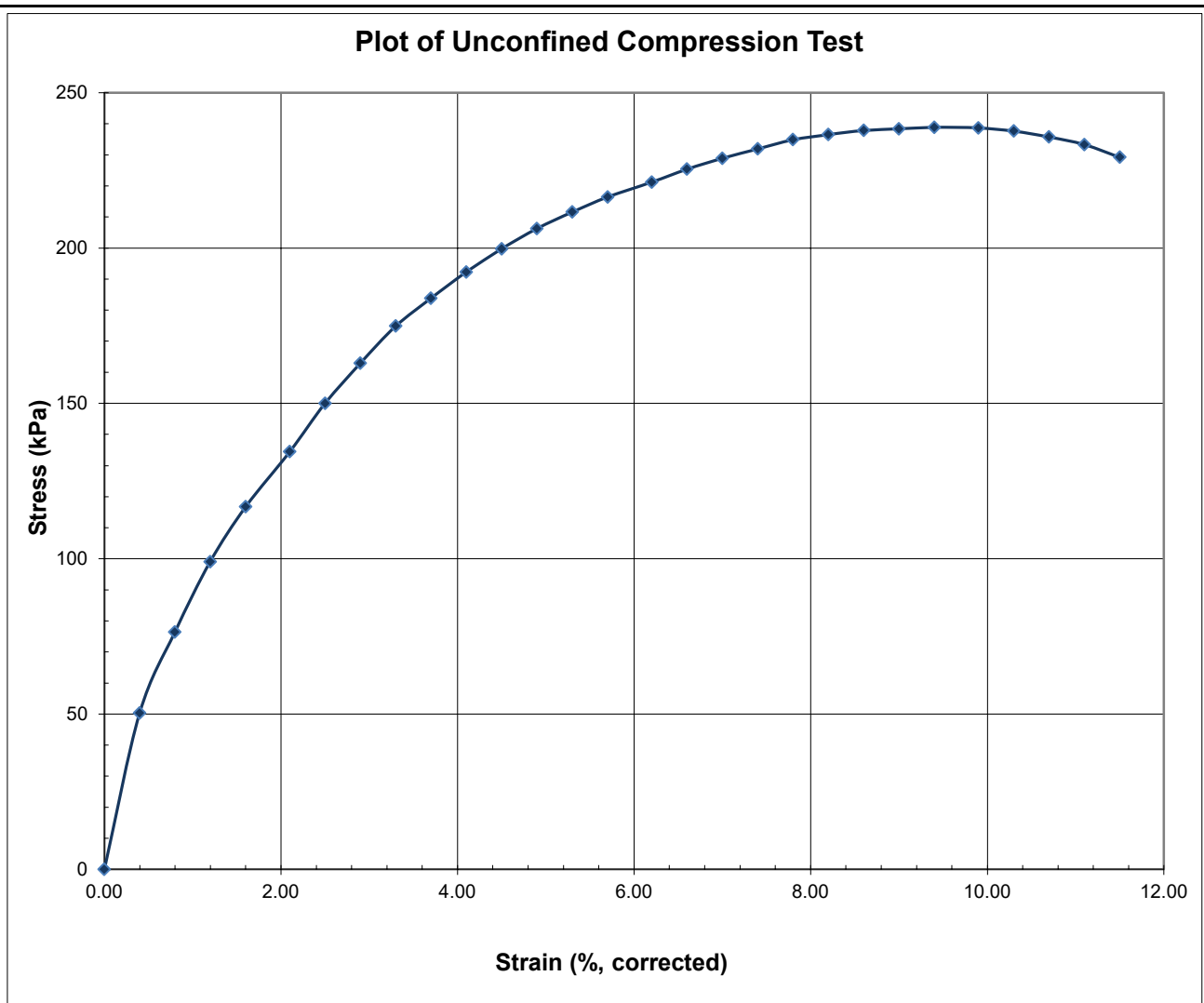
Depth: 6.10 - 6.71 m

Visual Description of Sample: (CL) LEAN CLAY; some sand; brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>238.9</u>	Time of Failure (min:sec): <u>11.5</u>
Strain at Failure (%): <u>9.4</u>	After Compression: Water Content (%): <u>17.8</u>
Undrained Shear Strength (kPa): <u>119.4</u>	Initial Dry Density (Kg/m ³): <u>1768</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO #
3

Lab #: SL7938-36

Tested by: EB / MM

Date: January 23, 2026

Borehole #: SS-BH25-25

Sample #: TO-2

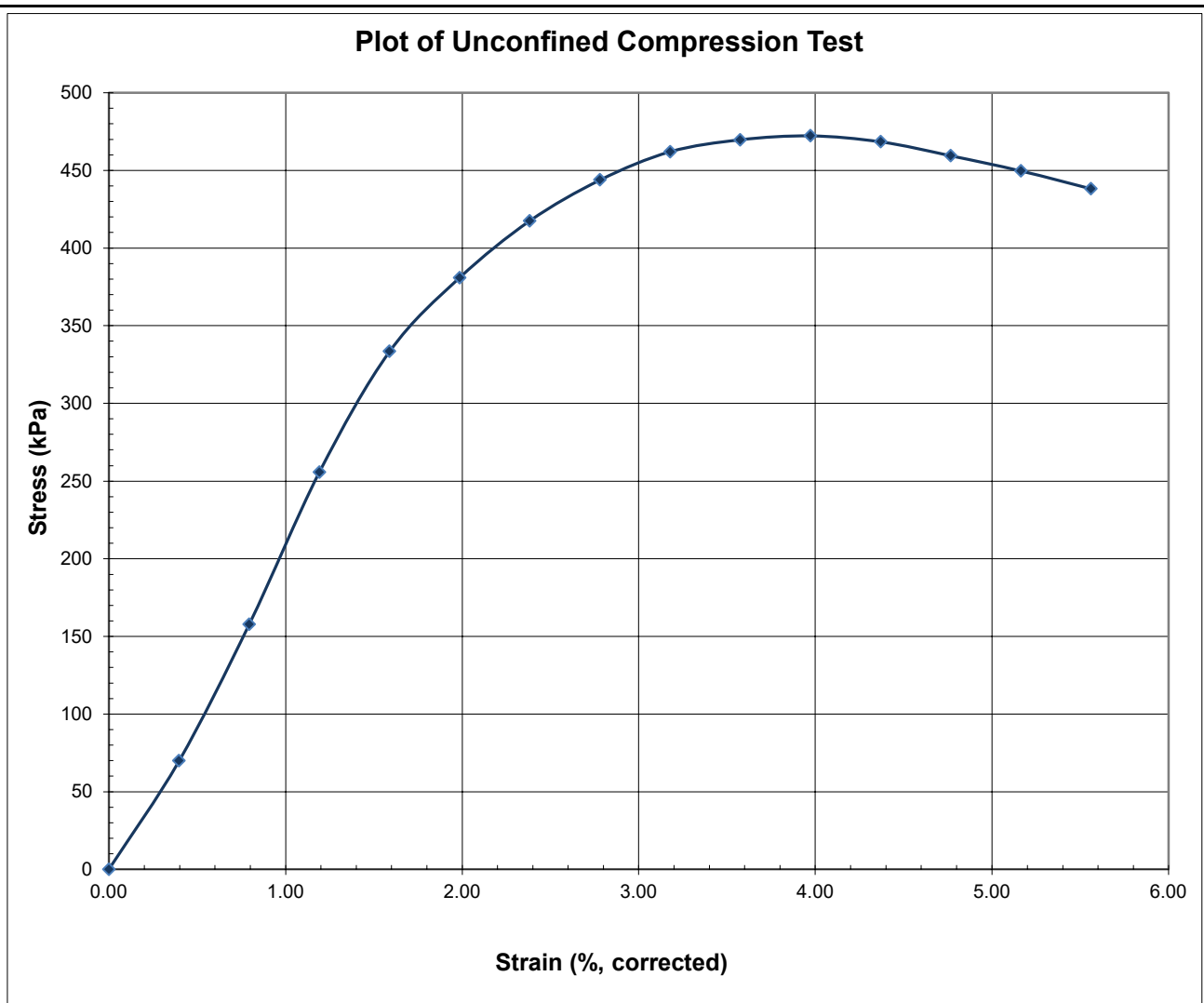
Depth: 7.62 - 8.23 m

Visual Description of Sample: (CL) LEAN CLAY; dark brown; cohesive, w<PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>472.3</u>	Time of Failure (min:sec): <u>5.0</u>
Strain at Failure (%): <u>4.0</u>	After Compression: Water Content (%): <u>25.4</u>
Undrained Shear Strength (kPa): <u>236.1</u>	Initial Dry Density (Kg/m ³): <u>1656</u>



Comments:

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Reviewed by:
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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-41

Tested by: EB / SS

Date: January 20, 2026

Borehole #: SS-BH25-28

Sample #: TO-1

Depth: 6.10 - 6.71 m

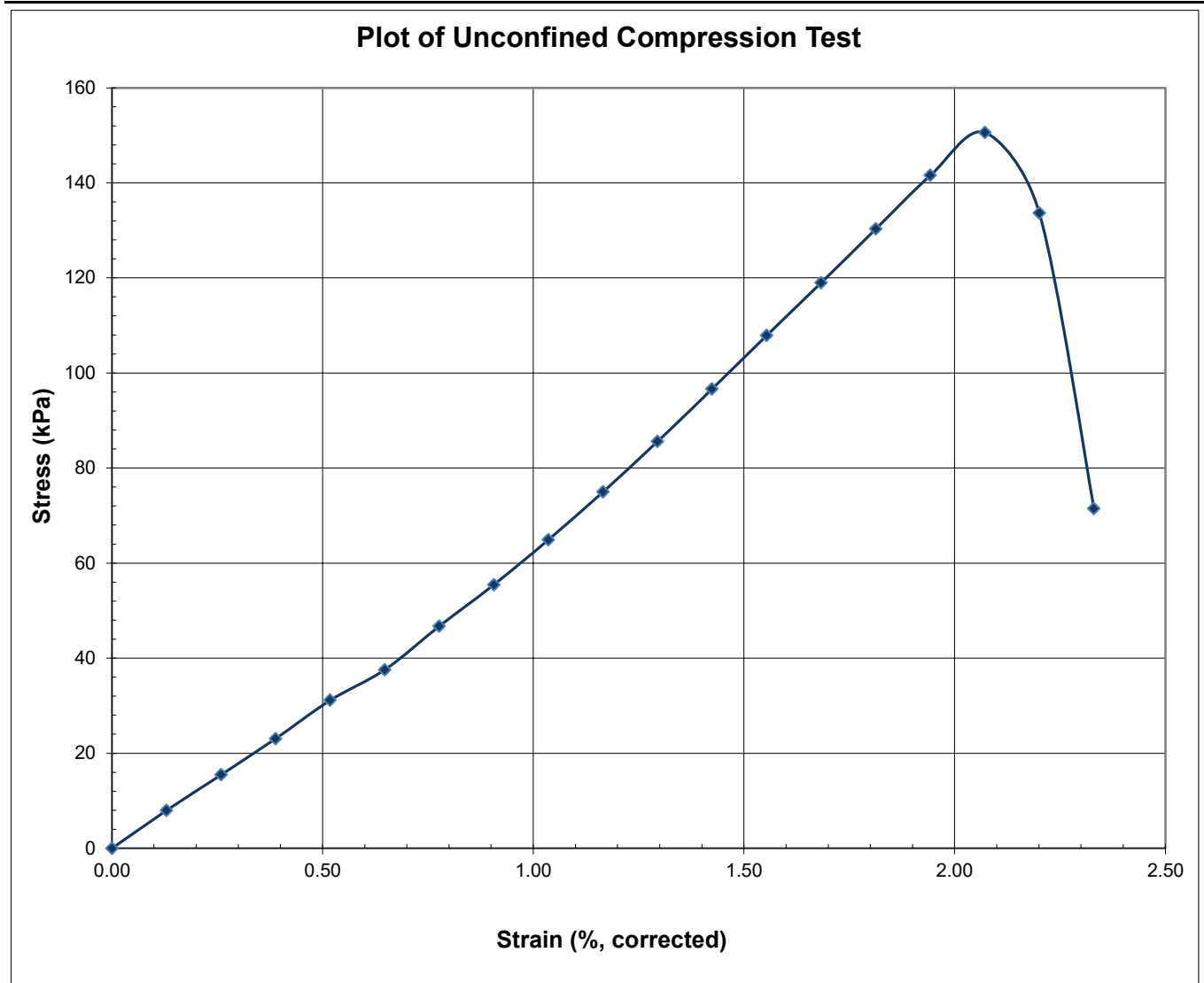
Visual Description of Sample: (CI) LEAN CLAY; some silt; grey; cohesive, w~PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>150.6</u>	Time of Failure (min:sec): <u>2.7</u>
Strain at Failure (%): <u>2.1</u>	After Compression: Water Content (%): <u>21.4</u>
Undrained Shear Strength (kPa): <u>75.3</u>	Initial Dry Density (Kg/m ³): <u>1718</u>

Plot of Unconfined Compression Test



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-43

Tested by: EB / SS

Date: January 21, 2026

Borehole #: SS-BH25-29

Sample #: TO-1

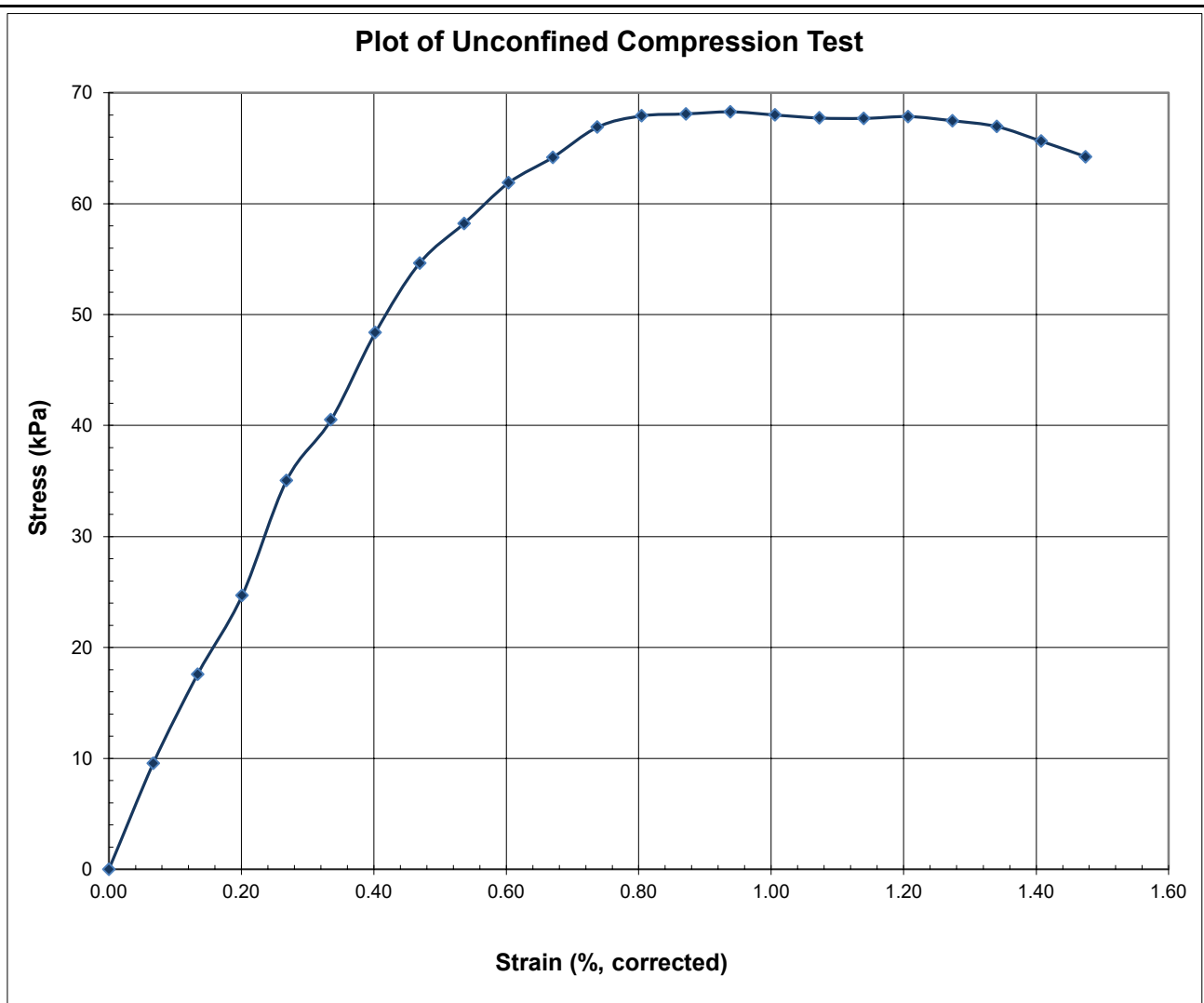
Depth: 4.57 - 5.18 m

Visual Description of Sample: (CL) LEAN CLAY; some sand; dark brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>68.3</u>	Time of Failure (min:sec): <u>1.2</u>
Strain at Failure (%): <u>0.9</u>	After Compression: Water Content (%): <u>24.7</u>
Undrained Shear Strength (kPa): <u>34.1</u>	Initial Dry Density (Kg/m ³): <u>1590</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO #
3

Lab #: SL7938-45

Tested by: JH / SS

Date: January 22, 2026

Borehole #: SS-BH25-30

Sample #: TO-1

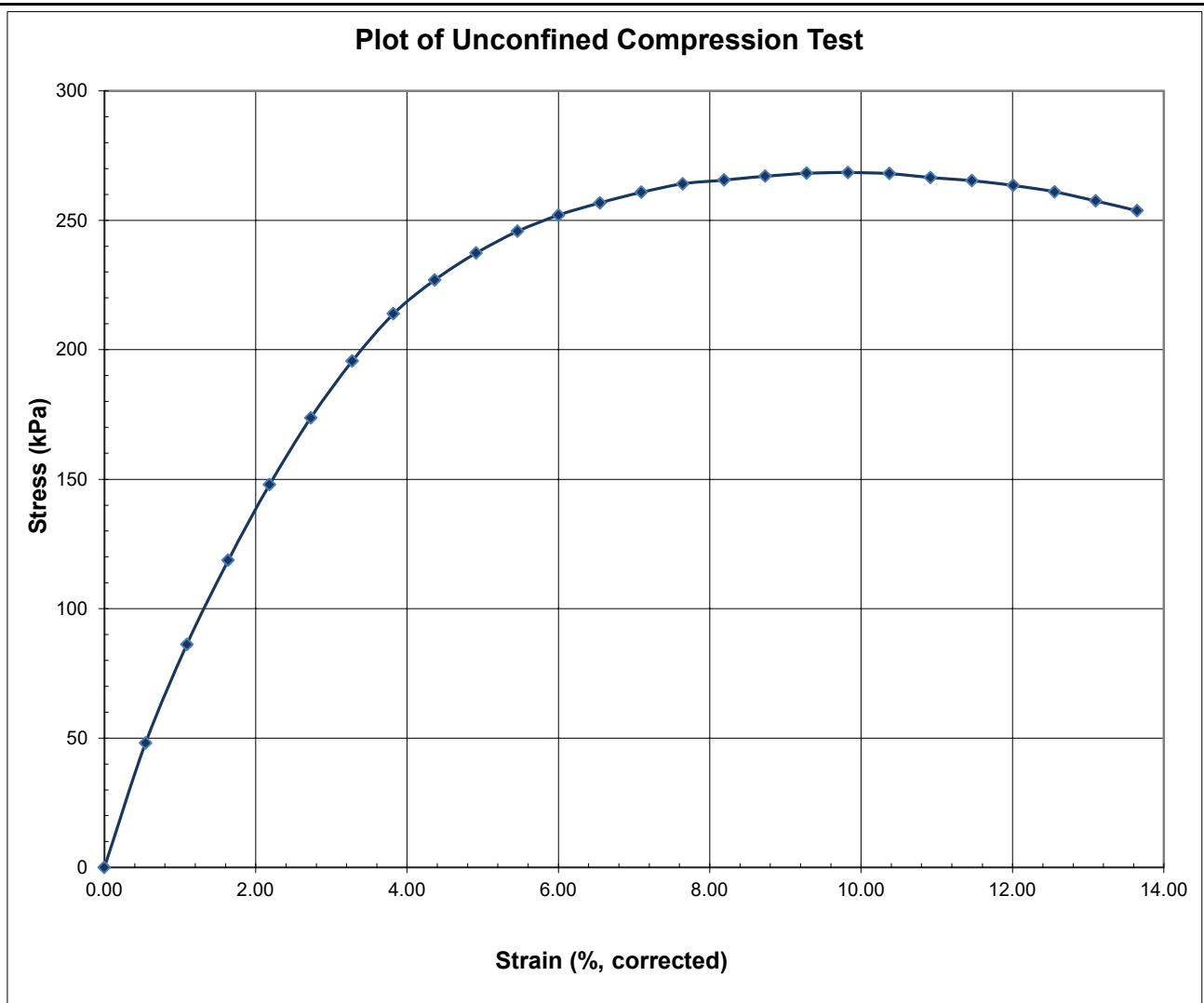
Depth: 4.57 - 5.18 m

Visual Description of Sample: (CH) FAT CLAY; some sand, trace fine gravel; brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>268.4</u>	Time of Failure (min:sec): <u>9.0</u>
Strain at Failure (%): <u>9.8</u>	After Compression: Water Content (%): <u>20.1</u>
Undrained Shear Strength (kPa): <u>134.2</u>	Initial Dry Density (Kg/m ³): <u>1732</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-47

Tested by: JH / SS

Date: January 16, 2026

Borehole #: SS-BH25-31B

Sample #: TO-1

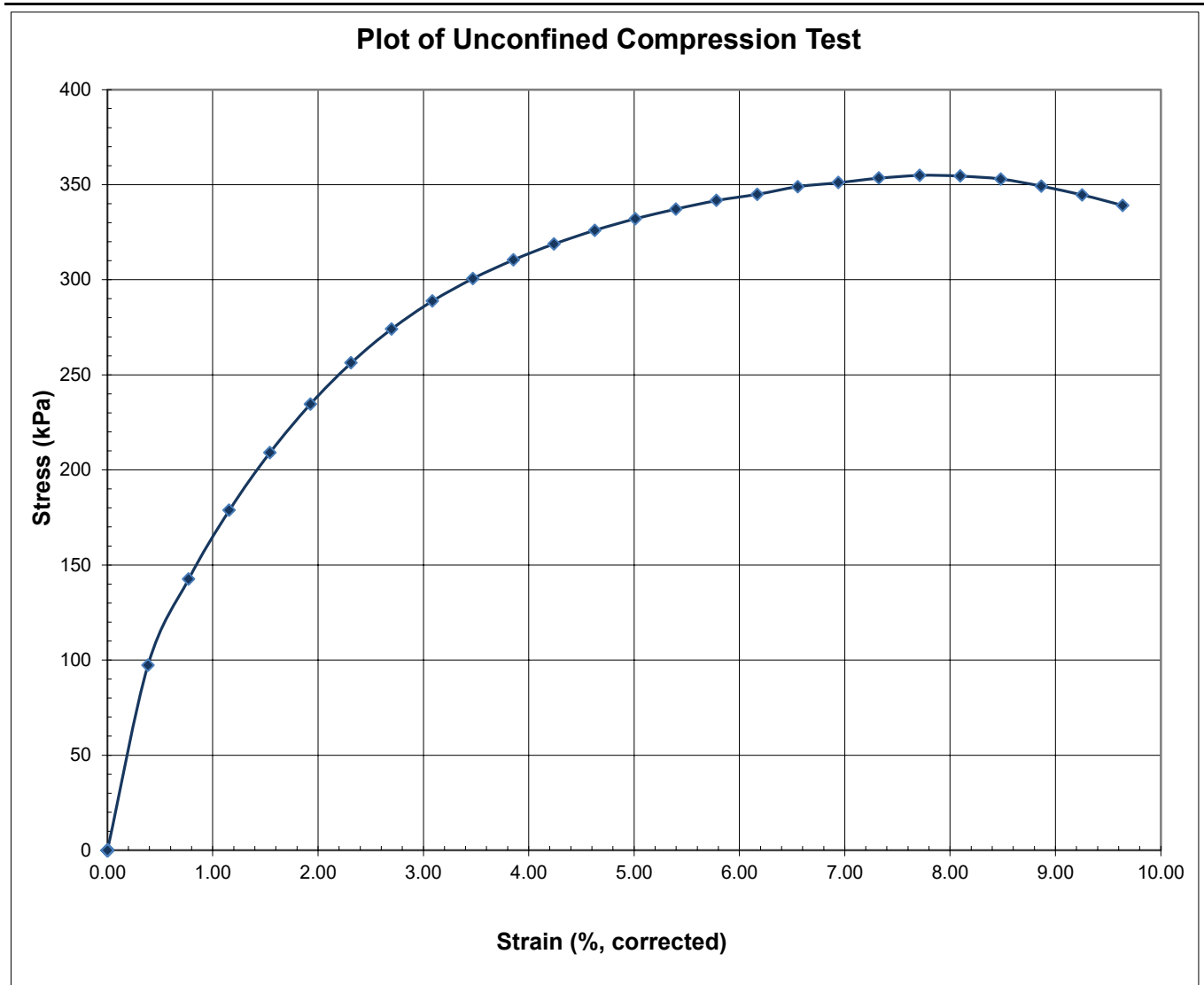
Depth: 4.57 - 5.18 m

Visual Description of Sample: (CH) FAT CLAY; trace coarse sand; brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>354.9</u>	Time of Failure (min:sec): <u>10.0</u>
Strain at Failure (%): <u>7.7</u>	After Compression: Water Content (%): <u>20.1</u>
Undrained Shear Strength (kPa): <u>177.4</u>	Initial Dry Density (Kg/m ³): <u>1792</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-52

