

# HALLIBURTON

iCem<sup>®</sup> Service

## EXTRACTION OIL & GAS

Date: Wednesday, August 10, 2016

### **Varra #2**

Surface

Job Date: Friday, August 05, 2016

Sincerely,

**Lauren Roberts**

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## 1.0 Cementing Job Summary

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### 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **Varra #2** 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.

**30 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 #: 3563405	Quote #:	Sales Order #: 0903450430
Customer: EXTRACTION OIL & GAS -		Customer Rep: Todd	
Well Name: VARRA		Well #: 2	API/UWI #: 05-123-39982-00
Field: WATTENBERG	City (SAP): WINDSOR	County/Parish: WELD	State: COLORADO
Legal Description: NW SW-5-6N-67W-1719FSL-791FWL			
Contractor:		Rig/Platform Name/Num: Spud Rig	
Job BOM: 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB71271		Srvc Supervisor: Steve McCoy	

**Job**

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	1590ft		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			0	1590	0	1590
Open Hole Section			13.5				0	1590	0	1590

**Tools and Accessories**

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625	1		1590	Top Plug	9.625	1	HES
Float Shoe	9.625	1			Bottom Plug	9.625	1	HES
Float Collar	9.625	1			SSR plug set	9.625	1	HES
Insert Float	9.625	1			Plug Container	9.625	1	HES
Stage Tool	9.625	1			Centralizers	9.625	1	HES

**Miscellaneous Materials**

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

**Fluid Data**

Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Fresh Water	Fresh Water	12	bbl	8.33			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
2	SwiftCem	SWIFTCEM (TM) SYSTEM	565	sack	13.5	1.74		7	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	0	bbl	9				
Cement Left In Pipe		<b>Amount</b>	45 ft		<b>Reason</b>		<b>Shoe Joint</b>		
<b>Comment</b>									

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

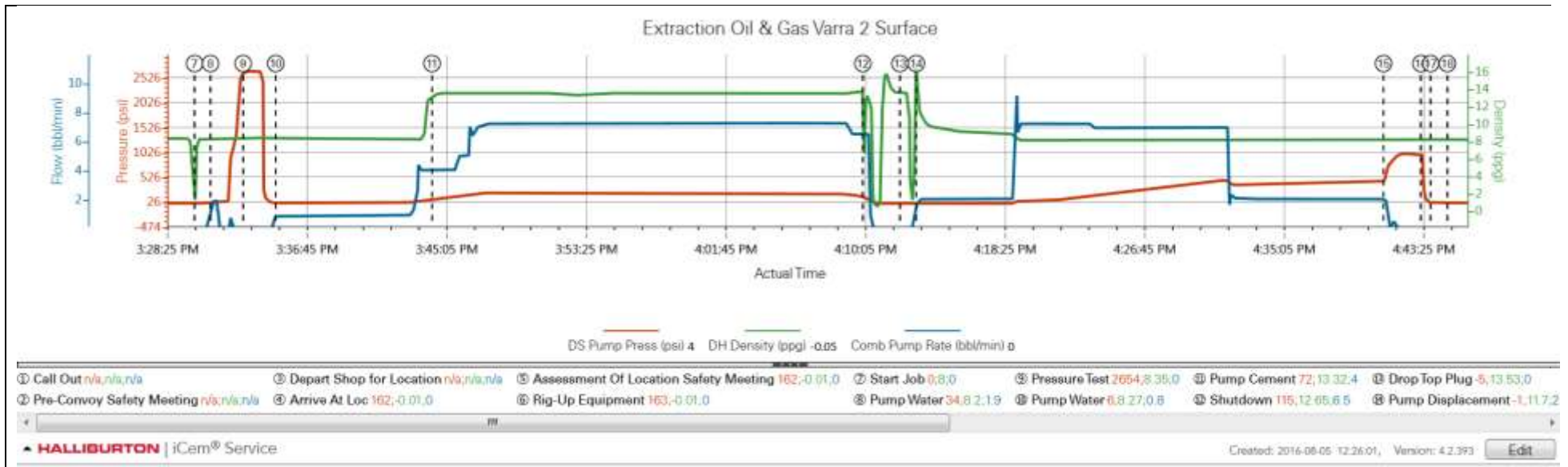
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Driv-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	8/5/2016	06:00:00	USER				Requested on location @ 1200
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	8/5/2016	09:45:00	USER				
Event	3	Depart Shop for Location	Depart Shop for Location	8/5/2016	10:00:00	USER				
Event	4	Arrive At Loc	Arrive At Loc	8/5/2016	13:04:54	USER	162.00	-0.01	0.00	
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	8/5/2016	13:05:23	USER	162.00	-0.01	0.00	Discussed well site hazards and spotting equipment
Event	6	Rig-Up Equipment	Rig-Up Equipment	8/5/2016	13:05:58	USER	163.00	-0.01	0.00	
Event	7	Start Job	Start Job	8/5/2016	15:30:12	COM16	0.00	8.00	0.00	
Event	8	Pump Water	Pump Water	8/5/2016	15:31:09	USER	34.00	8.20	1.90	Fill Lines 2 bpm 20 psi
Event	9	Pressure Test	Pressure Test	8/5/2016	15:33:06	USER	2654.00	8.35	0.00	Good test no leaks 2731 psi
Event	10	Pump Water	Pump Water	8/5/2016	15:35:02	USER	6.00	8.27	0.80	Pump 10 bbl water fresh water
Event	11	Pump Cement	Pump Cement	8/5/2016	15:44:22	COM16	72.00	13.32	4.00	Mixed & Pumped 565 sks SwiftCem @ 13.5 ppg, 1.74 Y, 9.2 gps
Event	12	Shutdown	Shutdown	8/5/2016	16:10:06	USER	115.00	12.65	6.50	
Event	13	Drop Top Plug	Drop Top Plug	8/5/2016	16:12:19	COM16	-5.00	13.53	0.00	Co Man Witnessed
Event	14	Pump Displacement	Pump Displacement	8/5/2016	16:13:17	COM16	-1.00	11.70	2.00	Displaced 120 Bbls fesh water
Event	15	Bump Plug	Bump Plug	8/5/2016	16:41:11	USER	542.00	8.17	1.90	Plug Bumped @ 460 PSI brought the pressure up to 1010 psi
Event	16	Check Floats	Check Floats	8/5/2016	16:43:24	USER	302.00	8.20	0.00	Floats Held .5 bbl back to truck
Event	17	Cement Returns to Surface	Cement Returns to Surface	8/5/2016	16:44:00	USER	-4.00	8.17	0.00	30 bbls cement circulated back to surface 97 sacks

Event	18	End Job	End Job	8/5/2016	16:45:00	COM16	-1.00	8.17	0.00
Event	19	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	8/5/2016	16:50:00	USER	4.00	8.19	0.00
Event	20	Rig-Down Equipment	Rig-Down Equipment	8/5/2016	17:00:00	USER	3.00	0.26	3.50
Event	21	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	8/5/2016	18:15:00	USER			
Event	22	Depart Location for Shop	Depart Location for Shop	8/5/2016	18:30:00	USER			



## 3.0 Attachments

### 3.1 Extraction Oil & Gas Varra 2 Surface.png



## 3.2 Extraction Oil & Gas cement pumping.png

