

Sympson Lake, Nelson County (26-2198) requested unconfined compression test core results

Boring	Ground Elevation	Bottom of Core	Btm of Wall	Requested Sample Depth	Requested Sample Elevation	Actual Depth Tested	Actual Elevation Tested	Qu (psi)
1013P	541.9	429.9	484	55	486.9	55	486.9	13006
1014P	538.4	429.3	473	58.5	479.9	58.2	480.2	12210
1015P	535	427.2	462	70	465	70	465	10943
1016P	532.2	432.1	440	90	442.2	90	442.2	6535
1017P	529.7	425.8	440	55	474.7	55	474.7	6502
1017P	529.7	425.8	440	85	444.7	85	444.7	4686
1018P	529.8	425	440	35	494.8	35	494.8	8816
1018P	529.8	425	440	60	469.8	60	469.8	7550
1018P	529.8	425	440	70	459.8	70	459.8	5046
1018P	529.8	425	440	85	444.8	85	444.8	5523
1019P	529.8	426.8	440	18	511.8	17.6	512.2	5904
1019P	529.8	426.8	440	32	497.8	32	497.8	3553
1019P	529.8	426.8	440	40	489.8	40	489.8	7178
1019P	529.8	426.8	440	48.5	481.3	48.6	481.2	5624
1019P	529.8	426.8	440	60	469.8	60	469.8	6077
1019P	529.8	426.8	440	70	459.8	70	459.8	9126
1019P	529.8	426.8	440	80	449.8	80	449.8	6477
1020P	530.2	426.3	440	30	500.2	30	500.2	6755
1020P	530.2	426.3	440	40	490.2	40	490.2	5037
1020P	530.2	426.3	440	60	470.2	60	470.2	1950
1020P	530.2	426.3	440	70	460.2	70	460.2	7280
1020P	530.2	426.3	440	85	445.2	84	446.2	5268

Samples Tested 22  
 Minimum (psi) 1950  
 Maximum (psi) 13006  
 Average (psi) 6866



ASTM: D7012-Method C

**UNCONFINED COMPRESSION TEST (ROCK CORE)**

PROJECT NAME : Sympson Lake  
PROJECT NO. : 10454062  
PROJECT COUNTY : Nelson  
PROJECT STATE : Kentucky  
LABORATORY NO. : 10454062  
SUBMITTED BY : HDR

SAMPLE NO. : RS-1  
SAMPLE LOC. : B-1013  
SAMPLE DEPTH : 55.0' to 55.4'  
DATE TESTED : 5/12/2026  
DATE REPORTED : 5/12/2026

ROCK DESCRIPTION : Dark Gray and Dark Bluish Gray, Fresh, Slightly Fractured Limestone

Machine Used : ELE CT-7250

Diameter : 1.99 in

Height : 4.13 in

Area : 3.12 in<sup>2</sup>

Volume : 0.0075 ft<sup>3</sup>

**RESULTS :**

Air Dry Moisture:	0.2	%
Air-Dry Density :	167.5	lbs/ft. <sup>3</sup>
Maximum Stress :	13,006	psi
Elapsed Time :	12:05	min.
Rate of Loading :	60	lb/sec



Comments :

Approved By : W. Sturmfels



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**UNCONFINED COMPRESSION TEST (ROCK CORE)**

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PROJECT NO. : 10454062  
PROJECT COUNTY : Nelson  
PROJECT STATE : Kentucky  
LABORATORY NO. : 10454062  
SUBMITTED BY : HDR

SAMPLE NO. : RS-1  
SAMPLE LOC. : B-1014  
SAMPLE DEPTH : 58.2' to 58.6'  
DATE TESTED : 4/22/2026  
DATE REPORTED : 4/23/2026

ROCK DESCRIPTION : Medium Gray/Green, Medium Bedded, Slightly Fractured Dolostone

Machine Used : ELE CT-7250

Diameter : 1.99 in

Area : 3.12 in<sup>2</sup>

Height : 4.07 in

Volume : 0.0073 ft<sup>3</sup>

**RESULTS :**

Air Dry Moisture:	0.3	%
Air-Dry Density :	166.8	lbs/ft. <sup>3</sup>
Maximum Stress :	12,210	psi
Elapsed Time :	11:23	min.
Rate of Loading :	60	lb/sec



Comments :

Approved By : *W. Sturges*







ASTM: D7012-Method C

**UNCONFINED COMPRESSION TEST (ROCK CORE)**

PROJECT NAME : Sympson Lake  
PROJECT NO. : 10454062  
PROJECT COUNTY : Nelson  
PROJECT STATE : Kentucky  
LABORATORY NO. : 10454062  
SUBMITTED BY : HDR

SAMPLE NO. : RS-1  
SAMPLE LOC. : B-1017  
SAMPLE DEPTH : 55.0' to 55.4'  
DATE TESTED : 5/12/2026  
DATE REPORTED : 5/12/2026

ROCK DESCRIPTION : Medium Gray, Moderately Weathered, Moderately Fractured Dolostone

