

# HALLIBURTON

iCem<sup>®</sup> Service

## **SYNERGY OIL & GAS LP**

### **Kawata 32-17B-M**

Production

Job Date: Thursday, December 08, 2016

Sincerely,

**Derek Trier**

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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 **Kawata 32N-17B-M** 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.

**Approximately, 40bbl of Spacer and 60bbl 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]**

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## Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 359915	Ship To #: 3763586	Quote #:	Sales Order #: 0903704781							
Customer: SYNERGY RESOURCES CORPORATION		Customer Rep: KEVIN BRAKOVEC								
Well Name: KAWATA	Well #: 32N-17B-M	API/UWI #: 05-123-43771-00								
Field: WATTENBERG	City (SAP): PLATTEVILLE	County/Parish: WELD	State: COLORADO							
Legal Description: NW NE-16-4N-66W-1141FNL-2346FEL										
Contractor: PRECISION DRLG		Rig/Platform Name/Num: PRECISION 562								
Job BOM: 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA/HX38199		Srv Supervisor: JESSE SLAUGHTER								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type	BHST									
Job depth MD	14559ft	Job Depth TVD								
Water Depth		Wk Ht Above Floor	6 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	LTC	J-55	0	1766	0	1766
Casing		5.5	4.778	20		P-110	0	14548	0	7021
Open Hole Section			8.5				1766	14562	0	7021
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5			14599		Top Plug	5.5	1		
Float Shoe	5.5					Bottom Plug	5.5	1		
Float Collar	5.5					SSR plug set	5.5			HES
Insert Float	5.5					Plug Container	5.5	1		HES
Stage Tool	5.5					Centralizers	5.5			HES
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	Tuned Spacer III	Tuned Spacer III	40	bbl	11.5	3.75		3		
0.30 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)								
0.30 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
149.34 lbm/bbl		BARITE, BULK (100003681)								
35.60 gal/bbl		FRESH WATER								

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## HALLIBURTON

## Cementing Job Summary

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	ElastiCem Lead	ELASTICEM (TM) SYSTEM	11042	sack	13.2	1.57		8	7.52
7.52 Gal		FRESH WATER							
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	NeoCem	NeoCem TM	913	sack	13.2	2.09		8	10.08
10.08 Gal		FRESH WATER							
0.40 %		SCR-100 (100003749)							
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
4	MMCR Displacement	MMCR Displacement	20	bbl	8.34			6	
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
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
5	Clay-Web Displacement	Clay-Web Displacement	300.4	bbl	8.33			6	
0.05 gal/bbl		CLA-WEB - TOTE (101985045)							
Cement Left In Pipe		Amount	42 ft		Reason			Shoe Joint	
Comment									

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Combined Pump Rate (bbl/min)	Downhole Density (ppg)	Pass-Side Pump Pressure (psi)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	Call Out	12/7/2016	12:00:00	USER					
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	12/7/2016	16:50:00	USER					WITH ALL HES PERSONNEL
Event	3	Crew Leave Yard	Crew Leave Yard	12/7/2016	17:00:00	USER					
Event	4	Arrive At Loc	Arrive At Loc	12/7/2016	18:00:00	USER					
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	12/7/2016	18:10:00	USER					WITH ALL HES PERSONNEL
Event	6	Other	Spot Equipment	12/7/2016	18:20:00	USER					
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	12/7/2016	18:25:00	USER					WITH ALL HES PERSONNEL
Event	8	Rig-Up Equipment	Rig-Up Equipment	12/7/2016	18:30:00	USER					
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/8/2016	00:45:00	USER					WITH ALL PERSONNEL
Event	10	Start Job	Start Job	12/8/2016	01:05:00	USER					TD 14562 FT, TP 14548 FT, SHOE 48.13 FT, CSG 5 1/2 IN 20 LB/FT, HOLE 8 1/2 IN, MUD WT 9.8 PPG, TVD 7021 FT, SURFACE CSG SET AT 1766 FT 9 5/8 IN 36 LB/FT
Event	11	Test Lines	Test Lines	12/8/2016	01:11:02	RTD Import	0.00	8.81	4410.04	15.0	Test Lines
Event	12	Pump Spacer 1	Pump Tuned Spacer	12/8/2016	01:27:30	RTD Import	2.23	11.56	206.77	2.1	WITH 12 GAL MUSOL A, 12 GAL DUAL SPACER B AND 10 GAL D AIR
Event	13	Drop Bottom Plug	Drop Bottom Plug	12/8/2016	01:43:56	USER	0.00	12.19	39.99	0.0	PLUG LAUNCHED
Event	14	Pump Lead Cement	Pump Lead Cement*	12/8/2016	01:48:54	RTD Import	2.78	12.73	61.66	0.6	1042 SKS AT 13.2 PPG, 1.57 FT3/SK, 7.52 GAL/SK
Event	15	Mud Cup Sample	Mud Cup Sample Pulled	12/8/2016	02:13:51	RTD	7.96	13.22	233.15	118.1	MUD SCALES WEIGHING AT 13.2 PPG

