

Caerus Oil and Gas LLC

Puckett 34A-1

H&P 330

Post Job Analysis

Cement Surface Casing

Date Prepared: 11/01/2015
Job Date: 10/31/2015

Submitted by: Jenna Cook – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 360446	Ship To #: 3665994	Quote #:	Sales Order #: 0902871795
Customer: CAERUS OIL AND GAS LLC - EBUS		Customer Rep:	
Well Name: PUCKETT	Well #: 34A-1	API/UWI #: 05-045-22856-00	
Field: GRAND VALLEY	City (SAP): PARACHUTE	County/Parish: GARFIELD	State: COLORADO
Legal Description: SE NW-1-7S-97W-2109FNL-1334FWL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 330	
Job BOM: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB80977		Srcv Supervisor: Clifford Sparks	

Job

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	2494ft 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	3	9.625	8.921	36	8 RD (LT&C)	J-55	0	2494	0	2494
Open Hole Section			14.75				0	2540	0	2540

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625			2494	Top Plug	9.625		HES
Float Shoe	9.625				Bottom Plug	9.625		HES
Float Collar	9.625				SSR plug set	9.625		HES
Insert Float	9.625				Plug Container	9.625		HES
Stage Tool	9.625				Centralizers	9.625		HES

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
1	Fresh Water	Fresh Water	0	bbl	8.34			5	
2	Super Flush 101	Super Flush 101	0	bbl	10			5	
	21 gal/bbl	FRESH WATER							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	Water	Water	0	bbl	8.34			5	
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	Lead Cement	VARICEM (TM) CEMENT		sack	11	3.65			23.08
23.08 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
5	Tail Cement	VARICEM (TM) CEMENT		sack	12.8	2.18		5	12.11
12.11 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
6	Displacement	Displacement	0	bbl	8.34			5	
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
7	Super Flush 101	Super Flush 101	0	bbl	10			2	
21 gal/bbl		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
8	Top Out	REVERCEM (TM) CEMENT		sack	12.8	2.12			11.15
11.15 Gal		FRESH WATER							
Cement Left In Pipe	Amount	45 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

