

HALLIBURTON

iCem[®] Service

HIGHPOINT RESOURCES CORP - EBUS

Anschutz Equus Farms 5-61-34-4148B Intermediate

Sincerely,
Meghan Jacobs

Legal Notice

Disclaimer:

All information in this report is provided subject to the terms and conditions which govern the services provided by Halliburton. Halliburton personnel use their best efforts in gathering information and their best judgment in interpreting it, but any interpretation, research, analysis or recommendation furnished by Halliburton are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and empirical relationships and assumptions are not infallible, and with respect to which professionals in the industry may differ. iCem 3D Displacement results are used to understand how fluids intermix during a cement job. Simulation and 3D displacement results are not intended as and should not be used as a replacement for bond logs in determining top of cement. Current 3D model calculations are known to model more volume than the input volume for standard cases due to known calculation improvements required. For rotational cases, the modeled volume will be impacted by the same calculations impacting the standard cases, as well as additional constraints imposed to make the calculation time required operationally feasible. Therefore, until further notice, 3D displacement results should not be used for replacement of a bond log, or used as an identifier of top of cement. HALLIBURTON IS UNABLE TO GUARANTEE THE ACCURACY OF ANY CHART INTERPRETATION, RESEARCH ANALYSIS, OR JOB RECOMMENDATION and any interpretation or recommendation is not for use of or reliance upon by any third party. The customer has full responsibility for any of its decisions which are based on the information provided in this report.

Table of Contents

1.0	Cementing Job Summary	4
1.1	Executive Summary	4
2.0	Real-Time Job Summary	7
2.1	Job Event Log	7
3.0	Attachments.....	9
3.1	Anschutz Equus Farms 5-61-34-4148B Intermediate – Job Chart with Events.....	9
3.2	Anschutz Equus Farms 5-61-34-4148B Intermediate – Job Chat without Events.....	10

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Anschutz Equus Farm 5+61-34-4148B** cement **Intermediate** 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 13 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

The Road to Excellence Starts with Safety

Sold To #: 343492	Ship To #: 3911976	Quote #:	Sales Order #: 0905570899
Customer: HIGHPOINT RESOURCES CORP-EBUS		Customer Rep:	
Well Name: ANSCHUTZ EQUUS FARMS FED	Well #: 5-61-34-4148B	API/UWI #: 05-123-48187-00	
Field: WATTENBERG	City (SAP): ROGGEN	County/Parish: WELD	State: COLORADO
Legal Description: NE SE-34-5N-61W-1685FSL-285FEL			
Contractor: CADE DRLG		Rig/Platform Name/Num: CADE 24	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA/H181357		Srvc Supervisor: Prince Perez	

Job

Formation Depth (MD)	Top	0'	Bottom	6,237'
Job depth MD	6,222'		Job Depth TVD	5,835'
Water Depth			Wk Ht Above Floor	5'

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	983	0	983
Casing		7	6.366	23			0	6222	0	5835
Open Hole Section			8.75				983	6237	983	5835

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	7	1		6,222	Top Plug	7	1	
Float Shoe	7				Bottom Plug	7		
Float Collar	7	1		6,176	SSR plug set	7		
Insert Float	7				Plug Container	7	1	HES
Stage Tool	7				Centralizers	7	12	

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	Spacer	Red Dye	30	bbl	8.33				

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	Cement	ELASTICEM (TM) SYSTEM	730	sack	13.2	1.57	7.54	8	5,504

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	Fresh Water	242.7	bbl	8.33				

Cement Left In Pipe									
Amount		46 ft			Reason			Shoe Joint	
Mix Water: pH 6		Mix Water Chloride: <300 ppm			Mix Water Temperature: 69 °F				
Cement Temperature: ## °F		Plug Displaced by: 8.33 lb/gal			Disp. Temperature: 69 °F				
Plug Bumped? Yes		Bump Pressure: 2,010 psi			Floats Held? Yes				
Cement Returns: 13 bbl		Returns Density: ## lb/gal			Returns Temperature: ## °F				

Comment

Pumped 30 bbls of Red Dye Spacer.

Pumped 204.12 bbls of Elasticem.

Pumped 242.72 bbls of fresh water displacement.

2 bbls back on the floats.

