

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Ft. Lupton District, COLORADO

Walt West 17W-20-03 Production

Job Date: Saturday, January 29, 2022

Sincerely,

Meghan Van Zyl

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Walt West 17W-20-03** 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 65 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

Sold To #: 369404	Ship To #: 9049316	Quote #:	Sales Order #: 0907646395
Customer: EXTRACTION OIL & GAS-EBUS		Customer Rep: Chris	
Well Name: WALT WEST		Well #: 17W-20-03	API/UWI #: 05-123-51090-00
Field: WATTENBERG	City (SAP): SEVERANCE	County/Parish: WELD	State: COLORADO
Legal Description: SE NE-17-7N-67W-2101FNL-353FEL			
Contractor: ENSIGN DRLG		Rig/Platform Name/Num: ENSIGN 140	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX41066		Srvc Supervisor: Kyle Bath	

Job

Formation Name	
Formation Depth (MD)	Top <input type="text"/> Bottom <input type="text"/>
Form Type	BHST
Job depth MD	16625ft Job Depth TVD <input type="text"/>
Water Depth	Wk Ht Above Floor <input type="text"/>
Perforation Depth (MD)	From <input type="text"/> To <input type="text"/>

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	8.835	40			0	1635	0	1635
Casing		5.5	4.892	17			0	16622	0	7125
Open Hole Section			8.5				1635	16625	1635	7125

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5			16622	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 ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Tuned Prime	TUNED PRIME CEMENT SPACER SYS	50	bbl	11.5	3.74			

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	Cap	SBM CEM ELASTICEM™ SYS	545	sack	13	1.66		8	8.3

0.35 %		SCR-100, 1200 LB BAG - (1126328)							
8.30 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	FDP-C1371 SYS	SBM CEM FDP-C1371 SYS	655	sack	13	1.55		6	7.21
7.21 Gal		FRESH WATER							
5 %		CHANNELFIX, 44 LB BAG - (1107429)							
0.25 %		SCR-100, 1200 LB BAG - (1126328)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	ElastiCem	SBM CEM ELASTICEM™ SYS	1410	sack	13.2	1.59		8	7.76
0.63 %		HR-5, 50 LB SK (100005050)							
7.76 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
5	Displacement	Displacement	385	bbl	8.33			8	
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									

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	Call Out	Call Out	1/28/2022	06:00:00					CREW CALLED OUT, REQUESTED ON LOCATION 13:00
2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	1/28/2022	16:00:00					PRE CONVOY SAFETY MEETING WITH ALL HES EE
3	Crew Leave Yard	Crew Leave Yard	1/28/2022	16:20:00					CREW DEPART YARD FOR LOCATION
4	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	1/28/2022	17:10:00					SAFETY MEETING WITH ALL HES EE TO ASSESS ALL HAZARDS
5	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	1/28/2022	17:15:00					PRE RIG UP SAFETY MEETING WITH ALL HES EE
6	Arrive At Loc	Arrive At Loc	1/28/2022	17:30:00					ARRIVE ON LOCATION, RECIEVED NUMBERS FROM CO REP, TD 16625, TP 16622, SJ 5, CSG 5.5 17#, PREV CSG 9 5/8 36# @ 1635, HOLE 8.5, MUD 10, TVD 7125, 283 CENTALIZERS, WATER TEST, TEMP 65, CHLORIDES 0, PH 7
7	Safety Meeting - Pre Job	Safety Meeting - Pre Job	1/28/2022	18:00:00	0.00	0.00	1.94	0.00	PRE JOB SAFETY MEETING WITH RIG CREW AND CO REP
8	Start Job	Start Job	1/28/2022	18:24:55	8.49	0.00	-2.88	0.00	START RECORDING DATA
9	Drop Bottom Plug	Drop Bottom Plug	1/28/2022	18:26:36	8.76	0.00	56.14	1.78	LAUNCH BOTTOM PLUG

