

# HALLIBURTON

iCem<sup>®</sup> Service

## EXTRACTION OIL & GAS

Date: Tuesday, September 06, 2016

### **Varra #7**

Surface

Job Date: Thursday, September 01, 2016

Sincerely,

**Lauren Roberts**

## Legal Notice

---

### Warning Disclaimer

Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

### Limitations of Liability

Except as expressly set forth herein, there are no representations or warranties by Halliburton, express or implied, including implied warranties of merchantability and/or fitness for a particular purpose. In no event will Halliburton or its suppliers be liable for consequential, incidental, special, punitive or exemplary damages (including, without limitation, loss of data, profits, use of hardware, or software). Customer accepts full responsibility for any investment made based on results from the Software. Any interpretations, analyses or modeling of any data, including, but not limited to Customer data, and any recommendation or decisions based upon such interpretations, analyses or modeling are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional may differ. Accordingly, Halliburton cannot and does not warrant the accuracy, correctness or completeness of any such interpretation, recommendation, modeling or other products of the Software Product. As such, any interpretation, recommendation or modeling resulting from the Software for the purpose of any drilling, well treatment, production or financial decision will be at the sole risk of Customer. Under no circumstances will Halliburton or its suppliers be liable for any damages.

## Table of Contents

---

1.0	Cementing Job Summary .....	4
1.1	Executive Summary .....	4
2.0	Real-Time Job Summary .....	7
2.1	Job Event Log .....	7
3.0	Attachments.....	9
3.1	Extraction Oil & Gas Varra 7-Custom Results.png.....	9
3.2	Extraction Oil & Gas Varra 7-Custom Results 2.png .....	10

## 1.0 Cementing Job Summary

---

### 1.1 Executive Summary

---

Halliburton appreciates the opportunity to perform the cementing services on the **Varra #7** cement **Surface** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

**33 bbl. of cement returned to surface.**

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

**Halliburton [Ft. Lupton]**

*The Road to Excellence Starts with Safety*

Sold To #: 369404	Ship To #: 3563336	Quote #:	Sales Order #: 0903450509
Customer: EXTRACTION OIL & GAS -		Customer Rep: Larry Siegel	
Well Name: VARRA		Well #: 7	API/UWI #: 05-123-39987-00
Field: WATTENBERG	City (SAP): WINDSOR	County/Parish: WELD	State: COLORADO
Legal Description: NW SW-5-6N-67W-1589FSL-788FWL			
Contractor:		Rig/Platform Name/Num: White Mountain	
Job BOM: 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Steve McCoy	

**Job**

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	1571ft		Job Depth TVD
Water Depth			Wk Ht Above Floor 4 FT
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			0	1571	0	1571
Open Hole Section			13.5				0	1571	0	1571

**Tools and Accessories**

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625			1571	Top Plug	9.625		
Float Shoe	9.625				Bottom Plug	9.625		
Float Collar	9.625			1528.5	SSR plug set	9.625		
Insert Float	9.625				Plug Container	9.625		HES
Stage Tool	9.625				Centralizers	9.625		

**Fluid Data**

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Fresh Water	Fresh Water	10	bbl	8.33			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	SwiftCem	SWIFTCEM (TM) SYSTEM	565	sack	13.5	1.74		6	9.2	
9.20 Gal		<b>FRESH WATER</b>								
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	Fresh Water Displacement	Fresh Water Displacement	118.2	bbl	9			8		
Cement Left In Pipe		<b>Amount</b>	42 ft		<b>Reason</b>			<b>Shoe Joint</b>		
<b>Comment</b>										