2.0 Real-Time Job Summary

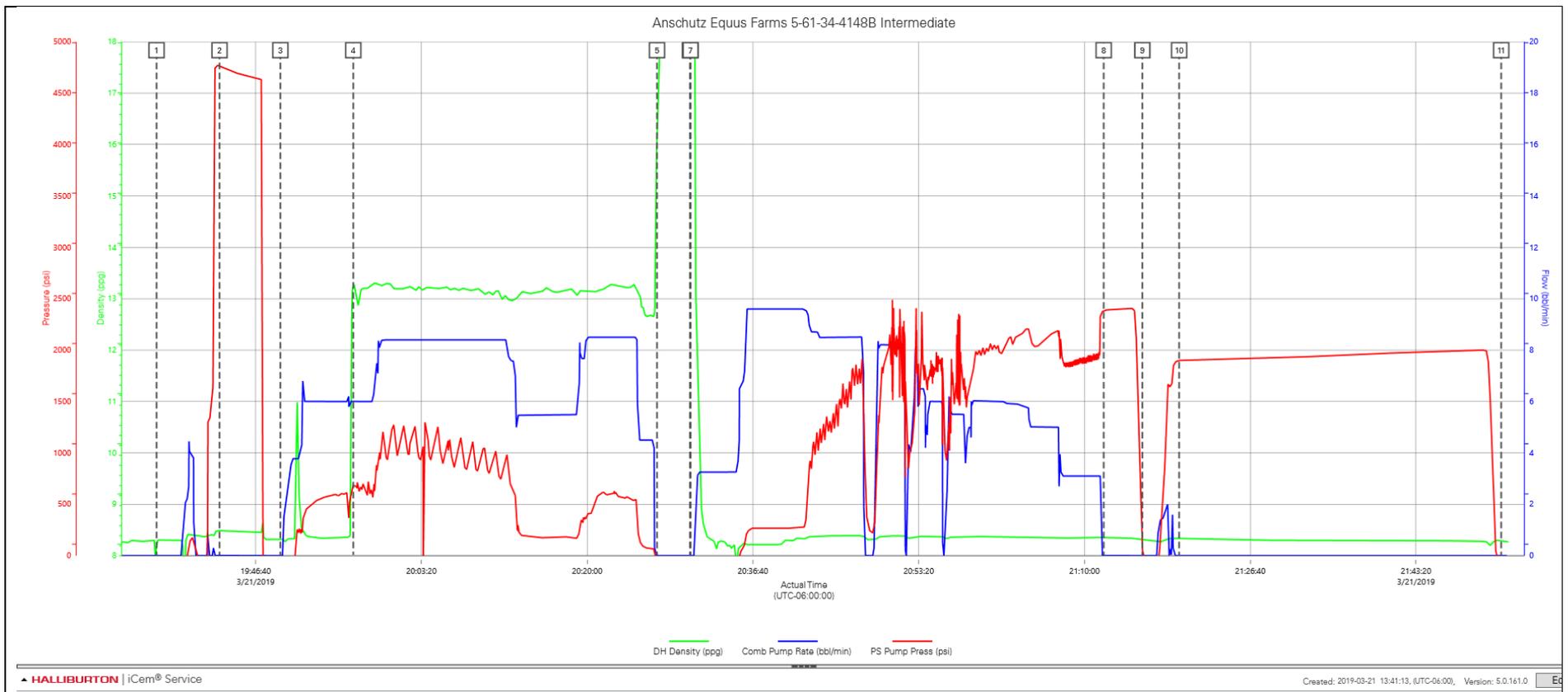
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	PS Pump Press <i>(psi)</i>	Comments
Event	1	Call Out	Call Out	3/21/2019	11:00:00	USER				CREW CALLED OUT AT 11:00, REQUESTED ON LOCATION 16:30. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660 10867096, 10867415, AND PUMP 11189145.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	3/21/2019	14:50:00	USER				CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Shop	Crew Leave Shop	3/21/2019	15:00:00	USER				STARTED JOURNEY MANAGEMENT.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	3/21/2019	16:45:00	USER				END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 982.5', 7" CASING: 23 LB/FT TOTAL 6,222', 8 3/4" HOLE, TD 6,237', 46' SHOE TRAC, TVD- 5,835'. PUMP FRESH WATER DISPLACEMENT. CASING LANDED @ 17:30 3/21/2019. RIG CIRCULATED 2 BOTTOMS UP.
Event	5	Safety Meeting - Assessment of Location	Safety Meeting - Assessment of Location	3/21/2019	16:55:00	USER				HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	3/21/2019	17:05:00	USER				RIG UP BULK AND MIXING EQUIPMENT.
Event	7	Rig-Up Completed	Rig-Up Completed	3/21/2019	19:00:00	USER	0.00	0.00	-78.00	
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	3/21/2019	19:15:00	USER	0.00	0.00	-71.00	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	9	Start Job	Start Job	3/21/2019	19:36:42	COM4	8.25	0.00	-75.00	BEGIN RECORDING JOB DATA.
Event	10	Test Lines	Test Lines	3/21/2019	19:43:02	COM4	8.49	0.00	4766.00	PRESSURE TESTED IRON TO 4,700 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 1,470 PSI, 5TH GEAR STALL OUT @ 1,770 PSI. 4,700 KICKOUT @ 4,880 PSI.
Event	11	Pump Spacer 1	Pump Spacer 1	3/21/2019	19:49:09	COM4	8.32	0.00	-75.00	PUMP 30 BBLS OF RED DYE @ 8.34 LBS/GAL. 30 BBLS CALCULATED TO RETURN TO SURFACE.

