

Cement Verification Report - Cementer's Well Service, Inc.

P.O. BOX 336220 • GREELEY, CO 80633 • (970) 353-7299 • FAX (970) 353-7712

COGCC Operator Guidance **RULE #308.A.B(2)A.ii**



| | | |
|--------------------|------------------------------|----------|
| CLIENT: PDC Energy | Cementer's FIELD TICKET # | 300382-D |
|--------------------|------------------------------|----------|

Requested Operator Guidance:

| | | | | |
|---------------------------|--|-----------------|----------------------------|------------|
| Well Name & Number | Lease | Steamboat | Well No. | 1N |
| Well API Number | 05-123-51300 | | | |
| Job Date | 10/11/22 | Time on | 10:30 | 24 hr time |
| Job Type | New Well Surface | | | |
| Cementing Company | Cementer's Well Service, Inc | Contact | Nate Kvamme - 303-324-4296 | |
| Ambient conditions | clear | 71 | temp deg F | |
| Slurry Description | | | | |
| a) Purpose | Surface - 9 5/8" 36# CSG, 13 1/2" hole | | | |
| b) Cement Class | ASTM C150 Type II | | | |
| c) Cement Yield | 1.61 | cuft / sk | | |
| d) Cement Density | 13.9 | PPG | | |
| e) Number of sks | 696 | sks (94# equiv) | | |
| f) Mix Fluid Type | | | | |
| Water / Cement | 8.5 | Gal / sk | | |
| g) Slurry mixed | 199.6 | BBLs slurry | | |
| h) Additives used | 1.5% | CaCl2 | 3.0% | Bentonite |
| Total Water Used | 287.9 | BBLs H2O | | |
| i) Displacement Fluid Vol | 127.0 | BBLs H2O | | |
| j) Method of Placement | | | | |
| k) Set Depth | 1,701 | feet (ft) | | |
| l) Stage tool depth | n/a | | | |
| m) Float Collar Depth | 1,643 | feet (ft) | | |
| n) Designed Top of Cement | n/a | to surface | | |
| o) Centralizer depths | 0 | feet (ft) | | |

Charts - (pressure, density, pump rate)

Landed Plug @ 1534 psi Final Lift Pressure @ 425 psi

Cement Density (as weighed during job) @ 13.9 PPG

Job notes

| | | | | |
|---------------------------|--|------------------|--|------------|
| a) Plug down | <input checked="" type="radio"/> Y <input type="radio"/> N | Time | 13:02 | 24 hr time |
| b) Floats held | <input checked="" type="radio"/> Y <input type="radio"/> N | | 10/11/22 | |
| c) Full Returns | <input checked="" type="radio"/> Y <input type="radio"/> N | Lost Circulation | <input checked="" type="radio"/> Y <input type="radio"/> N | |
| d) Cement to surface | <input checked="" type="radio"/> Y <input type="radio"/> N | 32.0 | BBLs to surface | |
| e) If no returns, top off | n/a | BBLs | | |
| f) Top off detail | | | | |
| g) Additional Detail | | | | |

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PDC Energy

Surface Cement Job Graph & Casing Pressure Test

COMPANY DETAILS

| | | | | | |
|--------|----------|-------|--------------|----------|-----------|
| Date | 10/11/22 | API # | 05-123-51300 | Well No. | 1N |
| County | Weld | State | CO | Lease | Steamboat |