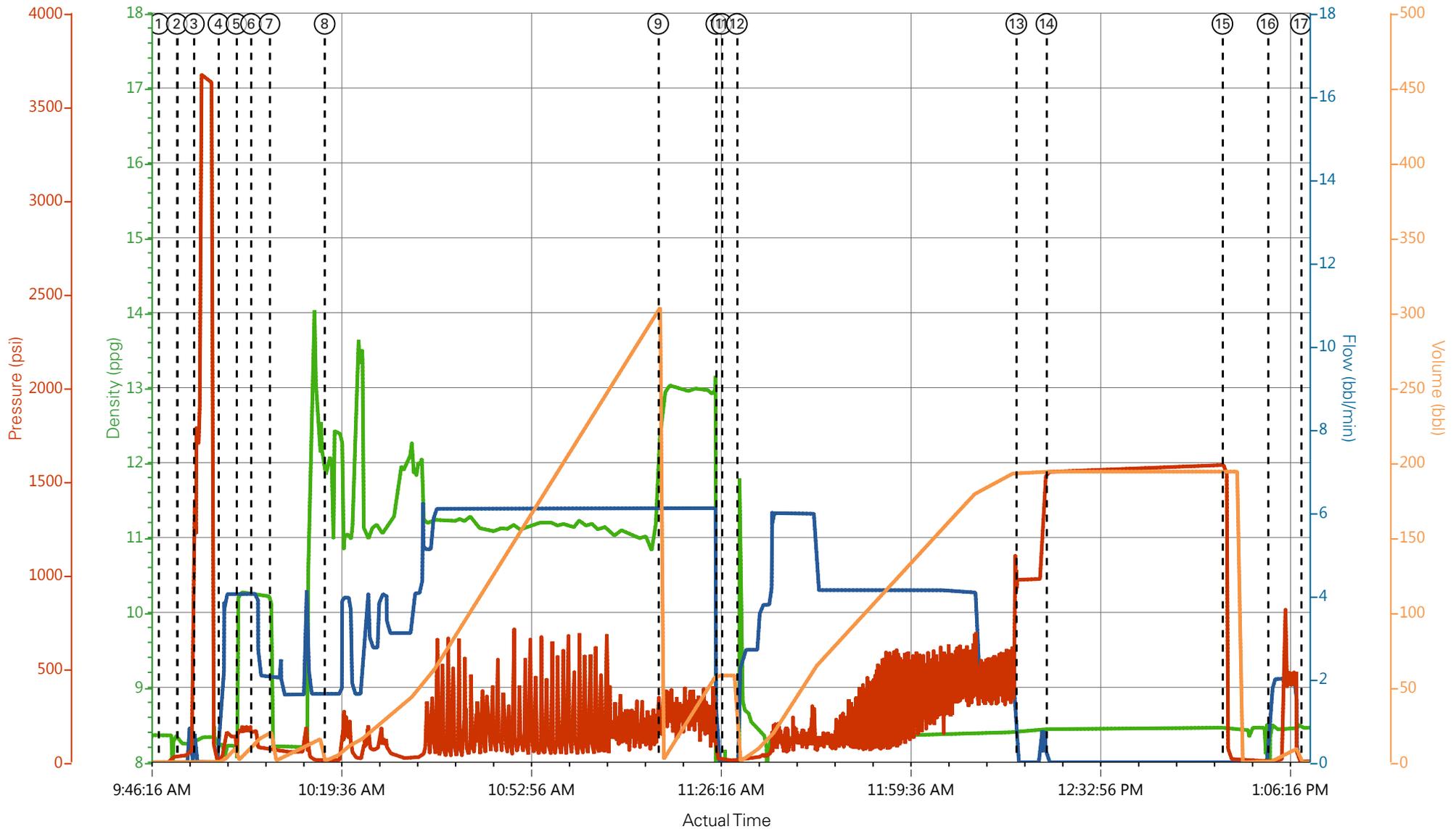
Type	Seq. No.	Activity	Date	Time	Source	Downhole Density <i>(ppg)</i>	Combined Pump Rate <i>(bbl/min)</i>	Pass-Side Pump Pressure <i>(psi)</i>	Pump Stage Total <i>(bbl)</i>	Comments
Event	1	Call Out	10/31/2015	00:00:00	USER					REQUESTED ON LOCATION @ 06000
Event	2	Pre-Convoy Safety Meeting	10/31/2015	02:45:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	10/31/2015	03:00:00	USER					1- ELITE PUMP, 1 660 BULK TRUCK, 1 SUPER FLUSH TRANSPORT AND 1 550 PU ALL TRUCKS LEFT THE YARD TOGETHER
Event	4	Arrive At Loc	10/31/2015	06:00:00	USER					ARRIVED ON TIME CREW WAS STILL RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	10/31/2015	06:05:00	USER					MET WITH CO REP AND WENT OVER NUMBERS AND JOB PROCEDURE. DID A WALKAROUND OF LOCATION AND GOT WATER SAMPLE (PH 7, CHL 0, TEMP 50F)
Event	6	Other	10/31/2015	06:05:01	USER					CO REP HAS RECIEVED SDS
Event	7	Pre-Rig Up Safety Meeting	10/31/2015	06:20:00	USER					FILLED OUT JSA AND GOT CREW SPOTTED IN
Event	8	Rig-Up Equipment	10/31/2015	06:30:00	USER					RIGGED UP WHAT WE COULD STAYING OUT OF THE RED ZONE. FINISHED RIGGING UP AT 0830
Event	9	Pre-Job Safety Meeting	10/31/2015	09:30:00	USER					FILLED OUT RIG FLOOR JSA AND MET WITH RIG CREW. ALL HES PRESENT

