

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS-EBUS**

Date: Saturday, June 24, 2017

### **McGirr 6C Surface**

Job Date: Monday, June 05, 2017

Sincerely,

**Julia Nichols**

## Legal Notice

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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 **McGirr 6C** 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.

**Approximately 33 bbls of cement were 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]**

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*Cementing Job Summary*

The Road to Excellence Starts with Safety

Sold To #: 369404	Ship To #: 3799733	Quote #:	Sales Order #: 0904082151
Customer: EXTRACTION OIL & GAS -		Customer Rep: Sean Macentire	
Well Name: MCGIRR	Well #: 6C	API/UWI #: 05-069-06490-00	
Field: WATTENBERG	City (SAP): CAMPION	County/Parish: LARIMER	State: COLORADO
Legal Description: NE SE-25-5N-68W-1998FSL-409FEL			
Contractor: UNKNOWN		Rig/Platform Name/Num: WORKOVER RIG	
Job BOM: 7521 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Nicholas Peterson	
Job			

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	1557ft		Job Depth TVD
Water Depth			Wk Ht Above Floor 5'
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	0	9.625	8.921	36	8 RD	J-55	0	1557	0	0
Open Hole Section			13.5				0	1557	0	0

Tools and Accessories									
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make	
Guide Shoe	9.625	1	HES	1557	Top Plug	9.625	1	HES	
Float Shoe					Bottom Plug				
Float Collar	9.625	1	HES	1515	SSR plug set				
Inert Float					Plug Container	9.625	1	HES	
Stage Tool					Centralizers				

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	Red Dye Spacer	Red Dye Spacer	20	bbl	8.33			3			
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		
2	SwiftCem	SWIFTCEM (TM) SYSTEM	560	sack	13.5	1.74	5	9.2			
		9.20 Gal	FRESH WATER								

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*Cementing Job Summary*

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	
3	Fresh Water	Fresh Water	118	bbl	8.33			5		
<b>Cement Left In Pipe</b>		<b>Amount</b>	42 ft		<b>Reason</b>			Shoe Joint		
<b>Mix Water:</b>		pH 7.0	<b>Mix Water Chloride:</b>		0 ppm		<b>Mix Water Temperature:</b> 65 °F			
<b>Cement Temperature:</b>		## °F	<b>Plug Displaced by:</b>		8.33 lb/gal		<b>Disp. Temperature:</b> 65 °F			
<b>Plug Bumped?</b>		Yes	<b>Bump Pressure:</b>		480 psi		<b>Floats Held?</b> Yes			
<b>Cement Returns:</b>		33 bbl	<b>Returns Density:</b>		13.5 lb/gal		<b>Returns Temperature:</b> ## °F			
<b>Comment: Cement back to surface 85 bbls into displacement 33 bbls cement to surface.</b>										

