

CAERUS OIL AND GAS LLC - EBUS

Puckett 22A-36

H&P 330

Post Job Summary

Cement Surface Casing

Date Prepared: 08/30/2015

Job Date: 08/24/15

Submitted by: Aaron Katz - Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 360446		Ship To #: 3665978		Quote #:		Sales Order #: 0902688026	
Customer: CAERUS OIL AND GAS LLC - EBUS				Customer Rep:			
Well Name: PUCKETT			Well #: 22A-36			API/UWI #: 05-045-22861-00	
Field: GRAND VALLEY		City (SAP): PARACHUTE		County/Parish: GARFIELD		State: COLORADO	
Legal Description: SE NW-1-7S-97W-2097FNL-1330FWL							
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 330			
Job BOM: 7521							
Well Type: DIRECTIONAL GAS							
Sales Person: HALAMERICA\HB80977				Srvc Supervisor:			

Job

Formation Name	
Formation Depth (MD)	Top
Form Type	BHST
Job depth MD	2509ft
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		9.625	8.921	36			0	2509		0
Open Hole Section			14.75				0	2520		0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625	1		2509	Top Plug	9.625	1	HES
Float Shoe	9.625				Bottom Plug	9.625		HES
Float Collar	9.625	1		2462	SSR plug set	9.625		HES
Insert Float	9.625				Plug Container	9.625	1	HES
Stage Tool	9.625				Centralizers	9.625		HES

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	Fresh Water	Fresh Water	20	bbl	8.34			4	

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	Super Flush 101	Super Flush 101	20	bbl	9.17			4	
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/min	Total Mix Fluid Gal
3	Lead Cement	VARICEM (TM) CEMENT	375	sack	11	3.65		7	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/min	Total Mix Fluid Gal
4	Tail Cement	VARICEM (TM) CEMENT	160	sack	12.8	2.18		7	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/min	Total Mix Fluid Gal
5	Displacement	Displacement	190.4	bbl	8.34			6 / 2	
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
6	Top Out	REVERCEM (TM) CEMENT	0	sack	12.8	2.12			11.15
11.15 Gal		FRESH WATER							
Cement Left In Pipe		Amount	46 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		Bump Pressure: 1574 psi			Floats Held? Yes				
Cement Returns: 102 bbl		Returns Density: ## lb/gal kg/m3			Returns Temperature: ## °F °C				
Comment									