Tested by: JH / SS

Date: January 20, 2026

Borehole #: SS-BH25-33B

Sample #: TO-2

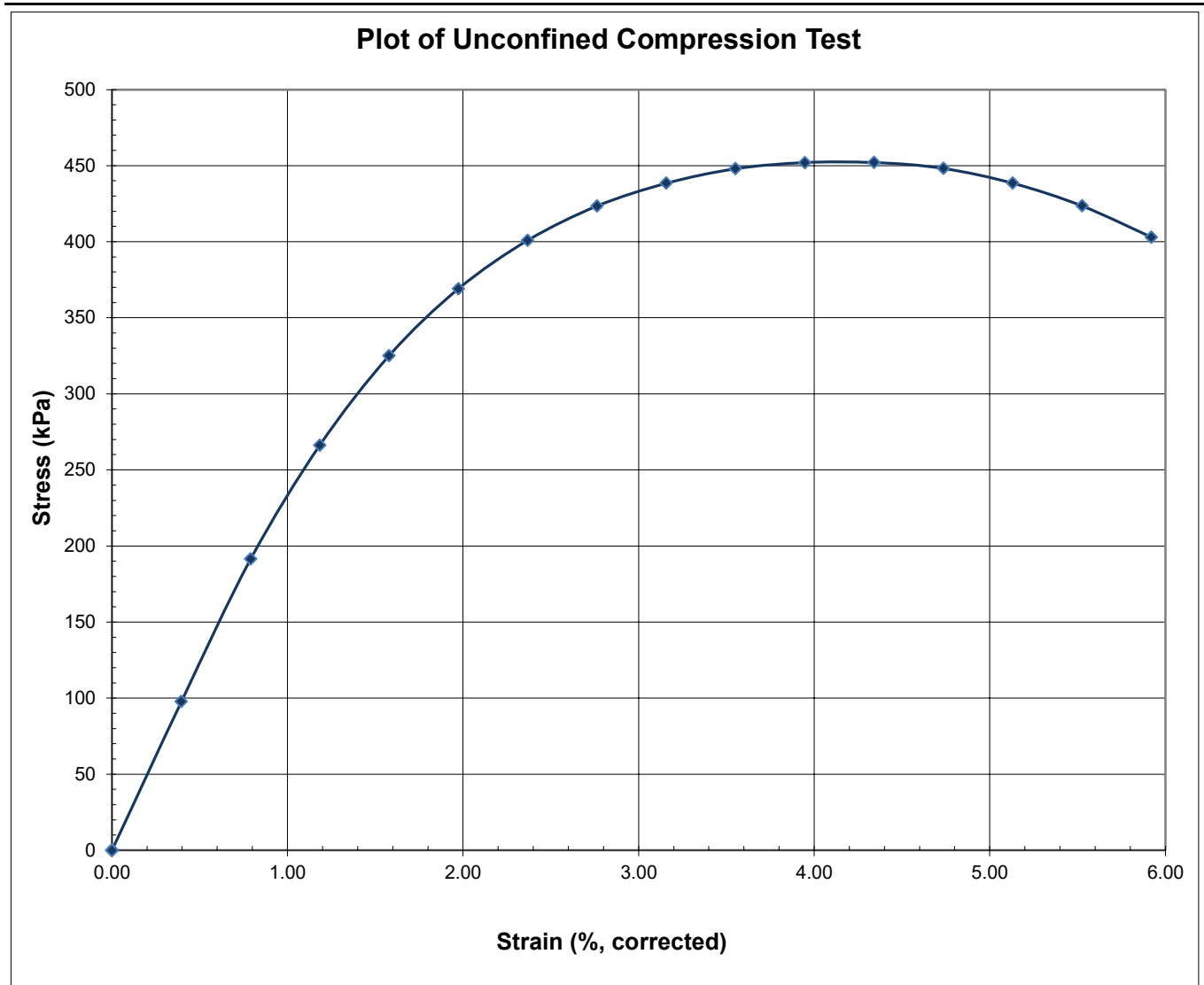
Depth: 12.19 - 12.65 m

Visual Description of Sample: (CL) LEAN CLAY; few sand; light brown; cohesive, w~PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>452.1</u>	Time of Failure (min:sec): <u>5.5</u>
Strain at Failure (%): <u>4.3</u>	After Compression: Water Content (%): <u>25.1</u>
Undrained Shear Strength (kPa): <u>226.0</u>	Initial Dry Density (Kg/m ³): <u>1588</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-53

Tested by: JH / SS

Date: January 16, 2026

Borehole #: SS-BH25-34

Sample #: TO-1

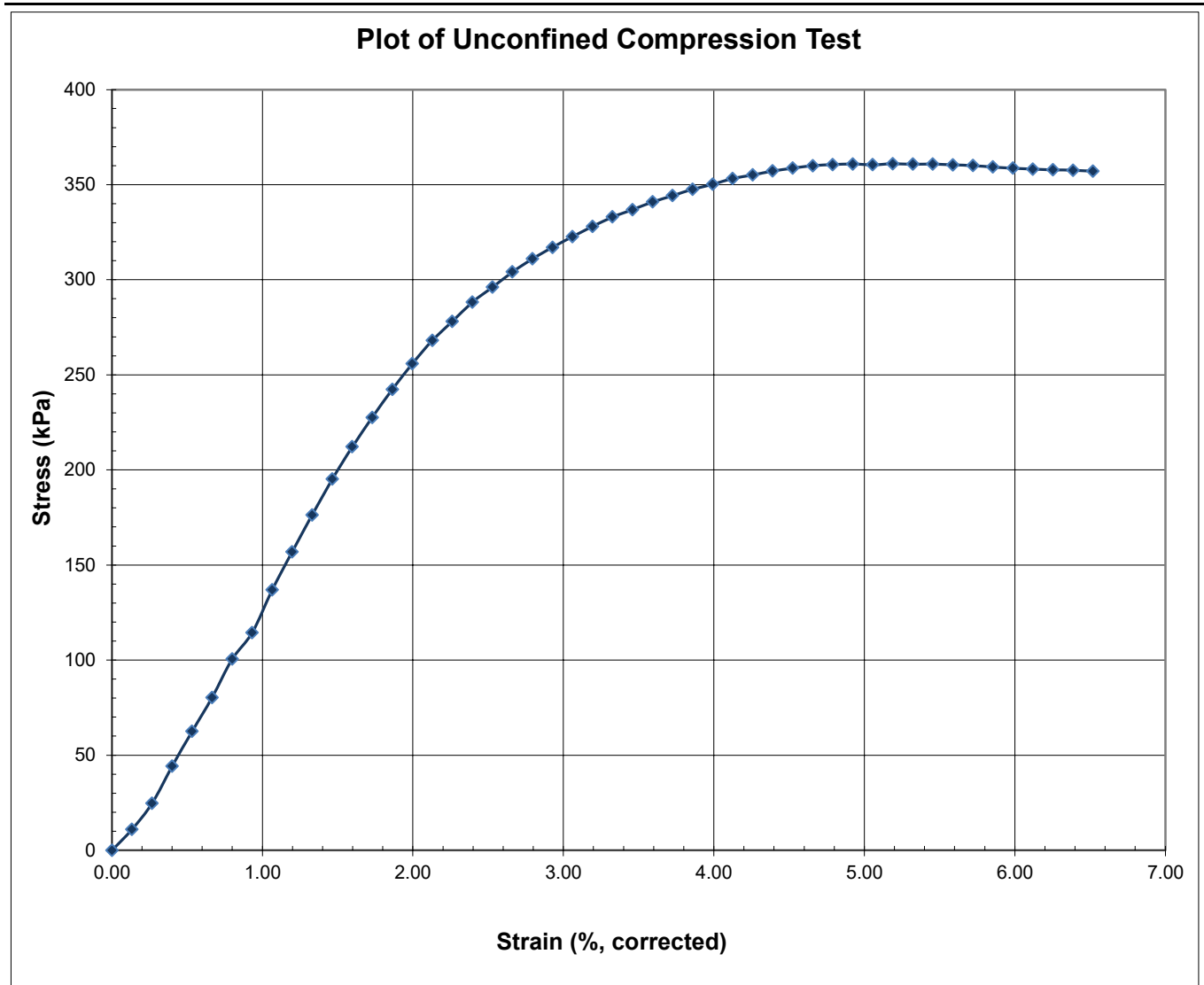
Depth: 4.57 - 5.18 m

Visual Description of Sample: (CL) LEAN CLAY; few sand; light brown; cohesive, $w > PL$.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>361.1</u>	Time of Failure (min:sec): <u>6.5</u>
Strain at Failure (%): <u>5.2</u>	After Compression: Water Content (%): <u>16.8</u>
Undrained Shear Strength (kPa): <u>180.5</u>	Initial Dry Density (Kg/m ³): <u>1685</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-56

Tested by: JH / SS

Date: January 16, 2026

Borehole #: SS-BH25-35

Sample #: TO-2

Depth: 10.67 - 11.28 m

Visual Description of Sample: (MH) ELASTIC SILT; some clay; grey-brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

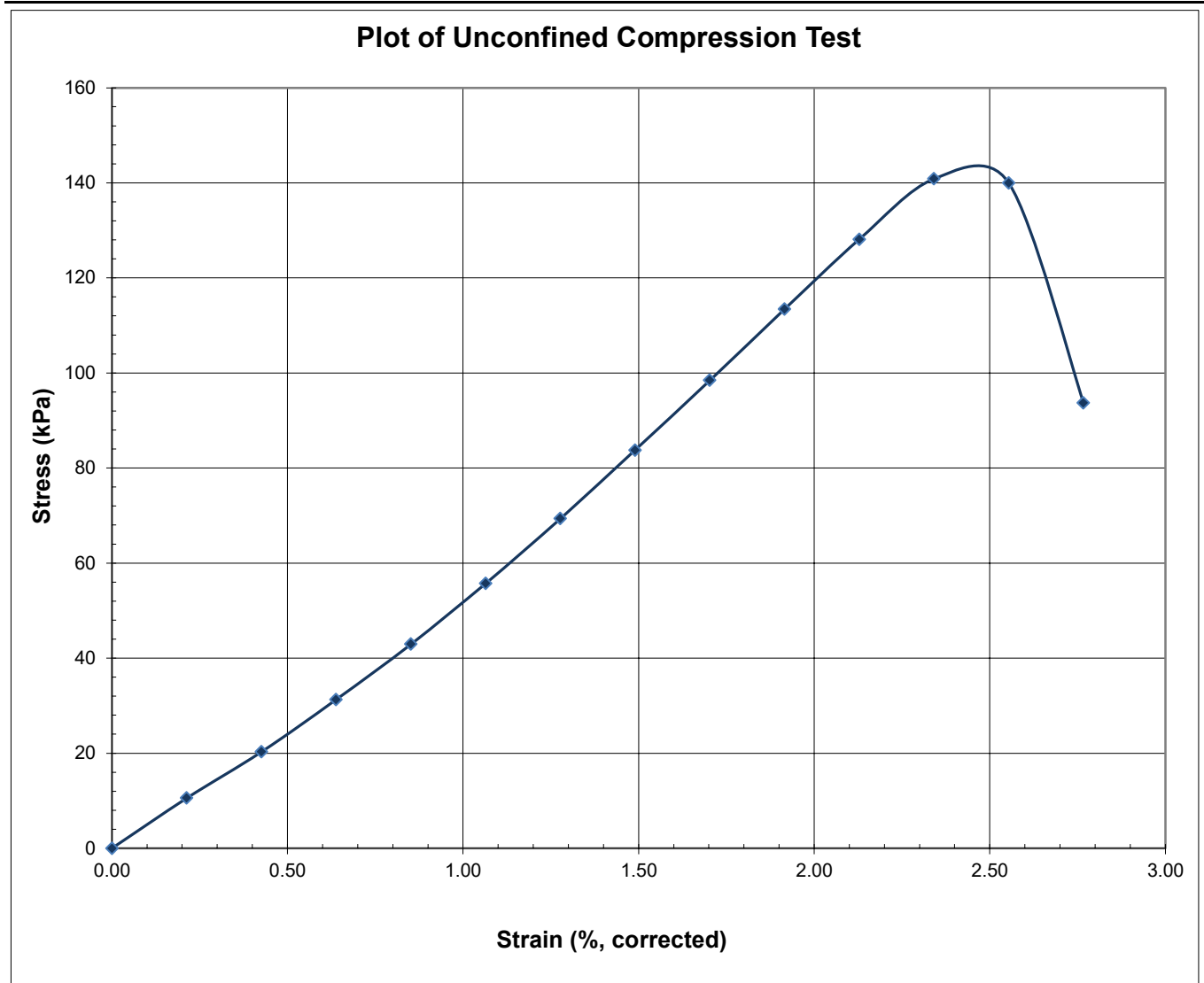
Compressive Stress at Failure (kPa): 140.9

Time of Failure (min:sec): 1.8

Strain at Failure (%): 2.3 After Compression: Water Content (%): 21.2

Undrained Shear Strength (kPa): 70.4 Initial Dry Density (Kg/m³): 1703

Plot of Unconfined Compression Test



Comments:

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Reviewed by:
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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-61

Tested by: JH / SS / MM

Date: January 16, 2026

Borehole #: SS-BH25-38B

Sample #: TO-1

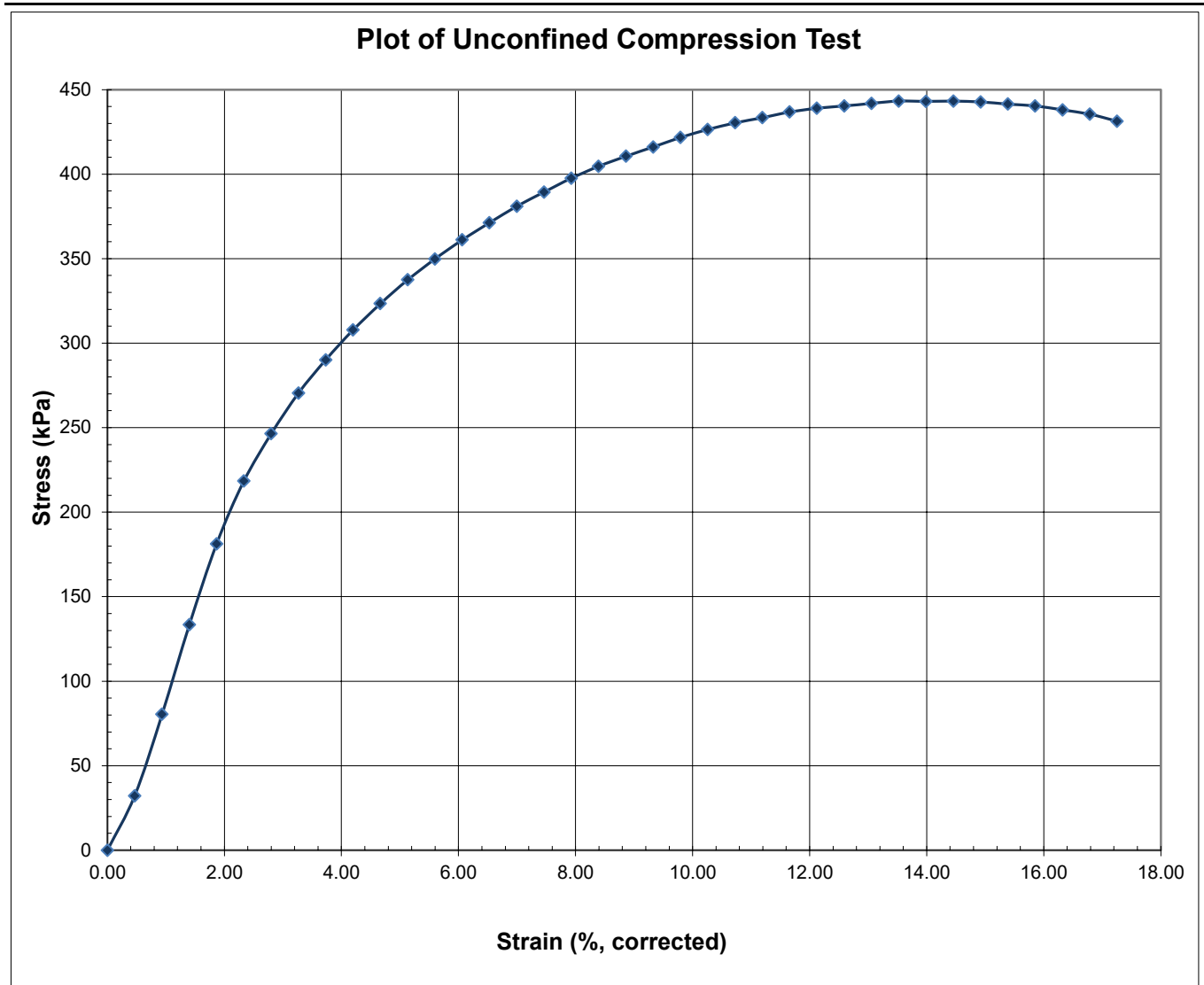
Depth: 6.10 - 6.71 m

Visual Description of Sample: (CH) FAT CLAY; some sand; brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>443.2</u>	Time of Failure (min:sec): <u>14.5</u>
Strain at Failure (%): <u>13.5</u>	After Compression: Water Content (%): <u>15.8</u>
Undrained Shear Strength (kPa): <u>221.6</u>	Initial Dry Density (Kg/m ³): <u>1775</u>



Comments:

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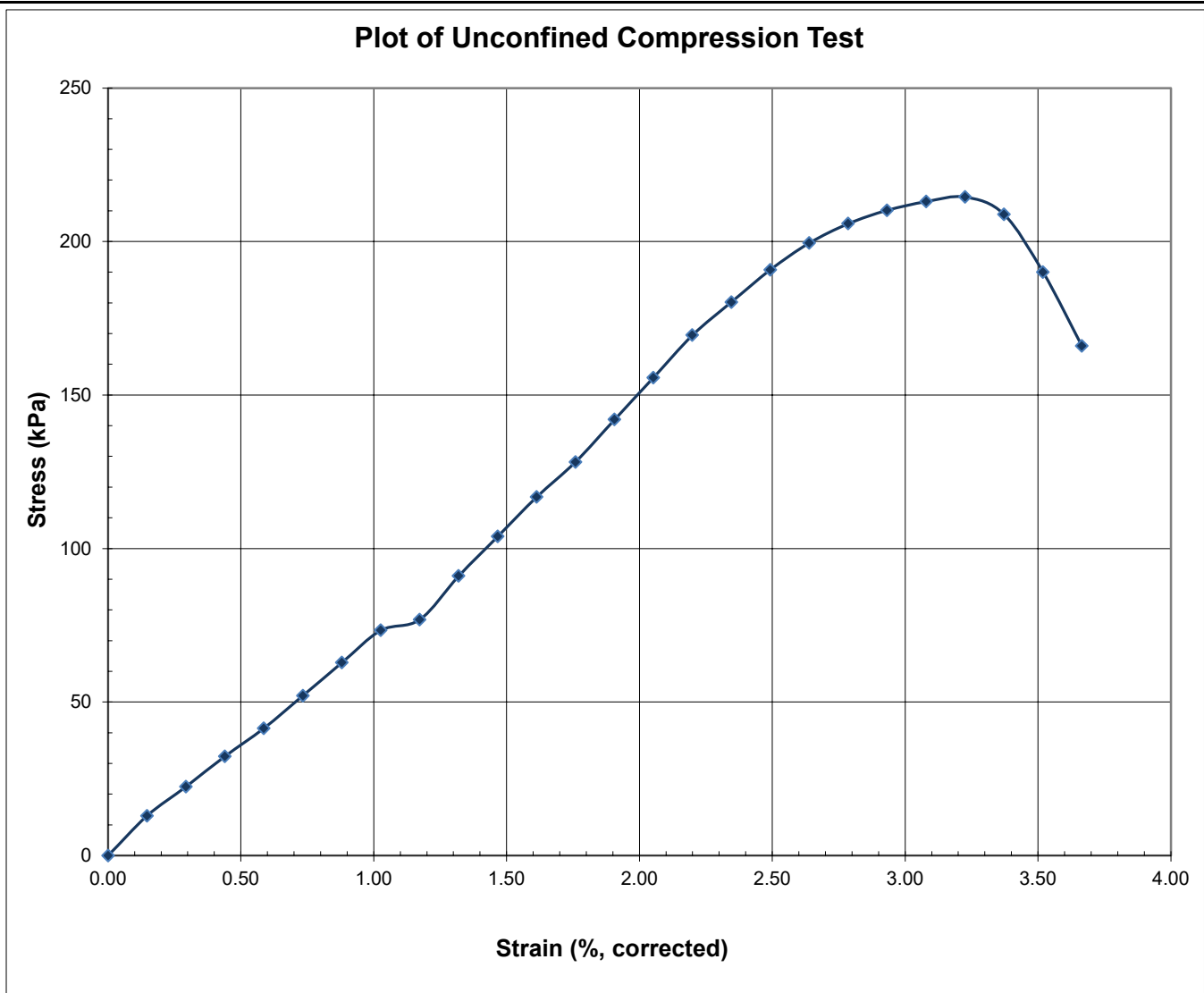




UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836 Task: 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3 Lab #: SL7938-64
Tested by: JH / SS Date: January 19, 2026
Borehole #: SS-BH25-39 Sample #: TO-2 Depth: 7.62 - 8.23 m
Visual Description of Sample: (CL) LEAN CLAY; some sand; brown; cohesive, w>PL.
Date Sample Received: December 10, 2025 Specimen Preparation: Intact

Compressive Stress at Failure (kPa): 214.5 Time of Failure (min:sec): 3.7
Strain at Failure (%): 3.2 After Compression: Water Content (%): 28.4
Undrained Shear Strength (kPa): 107.3 Initial Dry Density (Kg/m³): 1567



Comments:

