

**CONOCO/PHILLIPS COMPANY EBUSINESS  
DO NOT MAIL-600 N DAIRY ASHFORD  
HOUSTON, Texas**

State of Colorado 36-1

H&P 280

## **Post Job Summary** **Cement Production Casing**

Date Prepared: 1/2/2013  
Version: 1

Service Supervisor: BULINSKI, MATTHEW

Submitted by: KENNEDY, HERRON

**HALLIBURTON**

# HALLIBURTON

## ***Wellbore Geometry***

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| Job Tubulars      |                          |         |       |           | MD       |           | Shoe Joint Length<br>ft |
|-------------------|--------------------------|---------|-------|-----------|----------|-----------|-------------------------|
| Type              | Description              | Size in | ID in | Wt lbm/ft | Top ft   | Bottom ft |                         |
| Casing            | 9-5/8" Surface Casing    | 9.63    | 8.921 | 36.00     | 0.00     | 2,215.00  | 45.00                   |
| Open Hole Section | 8-3/4" Open Hole Section |         | 8.750 |           | 2,188.00 | 8,236.00  |                         |
| Casing            | 7" Casing                | 7.00    | 6.184 | 29.00     | 0.00     | 8,013.00  |                         |

# HALLIBURTON

## Pumping Schedule

| Stage /Plug # | Fluid # | Fluid Type    | Fluid Name       | Surface Density lbm/gal | Surface Volume | Downhole Volume |
|---------------|---------|---------------|------------------|-------------------------|----------------|-----------------|
| 1             | 1       | Spacer        | Clean Spacer III | 10.5                    | 40.0 bbl       | 40.0 bbl        |
| 1             | 2       | Cement Slurry | EXTENDACEM B2    | 12.00                   | 420.0 sacks    | 420.0 sacks     |
| 1             | 3       | Cement Slurry | HalCem B1        | 15.80                   | 130.0 sacks    | 130.0 sacks     |

## Fluids Pumped

**Stage/Plug # 1      Fluid 1:**      Clean Spacer III

Fluid Density: 10.5 lbm/gal  
Fluid Volume: 40.00 bbl

**Stage/Plug # 1      Fluid 2:**      EXTENDACEM B2  
EXTENDACEM (TM) SYSTEM

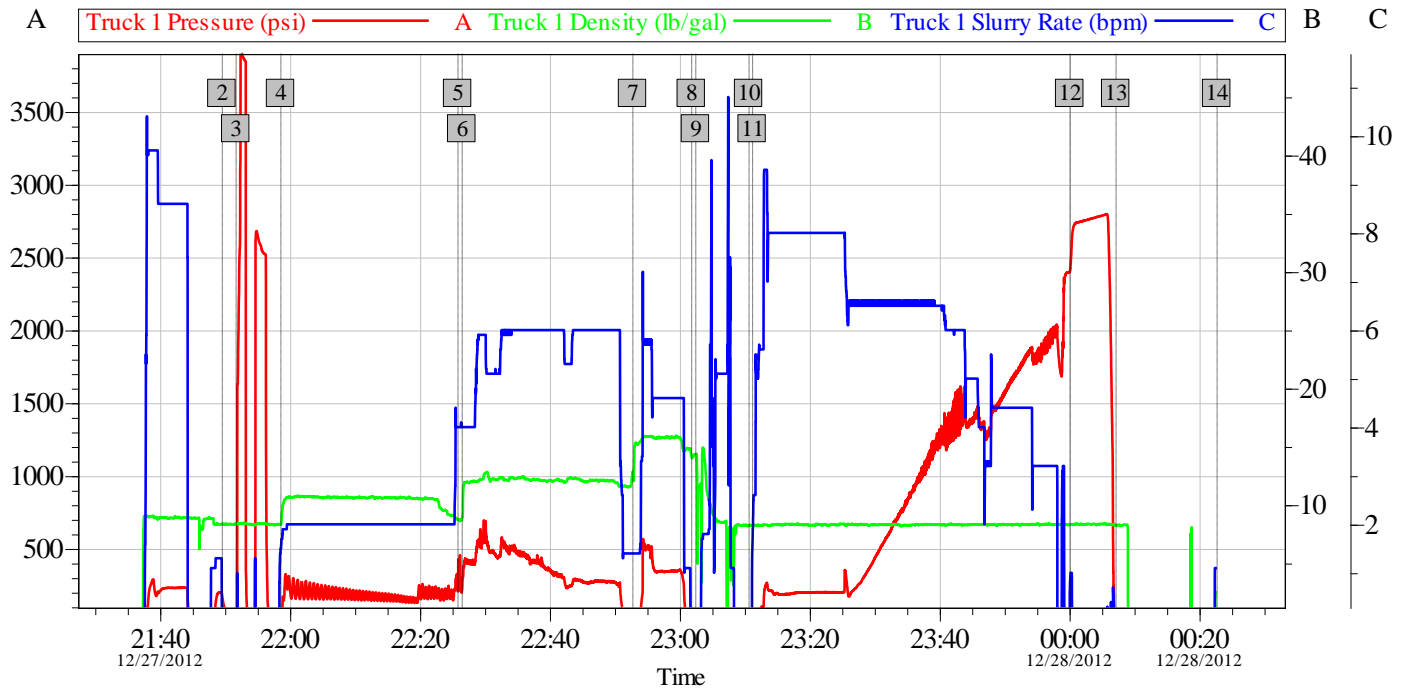
Fluid Weight: 12.00 lbm/gal  
Slurry Yield: 1.99 ft<sup>3</sup>/sack  
Total Mixing Fluid: 10.64 Gal  
Surface Volume: 420.0 sacks  
Sacks: 420.0 sacks  
Calculated Fill: 5,036.00 ft  
Calculated Top of Fluid: 2,080.00 ft  
Estimated Top of Fluid:

