

# HALLIBURTON

iCem<sup>®</sup> Service

**VERDAD RESOURCES LLC-EBUS**

**SONIC STAR 1101-01H**

Production Casing

Job Date: Thursday, September 23, 2021

Sincerely,

**KYLE BATH**

## Legal Notice

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### Disclaimer:

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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 Sonic Star 1101-01H production casing. 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 50 bbl. 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*

<b>Sold To #:</b> 380688		<b>Ship To #:</b> 3678986		<b>Quote #:</b>		<b>Sales Order #:</b> 0907396939				
<b>Customer:</b> VERDAD RESOURCES LLC-EBUS				<b>Customer Rep:</b> Verdad Rep						
<b>Well Name:</b> SONIC STAR			<b>Well #:</b> 1101-01H			<b>API/UWI #:</b> 05-123-41858-00				
<b>Field:</b> WILDCAT		<b>City (SAP):</b> KEOTA		<b>County/Parish:</b> WELD			<b>State:</b> COLORADO			
<b>Legal Description:</b> SE SE-11-8N-60W-243FSL-230FEL										
<b>Contractor:</b> PRECISION DRLG				<b>Rig/Platform Name/Num:</b> PRECISION 464						
<b>Job BOM:</b> 7523										
<b>Well Type:</b> HORIZONTAL OIL										
<b>Sales Person:</b> HALAMERICA\HX41066				<b>Srvc Supervisor:</b> Kyle Bath						
<b>Job</b>										
<b>Job depth MD</b>		16838ft			<b>Job Depth TVD</b>		6173ft			
<b>Well Data</b>										
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	1918	0	1918
Casing		5.5	4.892	20			0	16838	0	6172
Open Hole Section			8.5				1918	16853	1897	6172
<b>Tools and Accessories</b>										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Float Shoe	5.5			16838		Top Plug	5.5	1	HES	
Float Collar	5.5			16797		Bottom Plug	5.5	1	HES	
						Plug Container	5.5	1	HES	
						Centralizers	5.5	182	HES	

Fluid Data										
<b>Stage #: 1</b>										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
1	Spacer	Tuned Prime Spacer	100	bbl	11.5	3.71		5	3530	
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
2	Lead Cement	ElastiCem™	1069	sack	13.2	1.6	7.66	7.8	8189	
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
3	Tail Cement	NeoCem™	1263	sack	13.2	2.02	9.71	8.7	12264	
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
4	Displacement	MMCR Fresh Water	40	bbl	8.34			7.1	1670	
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
5	Displacement	Fresh Water	332	bbl	8.34			7.1	13944	
<b>Cement Left In Pipe</b>										
<b>Amount</b>		41 ft			<b>Reason</b>			Shoe Joint		
<b>Mix Water:</b>		pH 7		<b>Mix Water Chloride:</b>		0 ppm		<b>Mix Water Temperature:</b>		67 °F
<b>Plug Bumped?</b>		Yes		<b>Plug Displaced by:</b>		8.33 lb/gal Fresh Water		<b>Disp. Temperature:</b>		67 °F
<b>Cement Returns:</b>		50 bbl.		<b>Bump Pressure:</b>		2494 psi		<b>Floats Held?</b>		Yes

