



300 Sierra Manor Drive, Suite 1
Reno, NV 89511

February 27, 2019
File: 1013

Mr. Mike Hiatt
A&K EARTHMOVERS, INC
P.O. Box 1059
Sparks, NV 89506

RE: Golden Valley Pit – NV Energy Bedding Sand – Electrical Conduit

Dear Mr. Hiatt:

Per your request, we have performed aggregate quality testing on the bedding sand received by our laboratory from the Golden Valley Pit on February 25th. Test results are provided on the attached page(s) in comparison with standards outlined in the *Volume 17 NV Energy Engineering & Construction Standard* specifications.

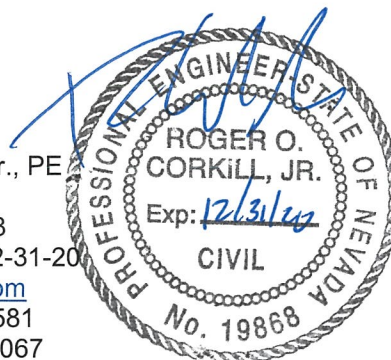
We appreciate this opportunity to provide our laboratory testing services. If you have any questions or require further information, please do not hesitate to contact us.

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 12-31-20
rcorkill@cmenv.com
Direct: 775-737-7581
Mobile: 775-722-5067



2/27/19

SLV:ROC:jb
Attachments
v:\active\1013\2019 testing\invenergy_bed_sand_ltr_02-27-19.doc

NV ENERGY BEDDING SAND TEST RESULTS SUMMARY - ELECTRICAL CONDUIT GOLDEN VALLEY PIT

Sieve Analysis

U.S. Standard Sieve Size	Percent Passing by Weight	
	ASTM C136/ASTM C117	NV Energy Specification ¹
³ / ₈ Inch	100	100
No. 4	94	90 - 100
No. 8	68	-
No. 16	44	-
No. 30	27	-
No. 50	17	10 - 40
No. 100	11	3 - 15
No. 200	7.0	0 - 7

Test Type	Test Method	Sample Result	NV Energy Specification ¹
Plasticity Index	ASTM D4318	Nonplastic	Nonplastic

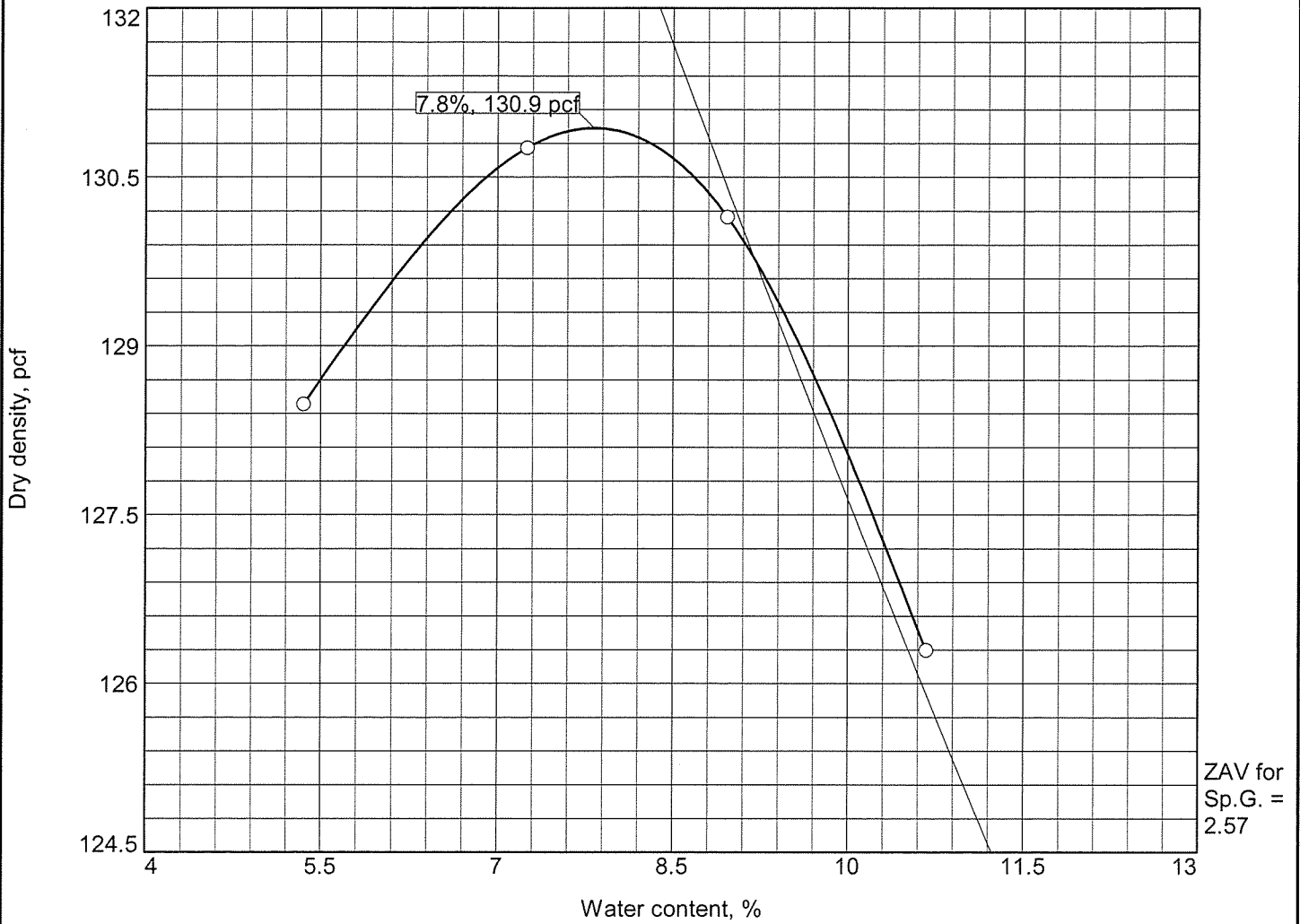
Moisture Density

Test Type	Test Method	Sample Result	NV Energy Specification ¹
Maximum Dry Density	ASTM D1557A	130.9 pcf	-
Optimum Moisture	ASTM D1557A	7.8%	-

¹ Specifications per Volume 17 NV Energy Engineering and Construction Standard rev 5/16.



MOISTURE DENSITY REPORT

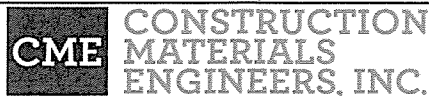


Test specification: ASTM D 1557-12 Method B Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
							0.0	7.0

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 130.9 pcf Optimum moisture = 7.8 %	ELECTRICAL CONDUIT BEDDING SAND A & K EARTHMOVERS

Project No. 1013 Client: A & K EARTHMOVERS, INC. Project: AGGREGATE TESTING GOLDEN VALLEY PIT Location: PLANT STOCKPILE Sample Number: 33189	Remarks: RECEIVED 2/25/2019
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Figure

Tested By: ALEXIS SALAZAR-GUZMAN Checked By: S. VINEIS