

HALLIBURTON

iCem[®] Service

HALLIBURTON

Ft. Lupton District, COLORADO

For:

Date: Sunday, April 14, 2019

TIMBRO 9-59

WELD

VERDAD RESOURCES LLC

Job Date: Sunday, April 14, 2019

Sincerely,

Legal Notice

Disclaimer:

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The Road to Excellence Starts with Safety

Sold To #: 380688		Ship To #: 3898699		Quote #:		Sales Order #: 0905620538	
Customer: VERDAD RESOURCES LLC				Customer Rep: JASON HANSEN			
Well Name: TIMBRO 9-59			Well #: 8A-9-5		API/UWI #: 05-123-47560-00		
Field: WILDCAT		City (SAP): KEOTA		County/Parish: WELD		State: COLORADO	
Legal Description: SW NW-8-9N-59W-1784FNL-475FWL							
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 290			
Job BOM: 7523 7523							
Well Type: HORIZONTAL OIL							
Sales Person: HALAMERICA\HX38199				Srcv Supervisor: Lance Carpenter			

Job

Formation Name			
Formation Depth (MD)		Top	Bottom
Form Type		BHST	
Job depth MD		16228	Job Depth TVD 6216
Water Depth		Wk Ht Above Floor 4	
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	1917		1917
Casing		5.5	4.778	20			0	16228		6216
Open Hole Section			8.5				0	16238		6216

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5				Top Plug	5.5	1	
Float Shoe	5.5				Bottom Plug	5.5	1	
Float Collar	5.5			16125.82	SSR plug set	5.5		
Insert Float	5.5				Plug Container	5.5	1	HES
Stage Tool	5.5				Centralizers	5.5		

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	FDP-C1337-18	SBM FDP-C1337-18 CEMENT SPACER SYS	60	bbl	12.5	2.78	16.7		
201.71 lbm/bbl		BARITE, BULK (100003681)							

0.25 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)							
6 lbm/bbl		SEM-94P, 35 LB SACK - (1023987)							
6 lbm/bbl		SEM-93P, 35 LB SACK - (1023977)							
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-C1337-18	SBM FDP-C1337-18 CEMENT SPACER SYS	60	bbbl	12.5	2.71	16		
0.70 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)							
0.70 gal/bbl		MUSOL(R) A, 5 GAL PAIL (100064220)							
207.29 lbm/bbl		BARITE, BULK (100003681)							
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	ElastiCem	ELASTICEM (TM) SYSTEM	625	sack	13.2	1.57	7.55	4	7.55
0.30 %		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	NeoCem	NeoCem TM	463.3	bbbl	13.2	2.04	9.75	4	9.75
9.75 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
5	MMCR Displacement	MMCR Displacement	20	bbbl	8.34				
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
6	Displacement		337	bbbl	8.34				
Cement Left In Pipe	Amount	102.2 ft			Reason	Shoe Joint			

Mix Water:	7 PH	Mix Water Chloride:	100 ppm	Mix Water Temperature:	60°F
Cement Temperature:		Plug Displaced by:	8.34 lb/gal	Disp. Temperature:	
Plug Bumped?	Yes	Bump Pressure:	2140 psi	Floats Held?	Yes
Cement Returns:		Returns Density:		Returns Temperature:	

Comment

JOB WENT WELL, HAD SOME MIXING PROBLEMS WITH SPACER BUT WAS ABLE TO LINE IT OUT. DENSITY WAS VERIFIED AND SCALED. PUMPED FULL DISPLACEMENT VOLUME AND BUMPED AT CACULATED 357BBLS. BUMPED PLUG AT 3BPM FINAL CIRCUALATING PRESSURE WAS 2140PSI BROUGHT TO 2870PSI AND HELD FOR 5 MIN OPENED UP WET SHOE SUB AT 3790PSI AND PUMPED 4 BBL WET SHOE. CHECKED FLOATS, FLOATS HELD AND GOT 2.5 BBLS BACK.

