



300 Sierra Manor Drive, Suite 1
Reno, NV 89511

March 2, 2022
File: 1009

Mr. Chris Benna
RILITE AGGREGATES
3025 Mill Street
Reno, NV 89502

RE: Rilite Pit – Type 2, Class B Aggregate Base

Dear Mr. Benna:

Per your request, we have performed testing on the Type 2, Class B aggregate base sample you delivered to our laboratory. Test results are provided on the attached page(s) in comparison with the 2012 and 2016 Standard Specifications for Public Works Construction (SSPWC) - "Orange Book", current ASTM specification requirements, and 2014 Nevada Department of Transportation (NDOT) Standard Specifications for Road and Bridge Construction requirements.

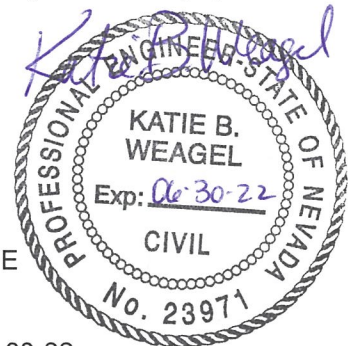
We appreciate this opportunity to provide our laboratory testing services. If you have any questions or require further information, please do not hesitate to contact us.

Sincerely,

CONSTRUCTION MATERIALS ENGINEERS, INC.

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Laboratory Manager
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03-02-22

SLV:KBW:mad
Attachments

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TYPE 2, CLASS B AGGREGATE BASE TEST RESULTS SUMMARY - RILITE PIT

Sieve Analysis

U.S. Standard Sieve Size	Percent Passing by Weight		
	Type 2, Class B Aggregate Base	2012 SSPWC Specification ¹	2016 SSPWC & NDOT Specification ¹
1 Inch	100	100	100
³ / ₄ Inch	92	90 - 100	90 - 100
¹ / ₂ Inch	75	-	-
³ / ₈ Inch	66	-	-
No. 4	44	35 - 65	35 - 65
No. 8	29	-	-
No. 10	27	25 - 53	-
No. 16	21	15 - 40	15 - 40
No. 30	16	-	-
No. 40	14	12 - 28	-
No. 50	12	-	-
No. 100	10	-	-
No. 200	7.1	2 - 10	2 - 10

Test Type	Test Method	Sample Result	SSPWC/NDOT Specifications ¹
Fractured Faces Resistance (R) Value	ASTM D5821/Nev. T230	97.8%	35% Minimum
Resistance to Wear (Grading B)	ASTM D2844/Nev. T115	74	70 Minimum
	ASTM C131/AASHTO T96	28.4%	45% Maximum

