

# HALLIBURTON

iCem<sup>®</sup> Service

**VERDAD OIL & GAS**

**Timbro 9-59 8B-9-8 Production**

Sincerely,  
**Meghan Jacobs**

## 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 **Timbro 9-59 8B-9-8** 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 15 bbls of spacer 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> 3899041		<b>Quote #:</b>		<b>Sales Order #:</b> 0905775640				
<b>Customer:</b> VERDAD RESOURCES LLC				<b>Customer Rep:</b> TIM ALANIZ						
<b>Well Name:</b> TIMBRO 9-59			<b>Well #:</b> 8B-9-8		<b>API/UWI #:</b> 05-123-47572-00					
<b>Field:</b> WILDCAT		<b>City (SAP):</b> KEOTA		<b>County/Parish:</b> WELD		<b>State:</b> COLORADO				
<b>Legal Description:</b> SW SW-8-9N-59W-1247FSL-600FWL										
<b>Contractor:</b> H & P DRLG				<b>Rig/Platform Name/Num:</b> H & P 290						
<b>Job BOM:</b> 7523 7523										
<b>Well Type:</b> HORIZONTAL OIL										
<b>Sales Person:</b> HALAMERICA\HX38199				<b>Srv Supervisor:</b> Nikolaus Kornafel						
<b>Job</b>										
<b>Formation Name</b>										
<b>Formation Depth (MD)</b>		<b>Top</b>		<b>Bottom</b>						
<b>Form Type</b>					<b>BHST</b>					
<b>Job depth MD</b>		16295ft			<b>Job Depth TVD</b>					
<b>Water Depth</b>					<b>Wk Ht Above Floor</b>					
<b>Perforation Depth (MD)</b>		<b>From</b>		<b>To</b>						
<b>Well Data</b>										
<b>Description</b>	<b>New / Used</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>
Casing		9.625	8.921	36			0	1901	0	1901
Casing		5.5	4.778	20			0	16295	0	0
Open Hole Section			8.5				1901	16305	1901	6212
<b>Tools and Accessories</b>										
<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	<b>Depth ft</b>		<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	
<b>Guide Shoe</b>	5.5	1		16295		<b>Top Plug</b>	5.5	1	WTHRFRD	
						<b>Bottom Plug</b>	5.5	1	WTHRFRD	
<b>Float Collar</b>	5.5	1		16245						
						<b>Plug Container</b>	5.5	1	HES	
						<b>Centralizers</b>	5.5			
<b>Fluid Data</b>										
<b>Stage/Plug #:</b> 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	FDP SPACER	SBM FDP-C1337-18 CEMENT SPACER SYS	50	bbl	12.5	2.79	16.7	4	
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	FDP SPACER	SBM FDP-C1337-18 CEMENT SPACER SYS	50	bbl	12.5	2.71	16.0	4	
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	Lead Cement	ELASTICEM (TM) SYSTEM	575	sack	13.2	1.57	7.55	8	4,341
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	Tail Cement	NeoCem TM	1,200	bbl	13.2	2.04	9.75	8	11,700
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	360	bbl	8.34			8	
Cement Left In Pipe		Amount	0 ft		Reason			Wet Shoe	
Mix Water:		pH 7	Mix Water Chloride:		0 ppm		Mix Water Temperature:		62 °F
Cement Temperature:		N/A	Plug Displaced by:		8.33 lb/gal		Disp. Temperature:		62 °F
Plug Bumped?		Yes	Bump Pressure:		2750 psi		Floats Held?		Yes
Cement Returns:		0 bbl	Returns Density:		N/A		Returns Temperature:		N/A
Comment PUMPED 100 BBLS OF SPACER FOLLOWED BY 161 BBLS OF LEAD CEMENT CEMENT FOLLOWED BY 436 BBLS OF TAIL CEMENT, DISPLACED BY 360 BBLS OF FRSH WATER. CHECKED FLOATS, FLOATS HLED, 2 BBLS BACK TO THE TRUCK. 15 BBLS OF SPACER RETURNED TO SURFACE.									

## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	6/18/2019	14:17:00	USER				CREW CALLED OUT AT 14:30, REQUESTED ON LOCATION 19:00. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660 11764054, BULK 660 11633848, AND PUMP 11360070.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/18/2019	17:00:00	USER				CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	6/18/2019	17:15:00	USER				STARTED JOURNEY MANAGEMENT.
Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	6/18/2019	17:20:00	USER				HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
Event	5	Rig-Up Equipment	Rig-Up Equipment	6/18/2019	17:30:00	USER				CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.
Event	6	Arrive at Location from Service Center	Arrive at Location from Service Center	6/18/2019	19:15:00	USER				END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1,901, 5.5" CASING: 20 LB/FT TOTAL 16,295', 8.5" HOLE, TD 16,305', SHOE TRAC- 50', TVD- 6,212'. PUMP FRESH WATER DISPLACEMENT 360 BBLs. CASING LANDED @ 18:30 06/18/2019. RIG CIRCULATED BOTTOMS UP.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/18/2019	21:15:00	USER	8.49	0.00	74.00	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
Event	8	Start Job	Start Job	6/18/2019	21:31:43	COM5	8.51	0.00	74.00	BEGIN RECORDING JOB DATA.
Event	9	Test Lines	Test Lines	6/18/2019	21:40:03	COM5	8.67	0.00	155.00	PRESSURE TESTED IRON TO 6,000 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 900 PSI, 5TH GEAR STALL OUT @ 2,100 PSI.
Event	10	Pump Spacer 1	Pump Spacer 1	6/18/2019	21:43:52	COM5	8.73	0.00	107.00	PUMPED 50 BBLs OF FDP SPACER WITH DRY ADDITIVES @ 12.5 LB/GAL, 2.79 FT3/SK, 16.7 GAL/SK 10 GALLONS D-