Machine Used : ELE CT-7250

Diameter : 1.98 in

Height : 3.93 in

Area : 3.09 in<sup>2</sup>

Volume : 0.0070 ft<sup>3</sup>

**RESULTS :**

Air Dry Moisture:	0.2	%
Air-Dry Density :	163.5	lbs/ft. <sup>3</sup>
Maximum Stress :	6,502	psi
Elapsed Time :	6:16	min.
Rate of Loading :	60	lb/sec



Comments :

Approved By : W. Sturrock



















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**UNCONFINED COMPRESSION TEST (ROCK CORE)**

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PROJECT COUNTY : Nelson  
PROJECT STATE : Kentucky  
LABORATORY NO. : 10454062  
SUBMITTED BY : HDR

SAMPLE NO. : RS-4  
SAMPLE LOC. : B-1019  
SAMPLE DEPTH : 48.6' to 49.0'  
DATE TESTED : 4/22/2026  
DATE REPORTED : 4/23/2026

ROCK DESCRIPTION : Light Gray, Slightly Weathered, Fine to Medium Grained Limestone

Machine Used : ELE CT-7250

Diameter : 1.99 in

Area : 3.12 in<sup>2</sup>

Height : 4.19 in

Volume : 0.0076 ft<sup>3</sup>

**RESULTS :**

Air Dry Moisture:	0.3	%
Air-Dry Density :	166.8	lbs/ft. <sup>3</sup>
Maximum Stress :	5,624	psi
Elapsed Time :	7:29	min.
Rate of Loading :	60	lb/sec



Comments :

Approved By : W. Sturrock



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**UNCONFINED COMPRESSION TEST (ROCK CORE)**

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PROJECT NO. : 10454062  
PROJECT COUNTY : Nelson  
PROJECT STATE : Kentucky  
LABORATORY NO. : 10454062  
SUBMITTED BY : HDR

SAMPLE NO. : RS-5  
SAMPLE LOC. : B-1019  
SAMPLE DEPTH : 60.0' to 60.4'  
DATE TESTED : 5/12/2026  
DATE REPORTED : 5/12/2026

ROCK DESCRIPTION : Light Gray, Fresh, Very Thinly to Medium Bedded, Slightly Fractured, Limestone  
Machine Used : ELE CT-7250  
Diameter : 1.99 in  
Height : 3.95 in  
Area : 3.12 in<sup>2</sup>  
Volume : 0.0071 ft<sup>3</sup>

**RESULTS :**

Air Dry Moisture:	0.2	%
Air-Dry Density :	165.2	lbs/ft. <sup>3</sup>
Maximum Stress :	6,077	psi
Elapsed Time :	7:57	min.
Rate of Loading :	60	lb/sec



Comments :

Approved By : W. Sturrock







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**UNCONFINED COMPRESSION TEST (ROCK CORE)**

PROJECT NAME : Sympson Lake  
PROJECT NO. : 10454062  
PROJECT COUNTY : Nelson  
PROJECT STATE : Kentucky  
LABORATORY NO. : 10454062  
SUBMITTED BY : HDR

SAMPLE NO. : RS-1  
SAMPLE LOC. : B-1020  
SAMPLE DEPTH : 30.0' to 30.4'  
DATE TESTED : 5/12/2026  
DATE REPORTED : 5/12/2026

ROCK DESCRIPTION : Light Gray, Fresh, Very Slightly to Slightly Fractured Limestone

Machine Used : ELE CT-7250

Diameter : 1.99 in

Height : 3.99 in

Area : 3.12 in<sup>2</sup>

Volume : 0.0072 ft<sup>3</sup>

**RESULTS :**

Air Dry Moisture:	0.2	%
Air-Dry Density :	156.9	lbs/ft. <sup>3</sup>
Maximum Stress :	6,755	psi
Elapsed Time :	6:38	min.
Rate of Loading :	60	lb/sec



Comments :

Approved By : W. Sturrock



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**UNCONFINED COMPRESSION TEST (ROCK CORE)**

PROJECT NAME : Sympson Lake  
PROJECT NO. : 10454062  
PROJECT COUNTY : Nelson  
PROJECT STATE : Kentucky  
LABORATORY NO. : 10454062  
SUBMITTED BY : HDR

SAMPLE NO. : RS-2  
SAMPLE LOC. : B-1020  
SAMPLE DEPTH : 40.0' to 40.4'  
DATE TESTED : 5/12/2026  
DATE REPORTED : 5/12/2026

ROCK DESCRIPTION : Medium Gray, Fresh, Slightly to Moderately Fractured Limestone

Machine Used : ELE CT-7250

Diameter : 1.99 in

Area : 3.12 in<sup>2</sup>

Height : 3.41 in

Volume : 0.0062 ft<sup>3</sup>

**RESULTS :**

Air Dry Moisture:	0.7	%
Air-Dry Density :	165.8	lbs/ft. <sup>3</sup>
Maximum Stress :	5,037	psi
Elapsed Time :	5:37	min.
Rate of Loading :	60	lb/sec



Comments :

Approved By : 