Atterberg Limits

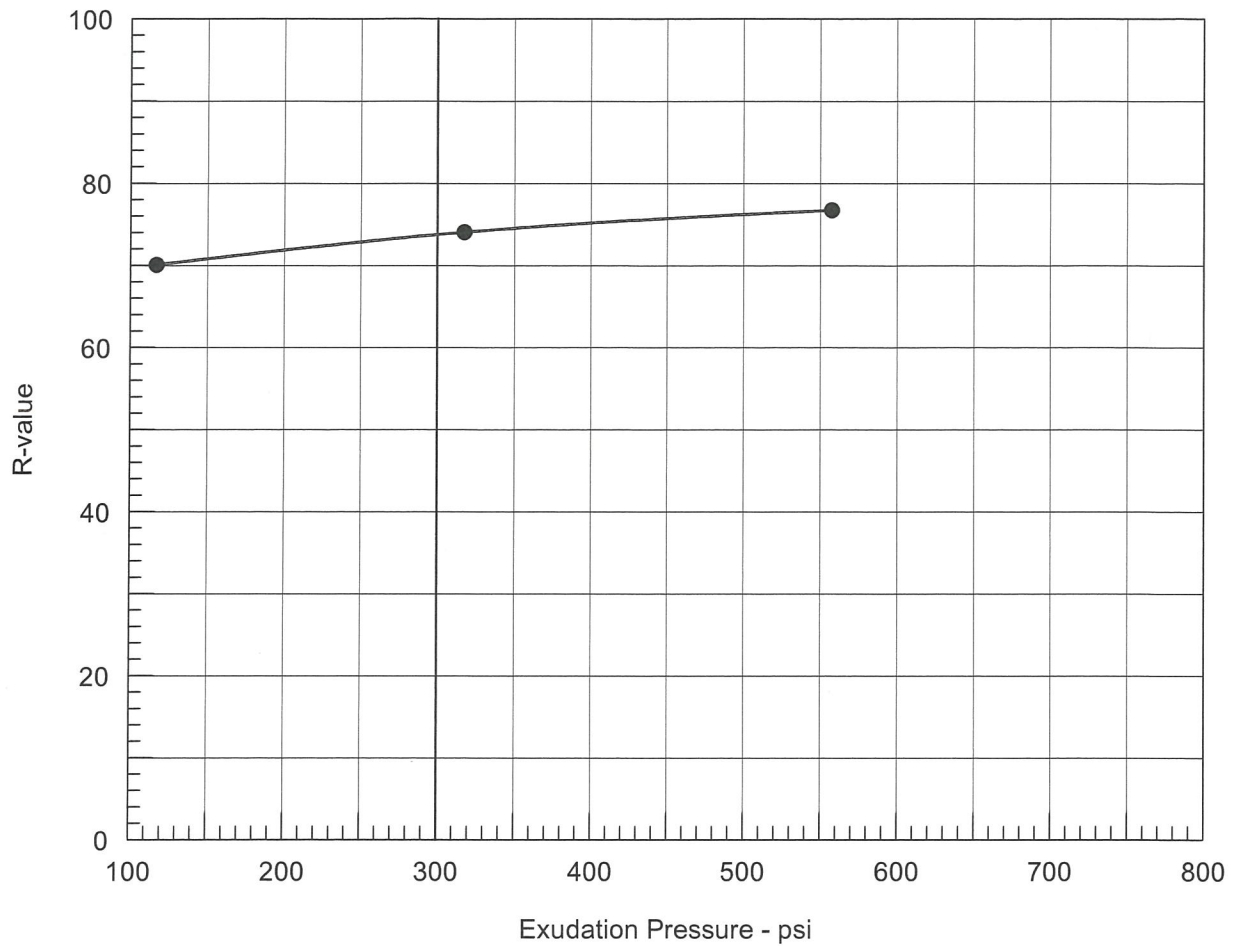
Test Type	Specification Type	Test Method	Sample Result	Specifications ¹
Liquid Limit	2012 SSPWC/NDOT	ASTM D4318/Nev. T210	25	35 Maximum
Plasticity Index	2012 SSPWC/NDOT	ASTM D4318/Nev. T212	5	6 Maximum
Plasticity Index	2016 SSPWC	ASTM D4318	5	8 Maximum

Moisture Density

Test Type	Test Method	Sample Result	SSPWC/NDOT Specifications ¹
Maximum Dry Density	ASTM D1557A	129.5 pcf	-
Optimum Moisture	ASTM D1557A	9.0%	-

¹ All specification requirements per the 2012 & 2016 Standard Specifications for Public Works Construction and 2014 NDOT Standard Specifications for Road and Bridge Construction unless otherwise noted.

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - ASTM D2844

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	350	110.7	10.2	0.00	21	2.50	117	70	70
2	350	113.1	9.3	0.00	16	2.50	558	77	77
3	350	112.0	9.8	0.00	18	2.50	317	74	74

Test Results	Material Description
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R-value at 300 psi exudation pressure = 74