1.0 Real-Time Job Summary

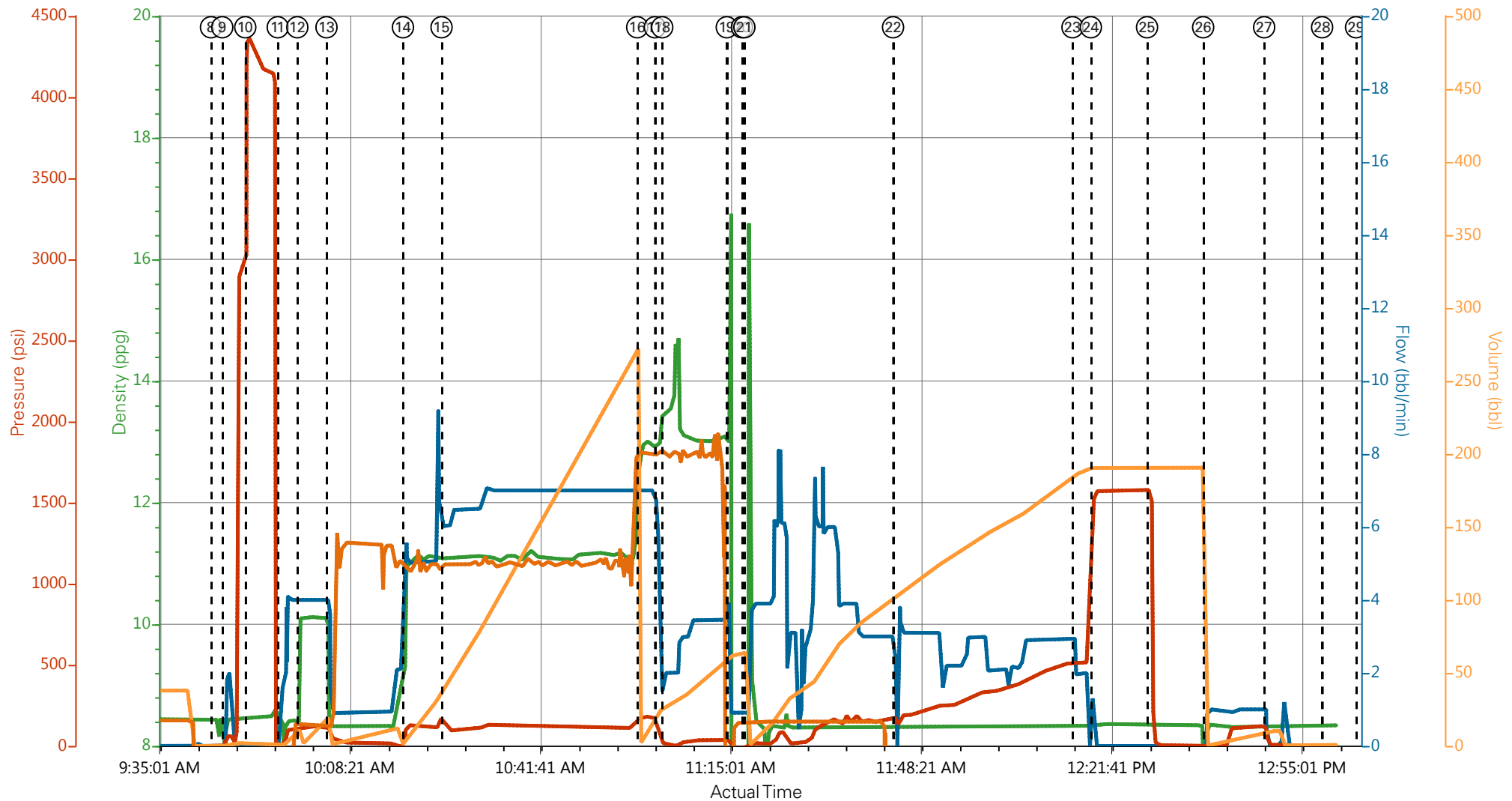
1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Recirc Density (ppg)	Comments
Event	1	Call Out	8/24/2015	02:00:00	USER						CREW CALL FROM PREVS LOC
Event	2	Depart from Service Center or Other Site	8/24/2015	02:15:00	USER						SAFETY MEETING ALL HES PRESENT / TRAVEL TO YARD LOAD UP EQIP AND TRAVEL TO LOC
Event	3	Arrive At Loc	8/24/2015	07:10:00	USER						ARRIVE ON LOC RIG LANDING CSG / HES EQUIP ON LOC 1 EA CMT PUMP UNIT 2 EA 660 BULK UNITS 1 EA TRANSPORT UNIT 1 EA SILO UP RIGHT 1 EA SERVICE PICK UP UNIT
Event	4	Assessment Of Location Safety Meeting	8/24/2015	07:15:00	USER						ASSEMENT WALK THRU OF LOC ALL HES CREW PRESENT
Event	5	Pre-Rig Up Safety Meeting	8/24/2015	07:20:00	USER						SAFETY MEETING ALL HES CREW PRESENT
Event	6	Rig-Up Equipment	8/24/2015	07:25:00	USER						RIG UP IRON TO CELLAR FOR OFF LINE PUMPING AND RIG UP BULK EQUIP AND FRESH WATER SUPPLY
Event	7	Pre-Job Safety Meeting	8/24/2015	09:30:00	USER	8.34	0.00	-14.00	0.0	0.0	PRE-JOB SAFETY MEETING ALL RIG PERSONEL AND HES PRESENT
Event	8	Start Job	8/24/2015	09:44:32	COM6	8.34	0.00	-2.00	0.0	0.0	START JOB: TD 2520 FT TP 2509 FT SJT 46.55 FT OH 14 3/4 IN CSG 9 5/8 IN 36# J-55 WF/WT 9.0# PUMP JOB OFF LINE
Event	9	Prime Pumps	8/24/2015	09:46:30	COM6	8.34	2.0	70.0	2.0	0.0	PRIME LINES WITH FRESH WATER AHEAD 2 BBLS
Event	10	Test Lines	8/24/2015	09:50:32	COM6	8.34	0.8	4376.00	0.1	0.09	PRESSURE TEST LINES 5 TH GEAR STALL OUT AT 2500 PSI TEST TO 4256 PSI TEST GOOD
Event	11	Pump Spacer 1	8/24/2015	09:56:13	COM6	8.34	4.0	108.0	10.0	0.09	PUMP 10 BBLS FRESH WATER AHEAD
Event	12	Pump Spacer 2	8/24/2015	09:59:39	COM6	9.2	4.00	124.0	20.0	8.37	PUMP 20 BBLS SUPERFLUSH AHEAD / GOT RETURNS AT 13 BBLS AWAY
Event	13	Pump Spacer 1	8/24/2015	10:04:45	COM6	8.37	4.0	102.00	10.0	8.33	PUMP 10 BBLS FRESH WATER AHEAD / LOST RETURNS

