

CAERUS OIL AND GAS LLC - EBUS

NOLTE 11B-24

**PATTERSON/303**

**Post Job Summary**  
**Cement Surface Casing**

Date Prepared: 04/11/2014

Submitted by: Grand Junction Cement Engineering

The Road to Excellence Starts with Safety

Sold To #: 360446	Ship To #: 3280218	Quote #:	Sales Order #: 0901180358
Customer: CAERUS OIL AND GAS LLC - EBUS		Customer Rep: BOYD COTTAM	
Well Name: NOLTE	Well #: 11B-24	API/UWI #: 05-045-22299-00	
Field: GRAND VALLEY	City (SAP): PAR	County/Parish: GARFIELD	State: COLORADO
Legal Description: SE SE-14-7S-96W-762FSL-362FEL			
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 303	
Job BOM: 7523			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HAM2616		Srcv Supervisor: Thomas Ponder	
<b>Job</b>			

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	1005ft 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		9.625	8.921	36	LTC	J-55	0	1005		0
Open Hole Section			13.5				0	1015	0	0

Tools and Accessories									
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	9.625	1		1005		Top Plug	9.625	1	HES
Float Shoe	9.625	1				Bottom Plug	9.625		HES
Float Collar	9.625	1		958.1		SSR plug set	9.625		HES
Insert Float	9.625	1				Plug Container	9.625	1	HES
Stage Tool	9.625	1				Centralizers	9.625		HES

Miscellaneous Materials														
Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty	Conc

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	Tail Cement	VARICEM (TM) CEMENT	20	Sack/Ton	13.5	1.395		4	11.77		
		11.71 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

2	Fresh Water Spacer	Fresh Water Spacer	270	bbbl	8.34			5	
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>	<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft<sup>3</sup>/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>
3	Displacement	Displacement	74.1	bbbl	8.34			7	
<b>Cement Left In Pipe</b>	<b>Amount</b>	47 ft		<b>Reason</b>	Shoe Joint				
<b>Comment</b>									

## 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)	Recirc Density (ppg)	Comment
Event	1	Call Out	3/10/2014	22:00:00	USER						ON LOCATION @ 0400
Event	2	Pre-Convoy Safety Meeting	3/11/2014	02:45:00	USER						ALL HES PRESENT FOR PRE-CONVOY SAFETY HUDDLE
Event	3	Crew Leave Yard	3/11/2014	03:00:00	USER						
Event	4	Arrive At Loc	3/11/2014	04:00:00	USER						RIG WAS STILL DRILLING WHEN CREW ARRIVED ON LOCATION DRILLING SET THEM BACK A COUPLE HOURS
Event	5	Assessment Of Location Safety Meeting	3/11/2014	08:30:00	USER						TD- 1015', TP- 1005', SJ- 46.9', MUD- 906 PPG, HOLE- 13 1/2", SURFACE CASING- 9 5/8" 32.3#
Event	6	Rig-Up Equipment	3/11/2014	08:45:00	USER						1-550 PICKUP, 1-RED TIGER PUMP, 1-660 CUFT BULK TRUCK
Event	7	Pre-Job Safety Meeting	3/11/2014	10:00:00	USER						ALL HES PRESENT, RIG CREW PRESENT, RIG STARTED CIRCULATING ON BOTTOM @ 0800
Event	8	Start Job	3/11/2014	10:16:05	COM6						FILL LINES
Event	9	Prime Lines	3/11/2014	10:20:23	COM6	8.27		32.00	2	8.29	FRESH WATER, 6X5 ONLY
Event	10	Test Lines	3/11/2014	10:21:47	COM6	8.29		3345		8.30	GOOD PRESSURE TEST NO LEAKS IN THE LINES
Event	11	Pump Spacer	3/11/2014	10:25:44	COM6	8.28	4	58	20	8.40	FRESH WATER
Event	12	Pump Tail Cement	3/11/2014	10:34:34	COM6	12.8	5-4	112	101.5	12.8	270 SKS 12.8 PPG 2.11 FT3/SK 11.77 GAL/SK, AT BEGINNING OF CEMENT THE DOWNHOLE WAS NOT READING CORRECTLY, AS PER MUD SCALES AUTOCAL'D, ADC WOULD NOT MIX PROPERLY AND THE CHASSIS ENGINE KEPT IDLING DOWN, HAD TO SHUTDOWN FOR 2-3 MINS TO GET DENSITY UNDER CONTROL AND SWITCH TO MIXING BY HAND TO FINISH CEMENT
Event	13	Shutdown	3/11/2014	11:01:22	USER	12.88	0.00	39.00	105.7	0.22	
Event	14	Drop Top Plug	3/11/2014	11:03:18	USER						PLUG DROP VERIFIED VIA TATTLE TELL
Event	15	Pump Displacement	3/11/2014	11:04:28	COM6	8.3	7	400	63.8		FRESH WATER, WASHED UP ON TOP OF THE PLUG WITH THE FIRST 10 BBL OF DISPLACEMENT OUT OF THE MIXING TUB
Event	16	Slow Rate	3/11/2014	11:15:28	USER	8.3	2	210	10		GOOD RETURNS, CIRCULATED 10 BBL OF CEMENT TO SURFACE
Event	17	Bump Plug	3/11/2014	11:18:54	COM6		2	286	73.8		PLUG BUMPED