AGGREGATE BASE
TYPE 2 CLASS B
RILITE PIT

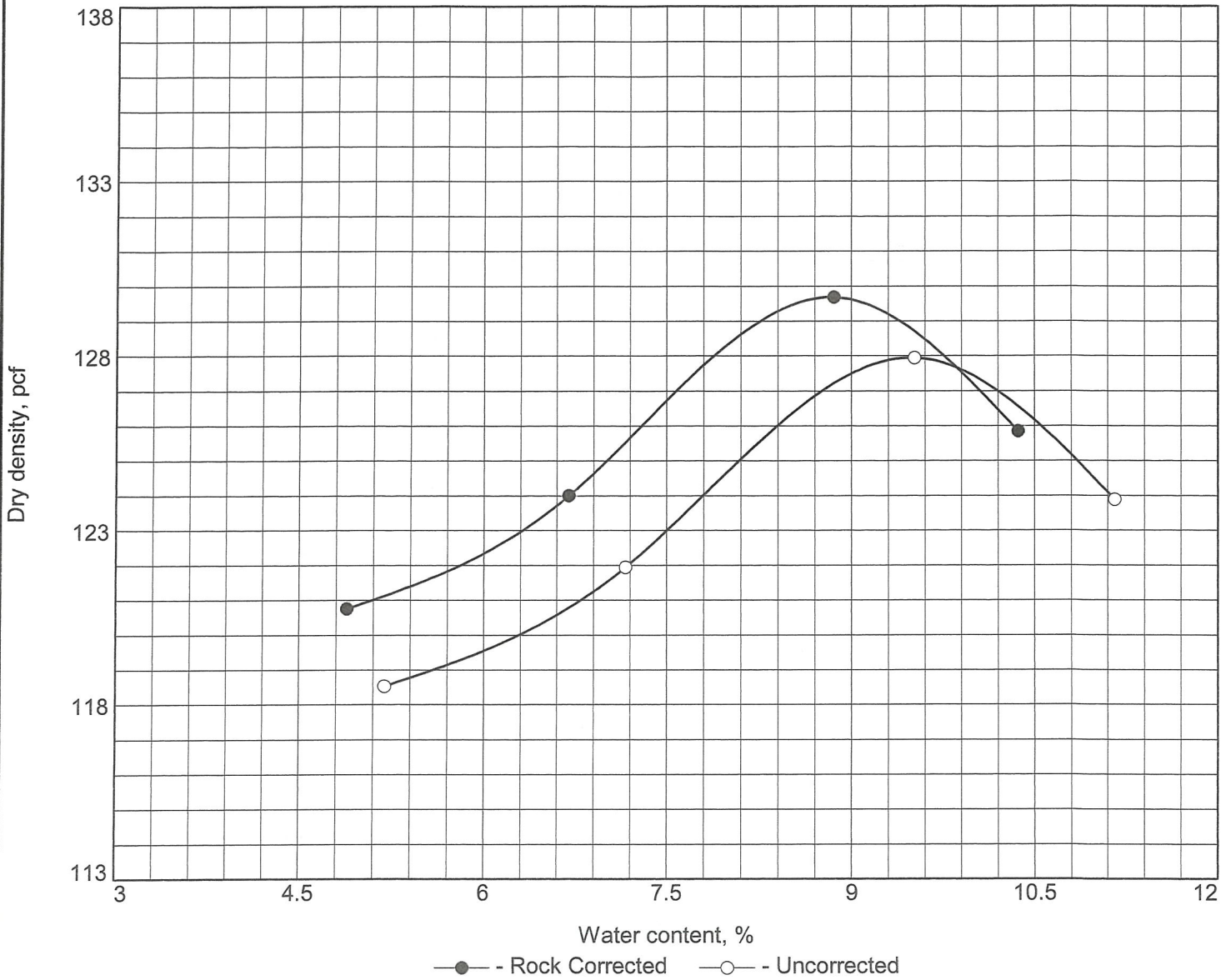
Project No.: 1009
Project: RILITE AGGREGATES-QUALITY TESTING
Location: PLANT STOCKPILE
Sample Number: 36174
Date: 2/23/2022

Tested by: M. PONTONI
Checked by: S. VINEIS
Remarks:
 RECEIVED 2/9/2022



Figure 1A

MOISTURE DENSITY CURVE



Test specification: ASTM D 1557-12 Method C Modified
 ASTM D4718-15 Oversize Corr. Applied to Each Test Point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
							8.2	8.1

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 129.5 pcf	128.0 pcf	AGGREGATE BASE TYPE 2 CLASS B RILITE PIT
Optimum moisture = 9.0 %	9.5 %	

Project No. 1009 Client: RILITE AGGREGATES Project: RILITE AGGREGATES-QUALITY TESTING Location: PLANT STOCKPILE Sample Number: 36174	Remarks: RECEIVED 2/9/2022
	Figure

Tested By: M. PONTONI **Checked By:** S. VINEIS