## 2.0 Real-Time Job Summary

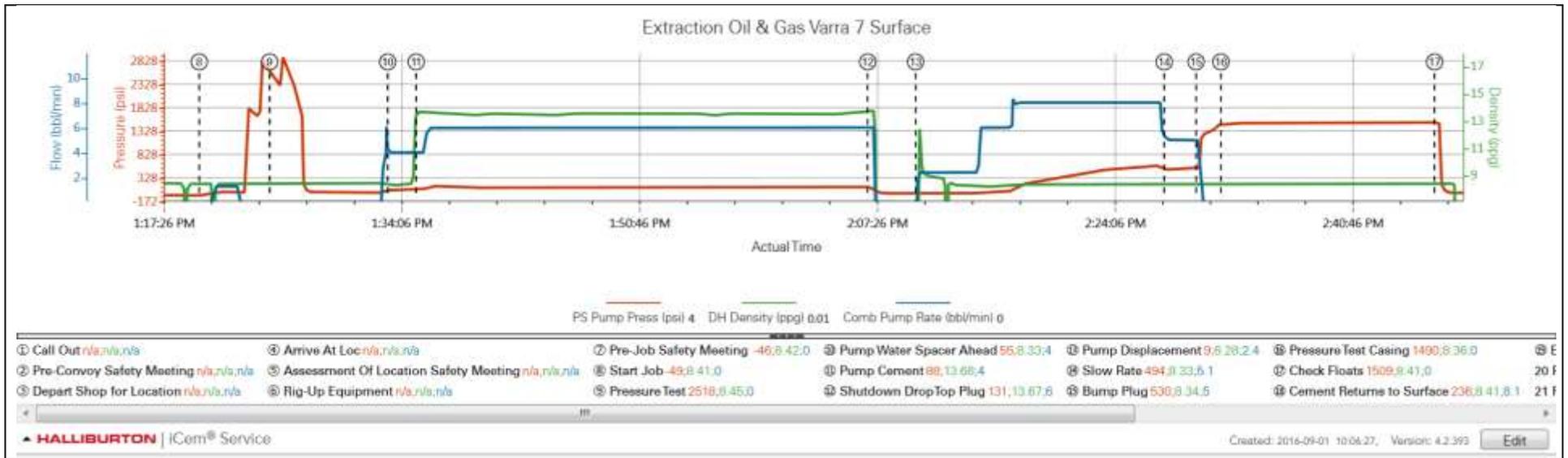
### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	9/1/2016	03:00:00	USER				Requested on Location @ 0800
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	9/1/2016	05:30:00	USER				
Event	3	Depart Shop for Location	Depart Shop for Location	9/1/2016	05:35:00	USER				
Event	4	Arrive At Loc	Arrive At Loc	9/1/2016	07:00:00	USER				
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	9/1/2016	07:15:00	USER				
Event	6	Rig-Up Equipment	Rig-Up Equipment	9/1/2016	07:30:00	USER				
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	9/1/2016	13:15:00	USER	-46.00	8.42	0.00	
Event	8	Start Job	Start Job	9/1/2016	13:20:05	COM16	-49.00	8.41	0.00	
Event	9	Pressure Test	Pressure Test	9/1/2016	13:25:01	USER	2518.00	8.45	0.00	Pressure test lines pressure bleed off no visible leaks
Event	10	Pump Water	Pump Water Spacer Ahead	9/1/2016	13:33:18	USER	55.00	8.33	4.00	Pump Water Spacer
Event	11	Pump Cement	Pump Cement	9/1/2016	13:35:18	USER	88.00	13.68	4.00	Mixed & Pumped 565 sks SwiftCem @ 13.5 ppg, 1.74 y, 9.2 gps
Event	12	Shutdown	Shutdown DropTop Plug	9/1/2016	14:06:57	USER	131.00	13.67	6.00	Drop Top Plug Co Man witnessed
Event	13	Pump Displacement	Pump Displacement	9/1/2016	14:10:18	USER	9.00	6.28	2.40	118.2 bbls of fresh water displacement
Event	14	Slow Rate	Slow Rate	9/1/2016	14:27:44	USER	494.00	8.33	5.10	Slowed rate to 5 pm to bump plug
Event	15	Bump Plug	Bump Plug	9/1/2016	14:29:58	USER	530.00	8.34	5.00	final circulating pressure was 570 psi
Event	16	Pressure Test	Pressure Test Casing	9/1/2016	14:31:42	USER	1490.00	8.36	0.00	Pressure test casing 1500 psi 15 min
Event	17	Check Floats	Check Floats	9/1/2016	14:46:42	USER	1509.00	8.41	0.00	Floats held 1 bbl back to truck

Event	18	Cement Returns to Surface	Cement Returns to Surface	9/1/2016	14:50:00	USER	236.00	8.41	8.10	circulated 33 bbls cement to surface
Event	19	End Job	End Job	9/1/2016	14:54:14	COM16	36.00	8.38	2.10	
Event	20	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	9/1/2016	15:00:00	USER	11.00	8.35	2.10	
Event	21	Rig-Down Equipment	Rig-Down Equipment	9/1/2016	15:05:00	USER				
Event	22	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	9/1/2016	15:55:00	USER				
Event	23	Depart Location for Shop	Depart Location for Shop	9/1/2016	16:00:00	USER				

3.0 Attachments

3.1 Extraction Oil & Gas Varra 7-Custom Results.png



3.2 Extraction Oil & Gas Varra 7-Custom Results 2.png