											WHEN SLOW TO 2 BLM TO MIX TUB		
Event	14	Pump Lead Cement	8/24/2015	10:18:08	COM6	10.99	7.0	129.00	244.0	10.91	PUMP 375 SKS LEAD CMT AT 11.0 PPG 3.65 Y 23.08 GAL/SKS / MIX IN TUF FIBER .25 # PER BBL		
Event	15	Check weight	8/24/2015	10:24:54	COM6	11.12	7.0	137.00	39.9	10.95	CHECK CMT WT		
Event	16	Pump Tail Cement	8/24/2015	10:59:09	COM6	12.8	7.00	176.00	62.0	12.87	PUMP 160 SKS TAIL CEMENT AT 12.8 PPG 2.18 Y 12.11 GAL/SKS AND RETURNS BACK FULL		
Event	17	Slow Rate	8/24/2015	11:02:14	USER	12.94	2.0	80.0	23.1	12.86	SLOW RATE TO 2 BLM CELLAR PUMP NOT KEEPING UP , DOWN DENSITY CHANGEING DUE TO RATE		
Event	18	Check weight	8/24/2015	11:03:32	COM6	12.85	2.00	80.0	26.6	12.83	CHECK CMT WT		
Event	19	Shutdown	8/24/2015	11:14:50	COM6	12.83	0.0	0.0	62.0	0.09	SHUT DOWN END CEMENT /RETURNS BACK GOING INTO TAIL CMT / READY TUB TO WASH UP ON TOP OF PLUG		
Event	20	Drop Top Plug	8/24/2015	11:17:29	COM6	8.34	0.0	-15.00	0.0	0.0	DROP PLUG / PLUG AWY		
Event	21	Pump Displacement	8/24/2015	11:17:55	COM6	8.34	6.0	120.0	102.5	8.40	PUMP H2O DISPLACEMENT / RETURNS BACK AT 30 BBLS AND CEMENT TO SURFACE - LOST RETURNS AT 40 BBLS GONE AND RETURNS BACK AT 60 BBLS GONE (CMT)		
Event	22	Shutdown	8/24/2015	11:43:56	USER	8.32	0.00	141.00	102.5	0.08	SHUT DOWN / PER CO-MAN CMT FELL BACK VERY LITTLE		
Event	23	Slow Rate	8/24/2015	12:15:21	USER	8.33	2.00	510.00	180.0	0.09	SLOW RATE 2 BLM LAST 10 BBLS		
Event	24	Bump Plug	8/24/2015	12:18:34	COM6	8.36	0.00	1549.00	190.6	0.09	PLUG LANDED AT 500 PSI BUMP TO 1574 PSI AND HOLD FOR CSG TEST		
Event	25	Check Floats	8/24/2015	12:28:24	USER	8.36	0.00	1579.00	190.6	0.09	CHECK FLOATS / FLOATS HELD WITH 1 BBL BACK TO TANKS		
Event	26	Pump Sugar Water	8/24/2015	12:38:13	COM6	8.36	1.0	120.0	12.0	0.09	PUMP 12 BBLS SUGAR WATER THRU PARISITE LINES		
Event	27	Shutdown	8/24/2015	12:48:54	USER	8.33	0.00	26.00	12.0	0.09	SHUT DOWN LINE CLEAR / WTR TRUCK WITH 70 BBLS CMT ON BOARD PUSHING CMT DOWN ANULUS (TOPPING OUT) CMT FALLING BACK VERY LITTLE / TOTAL PUSHED BACK DOWN 38 BBLS CMT		
Event	28	End Job	8/24/2015	12:59:03	COM6	8.34	0.00	0.00	0.0	0.09	END JOB / TOTAL CMT TO SURFACE 102 BBLS		
Event	29	Pre-Rig Down Safety Meeting	8/24/2015	13:05:00	USER						PRE-RIG DOWN SAFETY MEETING ALL HES PRESENT		
Event	30	Rig-Down Equipment	8/24/2015	13:10:00	USER						RIG DOWN EQUIP FROM CELLAR AND BULK EQUIP		