**Stage/Plug # 1      Fluid 3:**      HalCem B1  
HALCEM (TM) SYSTEM

Fluid Weight: 15.80 lbm/gal  
Slurry Yield: 1.52 ft<sup>3</sup>/sack  
Total Mixing Fluid: 6.19 Gal  
Surface Volume: 130.0 sacks  
Sacks: 130.0 sacks  
Calculated Fill: 1,634.00 ft  
Calculated Top of Fluid: 7,116.00 ft  
Estimated Top of Fluid:

# HALLIBURTON

## Data Acquisition



### Global Event Log

|                      |                     |                    |                     |                    |                     |
|----------------------|---------------------|--------------------|---------------------|--------------------|---------------------|
| 2 Start Job          | 12/27/2012 21:49:37 | 3 Test Lines       | 12/27/2012 21:51:45 | 4 Pump Spacer 1    | 12/27/2012 21:58:39 |
| 5 Drop Bottom Plug   | 12/27/2012 22:25:54 | 6 Pump Lead Cement | 12/27/2012 22:26:33 | 7 Pump Tail Cement | 12/27/2012 22:52:50 |
| 8 Shutdown           | 12/27/2012 23:01:52 | 9 Clean Lines      | 12/27/2012 23:02:31 | 10 Drop Top Plug   | 12/27/2012 23:10:42 |
| 11 Pump Displacement | 12/27/2012 23:11:15 | 12 Bump Plug       | 12/28/2012 00:00:08 | 13 End Job         | 12/28/2012 00:07:13 |
| 14 Ending Job        | 12/28/2012 00:22:46 |                    |                     |                    |                     |

Customer:  
Well Description:

Job Date: 27-Dec-2012  
UWI:

