

Piceance Energy LLC - EBUS

Piceance Federal 28-01M

Patterson 306

Post Job Summary

Cement Production Casing

Date Prepared: 9/9/2015

Job Date: 9/5/2015

Submitted by: Patrick Ealey – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

| | | | |
|--|--------------------------------------|----------------------------|---------------------------|
| Sold To #: 344919 | Ship To #: 3672940 | Quote #: | Sales Order #: 0902720036 |
| Customer: PICEANCE ENERGY LLC - EBUS | Customer Rep: ROGER FOSTE | | |
| Well Name: PICEANCE FED | Well #: 28-01M | API/UWI #: 05-077-10244-00 | |
| Field: VEGA | City (SAP): COLBRAN | County/Parish: MESA | State: COLORADO |
| Legal Description: SW NW-28-9S-93W-1545FNL-1200FWL | | | |
| Contractor: PATTERSON-UTI ENERGY | Rig/Platform Name/Num: PATTERSON 306 | | |
| Job BOM: 7523 | | | |
| Well Type: DIRECTIONAL GAS | | | |
| Sales Person: HALAMERICA\HX41066 | Srv Supervisor: Andrew Brennecke | | |
| Job | | | |

| | |
|------------------------|----------------------|
| Formation Name | |
| Formation Depth (MD) | Top Bottom |
| Form Type | BHST |
| Job depth MD | 8292ft Job Depth TVD |
| Water Depth | Wk Ht Above Floor 3 |
| 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 | | 8.625 | 7.921 | 32 | | | 0 | 1625 | | 0 |
| Casing | | 4.5 | 4 | 11.6 | 8 RD | | 0 | 8316 | | 0 |
| Open Hole Section | | | 8.875 | | | | 1625 | 8302 | 0 | 0 |

| Tools and Accessories | | | | | | | | | |
|-----------------------|---------|-----|------|----------|--|----------------|---------|-----|------|
| Type | Size in | Qty | Make | Depth ft | | Type | Size in | Qty | Make |
| Guide Shoe | 4.5 | 1 | HES | 8292 | | Top Plug | 4.5 | 1 | HES |
| Float Shoe | | | | | | Bottom Plug | 4.5 | 1 | HES |
| Float Collar | 4.5 | 1 | HES | 8202 | | SSR plug set | | | |
| Insert Float | | | | | | Plug Container | 4.5 | 1 | HES |
| Stage Tool | | | | | | Centralizers | 4.5 | 146 | HES |

| Miscellaneous Materials | | | | | | | | | | | |
|-------------------------|--|------|--|------------|--|------|--|-----------|--|------|------|
| Gelling Agt | | Conc | | Surfactant | | Conc | | Acid Type | | Qty | Conc |
| Treatment Fld | | Conc | | Inhibitor | | Conc | | Sand Type | | Size | Qty |

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 | Tuned Spacer III | Tuned Spacer III | 40 | bbl | 11 | 4.55 | 30 | 4 | |
| 37 gal/bbl | | FRESH WATER | | | | | | | |
| 123.25 lbm/bbl | | BARITE, BULK (100003681) | | | | | | | |

| 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 | VersaCem | VERSACEM (TM) SYSTEM | 976 | sack | 12.8 | 1.75 | | 8 | 8.5 |
| 0.25 lbm | | POLY-E-FLAKE (101216940) | | | | | | | |
| 6 lbm | | KOL-SEAL, BULK (100064233) | | | | | | | |
| 8.50 Gal | | FRESH WATER | | | | | | | |
| | | | | | | | | | |
| 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 | ExpandaCem | EXPANDACEM (TM) SYSTEM | 413 | sack | 13.3 | 1.89 | | 7.7 | 8.66 |
| 0.25 lbm | | POLY-E-FLAKE (101216940) | | | | | | | |
| 8.66 Gal | | FRESH WATER | | | | | | | |
| 6 lbm | | KOL-SEAL, BULK (100064233) | | | | | | | |
| 20 % | | SS-200 - BULK (102240841) | | | | | | | |
| | | | | | | | | | |
| 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 | Displacement | Displacement | 127.5 | bbl | 8.34 | | | 8 | |
| 0.05 gal/bbl | | CLA-WEB - TOTE (101985045) | | | | | | | |
| 0.01 gal/bbl | | MICRO MATRIX CEMENT RETARDER, 1 GAL PAIL (100003780) | | | | | | | |
| | | | | | | | | | |
| Cement Left In Pipe | | Amount | 90 ft | | Reason | | Shoe Joint | | |
| Comment | | | | | | | | | |

