

PICEANCE ENERGY LLC - EBUS

Piceance 28-03M

Patterson 306

Post Job Summary

Cement Surface Casing

Date Prepared: 08/30/2015

Job Date: 08/23/2015

Submitted by: Aaron Katz – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 344919	Ship To #: 3673010	Quote #:	Sales Order #: 0902687828
Customer: PICEANCE ENERGY LLC - EBUS		Customer Rep: Matt Settles	
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: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HX41066		Srcv Supervisor: Edward Deussen	

Job

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	1582ft Job Depth TVD
Water Depth	Wk Ht Above Floor
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		16	15.25	65			0	60		
Casing		8.625	8.097	24			0	1582		
Open Hole Section			11				60	1592		

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	8.625			1582	Top Plug	8.625	1	HES
Float Shoe	8.625				Bottom Plug	8.625	1	HES
Float Collar	8.625				SSR plug set			
Insert Float					Plug Container	8.625	1	HES
Stage Tool					Centralizers			

Fluid Data

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
Stage/Plug #: 1									
1	Fresh Water	Fresh Water	40	bbl	8.33			4.0	
2	VariCem GJ5	VARICEM (TM) CEMENT	192	sack	12.3	2.46		8.0	14.17
14.12 Gal		FRESH WATER							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
3	VariCem GJ5	VARICEM (TM) CEMENT	120	sack	12.8	2.18		8.0	12.11	
12.11 Gal		FRESH WATER								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
4	Fresh Water Displacement	Fresh Water Displacement	97.8	bbl	8.3			8.0		
Cement Left In Pipe										
Amount		44 ft			Reason			Shoe Joint		
Mix Water:		pH 6.5		Mix Water Chloride:		0 ppm		Mix Water Temperature:		76 °F °C
Plug Bumped?		Yes		Bump Pressure:		467 psi		Floats Held?		Yes
Cement Returns:		25 bbl								
Comment										

