

PICEANCE ENERGY LLC - EBUS

Piceance 28-03M

Patterson 306

Post Job Summary

Cement Production Casing

Date Prepared: 09/02/2015

Job Date: 08/2/2015

Submitted by: Aaron Katz – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 344919	Ship To #: 3673010	Quote #:	Sales Order #: 0902690689
Customer: PICEANCE ENERGY LLC - EBUS	Customer Rep:		
Well Name: PICEANCE FED	Well #: 28-03M	API/UWI #: 05-077-10241-00	
Field: VEGA	City (SAP): COLLBRAN	County/Parish: MESA	State: COLORADO
Legal Description: SW NW-28-9S-93W-1566FNL-1204FWL			
Contractor: PATTERSON-UTI ENERGY	Rig/Platform Name/Num: PATTERSON 306		
Job BOM: 7523			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HX41066	Srvs Supervisor: Steven Wardell		

Job

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	8142ft Job Depth TVD
Water Depth	Wk Ht Above Floor 3 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	1582		0
Casing		4.5	4	11.6			0	8142		0
Open Hole Section			8.875				1600	8152	0	0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	4.5			8142	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		
Insert Float	4.5				Plug Container	4.5	1	HES
Stage Tool	4.5				Centralizers	4.5		

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	4.0	
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	950	sack	12.8	1.75		7	8.5
0.25 lbm		POLY-E-FLAKE (101216940)							
6 lbm		KOL-SEAL, BULK (100064233)							
8.53 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	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	124.8	bbl	8.34			7	
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
Mix Water:		pH ##	Mix Water Chloride: ## ppm			Mix Water Temperature: ## °F °C			
Cement Temperature: ## °F °C		Plug Displaced by: ## lb/gal kg/m3 XXXX				Disp. Temperature: ## °F °C			
Plug Bumped? Yes/No		Bump Pressure: ##### psi MPa				Floats Held? Yes/No			
Cement Returns: ## bbl m3		Returns Density: ## lb/gal kg/m3				Returns Temperature: ## °F °C			
Comment									

