

PICEANCE ENERGY LLC - EBUS

Piceance 28-09W

Patterson 306

Post Job Summary

Cement Production Casing

Date Prepared: 08/17/2015

Job Date: 08/06/2015

Submitted by: Aaron Katz – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 344919		Ship To #: 3123921		Quote #:		Sales Order #: 0902637064					
Customer: PICEANCE ENERGY LLC - EBUS				Customer Rep: Roger Foster							
Well Name: PICEANCE		Well #: 28-09W		API/UWI #: 05-077-09777-00							
Field: VEGA		City (SAP): COLLBRAN		County/Parish: MESA		State: COLORADO					
Legal Description: SW NW-28-9S-93W-1597FNL-1230FWL											
Contractor: PATTERSON-UTI ENERGY				Rig/Platform Name/Num: PATTERSON 306							
Job BOM: 7523											
Well Type: DIRECTIONAL GAS											
Sales Person: HALAMERICA\HX41066				Srvc Supervisor: Carlton Kukus							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		7834ft		Job Depth TVD							
Water Depth				Wk Ht Above Floor		5FT					
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	3	8.625	7.921	32			0	1570	0	1570	
Casing	3	4.5	4	11.6	8 RD (LT&C)	I-80	0	7834	0	7834	
Open Hole Section			8.875				1570	7844	1570	7844	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	4.5	1		7834		Top Plug	4.5	1	HES		
Float Shoe	4.5	1				Bottom Plug	4.5	1	HES		
Float Collar	4.5	1		7753.7		SSR plug set	4.5		HES		
Insert Float	4.5					Plug Container	4.5	1	HES		
Stage Tool	4.5					Centralizers	4.5		HES		
Miscellaneous Materials											
Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty	
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size	
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	6	
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	900	sack	12.8	1.75	8.5	8	
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 GJ4	EXPANDACEM (TM) SYSTEM	413	sack	13.3	1.89	8.66	6	
20 %		SS-200 - BULK (102240841)							
0.25 lbm		POLY-E-FLAKE (101216940)							
8.66 Gal		FRESH WATER							
6 lbm		KOL-SEAL, BULK (100064233)							
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	120.2	bbl	8.33			8	
0.01 gal/bbl		MICRO MATRIX CEMENT RETARDER, 1 GAL PAIL (100003780)							
0.05 gal/bbl		CLA-WEB - TOTE (101985045)							
Cement Left In Pipe		Amount	80 ft		Reason			Shoe Joint	
Comment: 40BBLS OF TUNED SPACER AND 5BBLS OF CEMENT BROUGHT TO SURFACE, RIG USED 40 POUNDS OF SUGAR									

