

Piceance Energy LLC - EBUS

Piceance 28-04W

**Patterson 306**

## **Post Job Summary**

# **Cement Production Casing**

Date Prepared: 9/30/2015

Job Date: 9/25/2015

Submitted by: Patrick Ealey – Grand Junction Cement Engineer

## The Road to Excellence Starts with Safety

Sold To #: 344919	Ship To #: 3123917	Quote #:	Sales Order #: 0902771584
Customer: PICEANCE ENERGY LLC - EBUS	Customer Rep: ROGER FOSTER		
Well Name: PICEANCE	Well #: 28-04W	API/UWI #: 05-077-09772-00	
Field: VEGA	City (SAP): COLLBRAN	County/Parish: MESA	State: COLORADO
Legal Description: SW NW-28-9S-93W-1528FNL-1173FWL			
Contractor: PATTERSON-UTI ENERGY	Rig/Platform Name/Num: PATTERSON 306		
Job BOM: 7523			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HX41066	Srvs Supervisor: Jesse Slaughter		

### Job

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	7943ft Job Depth TVD
Water Depth	Wk Ht Above Floor 4 ft
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	1572		0
Casing		4.5	4	11.6	8 RD (LT&C)		0	7943		0
Open Hole Section			8.875				1572	7953	0	0

### Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	4.5			7943	Top Plug	4.5	1	HES
Float Shoe	4.5				Bottom Plug	4.5	1	HES
Float Collar	4.5				SSR plug set	4.5		HES
Insert Float	4.5				Plug Container	4.5	1	HES
Stage Tool	4.5				Centralizers	4.5		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	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
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2	VersaCem	VERSACEM (TM) SYSTEM	910	sack	12.8	1.75		6	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		6	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	121.7	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									

