

**HALLIBURTON**

*Cementing Job Summary*

*The Road to Excellence Starts with Safety*

| Sold To #: 300486                                 |                              | Ship To #: 3794511                               |       | Quote #: 0022347329               |                        | Sales Order #: 0904270892   |               |              |                     |               |  |
|---|------------------------------|--|-------|-----------------------------------|------------------------|-----------------------------|---------------|--------------|---------------------|---------------|--|
| Customer: ANADARKO PETROLEUM CORP-EBUS            |                              |  |       | Customer Rep: Albert Bryan        |                        |                             |               |              |                     |               |  |
| Well Name: RW                                     |                              | Well #: 14N-32HZ                                 |       | API/UWI #: 05-123-44816-00        |                        |                             |               |              |                     |               |  |
| Field: WATTENBERG                                 |                              | City (SAP): HUDSON                               |       | County/Parish: WELD               |                        | State: COLORADO             |               |              |                     |               |  |
| Legal Description: SE SW-29-3N-65W-441FSL-1794FWL |                              |  |       |                                   |                        |                             |               |              |                     |               |  |
| Contractor: Xtreme                                |                              |  |       | Rig/Platform Name/Num: Xtreme 22  |                        |                             |               |              |                     |               |  |
| Job BOM: 7523 7523                                |                              |  |       |                                   |                        |                             |               |              |                     |               |  |
| Well Type: HORIZONTAL GAS                         |                              |  |       |                                   |                        |                             |               |              |                     |               |  |
| Sales Person: HALAMERICA\HX41066                  |                              |  |       | Srvc Supervisor: Steven Markovich |                        |                             |               |              |                     |               |  |
| <b>Job</b>  |                              |  |       |                                   |                        |                             |               |              |                     |               |  |
| Formation Name                                    |                              |  |       |                                   |                        |                             |               |              |                     |               |  |
| Formation Depth (MD)                              |                              | Top  |       | Bottom                            |                        |                             |               |              |                     |               |  |
| Form Type   |                              |  |       | BHST                              |                        |                             |               |              |                     |               |  |
| Job depth MD                                      |                              | 14192ft  |       | Job Depth TVD                     |                        |                             |               |              |                     |               |  |
| Water Depth                                       |                              |  |       | Wk Ht Above Floor                 |                        |                             |               |              |                     |               |  |
| Perforation Depth (MD)                            |                              | From   |       | To                                |                        |                             |               |              |                     |               |  |
| <b>Well Data</b>                                  |                              |  |       |                                   |                        |                             |               |              |                     |               |  |
| Description                                       | New / Used                   | Size in  | ID in | Weight lbm/ft                     | Thread                 | Grade                       | Top MD ft     | Bottom MD ft | Top TVD ft          | Bottom TVD ft |  |
| Casing  |                              | 9.625  | 8.921 | 36                                |                        | J-55                        | 0             | 1851         | 0                   | 0             |  |
| Casing  |                              | 5.5  | 4.778 | 20                                | LTC                    | HCP110                      | 0             | 14238        | 0                   | 0             |  |
| Open Hole Section                                 |                              |  | 7.875 |                                   |                        |                             | 1851          | 14249        | 0                   | 0             |  |
| <b>Tools and Accessories</b>                      |                              |  |       |                                   |                        |                             |               |              |                     |               |  |
| Type  | Size in                      | Qty  | Make  | Depth ft                          | Type                   | Size in                     | Qty           | Make         |                     |               |  |
| Guide Shoe  | 5.5                          |  |       | 14238                             | Top Plug               | 5.5                         |               | HES          |                     |               |  |
| Float Shoe  | 5.5                          |  |       |                                   | Bottom Plug            | 5.5                         |               | HES          |                     |               |  |
| Float Collar                                      | 5.5                          |  |       |                                   | SSR plug set           | 5.5                         |               | HES          |                     |               |  |
| Insert Float                                      | 5.5                          |  |       |                                   | Plug Container         | 5.5                         |               | HES          |                     |               |  |
| Stage Tool  | 5.5                          |  |       |                                   | Centralizers           | 5.5                         |               | HES          |                     |               |  |
| <b>Fluid Data</b>                                 |                              |  |       |                                   |                        |                             |               |              |                     |               |  |
| Stage/Plug #: 1                                   |                              |  |       |                                   |                        |                             |               |              |                     |               |  |
| Fluid #   | Stage Type                   | Fluid Name                                       | Qty   | Qty UoM                           | Mixing Density lbm/gal | Yield ft <sup>3</sup> /sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |               |  |
| 1   | 10.5 lb/gal Tuned Spacer III | Tuned Spacer III                                 | 60    | bbl                               | 10.5                   | 6.25                        |               | 5            |                     |               |  |
| 0.70 gal/bbl                                      |                              | MUSOL A, 330 GAL TOTE - (790828)                 |       |                                   |                        |                             |               |              |                     |               |  |
| 88.91 lbm/bbl                                     |                              | BARITE, BULK (100003681)                         |       |                                   |                        |                             |               |              |                     |               |  |
| 37.58 gal/bbl                                     |                              | FRESH WATER                                      |       |                                   |                        |                             |               |              |                     |               |  |
| 0.70 gal/bbl                                      |                              | DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003685) |       |                                   |                        |                             |               |              |                     |               |  |
| 0.33 gal/bbl                                      |                              | D-AIR 3000L, 5 GAL PAIL (101007444)              |       |                                   |                        |                             |               |              |                     |               |  |