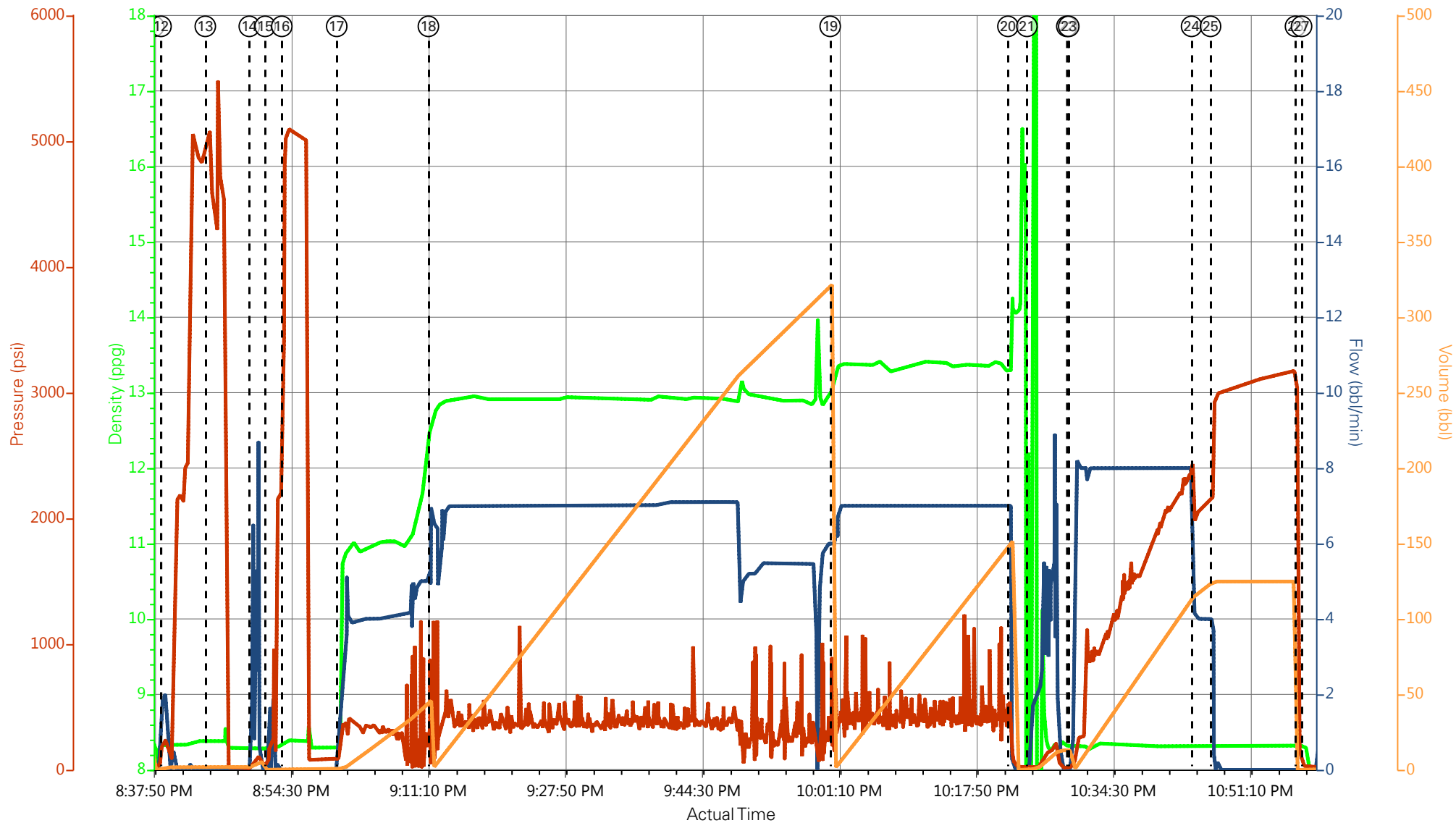
1.0 Real-Time Job Summary

1.1 Job Event Log

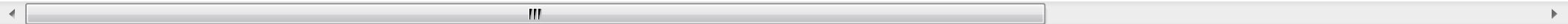
Type	Seq. No.	Graph Label	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pump Stage Total (bbl)	Recirc Density (ppg)	Comments
Event	1	Call Out	8/26/2015	13:00:00	USER						
Event	2	Pre-Convoy Safety Meeting	8/26/2015	15:45:00	USER						WITH ALL HES PERSONNEL
Event	3	Crew Leave Yard	8/26/2015	16:00:00	USER						
Event	4	Arrive At Loc	8/26/2015	17:20:00	USER						RIG WAS RUNNNING CASING UPON HES ARRIVAL
Event	5	Assessment Of Location Safety Meeting	8/26/2015	17:30:00	USER						WITH ALL HES PERSONNEL
Event	6	Spot Equipment	8/26/2015	17:40:00	USER						1 PUMP, 2 BULK TRUCKS
Event	7	Pre-Rig Up Safety Meeting	8/26/2015	17:50:00	USER						WITH ALL HES PERSONNEL
Event	8	Rig-Up Equipment	8/26/2015	18:00:00	USER						
Event	9	Pre-Job Safety Meeting	8/26/2015	18:31:01	USER						WITH ALL PERSONNEL
Event	10	Start Job	8/26/2015	20:37:22	COM5						TD 8152 FT, TP 8142 FT, SJ 90 FT, SFC CSG 8 5/8 IN 24 LB/FT SET AT 1582 FT, CSG 4 1/2 IN 11.6 LB/FT I-80 LT&C, OH 7 7/8 IN, MUD 9.4 PPG.
Event	11	Prime Lines	8/26/2015	20:38:07	COM5	248.0	8.4	2.0	2.0		FRESH WATER
Event	12	Drop Bottom Plug	8/26/2015	20:39:00	USER						PLUG LAUNCHED
Event	13	Test Lines	8/26/2015	20:44:23	COM5						TESTED LINES, PRESSURE NOT HOLDING DUE TO RELEASE LINE LEAK. CHANGED 1 IN VALVE.
Event	14	Prime Pumps	8/26/2015	20:49:44	USER						
Event	15	Prime Lines	8/26/2015	20:51:39	COM5	250.0	8.4	2.0	1.0		FRESH WATER