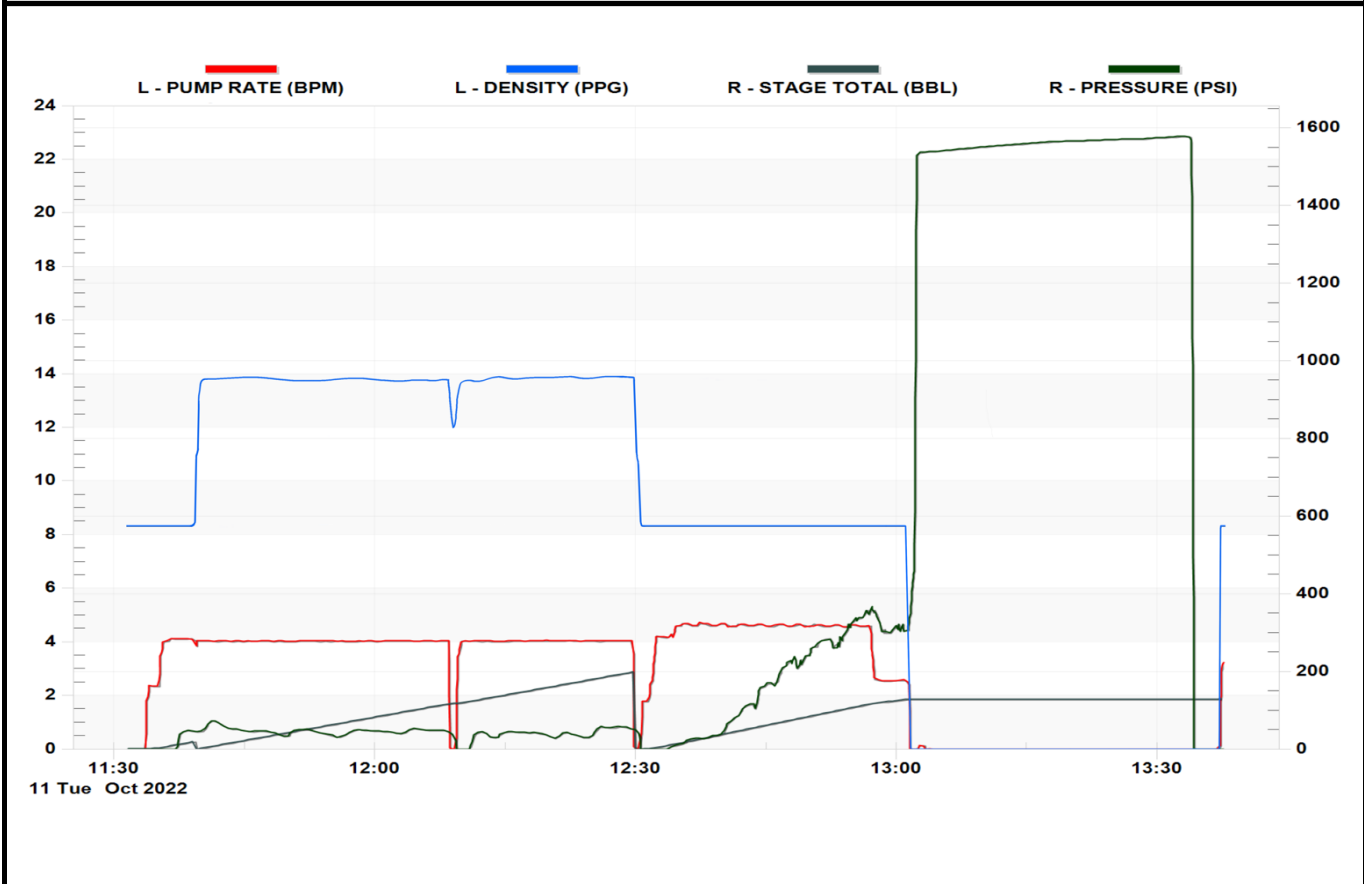
Client PDC Energy

Contact / email

JOB DETAILS

| | | | | | | | | |
|------------|-------|----------|-------------------|-------|-------|-----------------|-------|-----|
| TIME ON | 10:30 | 24 hr | Depth | 1,711 | ft. | Pressure Test @ | 1,534 | psi |
| START TIME | 11:31 | 10/11/22 | Bottom of Surface | 1,701 | ft. | 10 min | 1,560 | psi |
| END TIME | 13:37 | 10/11/22 | Plug Landed @ | 1,643 | ft. | 20 min | 1,569 | psi |
| | | | Plug Landed @ | 13:02 | 24 hr | 30 min | 1,579 | psi |

SUMMARY GRAPH





Centralizer Depths

Well Name: Steamboat 1N

Surface, Set Depth: 1,700.9ftKB

| | | | | | | |
|-----------------------------------|--|----------------------------------|-------------------------------|---------------------------------------|--------------------|--------------|
| API 05123513000000 | Surface Legal Location NWSE 34 4N 66W | Field Name Wattenberg | State CO | Well Configuration Type Horizontal | | |
| Ground Elevation (ft) 4,805.00 | Original KB Elevation (ft) 4,833.50 | KB-Ground Distance (ft) 28.50 | Spud Date 12/30/2022 18:30 | Rig Release Date 1/3/2023 23:00 | On Production Date | Abandon Date |

Casing Run Tally

| Run # | Ref # | Item Des | OD (in) | Wt (lb/ft) | Grade | Run? | Len (ft) | Centralized? | Ext Jw/ry | Connections | Top (ftKB) | Cum Len (ft) |
|-------|-------|---------------|---------|------------|-------|------|----------|--------------|-----------|-------------|------------|--------------|
| 2 | | Casing joints | 9 5/8 | 36.00 | J-55 | Yes | 41.35 | Yes | | LT&C | 1,657.7 | 43.20 |
| 3 | | Casing joints | 9 5/8 | 36.00 | J-55 | Yes | 41.52 | Yes | | LT&C | 1,616.2 | 84.72 |
| 4 | | Casing joints | 9 5/8 | 36.00 | J-55 | Yes | 41.51 | Yes | | LT&C | 1,574.7 | 126.23 |
| 8 | | Casing joints | 9 5/8 | 36.00 | J-55 | Yes | 41.51 | Yes | | LT&C | 1,408.6 | 292.29 |
| 12 | | Casing joints | 9 5/8 | 36.00 | J-55 | Yes | 41.51 | Yes | | LT&C | 1,242.5 | 458.36 |
| 16 | | Casing joints | 9 5/8 | 36.00 | J-55 | Yes | 41.50 | Yes | | LT&C | 1,077.3 | 623.62 |
| 20 | | Casing joints | 9 5/8 | 36.00 | J-55 | Yes | 41.15 | Yes | | LT&C | 908.0 | 792.93 |
| 24 | | Casing joints | 9 5/8 | 36.00 | J-55 | Yes | 41.52 | Yes | | LT&C | 741.9 | 959.02 |
| 28 | | Casing joints | 9 5/8 | 36.00 | J-55 | Yes | 41.52 | Yes | | LT&C | 575.8 | 1,125.08 |
| 32 | | Casing joints | 9 5/8 | 36.00 | J-55 | Yes | 41.52 | Yes | | LT&C | 409.8 | 1,291.15 |
| 36 | | Casing joints | 9 5/8 | 36.00 | J-55 | Yes | 41.50 | Yes | | LT&C | 243.7 | 1,457.22 |
| 40 | | Casing joints | 9 5/8 | 36.00 | J-55 | Yes | 41.52 | Yes | | LT&C | 77.6 | 1,623.32 |