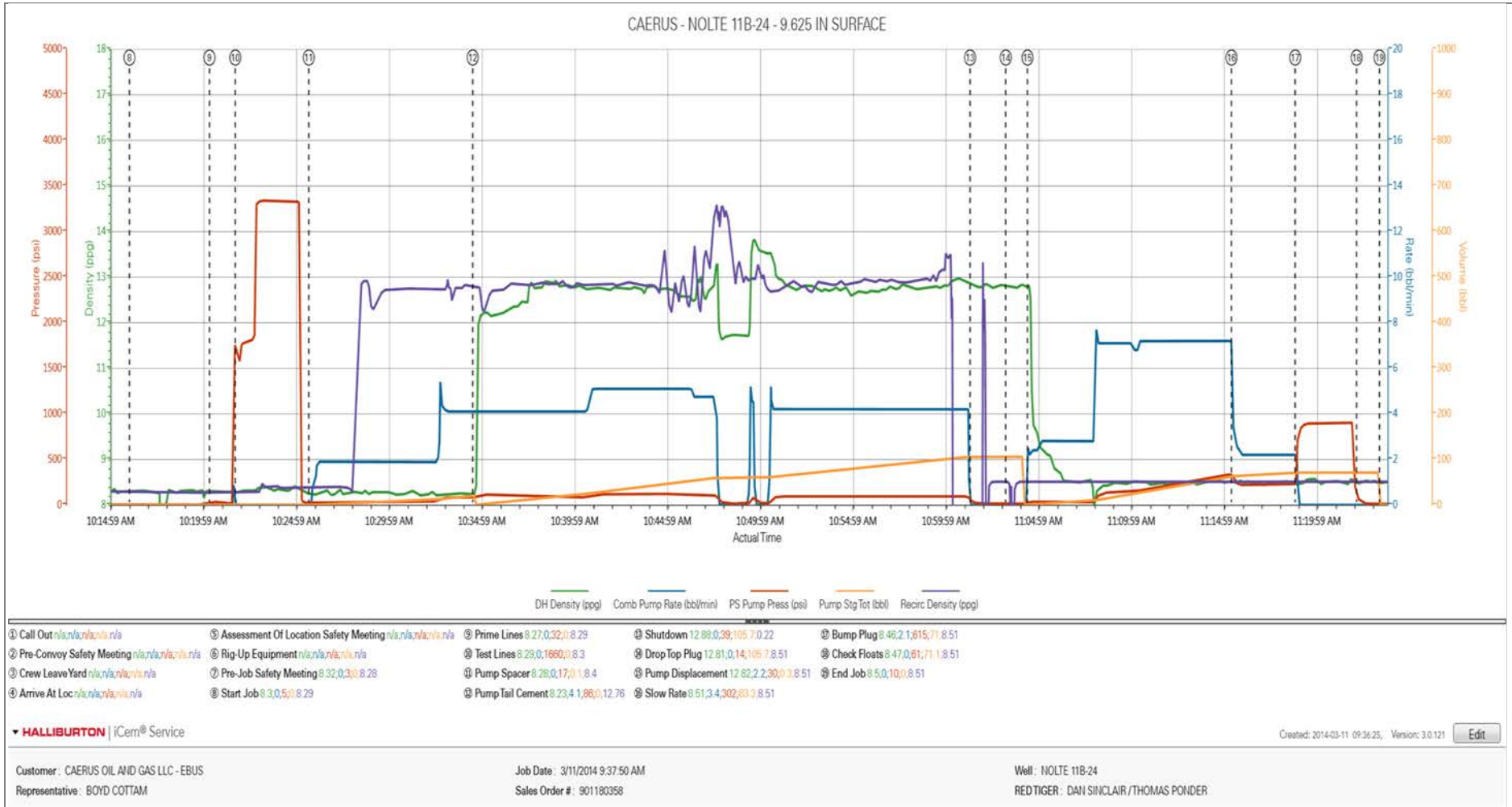
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Event	18	Check Floats	3/11/2014	11:22:12	COM6	902	73.8	FLOATS HELD, 1/2 BBL BACK TO THE DISPLACEMENT TANKS
Event	19	End Job	3/11/2014	11:23:26	COM6			THANK YOU FOR CHOOSING HALLIBURTON, THOMAS PONDER AND CREW

