

PICEANCE ENERGY LLC - EBUS

Gunderson 29-14E

Patterson 306

Post Job Summary

Cement Production Casing

Date Prepared: 05/14/2015

Job Date: 05/04/2015

Submitted by: Aaron Katz – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 344919	Ship To #: 3624343	Quote #:	Sales Order #: 0902383554
Customer: PICEANCE ENERGY LLC - EBUS	Customer Rep: ROGER FOSTER		
Well Name: GUNDERSON	Well #: 29-14E	API/UWI #: 05-077-10230-00	
Field: BUZZARD CREEK	City (SAP): COLLBRAN	County/Parish: MESA	State: COLORADO
Legal Description: SE NE-29-9S-93W-2407FNL-1168FEL			
Contractor: PATTERSON-UTI ENERGY	Rig/Platform Name/Num: PATTERSON 306		
Job BOM: 7523			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB47901	Srvc Supervisor: David Campbell		

Job

Formation Name	
Formation Depth (MD)	Top
Form Type	BHST
Job depth MD	7815ft
Water Depth	
Perforation Depth (MD)	From

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	1538		0
Casing		4.5	4	11.6			0	7805		7211
Open Hole Section			7.875				1538	7815	0	7211

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	4.5	1		7805	Top Plug	4.5	1	HES
Float Shoe	4.5				Bottom Plug	4.5	1	HES
Float Collar	4.5	1		7715.3	SSR plug set	4.5		
Insert Float	4.5				Plug Container	4.5	1	HES
Stage Tool	4.5				Centralizers	4.5		

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		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 ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	VersaCem	VERSACEM (TM) SYSTEM	800	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 ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	ExpandaCem	EXPANDACEM (TM) SYSTEM	413	sack	13.3	1.89		8	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 ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	Displacement	Displacement	119.5	bbl	8.34			10,2	
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:		7.5	Mix Water Chloride:		0 ppm		Mix Water Temperature:		55°F
Cement Temperature:			Plug Displaced by:		8.4 PPG		Disp. Temperature:		55 °F
Plug Bumped?		Yes	Bump Pressure:		2550 PSI		Floats Held?		Yes
Cement Returns:			Returns Density:				Returns Temperature:		
Comment									