10	Test Lines	Test Lines	1/28/2022	18:26:43	8.76	0.00	45.62	1.78	TEST LINES TO 4500 PSI
11	Pump Spacer 1	Pump Spacer 1	1/28/2022	18:34:42	8.54	1.27	2.49	0.02	PUMP 50 BBLS TUNED PRIME SPACER 11.5 PPG 7.5 BPM 650 PSI
12	Check Weight	Check Weight	1/28/2022	18:36:32	11.48	7.59	613.24	12.27	VERIFY WEIGHT ON PRESSURIZED MUD SCALES
13	Pump Cap Cement	Pump Cap Cement	1/28/2022	18:42:11	11.95	7.41	398.45	0.06	MIX AND PUMP 545 SKS 161 BBLS CAP CEMENT 13 PPG, 1.66 FT3/SK, 8.3 GAL/SK 9 BPM 700 PSI, CALCULATED TOCC SURFRACE
14	Pump Lead Cement	Pump Lead Cement	1/28/2022	19:01:15	12.84	8.59	628.16	0.14	MIX AND PUMP 655 SKS 180.8 BBLS LEAD CEMENT 13 PPG, 1.55 FT3/SK, 7.21 GAL/SK 9 BPM 1100 PSI, CALCULATED TOLC 2411
15	Check Weight	Check Weight	1/28/2022	19:04:28	12.88	9.26	982.99	30.56	VERIFY WEIGHT ON PRESSURIZED MUD SCALES
16	Pump Tail Cement	Pump Tail Cement	1/28/2022	19:20:29	13.00	7.35	588.58	0.12	MIX AND PUMP 1410 SKS 399 BBLS TAIL CEMENT 13.2 PPG, 1.59 FT3/SK, 7.76 GAL/SK, 9 BPM 700 PSI, CALCULATED TOTC 6842
17	Check Weight	Check Weight	1/28/2022	19:24:20	13.29	9.59	741.56	36.11	VERIFY WEIGHT ON PRESSURIZED MUD SCALES
18	Check Weight	Check Weight	1/28/2022	19:41:05	13.25	9.35	681.03	194.32	VERIFY WEIGHT ON PRESSURIZED MUD SCALES
19	Shutdown	Shutdown	1/28/2022	20:06:36	13.54	0.00	124.34	410.93	SHUTDOWN, WASH PUMPS AND LINES TO TANK
20	Drop Top Plug	Drop Top Plug	1/28/2022	20:15:33	7.54	0.00	-9.50	429.49	LAUNCH TOP PLUG
21	Pump Displacement	Pump Displacement	1/28/2022	20:15:35	7.54	0.00	-10.20	0.00	PUMP 385 BBLS MMCR DISPLACEMENT 10 BPM 2950 PSI, RECIEVED 50 BBLS TUNED PRIME SPACER AND 65 BBLS CEMENT TO SURFACE
22	Bump Plug	Bump Plug	1/28/2022	21:09:11	7.86	0.00	3018.61	385.39	BUMPED PLUG AT 2500 PSI TOOK TO 3000 PSI
23	Other	Other	1/28/2022	21:10:14	7.89	0.00	2789.80	385.39	CHECK FLOATS, TOOK 4 BBLS BACK
24	End Job	End Job	1/28/2022	21:11:20	7.84	0.00	5.71	385.39	USED 893 BBLS FRESH WATER

25	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	1/28/2022	21:12:10	PRE RIG DOWN SAFETY MEETING WITH ALL HES EE
26	Depart Location Safety Meeting	Depart Location Safety Meeting	1/28/2022	22:15:00	PRE DEPARTURE SAFETY MEETING WITH ALL HES EE
27	Crew Leave Location	Crew Leave Location	1/28/2022	22:45:00	THANK YOU FOR USING HALLIBURTON, KYLE BATH AND CREW

3.0 Attachments

3.1 Real Time iCem Job Chart