1.0 Real-Time Job Summary

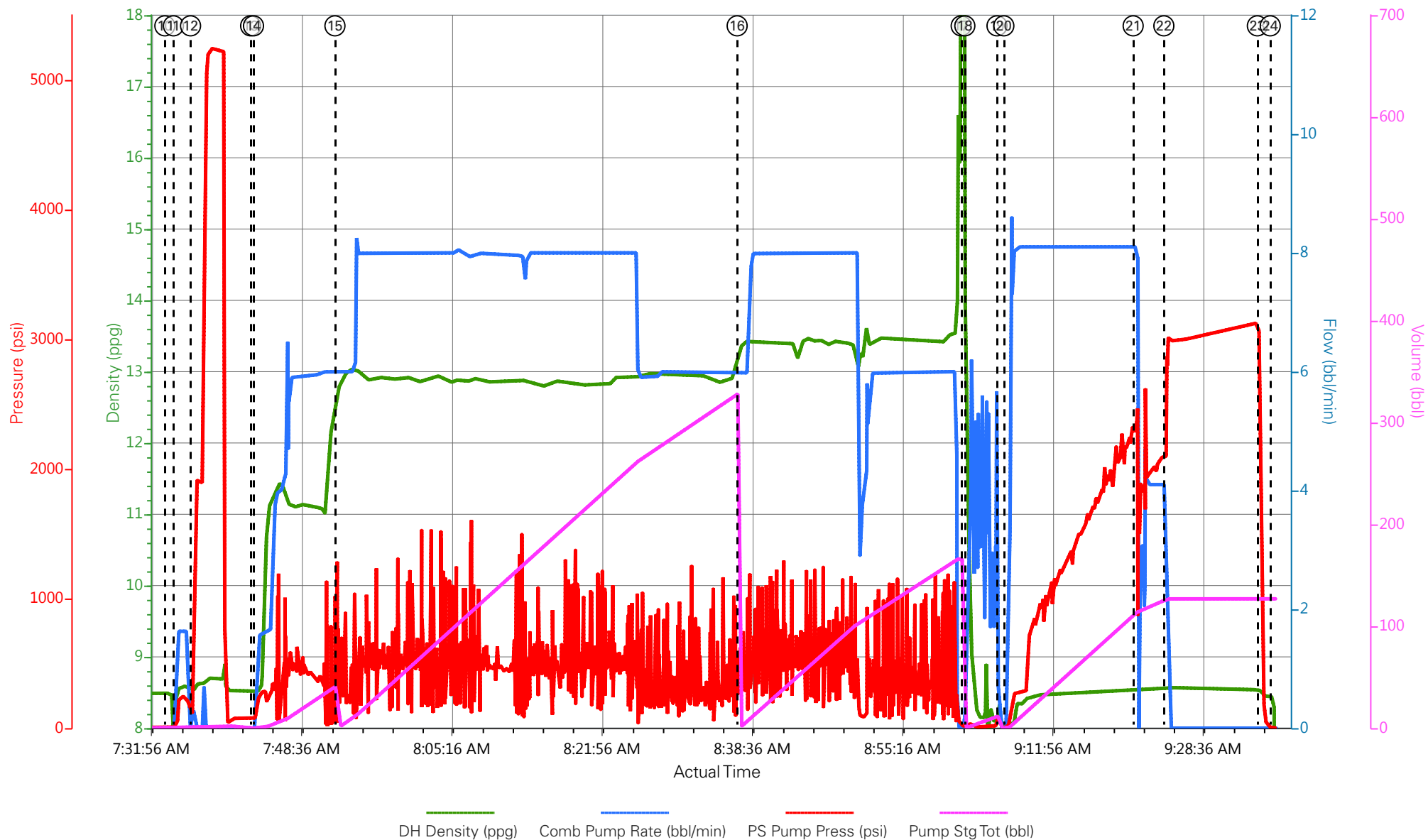
1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	8/5/2015	23:30:00	USER					ALL HES CREW
Event	2	Pre-Convoy Safety Meeting	8/6/2015	02:00:00	USER					JOURNEY CREATED, ALL HES INVOLVED IN SAFETY MEETING
Event	3	Crew Leave Yard	8/6/2015	02:30:00	USER					1-F-550 PICKUP, 1-ELITE PUMP TRUCK, 2-660 BULK TRUCKS
Event	4	Arrive At Loc	8/6/2015	04:30:00	USER					HES ARRIVED 1 HOUR EARLY
Event	5	Assessment Of Location Safety Meeting	8/6/2015	04:45:00	USER					RIG WAS RUNNING CASING, HES REP SPOKE WITH COMPANY REP AND SPOTTED EQUIPMENT AND HELD SAFETY MEETING
Event	6	Pre-Rig Up Safety Meeting	8/6/2015	05:00:00	USER					JSA REVIEWED AND SIGNED BY ALL HES
Event	7	Rig-Up Equipment	8/6/2015	05:10:00	USER					RIG UP IRON TO THE STAND PIPE AND WASH UP LINE TO THE CELLAR, WATER HOSES TO UPRIGHT AND DAY TANK, BULK EQUIPMENT TO PUMP TRUCK
Event	8	Rig-Up Completed	8/6/2015	06:10:00	USER					RIG UP COMPLETED
Event	9	Pre-Job Safety Meeting	8/6/2015	06:30:00	USER					ALL HES, RIG CREW AND COMPANY REP INVOLVED IN SAFETY MEETING
Event	10	Start Job	8/6/2015	07:33:45	USER					TD: 7844FT TP: 7834FT SJ: 80.29FT OH: 7 7/8 CSG: 4.5 11.6# I-80 SRF CSG SET AT: 1570FT 8.625 24# J-55 MUD WT: 9.4 VISC:38, RIG TO CIRCULATE 2 HOURS PRIOR TO CEMENT JOB
Event	11	Fill Lines	8/6/2015	07:34:42	USER	8.34	2	228	2	FILL LINES TO PRESSURE TEST
Event	12	Pressure Test	8/6/2015	07:36:36	USER	8.34		5248		PRESSURE TEST TO 5000 PSI, PRESSURE TEST OK
Event	13	Drop Bottom Plug	8/6/2015	07:43:15	USER					BOTTOM PLUG AWAY NO PROBLEMS
Event	14	Tuned Spacer	8/6/2015	07:43:34	USER	11	6	320	40	40 BBLS OF TUNED SPACER 11PPG 4.5YIELD 30GAL/SK