Event	10	Start Job	10/31/2015	09:48:03	USER					TD 2540', TP 2494', CS 9.625" J-55 36#, SJ 45.21', OH 14.75" MW 9.1 PPG
Event	11	Prime Pumps	10/31/2015	09:51:16	RTD Import	8.34	2	33.55	2	Prime Pumps
Event	12	Test Lines	10/31/2015	09:54:16	RTD Import	8.34	0.00	3654	0	TESTED TO 3654 PSI TESTED GOOD. KO'S FUNCTIONING
Event	13	Pump Spacer 1	10/31/2015	09:58:33	RTD Import	8.34	2	45	10	10 BBLS FRESH WATER
Event	14	Pump Spacer 2	10/31/2015	10:01:42	RTD Import	10.27	4	180	20	20 BBLS SUPER FLUSH
Event	15	Other	10/31/2015	10:04:17	USER					RIG WAS HAVING TROUBLE WITH PUMPING OUT THE RETURNS SO WE HAD TO KEEP SLOWING DOWN FOR THEM UNTIL THEY GOT IT SORTED OUT
Event	16	Pump Spacer 1	10/31/2015	10:07:32	RTD Import	8.34	2	63	10	10 BBLS FRESH WATER
Event	17	Pump Lead Cement	10/31/2015	10:17:13	RTD Import	11	6	300	243.8	375 SKS (243.8 BBLS) 11 PPG, 3.65 FT3/SK, 23.08 GAL/SK
Event	18	Pump Tail Cement	10/31/2015	11:15:50	RTD Import	12.8	6	275	62.1	165 SKS (62.1 BBLS) 12.8 PPG, 2.18 FT3/SK, 12.11 GAL/SK
Event	19	Other	10/31/2015	11:26:02	USER				10	WASH UP 10 BBLS ON TOP
Event	20	Drop Top Plug	10/31/2015	11:26:59	USER					PLUG WENT
Event	21	Pump Displacement	10/31/2015	11:29:38	RTD Import	8.34	4	511	189.3	189.3 BBLS FRESH WATER
Event	22	Bump Plug	10/31/2015	12:18:45	RTD Import			972	189.3	Bump Plug. PRESSURED UP TO 1500 FOR CASING TEST
Event	23	Test Lines	10/31/2015	12:24:02	RTD Import			1550		HELD 1500 PSI SLIGHTLY RISING THROUGH THE 30

MIN TEST

Event	24	Check Floats	10/31/2015	12:54:57	USER			1587			FLOATS HELD 1.5 BBLS BACK
Event	25	Other	10/31/2015	13:02:53	USER	8.34	2	800	10		PUMPED 10 BBLS SUGAR WATER THROUGH PARASITE. OPENED UP AT 6 BBLS AND PRESSURED UP TO ABOUT 800 PSI
Event	26	End Job	10/31/2015	13:08:44	USER						RETURNS THROUGHOUT JOB. AROUND 80 BBLS CMT TO SURFACE
Event	27	Pre-Rig Down Safety Meeting	10/31/2015	13:08:45	USER						ALL HES PRESENT
Event	28	Rig-Down Equipment	10/31/2015	13:08:46	USER						
Event	29	Pre-Convoy Safety Meeting	10/31/2015	13:08:47	USER						ALL HES PRESENT
Event	30	Crew Leave Location	10/31/2015	13:08:48	USER						THANK YOU FOR USING HALLIBURTON CEMENT. CLIFF SPARKS AND CREW