Sales Order #: 900098356

OptiCem v6.4.10  
02-Jan-13 11:14

# HALLIBURTON

## Service Supervisor Reports

### Job Log

| Date/Time        | Chart # | Activity Code                          | Pump Rate | Cum Vol | Pump |  | Pressure (psig) | Comments   |
|------------------|---------|--|-----------|---------|------|--|-----------------|--|
| 12/27/2012 00:00 |         | Bump Plug                              | 3         |         |      |  |                 | Slowed down last 10bbls to 3bbl/min to land plug at //psi and brought to //psi   |
| 12/27/2012 11:30 |         | Arrive at Location from Service Center |           |         |      |  |                 |  |
| 12/27/2012 14:00 |         | Assessment Of Location Safety Meeting  |           |         |      |  |                 | Hazard Hunt on location before spotting trucks   |
| 12/27/2012 15:10 |         | Safety Meeting - Pre Rig-Up            |           |         |      |  |                 | JSA on Rig up ground iron to rig   |
| 12/27/2012 16:30 |         | Safety Meeting - Pre Job               |           |         |      |  |                 | JSA with Rig crew and Conoco Pre job and finishing rig up to rig floor   |
| 12/27/2012 21:49 |         | Start Job                              |           |         |      |  |                 |  |
| 12/27/2012 21:51 |         | Test Lines                             | 0.5       |         |      |  | 3607.0          | 3500psi Pressure test lines to rig floor   |
| 12/27/2012 21:58 |         | Pump Spacer 1                          | 4         | 40      |      |  | 130.0           | 40bbl Clean Spacer III mixed at 10.5ppg using rig water on Batch Mixer// Mixed 20gal D-air, 20gal Musol, 20gal Sem 7 into spacer before going down hole verify by pressurized mud scales |
| 12/27/2012 22:25 |         | Drop Bottom Plug                       |           |         |      |  |                 | Bottom Plug pre-loaded in head with Company Man observing  |
| 12/27/2012 22:26 |         | Pump Lead Cement                       | 6         | 148     |      |  | 250.0           | 420sks ExtendaCem B2 mixed at 12ppg using rig water verify by pressurized mud scales   |
| 12/27/2012 22:52 |         | Pump Tail Cement                       | 6         | 35      |      |  | 436.0           | 130sks Halcem B1 mixed at 15.8ppg using rig water verify by pressurized mud scales   |
| 12/27/2012 23:01 |         | Shutdown                               |           |         |      |  |                 | Shutdown   |
| 12/27/2012 23:02 |         | Clean Lines                            | 2         | 10      |      |  |                 | 5bbls Clean water wash lines before displacement   |
| 12/27/2012 23:10 |         | Drop Top Plug                          |           |         |      |  |                 | Top plug pre-loaded Company man observe  |
| 12/27/2012 23:11 |         | Pump Displacement                      | 6         | 273     |      |  | 1560.0          | H2O displacement good returns throughout   |
| 12/28/2012 00:00 |         | Bump Plug                              | 3         |         |      |  | 2130.0          | Last 10bbls slowed down to 3bbls min landed at 2130psi and brought to 2890psi  |
| 12/28/2012 00:08 |         | Check Floats                           |           |         |      |  |                 | Held for 5mins released and floats held  |
| 12/28/2012 00:10 |         | End Job                                |           |         |      |  |                 |  |
| 12/28/2012 00:31 |         | Safety Meeting - Departing Location    |           |         |      |  |                 | JSA with HSE EE's on driving back to Brighton  |
| 12/28/2012 01:30 |         | Pre-Rig Down Safety Meeting            |           |         |      |  |                 | JSA huddle in dog house with rig crew  |

### The Road to Excellence Starts with Safety

|   |                           |   |                                    |
|---|---------------------------|---|------------------------------------|
| <b>Sold To #:</b> 352431                                    | <b>Ship To #:</b> 2968315 | <b>Quote #:</b>   | <b>Sales Order #:</b><br>900098356 |
| <b>Customer:</b> CONOCO/PHILLIPS COMPANY<br>EBUSINESS       |                           | <b>Customer Rep:</b>  |                                    |
| <b>Well Name:</b> State of Colorado                         | <b>Well #:</b> 36-1       |   | <b>API/UWI #:</b> 05-041-06032     |
| <b>Field:</b> WILDCAT                                       | <b>City (SAP):</b> AURORA | <b>County/Parish:</b> Adams                                     | <b>State:</b> Colorado             |
| <b>Lat:</b> N 38.533 deg. OR N 38 deg. 31 min. 57.076 secs. |                           | <b>Long:</b> W 104.612 deg. OR W -105 deg. 23 min. 18.125 secs. |                                    |
| <b>Contractor:</b> H&P                                      |                           | <b>Rig/Platform Name/Num:</b> H&P 280                           |                                    |
| <b>Job Purpose:</b> Cement Intermediate Casing              |                           |   |                                    |
| <b>Well Type:</b> Development Well                          |                           | <b>Job Type:</b> Cement Production Casing                       |                                    |
| <b>Sales Person:</b> AARON, WESLEY                          |                           | <b>Srvc Supervisor:</b> BULINSKI, MATTHEW                       | <b>MBU ID Emp #:</b> 483865        |

### Job Personnel

| HES Emp Name          | Exp Hrs | Emp #  | HES Emp Name        | Exp Hrs | Emp #  | HES Emp Name          | Exp Hrs | Emp #  |
|-----------------------|---------|--------|---------------------|---------|--------|-----------------------|---------|--------|
| BROOM, KENDALL L      | 0.0     | 524682 | BULINSKI, MATTHEW J | 0.0     | 483865 | HALE, ROBERT E        | 0.0     | 470588 |
| HOLMES, ANDREW Malcom | 0.0     | 520802 | Mayfield, Byron     | 0.0     | 528751 | MILLER, GEOFFREY Alan | 0.0     | 460232 |
| WHEELER, JUSTIN W     | 0.0     | 196470 |                     |         |        |                       |         |        |