										WEIGHT OF TUNED SPACER VERIFIED VIA MUD SCALES THROUGHOUT TUNED SPACER
Event	15	Pump Lead Cement	8/6/2015	07:52:36	USER	12.8	8	430	280.5	900SKS OF VERSACEM CEMENT 12.8PPG 1.75YIELD 8.5GAL/SK WEIGHT OF CEMENT VERIFIED VIA MUD SCALES THROUGHOUT LEAD CEMENT
Event	16	Pump Tail Cement	8/6/2015	08:37:13	USER	13.3	6	480	139	413SKS OF EXPANDACEM CEMENT 13.3PPG 1.89YIELD 8.66GAL/SK WEIGHT OF CEMENT VERIFIED VIA MUD SCALES THROUGHOUT TAIL CEMENT
Event	17	Shutdown	8/6/2015	09:02:05	USER	13.3	6	197	139	SHUTDOWN END OF CEMENT, WAS LINES TO THE CELLAR
Event	18	Clean Lines	8/6/2015	09:02:29	USER					CLEAN LINES TO THE CELLAR
Event	19	Drop Top Plug	8/6/2015	09:06:03	USER					PLUG AWAY NO PROBLEMS, COMPANY REP WITNESSED THE PLUG DROPPING
Event	20	Pump Displacement	8/6/2015	09:06:48	USER	8.34	8	2300	110	FRESH WATER DISPLACEMENT WITH 5GAL CLA WEB AND 1GAL MMCR ADDED TO THE 120.2 BBLS OF DISPLACEMENT
Event	21	Slow Rate	8/6/2015	09:21:09	USER	8.34	4	1900	10	SLOW RATE TO 4BBLS/MIN TO BUMP THE PLUG
Event	22	Bump Plug	8/6/2015	09:24:33	USER	8.45	4	2105	120.2	BUMPED PLUG AT 2105 PSI, TOOK TO 3000 PSI FOR 10 MINUTE CASING TEST
Event	23	Check Floats	8/6/2015	09:34:56	USER	8.45		3123		FLOATS HELD 1 BBL BACK TO TANKS
Event	24	End Job	8/6/2015	09:36:21	USER					40 BBLS OF TUNED SPACER AND 5 BBLS OF CEMENT BROUGHT TO SURFACE, THERE WERE GOOD RETURNS THROUGHOUT CEMENT JOB, RIG USED 40 POUNDS OF SUGAR
Event	25	Pre-Rig Down Safety Meeting	8/6/2015	09:40:00	USER					JSA REVIEWED ALL HES INVOLVED IN SAFETY MEETING
Event	26	Rig-Down Equipment	8/6/2015	09:45:00	USER					WASH UP AND BLOW DOWN PUMP TRUCK, RIG DOWN ALL LINES AND EQUIPMENT AND RACK UP ALL IRON AND WATER HOSES AND SECURE
Event	27	Rig-Down Completed	8/6/2015	10:45:00	USER					ALL LINES AND EQUIPMENT RIGGED DOWN AND SECURED
Event	28	Pre-Convoy Safety	8/6/2015	10:50:00	USER					JOURNEY CREATED ALL HES INVOLVED IN SAFETY