Event	31	Depart Location Safety Meeting	8/24/2015	13:55:00	USER	SAFETY MEETING DEPARTING LOC ALL HES PRESENT
Event	32	Comment	8/24/2015	14:00:00	USER	THANK YOU FOR USING HALLIBURTON CEMENTING SERVICES AND THE CREW OF CRAIG KUKUS

CAERUS OIL AND GAS HP 330 CMT SURFACE CSG JOB PUCKETT 43-6



DH Density (ppg) 8.34 Comb Pump Rate (bbl/min) 0 PS Pump Press (psi) -1 Pump Stg Tot (bbl) 0.7 Recirc Density (ppg) 0.09

- | | | | | | |
|--|--------------------------|--------------------|----------------------|--------------------------------|-----------------------------------|
| ① Call Out | ⑦ Pre-Job Safety Meeting | ⑬ Pump Spacer 1 | ⑲ Shutdown | 25 Check Floats | 31 Depart Location Safety Meeting |
| ② Depart from Service Center or Other Site | ⑧ Start Job | ⑭ Pump Lead Cement | 20 Drop Top Plug | 26 Pump Sugar Water | 32 Comment |
| ③ Arrive At Loc | ⑨ Prime Pumps | ⑮ Check weight | 21 Pump Displacement | 27 Shutdown | |
| ④ Assessment Of Location Safety Meeting | ⑩ Test Lines | ⑯ Pump Tail Cement | 22 Shutdown | 28 End Job | |
| ⑤ Pre-Rig Up Safety Meeting | ⑪ Pump Spacer 1 | ⑰ Slow Rate | 23 Slow Rate | 29 Pre-Rig Down Safety Meeting | |
| ⑥ Rig-Up Equipment | ⑫ Pump Spacer 2 | ⑱ Check weight | 24 Bump Plug | 30 Rig-Down Equipment | |

