

HALLIBURTON

iCem[®] Service

GREAT WESTERN OIL & GAS LLC

For:

Date: Wednesday, August 27, 2014

Spaur Brothers EH 31-379HN Surface

Great Western

Sincerely,

Derek Trier

Table of Contents

1.1	Executive Summary	3
1.2	Cementing Job Summary	4
1.3	Job Overview	6
1.4	Job Event Log	7
2.0	Appendix	10

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Spaur Brothers EH 31-379HN** 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.

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 Brighton

Job Times

	Date	Time	Time Zone
Called Out	8/26/2014	0030	MST
On Location	8/26/2014	0530	MST
Job Started	8/26/2014	0817	MST
Job Completed	8/26/2014	0931	MST
Departed Location	8/26/2014	1145	MST

1.2 Cementing Job Summary

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 346459	Ship To #: 3277962	Quote #:	Sales Order #: 0901610582
Customer: GREAT WESTERN OIL & GAS LLC - eBUS		Customer Rep:	
Well Name: SPAUR BROTHERS -EH-	Well #: 31-379 HN	API/UWI #: 05-123-38749-00	
Field: WATTENBERG	City (SAP): GALETON	County/Parish: WELD	State: COLORADO
Legal Description: SE SE-31-7N-63W-292FSL-210FEL			
Contractor:		Rig/Platform Name/Num: Craig 7	
Job BOM: 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA/HB21661		Srv Supervisor: Edur Duran	
Job			

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	1055ft		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	STC	J-55	0	1044	0	1044
Open Hole Section			13.5				0	1060	0	1060

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625	1		1044	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 ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Fresh Water Spacer	Fresh Water	10	bbl	8.4			6	
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	SwiftCem B2	SWIFTCM (TM) SYSTEM	420	sack	14.2	1.54		6	7.64

last updated on 8/26/2014 10:46:08 AM

Page 1 of 3

HALLIBURTON

Cementing Job Summary

7.64 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	Displacement	Displacement	78	bbl	8.33			6	
Cement Left In Pipe		Amount	45 ft		Reason			Shoe Joint	
Comment									