Meeting						MEETING
Event	29	Crew Leave Location	8/6/2015	11:00:00	USER	1-F-550 PICKUP, 1-ELITE PUMP TRUCK, 2-660 BULK TRUCKS
Event	30	Other	8/6/2015	11:01:00	USER	THANK YOU FOR CHOOSING HALLIBURTON CEMENT CARL KUKUS AND CREW

PICEANCE ENERGY/PICEANCE 28-09W/PRODUCTION/902637064



- | | | | | |
|---|---|--|------------------------------------|--------------------|
| ① Call Out n/a;n/a;n/a;n/a | ⑤ Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a | ⑨ Pre-Job Safety Meeting n/a;n/a;n/a;n/a | ⑬ Drop Bottom Plug 8.51;0;79;0 | ⑰ Shutdown 16.0 |
| ② Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a | ⑥ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a | ⑩ Start Job 8.49;0;5;0 | ⑭ Tuned Spacer 8.5;0;77;0 | ⑱ Clean Lines 11.0 |
| ③ Crew Leave Yard n/a;n/a;n/a;n/a | ⑦ Rig-Up Equipment n/a;n/a;n/a;n/a | ⑪ Fill Lines 8.54;1.7;35;0 | ⑮ Pump Lead Cement 12.78;6;278;0.5 | ⑲ Drop Top Plug |
| ④ Arrive At Loc n/a;n/a;n/a;n/a | ⑧ Rig-Up Completed n/a;n/a;n/a;n/a | ⑫ Pressure Test 8.58;0;1916;1.9 | ⑯ Pump Tail Cement 13.34;6;432;1.4 | ⑳ Pump Displace |

