

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Friday, April 08, 2016

Bybee #2

Production

Job Date: Wednesday, March 02, 2016

Sincerely,
Lauren Roberts

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Bybee #2** cement **Production** 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.

40 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]

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	PS Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	3/1/2016	19:00:00	USER				Call out from ARC hub
Event	2	Arrive At Loc	Arrive At Loc	3/1/2016	23:30:00	USER				Requested on location @0100 Arrived on location @2330 met with company rep to discuss job process and concerns
Event	3	Other	Well info	3/1/2016	23:30:01	USER				TD-12647 TP-12637 FC-12635 SURF 1600 MUD9.5 OH 7.875 CASING 5.5 20#
Event	4	Other	Water info	3/1/2016	23:30:02	USER				Temp 64 ph 7 ci0
Event	5	Start Job	Start Job	3/2/2016	02:34:37	COM4				Held pre-job safety meeting with all hands on location to discuss job process and hazards, Rigged up cement head and cement manifold
Event	6	Other	Other	3/2/2016	02:46:31	COM4	3.00	8.26	0.00	Primed pumps and lines with fresh water
Event	7	Test Lines	Test Lines	3/2/2016	02:47:50	COM4	1892.00	8.33	0.40	Pressure tested pumps and lines found no leaks and pressure held good
Event	8	Pump Spacer 1	Pump Spacer 1	3/2/2016	02:50:46	COM4	52.00	8.34	0.00	Mixed 50bbl Tuned Spacer 11.5ppg on BMR100 and pumped
Event	9	Check Weight	Check weight	3/2/2016	02:55:34	COM4	268.00	11.82	5.00	Confirm cement weight on scales
Event	10	Pump Lead Cement	Pump Lead Cement	3/2/2016	03:01:05	COM4	32.00	9.33	1.70	Mixed 150 sks or 46bbl of 13.2ppg ElastiCem Y1.57 G/SK7.51 at 8.0bpm/1500 sks of tail
Event	11	Check Weight	Check weight	3/2/2016	03:07:56	COM4	362.00	13.37	8.00	Confirm cement weight
Event	12	Check Weight	Check weight	3/2/2016	03:08:10	COM4	354.00	13.16	8.00	Confirm cement weight
Event	13	Shutdown	Shutdown	3/2/2016	04:12:09	COM4	97.00	0.98	0.00	
Event	14	Drop Top Plug	Drop Top Plug	3/2/2016	04:16:43	COM4	7.00	-0.09	0.00	Released plug witnessed by company rep and KLX tool hand
Event	15	Clean Lines	Clean Lines	3/2/2016	04:17:03	COM4	6.00	1.11	1.20	Washed pumps and lines with fresh water
Event	16	Pump Displacement	Pump Displacement	3/2/2016	04:20:04	COM4	6.00	-0.21	0.00	Pumped 279bbl of fresh water to displace cement

Event	17	Displ Reached Cmnt	Displ Reached Cmnt	3/2/2016	04:22:49	COM4	627.00	8.04	12.10	Reached cement
Event	18	Bump Plug	Bump Plug	3/2/2016	04:58:50	COM4	2841.00	8.12	0.00	Bumped plug 500 psi over final pump pressure
Event	19	Other	Other	3/2/2016	04:59:12	COM4	2843.00	8.12	0.00	Released pressure back to pump truck to check floats, floats held good 3.0bbl back
Event	20	Other	Other	3/2/2016	05:00:40	COM4	20.00	7.80	0.00	Pressure up to burst plug for wet shoe pumped 5bbl after burst
Event	21	End Job	End Job	3/2/2016	05:09:47	COM4	20.00	8.02	0.00	40bbl of cement back to surface

3.0 Attachments

3.1 Case 1-Custom Results.png

