HALLIBURTON

iCem® Service

BISON OIL & GAS II LLC - EBUS

Ft. Lupton District, COLORADO

Ross 8-60 18-7-3 Production

Job Date: Thursday, June 09, 2022

Sincerely,

Meghan Van Zyl

Legal Notice

Disclaimer:

All information in this report is provided subject to the terms and conditions which govern the services provided by Halliburton. Halliburton personnel use their best efforts in gathering information and their best judgment in interpreting it, but any interpretation, research, analysis or recommendation furnished by Halliburton are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and empirical relationships and assumptions are not infallible, and with respect to which professionals in the industry may differ. iCem 3D Displacement results are used to understand how fluids intermix during a cement job. Simulation and 3D displacement results are not intended as and should not be used as a replacement for bond logs in determining top of cement. Current 3D model calculations are known to model more volume than the input volume for standard cases due to known calculation improvements required. For rotational cases, the modeled volume will be impacted by the same calculations impacting the standard cases, as well as additional constraints imposed to make the calculation time required operationally feasible. Therefore, until further notice, 3D displacement results should not be used for replacement of a bond log, or used as an identifier of top of cement. HALLIBURTON IS UNABLE TO GUARANTEE THE ACCURACY OF ANY CHART INTERPRETATION, RESEARCH ANALYSIS, OR JOB RECOMMENDATION and any interpretation or recommendation is not for use of or reliance upon by any third party. The customer has full responsibility for any of its decisions which are based on the information provided in this report.

Table of Contents

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Ross 8-60 18-7-3** cement **Job 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 20 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 Fort Lupton

The Road to Excellence Starts with Safety

Sold To #: 324725	**Ship To #:** 9120818	**Quote #:**	**Sales Order #:** 0907912951
Customer: BISON OIL & GAS II LLC-EBUS		**Customer Rep:** Jose Torres	
Well Name: ROSS 8-60	**Well #:** 18-7-3		**API/UWI #:** 05-123-51396
Field:	**City (SAP):** BRIGGSDALE	**County/Parish:** WELD	**State:** COLORADO
Legal Description:			
Contractor: ENSIGN DRLG		**Rig/Platform Name/Num:** ENSIGN 140	
Job BOM: 7523 7523			
Well Type: OIL			
Sales Person: HALAMERICA\HX41066		**Srvc Supervisor:** Kyle Bath	

Job

Formation Name				
Formation Depth (MD)	**Top**		**Bottom**	
Form Type			**BHST**	
Job depth MD	15546ft		**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	1973	0	1973
Casing		5.5	4.892	17			0	15581	0	6430
Open Hole Section			8.5				1973	15581	1973	6430

Tools and Accessories

Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	5.5			15546		**Top Plug**	5.5		HES
Float Shoe	5.5					**Bottom Plug**	5.5		HES
Float Collar	5.5					**SSR plug set**	5.5		HES
Insert Float	5.5					**Plug Container**	5.5		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 ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Tuned Prime Cement Spacer	TUNED PRIME CEMENT SPACER SYS	50	bbl	11.5	3.74	1775	6	

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	SBM CEM ELASTICEM™ SYS	565	sack	13	1.66	4689	8	8.3

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	IsoBond	SBM CEM FDP-C1371 SYS	550	sack	13	1.55	3971	8	7.22

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	ElastiCem	SBM CEM ELASTICEM™ SYS	1345	sack	13.3	1.59	10437	8	7.76

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	MMCR Displacement	MMCR Displacement	20	bbl	8.33	0	840	9.25	

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
6	Displacement	Displacement	341	bbl	8.33		14322		

Cement Left In Pipe	**Amount**	5 ft	Reason	**Shoe Joint**	
Mix Water:	pH ##	**Mix Water Chloride:**	## ppm	Mix Water Temperature:	**## °F °C**
Cement Temperature:	## °F °C	**Plug Displaced by:**	## lb/gal kg/m3 XXXX	Disp. Temperature:	**## °F °C**
Plug Bumped?	Yes/No	**Bump Pressure:**	##### psi MPa	Floats Held?	**Yes/No**
Cement Returns:	## bbl m3	**Returns Density:**	## lb/gal kg/m3	Returns Temperature:	**## °F °C**

Comment 857bbls mix water total used.