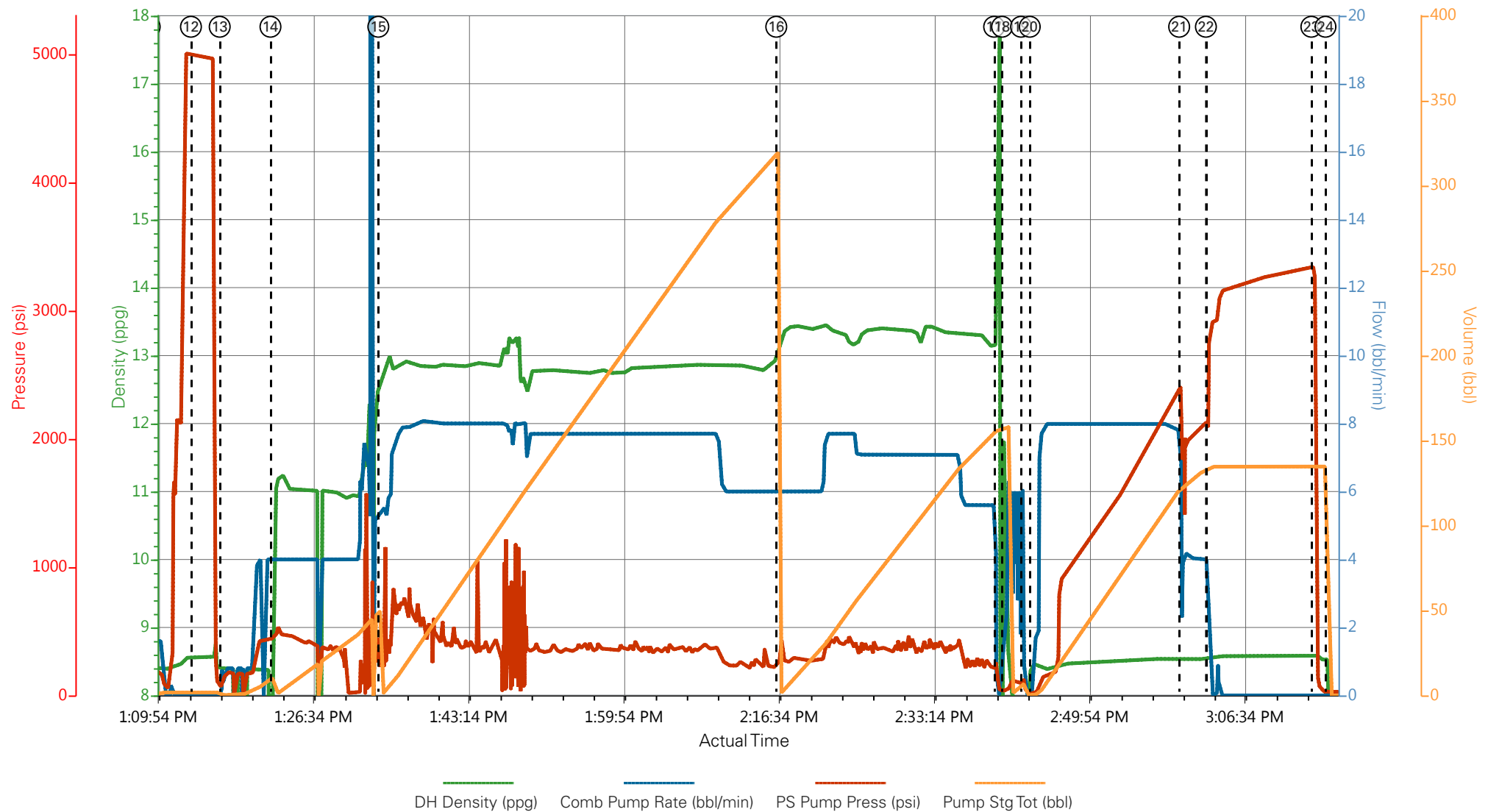
1.0 Real-Time Job Summary

1.1 Job Event Log

| Type | Seq. No. | Activity | Date | Time | Source | DH Density (ppg) | Comb Pump Rate (bbl/min) | PS Pump Press (psi) | Pump Stg Tot (bbl) | Comments |
|-------|----------|---------------------------------------|----------|----------|--------|---------------------|-----------------------------|------------------------|-----------------------|--|
| Event | 1 | Call Out | 9/5/2015 | 04:00:00 | USER | | | | | |
| Event | 2 | Pre-Convoy Safety Meeting | 9/5/2015 | 06:45:00 | USER | | | | | ALL HES PRESENT |
| Event | 3 | Crew Leave Yard | 9/5/2015 | 07:00:00 | USER | | | | | |
| Event | 4 | Arrive At Loc | 9/5/2015 | 09:00:00 | USER | | | | | RIG RUNNING CASING |
| Event | 5 | Assessment Of Location Safety Meeting | 9/5/2015 | 09:15:00 | USER | | | | | |
| Event | 6 | Pre-Rig Up Safety Meeting | 9/5/2015 | 09:30:00 | USER | | | | | ALL HES PRESENT |
| Event | 7 | Rig-Up Completed | 9/5/2015 | 12:00:00 | USER | | | | | 1-ELITE, 2-660 BULK TRAILER, 1-PICK UP, 1-SILO, 2" PUMP IRON, 4" SUCTION HOSE, 4.5" QUICK LATCH PLUG CONTAINER |
| Event | 8 | Pre-Job Safety Meeting | 9/5/2015 | 13:00:00 | USER | | | | | ALL HES AND RIG CREW PRESENT |
| Event | 9 | Start Job | 9/5/2015 | 13:08:00 | USER | 8.33 | 0.00 | 0.00 | 0.0 | TD-8302', TP-8316', PIPE SET AT 8292', SJ-89.97', CSG- 4.5", 11.6# I-80, SCSSG-0-1625', 8.625" 32#, OH-7.875", 1625-8302', MUD-9.5PPG 38 VISC. RIG CIRCULATED AT 312GPM PRIOR TO CEMENT JOB. |
| Event | 10 | Drop Bottom Plug | 9/5/2015 | 13:09:08 | USER | 8.34 | 0.00 | 5.00 | 0.0 | |
| Event | 11 | Prime Pumps | 9/5/2015 | 13:09:18 | USER | 8.34 | 2.00 | 193.00 | 2.0 | FRESH WATER |
| Event | 12 | Test Lines | 9/5/2015 | 13:13:43 | USER | 8.40 | 0.00 | 4998.00 | 0.2 | ALL PRESSURE HELD ON LINES |