### Equipment

| HES Unit # | Distance-1 way | HES Unit # | Distance-1 way | HES Unit # | Distance-1 way | HES Unit # | Distance-1 way |
|------------|----------------|------------|----------------|------------|----------------|------------|----------------|
| 10025030   | 60 mile        | 11064535   | 60 mile        | 11527041C  | 60 mile        | 11532305   | 60 mile        |
| 11542778   | 60 mile        | 11562562   | 60 mile        | 11605598   | 60 mile        | 11748359   | 60 mile        |
| NA         | 60 mile        |            |                |            |                |            |                |

### Job Hours

| Date         | On Location Hours | Operating Hours | Date                                       | On Location Hours | Operating Hours | Date | On Location Hours | Operating Hours |
|--------------|-------------------|-----------------|--|-------------------|-----------------|------|-------------------|-----------------|
|              |                   |                 |  |                   |                 |      |                   |                 |
| <b>TOTAL</b> |                   |                 | Total is the sum of each column separately |                   |                 |      |                   |                 |

### Job

| Formation Name         |          |                   |          |  | Job Times     |                 |       |           |
|------------------------|----------|-------------------|----------|--|---------------|-----------------|-------|-----------|
| Formation Depth (MD)   | Top      | Bottom            |          |  | Called Out    | Date            | Time  | Time Zone |
| Form Type              |          | BHST              |          |  | On Location   | 27 - Dec - 2012 | 05:30 | MST       |
| Job depth MD           | 8236. ft | Job Depth TVD     | 8236. ft |  | Job Started   | 27 - Dec - 2012 | 11:30 | MST       |
| Water Depth            |          | Wk Ht Above Floor |          |  | Job Completed | 27 - Dec - 2012 | 21:49 | MST       |
| Perforation Depth (MD) | From     | To                |          |  | Job Completed | 27 - Dec - 2012 | 00:08 | MST       |
|                        |          |                   |          |  | Departed Loc  | 27 - Dec - 2012 | 01:30 | MST       |

### Well Data

| Description              | New / Used | Max pressure psig | Size in | ID in | Weight lbm/ft | Thread | Grade | Top MD ft | Bottom MD ft | Top TVD ft | Bottom TVD ft |
|--------------------------|------------|-------------------|---------|-------|---------------|--------|-------|-----------|--------------|------------|---------------|
| 8-3/4" Open Hole Section |            |                   |         | 8.75  |               |        |       | 2188.     | 8236.        |            |               |
| 7" Casing                | Unknown    |                   | 7.      | 6.184 | 29.           |        |       | .         | 8013.        |            |               |
| 9-5/8" Surface Casing    | Unknown    |                   | 9.625   | 8.921 | 36.           |        | N-80  | .         | 2215.        |            |               |

| Fluid Data                               |                  |                                 |       |                                   |                        |              |                  |              |                        |
|--|------------------|---------------------------------|-------|-----------------------------------|------------------------|--------------|------------------|--------------|------------------------|
| Stage/Plug #: 1                          |                  |                                 |       |                                   |                        |              |                  |              |                        |
| Fluid #                                  | Stage Type       | Fluid Name                      | Qty   | Qty uom                           | Mixing Density lbm/gal | Yield ft3/sk | Mix Fluid Gal/sk | Rate bbl/min | Total Mix Fluid Gal/sk |
| 1  | Clean Spacer III |                                 | 40.00 | bbl                               | 10.5                   |              |                  |              |                        |
| 2  | EXTENDACEM B2    | EXTENDACEM (TM) SYSTEM (452981) | 420.0 | sacks                             | 12.0                   | 1.99         | 10.64            |              | 10.64                  |
|  | 10.64 Gal        | FRESH WATER                     |       |                                   |                        |              |                  |              |                        |
| 3  | HalCem B1        | HALCEM (TM) SYSTEM (452986)     | 130.0 | sacks                             | 15.8                   | 1.52         | 6.19             |              | 6.19                   |
|  | 6.19 Gal         | FRESH WATER                     |       |                                   |                        |              |                  |              |                        |
| The Information Stated Herein Is Correct |                  |                                 |       | Customer Representative Signature |                        |              |                  |              |                        |