2.0 Real-Time Job Summary

2.1 Job Event Log

Seq. No.	Activity	Date	Time	Cmb Pump Rate (bbl/min)	Cmb Stg Total (bbl)	Dwnhole Density (ppg)	Pump A Pressure (psi)	Comments
1	Call Out	9/23/2021	05:00:00					CREW CALLED OUT, REQUESTED ON LOCATION 11:00
2	Depart Yard Safety Meeting	9/23/2021	13:00:00					PRE CONVOY SAFETY MEETING WITH ALL HES EE
3	Crew Leave Yard	9/23/2021	13:15:00					CREW DEPART YARD FOR LOCATION
4	Arrive At Loc	9/23/2021	14:00:00					ARRIVE ON LOCATION, RECIEVED NUMBERS FROM CO REP, TD 16853, TP 16838, SJ 16797, CSG 5.5 17#, PREV CSG 9 5/8 36# @ 1918, HOLE 8.5, MUD 9.7, TVD 6172, 182 CENTALIZERS, WATER TEST, TEMP 67, CHLORIDES 0, PH 7
5	Assessment Of Location Safety Meeting	9/23/2021	14:15:00					SAFETY MEETING WITH ALL HES EE TO ASSESS ALL HAZARDS
6	Safety Meeting - Pre Rig-Up	9/23/2021	14:30:00	0.00	0.21	0.00	16.92	PRE RIG UP SAFETY MEETING WITH ALL HES EE
7	Safety Meeting - Pre Job	9/23/2021	15:10:00	0.00	15.88	8.28	13.28	PRE JOB SAFETY MEETING WITH RIG CREW AND CO REP
8	Start Job	9/23/2021	15:45:02	0.00	0.00	8.30	7.96	START RECORDING DATA
9	Test Lines	9/23/2021	15:48:28	0.00	5.26	8.33	26.00	TEST LINES TO 4820 PSI
10	Pump Spacer 1	9/23/2021	15:57:31	0.00	0.00	8.35	35.13	PUMP 100 BBLs TUNED PRIME SPACER 11.5 PPG 7 BPM 250 PSI
11	Drop Bottom Plug	9/23/2021	16:16:51	6.63	97.78	11.26	130.21	LAUNCH BOTTOM PLUG

12	Pump Lead Cement	9/23/2021	16:16:55	6.72	0.11	11.26	136.58	MIX AND PUMP 1069 SKS 304.6 BBLD LEAD CEMENT 13.2 PPG, 1.6 FT3/SK, 7.66 GAL/SK 8 BPM 440 PSI, CALCULATED TOLC SURFACE
13	Check Weight	9/23/2021	16:21:08	7.89	29.72	13.18	400.79	VERIFY WEIGHT ON PRESSURIZED MUD SCALES
14	Pump Tail Cement	9/23/2021	16:56:55	7.86	0.13	13.01	323.64	MIX AND PUMP 1263 SKS 454.4 BBLs TAIL CEMENT 13.2 PPG, 2.02 FT3/SK, 9.71 GAL/SK 9 BPM 950 PSI, CALCULATED TOTC 5727
15	Check Weight	9/23/2021	17:00:59	8.00	32.49	13.20	691.97	VERIFY WEIGHT ON PRESSURIZED MUD SCALES
16	Shutdown	9/23/2021	17:51:12	0.00	473.16	12.97	197.26	SHUTDOWN AND WASH UP PUMPS AND LINES TO TANK
17	Drop Top Plug	9/23/2021	17:59:54	0.00	12.67	8.46	-3.21	LAUNCH TOP PUG
18	Pump Displacement	9/23/2021	18:00:07	0.00	0.00	8.34	-2.88	PUMP 372 BBLs BIOCIDES DISPLACEMENT, FIRST 40 BBLs W/MMCR, 9 BPM, 3300 PSI, RECEIVED 100 BBLs TUNED PRIME SPACER AND 50 BBLs CEMENT TO SURFACE
19	Bump Plug	9/23/2021	18:52:42	0.00	370.36	8.54	3434.76	BUMP PLUG AT 2494 PSI TOOK TO 3500 PSI
20	Check Floats	9/23/2021	19:03:08	0.00	370.36	8.54	3662.35	FLOATS HELD TOOK 2.5 BBLs BACK
21	End Job	9/23/2021	19:05:37	0.00	0.00	8.25	19.59	
22	Safety Meeting - Pre Rig-Down	9/23/2021	19:09:54					PRE RIG DOWN SAFETY MEETING WITH ALL HES EE
23	Depart Location Safety Meeting	9/23/2021	20:30:00					PRE DEPARTURE SAFETY MEETING WITH ALL HES EE
24	Crew Leave Location	9/23/2021	21:00:00					THANK YOU FOR USING HALLIBURTON, KYLE BATH AND CREW

3.0 Attachments

3.1 Job Chart