## 2.0 Real-Time Job Summary

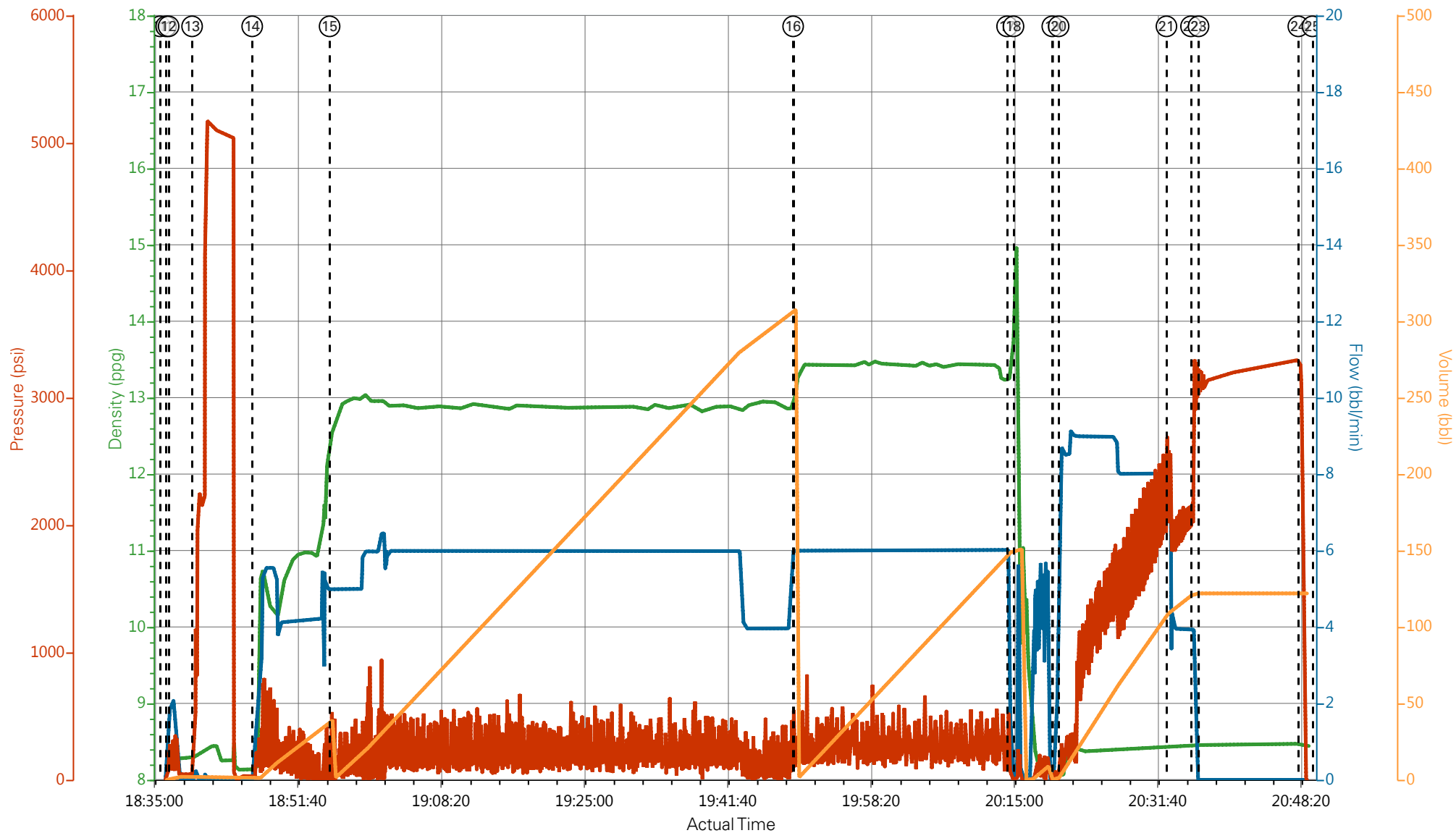
## 2.1 Job Event Log

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	9/25/2015	08:00:00	USER					
Event	2	Pre-Convoy Safety Meeting	9/25/2015	10:50:00	USER					WITH ALL HES PERSONNEL
Event	3	Crew Leave Yard	9/25/2015	11:00:00	USER					
Event	4	Arrive At Loc	9/25/2015	13:00:00	USER					RIG WAS RUNNING CASING UPON HES ARRIVAL
Event	5	Assessment Of Location Safety Meeting	9/25/2015	13:10:00	USER					WITH ALL HES PERSONNEL
Event	6	Other	9/25/2015	13:20:00	USER					
Event	7	Pre-Rig Up Safety Meeting	9/25/2015	13:30:00	USER					WITH ALL HES PERSONNEL
Event	8	Rig-Up Equipment	9/25/2015	13:40:00	USER					1 PUMP, 2 BULK TRUCKS, 1 SILO
Event	9	Pre-Job Safety Meeting	9/25/2015	18:20:00	USER					WITH ALL PERSONNEL
Event	10	Start Job	9/25/2015	18:36:00	USER					TD 7953 FT, TP 7943 FT, SHOE 90.07 FT, CSG 4 1/2 IN 11.6 LB/FT, HOLE 7 7/8 IN, MUD WT 9.4 PPG, SFC CSG SET 1572 FT 9 5/8 IN 24 LB/FT.
Event	11	Prime Pumps	9/25/2015	18:36:41	RTD Import	8.33	2.0	200.0	2.0	FRESH WATER
Event	12	Drop Bottom Plug	9/25/2015	18:37:00	USER					PLUG LAUNCHED
Event	13	Test Lines	9/25/2015	18:39:43	RTD Import					TESTED LINES TO 5139 PSI PRESSURE HOLDING

