

HALLIBURTON

iCem[®] Service

HIGH POINT RESOURCES E-BILL

For: Highpoint Resources

CRITTER CREEK 16-6302BE Production

Job Date: Thursday, February 07, 2019

Sincerely,

SAM CARPENTER

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 Critter Creek 16-6302BE 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.

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 #: 343492	Ship To #: 3892252	Quote #:	Sales Order #: 0905467341
Customer: HIGHPOINT RESOURCES CORP-EBUS		Customer Rep: CHRIS BLODGETT	
Well Name: CRITTER CREEK	Well #: 16-6302BE	API/UWI #: 05-123-47295-00	
Field: HEREFORD	City (SAP): KEOTA	County/Parish: WELD	State: COLORADO
Legal Description: SW SW-16-11N-63W-575FSL-785FWL			
Contractor: SAVANNA DRLG		Rig/Platform Name/Num: SAVANNA 802	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA/H181357		Srvc Supervisor: Lance Carpenter	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	17910ft	Job Depth TVD	7428
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		7	6.366	23			0	7905		0
Casing		4.5	3.92	13.5			0	6963		
Casing		4.5	4	11.6			6963	17910		
Open Hole Section			6.125				7905	17916		

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	4.5	1		17910	Top Plug	4.5	1	
Float Shoe	4.5				Bottom Plug	4.5		HES
Float Collar	4.5	1		17853	SSR plug set	4.5		HES
Insert Float	4.5				Plug Container	4.5	1	HES
Stage Tool	4.5				Centralizers	4.5		HES

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	12.0 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	12	3.17			
176.58 lbm/bbl		BARITE, BULK (100003681)							

35.35 gal/bbl		FRESH WATER							
0.20 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)							
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	13.2# NeoCem	NeoCem TM	188.9	bbl	13.2	2.04		8	9.74
0.09 %		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
3	Displacement fluid		273	bbl	8.33				
Cement Left In Pipe	Amount	56.85 ft			Reason		Shoe Joint		
Mix Water:	pH 7	Mix Water Chloride:	200 ppm		Mix Water Temperature:		41 °F		
Cement Temperature:	## °F °C	Plug Displaced by:	8.34 lb/gal Water		Disp. Temperature:		## °F °C		
Plug Bumped?	Yes	Bump Pressure:	780 psi		Floats Held?		Yes		
Cement Returns:	0 bbl	Returns Density:	## lb/gal kg/m3		Returns Temperature:		## °F °C		
Comment JOB WENT WELL. RETURNS THROUGHOUT. MMCR WAS FROZEN SOLID SO USED SUGAR IN FIRST 20 BBL DISPLACEMENT. FINAL CIRCULATING PRESSURE 780 PSI AT 3 BPM. TOOK TO 1250 PSI. HELD FOR A COUPLE MINUTES TO CONFIRM BUMP. PRESSURE UP TO 2520 PSI TO OPEN WET SHOE SUB THEN PUMPED 1 BBL WET SHOE. CHECKED FLOATS. FLOATS HELD, 2 BBL BACK. CALCULATED TOP OF CEMENT 6890'. CALCULATED TOP OF SPACER 4352'									

2.0 Real-Time Job Summary

2.1 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>	Comments
Event	1	Check Floats	Call Out	2/6/2019	23:00:00	USER				CREW CALLED OUT. ON LOCATION 0730
Event	2	Depart Shop for Location	Depart Shop for Location	2/7/2019	04:30:00	USER				CREW IS READY TO DEPART, HAS APPROVAL ON JOURNEY, HAD JOURNEY MANAGEMENT SAFETY MEETING DISCUSSING ROUTE, CONVOY ORDER, FOLLOWING DISTANCE, WEATHER, MAX SPEEDS AND COMMUNICATION BEFORE DEPARTING FOR LOCATION
Event	3	Arrive At Loc	Arrive At Loc	2/7/2019	07:15:00	USER				CREW ARRIVES ON LOCATION. RIG RIH CASING ABOUT 6000' OFF BOTTOM. CREW ASSESSES LOCATION FOR HAZARDS AND EQUIPMENT LAYOUT, NOTICING THAT ONE UPRIGHT IS FROZEN SOLID. INFORMS CUSTOMER REP OF WATER SITUATION AND BEGIN SPOTTING EQUIPMENT
Event	4	Casing on Bottom	Casing on Bottom	2/7/2019	12:30:00	USER				CASING ON BOTTOM. CASING CREW BEGINS RIGGING DOWN AND RIG BEGINS CIRCULATION, EXPERIENCING SOME LOSSES. WATER UPRIGHT IS STILL SOLID EVEN WITH THE

