

The Road to Excellence Starts with Safety

| | | | | | | | |
|---|--|--------------------|------------------|----------------------------------|--|----------------------------|--|
| Sold To #: 300466 | | Ship To #: 3794512 | | Quote #: 0022350057 | | Sales Order #: 0904296569 | |
| Customer: ANADARKO PETROLEUM CORP-EBUS | | | | Customer Rep: Travis Lourance | | | |
| Well Name: RW | | | Well #: 28N-29HZ | | | API/UWI #: 05-123-44620-00 | |
| Field: WATTENBERG | | City (SAP): HUDSON | | County/Parish: WELD | | State: COLORADO | |
| Legal Description: SE SW-29-3N-65W-440FSL-1854FWL | | | | | | | |
| Contractor: Xtreme | | | | Rig/Platform Name/Num: Xtreme 22 | | | |
| Job BOM: 7523 7523 | | | | | | | |
| Well Type: HORIZONTAL GAS | | | | | | | |
| Sales Person: HALAMERICA\HX41066 | | | | Srvc Supervisor: Bradley Hinkle | | | |

Job

| | | | |
|------------------------|-------------------|---------------|--------|
| Formation Name | | | |
| Formation Depth (MD) | Top | Bottom | |
| Form Type | BHST | | |
| Job depth MD | 12615ft | Job Depth TVD | 7125ft |
| Water Depth | Wk Ht Above Floor | | |
| 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 | 1858 | 0 | 0 |
| Casing | | 5.5 | 4.778 | 20 | LTC | HCP110 | 0 | 12615 | 0 | 0 |
| Open Hole Section | | | 7.875 | | | | 1858 | 12625 | 0 | 0 |

Tools and Accessories

| Type | Size in | Qty | Make | Depth ft | Type | Size in | Qty | Make |
|--------------|---------|-----|------|----------|----------------|---------|-----|------|
| Guide Shoe | 5.5 | | | | Top Plug | 5.5 | 1 | |
| Float Shoe | 5.5 | 1 | | 12615 | Bottom Plug | 5.5 | 1 | |
| Float Collar | 5.5 | 1 | | 12568 | SSR plug set | 5.5 | | HES |
| Insert Float | 5.5 | | | | Plug Container | 5.5 | 1 | HES |
| Stage Tool | 5.5 | | | | Centralizers | 5.5 | | HES |

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 | 6.25 | | 4 | | |

| 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 | 1 st Lead | ELASTICEM W/OUT CBL | 150 | sack | 13.2 | 1.57 | | 7 | 7.52 | |
| 3 | 2 nd Lead | ELASTICEM WITH CBL | 390 | sack | 13.2 | 1.57 | | 8 | 7.54 | |
| 4 | Tail | ECONOCEM (TM) SYSTEM | 720 | sack | 13.5 | 1.68 | | 5 | 7.99 | |
| 5 | Displacement | Biocide Water and MMCR | 20 | bbl | 8.34 | | | 5 | | |
| 6 | Biocide Water | Biocide Water | 258 | bbl | 8.34 | | | 9.5 | | |
| Cement Left In Pipe | | | | | | | | | | |
| Amount | | 47 ft | | | Reason | | | Shoe Joint | | |
| Mix Water: pH 6 | | Mix Water Chloride: 0 ppm | | | Mix Water Temperature: 68 °F | | | | | |
| Cement Temperature: ## °F °C | | Plug Displaced by: ## lb/gal kg/m3 XXXX | | | Disp. Temperature: ## °F °C | | | | | |
| Plug Bumped? Yes | | Bump Pressure: 2100 psi | | | Floats Held? Yes | | | | | |
| Cement Returns: ## bbl m3 | | Returns Density: ## lb/gal kg/m3 | | | Returns Temperature: ## °F °C | | | | | |
| Comment 10 bbls Tuned Spacer to surface. Estimated top of lead cement at 1043 feet. Estimated top of tail cement at 5482 feet. | | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

