CME CONSTRUCTION MATERIALS ENGINEERS, INC.

6980 Sierra Center Parkway, Suite 90
Reno, NV 89511

March 26, 2014
File: 1009

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

RE: Rilite Pit - Fill Sand

Dear Mr. Benna:

Per your request, we have performed testing on the fill sand sampled by our laboratory on March 24th. Test results are as follows:

Sieve Size Analysis (ASTM C136/C117)	
U.S. Standard Sieve Size	Percent By Weight Passing
	Rilite Pit Fill Sand
⅜ Inch	100
No. 4	91
No. 8	56
No. 16	42
No. 30	32
No. 50	23
No. 100	15
No. 200	14.5

Atterberg Limits (ASTM D4318)	
Liquid Limit	No Value
Plasticity Index	Nonplastic

Moisture Density (ASTM D1557C)	
Maximum Dry Density	107.0 PCF
Optimum Moisture	10.0%

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.

Steven L. Vineis
Laboratory Manager
svineis@cmenv.com
Direct: 775-737-7568
Mobile: 775-772-9921

Roger O. Corkill Jr., PE
Project Manager
RE Number 19868
Expiration Date 12-31-14
rcorkill@cmenv.com
Direct: 775-737-7581
Mobile: 775-722-5067

3/26/14

SLV:ROC:jy
Enclosure
v:\active\1009\2014\fill_sand_03-26-14.doc

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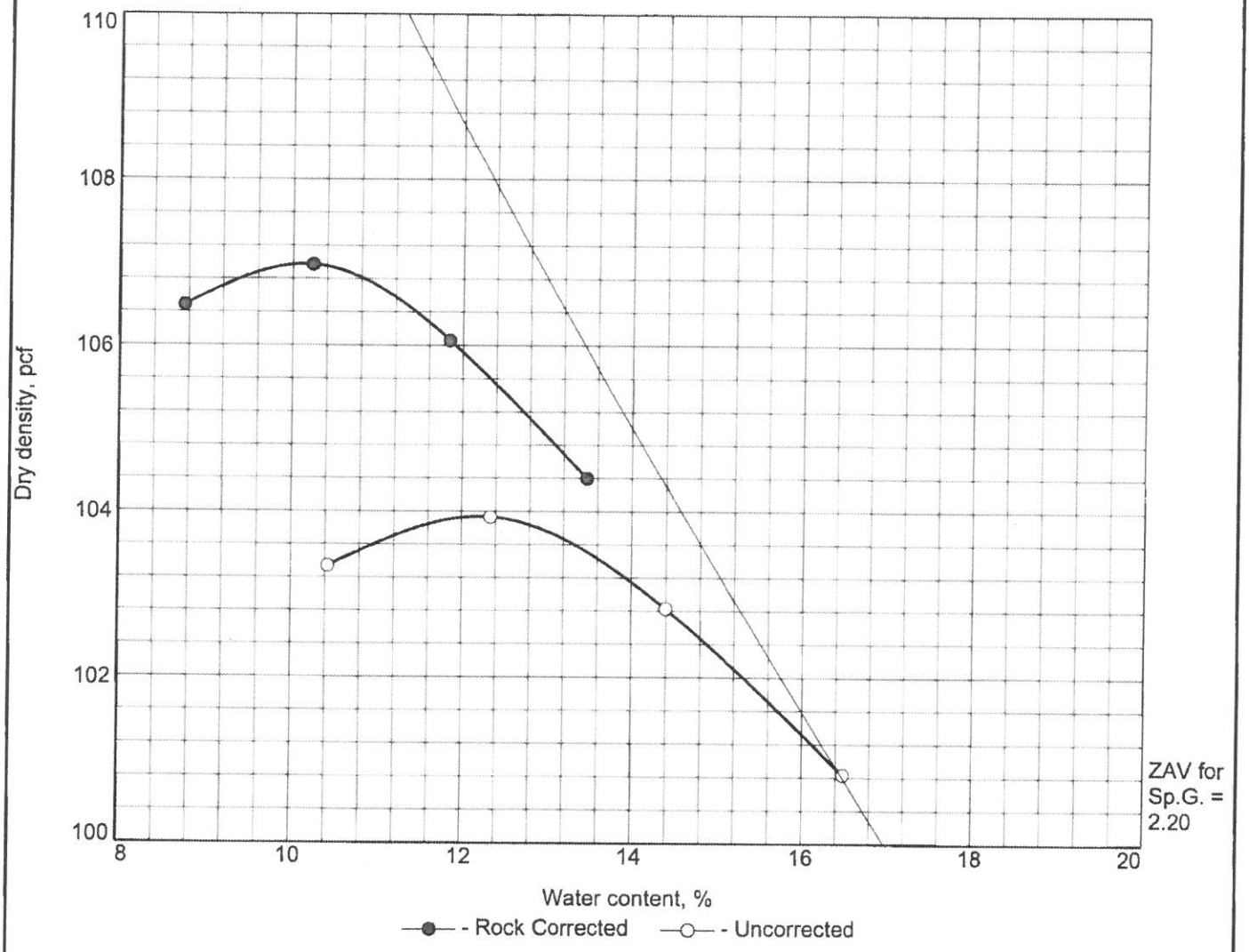
MOISTURE DENSITY CURVE