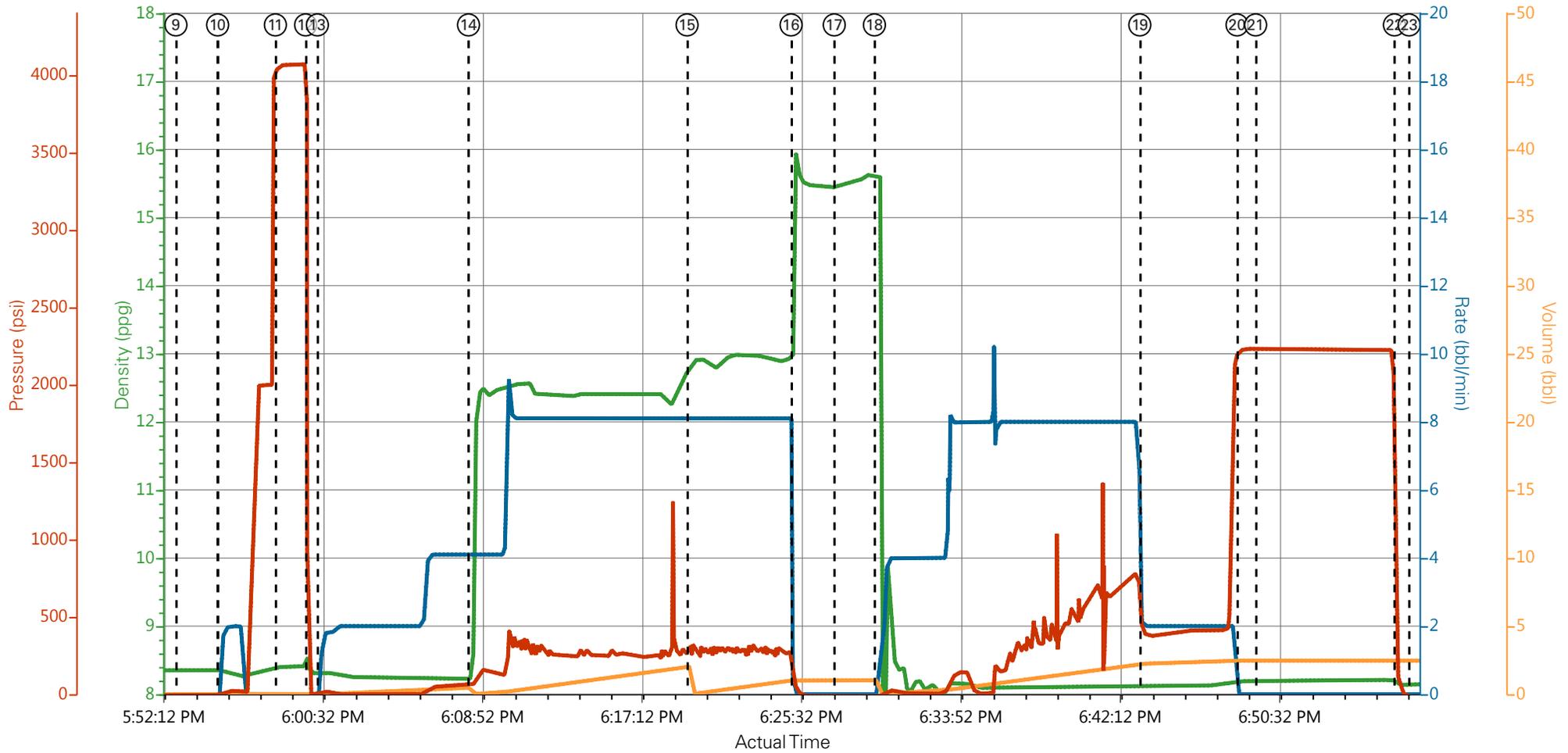
1.0 Real-Time Job Summary

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)	Comments
Event	1	Call Out	8/23/2015	10:00:00	USER					Crew already in field
Event	2	Pre-Convoy Safety Meeting	8/23/2015	12:15:00	USER					
Event	3	Crew Leave Yard	8/23/2015	12:30:00	USER					1 Elite, 1 660, 1 pickup, 1 iron truck
Event	4	Arrive At Loc	8/23/2015	14:00:00	USER					O/L time 1600
Event	5	Assessment Of Location Safety Meeting	8/23/2015	14:15:00	USER					Rig still running casing
Event	6	Pre-Rig Up Safety Meeting	8/23/2015	15:00:00	USER					
Event	7	Rig-Up Equipment	8/23/2015	15:15:00	USER					Hardline to standpipe, water hose to upright, bulk hose to 660
Event	8	Pre-Job Safety Meeting	8/23/2015	16:15:00	USER					All HES personnel, rig crew, and company rep
Event	9	Start Job	8/23/2015	17:53:00	USER					TD 1592', TP 1582', SJ 44.09', mud 9.2, 11" OH, 8 5/8" 24# J55 csg
Event	10	Prime Lines	8/23/2015	17:55:10	COM5	38	8.33	2.0	2.0	
Event	11	Test Lines	8/23/2015	17:58:11	COM5	4084				Pressure held well
Event	12	Drop Bottom Plug	8/23/2015	17:59:46	USER					
Event	13	Pump H2O Spacer	8/23/2015	18:00:23	COM5	72	8.33	4.0	40.0	Fresh Water
Event	14	Pump Lead Cement	8/23/2015	18:08:17	COM5	380	12.3	8.0	84.1	192 sks, 12.3 ppg, 2.46 yield, 14.17 gal/sk
Event	15	Pump Tail Cement	8/23/2015	18:19:43	USER	321	12.8	8.0	46.6	120 sks, 12.8 ppg, 2.18 yield, 12.11 gal/sk
Event	16	Shutdown/Wash Up	8/23/2015	18:25:09	USER					Wash up on top pf plug
Event	17	Drop Top Plug	8/23/2015	18:27:24	USER					Verified by tattletale