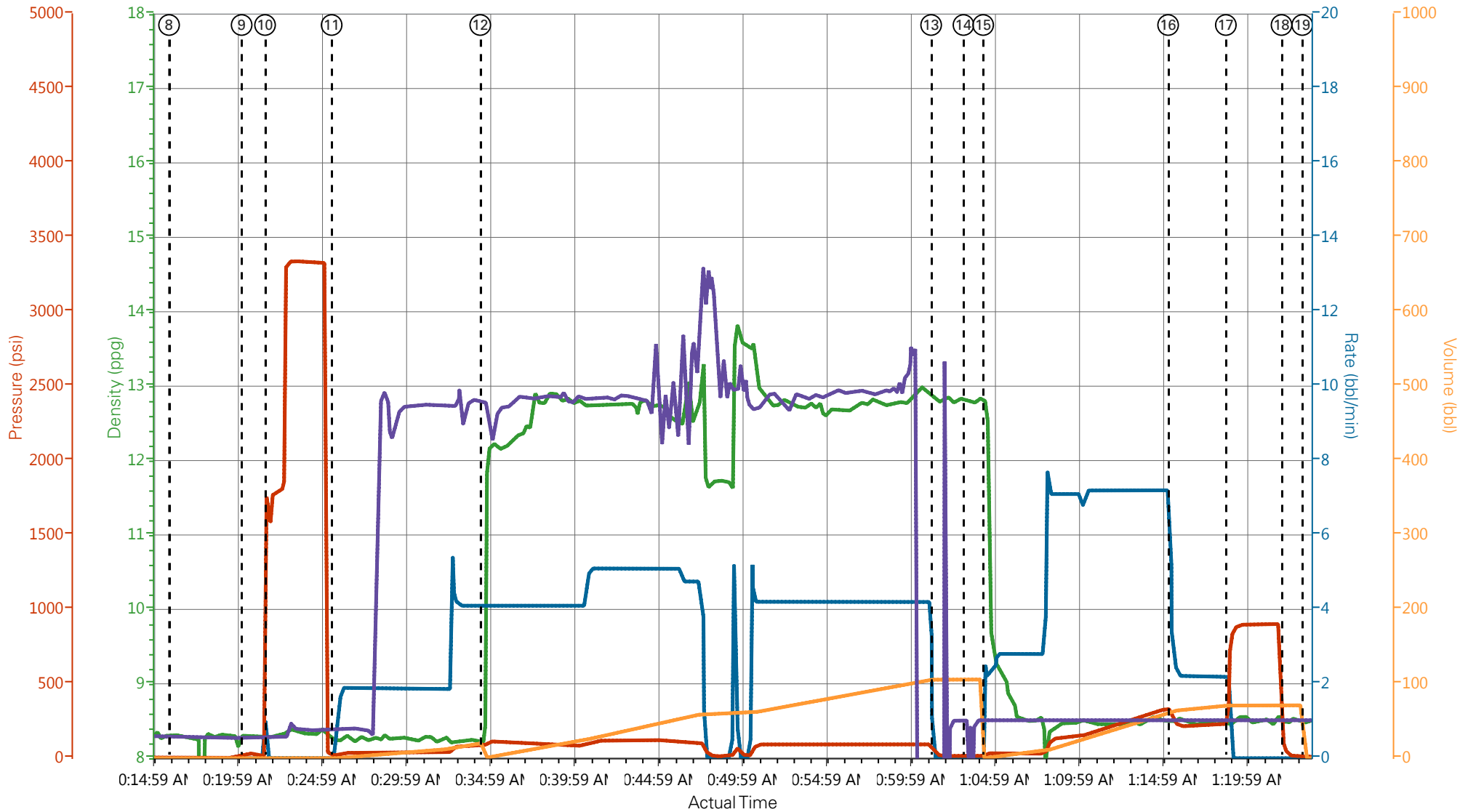
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2.0 Attachments