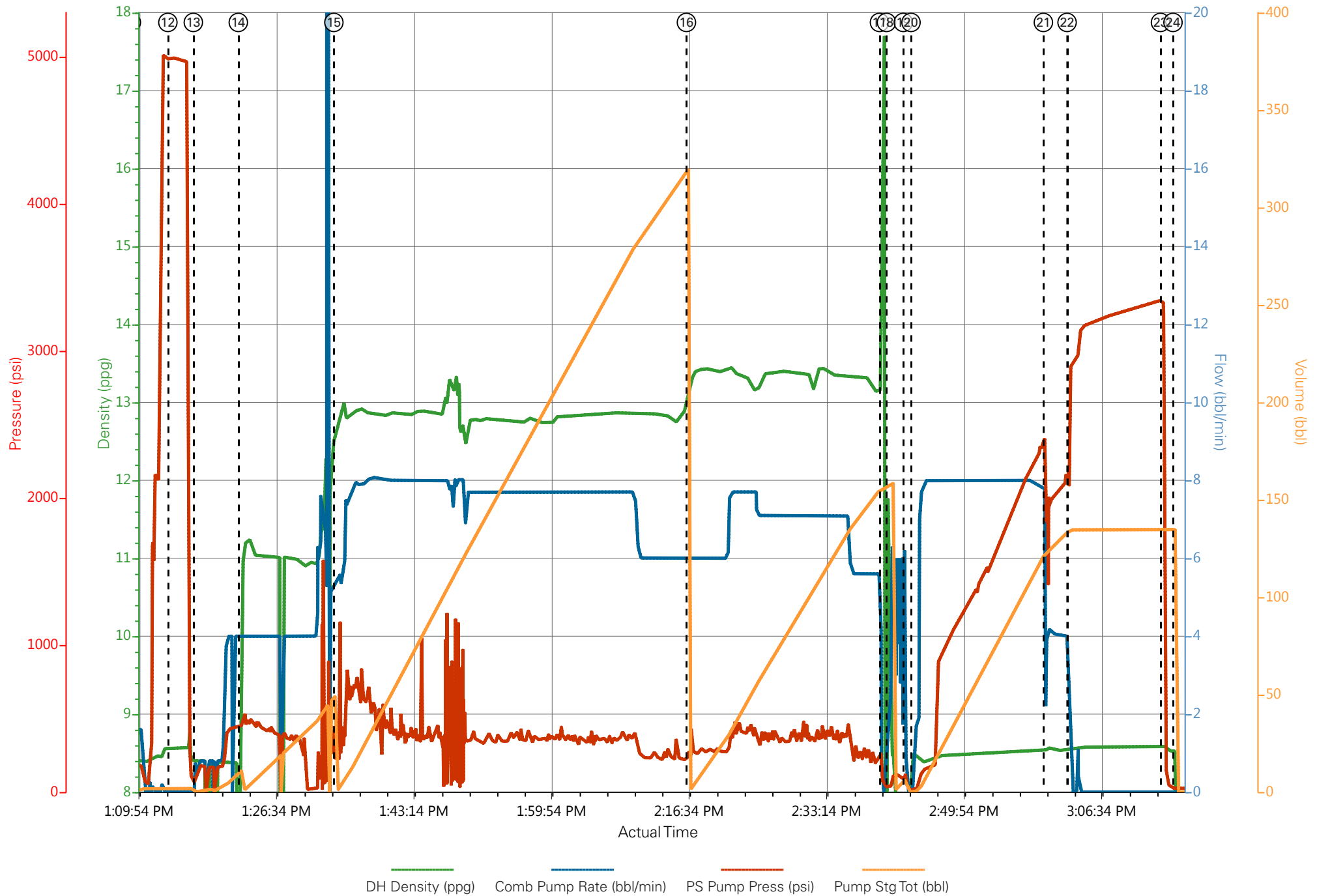
| | | | | | | | | | | |
|-------|----|---------------------|----------|----------|------|-------|------|---------|-------|---|
| Event | 13 | Pump Spacer | 9/5/2015 | 13:16:49 | USER | 8.35 | 4.00 | 440.00 | 10.0 | FRESH WATER AHEAD TO ESTABLISH RETURNS |
| Event | 14 | Pump Spacer 1 | 9/5/2015 | 13:22:15 | USER | 11.00 | 4.00 | 470.00 | 40.0 | TUNED SPACER III, 40BBLS, 11.0PPG, 4.55CF/SK, 30GAL/SK |
| Event | 15 | Pump Lead Cement | 9/5/2015 | 13:33:50 | USER | 12.80 | 8.00 | 500.00 | 304.2 | LEAD CEMENT, 12.8PPG, 1.75CF/SK, 8.5GAL/SK |
| Event | 16 | Pump Tail Cement | 9/5/2015 | 14:16:34 | USER | 13.30 | 7.70 | 400.00 | 139.0 | TAIL CEMENT, 13.3PPG, 1.89CF/SK, 8.66GAL/SK |
| Event | 17 | Shutdown | 9/5/2015 | 14:39:57 | USER | | | | | |
| Event | 18 | Clean Lines | 9/5/2015 | 14:40:48 | USER | | | | | CLEANED LINES INTO CELLAR |