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| Fluid #  | Stage Type                | Fluid Name   | Qty | Qty UoM | Mixing Density<br>lbm/gal | Yield<br>ft3/sack | Mix Fluid<br>Gal | Rate<br>bbl/min | Total Mix<br>Fluid<br>Gal |
|--|---------------------------|--|-----|---------|---------------------------|-------------------|------------------|-----------------|---------------------------|
| 2  | ElastiCem - Cap<br>Cement | ELASTICEM (TM) SYSTEM                                | 150 | sack    | 13.2                      | 1.57              |                  | 6               | 7.52                      |
| 7.52 Gal   |                           | FRESH WATER  |     |         |                           |                   |                  |                 |                           |
| 0.60 %   |                           | SCR-100 (100003749)                                  |     |         |                           |                   |                  |                 |                           |
| Fluid #  | Stage Type                | Fluid Name   | Qty | Qty UoM | Mixing Density<br>lbm/gal | Yield<br>ft3/sack | Mix Fluid<br>Gal | Rate<br>bbl/min | Total Mix<br>Fluid<br>Gal |
| 3  | ElastiCem Lead            | ELASTICEM (TM) SYSTEM                                | 390 | sack    | 13.2                      | 1.572             |                  | 5               | 7.54                      |
| 0.10 %   |                           | SUPER CBL, 50 LB PAIL (100003868)                    |     |         |                           |                   |                  |                 |                           |
| 0.25 %   |                           | SCR-100 (100003749)                                  |     |         |                           |                   |                  |                 |                           |
| 7.54 Gal   |                           | FRESH WATER  |     |         |                           |                   |                  |                 |                           |
| Fluid #  | Stage Type                | Fluid Name   | Qty | Qty UoM | Mixing Density<br>lbm/gal | Yield<br>ft3/sack | Mix Fluid<br>Gal | Rate<br>bbl/min | Total Mix<br>Fluid<br>Gal |
| 4  | EconoCem Tail             | ECONOCEM (TM) SYSTEM                                 | 890 | sack    | 13.5                      | 1.68              |                  | 5               | 7.99                      |
| 7.99 Gal   |                           | FRESH WATER  |     |         |                           |                   |                  |                 |                           |
| 0.30 %   |                           | HR-5, 50 LB SK (100005050)                           |     |         |                           |                   |                  |                 |                           |
| Fluid #  | Stage Type                | Fluid Name   | Qty | Qty UoM | Mixing Density<br>lbm/gal | Yield<br>ft3/sack | Mix Fluid<br>Gal | Rate<br>bbl/min | Total Mix<br>Fluid<br>Gal |
| 5  | Biocide Water<br>and MMCR | Biocide Water and MMCR                               | 20  | bbl     | 8.34                      |                   |                  |                 |                           |
| 0.50 gal/bbl   |                           | MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781) |     |         |                           |                   |                  |                 |                           |
| Fluid #  | Stage Type                | Fluid Name   | Qty | Qty UoM | Mixing Density<br>lbm/gal | Yield<br>ft3/sack | Mix Fluid<br>Gal | Rate<br>bbl/min | Total Mix<br>Fluid<br>Gal |
| 6  | Biocide Water             | Biocide Water  | 293 | bbl     | 8.34                      |                   |                  |                 |                           |
| <p><b>Comment</b> Spacer to surface at 303bbls away bringing 10bbls to surface. Estimated top of Tail Cement 5654' Estimated top of Lead Cement 2 2110' Estimated top of Lead Cement 1152'</p> |                           |  |     |         |                           |                   |                  |                 |                           |