Event	14	Pump Spacer 1	9/25/2015	18:46:43	RTD Import	11.0	4.0	120.0	40.0	TUNED SPACER AT 11.0 PPG
Event	15	Pump Lead Cement	9/25/2015	18:55:43	RTD Import	12.8	6.0	250.0	283.6	910 SKS AT 12.8 PPG, 1.75 FT3/SK, 8.5 GAL/SK
Event	16	Pump Tail Cement	9/25/2015	19:49:37	RTD Import	13.3	6.0	240.0	139.0	413 SKS AT 13.3 PPG, 1.89 FT3/SK, 8.66 GAL/SK
Event	17	Shutdown	9/25/2015	20:14:29	USER					
Event	18	Clean Lines	9/25/2015	20:15:14	USER					CLEANED LINES TO CELLAR
Event	19	Drop Top Plug	9/25/2015	20:19:45	USER					PLUG LAUNCHED
Event	20	Pump Displacement	9/25/2015	20:20:29	RTD Import	8.4	8.0	2300.0	121.7	FRESH WATER WITH 1 GAL MMCR IN FIRST 10 BBLS, AND 5 GALYWEB THROUGHOUT DISPLACEMENT
Event	21	Slow Rate	9/25/2015	20:33:01	USER	8.4	4.0	2100.0	111.7	SLOWED RATE 10 BBLS PRIOR TO CALCULATED DISPLACEMENT
Event	22	Bump Plug	9/25/2015	20:35:52	RTD Import			3290.0		
Event	23	Pressure Test	9/25/2015	20:36:45	USER					PRESSURE TES CASING AT 3000 PSI FOR 10 MIN. AS PER CAMPANY REP.
Event	24	Check Floats	9/25/2015	20:48:21	USER					FLOATS HOLDING. HES RETURNED 4 1/2 BBLS H2O TO PUMP.
Event	25	End Job	9/25/2015	20:50:00	USER					PIPE WAS STATIC DURING JOB, GOOD CIRCULATION THROUGHOUT JOB. HES RETURNED 25 BBLS TUNED SPACER TO SURFACE.
Event	26	Pre-Rig Down Safety Meeting	9/25/2015	20:57:00	USER					WITH ALL HES PERSONNEL
Event	27	Rig-Down Equipment	9/25/2015	21:00:00	USER					
Event	28	Pre-Convoy Safety	9/25/2015	21:50:00	USER					WITH ALL HES PERSONNEL

Meeting					
Event	29	Crew Leave Location	9/25/2015	22:00:00	USER
Event	30	Comment	9/25/2015	22:01:00	USER
THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT, JESSE SLAUGHTER AND CREW					