Event	16	Test Lines	8/26/2015	20:53:41	COM5	5106.0				TESTED LINES TO 5106 PSI, PRESSURE HOLDING
Event	17	Pump Tuned Spacer	8/26/2015	21:00:22	COM5	300.0	11.0	4.0	40.0	11.0 PPG, 4.55 FT3/SK, 30.0 GAL/SK
Event	18	Pump Lead Cement	8/26/2015	21:11:31	COM5	350.0	12.8	7.0	296.1	12.8 PPG, 1.75 FT3/SK, 8.5 GAL/SK
Event	19	Pump Tail Cement	8/26/2015	22:00:23	COM5	420.0	13.3	7.0	139.0	13.3 PPG, 1.89 FT3/SK, 8.66 GAL/SK
Event	20	Shutdown	8/26/2015	22:22:00	USER					
Event	21	Clean Lines	8/26/2015	22:24:19	USER					CLEANED PUMPS AND LINES TO CELLAR
Event	22	Drop Top Plug	8/26/2015	22:29:10	COM5					PLUG LAUNCHED
Event	23	Pump Displacement	8/26/2015	22:29:24	COM5	2315.0	8.4	7.0	124.8	FRESH WATER, 5 GAL CLA-WEB, 1 GAL MMCR. HES RETURNED 40 BBLS TUNED SPACER AND 35 BBLS LEAD CEMENT TO SURFACE.
Event	24	Slow Rate	8/26/2015	22:44:20	USER	2103.0	8.4	4.0	114.8	SLOWED RATE 10 BBLS PRIOR TO CALCULATED DISPLACEMENT
Event	25	Bump Plug	8/26/2015	22:46:39	COM5	3080.0	8.4			CASING TEST TO 3000 PSI FOR 10 MINUTES
Event	26	Check Floats	8/26/2015	22:56:59	USER	3200.0	8.40			FLOATS HOLDING, HES RETURNED 1 1/2 BBLS BACK TO PUMP
Event	27	End Job	8/26/2015	22:57:43	COM5					PIPE WAS STATIC THROUGHOUT JOB, HAD GOOD RETURNS DURING JOB. HES USED 40 LBS SUGAR.
Event	28	Pre-Rig Down Safety Meeting	8/26/2015	23:15:00	USER					WITH ALL HES PERSONNEL
Event	29	Rig-Down Equipment	8/26/2015	23:30:00	USER					
Event	30	Pre-Convoy Safety Meeting	8/27/2015	00:45:00	USER					WITH ALL HES PERSONNEL
Event	31	Crew Leave Location	8/27/2015	01:00:00	USER					
Event	32	Comment	8/27/2015	01:10:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENT DEPARTMENT, STEVEN WARDELL AND CREW.

PICEANCE ENERGY PICEANCE FED 28-03M PRODUCTION 902690689



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|-----------------------------|---|-----------------------------|--------------------|---------------|---------------------|--------------------|-------|
| ① Call Out | ④ Arrive At Loc | ⑦ Pre-Rig Up Safety Meeting | ⑩ Start Job | ⑬ Test Lines | ⑯ Test Lines | ⑲ Pump Tail Cement | 22 Dr |
| ② Pre-Convoy Safety Meeting | ⑤ Assessment Of Location Safety Meeting | ⑧ Rig-Up Equipment | ⑪ Prime Lines | ⑭ Prime Pumps | ⑰ Pump Tuned Spacer | 20 Shutdown | 23 Pu |
| ③ Crew Leave Yard | ⑥ Spot Equipment | ⑨ Pre-Job Safety Meeting | ⑫ Drop Bottom Plug | ⑮ Prime Lines | ⑱ Pump Lead Cement | 21 Clean Lines | 24 Sl |



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Created: 2015-08-26 14:44:06, Version: 4.1.107