TOP OF TAIL CEMENT 4929'

TOP OF LEAD CEMENT 853'

105 BBLS OF SPACER BACK

1.0 Real-Time Job Summary

1.1 Job Event Log

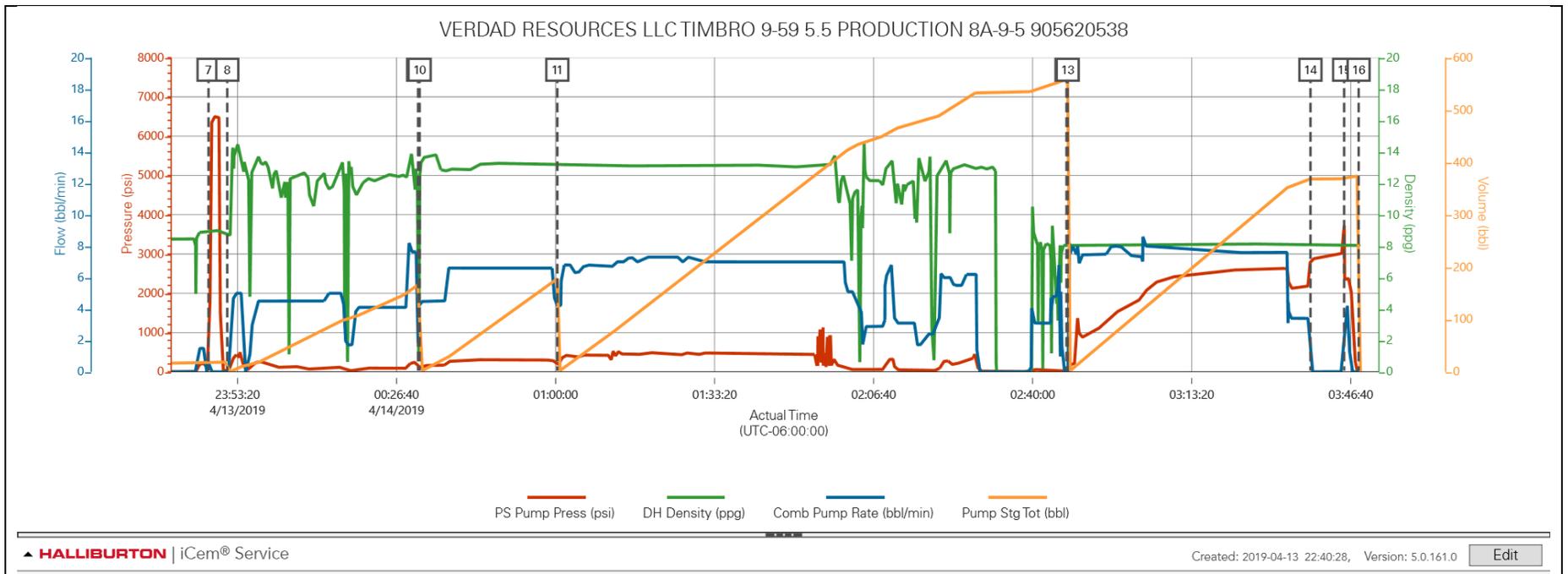
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Drop Bottom Plug	Call Out	4/13/2019	14:00:00	USER					CREW CALLED OUT. ON LOCATION TIME 2000
Event	2	Depart Shop for Location	Depart Shop for Location	4/13/2019	18:30:00	USER					ON LOCATION TIME CHANGED TO 2100. CREW HAS VERIFIED EQUIPMENT AND MATERIALS, READY TO DEPART. CREW HAS JOURNEY MANAGEMENT SAFETY MEETING DISCUSSING ROUTE, CONVOY ORDER, FOLLOWING DISTANCE, STOPS, HAZARDS AND DEPARTS FOR LOCATION
Event	3	Arrive At Loc	Arrive At Loc	4/13/2019	20:45:00	USER					CREW ARRIVES AT LOCATION. RIG RIH CASING 15700'. CREW ASSESSES LOCATION FOR HAZARDS AND HAS PRE RIG UP SAFETY MEETING DISCUSSING RIG OPERATIONS, RED ZONES, BACKING, LINE OF FIRE, SLIPS TRIPS AND FALLS AND BEGIN TO SPOT IN AND RIG UP EQUIPMENT
Event	4	Casing on Bottom	Casing on Bottom	4/13/2019	21:30:00	USER					CASING ON BOTTOM. CASING CREW BEGINS RIGGING DOWN. RIG BEGINS TO FILL AND THEN CIRCULATE THE WELL