| Event | 19 | Drop Top Plug | 9/5/2015 | 14:42:51 | USER | | | | | PLUG DROP VERIFIED BY COMPANY REP |
| Event | 20 | Pump Displacement | 9/5/2015 | 14:43:47 | USER | 8.36 | 8.00 | 2400.00 | 117.5 | 1-GAL MMCR, 5-GAL CLAY WEB, FRESH WATER |
| Event | 21 | Slow Rate | 9/5/2015 | 14:59:49 | USER | 8.34 | 4.00 | 1858.00 | 127.5 | SLOW RATE LAST TEN BBLS |
| Event | 22 | Bump Plug | 9/5/2015 | 15:02:41 | USER | 8.40 | 0.00 | 2300.00 | 127.5 | PLUG BUMPED AND STARTED CASING TEST 10 MINS |
| Event | 23 | Check Floats | 9/5/2015 | 15:14:01 | USER | 8.40 | 0.00 | 3342.00 | 127.5 | FLOATS HELD 1.5 BBLS |
| Event | 24 | End Job | 9/5/2015 | 15:15:32 | COM5 | | | | | GOOD RETURNS THROUGH OUT JOB, 30 BBLS TSIII TO SURFACE |
| Event | 25 | Crew Leave Location | 9/5/2015 | 16:30:00 | USER | | | | | THANK YOU FOR CHOOSING HALLIBURTON, ANDREW BRENNECKE AND CREW |

