

The Road to Excellence Starts with Safety

| | | | |
|---|-----------------------|--------------------------------------|----------------------------|
| Sold To #: 300466 | Ship To #: 0003847983 | Quote #: 0022429618 | Sales Order #: 0904778083 |
| Customer: ANADARKO PETROLEUM CORP-EBUS | | Customer Rep: Luke Rains | |
| Well Name: AZUL | | Well #: 13-32HZ | API/UWI #: 05-123-46102-00 |
| Field: WATTENBERG | City (SAP): HUDSON | County/Parish: WELD | State: COLORADO |
| Legal Description: SE SW-13-1N-66W-730FSL-2446FWL | | | |
| Contractor: PRECISION DRLG | | Rig/Platform Name/Num: PRECISION 464 | |
| Job BOM: 7523 7523 | | | |
| Well Type: HORIZONTAL GAS | | | |
| Sales Person: HALAMERICA\HX41066 | | Srvc Supervisor: Nicholas Peterson | |

Job

| | | | |
|------------------------|---------|-------------------|--------|
| Formation Name | | | |
| Formation Depth (MD) | Top | | Bottom |
| Form Type | BHST | | |
| Job depth MD | 13,014' | Job Depth TVD | 7,311 |
| Water Depth | | Wk Ht Above Floor | 5' |
| Perforation Depth (MD) | From | | To |

Well Data

| 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 | 1924 | 0 | 0 |
| Casing | 0 | 5.5 | 4.892 | 17 | LTC | HCP110 | 0 | 13014 | 0 | 0 |
| Open Hole Section | | | 7.875 | | | | 1925 | 13024 | 1925 | 7311 |

Tools and Accessories

| Type | Size in | Qty | Make | Depth ft | Type | Size in | Qty | Make |
|--------------|---------|-----|-------|----------|----------------|---------|-----|--------|
| Guide Shoe | 5.5 | 1 | WEATH | 13,014 | Top Plug | 5.5 | 1 | WEATH |
| Float Shoe | 5.5 | | | | Bottom Plug | 5.5 | 1 | WEATH |
| Wet Shoe Sub | 5.5 | 1 | WEATH | 13,006 | Plug Container | 5.5 | 1 | HES |
| | | | | | Centralizers | 5.5 | 203 | TOP CO |

Fluid Data

| Stage/Plug #: 1 | | | | | | | | | |
|-----------------|------------|------------------|-----|---------|------------------------|----------------|---------------|--------------|---------------------|
| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft3/sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
| 1 | Spacer | Tuned Spacer III | 60 | bbl | 10.5 | 6.43 | 41.3 | 4 | 2,475 |

| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft3/sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
|--|---------------|-------------------------------------|-------------|---------|------------------------|----------------|---------------|--------------|---------------------|
| 2 | Lead | GASSTOP (TM) SYSTEM | 400 | sack | 13.2 | 1.59 | 7.7 | 6 | 3,080 |
| 3 | Tail | ECONOCEM (TM) SYSTEM | 770 | sack | 13.5 | 1.68 | 7.99 | 8 | 6,152 |
| 4 | Displacement | Biocide Water and MMCR | 20 | bbl | 8.34 | | | 4 | |
| 0.50 gal/bbl | | MICRO MATRIX CEMENT RETARDER | | | | | | | |
| 5 | Biocide Water | Biocide Water | 282 | bbl | 8.34 | | | 7 | |
| | | | | | | | | | |
| Cement Left In Pipe | Amount | 0 ft | | | Reason | | | Wet Shoe | |
| Mix Water: | pH 7.0 | Mix Water Chloride: | 0 ppm | | Mix Water Temperature: | 63 °F | | | |
| Cement Temperature: | ## °F | Plug Displaced by: | 8.33 lb/gal | | Disp. Temperature: | 63 °F | | | |
| Plug Bumped? | Yes | Bump Pressure: | 2,976 psi | | Floats Held? | Yes | | | |
| Cement Returns: | 0 bbl | Returns Density: | ## lb/gal | | Returns Temperature: | ## °F | | | |
| Comment: Pumped 60 bbls Tuned Spacer, 113 bbls Lead, 230 bbls Tail. 302 bbls Fresh water displacement. No cement or spacer back to surface. | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | Comments |
|-------|----------|--|---------------------------|-----------|----------|--------|--|
| Event | 1 | Call Out | Call Out | 4/14/2018 | 22:00:00 | USER | CREW CALLED OUT AT 22:00, REQUESTED ON LOCATION 03:00. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660 11398319, Bulk 660 12649238, SOFTSIDE 12056159 AND PUMP 11189145. |
| Event | 2 | Pre-Convoy Safety Meeting | Pre-Convoy Safety Meeting | 4/15/2018 | 01:45:00 | USER | DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW. |
| Event | 3 | Crew Leave Yard | Crew Leave Yard | 4/15/2018 | 02:00:00 | USER | STARTED JOURNEY MANAGEMENT. |
| Event | 4 | Arrive at Location from Service Center | Arrive at Location | 4/15/2018 | 02:30:00 | USER | END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1,924', 5.5" CASING: 17 LB/FT TOTAL 13,014", 7.875" HOLE, TD 13,024', 8' SHOE TRAC, TVD-7,311' WF 9.2. PUMP FRESH WATER DISPLACEMENT WITH MMCR FIRST 20 BBLs. CASING LANDED @ 05:00 04/15/2018. RIG CIRCULATED BOTTOMS UP. |
| Event | 5 | Pre-Rig Up Safety Meeting | Pre-Rig Up Safety Meeting | 4/15/2018 | 02:45:00 | USER | HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER. |
| Event | 6 | Rig-Up Equipment | Rig-Up Equipment | 4/15/2018 | 03:00:00 | USER | CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB. |
| Event | 7 | Rig-Up Completed | Rig-Up Completed | 4/15/2018 | 04:30:00 | USER | WAITED ON RIG TO FINISH RUNNING CASING. |
| Event | 8 | Safety Meeting | Safety Meeting - Pre Job | 4/15/2018 | 06:00:00 | USER | MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS. |
| Event | 9 | Start Job | Start Job | 4/15/2018 | 06:42:02 | COM5 | BEGIN RECORDING JOB DATA. |