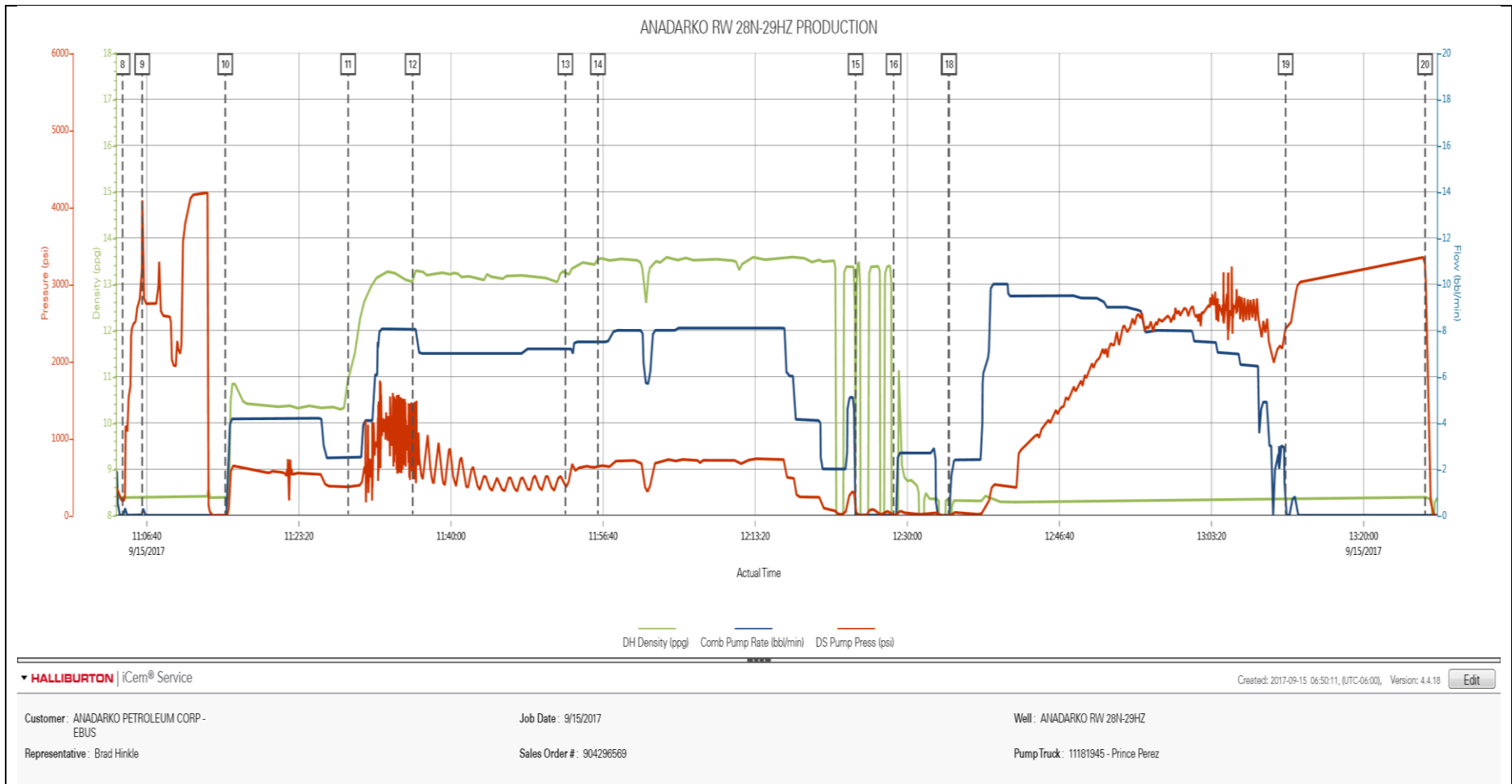
| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | Comments |
|-------|----------|--|--|-----------|----------|--------|---|
| Event | 1 | Call Out | Call Out | 9/15/2017 | 05:00:00 | USER | Crew called for an on location of 0900. Crew was Bradley Hinkle, Prince Perez, Spencer Torrey, Sam Aljabur and Dale Sanford. |
| Event | 2 | Depart Yard Safety Meeting | Depart Yard Safety Meeting | 9/15/2017 | 08:00:00 | USER | Pre-journey safety meeting. |
| Event | 3 | Arrive at Location from Service Center | Arrive at Location from Service Center | 9/15/2017 | 08:30:00 | USER | Sign in, perform a site assessment and pre rig-up safety meeting. Rigging down casing crew, casing on bottom. |
| Event | 4 | Other | Job Numbers | 9/15/2017 | 09:00:00 | USER | TD: 12625 TP: 12615 FC: 12568 TVD: 7125. 5.5" 20# casing inside a 7.875" OH. 9.625" 36# surface casing set at 1858. Mud weight 9.5 ppg. |
| Event | 5 | Safety Meeting - Pre Job | Safety Meeting - Pre Job | 9/15/2017 | 10:00:00 | USER | Pre-job safety meeting with all personnel on location. |
| Event | 6 | Comment | Comment | 9/15/2017 | 10:15:00 | USER | Gas detector reading high on Pason screen. I notified customer that 500 units was recommended. Customer explained detector has been reading high than actual units. |
| Event | 7 | Start Job | Start Job | 9/15/2017 | 10:36:43 | COM4 | |
| Event | 8 | Test Lines | Test Lines | 9/15/2017 | 11:04:01 | COM4 | Pressure test lines with a 500 PSI electronic kick-out test. |
| Event | 9 | Comment | Comment | 9/15/2017 | 11:06:10 | USER | Mechanical pop-off released pressure. Had to readjust slowly several times to get a good test. |
| Event | 10 | Drop Bottom Plug | Drop Bottom Plug | 9/15/2017 | 11:14:00 | USER | Bottom plug dropped. Witnessed by customer. |
| Event | 11 | Pump Spacer 1 | Pump Spacer 1 | 9/15/2017 | 11:15:16 | COM4 | Pump 60 bbls Tuned Spacer mixed at 10.5 ppg with surfactants added throughout. |