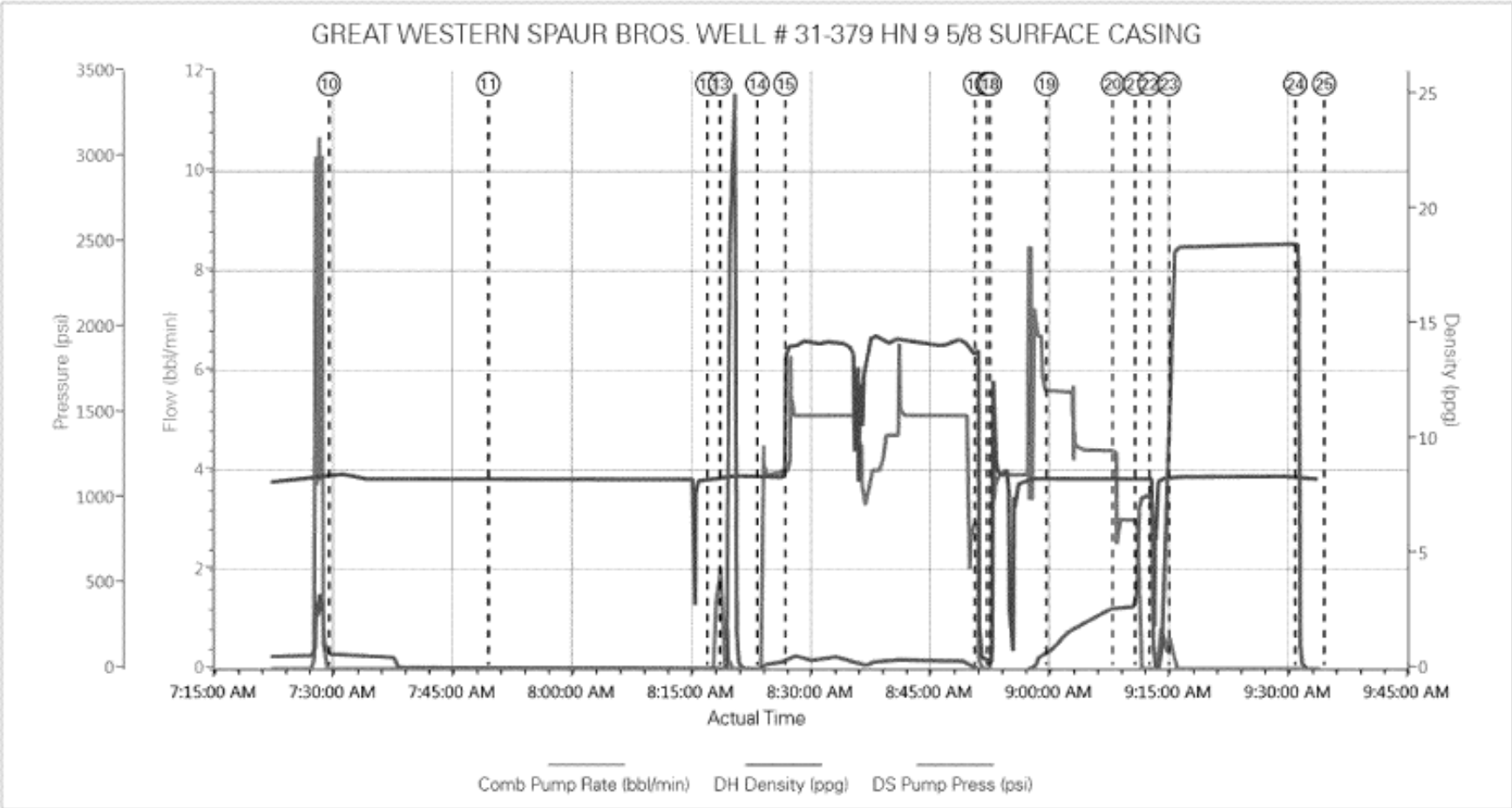
1.3 Job Overview

		Units	Description
1	Surface temperature at time of job	°F	70
2	Mud type (OBM, WBM, SBM, Water, Brine)	-	Water
3	Actual mud density	lb/gal	8.6
4	Time circulated before job	HH:MM	
5	Mud volume circulated	Bbls	
6	Rate at which well was circulated	Bpm	
7	Pipe movement during hole circulation	Y/N	No
8	Rig pressure while circulating	Psi	
9	Time from end mud circulation to start of job	HH:MM	
10	Pipe movement during cementing	Y/N	No
11	Calculated displacement	Bbls	78
12	Job displaced by	Rig/HES	HES
13	Annular before job)?	Y/N	no
14	Annular flow after job	Y/N	no
15	Length of rat hole	Ft	
16	Units of gas detected while circulating	Units	
17	Was lost circulation experienced at any time ?	Y/N	N