| | | | | | | | |
|-------|----|-------------------|-------------------|-----------|----------|------|---|
| Event | 10 | Test Lines | Test Lines | 4/15/2018 | 06:47:15 | COM5 | PRESSURE TESTED IRON TO 6,000 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 900 PSI, 5TH GEAR STALL OUT @ 1,930 PSI. |
| Event | 11 | Pump Spacer 1 | Pump Spacer 1 | 4/15/2018 | 06:57:19 | COM5 | PUMP 60 BBLs OF TUNED SPACER III @ 10.5 LB/GAL. 20 GALS D-AIR, 40 GALS MUSOL, 40 GALS DUAL SPACER B. HOS CALCULATED @ 1,252.61', TOS CALCULATED @ 658'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 4 BBLs/MIN @ 340 PSI. |
| Event | 12 | Drop Bottom Plug | Drop Bottom Plug | 4/15/2018 | 07:18:17 | COM5 | PLUG LEFT CONTAINER, VERIFIED BY CO. MAN. |
| Event | 13 | Pump Lead Cement | Pump Lead Cement | 4/15/2018 | 07:18:18 | COM5 | PUMPED 400 SKS OF GAS STOP @ 13.2 LB/GAL, 1.59 FT3/SK, 7.7 GAL/SK. 113.27 BBLs, HOL CALCULATED @ 3,657.99', TOL CALCULATED @ 1,910.01'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 6 BBLs/MIN @ 640 PSI. |
| Event | 14 | Pump Tail Cement | Pump Tail Cement | 4/15/2018 | 07:34:07 | COM5 | PUMP 770 SKS OF ECONOCEM @ 13.5 LB/GAL, 1.68 FT3/SK, 7.99 GAL/SK, 230.39 BBLs. HOT CALCULATED @ 7,455.98', TOT CALCULATED @ 5,568.01'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 6.5 BBLs/MIN @ 602 PSI. |
| Event | 15 | Clean Lines | Clean Lines | 4/15/2018 | 08:22:49 | USER | CLEANED PUMPS AND LINES WITH FRESH WATER AND BLEW AIR FROM PLUG CONTAINER MANIFOLD TO WASH UP TANK TO CLEAN STANDPIPE. |
| Event | 16 | Drop Top Plug | Drop Top Plug | 4/15/2018 | 08:27:56 | COM5 | PLUG LEFT CONTAINER, VERIFIED BY CO. MAN. |
| Event | 17 | Pump Displacement | Pump Displacement | 4/15/2018 | 08:30:00 | COM5 | BEGIN CALCULATED DISPLACEMENT OF 302 BBLs WITH FRESH WATER. PUMPED THE FIRST 20 BBLs WITH MMCR, PUMPED 250 BBLs WITH BIOCIDES. NO SPACER OR CEMENT TO SURFACE. |
| Event | 18 | Shutdown | Shutdown | 4/15/2018 | 08:54:13 | USER | SHUTDOWN TO SWAP WATER LINES OVER TO GET BETTER FLOW RATE. |

| | | | | | | | |
|-------|----|-----------------------------|-----------------------------|-----------|----------|------|---|
| Event | 19 | Bump Plug | Bump Plug | 4/15/2018 | 09:40:33 | COM5 | PLUG BUMPED AT CALCULATED DISPLACEMENT. 2,976 PSI PRESSURED 200 PSI OVER BUMP. |
| Event | 20 | Shift Tool - Lower | Shift Tool - Lower | 4/15/2018 | 09:52:32 | USER | SHIFTED TOOL TO PUMP 3 BBL WET SHOE, TOOL SHIFTED @ 5,000 PSI. |
| Event | 21 | Check Floats | Check Floats | 4/15/2018 | 09:55:12 | USER | RELEASED PRESSURE, FLOATS HELD, 3 BBLS BACK. |
| Event | 22 | End Job | End Job | 4/15/2018 | 09:57:18 | USER | STOP RECORDING JOB DATA. |
| Event | 23 | Pre-Rig Down Safety Meeting | Pre-Rig Down Safety Meeting | 4/15/2018 | 10:15:00 | USER | DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES. |
| Event | 24 | Rig-Down Equipment | Rig-Down Equipment | 4/15/2018 | 10:30:00 | USER | RIG DOWN BULK AND MIXING EQUIPMENT. |
| Event | 25 | Rig-Down Completed | Rig-Down Completed | 4/15/2018 | 12:00:00 | USER | ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN. |
| Event | 26 | Pre-Convoy Safety Meeting | Pre-Convoy Safety Meeting | 4/15/2018 | 12:15:00 | USER | DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW. |
| Event | 27 | Depart Location | Depart Location | 4/15/2018 | 12:30:00 | USER | THANK YOU FOR USING HALLIBURTON - NICK PETERSON AND CREW. |

3.0 Attachments

3.1 Job Chart