## 2.0 Real-Time Job Summary

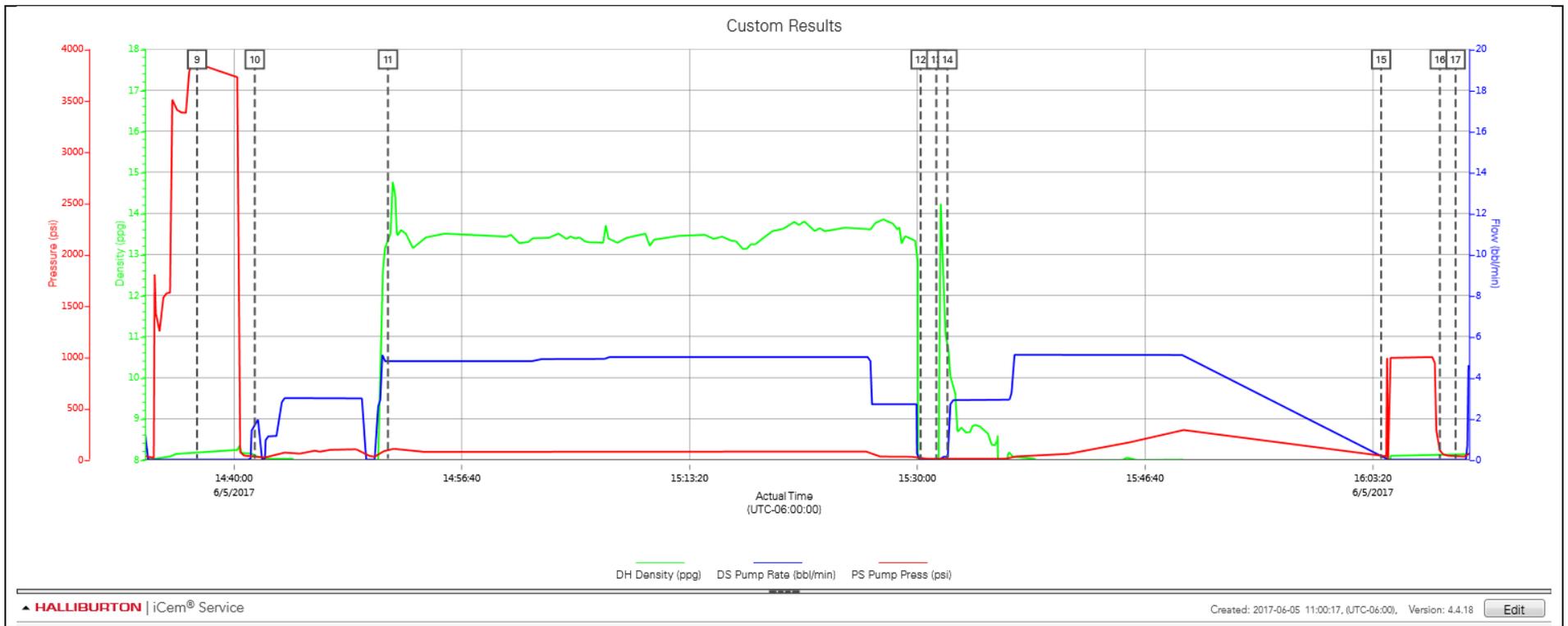
### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	DS Pump Rate (bbl/min)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	6/5/2017	07:30:00	USER				CREW CALLED OUT AT 07:30, REQUESTED ON LOCATION 11:30. CREW PICKED UP CEMENT, AND 2 LBS RED DYE FROM FT. LUPTON, CO. BULK 660, E-15, 10866493, AND PUMP RT-1.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/5/2017	10:15:00	USER				DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	6/5/2017	10:30:00	USER				STARTED JOURNEY MANAGEMENT.
Event	4	Arrive at Location from Service Center	Arrive at Location	6/5/2017	11:30:00	USER				END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; CASING- 9.625 36# @ 1,557', 13.5" HOLE 1,557' SHOE 41.60', FRESH WATER DISPLACEMENT. CASING LANDED @ 14:20 06/05/2017.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	6/5/2017	11:45:00	USER				HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	6/5/2017	12:00:00	USER				CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Safety Meeting - Pre Job	Safety Meeting - Pre Job	6/5/2017	14:25:00	USER	8.30	0.00	12.00	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	6/5/2017	14:31:24	COM5	8.29	0.00	6.00	BEGIN RECORDING JOB DATA.
Event	9	Test Lines	Test Lines	6/5/2017	14:37:18	COM5	8.19	0.00	3869.00	PRESSURE TESTED IRON TO 3500 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 930 PSI, 5TH GEAR STALL OUT @ 1657 PSI.
Event	10	Pump Spacer 1	Pump Spacer 1	6/5/2017	14:41:31	COM5	8.10	1.60	23.00	PUMP 20 BBLs OF FRESH WATER WITH RED DYE.
Event	11	Pump Cement	Pump Cement	6/5/2017	14:51:16	COM5	13.37	4.80	97.00	PUMP 550 SKS OF SWIFTCM @ 13.5 LB/GAL, 1.74 YIELD, 9.2 GAL/SK 170.44 BBLs. DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	12	Shutdown	Shutdown	6/5/2017	15:30:14	USER	0.19	0.00	12.00	SHUTDOWN FOR 2 MINUTES.

Event	13	Drop Top Plug	Drop Top Plug	6/5/2017	15:31:23	USER				PLUG LEFT CONTAINER, VERIFIED BY DRILLER.
Event	14	Pump Displacement	Pump Displacement	6/5/2017	15:32:12	COM5	10.92	0.20	8.00	BEGIN CALCULATED DISPLACEMENT OF 118 BBLS WITH FRESH WATER.
Event	15	Bump Plug	Bump Plug	6/5/2017	16:03:56	USER				PLUG BUMPED AT CALCULATED DISPLACEMENT. PRESSURED 480 PSI OVER BUMP TO 1000 PSI.
Event	16	Check Floats	Check Floats	6/5/2017	16:08:14	USER	8.10	0.00	88.00	RELEASED PRESSURE, FLOATS HELD, 1.5 BBLS BACK.
Event	17	End Job	End Job	6/5/2017	16:09:23	COM5				STOP RECORDING JOB DATA.
Event	18	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	6/5/2017	16:15:00	USER	8.30	2.40	14.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	19	Rig-Down Completed	Rig-Down Completed	6/5/2017	16:30:00	USER				ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	20	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/5/2017	16:45:00	USER				DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	21	Depart Location	Depart Location	6/5/2017	17:00:00	USER				THANK YOU FOR USING HALLIBURTON - NICK PETERSON AND CREW. BULK TRUCKS WENT TO YARD TO BE RE LOADED.

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart with Events