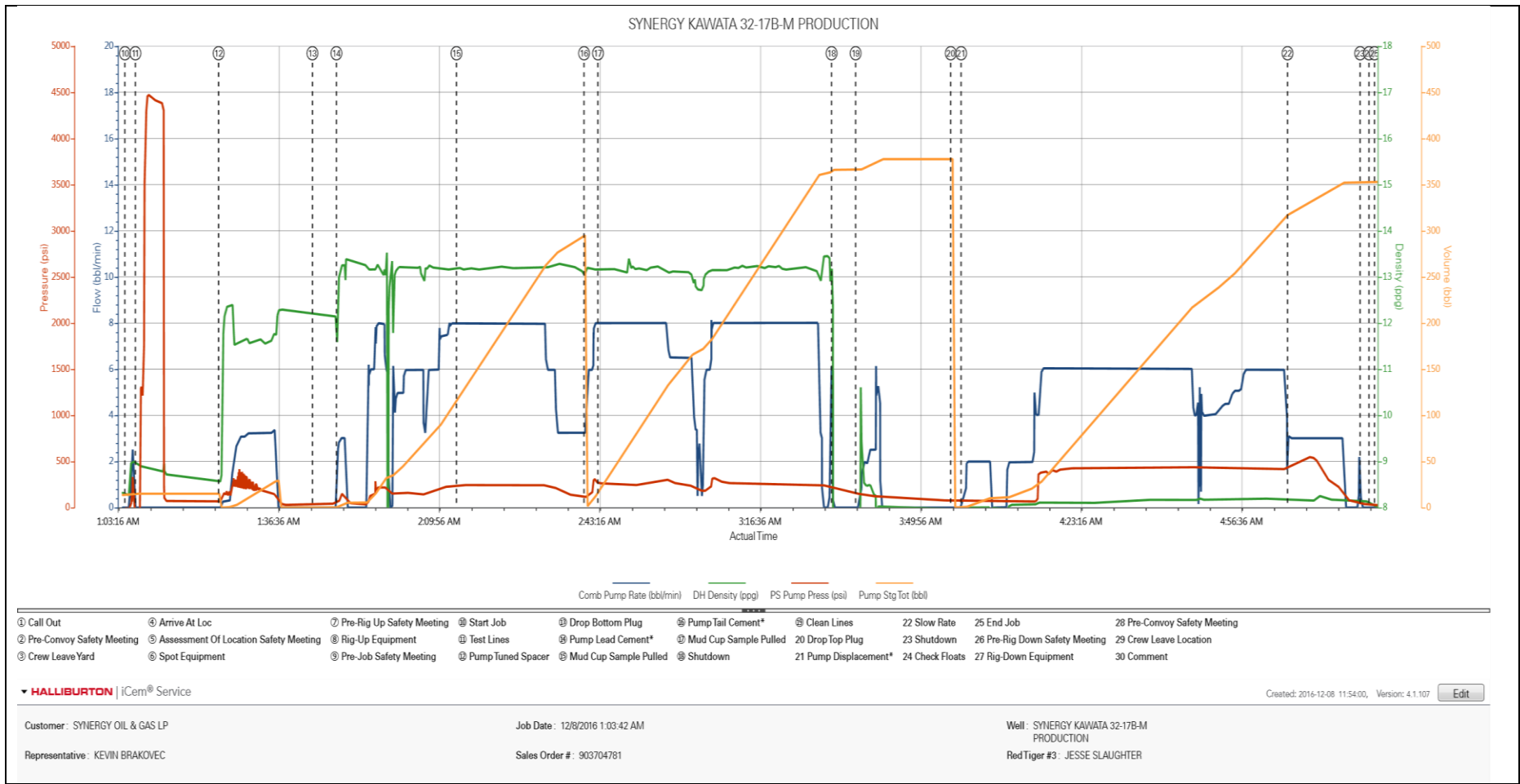
Import										
Event	16	Pump Tail Cement	Pump Tail Cement*	12/8/2016	02:40:21	RTD Import	3.25	13.22	113.49	295.6 913 SKS AT 13.2 PPG, 2.09 FT3/SK, 10.08 GAL/SK
Event	17	Mud Cup Sample	Mud Cup Sample Pulled	12/8/2016	02:43:14	RTD Import	8.01	13.15	263.30	19.4 MUD SCALES WEIGHING AT 13.2 PPG
Event	18	Shutdown	Shutdown	12/8/2016	03:31:45	RTD Import	0.00	0.88	224.67	366.1 DUE TO RIG FUELING ISSUES HES WAS PUT ON STANDBY FOR RIG TO RETURN POWER.
Event	19	Clean Lines	Clean Lines	12/8/2016	03:36:45	RTD Import	0.00	-0.16	152.12	366.1 CLEANED PUMPS AND LINES TO RIG CUTTINGS PIT
Event	20	Drop Top Plug	Drop Top Plug	12/8/2016	03:56:30	RTD Import	0.00	7.96	74.86	377.6 PLUG LAUNCHED
Event	21	Pump Displacement	Pump Displacement*	12/8/2016	03:58:39	RTD Import	0.57	7.79	72.97	0.1 FRESH WATER WITH 20 GAL CLAYWEB. 20 GAL BIOCID.
Event	21	Pump Displacement	Pump Displacement*	12/8/2016		USER	2.00	7.79	70.00	10.0
Event	21	Pump Displacement	Pump Displacement*	12/8/2016		USER	6.00	7.79	430.00	100.0
Event	21	Pump Displacement	Pump Displacement*	12/8/2016		USER	4.00	7.79	480.00	200.0
Event	21	Pump Displacement	Pump Displacement*	12/8/2016		USER	6.00	7.79	1815.00	310.0
