

The Road to Excellence Starts with Safety

| | | | | | | | | | | |
|---|-------------------|--------------------------------|------------------------|----------------------------|---|-----------------------------------|------------------------|---------------------|-------------------|----------------------|
| Sold To #: 345242 | | Ship To #: 9059375 | | Quote #: | | Sales Order #: 0907425790 | | | | |
| Customer: NOBLE ENERGY INC-EBUS | | | | | Customer Rep: Dave Nielsen | | | | | |
| Well Name: ROTH | | | Well #: A31-730 | | | API/UWI #: 05-123-51331-00 | | | | |
| Field: WATTENBERG | | City (SAP): GARDEN CITY | | County/Parish: WELD | | | State: COLORADO | | | |
| Legal Description: NE NE-30-6N-64W-904FNL-270FEL | | | | | | | | | | |
| Contractor: H & P DRLG | | | | | Rig/Platform Name/Num: H & P 517 | | | | | |
| Job BOM: 7523 | | | | | | | | | | |
| Well Type: HORIZONTAL GAS | | | | | | | | | | |
| Sales Person: HALAMERICA\HX41066 | | | | | Srvc Supervisor: Nicholas Roles | | | | | |
| Job | | | | | | | | | | |
| | | | | | | | | | | |
| Job depth MD | | 17193ft | | Job Depth TVD | | 6850ft | | | | |
| | | | | | | | | | | |
| 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 | | | 0 | 1944 | 0 | 1944 |
| Casing | | 5.5 | 4.892 | 17 | | | 0 | 17193 | 0 | 6850 |
| Open Hole Section | | | 8.5 | | | | 1944 | 17204 | 1944 | 6850 |
| | | | | | | | | | | |
| Tools and Accessories | | | | | | | | | | |
| Type | Size in | Qty | Make | Depth ft | | Type | Size in | Qty | Make | |
| Float Shoe | 5.5 | 1 | HES | 17193 | | Top Plug | 5.5 | 1 | HES | |
| Float Collar | 5.5 | 1 | HES | 17149 | | Bottom Plug | 5.5 | 2 | HES | |
| | | | | | | Centralizers | 5.5 | 212 | Summit | |
| | | | | | | | | | | |

| Fluid Data | | | | | | | | | |
|--|--------------|---------------------------|------|---------------------|---------------------------|---------------------------|------------------|------------------------|------------------------|
| Stage #: 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 Prime Cement Spacer | 120 | bbl | 11.5 | 3.74 | | 6 | 4284 |
| 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 | Cement | ElastiCem Cap Cement | 140 | sack | 13.2 | 1.6 | 7.63 | 8 | 1068 |
| 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 |
| 3 | Cement | ElastiCem Lead Cement | 760 | sack | 13.2 | 1.67 | 8.03 | 9 | 6103 |
| 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 |
| 4 | Cement | NeoCem Tail Cement | 1107 | sack | 13.2 | 2.04 | 9.79 | 9 | 10838 |
| 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 |
| 5 | Displacement | Treated Fresh Water | 398 | bbl | 8.33 | | | | 16716 |
| Cement Left In Pipe | | | | | | | | | |
| Amount | | 44 ft | | | Reason | | | Shoe Joint | |
| Mix Water: | | pH 7 | | Mix Water Chloride: | | 0 ppm | | Mix Water Temperature: | |
| | | | | | | | | 65 °F | |
| Plug Bumped? | | Yes | | Plug Displaced by: | | 8.33 lb/gal Treated Water | | Disp. Temperature: | |
| | | | | | | | | 65 °F | |
| Cement Returns: | | 0 bbl. | | Bump Pressure: | | 2417 psi | | Floats Held? | |
| | | | | | | | | Yes | |
| Comment: Got 50bbls spacer to surface. Estimated TOCap-1004', TOL-1839', TOT-7364'. Centralizer totals-17,150ft-1064ft 212 centralizers. | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