2.1 CHART EVENTS.png



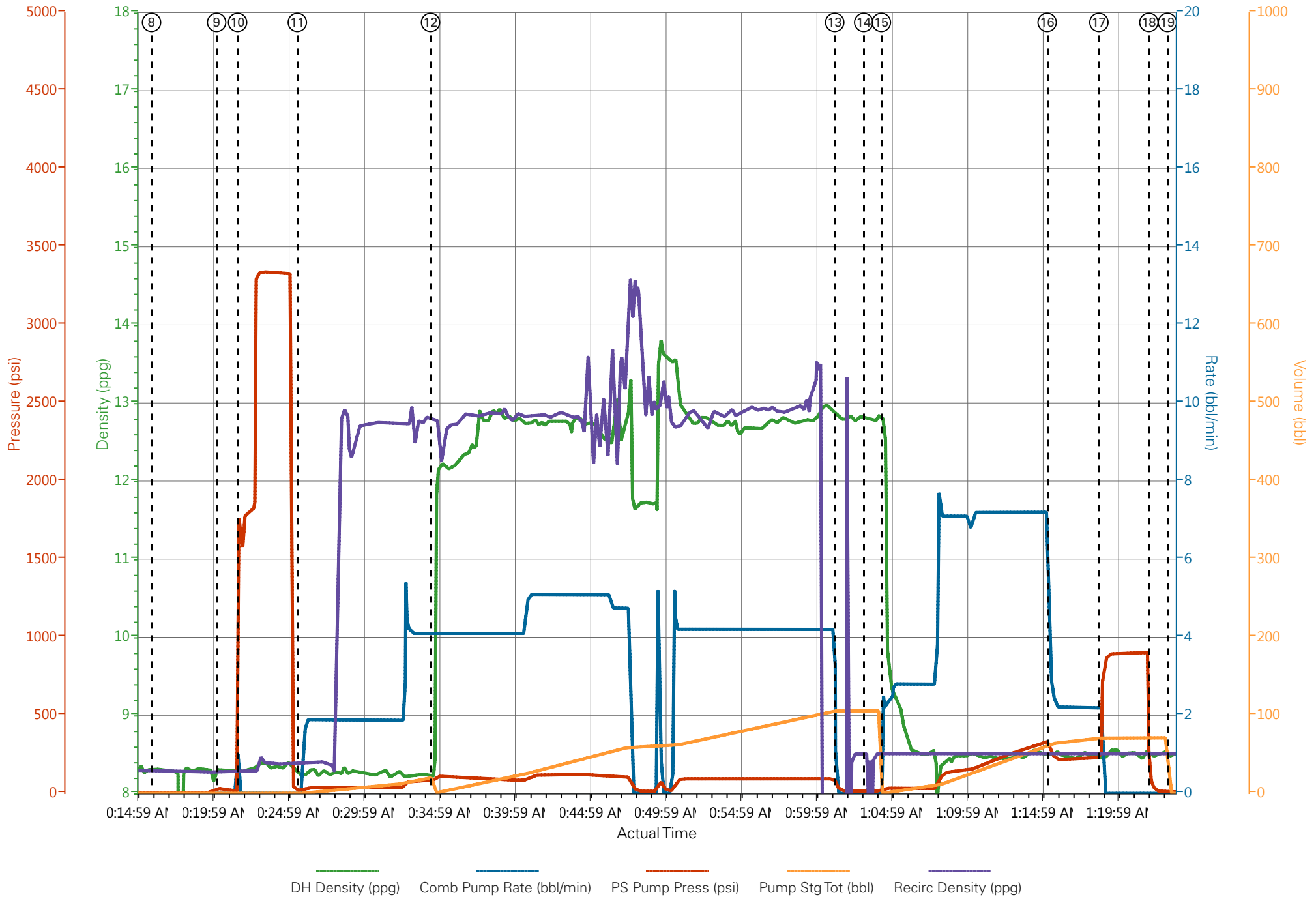
# CAERUS - NOLTE 11B-24 - 9.625 IN SURFACE