Event	12	Pump Cement	Pump Cement	3/21/2019	19:56:29	COM4	13.31	6.00	684.00	PUMP 730 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 FT3/SK, 7.54 GAL/SK, 204.12 BBLS. HOC CALCULATED @ 6,222', 32.71 BBLS CALCULATED TO RETURN TO SURFACE. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 1,000 PSI.
Event	13	Shutdown	Shutdown	3/21/2019	20:27:01	USER	16.22	0.00	-53.00	SHUTDOWN TO WASH UP ON THE PLUG.
Event	14	Drop Top Plug	Drop Top Plug	3/21/2019	20:30:20	COM4	19.24	0.00	-78.00	PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
Event	15	Pump Displacement	Pump Displacement	3/21/2019	20:30:24	COM4	19.25	0.00	-78.00	BEGIN CALCULATED DISPLACEMENT OF 242.72 BBLS WITH FRESH WATER. CEMENT TO SURFACE @ 232 BBLS AWAY, 13 BBLS CEMENT TO SURFACE. CAUGHT CEMENT @ 80 BBLS INTO DISPLACEMENT. RED DYE TO SURFACE @ 195 BBLS INTO DISPLACEMENT. 30 BBLS OF RED DYE TO SURFACE. SLOW RATE TO 3 BPM @ 230 BBLS INTO DISPLACEMENT.
Event	16	Bump Plug	Bump Plug	3/21/2019	21:11:56	COM4	8.36	0.00	2386.00	PLUG BUMPED AT CALCULATED DISPLACEMENT. 2,010 PSI PRESSURED 500 PSI OVER BUMP.
Event	17	Check Floats	Check Floats	3/21/2019	21:15:49	USER	8.31	0.00	58.00	RELEASED PRESSURE, FLOATS HELD, 2 BBLS BACK.
Event	18	Pressure Up Well	Pressure Up Well	3/21/2019	21:19:31	COM4	8.33	0.00	1900.00	PRESSURED UP TO 2,000 PSI AND HELD FOR 30 MINUTES FOR THE CASING TEST.
Event	19	End Job	End Job	3/21/2019	21:51:54	COM4	8.28	0.00	-73.00	STOP RECORDING JOB DATA.
Event	20	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	3/21/2019	22:00:00	USER				DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	21	Rig-Down Equipment	Rig-Down Equipment	3/21/2019	22:10:00	USER				RIG DOWN BULK AND MIXING EQUIPMENT.
Event	22	Rig-Down Completed	Rig-Down Completed	3/21/2019	23:10:00	USER				
Event	23	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	3/21/2019	23:20:00	USER				CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	24	Crew Leave Location	Crew Leave Location	3/21/2019	23:30:00	USER				THANK YOU FOR USING HALLIBURTON – PRINCE A. PEREZ AND CREW.

3.0 Attachments

3.1 Anschutz Equus Farms 5-61-34-4148B Intermediate – Job Chart with Events



3.2 Anschutz Equus Farms 5-61-34-4148B Intermediate – Job Chat without Events