1.4 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DH Density (ppg)	DS Pump Press (psi)	Comment
Event	1	Call Out	Call Out	8/26/2014	00:30:00	USER				Called out @ 1230 to be on Location @ 0530 North of Greely, Co
Event	2	Other	Load All Equipment for Job	8/26/2014	01:30:00	USER				Load all equipment for Job
Event	3	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	8/26/2014	03:30:00	USER				Discussed Route of Travel, Weather, Wildlife, Convoy Safety
Event	4	Depart from Service Center or Other Site	Depart from Service Center or Other Site	8/26/2014	04:00:00	USER				Departed Service Center for Location, Notified Dispatch & Journey Management
Event	5	Arrive at Location from Service Center	Arrive at Location from Service Center	8/26/2014	05:30:00	USER				Arrived on Location, Rig Running Casing, Notified Dispatch & Journey Management, Went over job Procedure & Numbers with Customer
Event	6	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	8/26/2014	05:45:00	USER				Discussed spotting of all equipment using 2 spotters, Line of fire eyes on path, positive foot placement, water breaks
Event	7	Rig-Up Equipment	Rig-Up Equipment	8/26/2014	06:00:00	USER				Rigged up all equipment
Event	8	Rig-Up Completed	Rig-Up Completed	8/26/2014	07:00:00	USER				Rig up Complete
Event	9	Other	Other	8/26/2014	07:01:00	USER				Tested Water, Water Tested Good, Notified Customer
Event	10	Casing on Bottom	Casing on Bottom	8/26/2014	07:30:00	USER	0.00	8.44	80.00	Casing on Bottom
Event	11	Pre-Job Safety Meeting	Pre-Job Safety Meeting	8/26/2014	07:50:00	USER	0.00	8.30	-1.00	Discussed Job Procedure with Rig Crew, Red zone, Muster Area, Head Count
Event	12	Start Job	Start Job	8/26/2014	08:17:29	COM6	0.00	8.32	-4.00	
Event	13	Test Lines	Test Lines	8/26/2014	08:19:04	COM6	0.00	8.30	6.00	Test Lines @ 3000

Event	14	Pump Spacer 1	Pump Spacer 1	8/26/2014	08:23:46	COM6	0.80	8.35	-3.00	Pump 10 bbls of Fresh Water Spacer
Event	15	Pump Cement	Pump Cement	8/26/2014	08:27:17	COM6	4.00	14.09	50.00	Pump 115 bbls of Cement @ 14.2 ppg (420 sks) (1.54 ft3/sk) (1275 HOC)
Event	16	Shutdown	Shutdown	8/26/2014	08:51:10	USER	0.00	2.48	-1.00	Shutdown
Event	17	Drop Top Plug	Drop Top Plug	8/26/2014	08:52:40	COM6	0.00	0.34	-23.00	Drop Top Plug
Event	18	Pump Displacement	Pump Displacement	8/26/2014	08:53:03	COM6	3.40	10.64	-7.00	Pump 78 bbls of Fresh Water Displacement
Event	19	Displ Reached Crnt	Displ Reached Crnt	8/26/2014	09:00:08	COM6	5.60	8.30	105.00	Displacement Reached Cement 30 bbls out on Displacement
Event	20	Slow Rate	Slow Rate	8/26/2014	09:08:27	USER	3.50	8.30	359.00	Slow Rate 60 bbls out on Displacement, Positive Cement to Surface, 18 bbls Calculated back to Surface
Event	21	Bump Plug	Bump Plug	8/26/2014	09:11:15	COM6	0.00	8.31	939.00	363 psi-980 psi
Event	22	Check Floats	Check Floats	8/26/2014	09:13:04	USER	0.00	2.85	117.00	Checked Floats, Floats Held, 1 bbl back
Event	23	Other	Casing Test	8/26/2014	09:15:31	USER	0.40	8.36	2342.00	Hold 2463 psi for 15 min
Event	24	Other	Casing Test End	8/26/2014	09:31:23	USER	0.00	8.24	1282.00	Final 2490 psi
Event	25	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	8/26/2014	09:35:00	USER				Discussed Job Outcome, Hammer Swings, Eyes on path, Line of Fire
Event	26	Rig-Down Equipment	Rig-Down Equipment	8/26/2014	10:00:00	USER				Rig down all equipment
Event	27	Rig-Down Completed	Rig-Down Completed	8/26/2014	11:30:00	USER				Rig Down Complete
Event	28	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	8/26/2014	11:31:00	USER				Discussed Route of Travel, Weather, Wildlife, Convoy Safety
Event	29	Depart Location	Depart Location	8/26/2014	11:45:00	USER				Departed Location for Service Center, Notified Dispath & Journey Management
Event	30	Other	Other	8/26/2014	12:00:00	USER				Thank You for using Halliburton Energy Services, Edur Duran &



2.0 Appendix