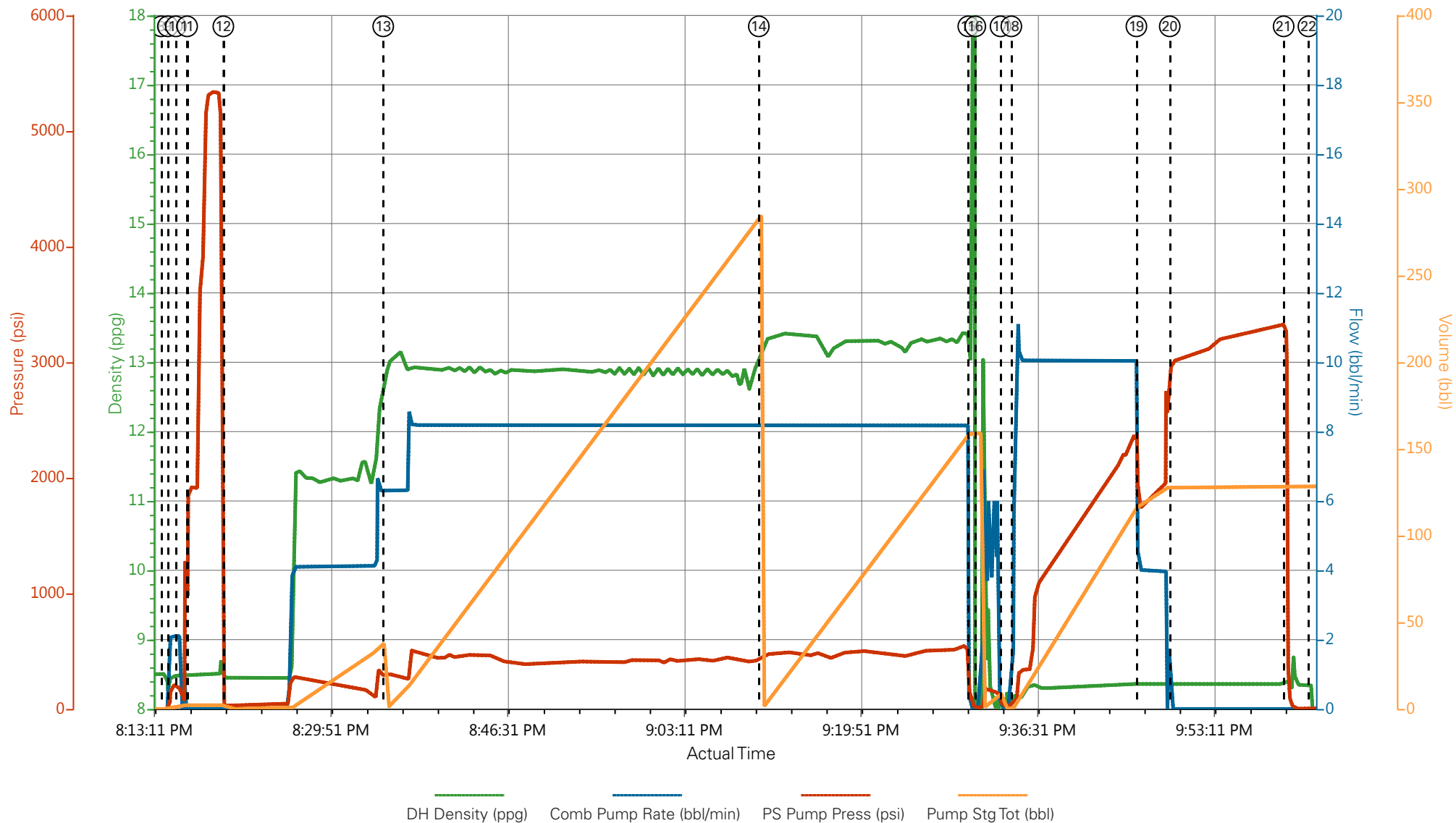
1.0 Real-Time Job Summary

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	5/4/2015	14:00:00	USER					ELITE # 4
Event	2	Pre-Convoy Safety Meeting	5/4/2015	16:30:00	USER					ALL HES EMPLOYEES
Event	3	Arrive At Loc	5/4/2015	18:00:00	USER					ARRIVED ON LOCATION 2 HRS EARLY DID NOT START CHARGING HOURS UNTIL REQUESTED ON LOCATION TIME
Event	4	Assessment Of Location Safety Meeting	5/4/2015	18:15:00	USER					ALL HES EMPLOYEES
Event	5	Pre-Rig Up Safety Meeting	5/4/2015	18:30:00	USER					ALL HES EMPLOYEES
Event	6	Rig-Up Equipment	5/4/2015	18:45:00	USER					1 HT-400 PUMP TRUCK (ELITE #4) 2 660 BULK TRUCKS 1 F-550 PICKUP 1 SILO
Event	7	Pre-Job Safety Meeting	5/4/2015	19:30:00	USER					ALL HES EMPLOYEES AND RIG CREW
Event	8	Start Job	5/4/2015	20:14:07	COM5					TD:7815 TP: 7805 TVD: 7211 CSG: 4 1/2 11.6# L-80 SJ: 89.7 OH: 7 7/8 MUD WEIGHT: 9.4 PPG SURFACE CSG: 9 5/8 24# SET @ 1538
Event	9	Fill Lines	5/4/2015	20:14:45	COM5	8.33	2.0	229.0	2.0	FILL LINES WITH 2 BBL FRESH WATER
Event	10	Drop Bottom Plug	5/4/2015	20:15:30	USER					PLUG AWAY NO PROBLEMS
Event	11	Test Lines	5/4/2015	20:16:34	COM5	8.33	2.0	5341.0	2.0	PRESSURE TEST OK
Event	12	Tuned Spacer III	5/4/2015	20:19:59	COM5	11.0	4.0	250.0	4.0	40 BBL 11 PPG 4.55 YIELD 30 GAL/SK TUNED SPACER III WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES
Event	13	Pump Lead Cement	5/4/2015	20:35:04	COM5	12.80	8.0	470.0	249.3	800 SKS 12.8 PPG 1.75 YIELD 8.5 GAL/SK LEAD CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES
Event	14	Pump Tail Cement	5/4/2015	21:10:30	COM5	13.30	8.0	513.0	139.0	413 SKS 13.3 PPG 1.89 YIELD 8.66 GAL/SK TAIL CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES

Event	15	Shutdown	5/4/2015	21:30:15	USER					
Event	16	Clean Lines	5/4/2015	21:30:55	USER					CLEAN LINES TO CELLAR
Event	17	Pump Displacement	5/4/2015	21:33:18	COM5	8.4	10.0	2240.0	119.5	FRESH WATER DISPLACEMENT 5 GAL CLA-WEB 1 GAL MMCR
Event	18	Drop Top Plug	5/4/2015	21:34:19	USER					PLUG AWAY NO PROBLEMS
Event	19	Slow Rate	5/4/2015	21:46:07	USER	8.4	4.00	1739.00	109.5	SLOW RATE TO BUMP PLUG
Event	20	Bump Plug	5/4/2015	21:49:16	COM5	8.4	4.0	2250.0	119.5	PRESSURE AT 2550 BEFORE BUMPING PLUG BUMPED PLUG UP TO 3326 PSI HELD FOR 10 MIN CASING TEST AS PER COMPANY REP.
Event	21	Check Floats	5/4/2015	22:00:00	USER					FLOATS HELD 2 1/2 BBL RETURNED TO TRUCKS DISPLACEMENT TANK
Event	22	End Job	5/4/2015	22:02:21	COM5					GOOD RETURNS THROUGHOUT JOB PIPE WAS STATIC THROUGHOUT JOB CIRCULATED 10 BBLS OF TUNED SPACER III TO SURFACE
Event	23	Pre-Rig Down Safety Meeting	5/4/2015	22:30:00	USER					ALL HES EMPLOYEES
Event	24	Rig-Down Equipment	5/4/2015	22:45:00	USER					
Event	25	Pre-Convoy Safety Meeting	5/4/2015	23:00:00	USER					ALL HES EMPLOYEES
Event	26	Crew Leave Location	5/4/2015	23:30:00	USER					THANKS FOR USING HALLIBURTON CEMENT DAVID CAMPBELL AND CREW

PICEANCE ENERGY- GUNDERSON 29-14E- 4 1/2 PRODUCTION



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|---|--------------------------|---------------------|--------------------------------|------------------------------|
| ① Call Out | ⑦ Pre-Job Safety Meeting | ⑬ Pump Lead Cement | ⑲ Slow Rate | 25 Pre-Convoy Safety Meeting |
| ② Pre-Convoy Safety Meeting | ⑧ Start Job | ⑭ Pump Tail Cement | 20 Bump Plug | 26 Crew Leave Location |
| ③ Arrive At Loc | ⑨ Fill Lines | ⑮ Shutdown | 21 Check Floats | |
| ④ Assessment Of Location Safety Meeting | ⑩ Drop Bottom Plug | ⑯ Clean Lines | 22 End Job | |
| ⑤ Pre-Rig Up Safety Meeting | ⑪ Test Lines | ⑰ Pump Displacement | 23 Pre-Rig Down Safety Meeting | |
| ⑥ Rig-Up Equipment | ⑫ Tuned Spacer III | ⑱ Drop Top Plug | 24 Rig-Down Equipment | |