Edit

Customer: PICEANCE ENERGY LLC - EBUS

Job Date: 8/26/2015 7:02:55 PM

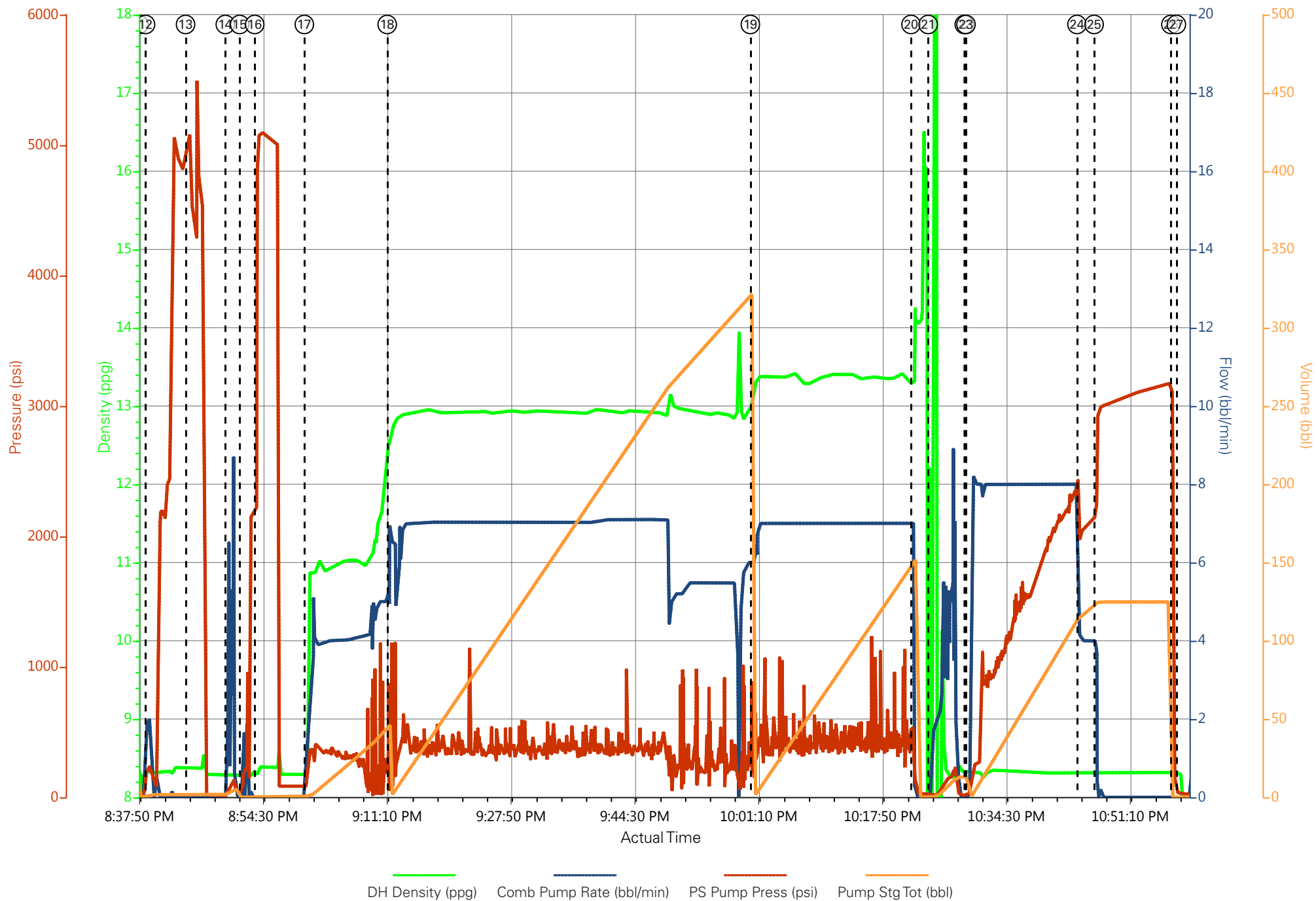
Well: PICEANCE FED 28-03M

Representative: ROGER FOSTER

Sales Order #: 902690689

ELITE #1: WARDELL / BRENNECKE

PICEANCE ENERGY PICEANCE FED 28-03M PRODUCTION 902690689



Sales Order #: 0902690689	Line Item: 10	Survey Conducted Date: 8/27/2015
Customer: PICEANCE ENERGY LLC - EBUS		Job Type (BOM): CMT PRODUCTION CASING BOM
Customer Representative: ROGER FOSTER		API / UWI: (leave blank if unknown) 05-077-10241-00
Well Name: PICEANCE FED		Well Number: 0080734135
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	8/27/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	H127209
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	ROGER FOSTER
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

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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	8/27/2015

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	6
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

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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	95
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	95
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