Test specification: ASTM D 1557-07 Method A Modified
ASTM D 4718-87 Oversize Corr. Applied to Each Test Point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
							22.0	14.5

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 107.0 pcf	104.0 pcf	CLASS A BACKFILL RILITE PIT
Optimum moisture = 10.0 %	12.0 %	

Project No. 1009 **Client:** RILITE AGGREGATES
Project: RILITE AGGREGATES-AGGREGATE QUALITY TESTING

○ **Location:** PLANT STOCKPILE **Sample Number:** 28661

CME CONSTRUCTION MATERIALS ENGINEERS, INC.

Remarks:
RECEIVED 3/24/2014

Figure

Tested By: D. NASH **Checked By:** S. VINEIS

CME CONSTRUCTION MATERIALS ENGINEERS, INC.

6980 Sierra Center Parkway, Suite 90
Reno, NV 89511

March 26, 2014
File: 1009

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

RE: Rilite Pit – Class A Backfill

Dear Mr. Benna:

Per your request, we have performed testing on the Class A backfill sample you delivered to our laboratory. Test results are provided on the attached page(s) in comparison with the 2012 Standard Specifications for Public Works Construction (SSPWC), "Orange Book", specification 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.

Steven L. Vineis
Laboratory Manager
svineis@cmenv.com
Direct: 775-737-7568
Mobile: 775-772-9921

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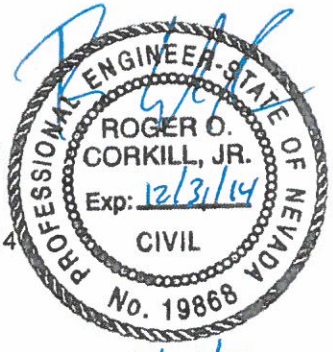

3/26/14

SLV:JAD:jy
Attachment
v:\active\1009\2014\rilite_pit_conc_sand\ob_class_a_bf_03-26-14.docx

CLASS A BACKFILL TEST RESULTS SUMMARY - RILITE PIT

Sieve Analysis

U.S. Standard Sieve Size	Percent Passing by Weight	
	ASTM C136/ASTM C117	*SSPWC Specification* [1]
$^3/_8$ Inch	100	*100*
No. 4	91	*90 - 100*
No. 8	56	-
No. 16	42	-
No. 30	32	-
No. 50	23	*10 - 40*
No. 100	15	*3 - 20*
No. 200	14.5	*0 - 15*

Atterberg Limits

Test Type	Test Method	Sample Result	*SSPWC Specification* [2]
Liquid Limit	ASTM D4318	No Value	-
Plasticity Index	ASTM D4318	Nonplastic	*3 Maximum*

Moisture Density

Test Type	Test Method	Sample Result	*SSPWC Specification*
Maximum Dry Density	ASTM D1557A	107.0 pcf	-
Optimum Moisture	ASTM D1557A	10.0%	-

[1] Specifications per Section 200.03.02 of the 2012 Standard Specifications for Public Works Construction.
[2] Specifications per Section 200.01.02 of the 2012 Standard Specifications for Public Works Construction.