Event	5	Safety Meeting - Pre Job	Safety Meeting - Pre Job	4/13/2019	23:10:00	USER	-12.00	8.58	0.00	0.30	CREW, RIG CREW AND CUSTOMER REP HAVE PRE JOB SAFETY MEETING DISCUSSING HAZARDS, THREE POINTS OF CONTACT, RED ZONES, ROLES, CONTINGENCIES, TUGGER OPERATIONS, LINE OF FIRE, JOB PROCEEDURE. HES CREW ALREADY PREPARED MIX FLUID FOR LEAD CEMENT. CREW LOADS PLUGS WITH CUSTOMER REP
Event	6	Start Job	Start Job	4/13/2019	23:29:17	COM6	-1.00	8.40	0.00	16.20	START JOB
Event	7	Test Lines	Test Lines	4/13/2019	23:47:16	COM6	112.00	8.88	0.00	18.50	PRESSURE TESTED LINES TO 6500 PSI
Event	8	Pump Spacer 1	Pump Spacer 1	4/13/2019	23:51:11	COM6	23.00	8.75	0.00	18.50	PUMPED 120 BBLS OF FDP SPACER 12.5PPG 2.78 YIELD 16.7 GAL
Event	9	Drop Bottom Plug	Drop Bottom Plug	4/14/2019	00:31:11	USER	76.00	1.76	1.80	165.90	DROPPED BOTTOM PLUG WITH COMPANY MAN ON RIG FLOOR.
Event	10	Pump Cement	Pump Cement	4/14/2019	00:31:31	COM6	83.00	12.34	4.40	0.00	PUMPED LEAD CEMENT 625SKS 175BBLS 13.2PPG 1.57 YIELD 7.55 GAL
Event	11	Pump Tail Cement	Pump Tail Cement	4/14/2019	01:00:22	COM6	181.00	13.22	4.20	177.90	PUMPED TAIL CEMENT NEOCEM 1275 SKS 463BBLS 13.2PPG 2.04 YIELD 9.75 GAL
Event	12	Drop Top Plug	Drop Top Plug	4/14/2019	02:47:05	COM6	11.00	8.15	0.00	558.70	DROPPED TOP PLUG WITH COMPANY MAN ON RIG FLOOR.
Event	13	Pump Displacement	Pump Displacement	4/14/2019	02:47:20	COM6	9.00	8.14	0.00	0.00	PUMPED 357 BBLS OF DISPLACEMENT WITH MMCR IN THE FIRST 20 AND

												BIOCIDE THROUGHTOUT. CAUGHT CEMENT AT 10BBLs AWAY.
Event	14	Bump Plug	Bump Plug	4/14/2019	03:38:13	COM6	2827.00	8.13	0.00	368.50		BUMPED PLUG AT CACULATED DISPLACEMENT SLOWED RATE TO 3BPM TO BUMP. FINAL CIRCULATATING PRESSURE WAS 2140PSI AT 3BPM. BROUGHT TO 2890PSI AND HELD FOR 5 MIN
Event	15	Other	Other	4/14/2019	03:45:17	USER	3716.00	8.14	2.00	369.40		OPENED UP WET SHOE SUB AT 3790PSI AND PUMPED 4 BBL WET SHOE. CHECKED FLOATS AND GOT 2.5 BBLs BACK.
Event	16	End Job	End Job	4/14/2019	03:48:19	COM6	24.00	8.03	0.00	373.80		END JOB
Event	17	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig- Down	4/14/2019	04:00:00	USER						HAD PRE RIG DOWN SAFTETY MEETING WITH HES CREW AND DISCUSSED TEAM CARRY, SLIP TRIPS AND FALLS, FOOTING PLACEMENT AND HAMMER SWINGS.
Event	18	Crew Leave Location	Crew Leave Location	4/14/2019	05:30:00	USER						HAD PRE CONVOY SAFETY MEETING WITH CREW AND DISCUSSED SAFE ROUTE HOME. CREW LEFT LOCATION.

2.0 Attachments

2.1 VERDAD RESOURCES LLC -Custom Results.png



3.0 Custom Graphs

3.1 Custom Graph