| | | | | | | | Density verified by pressurized scales. |
|-------|----|-------------------|-------------------|-----------|----------|------|--|
| Event | 12 | Pump Lead Cement | Pump Lead Cement | 9/15/2017 | 11:28:44 | COM4 | Pump 42 bbls (150 sacks) ElastiCem without CBL (Cap cement) mixed at 13.2 ppg. Density verified by pressurized scales. |
| Event | 13 | Pump Lead Cement | Pump Lead Cement | 9/15/2017 | 11:35:48 | COM4 | Pump 109 bbls (390 sacks) ElastiCem with Super-CBL mixed at 13.2 ppg. Density verified by pressurized scales. |
| Event | 14 | Pump Tail Cement | Pump Tail Cement | 9/15/2017 | 11:52:32 | COM4 | Pump 215 bbls (720 sacks) EconoCem mixed at 13.5 ppg. Density verified by pressurized scales. |
| Event | 15 | Check Weight | Check Weight | 9/15/2017 | 11:56:06 | COM4 | Cement weighed at 13.5 ppg. |
| Event | 16 | Shutdown | Shutdown | 9/15/2017 | 12:24:20 | COM4 | |
| Event | 17 | Clean Lines | Clean Lines | 9/15/2017 | 12:28:30 | USER | Rig blew down lines to cement tank until clear. Then pump truck washed pumps and lines until clean. |
| Event | 18 | Drop Top Plug | Drop Top Plug | 9/15/2017 | 12:34:31 | COM4 | Top plug loaded. Witnessed by customer. |
| Event | 19 | Pump Displacement | Pump Displacement | 9/15/2017 | 12:34:35 | COM4 | Pump 278 bbls fresh water with cement retarder added in first 20 bbls and biocide added throughout. 10 bbls spacer to surface. Estimated top of lead cement at 1043 feet. Estimated top of tail cement at 5482 feet. |
| Event | 20 | Bump Plug | Bump Plug | 9/15/2017 | 13:11:27 | COM4 | Bump plug at 2100 PSI and increased to 2700 PSI. Increased pressure to 3000 PSI for a 15 minute casing test. |

| | | | | | | | |
|-------|----|--|--|-----------|----------|------|------------------------------|
| Event | 21 | Check Floats | Check Floats | 9/15/2017 | 13:26:44 | USER | Floats held. 3 bbls back. |
| Event | 22 | End Job | End Job | 9/15/2017 | 13:36:32 | COM4 | |
| Event | 23 | Pre-Rig Down Safety Meeting | Pre-Rig Down Safety Meeting | 9/15/2017 | 13:40:00 | USER | Pre-rig down safety meeting. |
| Event | 24 | Depart Location for Service Center or Other Site | Depart Location for Service Center or Other Site | 9/15/2017 | 15:00:00 | USER | Pre-journey safety meeting. |

3.0 Attachments

3.1 Job Chart



HALLIBURTON | iCem® Service

Created: 2017-09-15 06:50:11, (UTC-06:00), Version: 4.4.18

Edit

Customer: ANADARKO PETROLEUM CORP - EBUS

Job Date: 9/15/2017

Well: ANADARKO RW 28N-29HZ

Representative: Brad Hinkle

Sales Order #: 904296569

Pump Truck: 11181945 - Prince Perez