Event	18	Pump Displacement	8/23/2015	18:29:30	USER	787	8.33	8.0	97.8	Fresh Water
Event	19	Slow Rate	8/23/2015	18:43:22	USER	410	8.33	2.0	10.0	Good returns throughout job
Event	20	Bump Plug	8/23/2015	18:48:27	USER	467				25 bbls cement to surrface
Event	21	Pressure Up	8/23/2015	18:49:26	USER	2231				Casing pressure test to 2000 psi
Event	22	Check Floats	8/23/2015	18:56:41	USER					Floats held - 1 bbl flowback
Event	23	End Job	8/23/2015	18:57:27	COM5					No derrick charge/no add hours/40 lbs sugar
Event	24	Pre-Rig Down Safety Meeting	8/23/2015	19:15:00	USER					
Event	25	Rig-Down Equipment	8/23/2015	19:30:00	USER					
Event	26	Pre-Convoy Safety Meeting	8/23/2015	20:15:00	USER					
Event	27	Crew Leave Location	8/23/2015	20:30:00	USER					Thank you for using Halliburton – Ed Deussen and crew

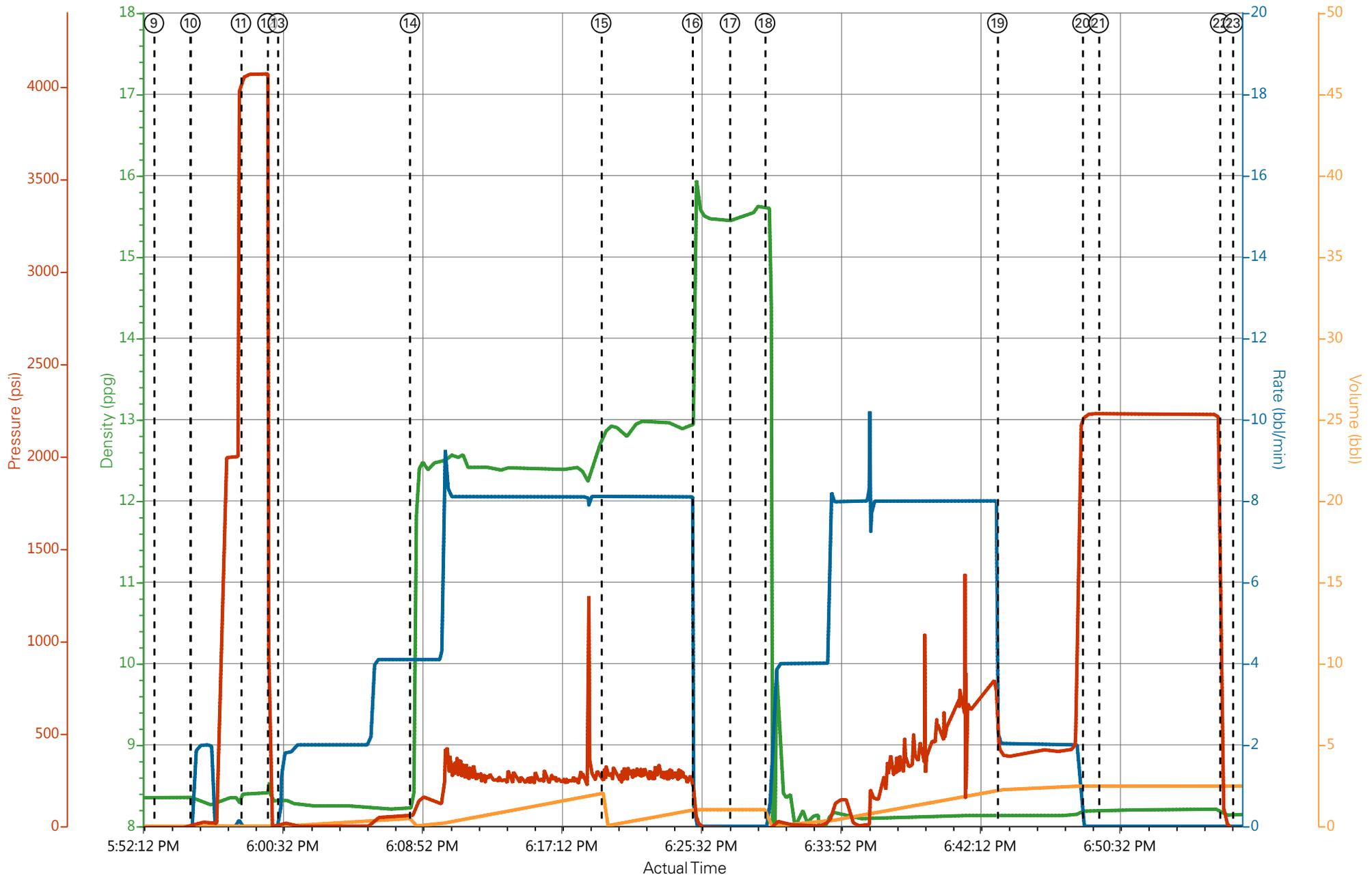
PICEANCE ENERGY - 28-03M - 8 5/8" SURFACE