▼ **HALLIBURTON** | iCem® Service

Created: 2015-08-06 05:16:49, Version: 4.1.107

Edit

Customer : PICEANCE ENERGY LLC - EBUS

Job Date : 8/6/2015 7:16:29 AM

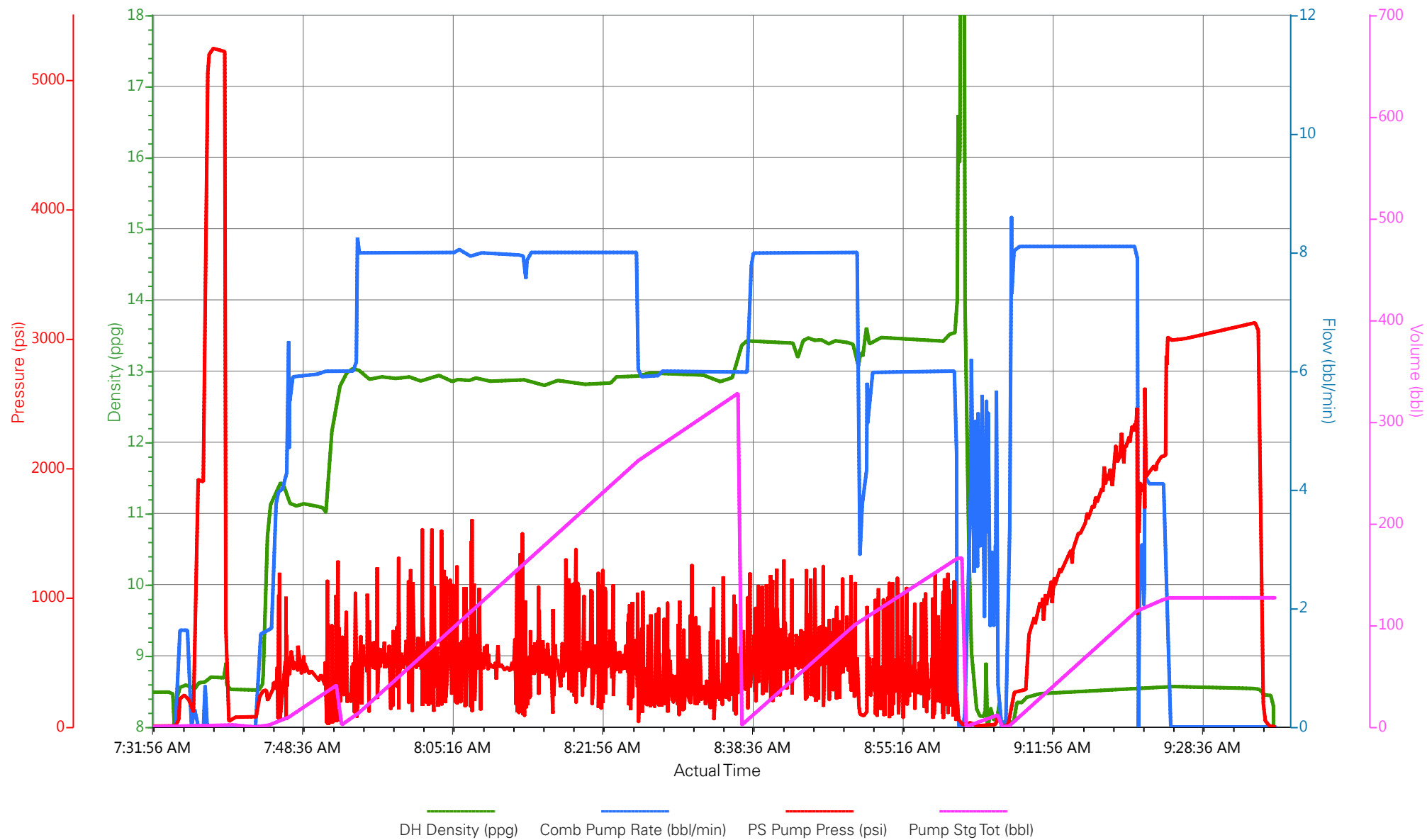
Well : PICEANCE 28-09W

Representative : Roger Foster

Sales Order # : 902637064

Supervisor/Operator : Carlton Kukus/Taylor Moreland E-8

PICEANCE ENERGY/PICEANCE 28-09W/PRODUCTION/902637064



HALLIBURTON

Water Analysis Report

Company: Piceance Energy
Submitted by: Carlton Kukus
Attention: J.Trout
Lease: Piceance
Well #: 28-09W

Date: 8/6/2015
Date Rec.: 8/6/2015
S.O.#: 902637064
Job Type: PRODUCTION

Specific Gravity	<i>MAX</i>	<i>1</i>
pH	<i>8</i>	<i>7</i>
Potassium (K)	<i>5000</i>	<i>200</i> Mg / L
Calcium (Ca)	<i>500</i>	<i>120</i> Mg / L
Iron (FE2)	<i>300</i>	<i>3</i> Mg / L
Chlorides (Cl)	<i>3000</i>	<i>0</i> Mg / L
Sulfates (SO ₄)	<i>1500</i>	<i>200</i> Mg / L
Chlorine (Cl ₂)		<i>0</i> Mg / L
Temp	<i>40-80</i>	<i>67</i> Deg
Total Dissolved Solids		<i>250</i> Mg / L

Respectfully: Carlton Kukus

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 i

Sales Order #: 0902637064	Line Item: 10	Survey Conducted Date: 8/6/2015
Customer: PICEANCE ENERGY LLC - EBUS		Job Type (BOM): CMT PRODUCTION CASING BOM
Customer Representative: ROGER FOSTER		API / UWI: (leave blank if unknown) 05-077-09777-00
Well Name: PICEANCE		Well Number: 0080127657
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. Our 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, as possible to ensure we constantly improve our service. Your comments are of great value 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	8/6/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB44726
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

Sales Order #: 0902637064	Line Item: 10	Survey Conducted Date: 8/6/2015
Customer: PICEANCE ENERGY LLC - EBUS		Job Type (BOM): CMT PRODUCTION CASING BOM
Customer Representative: ROGER FOSTER		API / UWI: (leave blank if unknown) 05-077-09777-00
Well Name: PICEANCE		Well Number: 0080127657
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	8/6/2015

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.	Vertical
Total Operating Time (hours) Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	6
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.	3
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

Sales Order #: 0902637064	Line Item: 10	Survey Conducted Date: 8/6/2015
Customer: PICEANCE ENERGY LLC - EBUS		Job Type (BOM): CMT PRODUCTION CASING BOM
Customer Representative: ROGER FOSTER		API / UWI: (leave blank if unknown) 05-077-09777-00
Well Name: PICEANCE		Well Number: 0080127657
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	90
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