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Reviewed by:
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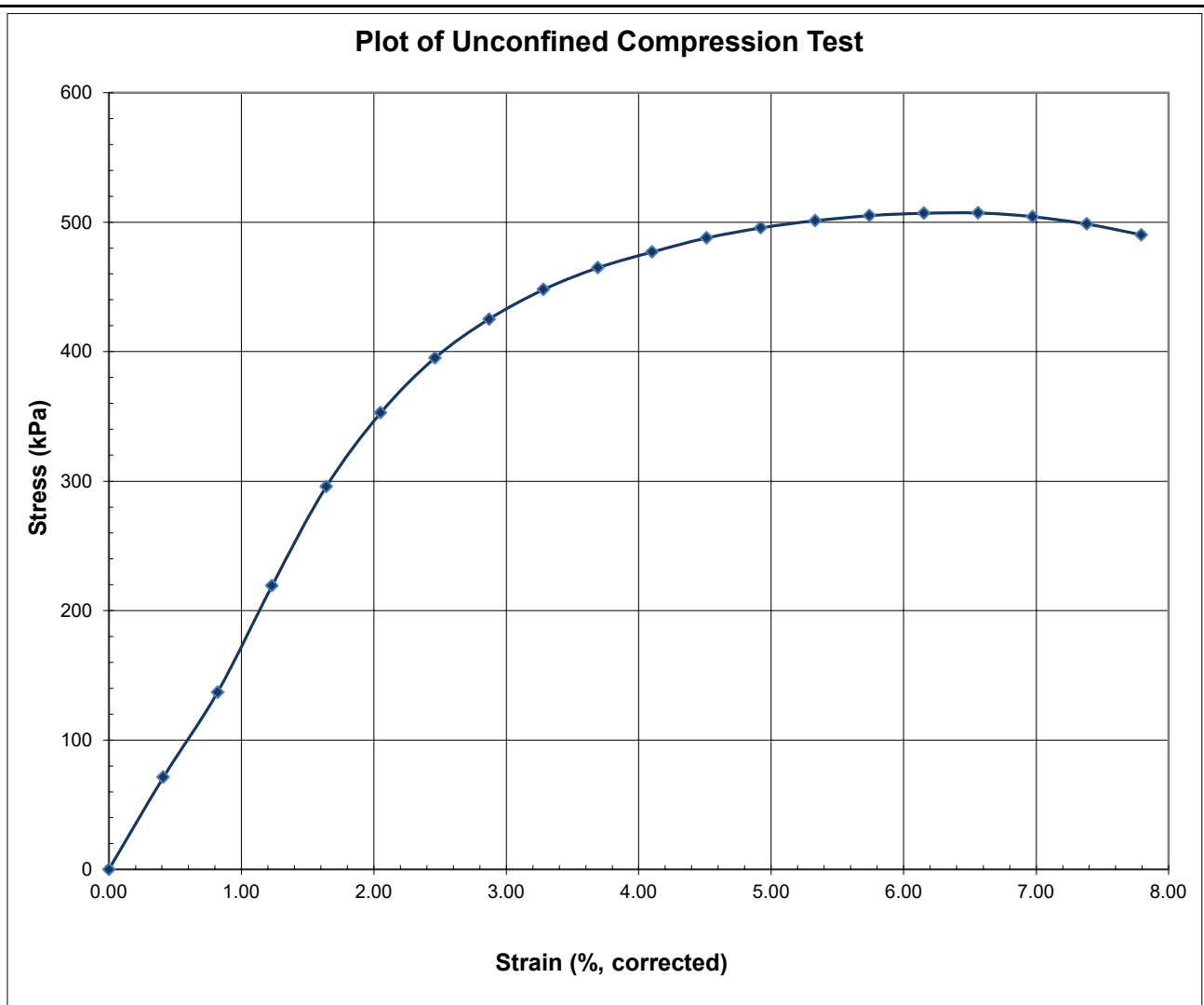


UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836	Task: 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3	Lab #: SL7938-65
Tested by: AP / SS	Date: January 22, 2026

Borehole #: SS-BH25-40	Sample #: TO-1	Depth: 4.57 - 5.18 m
Visual Description of Sample: (CH) silty FAT CLAY; light brown; cohesive, w>PL.		
Date Sample Received: December 10, 2025	Specimen Preparation: Intact	

Compressive Stress at Failure (kPa): <u>507.2</u>	Time of Failure (min:sec): <u>8.0</u>
Strain at Failure (%): <u>6.6</u>	After Compression: Water Content (%): <u>20.3</u>
Undrained Shear Strength (kPa): <u>253.6</u>	Initial Dry Density (Kg/m ³): <u>1800</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-67

Tested by: JH / SS

Date: January 16, 2026

Borehole #: SS-BH25-41

Sample #: TO-1

Depth: 6.10 - 6.71 m

Visual Description of Sample: (CL) LEAN CLAY; some sand; light brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

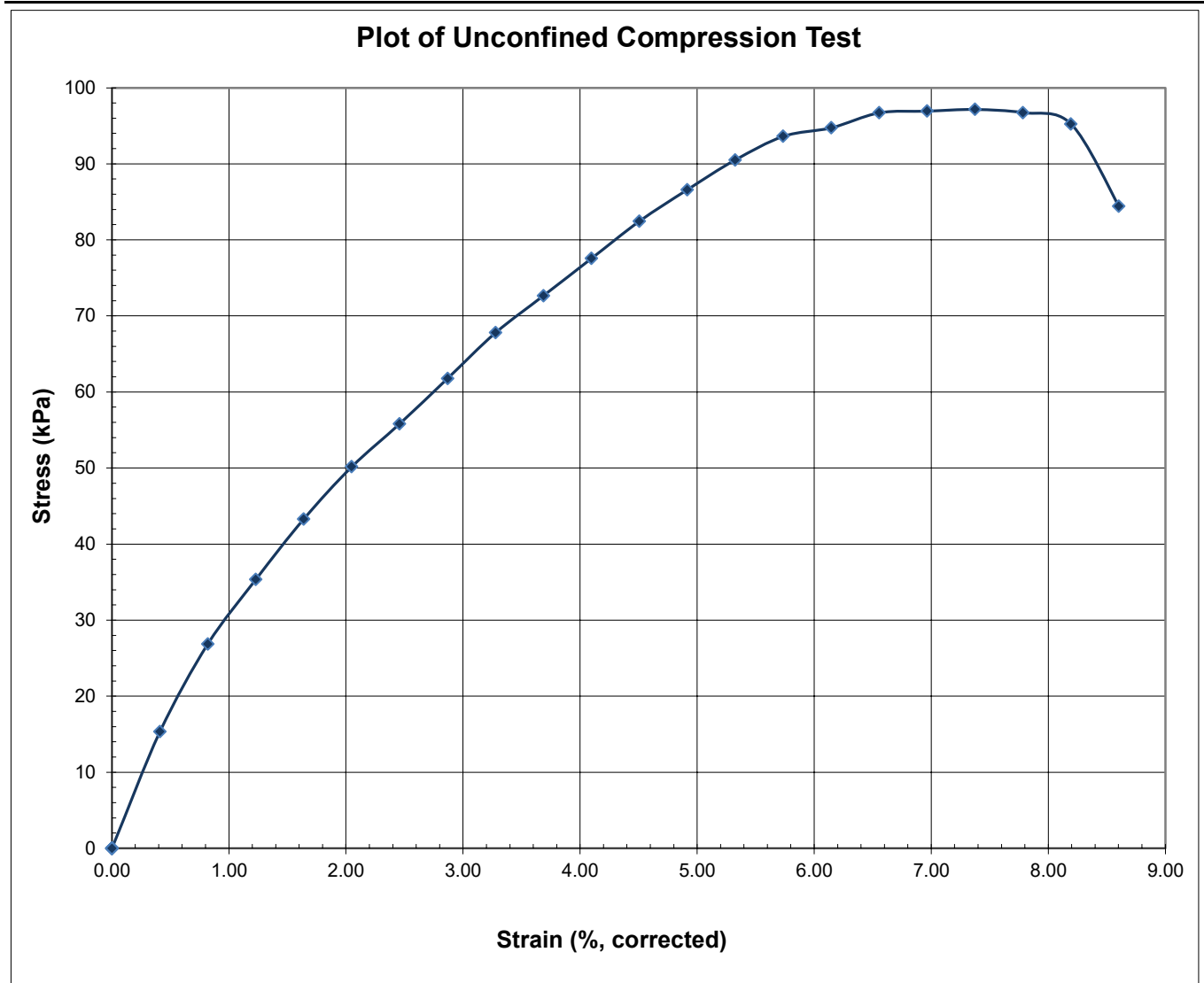
Compressive Stress at Failure (kPa): 97.2

Time of Failure (min:sec): 9.0

Strain at Failure (%): 7.4 After Compression: Water Content (%): 17.6

Undrained Shear Strength (kPa): 48.6 Initial Dry Density (Kg/m³): 1829

Plot of Unconfined Compression Test



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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO #
3

Lab #: SL7938-73

Tested by: JH / SS

Date: January 22, 2026

Borehole #: SS-BH25-43

Sample #: TO-1

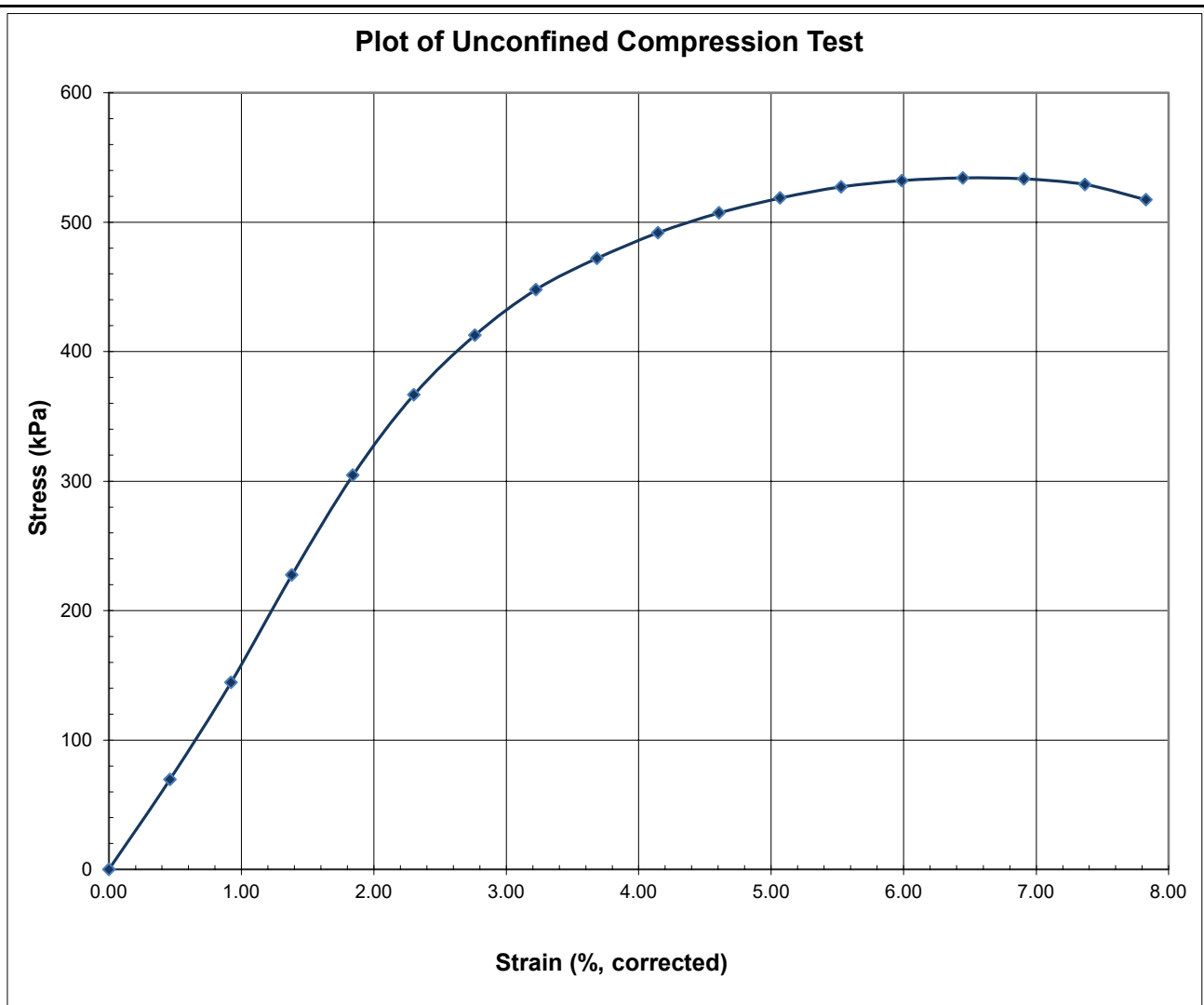
Depth: 4.57 - 5.18 m

Visual Description of Sample: (CL) LEAN CLAY; some sand; light brown; cohesive, w<PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>534.2</u>	Time of Failure (min:sec): <u>7.0</u>
Strain at Failure (%): <u>6.4</u>	After Compression: Water Content (%): <u>13.4</u>
Undrained Shear Strength (kPa): <u>267.1</u>	Initial Dry Density (Kg/m ³): <u>1946</u>



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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO #
3

Lab #: SL7938-75

Tested by: JH / SS

Date: January 22, 2026

Borehole #: SS-BH25-44B

Sample #: TO-1

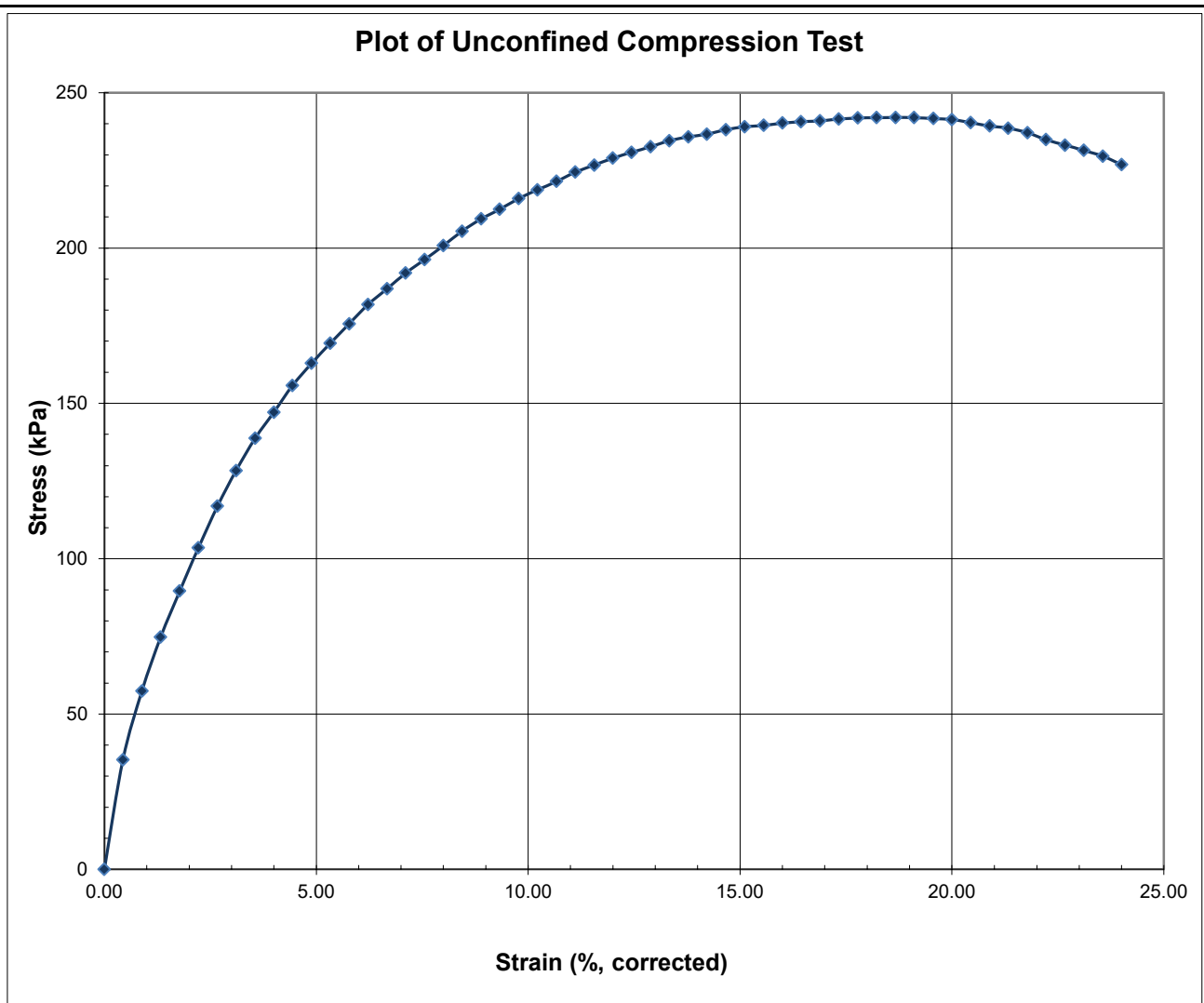
Depth: 4.57 - 5.18 m

Visual Description of Sample: (CH) FAT CLAY; some sand; light brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at 15% Strain (kPa): <u>238.8</u>	Time of Failure (min:sec): <u>15.0</u>
Strain at Failure (%): <u>15.0</u>	After Compression: Water Content (%): <u>16.6</u>
Undrained Shear Strength (kPa): <u>119.4</u>	Initial Dry Density (Kg/m ³): <u>1780</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO #
3

Lab #: SL7938-81

Tested by: EB / SS

Date: January 22, 2026

Borehole #: SS-BH25-47

Sample #: TO-1

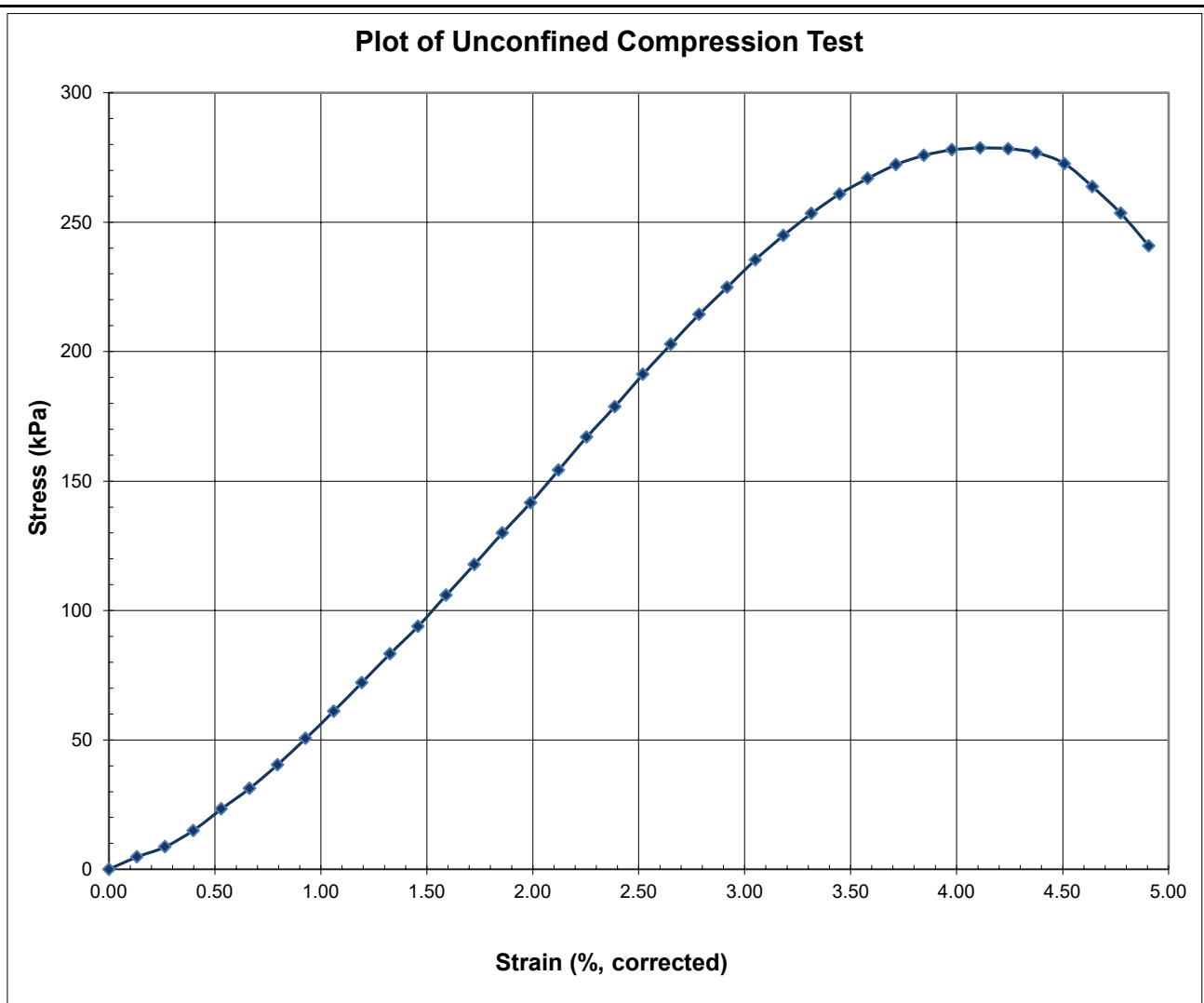
Depth: 4.57 - 5.18 m

Visual Description of Sample: (CL) LEAN CLAY; some silt; brown; cohesive, w~PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>278.7</u>	Time of Failure (min:sec): <u>5.2</u>
Strain at Failure (%): <u>4.1</u>	After Compression: Water Content (%): <u>24.4</u>
Undrained Shear Strength (kPa): <u>139.3</u>	Initial Dry Density (Kg/m ³): <u>1609</u>



Comments:

The testing services reported herein have been performed in accordance with the indicated recognized standard, or in accordance with local industry practice. This report is for the sole use of the designated client. This report constitutes a testing service only and does not represent any results interpretation or opinion regarding specification compliance or material suitability. Engineering interpretation can be provided by WSP Canada Inc. upon request.



WSP Canada Inc.
1721 8th Street E.,
Saskatoon, Saskatchewan S7N 0T4

Reviewed by:
Stephanie Huber, P.Tech.

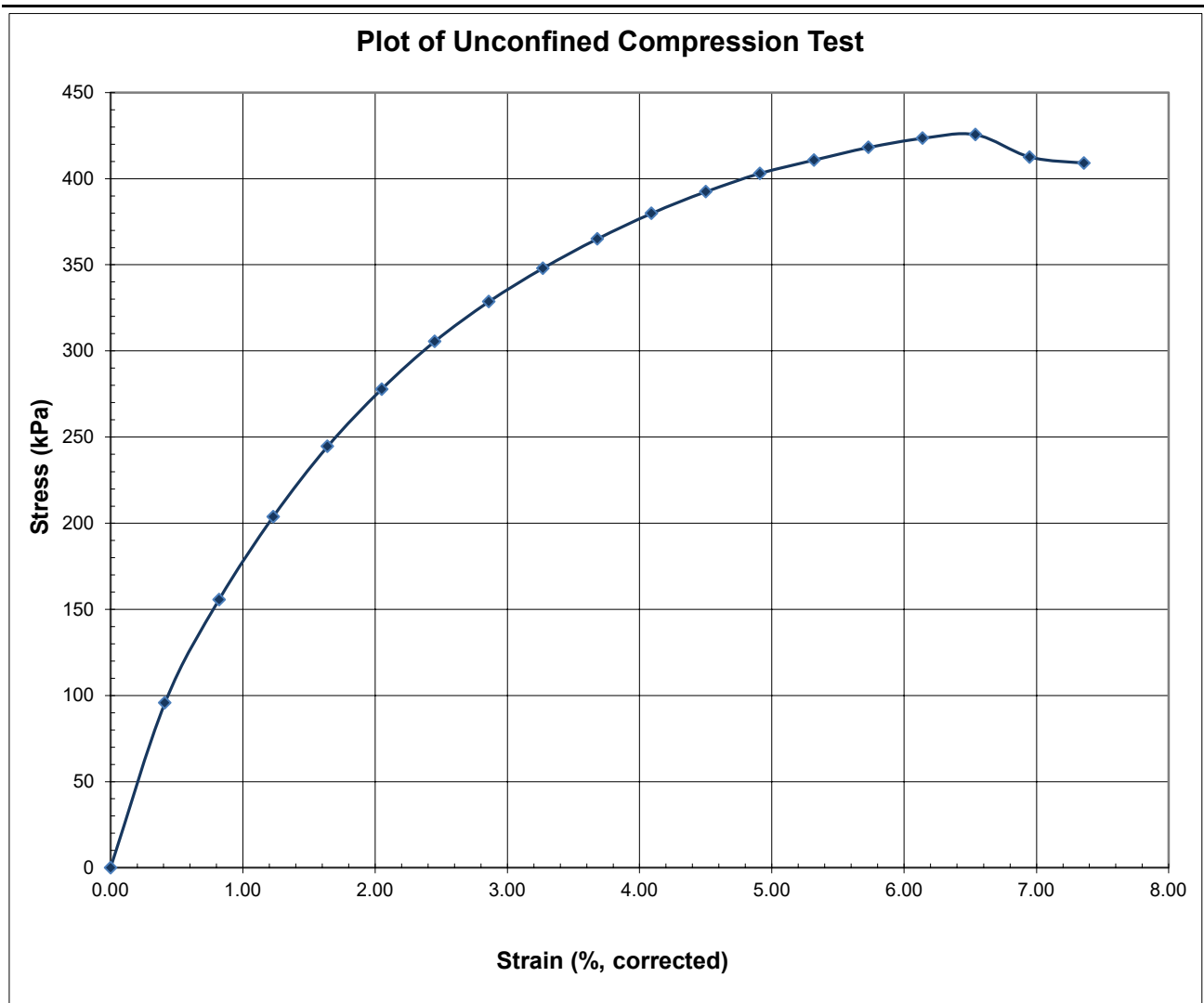


UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836	Task: 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3	Lab #: SL7938-83
Tested by: EB / SS	Date: January 21, 2026

Borehole #: SS-BH25-48	Sample #: TO-1	Depth: 4.57 - 5.18 m
Visual Description of Sample: (CH) FAT CLAY; some sand; dark brown; cohesive, w~PL.		
Date Sample Received: December 10, 2025	Specimen Preparation: Intact	

Compressive Stress at Failure (kPa): <u>425.6</u>	Time of Failure (min:sec): <u>8.0</u>
Strain at Failure (%): <u>6.5</u>	After Compression: Water Content (%): <u>15.5</u>
Undrained Shear Strength (kPa): <u>212.8</u>	Initial Dry Density (Kg/m ³): <u>1899</u>



Comments:

The testing services reported herein have been performed in accordance with the indicated recognized standard, or in accordance with local industry practice. This report is for the sole use of the designated client. This report constitutes a testing service only and does not represent any results interpretation or opinion regarding specification compliance or material suitability. Engineering interpretation can be provided by WSP Canada Inc. upon request.