PICEANCE - 28-01M - 4.5" PRODUCTION



| | | | |
|---|--------------------------------------|--------------------------------------|---------------------------------------|
| ① Call Out n/a;n/a;n/a;n/a | ⑧ Pre-Job Safety Meeting 8.41;0;21;0 | ⑮ Pump Lead Cement 12.72;5.4;276;0.6 | ⑳ Bump Plug 8.56;0;2884;134.6 |
| ② Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a | ⑨ Start Job 8.42;0;23;0 | ⑯ Pump Tail Cement 13.22;6;267;0.6 | ㉑ Check Floats 8.59;0;3128;134.7 |
| ③ Crew Leave Yard n/a;n/a;n/a;n/a | ⑩ Drop Bottom Plug 8.43;0;25;0 | ⑰ Shutdown 14.71;0;74;156 | ㉒ End Job 5.23;0;26;0 |
| ④ Arrive At Loc n/a;n/a;n/a;n/a | ⑪ Prime Pumps 8.39;1.5;113;0.2 | ⑱ Clean Lines 10.07;1.7;40;156.7 | ㉓ Crew Leave Location n/a;n/a;n/a;n/a |
| ⑤ Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a | ⑫ Test Lines 8.56;0;4998;1.8 | ㉔ Drop Top Plug 7.91;0;70;6.9 | |
| ⑥ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a | ⑬ Pump Spacer 8.4;0.4;94;0.1 | ㉕ Pump Displacement 8.43;1.7;21;0.1 | |
| ⑦ Rig-Up Completed 8.43;0;23;0 | ⑭ Pump Spacer 1 8.7;4;444;11.1 | ㉖ Slow Rate 8.52;3.9;1858;123.1 | |

PICEANCE - 28-01M - 4.5" PRODUCTION



HALLIBURTON

Water Analysis Report

Company: PICEANCE

Submitted by: A.BRENNECKE

Attention: E.RUSSEL

Lease PICEANCE

Well # 28-01M

Date: 9/5/2015

Date Rec.: 9/5/2015

S.O.# 902720036

Job Type: PRODUCTION

| | | |
|-----------------------------|--------------|-----------------------|
| Specific Gravity | <i>MAX</i> | 1 |
| pH | <i>8</i> | 7 |
| Potassium (K) | <i>5000</i> | 200 Mg / L |
| Calcium (Ca) | <i>500</i> | 120 Mg / L |
| Iron (FE2) | <i>300</i> | 0 Mg / L |
| Chlorides (Cl) | <i>3000</i> | 0 Mg / L |
| Sulfates (SO ₄) | <i>1500</i> | <200 Mg / L |
| Chlorine (Cl ₂) | | 0 Mg / L |
| Temp | <i>40-80</i> | 68 Deg |
| Total Dissolved Solids | | 370 Mg / L |

Respectfully: A.BRENNECKE

Title: CEMENTING SUPERVISOR

Location: Grand Junction, CO

NOTICE:

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use

| | | |
|--|--------------------------------|---|
| Sales Order #: 0902720036 | Line Item: 10 | Survey Conducted Date: 9/5/2015 |
| Customer: PICEANCE ENERGY LLC - EBUS | | Job Type (BOM): CMT PRODUCTION CASING BOM |
| Customer Representative: ROGER FOSTE | | API / UWI: (leave blank if unknown) 05-077-10244-00 |
| Well Name: PICEANCE FED | | Well Number: 0080734019 |
| Well Type: DIRECTIONAL GAS | Well Country: USA | |
| H2S Present: No | Well State: COLORADO | Well County: MESA |

Dear Customer,

We hope that you were satisfied with the service quality of this job performed by Halliburton. It is the aim of our management and service personnel to deliver equipment and service of a standard unmatched in the service sector of the energy industry.

Please take the time to let us know if our performance met with your satisfaction. Please be as critical as possible to ensure we constantly improve our service. Your comments are of great value to us and are intended for the exclusive use of Halliburton.