| Seq. No. | Activity | Date | Time | DH Density (ppg) | Comb Pump Rate (bbl/min) | DS Pump Press (psi) | Pump Stg Tot (bbl) | Comments |
|----------|--|-----------|----------|------------------|--------------------------|---------------------|--------------------|--|
| 1 | Call Out | 10/9/2021 | 04:00:00 | | | | | Called out by service coordinator for OL time of 1000. |
| 2 | Pre-Convoy Safety Meeting | 10/9/2021 | 07:00:00 | | | | | Discuss all hazards associated with journey, directions to destination, complete journey management if needed, and ensure all convoy is fit for duty. |
| 3 | Depart from Service Center or Other Site | 10/9/2021 | 07:15:00 | | | | | Depart from service center or other job site. |
| 4 | Arrive at Location from Service Center | 10/9/2021 | 08:30:00 | | | | | Upon arrival to location, signed in with onsite safety personnel. Met with company man and discussed job specific requirements and specifications. |
| 5 | Pre-Rig Up Safety Meeting | 10/9/2021 | 08:45:00 | | | | | Held pre rig up JSA for hazards, hazard hunt with crew, and discussed plan for spotting equipment and rigging up lines for job. Discussed muster points and closest emergency location as well as coordinates. |
| 6 | Rig-Up Equipment | 10/9/2021 | 09:00:00 | | | | | Begin rig up with crew. |
| 7 | Rig-Up Completed | 10/9/2021 | 10:00:00 | | | | | Complete rig up for job to nearest point before red zone. |
| 8 | Other | 10/9/2021 | 11:00:00 | | | | | Mix water test results- PH-7, Chlo-0, Temp-65F. |
| 9 | Safety Meeting - Pre Job | 10/9/2021 | 14:00:00 | 8.00 | 0.00 | 37.00 | 14.50 | Held job specific hazards as well as confirming job procedure with co man and rest of crew associated with job. |

| | | | | | | | | |
|----|------------------|-----------|----------|-------|------|---------|--------|--|
| 10 | Start Job | 10/9/2021 | 14:11:57 | 0.22 | 0.00 | -2.00 | 0.00 | TD-17204', TP-17193' 5.5" 17#, FC-17149', TVD-6850', SURF-1944' 9.625" 36#, OH-8.5" MUD-10.1# |
| 11 | Test Lines | 10/9/2021 | 14:13:31 | 7.83 | 0.00 | 153.00 | 4.00 | Pumped 5bbls fresh water to fill lines, closed 2" lo torc, performed 500psi k/o function test, followed with 5th gear stall at 1290psi, perform 4500psi test on line. Held pressure, no leaks. Bled off pressure, pumped 1bbl to ensure lines still full and closed valve. Proceeded to bring pressure to 2000psi on Kelly line, pressure stabilized and held with no leaks. |
| 12 | Pump Spacer 1 | 10/9/2021 | 14:20:07 | 8.35 | 0.00 | 70.00 | 5.10 | Pumped 120bbls Tuned Prime 11.5# 3.74y 23.76g/s with 20g D-Air at 6bpm 340psi |
| 13 | Drop Bottom Plug | 10/9/2021 | 14:20:25 | 8.36 | 0.00 | 65.00 | 0.00 | Dropped by HES supervisor, witnessed by company man. |
| 14 | Check Weight | 10/9/2021 | 14:29:49 | 11.69 | 7.80 | 547.00 | 45.40 | Weight verified with pressurized mud scales. |
| 15 | Check Weight | 10/9/2021 | 14:37:46 | 11.06 | 4.50 | 141.00 | 86.00 | Weight verified with pressurized mud scales. |
| 16 | Drop Bottom Plug | 10/9/2021 | 14:42:56 | 11.71 | 0.00 | 40.00 | 110.70 | Dropped by HES supervisor, witnessed by company man. |
| 17 | Pump Cement | 10/9/2021 | 14:44:39 | 11.71 | 0.00 | 38.00 | 110.70 | Pumped 140sks or 40bbls ElastiCem w/o CBL 13.2# 1.6y 7.63g/s at 8bpm 580psi. |
| 18 | Check Weight | 10/9/2021 | 14:46:42 | 13.31 | 4.20 | 290.00 | 6.50 | Weight verified with pressurized mud scales. |
| 19 | Pump Lead Cement | 10/9/2021 | 14:53:56 | 13.13 | 7.90 | 727.00 | 62.30 | Pumped 760sks or 226bbls ElastiCem w/CBL 13.2# 1.67y 8.03g/s at 9bpm 612psi. |
| 20 | Pump Tail Cement | 10/9/2021 | 15:19:39 | 12.91 | 8.60 | 747.00 | 237.00 | Pumped 1107sks or 402bbls 13.2# 2.04y 9.79g/s NeoCem at 9bpm 900psi. |
| 21 | Check Weight | 10/9/2021 | 15:22:18 | 13.23 | 8.50 | 1026.00 | 22.60 | Weight verified with pressurized mud scales. |
| 22 | Check Weight | 10/9/2021 | 15:36:50 | 13.10 | 8.50 | 1012.00 | 146.70 | Weight verified with pressurized mud scales. |
| 23 | Check Weight | 10/9/2021 | 15:52:06 | 13.34 | 8.50 | 1187.00 | 277.00 | Weight verified with pressurized mud scales. |