WSP Canada Inc.
1721 8th Street E.,
Saskatoon, Saskatchewan S7N 0T4

Reviewed by:
Stephanie Huber, P.Tech.



UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-85

Tested by: JH / SS

Date: January 16, 2026

Borehole #: SS-BH25-49B

Sample #: TO-1

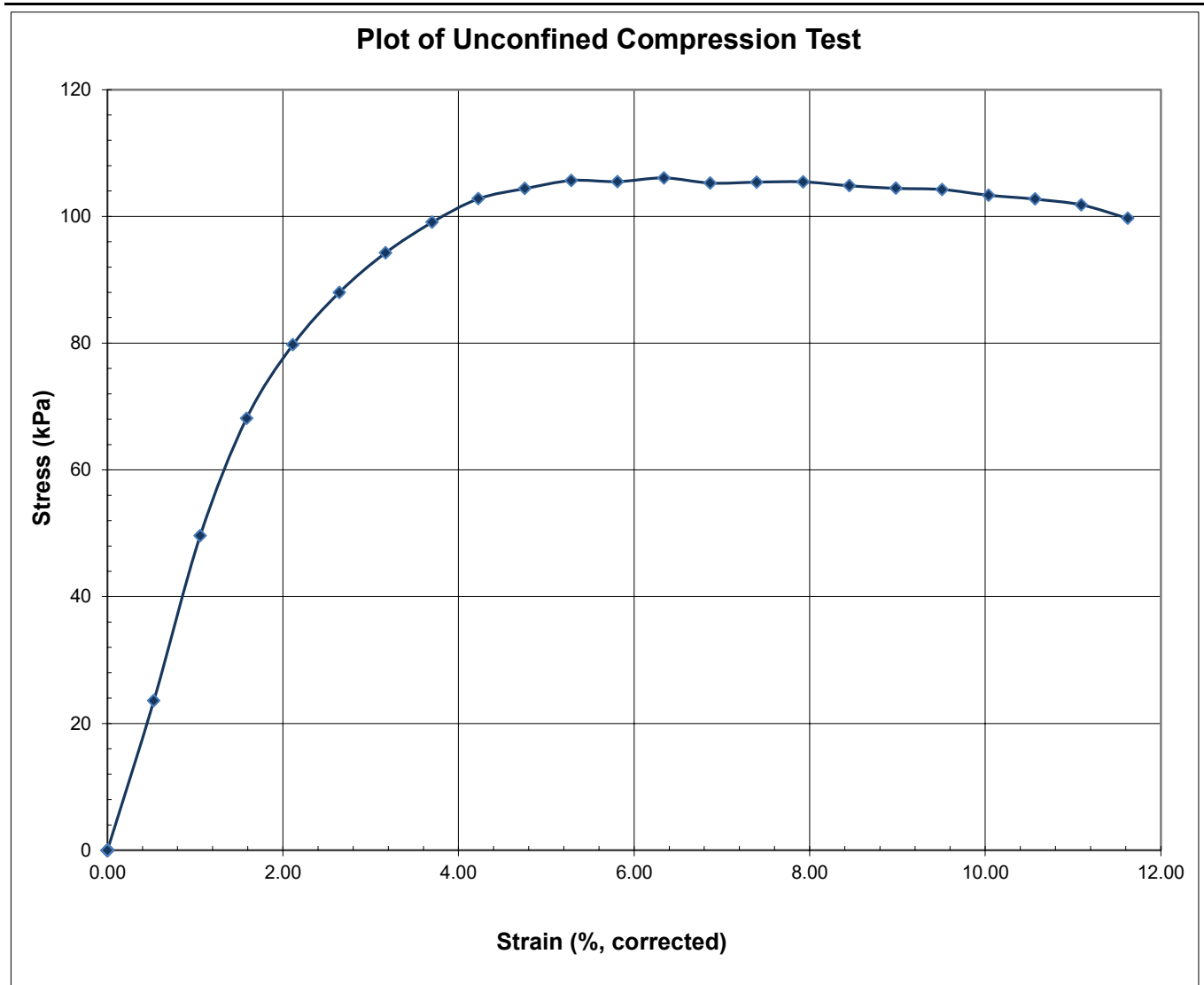
Depth: 4.57 - 5.18 m

Visual Description of Sample: (CL) LEAN CLAY; some sand; brown; cohesive, w~PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>106.1</u>	Time of Failure (min:sec): <u>6.0</u>
Strain at Failure (%): <u>6.3</u>	After Compression: Water Content (%): <u>14.9</u>
Undrained Shear Strength (kPa): <u>53.0</u>	Initial Dry Density (Kg/m ³): <u>1512</u>



Comments:

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Saskatoon, Saskatchewan S7N 0T4

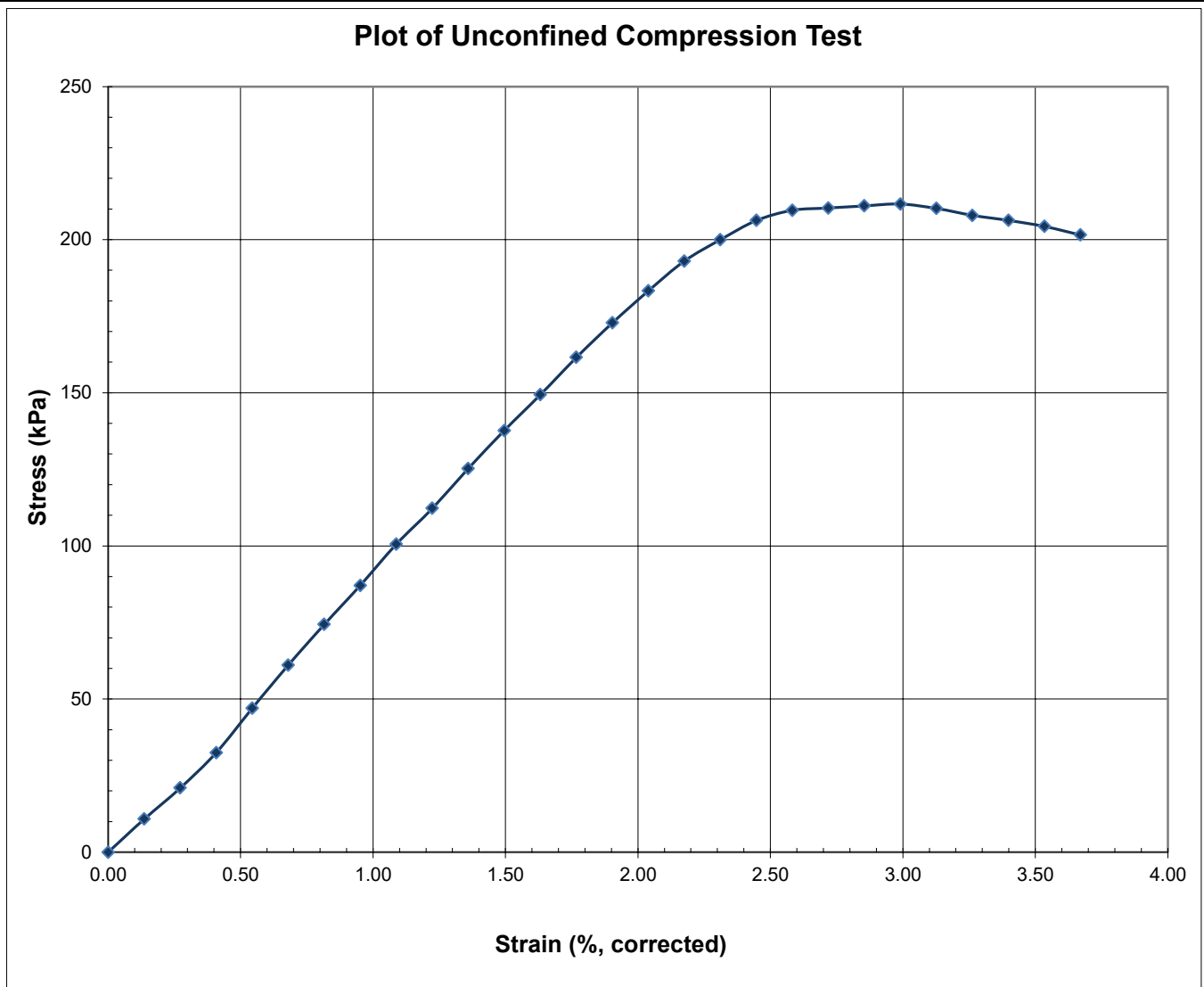
Reviewed by:
Stephanie Huber, P.Tech.



UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836	Task: 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1	Lab #: RL131-118
Tested by: JH / SS	Date: January 22, 2026
Borehole #: SS-BH25-51	Sample #: TO-2
Visual Description of Sample: (MH) ELASTIC SILT; grey; cohesive, w<PL.	
Date Sample Received: December 10, 2025	Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>211.7</u>	Time of Failure (min:sec): <u>3.7</u>
Strain at Failure (%): <u>3.0</u>	After Compression: Water Content (%): <u>23.2</u>
Undrained Shear Strength (kPa): <u>105.8</u>	Initial Dry Density (Kg/m ³): <u>1626</u>



Comments:

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UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836

Task: 300-Lab Testing

Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation - LWO # 3

Lab #: SL7938-89

Tested by: JH / SS

Date: January 20, 2026

Borehole #: SS-BH25-52

Sample #: TO-1

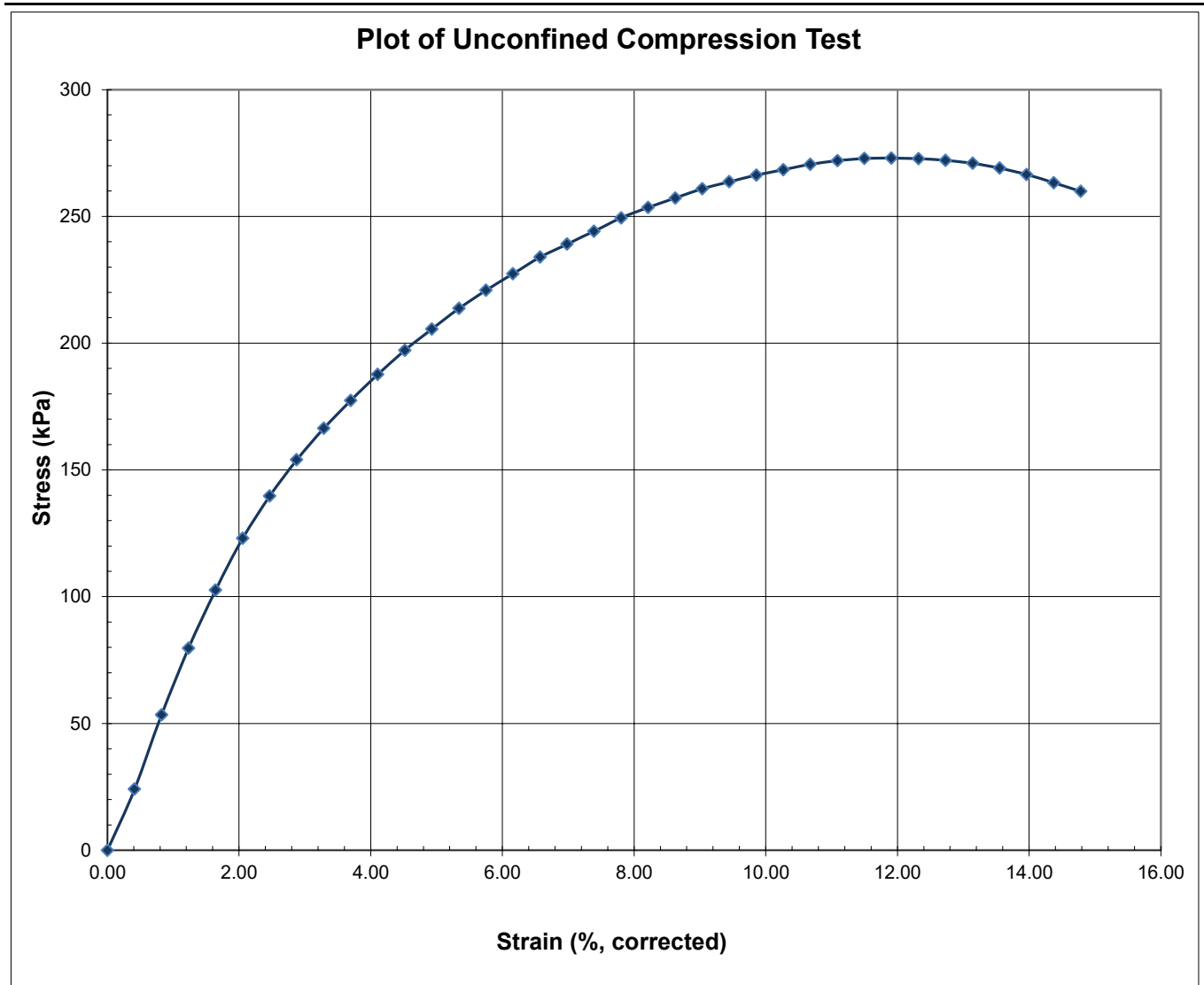
Depth: 3.05 - 3.66 m

Visual Description of Sample: (CH) FAT CLAY; some sand; brown; cohesive, w>PL.

Date Sample Received: December 10, 2025

Specimen Preparation: Intact

Compressive Stress at Failure (kPa): <u>273.0</u>	Time of Failure (min:sec): <u>14.5</u>
Strain at Failure (%): <u>11.9</u>	After Compression: Water Content (%): <u>20.0</u>
Undrained Shear Strength (kPa): <u>136.5</u>	Initial Dry Density (Kg/m ³): <u>1718</u>



Comments:

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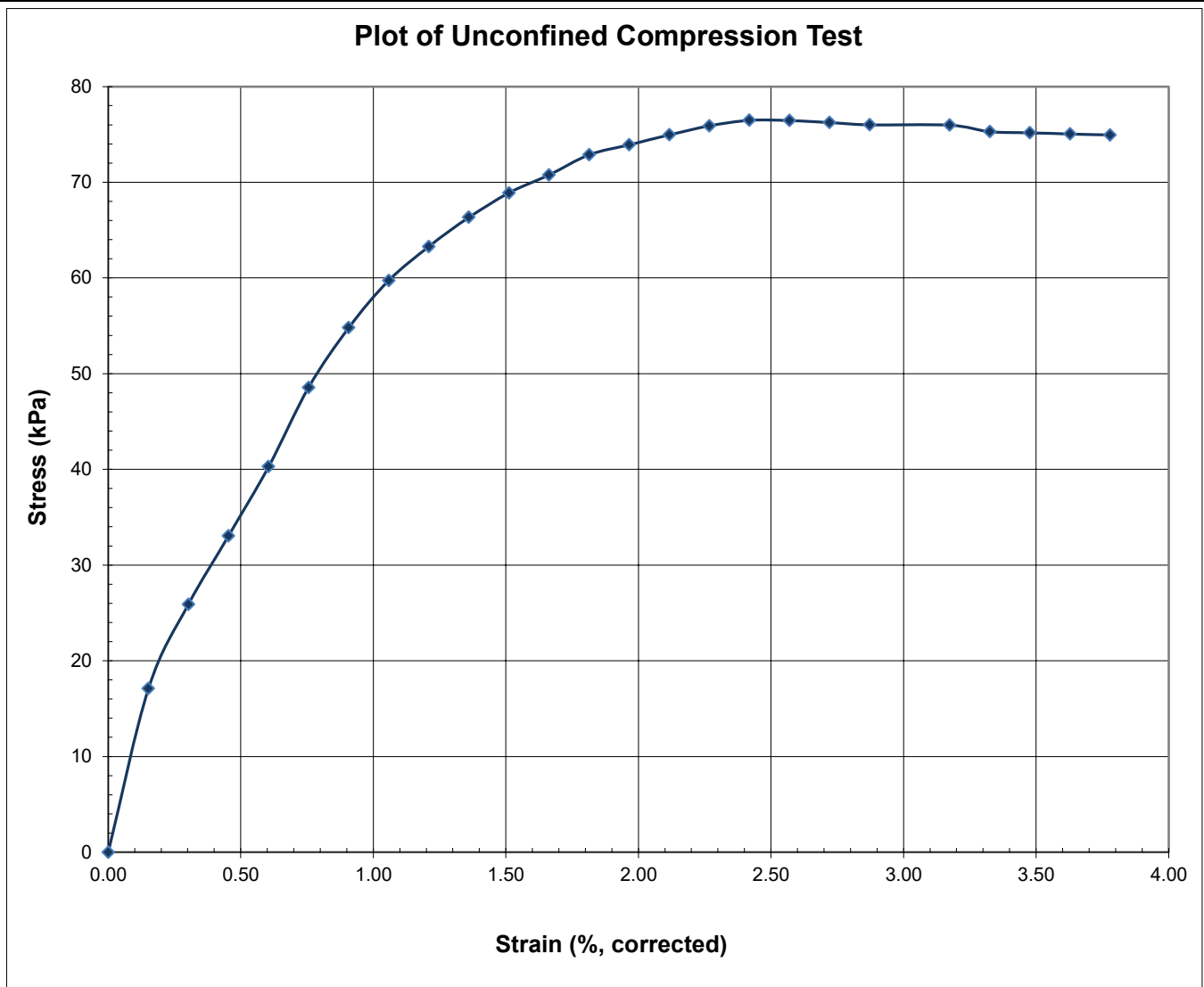




UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOIL (ASTM D2166)

Project #: CA0059493.2836		Task: 300-Lab Testing
Short Title: Enbridge Seven Stars Wind Farm Geotechnical Investigation_1		Lab #: RL131-134
Tested by: EB / SS		Date: January 22, 2026
Borehole #: SS-BH25-53	Sample #: TO-1	Depth: 7.62 - 8.23 m
Visual Description of Sample: (CL) LEAN CLAY; some silt; grey; cohesive, w>PL.		
Date Sample Received: December 10, 2025		Specimen Preparation: Intact

Compressive Stress at Failure (kPa):	<u>76.5</u>	Time of Failure (min:sec):	<u>2.7</u>
Strain at Failure (%):	<u>2.4</u>	After Compression: Water Content (%):	<u>30.8</u>
Undrained Shear Strength (kPa):	<u>38.2</u>	Initial Dry Density (Kg/m ³):	<u>1501</u>



Comments:

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CERTIFICATE OF ANALYSIS

Work Order : **RG2501930**
Client : **WSP Canada Inc.**
Contact : Lisa Nehring
Address : 1721 8th Street East
 Saskatoon Saskatchewan Canada S7H 0T4
Telephone : ----
Project : CA0059493.2836/300
PO : P123380CA001
Sampler : JS
Quote number : 2025 Geotech soils (E)
No. of samples received : 9
No. of samples analysed : 9

Laboratory : ALS Environmental - Regina
Account Manager : Brian Morgan
Address : 1119 Osler Street
 Regina SK Canada S4R 8N5
E-mail : Brian.Morgan@ALSGlobal.com
Telephone : 1 306 221 7147
Date Samples Received : 19-Dec-2025 13:26
Date Analysis Commenced : 23-Dec-2025
Issue Date : 05-Jan-2026 08:55

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Alphina Mathew	Laboratory Assistant	Inorganics, Calgary, Alberta
George Huang	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Katarzyna Glinka	Analyst	Inorganics, Calgary, Alberta
Kuljeet Chawla		Inorganics, Calgary, Alberta
Nguyen Tran	Laboratory Analyst	Organics, Calgary, Alberta
Vishnu Patel		Inorganics, Calgary, Alberta



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
%	percent
mg/kg	milligrams per kilogram
mg/L	milligrams per litre
mV	millivolts
ohm cm	ohm centimetres (resistivity)
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Accreditation

<i>Accreditation</i>	<i>Description</i>	<i>Laboratory</i>	<i>Address</i>
A	CALA ISO/IEC 17025:2017	CG ALS Environmental - Calgary	2559 29th Street NE, Calgary, AB

Applicable accreditations are indicated in the Method/Lab column.

Work Order : RG2501930
Client : WSP Canada Inc.
Project : CA0059493.2836/300





Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	SS-BH25-12 SA 3 (4.5-5 ft) ----	SS-BH25-15 SA 3 (4.5-5 ft) ----	SS-BH25-16 SA 3 (4.5-5 ft) ----	SS-BH25-17 SA 3 (4.5-5 ft) ----	SS-BH25-21 SA 3 (4.5-5 ft) ----
					Client sampling date / time	12-Nov-2025 12:00	12-Nov-2025 12:00	13-Nov-2025 12:00	14-Nov-2025 12:00	13-Nov-2025 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit	RG2501930-001	RG2501930-002	RG2501930-003	RG2501930-004	RG2501930-005	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/CG	A	0.25	%	14.5	14.0	13.0	11.8	13.8
pH, saturated paste	----	E114/CG	A	0.10	pH units	8.93	8.22	8.33	8.80	8.29
% Saturation	----	E141/CG	A	1.0	%	125	101	89.2	77.6	71.9
Inorganics										
Sulfate, total, ion content	14808-79-8	E246.SO4/CG	A	0.050	%	0.150	3.12	<0.050	<0.050	0.721
Sulfate, soluble ion content	14808-79-8	E246A.SO4/CG	A	0.050	%	----	1.62	----	----	0.223
Sulfate, soluble ion content	14808-79-8	E246A.SO4/CG	A	0.05	%	NR	----	NR	NR	----
Saturated Paste Extractables										
Chloride, soluble ion content	16887-00-6	E266.Cl/CG	A	20	mg/L	<20	31	<20	<20	<20
Oxidation-reduction potential [ORP]	----	E126/CG		0.10	mV	224	202	207	201	198
Resistivity	----	E131/CG	A	1.0	ohm cm	812	472	4020	2890	777
Chloride, soluble ion content	16887-00-6	EC266A.Cl/CG		10	mg/kg	<25	31	<18	<16	<14

Please refer to the General Comments section for an explanation of any qualifiers detected.



Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	SS-BH25-51 SA 3 (4.5-5 ft) ----	SS-BH25-53 SA 3 (4.5-5 ft) ----	SS-BH25-54 SA 3 (4.5-5 ft) ----	SS-BH25-55 AS 3 (4.5-5 ft) ----	----
					Client sampling date / time	10-Nov-2025 12:00	11-Nov-2025 12:00	11-Nov-2025 12:00	14-Nov-2025 12:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit	RG2501930-006	RG2501930-007	RG2501930-008	RG2501930-009	----	
					Result	Result	Result	Result	----	
Physical Tests										
Moisture	----	E144/CG	A	0.25	%	14.9	11.3	14.7	13.9	----
pH, saturated paste	----	E114/CG	A	0.10	pH units	8.15	8.80	8.27	8.31	----
% Saturation	----	E141/CG	A	1.0	%	82.6	84.6	74.4	98.1	----
Inorganics										
Sulfate, total, ion content	14808-79-8	E246.SO4/CG	A	0.050	%	0.345	0.121	6.54	0.642	----
Sulfate, soluble ion content	14808-79-8	E246A.SO4/CG	A	0.05	%	----	NR	----	----	----
Sulfate, soluble ion content	14808-79-8	E246A.SO4/CG	A	0.050	%	0.454	----	4.82	0.716	----
Saturated Paste Extractables										
Chloride, soluble ion content	16887-00-6	E266.Cl/CG	A	20	mg/L	24	121	113	<20	----
Oxidation-reduction potential [ORP]	----	E128/CG		0.10	mV	186	176	179	195	----
Resistivity	----	E131/CG	A	1.0	ohm cm	313	636	401	433	----
Chloride, soluble ion content	16887-00-6	EC266A.Cl/CG		10	mg/kg	20	102	84	<20	----

Please refer to the General Comments section for an explanation of any qualifiers detected.



Quality Control Interpretive Report

Work Order : RG2501930

Client : WSP Canada Inc.
Contact : Lisa Nehring
Address : 1721 8th Street East
Saskatoon SK Canada S7H 0T4
Telephone : ----
Project : CA0059493.2836/300
PO : P123380CA001
Sampler : JS
Quote number : 2025 Geotech soils (E)
No. of samples received : 9
No. of samples analysed : 9

Laboratory : ALS Environmental - Regina
Account Manager : Brian Morgan
Address : 1119 Osler Street
Regina SK Canada S4R 8N5
Telephone : 1 306 221 7147
Date Samples Received : 19-Dec-2025 13:26
Issue Date : 05-Jan-2026 08:55

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Laboratory Control Sample Duplicate (LCSD) outliers occur
- No Matrix Spike outliers occur.
- No Matrix Spike Duplicate (MSD) outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and/or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance; ✔ = Within Holding Time

Analyte Group : Analytical Method		ALS Sample ID	QC Lot	Method	Sampling Date	Extraction / Preparation			Analysis			
Container	Preparation Date					Holding Times		Eval	Analysis Date	Holding Times		Eval
Client sample ID						Rec	Actual			Rec	Actual	
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.												
Glass soil jar/Teflon lined cap												
SS-BH25-12 SA 3 (4.5-5 ft)	001	2403792	E246A.SO4	12-Nov-2025	31-Dec-2025	180 days	49 days	✔	31-Dec-2025	28 days	0 days	✔
SS-BH25-15 SA 3 (4.5-5 ft)	002	2403716	E246A.SO4	12-Nov-2025	31-Dec-2025	180 days	49 days	✔	31-Dec-2025	28 days	0 days	✔
SS-BH25-16 SA 3 (4.5-5 ft)	003	2403792	E246A.SO4	13-Nov-2025	31-Dec-2025	180 days	48 days	✔	31-Dec-2025	28 days	0 days	✔
SS-BH25-17 SA 3 (4.5-5 ft)	004	2403792	E246A.SO4	14-Nov-2025	31-Dec-2025	180 days	47 days	✔	31-Dec-2025	28 days	0 days	✔
SS-BH25-21 SA 3 (4.5-5 ft)	005	2403716	E246A.SO4	13-Nov-2025	31-Dec-2025	180 days	48 days	✔	31-Dec-2025	28 days	0 days	✔
SS-BH25-51 SA 3 (4.5-5 ft)	006	2403716	E246A.SO4	10-Nov-2025	31-Dec-2025	180 days	51 days	✔	31-Dec-2025	28 days	0 days	✔
SS-BH25-53 SA 3 (4.5-5 ft)	007	2403792	E246A.SO4	11-Nov-2025	31-Dec-2025	180 days	50 days	✔	31-Dec-2025	28 days	0 days	✔
SS-BH25-54 SA 3 (4.5-5 ft)	008	2403716	E246A.SO4	11-Nov-2025	31-Dec-2025	180 days	50 days	✔	31-Dec-2025	28 days	0 days	✔
SS-BH25-55 AS 3 (4.5-5 ft)	009	2403716	E246A.SO4	14-Nov-2025	31-Dec-2025	180 days	47 days	✔	31-Dec-2025	28 days	0 days	✔
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC												
Glass soil jar/Teflon lined cap												
SS-BH25-12 SA 3 (4.5-5 ft)	001	2401045	E246.SO4	12-Nov-2025	29-Dec-2025	180 days	47 days	✔	30-Dec-2025	28 days	0 days	✔
SS-BH25-15 SA 3 (4.5-5 ft)	002	2401045	E246.SO4	12-Nov-2025	29-Dec-2025	180 days	47 days	✔	30-Dec-2025	28 days	0 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance; ✔ = Within Holding Time

Analyte Group : Analytical Method		ALS Sample ID	QC Lot	Method	Sampling Date	Extraction / Preparation			Analysis			
Container	Preparation Date					Holding Times		Eval	Analysis Date	Holding Times		Eval
Client sample ID						Rec	Actual			Rec	Actual	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC												
Glass soil jar/Teflon lined cap												
SS-BH25-16 SA 3 (4.5-5 ft)	003	2401045	E246.SO4	13-Nov-2025	29-Dec-2025	180 days	46 days	✔	30-Dec-2025	28 days	0 days	✔
SS-BH25-17 SA 3 (4.5-5 ft)	004	2401045	E246.SO4	14-Nov-2025	29-Dec-2025	180 days	45 days	✔	30-Dec-2025	28 days	0 days	✔
SS-BH25-21 SA 3 (4.5-5 ft)	005	2401045	E246.SO4	13-Nov-2025	29-Dec-2025	180 days	46 days	✔	30-Dec-2025	28 days	0 days	✔
SS-BH25-51 SA 3 (4.5-5 ft)	006	2401045	E246.SO4	10-Nov-2025	29-Dec-2025	180 days	49 days	✔	30-Dec-2025	28 days	0 days	✔
SS-BH25-53 SA 3 (4.5-5 ft)	007	2401045	E246.SO4	11-Nov-2025	29-Dec-2025	180 days	48 days	✔	30-Dec-2025	28 days	0 days	✔
SS-BH25-54 SA 3 (4.5-5 ft)	008	2401045	E246.SO4	11-Nov-2025	29-Dec-2025	180 days	48 days	✔	30-Dec-2025	28 days	0 days	✔
SS-BH25-55 AS 3 (4.5-5 ft)	009	2401045	E246.SO4	14-Nov-2025	29-Dec-2025	180 days	45 days	✔	30-Dec-2025	28 days	0 days	✔
Physical Tests : Moisture Content by Gravimetry												
Glass soil jar/Teflon lined cap												
SS-BH25-12 SA 3 (4.5-5 ft)	001	2400963	E144	12-Nov-2025	----	----	----		29-Dec-2025	----	----	
SS-BH25-15 SA 3 (4.5-5 ft)	002	2400963	E144	12-Nov-2025	----	----	----		29-Dec-2025	----	----	
SS-BH25-16 SA 3 (4.5-5 ft)	003	2400963	E144	13-Nov-2025	----	----	----		29-Dec-2025	----	----	
SS-BH25-17 SA 3 (4.5-5 ft)	004	2400963	E144	14-Nov-2025	----	----	----		29-Dec-2025	----	----	
SS-BH25-21 SA 3 (4.5-5 ft)	005	2400963	E144	13-Nov-2025	----	----	----		29-Dec-2025	----	----	
SS-BH25-51 SA 3 (4.5-5 ft)	006	2400963	E144	10-Nov-2025	----	----	----		29-Dec-2025	----	----	
SS-BH25-53 SA 3 (4.5-5 ft)	007	2400963	E144	11-Nov-2025	----	----	----		29-Dec-2025	----	----	
SS-BH25-54 SA 3 (4.5-5 ft)	008	2400963	E144	11-Nov-2025	----	----	----		29-Dec-2025	----	----	
SS-BH25-55 AS 3 (4.5-5 ft)	009	2400963	E144	14-Nov-2025	----	----	----		29-Dec-2025	----	----	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance; ✔ = Within Holding Time

Analyte Group : Analytical Method		ALS Sample ID	QC Lot	Method	Sampling Date	Extraction / Preparation			Analysis			
Container	Preparation Date					Holding Times		Eval	Analysis Date	Holding Times		Eval
Client sample ID						Rec	Actual			Rec	Actual	
Physical Tests : pH by Meter (Saturated Paste)												
LDPE bag												
SS-BH25-12 SA 3 (4.5-5 ft)	001	2399423	E114	12-Nov-2025	24-Dec-2025	365 days	42 days	✔	24-Dec-2025	365 days	42 days	✔
SS-BH25-15 SA 3 (4.5-5 ft)	002	2399423	E114	12-Nov-2025	24-Dec-2025	365 days	42 days	✔	24-Dec-2025	365 days	42 days	✔
SS-BH25-16 SA 3 (4.5-5 ft)	003	2399423	E114	13-Nov-2025	24-Dec-2025	365 days	41 days	✔	24-Dec-2025	365 days	41 days	✔
SS-BH25-17 SA 3 (4.5-5 ft)	004	2399423	E114	14-Nov-2025	24-Dec-2025	365 days	40 days	✔	24-Dec-2025	365 days	40 days	✔
SS-BH25-21 SA 3 (4.5-5 ft)	005	2399423	E114	13-Nov-2025	24-Dec-2025	365 days	41 days	✔	24-Dec-2025	365 days	41 days	✔
SS-BH25-51 SA 3 (4.5-5 ft)	006	2399423	E114	10-Nov-2025	24-Dec-2025	365 days	44 days	✔	24-Dec-2025	365 days	44 days	✔
SS-BH25-53 SA 3 (4.5-5 ft)	007	2399423	E114	11-Nov-2025	24-Dec-2025	365 days	43 days	✔	24-Dec-2025	365 days	43 days	✔
SS-BH25-54 SA 3 (4.5-5 ft)	008	2399423	E114	11-Nov-2025	24-Dec-2025	365 days	43 days	✔	24-Dec-2025	365 days	43 days	✔
SS-BH25-55 AS 3 (4.5-5 ft)	009	2399423	E114	14-Nov-2025	24-Dec-2025	365 days	40 days	✔	24-Dec-2025	365 days	40 days	✔
Physical Tests : Saturation Percentage												
LDPE bag												
SS-BH25-12 SA 3 (4.5-5 ft)	001	2399424	E141	12-Nov-2025	24-Dec-2025	----	----		24-Dec-2025	----	----	
SS-BH25-15 SA 3 (4.5-5 ft)	002	2399424	E141	12-Nov-2025	24-Dec-2025	----	----		24-Dec-2025	----	----	
SS-BH25-16 SA 3 (4.5-5 ft)	003	2399424	E141	13-Nov-2025	24-Dec-2025	----	----		24-Dec-2025	----	----	
SS-BH25-17 SA 3 (4.5-5 ft)	004	2399424	E141	14-Nov-2025	24-Dec-2025	----	----		24-Dec-2025	----	----	
SS-BH25-21 SA 3 (4.5-5 ft)	005	2399424	E141	13-Nov-2025	24-Dec-2025	----	----		24-Dec-2025	----	----	
SS-BH25-51 SA 3 (4.5-5 ft)	006	2399424	E141	10-Nov-2025	24-Dec-2025	----	----		24-Dec-2025	----	----	
SS-BH25-53 SA 3 (4.5-5 ft)	007	2399424	E141	11-Nov-2025	24-Dec-2025	----	----		24-Dec-2025	----	----	
SS-BH25-54 SA 3 (4.5-5 ft)	008	2399424	E141	11-Nov-2025	24-Dec-2025	----	----		24-Dec-2025	----	----	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance; ✔ = Within Holding Time

Analyte Group : Analytical Method		ALS Sample ID	QC Lot	Method	Sampling Date	Extraction / Preparation			Analysis			
Container	Preparation Date					Holding Times		Eval	Analysis Date	Holding Times		Eval
Client sample ID						Rec	Actual			Rec	Actual	
Physical Tests : Saturation Percentage												
LDPE bag												
SS-BH25-55 AS 3 (4.5-5 ft)	009	2399424	E141	14-Nov-2025	24-Dec-2025	---	---		24-Dec-2025	---	---	
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)												
LDPE bag												
SS-BH25-12 SA 3 (4.5-5 ft)	001	2399422	E266.Cl	12-Nov-2025	24-Dec-2025	365 days	42 days	✔	27-Dec-2025	28 days	2 days	✔
SS-BH25-15 SA 3 (4.5-5 ft)	002	2399422	E266.Cl	12-Nov-2025	24-Dec-2025	365 days	42 days	✔	27-Dec-2025	28 days	2 days	✔
SS-BH25-16 SA 3 (4.5-5 ft)	003	2399422	E266.Cl	13-Nov-2025	24-Dec-2025	365 days	41 days	✔	27-Dec-2025	28 days	2 days	✔
SS-BH25-17 SA 3 (4.5-5 ft)	004	2399422	E266.Cl	14-Nov-2025	24-Dec-2025	365 days	40 days	✔	27-Dec-2025	28 days	2 days	✔
SS-BH25-21 SA 3 (4.5-5 ft)	005	2399422	E266.Cl	13-Nov-2025	24-Dec-2025	365 days	41 days	✔	27-Dec-2025	28 days	2 days	✔
SS-BH25-51 SA 3 (4.5-5 ft)	006	2399422	E266.Cl	10-Nov-2025	24-Dec-2025	365 days	44 days	✔	27-Dec-2025	28 days	2 days	✔
SS-BH25-53 SA 3 (4.5-5 ft)	007	2399422	E266.Cl	11-Nov-2025	24-Dec-2025	365 days	43 days	✔	27-Dec-2025	28 days	2 days	✔
SS-BH25-54 SA 3 (4.5-5 ft)	008	2399422	E266.Cl	11-Nov-2025	24-Dec-2025	365 days	43 days	✔	27-Dec-2025	28 days	2 days	✔
SS-BH25-55 AS 3 (4.5-5 ft)	009	2399422	E266.Cl	14-Nov-2025	24-Dec-2025	365 days	40 days	✔	27-Dec-2025	28 days	2 days	✔
Saturated Paste Extractables : ORP by Electrode (Saturated Paste)												
LDPE bag												
SS-BH25-12 SA 3 (4.5-5 ft)	001	2399421	E126	12-Nov-2025	24-Dec-2025	30 days	42 days	✖ EHTR	24-Dec-2025	30 days	42 days	✖ EHTR
SS-BH25-15 SA 3 (4.5-5 ft)	002	2399421	E126	12-Nov-2025	24-Dec-2025	30 days	42 days	✖ EHTR	24-Dec-2025	30 days	42 days	✖ EHTR
SS-BH25-16 SA 3 (4.5-5 ft)	003	2399421	E126	13-Nov-2025	24-Dec-2025	30 days	41 days	✖ EHTR	24-Dec-2025	30 days	41 days	✖ EHTR
SS-BH25-17 SA 3 (4.5-5 ft)	004	2399421	E126	14-Nov-2025	24-Dec-2025	30 days	40 days	✖ EHTR	24-Dec-2025	30 days	40 days	✖ EHTR
SS-BH25-21 SA 3 (4.5-5 ft)	005	2399421	E126	13-Nov-2025	24-Dec-2025	30 days	41 days	✖ EHTR	24-Dec-2025	30 days	41 days	✖ EHTR



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance; ✔ = Within Holding Time

Analyte Group : Analytical Method		ALS Sample ID	QC Lot	Method	Sampling Date	Extraction / Preparation			Analysis			
Container	Preparation Date					Holding Times		Eval	Analysis Date	Holding Times		Eval
Client sample ID						Rec	Actual			Rec	Actual	
Saturated Paste Extractables : ORP by Electrode (Saturated Paste)												
LDPE bag												
SS-BH25-51 SA 3 (4.5-5 ft)	006	2399421	E126	10-Nov-2025	24-Dec-2025	30 days	44 days	✖ EHTR	24-Dec-2025	30 days	44 days	✖ EHTR
SS-BH25-53 SA 3 (4.5-5 ft)	007	2399421	E126	11-Nov-2025	24-Dec-2025	30 days	43 days	✖ EHTR	24-Dec-2025	30 days	43 days	✖ EHTR
SS-BH25-54 SA 3 (4.5-5 ft)	008	2399421	E126	11-Nov-2025	24-Dec-2025	30 days	43 days	✖ EHTR	24-Dec-2025	30 days	43 days	✖ EHTR
SS-BH25-55 AS 3 (4.5-5 ft)	009	2399421	E126	14-Nov-2025	24-Dec-2025	30 days	40 days	✖ EHTR	24-Dec-2025	30 days	40 days	✖ EHTR
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)												
LDPE bag												
SS-BH25-12 SA 3 (4.5-5 ft)	001	2399684	E131	12-Nov-2025	----	----	----		24-Dec-2025	----	----	
SS-BH25-15 SA 3 (4.5-5 ft)	002	2399684	E131	12-Nov-2025	----	----	----		24-Dec-2025	----	----	
SS-BH25-16 SA 3 (4.5-5 ft)	003	2399684	E131	13-Nov-2025	----	----	----		24-Dec-2025	----	----	
SS-BH25-17 SA 3 (4.5-5 ft)	004	2399684	E131	14-Nov-2025	----	----	----		24-Dec-2025	----	----	
SS-BH25-21 SA 3 (4.5-5 ft)	005	2399684	E131	13-Nov-2025	----	----	----		24-Dec-2025	----	----	
SS-BH25-51 SA 3 (4.5-5 ft)	006	2399684	E131	10-Nov-2025	----	----	----		24-Dec-2025	----	----	
SS-BH25-53 SA 3 (4.5-5 ft)	007	2399684	E131	11-Nov-2025	----	----	----		24-Dec-2025	----	----	
SS-BH25-54 SA 3 (4.5-5 ft)	008	2399684	E131	11-Nov-2025	----	----	----		24-Dec-2025	----	----	
SS-BH25-55 AS 3 (4.5-5 ft)	009	2399684	E131	14-Nov-2025	----	----	----		24-Dec-2025	----	----	

Legend & Qualifier Definitions

EHTR: Exceeded ALS recommended hold time prior to sample receipt.

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: Soil/Solid

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Duplicates (DUP)							
pH by Meter (Saturated Paste)	E114	2399423	1	9	11.1	5.0	✔
ORP by Electrode (Saturated Paste)	E126	2399421	1	9	11.1	5.0	✔
Resistivity by Electrode (Saturated Paste)	E131	2399684	1	9	11.1	5.0	✔
Saturation Percentage	E141	2399424	1	9	11.1	5.0	✔
Moisture Content by Gravimetry	E144	2400963	1	20	5.0	5.0	✔
Total Sulfate ion in soil by acidic boiling water extraction, IC	E246.SO4	2401045	1	18	5.6	5.0	✔
Soluble Sulfate ion in soil by boiling water extraction, IC.	E246A.SO4	2403792	1	12	8.3	5.0	✔
Chloride by Colourimetry (Saturated Paste)	E266.Cl	2399422	1	9	11.1	5.0	✔
Laboratory Control Samples (LCS)							
pH by Meter (Saturated Paste)	E114	2399423	2	9	22.2	10.0	✔
ORP by Electrode (Saturated Paste)	E126	2399421	1	9	11.1	5.0	✔
Resistivity by Electrode (Saturated Paste)	E131	2399684	2	9	22.2	10.0	✔
Saturation Percentage	E141	2399424	2	9	22.2	10.0	✔
Moisture Content by Gravimetry	E144	2400963	1	20	5.0	5.0	✔
Total Sulfate ion in soil by acidic boiling water extraction, IC	E246.SO4	2401045	2	18	11.1	10.0	✔
Soluble Sulfate ion in soil by boiling water extraction, IC.	E246A.SO4	2403792	4	12	33.3	10.0	✔
Chloride by Colourimetry (Saturated Paste)	E266.Cl	2399422	2	9	22.2	10.0	✔
Method Blanks (MB)							
Moisture Content by Gravimetry	E144	2400963	1	20	5.0	5.0	✔
Total Sulfate ion in soil by acidic boiling water extraction, IC	E246.SO4	2401045	1	18	5.6	5.0	✔
Soluble Sulfate ion in soil by boiling water extraction, IC.	E246A.SO4	2403792	2	12	16.7	5.0	✔
Chloride by Colourimetry (Saturated Paste)	E266.Cl	2399422	1	9	11.1	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Chloride by Colourimetry (Saturated Paste)	E266.Cl ALS Environmental - Regina	Soil/Solid	CSSS Ch. 15/APHA 4500 -CL E (mod)/AER D50	Inorganic anions are analyzed by obtaining a soil extract produced by the saturated paste extraction procedure which is then analyzed by colourimetry using a discrete analyzer.
Chloride by Colourimetry (Saturated Paste) (mg/kg)	EC266A.Cl ALS Environmental - Regina	Soil/Solid	CSSS Ch. 15/APHA 4500 -CL E (mod)	Inorganic anions are analyzed by obtaining a soil extract produced by the saturated paste extraction procedure which is then analyzed by colourimetry using a discrete analyzer.
Moisture Content by Gravimetry	E144 ALS Environmental - Regina	Soil/Solid	CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
ORP by Electrode (Saturated Paste)	E126 ALS Environmental - Regina	Soil/Solid	ASTM G200-09 (mod)	Oxidation reduction potential is reported as the oxidation-reduction potential of the platinum metal-reference electrode employed in the analysis, measured in mV. Analysis occurs on a soil that has been saturated with water (Saturated Paste).
pH by Meter (Saturated Paste)	E114 ALS Environmental - Regina	Soil/Solid	Carter-CSSS / APHA 4500 H	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C) on a soil produced by the saturated paste extraction procedure.
Resistivity by Electrode (Saturated Paste)	E131 ALS Environmental - Regina	Soil/Solid	ASTM G57-95A (mod)	Resistivity is determined on a soil sample that has been mixed with deionized water to create a saturated paste, which is then placed directly into a four electrode resistivity soil box and measured for resistivity using a resistivity meter.
Saturation Percentage	E141 ALS Environmental - Regina	Soil/Solid	CSSS Ch. 15 (mod)/AER D50	Saturation Percentage (SP) is determined as the total volume of water present in a saturated paste (in mL) divided by the dry weight of the sample (in grams), expressed as a percentage.
Soluble Sulfate ion in soil by boiling water extraction, IC.	E246A.SO4 ALS Environmental - Regina	Soil/Solid	CSA-A23.2-3B (Mod)	The dried solid is mixed with water at a specified ratio then heated. After filtration the liquid is ready for analysis by IC with conductivity detector. A result of "NR" indicates that the total sulfate analysis was <0.2% and based on CSA-A23.2-3B no analysis for soluble sulfate is required.
Total Sulfate ion in soil by acidic boiling water extraction, IC	E246.SO4 ALS Environmental - Regina	Soil/Solid	CSA-A23.2-3B (Mod)	The dried solid is mixed with water and acid then heated. After filtration the liquid is ready for analysis by IC with conductivity detector.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dry and Grind in Soil/Solid <60°C	EPP442 ALS Environmental - Regina	Soil/Solid	Soil Sampling and Methods of Analysis, Carter 2008	After removal of any coarse fragments and reservation of wet subsamples a portion of homogenized sample is set in a tray and dried at less than 60°C until dry. The sample is then particle size reduced with an automated crusher or mortar and pestle, typically to <2 mm. Further size reduction may be needed for particular tests.
Saturated Paste Preparation	EP141 ALS Environmental - Regina	Soil/Solid	CSSS CH15	A soil extract produced by the saturated paste extraction as per "Soil Sampling and Methods of Analysis" by M. Carter.
Soluble ion Sulfate in soil or concrete preparation.	EP246.S ALS Environmental - Regina	Soil/Solid	CSA-A23.2B	The dried solid is mixed with water then heated. After filtration the liquid is ready for analysis.

