



GCC of America

Cherry Creek Plaza 1, 600 S. Cherry St, 10th Floor, Glendale, CO 80246
 Sales (303) 739-5900 Customer Service (800) CALL GCC

Plant:Tijeras
 PO Box 100
 Tijeras, NM 87059
 Contact:Krishna Malay
 (505) 286-6027

Cement Type: Class G HSR Oilwell
 Date Issued: 17-Mar-19
 Production period ending: 11/01/2018 to 11/30/2018
Monthly Average

STANDARD REQUIREMENTS API (SPEC 10A)

| | Spec. | Test |
|------------------------|-----------|--------|
| Item | Limit | Result |
| MgO (%) | 6.0 max. | 4.5 |
| SO ₃ (%) | 3.5 max. | 2.8 |
| Loss of Ignition (%) | 3.0 max. | 1.4 |
| Insoluble residue (%) | 0.75 max. | 0.53 |
| Equivalent alkalis (%) | N.R. | 0.02 |

| Potential Compounds | % | |
|---------------------|-------|-----|
| C ₃ S | N.R. | 58 |
| C ₃ A | 3 max | 2.5 |

| | Spec. | Test |
|--|-------------|------------------|
| Item | Limit | Result |
| Blaine fineness (m ² /kg) minimum | N.R. | 293 |
| Mix Water (mass fraction of cement) | 44% | 44 |
| % Free Fluid content (max) | 5.9 | 3.0 |
| Compressive strength | | MPa (psi) |
| 8 hr.,100deg. F., Min | 2.1 (300) | 4.5 (648) |
| 8 hr.,140deg. F., Min | 10.3 (1500) | 16.8 (2447) |
| Schedule 4 | | |
| Maximum Consistency Bc (15 - 30 min) | 30 | 12 |
| Thickening time. (minutes) @ 70 Bc | (B) | 88 |
| Thickening time. (minutes) @ 100 Bc | 90 min. | 101 |

A Not applicable.
 B Limit not specified by purchaser. Test result provided for information only.
 N.R. No Requirement
 NA : Not available

At the time of shipment, the cement referenced on this mill test certificate complies with the current standard API 10A specifications using applicable standard testing procedures.