AIR. DENSITY VERIFIED BY PRESSURIZED MUD SCALES.  
PUMP RATE 4 BBLs/MIN @ 440 PSI.

Event	11	Check Weight	Check Weight	6/18/2019	21:48:51	COM5	12.94	4.20	371.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	12	Check Weight	Check Weight	6/18/2019	21:52:03	COM5	12.54	6.00	401.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Pump Spacer 1	Pump Spacer 1	6/18/2019	21:57:53	COM5	12.51	6.30	258.00	PUMPED 50 BBLs OF FDP SPACER @ 12.5 LB/GAL, 2.71 FT3/SK, 16.0 GAL/SK 10 GALLONS D-AIR. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 4 BBLs/MIN @ 440 PSI.
Event	14	Drop Bottom Plug	Drop Bottom Plug	6/18/2019	22:05:04	COM5	12.06	1.70	91.00	BOTTOM PLUG LEFT PLUG CONTAINER
Event	15	Pump Lead Cement	Pump Lead Cement	6/18/2019	22:05:12	COM5	12.02	1.70	91.00	PUMPED 575 SKS OF ELASTICEM LEAD CEMENT @ 13.2 LB/GAL, 1.57 FT3/SK, 7.55 GAL/SK. 160.78 BBLs, HOL @ 3,906.69' TOL @ 1,702.04'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLs/MIN @ 680 PSI.
Event	16	Check Weight	Check Weight	6/18/2019	22:08:46	COM5	13.18	3.10	146.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	17	Pump Tail Cement	Pump Tail Cement	6/18/2019	22:31:23	COM5	13.06	8.00	359.00	PUMP 1,200 SKS OF NEOCEM TAIL CEMENT @ 13.2 LB/GAL, 2.04 FT3/SK, 9.75 GAL/SK, 435.99 BBLs. HOT CALCULATED @ 10,686.27', TOT CALCULATED @ 5,608.73'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLs/MIN @ 650 PSI.
Event	18	Check Weight	Check Weight	6/18/2019	22:32:43	COM5	13.10	8.00	506.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	19	Check Weight	Check Weight	6/18/2019	22:43:08	COM5	13.24	8.10	567.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	20	Shutdown	Shutdown	6/18/2019	23:29:28	COM5	13.21	0.00	171.00	SHUTDOWN TO WASH LINES
Event	21	Drop Top Plug	Drop Top Plug	6/18/2019	23:39:40	COM5	8.05	0.00	70.00	PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
Event	22	Pump Displacement	Pump Displacement	6/18/2019	23:39:43	COM5	8.05	0.00	70.00	BEGIN CALCULATED DISPLACEMENT OF 360 BBLs WITH FRESH WATER. 10 GAL OF MMCR IN THE FIRST 20 BBLs.
Event	23	Bump Plug	Bump Plug	6/19/2019	00:48:18	COM5	8.39	0.00	2648.00	SPACER TO SURFACE @ 345 BBLs INTO DISPLACEMENT. 15 BBLs OF TUNED SPACER TO SURFACE. PLUG BUMPED AT CALCULATED DISPLACEMENT. 2,250 PSI PRESSURED UP 500 PSI OVER FINAL CIRCULATING PRESSURE TO 2,750 PSI



Event	24	Pressure Up Well	Pressure Up Well	6/19/2019	00:48:40	COM5	8.39	0.00	2671.00	PRESSURED UP WELL TO 3,800 PSI TO SHIFT THE WET SHOE SUB AND PUMPED A 5 BBL WET SHOE
Event	25	Other	Other	6/19/2019	00:51:17	COM5	8.34	0.00	1937.00	RELEASED PRESSURE, FLOATS HELD, 2.0 BBLS BACK.
Event	26	End Job	End Job	6/19/2019	00:52:57	COM5	8.14	0.00	85.00	STOP RECORDING JOB DATA.
Event	27	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	6/19/2019	01:00:00	USER	8.33	0.00	78.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	28	Rig-Down Completed	Rig-Down Completed	6/19/2019	02:00:00	USER				ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	29	Safety Meeting - Departing Location	Safety Meeting - Departing Location	6/19/2019	03:00:00	USER				CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.

## 3.0 Attachments

### 3.1 Timbro 9-59 8B-9-8 Production – Job Chart

