CME CONSTRUCTION MATERIALS ENGINEERS, INC.

6980 Sierra Center Parkway, Suite 90
Reno, NV 89511

April 22, 2015
File: 1009

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

**RE: Rilite Pit – NV Energy Bedding Sand**

Dear Mr. Benna:

Per your request, we have performed aggregate quality testing on the NV Energy bedding sand received by our laboratory from the Rilite Pit on April 17th. Test results are provided on the attached page(s) in comparison with standards outlined in the *Sierra Pacific 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.**

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4/22/15

SLV:ROC:jy
Attachments
v:\active\1009\2015\nvenergy_bed_sand_04-22-15.docx

NV ENERGY BEDDING SAND TEST RESULTS SUMMARY - RILITE 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 | 100 | *90 - 100* |
| No. 8 | 87 | - |
| No. 16 | 68 | - |
| No. 30 | 50 | - |
| No. 50 | 36 | *10 - 40* |
| No. 100 | 19 | *3 - 20* |
| No. 200 | 7.8 | *0 - 15* |

| Test Type | Test Method | Sample Result | *NV Energy Specification* [1] |
|---|---|---|---|
| Sand Equivalent | ASTM D2419 | 90 | *25 Minimum* |
| Plasticity Index | ASTM D4318 | Nonplastic | *Nonplastic* |

**Moisture Density**

| Test Type | Test Method | Sample Result | *NV Energy Specification* [1] |
|---|---|---|---|
| Maximum Dry Density | ASTM D1557A | 99.0 pcf | - |
| Optimum Moisture | ASTM D1557A | 15.0% | - |

**Angularity**

| Description | Test Method | Sample Result | *NV Energy Specification* [1] |
|---|---|---|---|
| Angular | ASTM D2488 | 0.4% | *30% Maximum* |
| Subangular | ASTM D2488 | 0.1% | *Acceptable* |
| Subrounded | ASTM D2488 | 0.0% | *Acceptable* |
| Rounded | ASTM D2488 | 0.0% | *Acceptable* |

[1] Specifications per *Sierra Pacific Engineering and Construction Standard.*

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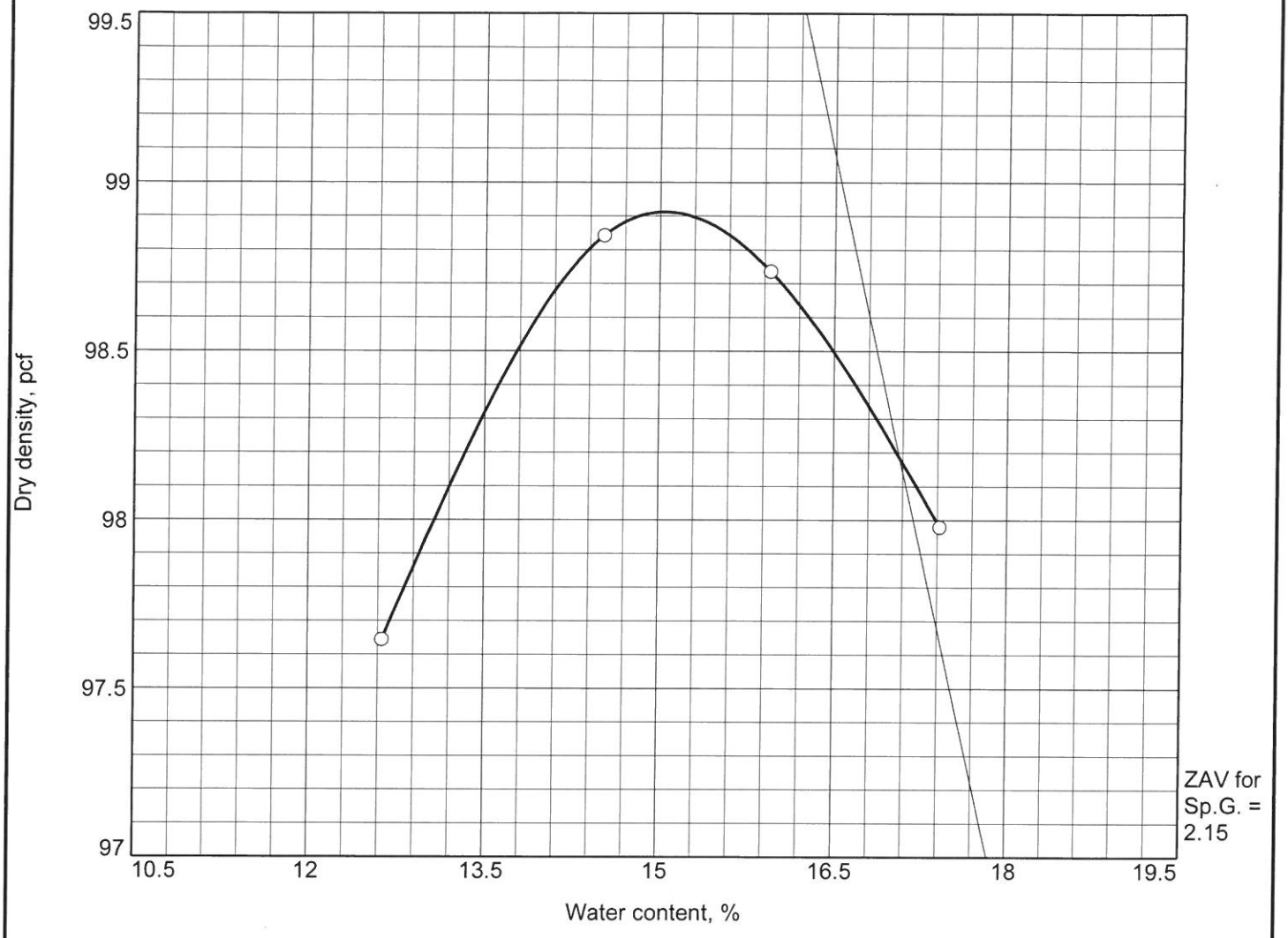
# MOISTURE DENSITY CURVE




Test specification: ASTM D 1557-07 Method A Modified

| Elev/ Depth | Classification | | Nat. Moist. | Sp.G. | LL | PI | % > #4 | % < No.200 |
|---|---|---|---|---|---|---|---|---|
| | USCS | AASHTO | | | | | | |
| | | | | | | | 0.3 | 7.8 |

| TEST RESULTS | MATERIAL DESCRIPTION |
|---|---|
| Maximum dry density = 99.0 pcf<br>Optimum moisture = 15.0 % | NV ENERGY SAND<br>RILITE PIT |

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

○ **Location:** PLANT STOCKPILE **Sample Number:** 29418

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**Remarks:**
RECEIVED 4/17/2015

**Figure**

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