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

- ① Call Out n/a;n/a;n/a;n/a;n/a
- ② Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a;n/a
- ③ Crew Leave Yard n/a;n/a;n/a;n/a;n/a
- ④ Arrive At Loc n/a;n/a;n/a;n/a;n/a
- ⑤ Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a;n/a
- ⑥ Rig-Up Equipment n/a;n/a;n/a;n/a;n/a
- ⑦ Pre-Job Safety Meeting 8.32;0;3;0;8.28
- ⑧ Start Job 8.3;0;5;0;8.29
- ⑨ Prime Lines 8.27;0;32;0;8.29
- ⑩ Test Lines 8.29;0;1660;0;8.3
- ⑪ Pump Spacer 8.28;0;17;0.1;8.4
- ⑫ Pump Tail Cement 8.23;4.1;86;0;12.76
- ⑬ Shut
- ⑭ Drop
- ⑮ Pump

# CAERUS - NOLTE 11B-24 - 9.625 IN SURFACE



# HALLIBURTON

Company: CAERUS Date: 3/11/2014  
Submitted by: THOMAS PONDER Date Rec.: 3/11/2014  
Attention: LARRY COOKSEY S.O.# 901180358  
Lease NOLTE Job Type: SURFACE  
Well # 11-B-24

Specific Gravity	<i>MAX</i>	<i>1</i>
pH	<i>8</i>	<i>7.2</i>
Potassium (K)	<i>5000</i>	<i>500 Mg / L</i>
Calcium (Ca)	<i>500</i>	<i>120 Mg / L</i>
Iron (FE2)	<i>300</i>	<i>0 Mg / L</i>
Chlorides (Cl)	<i>3000</i>	<i>500 Mg / L</i>
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<i>&lt;200 Mg / L</i>
Carbonates hardness		
Temp	<i>40-80</i>	<i>40 Deg</i>
Total Dissolved Solids		<i>Mg / L</i>

Respectfully: THOMAS PONDER

Title: CEMENTING SUPERVISOR

Location: GRAND JCT, CO

<b>Sales Order #:</b> 0901180358	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 3/11/2014
<b>Customer:</b> CAERUS OIL AND GAS LLC - EBUS		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b>		<b>API / UWI: (leave blank if unknown)</b> 05-045-22299-00
<b>Well Name:</b> NOLTE		<b>Well Number:</b> 0080361728
<b>Well Type:</b> DIRECTIONAL GAS	<b>Well Country:</b> USA	
<b>H2S Present:</b> No	<b>Well State:</b> COLORADO	<b>Well County:</b> 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	3/11/2014
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HX41187
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	

<b>CUSTOMER SIGNATURE</b>
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<b>H2S Present:</b> No	<b>Well State:</b> COLORADO	<b>Well County:</b> GARFIELD

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	3/11/2014
The date the survey was conducted	

Cementing KPI Survey	
<b>Type of Job</b>	0
Select the type of job. (Cementing or Non-Cementing)	
<b>Select the Maximum Deviation range for this Job</b>	Deviated
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
<b>Total Operating Time (hours)</b>	4
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
<b>HSE Incident, Accident, Injury</b>	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
<b>Was the job purpose achieved?</b>	Yes
Was the job delivered correctly as per customer agreed design?	
<b>Operating Hours (Pumping Hours)</b>	2
Total number of hours pumping fluid on this job. Enter in decimal format.	
<b>Customer Non-Productive Rig Time (hrs)</b>	0
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.	
<b>Type of Rig Classification Job Was Performed</b>	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
<b>Number Of JSAs Performed</b>	6
Number Of Jsas Performed	
<b>Number of Unplanned Shutdowns</b>	0
Unplanned shutdown is when injection stops for any period of time.	
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes

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<b>H2S Present:</b> No	<b>Well State:</b> COLORADO	<b>Well County:</b> GARFIELD

Primary Cement Job= Casing job, Liner job, or Tie-back job.	
<b>Did We Run Wiper Plugs?</b> Did We Run Top And Bottom Casing Wiper Plugs?	Top
<b>Mixing Density of Job Stayed in Designed Density Range (0-100%)</b> Density Range defined as +/- .20 ppg. Calculation: Total BBLs cement mixed at designed density divided by total BBLs of cement multiplied by 100	95
<b>Was Automated Density Control Used?</b> Was Automated Density Control (ADC) Used ?	Yes
<b>Pump Rate (percent) of Job Stayed At Designed Pump Rate</b> 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
<b>Nbr of Remedial Sqz Jobs Rqd - Competition</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	0
<b>Nbr of Remedial Plug Jobs Rqd - HES</b> Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
<b>Nbr of Remedial Sqz Jobs Rqd - HES</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0