Work Order : RG2501930
Client : WSP Canada Inc.
Project : CA0059493.2836/300



Total ion Sulfate in soil or concrete preparation	EP246.T ALS Environmental - Regina	Soil/Solid	CSA-A23.2B	The dried solid is mixed with water and acid then heated. After filtration the liquid is ready for analysis.
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QUALITY CONTROL REPORT

<p>Work Order : RG2501930</p> <p>Client : WSP Canada Inc.</p> <p>Contact : Lisa Nehring</p> <p>Address : 1721 8th Street East Saskatoon SK Canada S7H 0T4</p> <p>Telephone : ----</p> <p>Project : CA0059493.2836/300</p> <p>PO : P123380CA001</p> <p>C-O-C number : ----</p> <p>Sampler : JS</p> <p>Site :</p> <p>Quote number : 2025 Geotech soils (E)</p> <p>No. of samples received : 9</p> <p>No. of samples analysed : 9</p>	<p>Page : 1 of 5</p> <p>Laboratory : ALS Environmental - Regina</p> <p>Account Manager : Brian Morgan</p> <p>Address : 1119 Osler Street Regina, Saskatchewan Canada S4R 8N5</p> <p>Telephone : 1 306 221 7147</p> <p>Date Samples Received : 19-Dec-2025 13:26</p> <p>Date Analysis Commenced : 23-Dec-2025</p> <p>Issue Date : 05-Jan-2026 08:54</p>
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This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Alphina Mathew	Laboratory Assistant	Calgary Inorganics, Calgary, Alberta
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Harpreet Chawla	Team Leader - Inorganics	Calgary Inorganics, Calgary, Alberta
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Page : 2 of 5
Work Order : RG2501930
Client : WSP Canada Inc.
Project : CA0059493.2836/300



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Soil/Solid**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2399421)											
RG2501930-001	SS-BH25-12 SA 3 (4.5-5 ft)	Oxidation-reduction potential [ORP]	----	E126	0.10	mV	224	225	0.490%	10%	----
Physical Tests (QC Lot: 2400963)											
CG2518375-002	Anonymous	Moisture	----	E144	0.25	%	16.9	16.8	0.689%	20%	----
Inorganics (QC Lot: 2401045)											
CG2518318-001	Anonymous	Sulfate, total, ion content	14808-79-8	E246.SO4	500	mg/kg	<0.050 %	<500	0	Diff <2x LOR	----
Inorganics (QC Lot: 2403716)											
RG2501930-002	SS-BH25-15 SA 3 (4.5-5 ft)	Sulfate, soluble ion content	14808-79-8	E246A.SO4	500	mg/kg	1.62 %	15600	3.99%	30%	----
Saturated Paste Extractables (QC Lot: 2399422)											
RG2501930-001	SS-BH25-12 SA 3 (4.5-5 ft)	Chloride, soluble ion content	16887-00-6	E266.Cl	20	mg/L	<20	<20	0	Diff <2x LOR	----
Saturated Paste Extractables (QC Lot: 2399423)											
RG2501930-001	SS-BH25-12 SA 3 (4.5-5 ft)	pH, saturated paste	----	E114	0.10	pH units	8.93	8.91	0.224%	5%	----
Saturated Paste Extractables (QC Lot: 2399424)											
RG2501930-001	SS-BH25-12 SA 3 (4.5-5 ft)	% Saturation	----	E141	1.0	%	125	120	3.96%	20%	----
Saturated Paste Extractables (QC Lot: 2399684)											
RG2501930-001	SS-BH25-12 SA 3 (4.5-5 ft)	Resistivity	----	E131	1.0	ohm cm	812	814	0.240%	20%	----



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2400963)						
Moisture	----	E144	0.25	%	<0.25	----
Inorganics (QCLot: 2401045)						
Sulfate, total, ion content	14808-79-8	E246.S04	500	mg/kg	<500	----
Inorganics (QCLot: 2403716)						
Sulfate, soluble ion content	14808-79-8	E246A.S04	500	mg/kg	<500	----
Inorganics (QCLot: 2403792)						
Sulfate, soluble ion content	14808-79-8	E246A.S04	500	mg/kg	NR	----
Saturated Paste Extractables (QCLot: 2399422)						
Chloride, soluble ion content	16887-00-6	E266.Cl	20	mg/L	<20	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				Qualifier
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	
Physical Tests (QCLot: 2400963)									
Moisture	----	E144	0.25	%	50 %	97.3	90.0	110	----
Inorganics (QCLot: 2401045)									
Sulfate, total, ion content	14808-79-8	E246.S04	500	mg/kg	10000 mg/kg	99.4	90.0	110	----
Inorganics (QCLot: 2403716)									
Sulfate, soluble ion content	14808-79-8	E246A.S04	500	mg/kg	1000 mg/kg	94.6	60.0	140	----
Saturated Paste Extractables (QCLot: 2399422)									
Chloride, soluble ion content	16887-00-6	E266.Cl	20	mg/L	100 mg/L	103	70.0	130	----
Saturated Paste Extractables (QCLot: 2399423)									
pH, saturated paste	----	E114	----	pH units	7 pH units	100	97.0	103	----
Saturated Paste Extractables (QCLot: 2399424)									
% Saturation	----	E141	----	%	100 %	101	90.0	110	----
Saturated Paste Extractables (QCLot: 2399684)									
Resistivity	----	E131	----	ohm cm	11200 ohm cm	98.2	70.0	130	----



Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Physical Tests (QCLot: 2399421)									
QC-2399421-001	RM	Oxidation-reduction potential [ORP]	----	E126	264 mV	100	92.0	108	----
Inorganics (QCLot: 2401045)									
QC-2401045-003	RM	Sulfate, total, ion content	14808-79-8	E246.SO4	33400 mg/kg	93.9	80.0	120	----
Inorganics (QCLot: 2403716)									
QC-2403716-003	RM	Sulfate, soluble ion content	14808-79-8	E246A.SO4	2310 mg/kg	91.6	80.0	120	----
Saturated Paste Extractables (QCLot: 2399422)									
QC-2399422-003	RM	Chloride, soluble ion content	16887-00-6	E266.Cl	2120 mg/L	105	70.0	130	----
Saturated Paste Extractables (QCLot: 2399423)									
QC-2399423-002	RM	pH, saturated paste	----	E114	7.4 pH units	102	97.0	103	----
Saturated Paste Extractables (QCLot: 2399424)									
QC-2399424-002	RM	% Saturation	----	E141	43.9 %	88.6	80.0	120	----
Saturated Paste Extractables (QCLot: 2399684)									
QC-2399684-002	RM	Resistivity	----	E131	454 ohm cm	96.3	70.0	130	----

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number:

Environmental Division

Report No.

Work Order Reference

AG2501930



Telephone: - 1 306 525 0970

Report To	Report Format / Distribution	Select Service Level Below (R)
Company: WSP Canada Inc.	Select Report Format 0 PDF 0 EXCEL 0 EID (DIGITAL)	R 0 Regular (Standard TAT 1 received)
Contact: Lisa Nehring	Quality Control (QC) Report with Report P Yes ! No	P <input type="checkbox"/> Priority (2-1 bus. days ii received t
Address: 1721 8th Street East, Saskatoon. SK S7H 0T4	<input type="checkbox"/> Criteria on Report - provide details below <input checked="" type="checkbox"/> box checked	E 0 Emergency (1-2 bus. days ii receive
Phone: 306-203-4671	Select Distribution: 0 EMAIL 0 MAIL 0 FAX	E2 <input type="checkbox"/> Same day or weekend emergency
	Email 1 or Fax lisa_nehning@wsq.com	Specify Date Required for E2,E or F
	Email 2	

Invoice To	Invoice Distribution	Indicate Filtered (F), Preserved (P)
Same as Report To <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Select Invoice Distribution: 0 EMAIL 0 MAIL 0 FAX	
Copy of Invoice with Report <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Company:	Email 1 or Fax CAPAables@wsq.com	
Contact:	Email 2 lisa_nehning@wsq.com	
Project Information		Oil and Gas Required Fields (client use)
ALS Quote#: CA0059493.2836/400 + 2025	Approver ID:	Cost Center:
Job#: CA0059493.2836/300	GL Account:	Routing Code:
PO/AFE: P123380CA001	Activity Code:	
LSD:	Location:	

ALS Lab Work Order# (lab use only)	ALS Contact: Brian Morgan	Sampler: JS
------------------------------------	---------------------------	-------------

ALS Sample# (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	W	Z	P	C	O	R	S	E	M	I	N	D	O	E	C	O	N	G	S
	SS-BH25-12 SA 3 (4.5-5 ft)	12/Nov/25		Soil	R	R	R	R	R	R	R	R	R	R	R								2
	SS-BH25-15 SA 3 (4.5-5 ft)	12/Nov/25		Soil	R	R	R	R	R	R	R	R	R	R	R								2
	SS-BH25-16 SA 3 (4.5-5 ft)	13/Nov/25		Soil	R	R	R	R	R	R	R	R	R	R	R								2
	SS-BH25-17 SA 3 (4.5-5 ft)	14/Nov/25		Soil	R	R	R	R	R	R	R	R	R	R	R								2
	SS-BH25-21 SA 3 (4.5-5 ft)	13/Nov/25		Soil	R	R	R	R	R	R	R	R	R	R	R								2
	SS-BH25-51 SA 3 (4.5-5 ft)	10/Nov/25		Soil	R	R	R	R	R	R	R	R	R	R	R								2
	SS-BH25-53 SA 3 (4.5-5 ft)	11/Nov/25		Soil	R	R	R	R	R	R	R	R	R	R	R								2
	SS-BH25-54 SA 3 (4.5-5 ft)	11/Nov/25		Soil	R	R	R	R	R	R	R	R	R	R	R								2
	s B-1 S - 5s - A > (S ST) 1 (AK) HS			Soil	R	R	R	R	R	R	R	R	R	R	R								2
				Soil	R	R	R	R	R	R	R	R	R	R	R								2
				Soil	R	R	R	R	R	R	R	R	R	R	R								2
				Soil	R	R	R	R	R	R	R	R	R	R	R								2
				Soil	R	R	R	R	R	R	R	R	R	R	R								2

	Special Instructions I Specify Criteria to add on report (client Use)	SAMPLE CONDITION AS RECEIVED (lab use only)	
Are samples taken from a Regulated OW System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Frozen <input checked="" type="checkbox"/> SIF Observations Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ice packs Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>
Are samples for human drinking water use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		COOLING INITIATED <input type="checkbox"/>	
		INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
		H - S -	

SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)		FINAL SHIPMENT RECEPTION (lab use only)	
Released by:	Date:	Time:	Received by: btA	Time:	Received by:
			t Tola		Date: time:



CERTIFICATE OF ANALYSIS

Work Order	: SK2507547	Laboratory	: ALS Environmental - Saskatoon
Client	: WSP Canada Inc.	Account Manager	: Brian Morgan
Contact	: Lisa Nehring	Address	: 819 58 Street East
Address	: 1721 8th Street East		: Saskatoon SK Canada S7K 6X5
	: Saskatoon Saskatchewan Canada S7H 0T4	E-mail	: Brian.Morgan@ALSGlobal.com
Telephone	: ----	Telephone	: 1 306 221 7147
Project	: CA0059493.2836/400	Date Samples Received	: 27-Nov-2025 16:30
PO	: P123380CA001	Date Analysis Commenced	: 30-Nov-2025
C-O-C number	: ----	Issue Date	: 11-Dec-2025 12:14
Sampler	: JS		
Site	: ----		
Quote number	: 2025 Geotech soils (E)		
No. of samples received	: 19		
No. of samples analysed	: 19		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Hannah Phung	Lab Assistant	Inorganics, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Katarzyna Glinka	Analyst	Inorganics, Calgary, Alberta
Kuljeet Chawla		Inorganics, Calgary, Alberta
Rosalie Van Deelen	Laboratory Assistant	Organics, Calgary, Alberta



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
%	percent
mg/kg	milligrams per kilogram
mg/L	milligrams per litre
mV	millivolts
ohm cm	ohm centimetres (resistivity)
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Accreditation

<i>Accreditation</i>	<i>Description</i>	<i>Laboratory</i>	<i>Address</i>
A	CALA ISO/IEC 17025:2017	CG ALS Environmental - Calgary	2559 29th Street NE, Calgary, AB

Applicable accreditations are indicated in the Method/Lab column.

Work Order : SK2507547
Client : WSP Canada Inc.
Project : CA0059493.2836/400





Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	SS-BH25-01 SA 3 (4-4.5 ft) ----	SS-BH25-02 SA 3 (4-4.5 ft) ----	SS-BH25-03 SA 3 (4-4.5 ft) ----	SS-BH25-04 SA 3 (4 -4.5 ft) ----	SS-BH25-05 SA 3 (4-4.5 ft) ----
					Client sampling date / time	02-Nov-2025 12:00	02-Nov-2025 12:00	03-Nov-2025 12:00	25-Oct-2025 12:00	26-Oct-2025 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit	SK2507547-001	SK2507547-002	SK2507547-003	SK2507547-004	SK2507547-005	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/CG	A	0.25	%	11.5	12.9	11.6	10.1	17.7
pH, saturated paste	----	E114/CG	A	0.10	pH units	8.40	8.43	9.08	8.58	8.13
% Saturation	----	E141/CG	A	1.0	%	60.6	50.2	53.0	49.4	53.9
Inorganics										
Sulfate, total, ion content	14808-79-8	E246.SO4/CG	A	0.050	%	0.903	2.48	<0.050	0.995	0.158
Sulfate, soluble ion content	14808-79-8	E246A.SO4/CG	A	0.05	%	----	----	NR	----	NR
Sulfate, soluble ion content	14808-79-8	E246A.SO4/CG	A	0.050	%	0.854	2.51	----	1.21	----
Saturated Paste Extractables										
Chloride, soluble ion content	16887-00-6	E266.Cl/CG	A	20	mg/L	57	58	<20	85	54
Oxidation-reduction potential [ORP]	----	E126/CG		0.10	mV	230	450	384	352	330
Resistivity	----	E131/CG	A	1.0	ohm cm	361	358	1770	339	756
Chloride, soluble ion content	16887-00-6	EC266A.Cl/CG		10	mg/kg	35	29	<11	42	29

Please refer to the General Comments section for an explanation of any qualifiers detected.



Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	SS-BH25-06 SA 3 (4-4.5 ft) ----	SS-BH25-08 SA 3 (4-4.5 ft) ----	SS-BH25-10 SA 3 (4-4.5 ft) ----	SS-BH25-13 SA 3 (4 -4.5 ft) ----	SS-BH25-14 SA 3 (4-4.5 ft) ----
Client sampling date / time					04-Nov-2025 12:00	29-Oct-2025 12:00	29-Oct-2025 12:00	22-Oct-2025 12:00	21-Oct-2025 12:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	SK2507547-006	SK2507547-007	SK2507547-008	SK2507547-009	SK2507547-010	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/CG	A	0.25	%	16.0	14.9	13.3	10.7	13.5
pH, saturated paste	----	E114/CG	A	0.10	pH units	8.20	8.32	8.49	9.18	8.42
% Saturation	----	E141/CG	A	1.0	%	40.7	61.3	52.9	57.4	64.4
Inorganics										
Sulfate, total, ion content	14808-79-8	E246.SO4/CG	A	0.050	%	<0.050	3.13	3.39	0.159	2.04
Sulfate, soluble ion content	14808-79-8	E246A.SO4/CG	A	0.050	%	----	2.82	3.46	----	2.04
Sulfate, soluble ion content	14808-79-8	E246A.SO4/CG	A	0.05	%	NR	----	----	NR	----
Saturated Paste Extractables										
Chloride, soluble ion content	16887-00-6	E266.Cl/CG	A	20	mg/L	<20	45	45	<20	29
Oxidation-reduction potential [ORP]	----	E126/CG		0.10	mV	284	287	257	244	252
Resistivity	----	E131/CG	A	1.0	ohm cm	4820	232	309	745	252
Chloride, soluble ion content	16887-00-6	EC266A.Cl/CG		10	mg/kg	<10	28	24	<11	19

Please refer to the General Comments section for an explanation of any qualifiers detected.



Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	SS-BH25-22 SA 3 (4-4.5 ft)	SS-BH25-24 SA 3 (4-4.5 ft)	SS-BH25-25 SA 3 (4-4.5 ft)	SS-BH25-27 SA 3 (4 -4.5 ft)	SS-BH25-28 SS1 (4 -4.5 ft)
					Client sampling date / time	23-Oct-2025 12:00	01-Nov-2025 12:00	24-Oct-2025 12:00	01-Nov-2025 12:00	31-Oct-2025 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit	SK2507547-011	SK2507547-012	SK2507547-013	SK2507547-014	SK2507547-015	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/CG	A	0.25	%	8.78	12.9	14.5	9.13	15.7
pH, saturated paste	----	E114/CG	A	0.10	pH units	8.34	8.38	8.47	8.14	8.74
% Saturation	----	E141/CG	A	1.0	%	60.8	55.1	46.8	66.8	68.6
Inorganics										
Sulfate, total, ion content	14808-79-8	E246.SO4/CG	A	0.050	%	0.985	0.186	0.110	0.537	0.979
Sulfate, soluble ion content	14808-79-8	E246A.SO4/CG	A	0.05	%	----	NR	NR	----	----
Sulfate, soluble ion content	14808-79-8	E246A.SO4/CG	A	0.050	%	0.996	----	----	0.565	0.975
Saturated Paste Extractables										
Chloride, soluble ion content	16887-00-6	E266.Cl/CG	A	20	mg/L	166	<20	29	<20	<20
Oxidation-reduction potential [ORP]	----	E126/CG		0.10	mV	260	259	241	252	246
Resistivity	----	E131/CG	A	1.0	ohm cm	340	788	1210	537	220
Chloride, soluble ion content	16887-00-6	EC266A.Cl/CG		10	mg/kg	101	<11	14	<13	<14

Please refer to the General Comments section for an explanation of any qualifiers detected.



Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	SS-BH25-34 SA 3 (4-4.5 ft)	SS-BH25-39 SA 3 (4-4.5 ft)	SS-BH25-52 SA 3 (4-4.5 ft)	SS-BH25-41 SA 3 (4-4.5 ft)	----
					Client sampling date / time	04-Nov-2025 12:00	27-Oct-2025 12:00	05-Nov-2025 12:00	27-Oct-2025 12:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit	SK2507547-016	SK2507547-017	SK2507547-018	SK2507547-019	----	
					Result	Result	Result	Result	----	
Physical Tests										
Moisture	----	E144/CG	A	0.25	%	17.5	17.9	15.5	14.0	----
pH, saturated paste	----	E114/CG	A	0.10	pH units	8.62	8.61	8.67	8.46	----
% Saturation	----	E141/CG	A	1.0	%	131	51.3	61.9	56.5	----
Inorganics										
Sulfate, total, ion content	14808-79-8	E246.SO4/CG	A	0.050	%	0.553	0.681	2.11	2.84	----
Sulfate, soluble ion content	14808-79-8	E246A.SO4/CG	A	0.050	%	0.428	0.641	2.72	3.08	----
Saturated Paste Extractables										
Chloride, soluble ion content	16887-00-6	E266.Cl/CG	A	20	mg/L	<20	156	88	<20	----
Oxidation-reduction potential [ORP]	----	E126/CG		0.10	mV	226	210	212	220	----
Resistivity	----	E131/CG	A	1.0	ohm cm	354	302	274	385	----
Chloride, soluble ion content	16887-00-6	EC266A.Cl/CG		10	mg/kg	<26	80	54	<11	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : SK2507547</p> <p>Client : WSP Canada Inc.</p> <p>Contact : Lisa Nehring</p> <p>Address : 1721 8th Street East Saskatoon SK Canada S7H 0T4</p> <p>Telephone : ----</p> <p>Project : CA0059493.2836/400</p> <p>PO : P123380CA001</p> <p>C-O-C number : ----</p> <p>Sampler : JS</p> <p>Site : ----</p> <p>Quote number : 2025 Geotech soils (E)</p> <p>No. of samples received : 19</p> <p>No. of samples analysed : 19</p>	<p>Page : 1 of 23</p> <p>Laboratory : ALS Environmental - Saskatoon</p> <p>Account Manager : Brian Morgan</p> <p>Address : 819 58 Street East Saskatoon, Saskatchewan Canada S7K 6X5</p> <p>Telephone : 1 306 221 7147</p> <p>Date Samples Received : 27-Nov-2025 16:30</p> <p>Issue Date : 11-Dec-2025 12:14</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and/or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-52 SA 3 (4-4.5 ft)	E246A.SO4	05-Nov-2025	09-Dec-2025	180 days	34 days	✔	09-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-34 SA 3 (4-4.5 ft)	E246A.SO4	04-Nov-2025	09-Dec-2025	180 days	35 days	✔	09-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-06 SA 3 (4-4.5 ft)	E246A.SO4	04-Nov-2025	10-Dec-2025	180 days	36 days	✔	10-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-01 SA 3 (4-4.5 ft)	E246A.SO4	02-Nov-2025	09-Dec-2025	180 days	37 days	✔	09-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-02 SA 3 (4-4.5 ft)	E246A.SO4	02-Nov-2025	09-Dec-2025	180 days	37 days	✔	09-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-03 SA 3 (4-4.5 ft)	E246A.SO4	03-Nov-2025	10-Dec-2025	180 days	37 days	✔	10-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-27 SA 3 (4-4.5 ft)	E246A.SO4	01-Nov-2025	09-Dec-2025	180 days	38 days	✔	09-Dec-2025	28 days	0 days	✔



Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-24 SA 3 (4-4.5 ft)	E246A.SO4	01-Nov-2025	10-Dec-2025	180 days	39 days	✔	10-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-28 SS1 (4-4.5 ft)	E246A.SO4	31-Oct-2025	09-Dec-2025	180 days	39 days	✔	09-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-08 SA 3 (4-4.5 ft)	E246A.SO4	29-Oct-2025	09-Dec-2025	180 days	41 days	✔	09-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-10 SA 3 (4-4.5 ft)	E246A.SO4	29-Oct-2025	09-Dec-2025	180 days	41 days	✔	09-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-39 SA 3 (4-4.5 ft)	E246A.SO4	27-Oct-2025	09-Dec-2025	180 days	43 days	✔	09-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-41 SA 3 (4-4.5 ft)	E246A.SO4	27-Oct-2025	09-Dec-2025	180 days	43 days	✔	09-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-04 SA 3 (4-4.5 ft)	E246A.SO4	25-Oct-2025	09-Dec-2025	180 days	45 days	✔	09-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-05 SA 3 (4-4.5 ft)	E246A.SO4	26-Oct-2025	10-Dec-2025	180 days	45 days	✔	10-Dec-2025	28 days	0 days	✔
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-22 SA 3 (4-4.5 ft)	E246A.SO4	23-Oct-2025	09-Dec-2025	180 days	47 days	✔	09-Dec-2025	28 days	0 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.											
Glass soil jar/Teflon lined cap SS-BH25-25 SA 3 (4-4.5 ft)	E246A.S04	24-Oct-2025	10-Dec-2025	180 days	47 days	✔	10-Dec-2025	28 days	0 days	✔	
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.											
Glass soil jar/Teflon lined cap SS-BH25-13 SA 3 (4-4.5 ft)	E246A.S04	22-Oct-2025	10-Dec-2025	180 days	49 days	✔	10-Dec-2025	28 days	0 days	✔	
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.											
Glass soil jar/Teflon lined cap SS-BH25-14 SA 3 (4-4.5 ft)	E246A.S04	21-Oct-2025	09-Dec-2025	180 days	49 days	✔	09-Dec-2025	28 days	0 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-52 SA 3 (4-4.5 ft)	E246.S04	05-Nov-2025	03-Dec-2025	180 days	28 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-06 SA 3 (4-4.5 ft)	E246.S04	04-Nov-2025	03-Dec-2025	180 days	29 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-34 SA 3 (4-4.5 ft)	E246.S04	04-Nov-2025	03-Dec-2025	180 days	29 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-03 SA 3 (4-4.5 ft)	E246.S04	03-Nov-2025	03-Dec-2025	180 days	30 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-01 SA 3 (4-4.5 ft)	E246.S04	02-Nov-2025	03-Dec-2025	180 days	31 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-02 SA 3 (4-4.5 ft)	E246.S04	02-Nov-2025	03-Dec-2025	180 days	31 days	✔	04-Dec-2025	28 days	1 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-24 SA 3 (4-4.5 ft)	E246.SO4	01-Nov-2025	03-Dec-2025	180 days	32 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-27 SA 3 (4-4.5 ft)	E246.SO4	01-Nov-2025	03-Dec-2025	180 days	32 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-28 SS1 (4-4.5 ft)	E246.SO4	31-Oct-2025	03-Dec-2025	180 days	33 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-08 SA 3 (4-4.5 ft)	E246.SO4	29-Oct-2025	03-Dec-2025	180 days	35 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-10 SA 3 (4-4.5 ft)	E246.SO4	29-Oct-2025	03-Dec-2025	180 days	35 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-39 SA 3 (4-4.5 ft)	E246.SO4	27-Oct-2025	03-Dec-2025	180 days	37 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-41 SA 3 (4-4.5 ft)	E246.SO4	27-Oct-2025	03-Dec-2025	180 days	37 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-05 SA 3 (4-4.5 ft)	E246.SO4	26-Oct-2025	03-Dec-2025	180 days	38 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-04 SA 3 (4-4.5 ft)	E246.SO4	25-Oct-2025	03-Dec-2025	180 days	39 days	✔	04-Dec-2025	28 days	1 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-25 SA 3 (4-4.5 ft)	E246.SO4	24-Oct-2025	03-Dec-2025	180 days	40 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-22 SA 3 (4-4.5 ft)	E246.SO4	23-Oct-2025	03-Dec-2025	180 days	41 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-13 SA 3 (4-4.5 ft)	E246.SO4	22-Oct-2025	03-Dec-2025	180 days	42 days	✔	04-Dec-2025	28 days	1 days	✔	
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC											
Glass soil jar/Teflon lined cap SS-BH25-14 SA 3 (4-4.5 ft)	E246.SO4	21-Oct-2025	03-Dec-2025	180 days	43 days	✔	04-Dec-2025	28 days	1 days	✔	
Physical Tests : Moisture Content by Gravimetry											
Glass soil jar/Teflon lined cap SS-BH25-01 SA 3 (4-4.5 ft)	E144	02-Nov-2025	----	----	----		01-Dec-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
Glass soil jar/Teflon lined cap SS-BH25-02 SA 3 (4-4.5 ft)	E144	02-Nov-2025	----	----	----		01-Dec-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
Glass soil jar/Teflon lined cap SS-BH25-03 SA 3 (4-4.5 ft)	E144	03-Nov-2025	----	----	----		01-Dec-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
Glass soil jar/Teflon lined cap SS-BH25-04 SA 3 (4-4.5 ft)	E144	25-Oct-2025	----	----	----		01-Dec-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
Glass soil jar/Teflon lined cap SS-BH25-05 SA 3 (4-4.5 ft)	E144	26-Oct-2025	----	----	----		01-Dec-2025	----	----		



Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-06 SA 3 (4-4.5 ft)	E144	04-Nov-2025	----	----	----		01-Dec-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-08 SA 3 (4-4.5 ft)	E144	29-Oct-2025	----	----	----		01-Dec-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-10 SA 3 (4-4.5 ft)	E144	29-Oct-2025	----	----	----		01-Dec-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-13 SA 3 (4-4.5 ft)	E144	22-Oct-2025	----	----	----		01-Dec-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-14 SA 3 (4-4.5 ft)	E144	21-Oct-2025	----	----	----		01-Dec-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-22 SA 3 (4-4.5 ft)	E144	23-Oct-2025	----	----	----		01-Dec-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-24 SA 3 (4-4.5 ft)	E144	01-Nov-2025	----	----	----		01-Dec-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-25 SA 3 (4-4.5 ft)	E144	24-Oct-2025	----	----	----		01-Dec-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-27 SA 3 (4-4.5 ft)	E144	01-Nov-2025	----	----	----		01-Dec-2025	----	----	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-28 SS1 (4-4.5 ft)	E144	31-Oct-2025	----	----	----		01-Dec-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-34 SA 3 (4-4.5 ft)	E144	04-Nov-2025	----	----	----		01-Dec-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-39 SA 3 (4-4.5 ft)	E144	27-Oct-2025	----	----	----		01-Dec-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-41 SA 3 (4-4.5 ft)	E144	27-Oct-2025	----	----	----		01-Dec-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-52 SA 3 (4-4.5 ft)	E144	05-Nov-2025	----	----	----		01-Dec-2025	----	----	
Physical Tests : ORP by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-52 SA 3 (4-4.5 ft)	E126	05-Nov-2025	03-Dec-2025	30 days	28 days	✔	03-Dec-2025	30 days	28 days	✔
Physical Tests : ORP by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-06 SA 3 (4-4.5 ft)	E126	04-Nov-2025	03-Dec-2025	30 days	29 days	✔	03-Dec-2025	30 days	29 days	✔
Physical Tests : ORP by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-34 SA 3 (4-4.5 ft)	E126	04-Nov-2025	03-Dec-2025	30 days	29 days	✔	03-Dec-2025	30 days	29 days	✔
Physical Tests : ORP by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-01 SA 3 (4-4.5 ft)	E126	02-Nov-2025	03-Dec-2025	30 days	30 days	✔	03-Dec-2025	30 days	30 days	✔



Matrix: Soil/Solid

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-02 SA 3 (4-4.5 ft)	E126	02-Nov-2025	03-Dec-2025	30 days	30 days	✓	03-Dec-2025	30 days	30 days	✓	
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-03 SA 3 (4-4.5 ft)	E126	03-Nov-2025	03-Dec-2025	30 days	30 days	✓	03-Dec-2025	30 days	30 days	✓	
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-24 SA 3 (4-4.5 ft)	E126	01-Nov-2025	03-Dec-2025	30 days	31 days	* EHT	03-Dec-2025	30 days	31 days	* EHT	
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-27 SA 3 (4-4.5 ft)	E126	01-Nov-2025	03-Dec-2025	30 days	31 days	* EHT	03-Dec-2025	30 days	31 days	* EHT	
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-28 SS1 (4-4.5 ft)	E126	31-Oct-2025	03-Dec-2025	30 days	32 days	* EHT	03-Dec-2025	30 days	32 days	* EHT	
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-08 SA 3 (4-4.5 ft)	E126	29-Oct-2025	03-Dec-2025	30 days	34 days	* EHT	03-Dec-2025	30 days	34 days	* EHT	
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-10 SA 3 (4-4.5 ft)	E126	29-Oct-2025	03-Dec-2025	30 days	34 days	* EHT	03-Dec-2025	30 days	34 days	* EHT	
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-39 SA 3 (4-4.5 ft)	E126	27-Oct-2025	03-Dec-2025	30 days	36 days	* EHTR	03-Dec-2025	30 days	36 days	* EHTR	
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-41 SA 3 (4-4.5 ft)	E126	27-Oct-2025	03-Dec-2025	30 days	36 days	* EHTR	03-Dec-2025	30 days	36 days	* EHTR	



Matrix: Soil/Solid

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-05 SA 3 (4-4.5 ft)	E126	26-Oct-2025	03-Dec-2025	30 days	37 days	* EHTR	03-Dec-2025	30 days	37 days	* EHTR	
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-04 SA 3 (4-4.5 ft)	E126	25-Oct-2025	03-Dec-2025	30 days	38 days	* EHTR	03-Dec-2025	30 days	38 days	* EHTR	
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-25 SA 3 (4-4.5 ft)	E126	24-Oct-2025	03-Dec-2025	30 days	39 days	* EHTR	03-Dec-2025	30 days	39 days	* EHTR	
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-22 SA 3 (4-4.5 ft)	E126	23-Oct-2025	03-Dec-2025	30 days	40 days	* EHTR	03-Dec-2025	30 days	40 days	* EHTR	
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-13 SA 3 (4-4.5 ft)	E126	22-Oct-2025	03-Dec-2025	30 days	41 days	* EHTR	03-Dec-2025	30 days	41 days	* EHTR	
Physical Tests : ORP by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-14 SA 3 (4-4.5 ft)	E126	21-Oct-2025	03-Dec-2025	30 days	42 days	* EHTR	03-Dec-2025	30 days	42 days	* EHTR	
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-52 SA 3 (4-4.5 ft)	E266.Cl	05-Nov-2025	03-Dec-2025	365 days	28 days	✓	04-Dec-2025	28 days	1 days	✓	
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-06 SA 3 (4-4.5 ft)	E266.Cl	04-Nov-2025	03-Dec-2025	365 days	29 days	✓	04-Dec-2025	28 days	1 days	✓	
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-34 SA 3 (4-4.5 ft)	E266.Cl	04-Nov-2025	03-Dec-2025	365 days	29 days	✓	04-Dec-2025	28 days	1 days	✓	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-03 SA 3 (4-4.5 ft)	E266.Cl	03-Nov-2025	03-Dec-2025	365 days	30 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-01 SA 3 (4-4.5 ft)	E266.Cl	02-Nov-2025	03-Dec-2025	365 days	31 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-02 SA 3 (4-4.5 ft)	E266.Cl	02-Nov-2025	03-Dec-2025	365 days	31 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-24 SA 3 (4-4.5 ft)	E266.Cl	01-Nov-2025	03-Dec-2025	365 days	32 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-27 SA 3 (4-4.5 ft)	E266.Cl	01-Nov-2025	03-Dec-2025	365 days	32 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-28 SS1 (4-4.5 ft)	E266.Cl	31-Oct-2025	03-Dec-2025	365 days	33 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-08 SA 3 (4-4.5 ft)	E266.Cl	29-Oct-2025	03-Dec-2025	365 days	35 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-10 SA 3 (4-4.5 ft)	E266.Cl	29-Oct-2025	03-Dec-2025	365 days	35 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-39 SA 3 (4-4.5 ft)	E266.Cl	27-Oct-2025	03-Dec-2025	365 days	37 days	✔	04-Dec-2025	28 days	1 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-41 SA 3 (4-4.5 ft)	E266.Cl	27-Oct-2025	03-Dec-2025	365 days	37 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-05 SA 3 (4-4.5 ft)	E266.Cl	26-Oct-2025	03-Dec-2025	365 days	38 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-04 SA 3 (4-4.5 ft)	E266.Cl	25-Oct-2025	03-Dec-2025	365 days	39 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-25 SA 3 (4-4.5 ft)	E266.Cl	24-Oct-2025	03-Dec-2025	365 days	40 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-22 SA 3 (4-4.5 ft)	E266.Cl	23-Oct-2025	03-Dec-2025	365 days	41 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-13 SA 3 (4-4.5 ft)	E266.Cl	22-Oct-2025	03-Dec-2025	365 days	42 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-14 SA 3 (4-4.5 ft)	E266.Cl	21-Oct-2025	03-Dec-2025	365 days	43 days	✔	04-Dec-2025	28 days	1 days	✔
Saturated Paste Extractables : pH by Meter (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-52 SA 3 (4-4.5 ft)	E114	05-Nov-2025	03-Dec-2025	365 days	28 days	✔	03-Dec-2025	365 days	28 days	✔
Saturated Paste Extractables : pH by Meter (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-06 SA 3 (4-4.5 ft)	E114	04-Nov-2025	03-Dec-2025	365 days	29 days	✔	03-Dec-2025	365 days	29 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-34 SA 3 (4-4.5 ft)	E114	04-Nov-2025	03-Dec-2025	365 days	29 days	✔	03-Dec-2025	365 days	29 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-03 SA 3 (4-4.5 ft)	E114	03-Nov-2025	03-Dec-2025	365 days	30 days	✔	03-Dec-2025	365 days	30 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-01 SA 3 (4-4.5 ft)	E114	02-Nov-2025	03-Dec-2025	365 days	31 days	✔	03-Dec-2025	365 days	31 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-02 SA 3 (4-4.5 ft)	E114	02-Nov-2025	03-Dec-2025	365 days	31 days	✔	03-Dec-2025	365 days	31 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-24 SA 3 (4-4.5 ft)	E114	01-Nov-2025	03-Dec-2025	365 days	32 days	✔	03-Dec-2025	365 days	32 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-27 SA 3 (4-4.5 ft)	E114	01-Nov-2025	03-Dec-2025	365 days	32 days	✔	03-Dec-2025	365 days	32 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-28 SS1 (4-4.5 ft)	E114	31-Oct-2025	03-Dec-2025	365 days	33 days	✔	03-Dec-2025	365 days	33 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-08 SA 3 (4-4.5 ft)	E114	29-Oct-2025	03-Dec-2025	365 days	35 days	✔	03-Dec-2025	365 days	35 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-10 SA 3 (4-4.5 ft)	E114	29-Oct-2025	03-Dec-2025	365 days	35 days	✔	03-Dec-2025	365 days	35 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-39 SA 3 (4-4.5 ft)	E114	27-Oct-2025	03-Dec-2025	365 days	37 days	✔	03-Dec-2025	365 days	37 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-41 SA 3 (4-4.5 ft)	E114	27-Oct-2025	03-Dec-2025	365 days	37 days	✔	03-Dec-2025	365 days	37 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-05 SA 3 (4-4.5 ft)	E114	26-Oct-2025	03-Dec-2025	365 days	38 days	✔	03-Dec-2025	365 days	38 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-04 SA 3 (4-4.5 ft)	E114	25-Oct-2025	03-Dec-2025	365 days	39 days	✔	03-Dec-2025	365 days	39 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-25 SA 3 (4-4.5 ft)	E114	24-Oct-2025	03-Dec-2025	365 days	40 days	✔	03-Dec-2025	365 days	40 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-22 SA 3 (4-4.5 ft)	E114	23-Oct-2025	03-Dec-2025	365 days	41 days	✔	03-Dec-2025	365 days	41 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-13 SA 3 (4-4.5 ft)	E114	22-Oct-2025	03-Dec-2025	365 days	42 days	✔	03-Dec-2025	365 days	42 days	✔	
Saturated Paste Extractables : pH by Meter (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-14 SA 3 (4-4.5 ft)	E114	21-Oct-2025	03-Dec-2025	365 days	43 days	✔	03-Dec-2025	365 days	43 days	✔	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)											
Glass soil jar/Teflon lined cap SS-BH25-01 SA 3 (4-4.5 ft)	E131	02-Nov-2025	----	----	----		03-Dec-2025	----	----		



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-02 SA 3 (4-4.5 ft)	E131	02-Nov-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-03 SA 3 (4-4.5 ft)	E131	03-Nov-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-04 SA 3 (4-4.5 ft)	E131	25-Oct-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-05 SA 3 (4-4.5 ft)	E131	26-Oct-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-06 SA 3 (4-4.5 ft)	E131	04-Nov-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-08 SA 3 (4-4.5 ft)	E131	29-Oct-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-10 SA 3 (4-4.5 ft)	E131	29-Oct-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-13 SA 3 (4-4.5 ft)	E131	22-Oct-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-14 SA 3 (4-4.5 ft)	E131	21-Oct-2025	----	----	----		03-Dec-2025	----	----	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-22 SA 3 (4-4.5 ft)	E131	23-Oct-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-24 SA 3 (4-4.5 ft)	E131	01-Nov-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-25 SA 3 (4-4.5 ft)	E131	24-Oct-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-27 SA 3 (4-4.5 ft)	E131	01-Nov-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-28 SS1 (4-4.5 ft)	E131	31-Oct-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-34 SA 3 (4-4.5 ft)	E131	04-Nov-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-39 SA 3 (4-4.5 ft)	E131	27-Oct-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-41 SA 3 (4-4.5 ft)	E131	27-Oct-2025	----	----	----		03-Dec-2025	----	----	
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-52 SA 3 (4-4.5 ft)	E131	05-Nov-2025	----	----	----		03-Dec-2025	----	----	



Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-01 SA 3 (4-4.5 ft)	E141	02-Nov-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-02 SA 3 (4-4.5 ft)	E141	02-Nov-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-03 SA 3 (4-4.5 ft)	E141	03-Nov-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-04 SA 3 (4-4.5 ft)	E141	25-Oct-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-05 SA 3 (4-4.5 ft)	E141	26-Oct-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-06 SA 3 (4-4.5 ft)	E141	04-Nov-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-08 SA 3 (4-4.5 ft)	E141	29-Oct-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-10 SA 3 (4-4.5 ft)	E141	29-Oct-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-13 SA 3 (4-4.5 ft)	E141	22-Oct-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	



Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-14 SA 3 (4-4.5 ft)	E141	21-Oct-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-22 SA 3 (4-4.5 ft)	E141	23-Oct-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-24 SA 3 (4-4.5 ft)	E141	01-Nov-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-25 SA 3 (4-4.5 ft)	E141	24-Oct-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-27 SA 3 (4-4.5 ft)	E141	01-Nov-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-28 SS1 (4-4.5 ft)	E141	31-Oct-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-34 SA 3 (4-4.5 ft)	E141	04-Nov-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-39 SA 3 (4-4.5 ft)	E141	27-Oct-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-41 SA 3 (4-4.5 ft)	E141	27-Oct-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	



Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-52 SA 3 (4-4.5 ft)	E141	05-Nov-2025	03-Dec-2025	----	----		03-Dec-2025	----	0 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Soil/Solid**

Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
pH by Meter (Saturated Paste)	E114	2366760	1	19	5.2	5.0	✓
ORP by Electrode (Saturated Paste)	E126	2366759	1	19	5.2	5.0	✓
Resistivity by Electrode (Saturated Paste)	E131	2367322	1	19	5.2	5.0	✓
Saturation Percentage	E141	2366761	1	19	5.2	5.0	✓
Moisture Content by Gravimetry	E144	2363810	1	20	5.0	5.0	✓
Total Sulfate ion in soil by acidic boiling water extraction, IC	E246.SO4	2368181	1	20	5.0	5.0	✓
Soluble Sulfate ion in soil by boiling water extraction, IC.	E246A.SO4	2379430	1	20	5.0	5.0	✓
Chloride by Colourimetry (Saturated Paste)	E266.Cl	2366762	1	19	5.2	5.0	✓
Laboratory Control Samples (LCS)							
pH by Meter (Saturated Paste)	E114	2366760	2	19	10.5	10.0	✓
ORP by Electrode (Saturated Paste)	E126	2366759	1	19	5.2	5.0	✓
Resistivity by Electrode (Saturated Paste)	E131	2367322	2	19	10.5	10.0	✓
Saturation Percentage	E141	2366761	2	19	10.5	10.0	✓
Moisture Content by Gravimetry	E144	2363810	1	20	5.0	5.0	✓
Total Sulfate ion in soil by acidic boiling water extraction, IC	E246.SO4	2368181	2	20	10.0	10.0	✓
Soluble Sulfate ion in soil by boiling water extraction, IC.	E246A.SO4	2379430	4	20	20.0	10.0	✓
Chloride by Colourimetry (Saturated Paste)	E266.Cl	2366762	2	19	10.5	10.0	✓
Method Blanks (MB)							
Moisture Content by Gravimetry	E144	2363810	1	20	5.0	5.0	✓
Total Sulfate ion in soil by acidic boiling water extraction, IC	E246.SO4	2368181	1	20	5.0	5.0	✓
Soluble Sulfate ion in soil by boiling water extraction, IC.	E246A.SO4	2379430	2	20	10.0	5.0	✓
Chloride by Colourimetry (Saturated Paste)	E266.Cl	2366762	1	19	5.2	5.0	✓



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
pH by Meter (Saturated Paste)	E114 ALS Environmental - Calgary	Soil/Solid	Carter-CSSS / APHA 4500 H	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C) on a soil produced by the saturated paste extraction procedure.
ORP by Electrode (Saturated Paste)	E126 ALS Environmental - Calgary	Soil/Solid	ASTM G200-09 (mod)	Oxidation reduction potential is reported as the oxidation-reduction potential of the platinum metal-reference electrode employed in the analysis, measured in mV. Analysis occurs on a soil that has been saturated with water (Saturated Paste).
Resistivity by Electrode (Saturated Paste)	E131 ALS Environmental - Calgary	Soil/Solid	ASTM G57-95A (mod)	Resistivity is determined on a soil sample that has been mixed with deionized water to create a saturated paste, which is then placed directly into a four electrode resistivity soil box and measured for resistivity using a resistivity meter.
Saturation Percentage	E141 ALS Environmental - Calgary	Soil/Solid	CSSS Ch. 15 (mod)/AER D50	Saturation Percentage (SP) is determined as the total volume of water present in a saturated paste (in mL) divided by the dry weight of the sample (in grams), expressed as a percentage.
Moisture Content by Gravimetry	E144 ALS Environmental - Calgary	Soil/Solid	CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Total Sulfate ion in soil by acidic boiling water extraction, IC	E246.SO4 ALS Environmental - Calgary	Soil/Solid	CSA-A23.2-3B (Mod)	The dried solid is mixed with water and acid then heated. After filtration the liquid is ready for analysis by IC with conductivity detector.
Soluble Sulfate ion in soil by boiling water extraction, IC.	E246A.SO4 ALS Environmental - Calgary	Soil/Solid	CSA-A23.2-3B (Mod)	The dried solid is mixed with water at a specified ratio then heated. After filtration the liquid is ready for analysis by IC with conductivity detector. A result of "NR" indicates that the total sulfate analysis was <0.2% and based on CSA-A23.2-3B no analysis for soluble sulfate is required.
Chloride by Colourimetry (Saturated Paste)	E266.Cl ALS Environmental - Calgary	Soil/Solid	CSSS Ch. 15/APHA 4500-CL E (mod)/AER D50	Inorganic anions are analyzed by obtaining a soil extract produced by the saturated paste extraction procedure which is then analyzed by colourimetry using a discrete analyzer.
Chloride by Colourimetry (Saturated Paste) (mg/kg)	EC266A.Cl ALS Environmental - Calgary	Soil/Solid	CSSS Ch. 15/APHA 4500-CL E (mod)	Inorganic anions are analyzed by obtaining a soil extract produced by the saturated paste extraction procedure which is then analyzed by colourimetry using a discrete analyzer.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Soluble ion Sulfate in soil or concrete preparation.	EP246.S ALS Environmental - Calgary	Soil/Solid	CSA-A23.2B	The dried solid is mixed with water then heated. After filtration the liquid is ready for analysis.
Total ion Sulfate in soil or concrete preparation	EP246.T ALS Environmental - Calgary	Soil/Solid	CSA-A23.2B	The dried solid is mixed with water and acid then heated. After filtration the liquid is ready for analysis.
Dry and Grind in Soil/Solid <60°C	EPP442 ALS Environmental - Calgary	Soil/Solid	Soil Sampling and Methods of Analysis, Carter 2008	After removal of any coarse fragments and reservation of wet subsamples a portion of homogenized sample is set in a tray and dried at less than 60°C until dry. The sample is then particle size reduced with an automated crusher or mortar and pestle, typically to <2 mm. Further size reduction may be needed for particular tests.