CUSTOMER SATISFACTION SURVEY

| CATEGORY | CUSTOMER SATISFACTION RESPONSE | |
|-------------------------|--|-------------|
| Survey Conducted Date | The date the survey was conducted | 9/5/2015 |
| Survey Interviewer | The survey interviewer is the person who initiated the survey. | HB58348 |
| Customer Participation | Did the customer participate in this survey? (Y/N) | Yes |
| Customer Representative | Enter the Customer representative name | ROGER FOSTE |
| HSE | Was our HSE performance satisfactory? Circle Y or N | Yes |
| Equipment | Were you satisfied with our Equipment? Circle Y or N | Yes |
| Personnel | Were you satisfied with our people? Circle Y or N | Yes |
| Customer Comment | Customer's Comment | |

| |
|---------------------------|
| CUSTOMER SIGNATURE |
|---------------------------|

| | | |
|--|--------------------------------|---|
| Sales Order #: 0902720036 | Line Item: 10 | Survey Conducted Date: 9/5/2015 |
| Customer: PICEANCE ENERGY LLC - EBUS | | Job Type (BOM): CMT PRODUCTION CASING BOM |
| Customer Representative: ROGER FOSTE | | API / UWI: (leave blank if unknown) 05-077-10244-00 |
| Well Name: PICEANCE FED | | Well Number: 0080734019 |
| Well Type: DIRECTIONAL GAS | Well Country: USA | |
| H2S Present: No | Well State: COLORADO | Well County: MESA |

KEY PERFORMANCE INDICATORS

| | |
|---|----------|
| General | |
| Survey Conducted Date The date the survey was conducted | 9/5/2015 |

| | |
|---|-------------------------|
| Cementing KPI Survey | |
| Type of Job Select the type of job. (Cementing or Non-Cementing) | 0 |
| Select the Maximum Deviation range for this Job What is the highest deviation for the job you just completed? This may not be the maximum well deviation. | Deviated |
| Total Operating Time (hours) Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format. | 4 |
| HSE Incident, Accident, Injury HSE Incident, Accident, Injury. This should be recordable incidents only. | No |
| Was the job purpose achieved? Was the job delivered correctly as per customer agreed design? | Yes |
| Pumping Hours Total number of hours pumping fluid on this job. Enter in decimal format. | 2 |
| Type of Rig Classification Job Was Performed Type Of Rig (classification) Job Was Performed On | Drilling Rig (Portable) |
| Number Of JSAs Performed Number Of Jsas Performed | 5 |
| Was this a Primary Cement Job (Yes / No) Primary Cement Job= Casing job, Liner job, or Tie-back job. | Yes |
| Number of Unplanned Shutdowns Unplanned shutdown is when injection stops for any period of time. | 0 |
| Customer Non-Productive Rig Time (hrs) | 0 |

| | | |
|--|--------------------------------|---|
| Sales Order #: 0902720036 | Line Item: 10 | Survey Conducted Date: 9/5/2015 |
| Customer: PICEANCE ENERGY LLC - EBUS | | Job Type (BOM): CMT PRODUCTION CASING BOM |
| Customer Representative: ROGER FOSTE | | API / UWI: (leave blank if unknown) 05-077-10244-00 |
| Well Name: PICEANCE FED | | Well Number: 0080734019 |
| Well Type: DIRECTIONAL GAS | Well Country: USA | |
| H2S Present: No | Well State: COLORADO | Well County: MESA |

| | |
|--|------|
| Lost time due to Halliburton in the start, execution, or completion of an ordered service or product, or delays in a follow-on service. Enter in decimal format. 0 if none. | |
| Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment? Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment? | No |
| Did We Run Wiper Plugs? Did We Run Top And Bottom Casing Wiper Plugs? | Both |
| If a top plug was run, was the plug bumped? (Yes/No/N/A) If a top plug was run, was the plug bumped? (Yes/No/N/A) | Yes |
| If applicable, was Halliburton float equipment used? (Yes/No/N/A) If applicable, was Halliburton float equipment used? (Yes/No/N/A) | Yes |
| If applicable, did the floats hold? (Yes/No/N/A) If applicable, did the floats hold? (Yes/No/N/A) | Yes |
| Mixing Density of Job Stayed in Designed Density Range (0-100%) Density Range defined as +/- .20 ppg. Calculation: Total BBLs cement mixed at designed density divided by total BBLs of cement multiplied by 100 | 96 |
| Pump Rate (percent) of Job Stayed At Designed Pump Rate Pump Rate range defined as +/- 1bbl/min. Calculation: Total BBLs of fluid pumped at the designed rate divided by Total BBLs of fluid pumped, multiplied by 100 | 8 |
| If applicable, were there returns throughout the job? (Yes/No/N/A) If applicable, were there returns throughout the job? (Yes/No/N/A) | Yes |
| Nbr of Remedial Plug Jobs Rqd - HES Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES | 0 |
| Nbr of Remedial Sqz Jobs Rqd - HES Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES | 0 |