DH Density (ppg) 8.17 Comb Pump Rate (bbl/min) 0 PS Pump Press (psi) -19.7 Pump Stg Tot (bbl) 0.5

- | | | | |
|---|---|--|--|
| ① Call Out n/a;n/a;n/a;n/a | ⑨ Start Job 8.36;0;-7.7;0 | ⑰ Drop Top Plug 15.45;0;-14.7;1.02 | 25 Rig-Down Equipment n/a;n/a;n/a;n/a |
| ② Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a | ⑩ Prime Lines 8.35;0;7.3;0 | ⑱ Pump Displacement 15.6;0;-14.7;0 | 26 Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a |
| ③ Crew Leave Yard n/a;n/a;n/a;n/a | ⑪ Test Lines 8.4;0;4056.3;0.05 | ⑲ Slow Rate 8.12;2;402.3;2.24 | 27 Crew Leave Location n/a;n/a;n/a;n/a |
| ④ Arrive At Loc n/a;n/a;n/a;n/a | ⑫ Drop Bottom Plug 8.34;0;-2.7;0.05 | 20 Bump Plug 8.19;0;2222.3;2.47 | |
| ⑤ Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a | ⑬ Pump H2O Spacer 8.31;0.5;3.3;0 | 21 Pressure Up 8.19;0;2231.3;2.47 | |
| ⑥ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a | ⑭ Pump Lead Cement 8.27;4.1;61.3;0 | 22 Check Floats 8.14;0;102.3;2.47 | |
| ⑦ Rig-Up Equipment n/a;n/a;n/a;n/a | ⑮ Pump Tail Cement 12.82;8.1;306.3;2.04 | 23 End Job 8.14;0;-18.7;2.47 | |
| ⑧ Pre-Job Safety Meeting n/a;n/a;n/a;n/a | ⑯ Shutdown/Wash Up 15.94;0;67.3;1.02 | 24 Pre-Rig Down Safety Meeting n/a;n/a;n/a;n/a | |

PICEANCE ENERGY - 28-03M - 8 5/8" SURFACE



DH Density (ppg) 8.17 Comb Pump Rate (bbl/min) 0 PS Pump Press (psi) -19.7 Pump Stg Tot (bbl) 0.5

HALLIBURTON

Water Analysis Report

Company: PICEANCE ENERGY

Date: 8/23/2015

Submitted by: ED DEUSSEN

Date Rec.: 8/23/2015

Attention: J.TROUT

S.O.# 902687828

Lease FED

Job Type: SURFACE

Well # 28-03M

Specific Gravity	<i>MAX</i>	1
pH	<i>8</i>	6.5
Potassium (K)	<i>5000</i>	0 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
Temp	<i>40-80</i>	76 Deg
Total Dissolved Solids		290 Mg / L

Respectfully: ED DEUSSEN

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

Sales Order #: 0902687828	Line Item: 10	Survey Conducted Date: 8/24/2015
Customer: PICEANCE ENERGY LLC - EBUS		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: MATT SETTLES		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	8/24/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB57194
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	MATT SETTLES
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	8/24/2015
The date the survey was conducted	

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

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Well Name: PICEANCE FED		Well Number: 0080734135
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)	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	99
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	99
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