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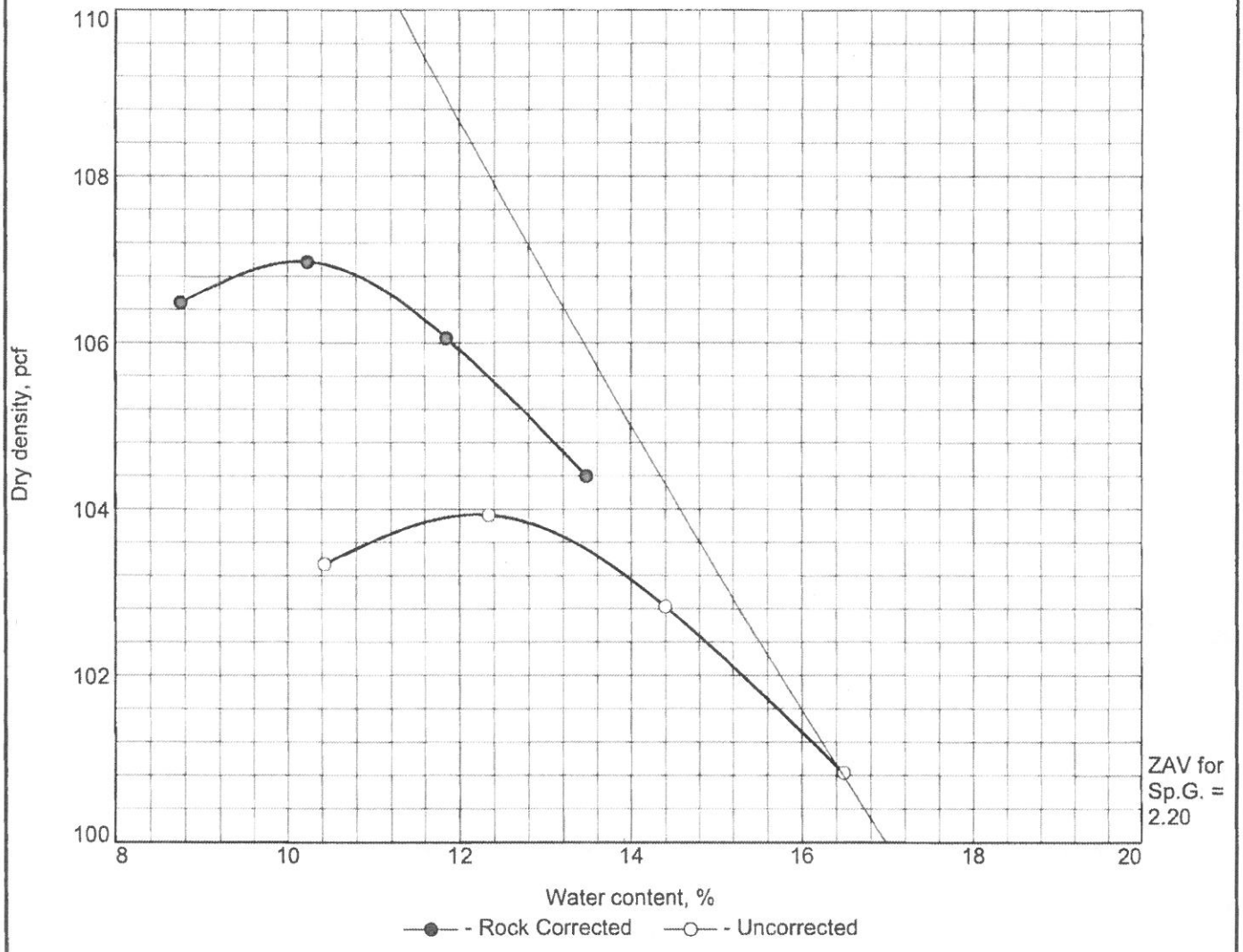
MOISTURE DENSITY CURVE



Test specification: ASTM D 1557-07 Method A Modified
ASTM D 4718-87 Oversize Corr. Applied to Each Test Point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
							22.0	14.5

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 107.0 pcf	104.0 pcf	CLASS A BACKFILL RILITE PIT
Optimum moisture = 10.0 %	12.0 %	

Project No. 1009 **Client:** RILITE AGGREGATES
Project: RILITE AGGREGATES-AGGREGATE QUALITY TESTING

○ **Location:** PLANT STOCKPILE **Sample Number:** 28661

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