										STEAM HOSES ON FULL. TALKED WITH CUSTOMER REP AND DECIDE TO ORDER A WATER TRUCK TO HAVE ENOUGH WATER ON LOCATION FOR THE JOB
Event	5	Safety Meeting - Pre Job	Safety Meeting - Pre Job	2/7/2019	14:30:00	USER	0.00	0.06	0.00	CREW, RIG CREW AND CUSTOMER REP HAVE PRE JOB SAFETY MEETING ONCE WATER TRUCK IS ON LOCATION, DISCUSSING ROLES, HAZARDS, RED ZONES, MUSTER AREAS, WEATHER, AND JOB PROCEEDURE
Event	6	Start Job	Start Job	2/7/2019	15:09:53	COM6	25.00	8.27	0.00	START JOB. RIG DOWN RIG LINES AND RIG UP HES LINES
Event	7	Test Lines	Test Lines	2/7/2019	15:14:25	COM6	1586.00	8.57	0.00	FILL LINES WITH 3 BBL WATER. PRESSURE TEST HES LINES TO 4500 PSI. HELD FOR A FEW MINUTES AND THEN BLEED OFF
Event	8	Pump Spacer 1	Pump Spacer 1	2/7/2019	15:18:07	COM6	14.00	8.47	0.00	PUMP 50 BBL TUNED SPACER 12# 3.17 YIELD 19.9 GAL
Event	9	Pump Cement	Pump Cement	2/7/2019	15:28:29	COM6	634.00	12.26	5.50	PUMP 188 BBL NEOCEM 13.2# 2.04 YIELD 9.74 GAL 520 SACKS
Event	10	Shutdown	Shutdown	2/7/2019	16:05:54	USER	128.00	8.56	4.00	SHUTDOWN. WASH PUMPS AND LINES TO THE PIT
Event	11	Drop Top Plug	Drop Top Plug	2/7/2019	16:14:39	COM6	53.00	8.47	2.30	DROP WEATHERFORD TOP PLUG. WITNESSED BY WEATHERFORD REP AND CUSTOMER REP
Event	12	Clean Lines	Clean Lines	2/7/2019	16:14:48	COM6	53.00	8.54	2.30	WASH PUMPS AND LINES TO THE PIT

Event	13	Pump Displacement	Pump Displacement	2/7/2019	16:22:25	COM6	42.00	8.35	1.60	PUMP 273 BBL DISPLACEMENT WATER 8.34# WITH SUGAR IN THE FIRST 20 BBL AND BE-3, PACKERFLUID AND OXYON IN THE THE NEXT 230 BBL
Event	14	Comment	Comment	2/7/2019	16:37:27	USER	1041.00	8.54	6.00	LEAK BUT WAS ABLE TO TIGHTEN AND CONTINUE
Event	15	Bump Plug	Bump Plug	2/7/2019	17:18:29	COM6	1340.00	8.57	0.00	BUMP PLUG. FINAL CIRCULATING PRESSURE 780 PSI AT 3 BPM. HELD FOR A COUPLE MINUTES TO CONFIRM BUMP
Event	16	Comment	Comment	2/7/2019	17:20:04	USER	1421.00	8.56	0.00	OPEN WET SHOE SUB. SUB OPENED AT 2520 PSI. PUMP 1 BBL WET SHOE AFTER
Event	17	Check Floats	Check Floats	2/7/2019	17:23:02	USER	576.00	8.51	0.00	CHECK FLOATS. 2 BBL BACK. FLOATS HELD
Event	18	End Job	End Job	2/7/2019	17:30:44	COM6	230.00	0.45	0.00	END JOB
Event	19	Rig Down Lines	Rig Down Lines	2/7/2019	17:35:00	USER				CREW HAS PRE RIG DOWN SAFETY MEETING DISCUSSING HAZARDS, WINTER CONDITIONS, SLIPS TRIPS AND FALLS, RIG OPERATIONS, RED ZONES, ROLES AND BEGIN TO RIG DOWN EQUIPMENT
Event	20	Depart Location	Depart Location	2/7/2019	18:30:00	USER				CREW IS RIGGED DOWN, HAS JOURNEY MANAGEMENT SAFETY MEETING DISCUSSING ROUTES, FIT FOR DUTY, HOURS OF SERVICE, HAZARDS, WINTER DRIVING CONDITIONS, CONVOY ORDER AND DEPARTS FROM LOCATION

3.0 Job Chart

3.1 Job Chart