| | | | | | | | | |
|----|--|-----------|----------|-------|------|---------|--------|---|
| 24 | Shutdown | 10/9/2021 | 16:09:33 | 13.32 | 0.20 | 166.00 | 417.60 | Shutdown, washed up through pumps and down wash up line to pits until clean water was seen. Pumped total of 5bbls to clean truck and lines |
| 25 | Drop Top Plug | 10/9/2021 | 16:18:31 | 8.35 | 0.00 | 26.00 | 21.10 | Dropped by HES supervisor, witnessed by company man. |
| 26 | Pump Displacement | 10/9/2021 | 16:18:33 | 8.35 | 0.00 | 26.00 | 0.00 | Pumped 398bbls production water with 10 gallons MMCR in first 20 bbl.. |
| 27 | Bump Plug | 10/9/2021 | 17:08:13 | 8.44 | 0.00 | 2931.00 | 404.00 | Slowed down to 4bpm at 375bbls away, final circulating pressure- 2417psi, Bump pressure-3032psi. |
| 28 | Other | 10/9/2021 | 17:12:57 | 8.46 | 0.00 | 3026.00 | 404.00 | Released pressure and got 5.5bbls fresh water to truck, floats held. |
| 29 | End Job | 10/9/2021 | 17:17:55 | 8.39 | 0.00 | -1.00 | 404.00 | Got 50bbls spacer to surface. Estimated TOCap-1004', TOL-1839', TOT-7364'. Centralizer totals-17,150ft-1064ft 212 centralizers. |
| 30 | Pre-Rig Down Safety Meeting | 10/9/2021 | 17:20:00 | 0.54 | 0.00 | 52.00 | 0.00 | Held safety meeting with crew prior to rig down, discussed possibility of trapped pressure, swing radius, slips trips and falls, pinch points and risks associated with rig down. |
| 31 | Rig Down Lines | 10/9/2021 | 17:30:00 | | | | | Begin rig down |
| 32 | Rig-Down Completed | 10/9/2021 | 18:00:00 | | | | | Rig down complete with no injuries, spills or damage to equipment. |
| 33 | Pre-Convoy Safety Meeting | 10/9/2021 | 18:15:00 | | | | | Held safety meeting with convoy, discussed trip hazards, directions and all crew fit for duty prior to departure. |
| 34 | Depart Location for Service Center or Other Site | 10/9/2021 | 18:30:00 | | | | | Depart location, if applicable journey will be submitted. |

3.0 Attachments

3.1 Job Chart