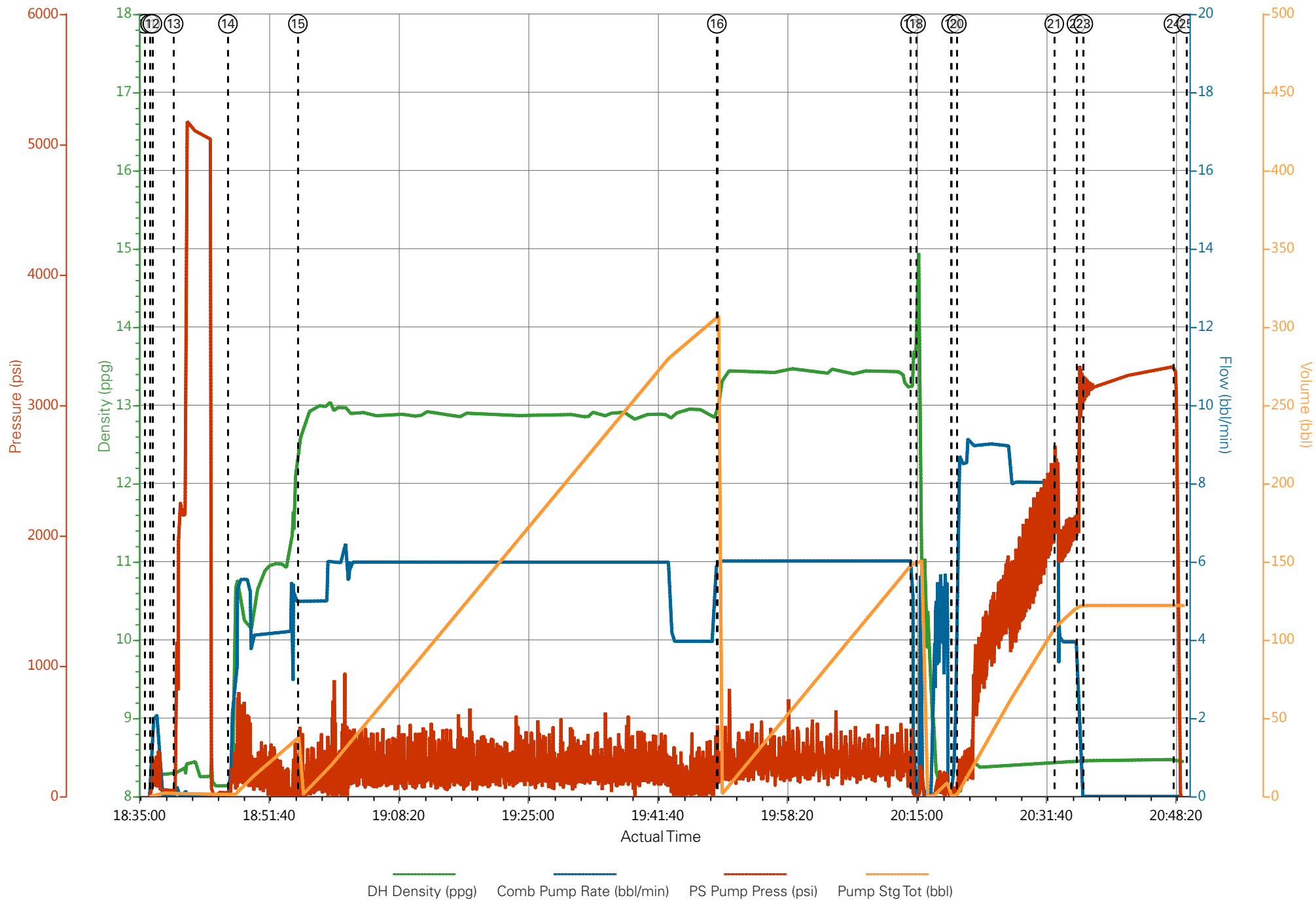
# PICEANCE ENERGY - PICEANCE 28-04W - PRODUCTION



DH Density (ppg) Comb Pump Rate (bbl/min) PS Pump Press (psi) Pump Stg Tot (bbl)

- ① Call Out
- ② Pre-Convoy Safety Meeting
- ③ Crew Leave Yard
- ④ Arrive At Loc
- ⑤ Assessment Of Location Safety Meeting
- ⑥ Spot Equipment
- ⑦ Pre-Rig Up Safety Meeting
- ⑧ Rig-Up Equipment
- ⑨ Pre-Job Safety Meeting
- ⑩ Start Job
- ⑪ Prime Pumps
- ⑫ Drop Bottom Plug
- ⑬ Test Lines
- ⑭ Pump Tuned Space

# PICEANCE ENERGY - PICEANCE 28-04W - PRODUCTION





# HALLIBURTON

## Water Analysis Report

Company: PICEANCE ENERGY

Submitted by: JESSE SLAUGHTER

Attention: LAB

Lease PICEANCE

Well # 28-04W

Date: 9/25/2015

Date Rec.:

S.O.# 902771584

Job Type: PRODUCTION

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>6</b>
Potassium (K)	<i>5000</i>	<b>250</b> Mg / L
Calcium (Ca)	<i>500</i>	<b>120</b> Mg / L
Iron (FE2)	<i>300</i>	<b>0</b> Mg / L
Chlorides (Cl)	<i>3000</i>	<b>0</b> Mg / L
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>UNDER 200</b> Mg / L
Chlorine (Cl <sub>2</sub> )		<b>0</b> Mg / L
Temp	<i>40-80</i>	<b>60</b> Deg
Total Dissolved Solids		<b>200</b> Mg / L

Respectfully: JESSE SLAUGHTER

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