▼ **HALLIBURTON** | iCem® Service

Created: 2015-08-24 08:51:23, Version: 4.1.107

Edit

Customer : CAERUS OIL AND GAS LLC - EBUS

Job Date : 8/24/2015 8:54:23 AM

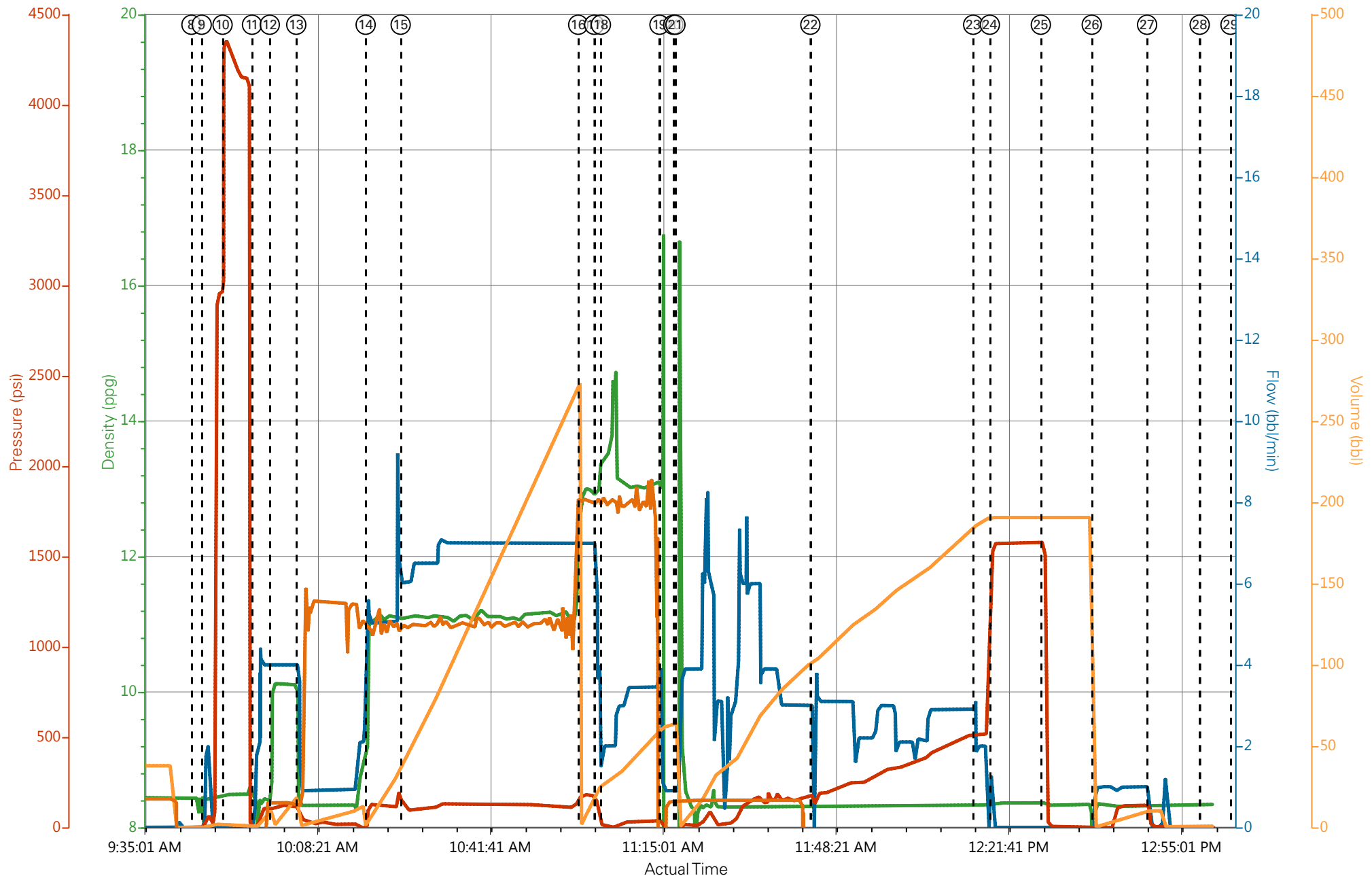
Well : 43-6

Representative : CRAIG KUKUS

Sales Order # : 0902688026

ELITE 4 / OPERATOR : CLIFF SPARKS

CAERUS OIL AND GAS HP 330 CMT SURFACE CSG JOB PUCKETT 43-6



DH Density (ppg) 8.34 Comb Pump Rate (bbl/min) 0 PS Pump Press (psi) -1 Pump Stg Tot (bbl) 0.7 Recirc Density (ppg) 0.09

HALLIBURTON

Water Analysis Report

Company: CAERUS
Submitted by: CRAIG KUKUS
Attention: _____
Lease: PUCKETT
Well #: 22A-36

Date: 8/24/2015
Date Rec.: 8/24/2015
S.O.#: 902688026
Job Type: SURFACE

Specific Gravity	MAX	0
pH	8	7
Potassium (K)	5000	0 Mg / L
HARDNESS	500	425 Mg / L
Iron (FE2)	300	0 Mg / L
Chlorides (Cl)	3000	0 Mg / L
Sulfates (SO ₄)	1500	<200 Mg / L
Chlorine (Cl ₂)		0 Mg / L
Temp	40-80	68 Deg
Total Dissolved Solids		510 Mg / L

Respectfully: CRAIG 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 its

Sales Order #: 0902688026	Line Item: 10	Survey Conducted Date: 8/24/2015
Customer: CAERUS OIL AND GAS LLC - EBUS		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: GEORGE		API / UWI: (leave blank if unknown) 05-045-22861-00
Well Name: PUCKETT		Well Number: 0080730018
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	8/24/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HX19742
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	GEORGE
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 #: 0902688026	Line Item: 10	Survey Conducted Date: 8/24/2015
Customer: CAERUS OIL AND GAS LLC - EBUS		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: GEORGE		API / UWI: (leave blank if unknown) 05-045-22861-00
Well Name: PUCKETT		Well Number: 0080730018
Well Type: DIRECTIONAL GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: GARFIELD

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date The date the survey was conducted	8/24/2015

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.	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 #: 0902688026	Line Item: 10	Survey Conducted Date: 8/24/2015
Customer: CAERUS OIL AND GAS LLC - EBUS		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: GEORGE		API / UWI: (leave blank if unknown) 05-045-22861-00
Well Name: PUCKETT		Well Number: 0080730018
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	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	97
If applicable, were there returns throughout the job? (Yes/No/N/A) If applicable, were there returns throughout the job? (Yes/No/N/A)	No
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