## 2.0 Real-Time Job Summary

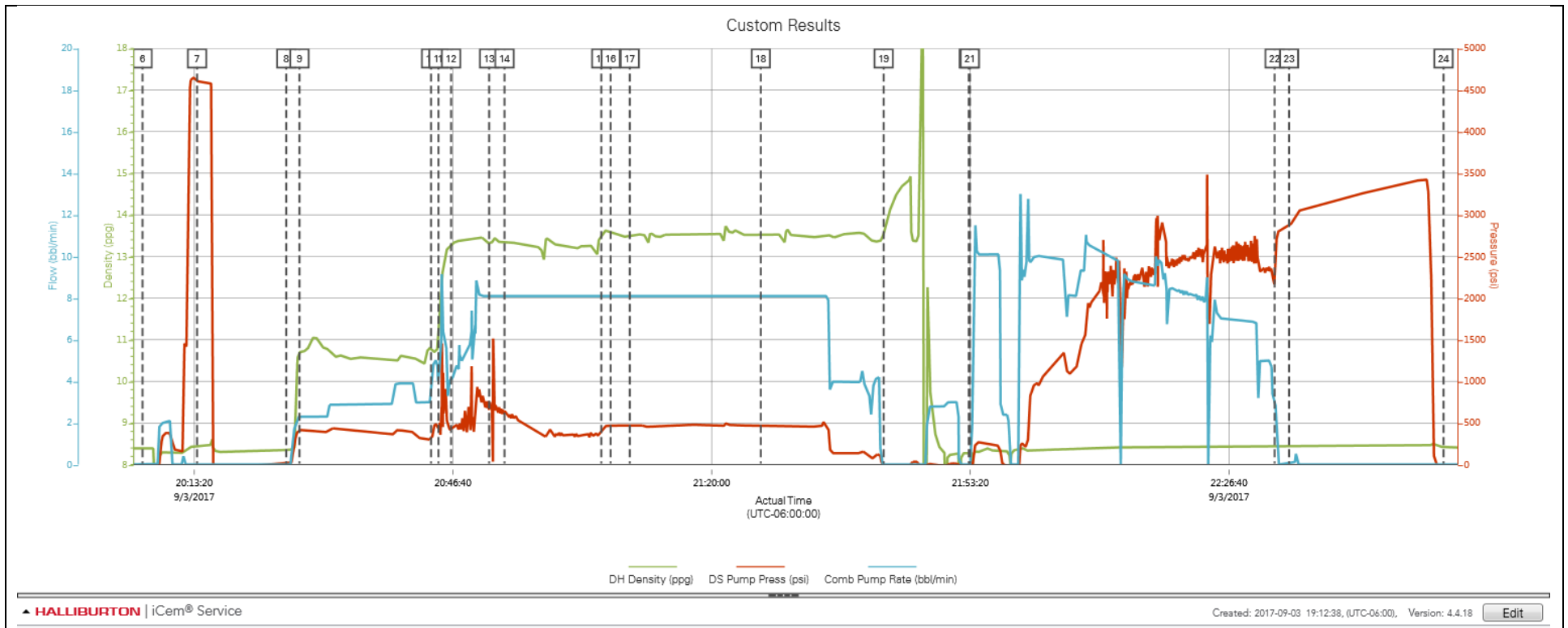
### 2.1 Job Event Log

| Type  | Seq. No. | Activity                                | Graph Label                             | Date     | Time     | Source | DH Density<br><i>(ppg)</i> | DS Pump Press<br><i>(psi)</i> | Comb Pump Rate<br><i>(bbl/min)</i> | Comments   |
|-------|----------|---|---|----------|----------|--------|----------------------------|-------------------------------|------------------------------------|--|
| Event | 1        | Call Out                                | Call Out                                | 9/3/2017 | 11:30:00 | USER   |                            |                               |                                    | Job called out with an on location time of 17:30   |
| Event | 2        | Arrive At Loc                           | Arrive At Loc                           | 9/3/2017 | 17:15:00 | USER   |                            |                               |                                    | Arrived on location at 17:15 and the rig was still running casing approx 1600'.  |
| Event | 3        | Safety Meeting - Assessment of Location | Safety Meeting - Assessment of Location | 9/3/2017 | 17:25:00 | USER   |                            |                               |                                    | JSA and hazard hunt with HES crew.   |
| Event | 4        | Rig-Up Equipment                        | Rig-Up Equipment                        | 9/3/2017 | 17:35:00 | USER   |                            |                               |                                    | Rigged up HES lines and equipment  |
| Event | 5        | Safety Meeting - Pre Job                | Safety Meeting - Pre Job                | 9/3/2017 | 19:45:00 | USER   | 8.37                       | 0.00                          | 0.00                               | JSA with HES and rig crew on job procedure.  |
| Event | 6        | Start Job                               | Start Job                               | 9/3/2017 | 20:06:40 | COM4   | 8.39                       | -26.00                        | 0.00                               | TD 14249' TP 14238' FC 14192' 5 1/2" 20# Production casing 7 7/8" open hole 1851' 9 5/8 36# Surface Casing. Estimated Top of Tail Cement 5654' Estimated top of Lead Cement 2 2110' Estimated top of Lead Cement 1152' |
| Event | 7        | Test Lines                              | Test Lines                              | 9/3/2017 | 20:13:42 | COM4   | 8.46                       | 4608.00                       | 0.00                               | 500psi Kick out test then bring up to 4500psi and hold.  |
| Event | 8        | Check Weight                            | Check weight                            | 9/3/2017 | 20:25:11 | COM4   | 8.35                       | 16.00                         | 0.00                               | Weight verified by pressurized scales.   |
| Event | 9        | Pump Spacer 1                           | Pump Spacer 1                           | 9/3/2017 | 20:26:53 | COM4   | 10.71                      | 416.00                        | 2.30                               | Pump 60bbls of 10.5ppg 6.25yield Tuned Spacer. Added 45 gallons of Dual Spacer b and Musol A on the fly. Pumped at 2.5bbl/min 420psi   |
| Event | 10       | Drop Bottom Plug                        | Drop Bottom Plug                        | 9/3/2017 | 20:43:51 | COM4   | 10.77                      | 301.00                        | 3.00                               | Plug pre loaded into HES head. Plug drop verified by company rep.  |