QUALITY CONTROL REPORT

<p>Work Order : SK2507547</p> <p>Client : WSP Canada Inc.</p> <p>Contact : Lisa Nehring</p> <p>Address : 1721 8th Street East Saskatoon SK Canada S7H 0T4</p> <p>Telephone : ----</p> <p>Project : CA0059493.2836/400</p> <p>PO : P123380CA001</p> <p>C-O-C number : ----</p> <p>Sampler : JS</p> <p>Site : ----</p> <p>Quote number : 2025 Geotech soils (E)</p> <p>No. of samples received : 19</p> <p>No. of samples analysed : 19</p>	<p>Page : 1 of 5</p> <p>Laboratory : ALS Environmental - Saskatoon</p> <p>Account Manager : Brian Morgan</p> <p>Address : 819 58 Street East Saskatoon, Saskatchewan Canada S7K 6X5</p> <p>Telephone : 1 306 221 7147</p> <p>Date Samples Received : 27-Nov-2025 16:30</p> <p>Date Analysis Commenced : 30-Nov-2025</p> <p>Issue Date : 11-Dec-2025 12:14</p>
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This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Hannah Phung	Lab Assistant	Calgary Inorganics, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Calgary Inorganics, Calgary, Alberta
Katarzyna Glinka	Analyst	Calgary Inorganics, Calgary, Alberta
Kuljeet Chawla		Calgary Inorganics, Calgary, Alberta
Rosalie Van Deelen	Laboratory Assistant	Calgary Organics, Calgary, Alberta



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Soil/Solid**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2363810)											
EO2510866-003	Anonymous	Moisture	----	E144	0.25	%	24.0	25.4	5.73%	20%	----
Physical Tests (QC Lot: 2366759)											
SK2507547-001	SS-BH25-01 SA 3 (4-4.5 ft)	Oxidation-reduction potential [ORP]	----	E126	0.10	mV	230	230	0.0435%	10%	----
Inorganics (QC Lot: 2368181)											
SK2507547-001	SS-BH25-01 SA 3 (4-4.5 ft)	Sulfate, total, ion content	14808-79-8	E246.SO4	500	mg/kg	0.903 %	9660	6.73%	30%	----
Inorganics (QC Lot: 2376672)											
SK2507547-001	SS-BH25-01 SA 3 (4-4.5 ft)	Sulfate, soluble ion content	14808-79-8	E246A.SO4	500	mg/kg	0.854 %	7900	7.87%	30%	----
Saturated Paste Extractables (QC Lot: 2366760)											
SK2507547-001	SS-BH25-01 SA 3 (4-4.5 ft)	pH, saturated paste	----	E114	0.10	pH units	8.40	8.45	0.593%	5%	----
Saturated Paste Extractables (QC Lot: 2366761)											
SK2507547-001	SS-BH25-01 SA 3 (4-4.5 ft)	% Saturation	----	E141	1.0	%	60.6	60.4	0.287%	20%	----
Saturated Paste Extractables (QC Lot: 2366762)											
SK2507547-001	SS-BH25-01 SA 3 (4-4.5 ft)	Chloride, soluble ion content	16887-00-6	E266.Cl	20	mg/L	57	58	0.5	Diff <2x LOR	----
Saturated Paste Extractables (QC Lot: 2367322)											
SK2507547-001	SS-BH25-01 SA 3 (4-4.5 ft)	Resistivity	----	E131	1.0	ohm cm	361	373	3.21%	20%	----



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2363810)						
Moisture	----	E144	0.25	%	<0.25	----
Inorganics (QCLot: 2368181)						
Sulfate, total, ion content	14808-79-8	E246.SO4	500	mg/kg	<500	----
Inorganics (QCLot: 2376672)						
Sulfate, soluble ion content	14808-79-8	E246A.SO4	500	mg/kg	<500	----
Inorganics (QCLot: 2379430)						
Sulfate, soluble ion content	14808-79-8	E246A.SO4	500	mg/kg	NR	----
Saturated Paste Extractables (QCLot: 2366762)						
Chloride, soluble ion content	16887-00-6	E266.Cl	20	mg/L	<20	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2363810)									
Moisture	----	E144	0.25	%	50 %	100	90.0	110	----
Inorganics (QCLot: 2368181)									
Sulfate, total, ion content	14808-79-8	E246.SO4	500	mg/kg	10000 mg/kg	99.4	90.0	110	----
Inorganics (QCLot: 2376672)									
Sulfate, soluble ion content	14808-79-8	E246A.SO4	500	mg/kg	1000 mg/kg	96.2	60.0	140	----
Saturated Paste Extractables (QCLot: 2366760)									
pH, saturated paste	----	E114	----	pH units	7 pH units	100	97.0	103	----
Saturated Paste Extractables (QCLot: 2366761)									
% Saturation	----	E141	----	%	100 %	101	90.0	110	----
Saturated Paste Extractables (QCLot: 2366762)									
Chloride, soluble ion content	16887-00-6	E266.Cl	20	mg/L	100 mg/L	102	70.0	130	----
Saturated Paste Extractables (QCLot: 2367322)									
Resistivity	----	E131	----	ohm cm	11200 ohm cm	98.2	70.0	130	----



Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Physical Tests (QCLot: 2366759)									
QC-2366759-001	RM	Oxidation-reduction potential [ORP]	----	E126	264 mV	100	92.0	108	----
Inorganics (QCLot: 2368181)									
QC-2368181-003	RM	Sulfate, total, ion content	14808-79-8	E246.SO4	33400 mg/kg	98.8	80.0	120	----
Inorganics (QCLot: 2376672)									
QC-2376672-003	RM	Sulfate, soluble ion content	14808-79-8	E246A.SO4	2310 mg/kg	94.6	80.0	120	----
Saturated Paste Extractables (QCLot: 2366760)									
QC-2366760-002	RM	pH, saturated paste	----	E114	7.4 pH units	101	97.0	103	----
Saturated Paste Extractables (QCLot: 2366761)									
QC-2366761-002	RM	% Saturation	----	E141	43.9 %	93.2	80.0	120	----
Saturated Paste Extractables (QCLot: 2366762)									
QC-2366762-003	RM	Chloride, soluble ion content	16887-00-6	E266.Cl	2120 mg/L	101	70.0	130	----
Saturated Paste Extractables (QCLot: 2367322)									
QC-2367322-002	RM	Resistivity	----	E131	454 ohm cm	106	70.0	130	----

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

◆ . o r i f 2 0 1 4

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized OW COC form.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

CERTIFICATE OF ANALYSIS

Work Order : **SK2600125**
Client : **WSP Canada Inc.**
Contact : Lisa Nehring
Address : 1721 8th Street East
 Saskatoon Saskatchewan Canada S7H 0T4
Telephone : ----
Project : CA0059493.2836/400 - 2025
PO : P123380CA001
C-O-C number : ----
Sampler : JS
Site : ----
Quote number : 2025 Geotech soils (E)
No. of samples received : 1
No. of samples analysed : 1

Laboratory : ALS Environmental - Saskatoon
Account Manager : Brian Morgan
Address : 819 58 Street East
 Saskatoon SK Canada S7K 6X5
E-mail : Brian.Morgan@ALSGlobal.com
Telephone : 1 306 221 7147
Date Samples Received : 09-Jan-2026 16:15
Date Analysis Commenced : 14-Jan-2026
Issue Date : 23-Jan-2026 15:47

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Alphina Mathew	Laboratory Assistant	Inorganics, Calgary, Alberta
Katarzyna Glinka	Analyst	Inorganics, Calgary, Alberta
Rosalie Van Deelen	Laboratory Assistant	Organics, Calgary, Alberta
Ruifang Zheng	Analyst	Inorganics, Calgary, Alberta
Shirley Li	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Vishnu Patel		Inorganics, Calgary, Alberta



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
%	percent
mg/kg	milligrams per kilogram
mg/L	milligrams per litre
mV	millivolts
ohm cm	ohm centimetres (resistivity)
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Accreditation

<i>Accreditation</i>	<i>Description</i>	<i>Laboratory</i>	<i>Address</i>
A	CALA ISO/IEC 17025:2017	CG ALS Environmental - Calgary	2559 29th Street NE, Calgary, AB

Applicable accreditations are indicated in the Method/Lab column.

Work Order : SK2600125
Client : WSP Canada Inc.
Project : CA0059493.2836/400 - 2025





Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)						Client sample ID	SS-BH25-09 AS-3 (4.5-5ft)	----	----	----	----
Client sampling date / time						19-Dec-2025 00:00	----	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		SK2600125-001	----	----	----	----	----
						Result	----	----	----	----	----
Physical Tests											
Moisture	----	E144/CG	A	0.25	%	14.6	----	----	----	----	----
pH, saturated paste	----	E114/CG	A	0.10	pH units	8.78	----	----	----	----	----
% Saturation	----	E141/CG	A	1.0	%	98.8	----	----	----	----	----
Inorganics											
Sulfate, total, ion content	14808-79-8	E246.SO4/CG	A	0.050	%	0.844	----	----	----	----	----
Sulfate, soluble ion content	14808-79-8	E246A.SO4/CG	A	0.050	%	0.862	----	----	----	----	----
Saturated Paste Extractables											
Chloride, soluble ion content	16887-00-6	E266.Cl/CG	A	20	mg/L	127	----	----	----	----	----
Oxidation-reduction potential [ORP]	----	E126/CG		0.10	mV	391	----	----	----	----	----
Resistivity	----	E131/CG	A	1.0	ohm cm	243	----	----	----	----	----
Chloride, soluble ion content	16887-00-6	EC266A.Cl/CG		10	mg/kg	125	----	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.



QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : SK2600125</p> <p>Client : WSP Canada Inc.</p> <p>Contact : Lisa Nehring</p> <p>Address : 1721 8th Street East Saskatoon SK Canada S7H 0T4</p> <p>Telephone : ----</p> <p>Project : CA0059493.2836/400 - 2025</p> <p>PO : P123380CA001</p> <p>C-O-C number : ----</p> <p>Sampler : JS</p> <p>Site : ----</p> <p>Quote number : 2025 Geotech soils (E)</p> <p>No. of samples received : 1</p> <p>No. of samples analysed : 1</p>	<p>Page : 1 of 7</p> <p>Laboratory : ALS Environmental - Saskatoon</p> <p>Account Manager : Brian Morgan</p> <p>Address : 819 58 Street East Saskatoon, Saskatchewan Canada S7K 6X5</p> <p>Telephone : 1 306 221 7147</p> <p>Date Samples Received : 09-Jan-2026 16:15</p> <p>Issue Date : 23-Jan-2026 15:45</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
 - CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
 - DQO: Data Quality Objective.
 - LOR: Limit of Reporting (detection limit).
 - RPD: Relative Percent Difference.
-

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and/or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Inorganics : Soluble Sulfate ion in soil by boiling water extraction, IC.										
Glass soil jar/Teflon lined cap SS-BH25-09 AS-3 (4.5-5ft)	E246A.SO4	19-Dec-2025	20-Jan-2026	180 days	33 days	✔	21-Jan-2026	28 days	1 days	✔
Inorganics : Total Sulfate ion in soil by acidic boiling water extraction, IC										
Glass soil jar/Teflon lined cap SS-BH25-09 AS-3 (4.5-5ft)	E246.SO4	19-Dec-2025	17-Jan-2026	180 days	29 days	✔	17-Jan-2026	28 days	0 days	✔
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap SS-BH25-09 AS-3 (4.5-5ft)	E144	19-Dec-2025	----	----	----		19-Jan-2026	----	----	
Physical Tests : ORP by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-09 AS-3 (4.5-5ft)	E126	19-Dec-2025	14-Jan-2026	30 days	27 days	✔	14-Jan-2026	30 days	27 days	✔
Saturated Paste Extractables : Chloride by Colourimetry (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-09 AS-3 (4.5-5ft)	E266.Cl	19-Dec-2025	14-Jan-2026	365 days	27 days	✔	16-Jan-2026	28 days	2 days	✔
Saturated Paste Extractables : pH by Meter (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-09 AS-3 (4.5-5ft)	E114	19-Dec-2025	14-Jan-2026	365 days	27 days	✔	14-Jan-2026	365 days	27 days	✔
Saturated Paste Extractables : Resistivity by Electrode (Saturated Paste)										
Glass soil jar/Teflon lined cap SS-BH25-09 AS-3 (4.5-5ft)	E131	19-Dec-2025	----	----	----		14-Jan-2026	----	----	



Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Saturated Paste Extractables : Saturation Percentage										
Glass soil jar/Teflon lined cap SS-BH25-09 AS-3 (4.5-5ft)	E141	19-Dec-2025	14-Jan-2026	----	----		14-Jan-2026	----	0 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Soil/Solid**

Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
pH by Meter (Saturated Paste)	E114	2416585	1	1	100.0	5.0	✓
ORP by Electrode (Saturated Paste)	E126	2416582	1	1	100.0	5.0	✓
Resistivity by Electrode (Saturated Paste)	E131	2416642	1	1	100.0	5.0	✓
Saturation Percentage	E141	2416584	1	1	100.0	5.0	✓
Moisture Content by Gravimetry	E144	2421905	1	3	33.3	5.0	✓
Total Sulfate ion in soil by acidic boiling water extraction, IC	E246.SO4	2420720	1	13	7.6	5.0	✓
Soluble Sulfate ion in soil by boiling water extraction, IC.	E246A.SO4	2423952	1	4	25.0	5.0	✓
Chloride by Colourimetry (Saturated Paste)	E266.Cl	2416583	1	1	100.0	5.0	✓
Laboratory Control Samples (LCS)							
pH by Meter (Saturated Paste)	E114	2416585	2	1	200.0	10.0	✓
ORP by Electrode (Saturated Paste)	E126	2416582	1	1	100.0	5.0	✓
Resistivity by Electrode (Saturated Paste)	E131	2416642	2	1	200.0	10.0	✓
Saturation Percentage	E141	2416584	2	1	200.0	10.0	✓
Moisture Content by Gravimetry	E144	2421905	1	3	33.3	5.0	✓
Total Sulfate ion in soil by acidic boiling water extraction, IC	E246.SO4	2420720	2	13	15.3	10.0	✓
Soluble Sulfate ion in soil by boiling water extraction, IC.	E246A.SO4	2423952	2	4	50.0	10.0	✓
Chloride by Colourimetry (Saturated Paste)	E266.Cl	2416583	2	1	200.0	10.0	✓
Method Blanks (MB)							
Moisture Content by Gravimetry	E144	2421905	1	3	33.3	5.0	✓
Total Sulfate ion in soil by acidic boiling water extraction, IC	E246.SO4	2420720	1	13	7.6	5.0	✓
Soluble Sulfate ion in soil by boiling water extraction, IC.	E246A.SO4	2423952	1	4	25.0	5.0	✓
Chloride by Colourimetry (Saturated Paste)	E266.Cl	2416583	1	1	100.0	5.0	✓



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
pH by Meter (Saturated Paste)	E114 ALS Environmental - Calgary	Soil/Solid	Carter-CSSS / APHA 4500 H	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C) on a soil produced by the saturated paste extraction procedure.
ORP by Electrode (Saturated Paste)	E126 ALS Environmental - Calgary	Soil/Solid	ASTM G200-09 (mod)	Oxidation reduction potential is reported as the oxidation-reduction potential of the platinum metal-reference electrode employed in the analysis, measured in mV. Analysis occurs on a soil that has been saturated with water (Saturated Paste).
Resistivity by Electrode (Saturated Paste)	E131 ALS Environmental - Calgary	Soil/Solid	ASTM G57-95A (mod)	Resistivity is determined on a soil sample that has been mixed with deionized water to create a saturated paste, which is then placed directly into a four electrode resistivity soil box and measured for resistivity using a resistivity meter.
Saturation Percentage	E141 ALS Environmental - Calgary	Soil/Solid	CSSS Ch. 15 (mod)/AER D50	Saturation Percentage (SP) is determined as the total volume of water present in a saturated paste (in mL) divided by the dry weight of the sample (in grams), expressed as a percentage.
Moisture Content by Gravimetry	E144 ALS Environmental - Calgary	Soil/Solid	CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Total Sulfate ion in soil by acidic boiling water extraction, IC	E246.SO4 ALS Environmental - Calgary	Soil/Solid	CSA-A23.2-3B (Mod)	The dried solid is mixed with water and acid then heated. After filtration the liquid is ready for analysis by IC with conductivity detector.
Soluble Sulfate ion in soil by boiling water extraction, IC.	E246A.SO4 ALS Environmental - Calgary	Soil/Solid	CSA-A23.2-3B (Mod)	The dried solid is mixed with water at a specified ratio then heated. After filtration the liquid is ready for analysis by IC with conductivity detector. A result of "NR" indicates that the total sulfate analysis was <0.2% and based on CSA-A23.2-3B no analysis for soluble sulfate is required.
Chloride by Colourimetry (Saturated Paste)	E266.Cl ALS Environmental - Calgary	Soil/Solid	CSSS Ch. 15/APHA 4500-CL E (mod)/AER D50	Inorganic anions are analyzed by obtaining a soil extract produced by the saturated paste extraction procedure which is then analyzed by colourimetry using a discrete analyzer.
Chloride by Colourimetry (Saturated Paste) (mg/kg)	EC266A.Cl ALS Environmental - Calgary	Soil/Solid	CSSS Ch. 15/APHA 4500-CL E (mod)	Inorganic anions are analyzed by obtaining a soil extract produced by the saturated paste extraction procedure which is then analyzed by colourimetry using a discrete analyzer.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
---------------------	--------------	--------	------------------	---------------------



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Soluble ion Sulfate in soil or concrete preparation.	EP246.S ALS Environmental - Calgary	Soil/Solid	CSA-A23.2B	The dried solid is mixed with water then heated. After filtration the liquid is ready for analysis.
Total ion Sulfate in soil or concrete preparation	EP246.T ALS Environmental - Calgary	Soil/Solid	CSA-A23.2B	The dried solid is mixed with water and acid then heated. After filtration the liquid is ready for analysis.
Dry and Grind in Soil/Solid <60°C	EPP442 ALS Environmental - Calgary	Soil/Solid	Soil Sampling and Methods of Analysis, Carter 2008	After removal of any coarse fragments and reservation of wet subsamples a portion of homogenized sample is set in a tray and dried at less than 60°C until dry. The sample is then particle size reduced with an automated crusher or mortar and pestle, typically to <2 mm. Further size reduction may be needed for particular tests.



QUALITY CONTROL REPORT

Work Order : SK2600125

Client : WSP Canada Inc.
 Contact : Lisa Nehring
 Address : 1721 8th Street East
 Saskatoon SK Canada S7H 0T4
 Telephone : ----
 Project : CA0059493.2836/400 - 2025
 PO : P123380CA001
 C-O-C number : ----
 Sampler : JS
 Site : ----
 Quote number : 2025 Geotech soils (E)
 No. of samples received : 1
 No. of samples analysed : 1

Laboratory : ALS Environmental - Saskatoon
 Account Manager : Brian Morgan
 Address : 819 58 Street East
 Saskatoon SK Canada S7K 6X5
 Telephone : 1 306 221 7147
 Date Samples Received : 09-Jan-2026 16:15
 Date Analysis Commenced : 14-Jan-2026
 Issue Date : 23-Jan-2026 15:48

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- **@ReferenceMaterial!**
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Alphina Mathew	Laboratory Assistant	Calgary Inorganics, Calgary, Alberta
Katarzyna Glinka	Analyst	Calgary Inorganics, Calgary, Alberta
Rosalie Van Deelen	Laboratory Assistant	Calgary Organics, Calgary, Alberta
Ruifang Zheng	Analyst	Calgary Inorganics, Calgary, Alberta
Shirley Li	Team Leader - Inorganics	Calgary Inorganics, Calgary, Alberta
Vishnu Patel		Calgary Inorganics, Calgary, Alberta



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key: Anonymous=Refers to samples which are not part of this work order, but which formed part of the QC process lot.
 CAS Number=Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
 DQO=Data Quality Objective.
 LOR=Limit of Reporting (detection limit).
 RPD=Relative Percent Difference
 # =Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test specific).

Sub-Matrix: Soil					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests(QC Lot: 2416582)											
SK2600125-001	SS-BH25-09 AS-3 (4.5-	Oxidation-reduction potential [ORP]	----	E126	0.10	mV	391	394	0.891 %	10%	---
Inorganics(QC Lot: 2420720)											
FC2600063-001	Anonymous	Sulfate, total, ion content	14808-79-8	E246.SO4	500	mg/kg	<0.050 %	<500	0	Diff <2x LOR	---
Inorganics(QC Lot: 2423952)											
SK2600105-003	Anonymous	Sulfate, soluble ion content	14808-79-8	E246A.SO4	500	mg/kg	0.482 %	4810	0.110 %	30%	---
Saturated Paste Extractables(QC Lot: 2416583)											
SK2600125-001	SS-BH25-09 AS-3 (4.5-	Chloride, soluble ion content	16887-00-6	E266.Cl	20	mg/L	127	127	0.03	Diff <2x LOR	---
Saturated Paste Extractables(QC Lot: 2416584)											
SK2600125-001	SS-BH25-09 AS-3 (4.5-	% Saturation	----	E141	1.0	%	98.8	96.3	2.49 %	20%	---
Saturated Paste Extractables(QC Lot: 2416585)											
SK2600125-001	SS-BH25-09 AS-3 (4.5-	pH, saturated paste	----	E114	0.10	pH units	8.78	8.77	0.114 %	5%	---
Saturated Paste Extractables(QC Lot: 2416642)											
SK2600125-001	SS-BH25-09 AS-3 (4.5-	Resistivity	----	E131	1.0	ohm cm	243	248	2.04 %	20%	---

Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests(QC Lot: 2421905)											
CG2600582-001	Anonymous	Moisture	----	E144	0.25	%	29.5	29.6	0.330 %	20%	---



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests(QC Lot: 2421905)						
Moisture	----	E144	0.25	%	<0.25	----
Inorganics(QC Lot: 2420720)						
Sulfate, total, ion content	14808-79-8	E246.SO4	500	mg/kg	<500	----
Inorganics(QC Lot: 2423952)						
Sulfate, soluble ion content	14808-79-8	E246A.SO4	500	mg/kg	<500	----
Saturated Paste Extractables(QC Lot: 2416583)						
Chloride, soluble ion content	16887-00-6	E266.Cl	20	mg/L	<20	----
Saturated Paste Extractables(QC Lot: 2416584)						
% Saturation	----	E141	----	%	----	----
Saturated Paste Extractables(QC Lot: 2416585)						
pH, saturated paste	----	E114	----	pH units	----	----
Saturated Paste Extractables(QC Lot: 2416642)						
Resistivity	----	E131	----	ohm cm	----	----



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Soil

					Laboratory Control Sample (LCS) Report				
Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Target Concentration	LCS	Low	High	
Physical Tests(QC Lot: 2421905)									
Moisture	----	E144	0.25	%	50 %	100	90.0	110	----
Inorganics(QC Lot: 2420720)									
Sulfate, total, ion content	14808-79-8	E246.SO4	500	mg/kg	10000 mg/kg	99.7	90.0	110	----
Inorganics(QC Lot: 2423952)									
Sulfate, soluble ion content	14808-79-8	E246A.SO4	500	mg/kg	1000 mg/kg	90.7	60.0	140	----
Saturated Paste Extractables(QC Lot: 2416583)									
Chloride, soluble ion content	16887-00-6	E266.Cl	20	mg/L	100 mg/L	103	70.0	130	----
Saturated Paste Extractables(QC Lot: 2416584)									
% Saturation	----	E141	----	%	100 %	102	90.0	110	----
Saturated Paste Extractables(QC Lot: 2416585)									
pH, saturated paste	----	E114	----	pH units	7 pH units	100	97.0	103	----
Saturated Paste Extractables(QC Lot: 2416642)									
Resistivity	----	E131	----	ohm cm	11200 ohm cm	103	70.0	130	----

Work Order : SK2600125
Client : WSP Canada Inc.
Project : CA0059493.2836/400 - 2025



Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Work Order : SK2600125
 Client : WSP Canada Inc.
 Project : CA0059493.2836/400 - 2025



Sub-Matrix: Soil

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Reference Material (RM) Report					
					Spike		Recovery (%)	Recovery Limits (%)		Qualifier
					Target Concentration	Original Result	LCS	Low	High	
Physical Tests(QC Lot: 2416582)										
QC-MRG4-2416582001		Oxidation-reduction potential [ORP]	----	E126	264 mV	264 mV		92.0	108	----
Inorganics(QC Lot: 2420720)										
QC-2420720-001		Sulfate, total, ion content	14808-79-8	E246.SO4	33400 mg/kg	33400 mg/kg		80.0	120	----
Inorganics(QC Lot: 2423952)										
QC-2423952-001		Sulfate, soluble ion content	14808-79-8	E246A.SO4	2312 mg/kg	2312 mg/kg		80.0	120	----
Saturated Paste Extractables(QC Lot: 2416583)										
QC-2416583-001		Chloride, soluble ion content	16887-00-6	E266.Cl	2124 mg/L	2124 mg/L		70.0	130	----
Saturated Paste Extractables(QC Lot: 2416584)										
QC-MRG4-2416582001		% Saturation	----	E141	43.93 %	43.93 %		80.0	120	----
Saturated Paste Extractables(QC Lot: 2416585)										
QC-MRG4-2416582001		pH, saturated paste	----	E114	7.4 pH units	7.4 pH units		97.0	103	----
Saturated Paste Extractables(QC Lot: 2416642)										
QC-2416642-002		Resistivity	----	E131	454 ohm cm	454 ohm cm		70.0	130	----

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