Event	22	Slow Rate	Slow Rate	12/8/2016	05:06:27	USER	3.05	8.17	440.44	318.2 SLOWED RATE 20 BBLS PRIOR TO CALCULATED DISPLACEMENT
Event	23	Shutdown	Shutdown	12/8/2016	05:21:32	USER	0.00	8.15	41.88	353.1 DUE TO COLD WEATHER CONDITIONS THE PRESSURE TRANSDUCER AND SECONDARY MARTIN DECKER WERE PLUG OFF WITH ICE MAKING THE PRESSURE READINGS OFF. AS PER COMPANY REP HES PUMPED 9 BBLS OVER CALCULATED DISPLACEMENT TO ENSURE A WET SHOE WAS PUMPED.
Event	24	Check Floats	Check Floats	12/8/2016	05:23:22	USER	0.00	8.10	34.34	353.1 FLOATS HOLDING HES RETURNED 2 1/2 BBLS H2O TO PUMP
Event	25	End Job	End Job	12/8/2016	05:24:30	USER				PIPE WAS STATIC DURING JOB. GOOD CIRCULATION THROUGHOUT JOB. HES RETURNED 60 BBLS CEMENT TO SURFACE.



Event	26	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	12/8/2016	05:35:00	USER	WITH ALL HES PERSONNEL
Event	27	Rig-Down Equipment	Rig-Down Equipment	12/8/2016	05:40:00	USER	
Event	28	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	12/8/2016	06:20:00	USER	WITH ALL HES PERSONNEL
Event	29	Crew Leave Location	Crew Leave Location	12/8/2016	06:30:00	USER	
Event	30	Comment	Comment	12/8/2016	06:31:00	USER	THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT. JESSE SLAUGHTER AND CREW.

3.0 Attachments

3.1 CHART.png



3.2 NO LEGEND.png