▼ **HALLIBURTON** | iCem® Service

Created: 2015-05-04 15:49:47, Version: 4.1.107

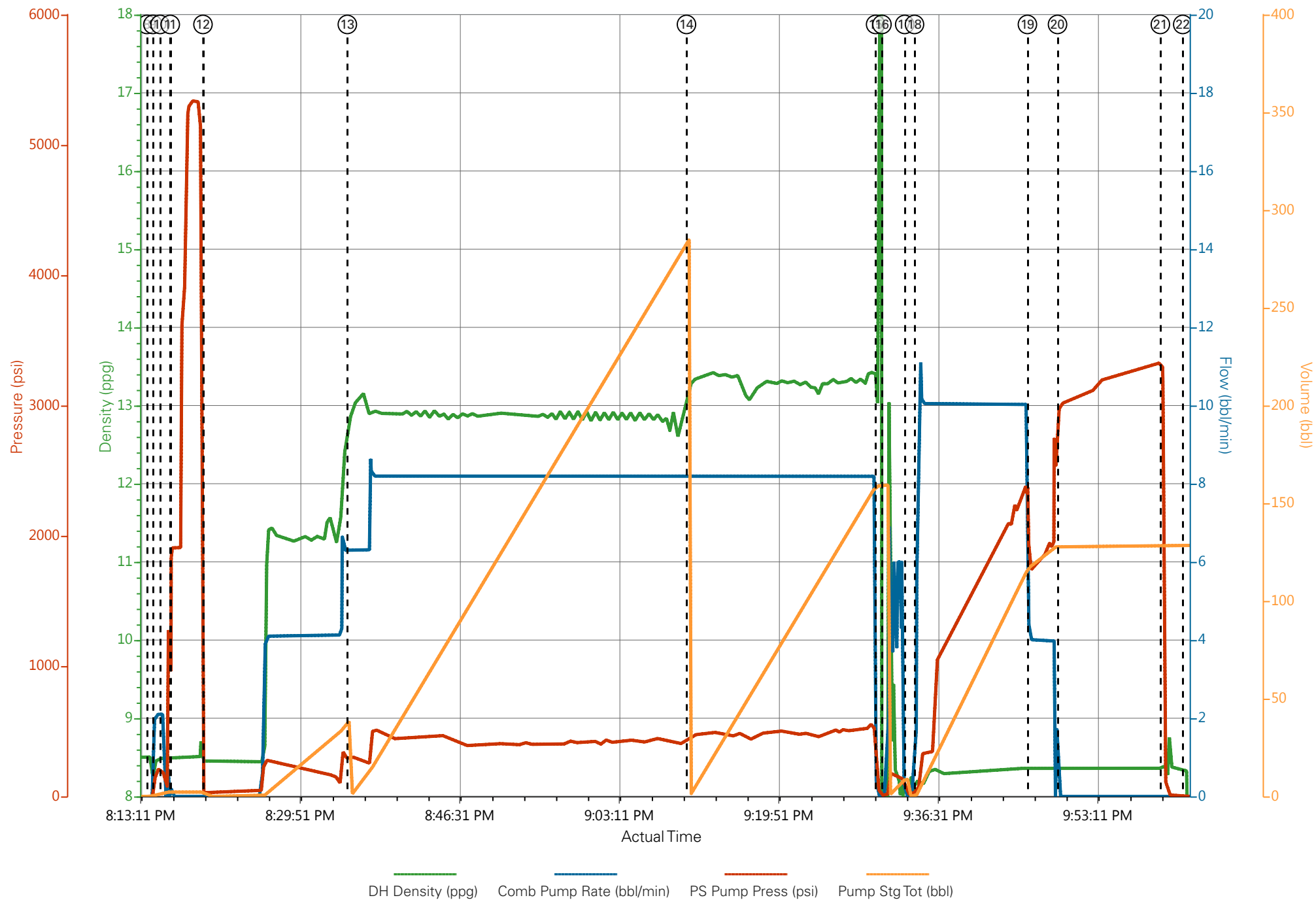
Edit

Customer : PICEANCE ENERGY LLC - EBUS
Representative : ROGER FOSTER

Job Date : 5/4/2015 7:01:20 PM
Sales Order # : 0902383554

Well : GUNDERSON 29-14E
ELITE # 4 : DAVID CAMPBELL/ JUSTIN BROWN

PICEANCE ENERGY- GUNDERSON 29-14E- 4 1/2 PRODUCTION



HALLIBURTON

Water Analysis Report

Company: PICEANCE

Submitted by: DAVID CAMPBELL

Attention: J. TROUT/C.MARTINEZ

Lease GUNDERSON

Well # 29-14E

Date: 5/4/2015

Date Rec.: 5/4/2015

S.O.# 902383554

Job Type: PRODUCTION

Specific Gravity

MAX

1

pH

8

7.5

Potassium (K)

5000

200 Mg / L

Calcium (Ca)

500

150 Mg / L

Iron (FE2)

300

0 Mg / L

Chlorides (Cl)

3000

0 Mg / L

Sulfates (SO₄)

1500

UNDER 200 Mg / L

Chlorine (Cl₂)

0 Mg / L

Temp

40-90

55 Deg

Total Dissolved Solids

130 Mg / L

Respectfully: DAVID CAMPBELL

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

Sales Order #: 0902383554	Line Item: 10	Survey Conducted Date: 5/4/2015
Customer: PICEANCE ENERGY LLC - EBUS		Job Type (BOM): CMT PRODUCTION CASING BOM
Customer Representative: ROGER FOSTER		API / UWI: (leave blank if unknown) 05-077-10230-00
Well Name: GUNDERSON		Well Number: 0080703217
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	5/4/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HX37079
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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KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date The date the survey was conducted	5/4/2015

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.	5
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 Name: GUNDERSON		Well Number: 0080703217
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?	Bottom
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)	Not Available
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	90
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