2.0 Real-Time Job Summary

2.1 Job Event Log

Seq. No.	Activity	Graph Label	Date	Time	Dwnhole Density (ppg)	Cmb Pump Rate (bbl/min)	Pump A Pressure (psi)	Cmb Stg Total (bbl)	Comments
1	Depart Yard Safety Meeting	Depart Yard Safety Meeting	6/8/2022	17:45:00					PRE JOURNEY SAFETY MEETING WITH ALL HES PERSONNEL, DISCUSS ROUTE AND HAZARDS ASSOCIATED WITH THE JOURNEY
2	Crew Leave Yard	Crew Leave Yard	6/8/2022	18:00:00					ALL HES EMPLOYEES IN ROUTE TO LOCATION
3	Arrive at Location from Service Center	Arrive at Location from Service Center	6/8/2022	20:00:00					CREW ON LOCATION, RECIEVED NUMBERS FROM CO REP, TD 15581, TP 15582.5, SJ 5, CSG 5.5 20#, PREV CSG 9 5/8 36# @ 1973, HOLE 8.5, MUD 9.9, TVD 6426, 218 CENTRALIZERS, WATER TEST, TEMP 65, PH 7, CHLORIDES 0
4	Call Out	Call Out	6/8/2022	23:30:00					CREW CALLED OUT, REQUESTED ON LOCATION @ 05:30
5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	6/9/2022	06:45:00					ASSESSMENT OF LOCATION SAFETY MEETING WITH ALL HES EE'S TO DISCUSS SITE SPECIFIC HAZARDS
6	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	6/9/2022	07:00:00					PRE RIG UP SAFETY MEETING WITH ALL HES EE'S TO DISCUSS HAZARDS BEFORE RIGGING UP
7	Safety Meeting - Pre Job	Safety Meeting - Pre Job	6/9/2022	09:00:00	8.22	0.00	0.13	14.76	PRE JOB SAFETY MEETING WITH ALL HES EE'S, RIG HANDS AND CO REP TO DISCUSS HAZARDS DURING JOB
8	Start Job	Start Job	6/9/2022	09:48:56	8.31	0.00	-2.95	0.00	START RECORDING DATA

9	Drop Bottom Plug	Drop Bottom Plug	6/9/2022	13:05:06	LAUNCH BOTTOM PLUG
10	Test Lines	Test Lines	6/9/2022	13:06:31	TEST LINES TO 4995 PSI
11	Pump Spacer 1	Pump Spacer 1	6/9/2022	13:13:48	PUMP 50 BBLS TUNED PRIME SPACER 11.5 PPG, 5.5 BPM 400 PSI
12	Check Weight	Check Weight	6/9/2022	13:18:30	VERIFY WEIGHT ON PRESSURIZED MUD SCALES
13	Pump Cap Cement	Pump Cap Cement	6/9/2022	13:21:55	MIX AND PUMP 565 SKS 167 BBLS CAP CEMENT 13 PPG, 1.66 FT3/SK, 8.3 GAL/SK 9 BPM 1300 PSI, CALCULATED TOCC SURFACE
14	Check Weight	Check Weight	6/9/2022	13:29:27	VERIFY WEIGHT ON PRESSURIZED MUD SCALES
15	Pump Lead Cement	Pump Lead Cement	6/9/2022	13:41:26	MIX AND PUMP 550 SKS 152 BBLS LEAD CEMENT 13 PPG, 1.55 FT3/SK, 7.22 GAL/SK 9 BPM 1200 PSI, CALCULATED TOLC 2522
16	Check Weight	Check Weight	6/9/2022	13:46:44	VERIFY WEIGHT ON PRESSURIZED MUD SCALES
17	Pump Tail Cement	Pump Tail Cement	6/9/2022	13:58:29	MIX AND PUMP 1345 SKS 381 BBLS TAIL CEMENT 13.2 PPG, 1.59 FT3/SK, 7.76 GAL/SK, 9 BPM 1300 PSI, CALCULATED TOTC 6242
18	Check Weight	Check Weight	6/9/2022	14:14:57	VERIFY WEIGHT ON PRESSURIZED MUD SCALES
19	Shutdown	Shutdown	6/9/2022	14:44:28	SHUTDOWN, WASH PUMPS AND LINES TO TANK
20	Pump Displacement	Pump Displacement	6/9/2022	14:55:07	PUMP 361 BBLS FRESH WATER DISPLACEMENT, FIRST 20 W/MMCR, 10 BPM 2950 PSI, RECIEVED 50 BBLS TUNED PRIME SPACER AND 20 BBLS CEMENT TO SURFACE
21	Bump Plug	Bump Plug	6/9/2022	15:37:24	BUMP PLUG AT 2250 PSI TOOK TO 2850 PSI
22	Check Floats	Check Floats	6/9/2022	15:38:15	CHECK FLOATS, FLOATS HELD TOOK 4 BBLS BACK

23	End Job	End Job	6/9/2022	15:40:23		STOP RECORDING DATA, USED 846 BBLS FRESH WATER FOR JOB
24	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	6/9/2022	15:53:01		PRE RIG DOWN SAFETY MEETING WITH ALL HES EE'S TO DISCUSS HAZARDS ASSOCIATED WITH RIGGING DOWN
25	Depart Location Safety Meeting	Depart Location Safety Meeting	6/9/2022	15:55:37		PRE DEPARTURE SAFETY MEETING WITH ALL HES EE'S TO DISCUSS ROUTES AND HAZARDS ASSOCIATED WITH THE JOURNEY
26	Crew Leave Location	Crew Leave Location	6/9/2022	16:00:00		THANK YOU FOR USING HALLIBURTON, KYLE BATH AND CREW.

3.0 Attachments

3.1 Real Time iCem Job Chart