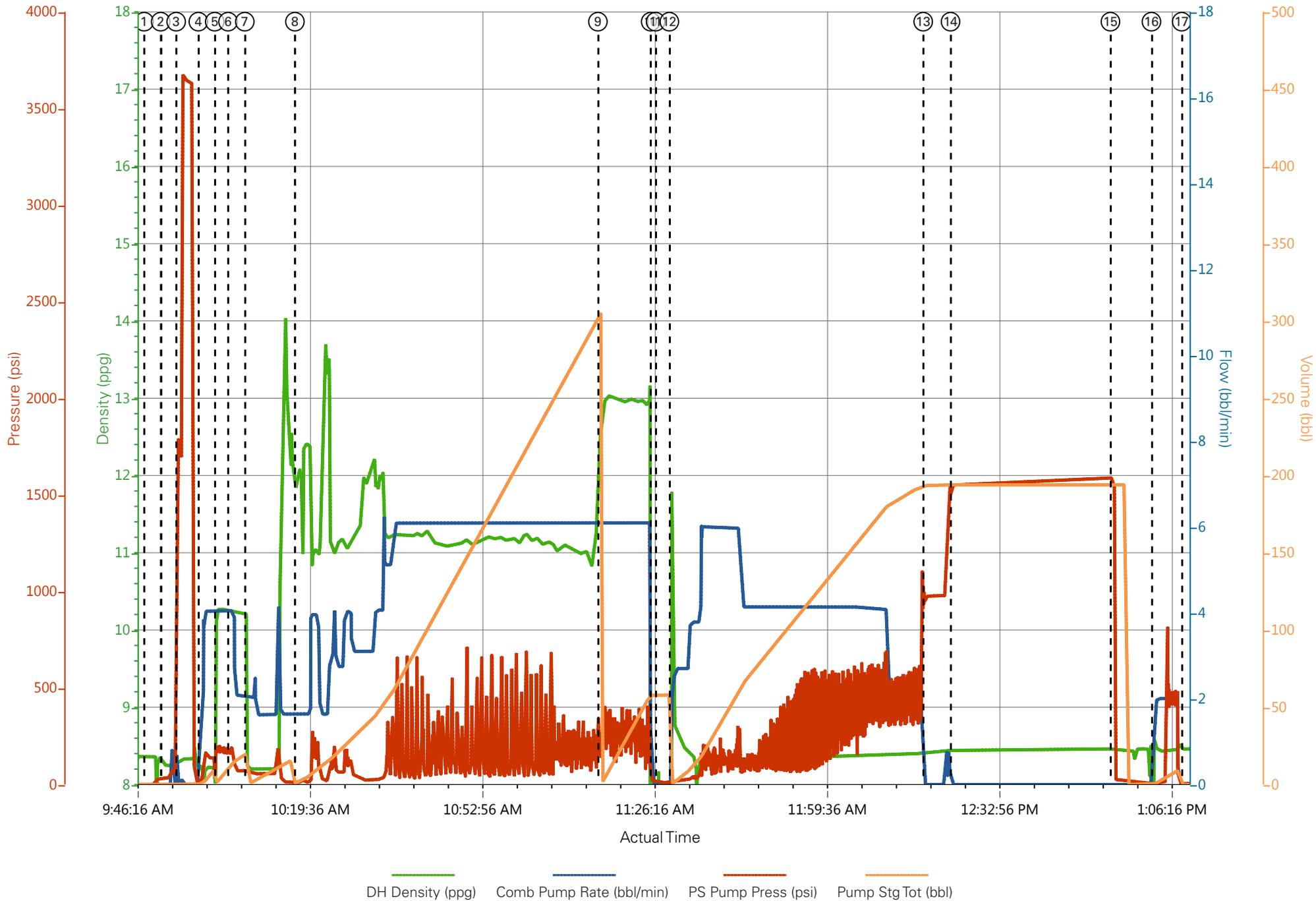
CAERUS 9.625" SURFACE PUCKETT 34A-1



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

- ① Start Job 8.36;0;-0.2;0 ③ Test Lines 8.29;0;1718.27;0.47 ⑤ Pump Spacer2* 10.27;4.05;180.74;2.29 ⑦ Pump Spacer 1* 8.2;2.03;63.55;20.57 ⑨ Pump Tail Cement* 12.63;6.08;133.8
- ② Prime Pumps 8.25;0;33.55;0 ④ Pump Spacer 1* 8.24;1.76;26.05;0.45 ⑥ Cellar Pump Issues 10.24;4.04;161.06;12.68 ⑧ Pump Lead Cement* 11.95;1.64;11.05;1.86 ⑩ Other 1.03;0;16.68;57.94

CAERUS 9.625" SURFACE PUCKETT 34A-1



Sales Order #: 0902871795	Line Item: 10	Survey Conducted Date: 10/31/2015
Customer: CAERUS OIL AND GAS LLC - EBUS		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative:		API / UWI: (leave blank if unknown) 05-045-22856-00
Well Name: PUCKETT		Well Number: 0080730002
Well Type: DIRECTIONAL GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: GARFIELD

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	10/31/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB74155
Customer Participation	Did the customer participate in this survey? (Y/N)	No
Customer Representative	Enter the Customer representative name	
HSE	Was our HSE performance satisfactory? Circle Y or N	
Equipment	Were you satisfied with our Equipment? Circle Y or N	
Personnel	Were you satisfied with our people? Circle Y or N	
Customer Comment	Customer's Comment	

CUSTOMER SIGNATURE

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KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date	10/31/2015
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	Deviated
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
Total Operating Time (hours)	8
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	4
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: PUCKETT		Well Number: 0080730002
Well Type: DIRECTIONAL GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: GARFIELD

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?	Top
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	98
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	98
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