| Event | 11       | Check Weight                            | Check weight                            | 9/3/2017 | 20:44:48 | COM4   | 11.07                      | 422.00                        | 4.30                               | Weight verified by pressurized scales.   |
| Event | 12       | Pump Lead Cement                        | Pump Lead Cement                        | 9/3/2017 | 20:46:26 | COM4   | 13.29                      | 448.00                        | 4.00                               | Pump 41.94bbls (150sks) of 13.2ppg 1.57yield Lead Cement. Pumped at 8bbl/min 400psi  |
| Event | 13       | Pump Lead Cement                        | Pump Lead Cement                        | 9/3/2017 | 20:51:20 | COM4   | 13.40                      | 634.00                        | 8.10                               | Pump 109.05bbls (390sks) of 13.2ppg 1.57yield Lead Cement 2. Pumped at 8bbl/min 430psi   |
| Event | 14       | Check Weight                            | Check weight                            | 9/3/2017 | 20:53:19 | COM4   | 13.34                      | 663.00                        | 8.10                               | Weight verified by pressurized scales.   |

|       |    |                   |                   |          |          |      |       |         |      |   |
|-------|----|-------------------|-------------------|----------|----------|------|-------|---------|------|---|
| Event | 15 | Pump Tail Cement  | Pump Tail Cement  | 9/3/2017 | 21:05:47 | COM4 | 13.46 | 406.00  | 8.10 | Pump 266bbls (890sks) of 13.2ppg 1.68yield Tail Cement. Pumped at 8bbl/min 470psi.  |
| Event | 16 | Check Weight      | Check weight      | 9/3/2017 | 21:06:59 | COM4 | 13.58 | 460.00  | 8.10 | Weight verified by pressurized scales.  |
| Event | 17 | Check Weight      | Check weight      | 9/3/2017 | 21:09:27 | COM4 | 13.48 | 477.00  | 8.10 | Weight verified by pressurized scales.  |
| Event | 18 | Check Weight      | Check weight      | 9/3/2017 | 21:26:20 | COM4 | 13.53 | 460.00  | 8.10 | Weight verified by pressurized scales.  |
| Event | 19 | Shutdown          | Shutdown          | 9/3/2017 | 21:42:10 | COM4 | 13.53 | -18.00  | 0.00 | Shutdown and clean pumps and lines.   |
| Event | 20 | Drop Top Plug     | Drop Top Plug     | 9/3/2017 | 21:53:08 | COM4 | 8.28  | -28.00  | 0.00 | Plug loaded into HES head. Plug drop verified by company rep.   |
| Event | 21 | Pump Displacement | Pump Displacement | 9/3/2017 | 21:53:17 | COM4 | 8.28  | -28.00  | 0.00 | Pump 313bbls. First 20bbls with MMCR then added biocide throughout the rest of displacement. Spacer to surface at 303bbls away bringing 10bbls of spacer to surface.            |
| Event | 22 | Bump Plug         | Bump Plug         | 9/3/2017 | 22:32:33 | COM4 | 8.43  | 2168.00 | 3.00 | Bumped plug at 313bbls away. Final lift pressure was 2217psi took 500psi over and held.   |
| Event | 23 | Test Lines        | Test Lines        | 9/3/2017 | 22:34:25 | COM4 | 8.45  | 2867.00 | 0.20 | Kicked pumps in to bring pressure to 3000psi and hold for 15 mins. After 15mins pressure was 3434psi. Checked floats, after 3.5bbls of water back to the truck the floats held. |
| Event | 24 | End Job           | End Job           | 9/3/2017 | 22:54:19 | COM4 |       |         |      | Thank you Steve Markovich and crew.   |

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

