

# HALLIBURTON

iCem<sup>®</sup> Service

## HIGHPOINT RESOURCES-EBUS

**Anschutz Equus Farms 4-62-22-6401CB Production**

Job Date: Thursday, September 01, 2022

Sincerely,

**Meghan Van Zyl**

## Legal Notice

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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 **Anschutz Equus Farms 4-62-22-6401CB 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 51 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**

<b>Sold To #:</b> 324725	<b>Ship To #:</b> 9056260	<b>Quote #:</b>	<b>Sales Order #:</b> 0908082946
<b>Customer:</b> HIGHPOINT RESOURCES-EBUS		<b>Customer Rep:</b> Manny Parras	
<b>Well Name:</b> ANSCHUTZ EQUUS FARMS		<b>Well #:</b> 4-62-22-6401CB	<b>API/UWI #:</b> 05-123-51293-00
<b>Field:</b> WATTENBERG	<b>City (SAP):</b> ROGGEN	<b>County/Parish:</b> WELD	<b>State:</b> COLORADO
<b>Legal Description:</b> NE SE-21-4N-62W-2373FSL-909FEL			
<b>Contractor:</b> PATTERSON-UTI ENERGY		<b>Rig/Platform Name/Num:</b> PATTERSON 572	
<b>Job BOM:</b> 7523 7523			
<b>Well Type:</b> HORIZONTAL OIL			
<b>Sales Person:</b> HALAMERICA\HX41066		<b>Srvc Supervisor:</b> Steven Markovich	

**Job**

<b>Formation Name</b>	
<b>Formation Depth (MD)</b>	<b>Top</b> <input type="text"/> <b>Bottom</b> <input type="text"/>
<b>Form Type</b>	<b>BHST</b>
<b>Job depth MD</b>	16905ft <b>Job Depth TVD</b> <input type="text"/>
<b>Water Depth</b>	<b>Wk Ht Above Floor</b> <input type="text"/>
<b>Perforation Depth (MD)</b>	<b>From</b> <input type="text"/> <b>To</b> <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	8.921	36			0	1644	0	1644
Casing	0	5.5	4.892	17			0	16892	0	0
Open Hole Section			8.5				1644	16905	0	6222

**Tools and Accessories**

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5			16892	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**

<b>Stage/Plug #: 1</b>									
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Tuned Prime	TUNED PRIME CEMENT SPACER SYS	50	bbl	11.5	3.83	24.15	6	1771

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
2	Cap	SBM CEM ELASTICEM™ SYS	555	sack	13	1.67	8.34	8	4629
3	IsoBond Lead Cement	SBM CEM FDP-C1371 SYS	630	sack	13	1.55	7.22	8	4549
4	ElastiCem	SBM CEM ELASTICEM™ SYS	1485	sack	13.2	1.59	7.78	8	11553
5	Displacement	Displacement	391	bbl	8.33			8	16422
<b>Comment</b> 927bbbls mix water total used.									

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Seq No.	Activity	Date	Time	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
1	Call Out	8/31/2022	19:00:00					Job called out with an on location time of 0100.
2	Crew Leave Location	8/31/2022	23:30:00					Crew departed location to head to 572.
3	Arrive at Location from Other Job or Site	9/1/2022	00:00:00					Arrived on location from previous job. Rig was running casing approx 8000' left.
4	Safety Meeting	9/1/2022	00:10:00					JSA and Hazard hunt with HES crew.
5	Rig-Up Equipment	9/1/2022	00:20:00					Rigged up HES lines and equipment.
6	Safety Meeting	9/1/2022	07:30:00	8.41	0.00	99.00	9.30	JSA with HES and rig crew on job procedure and safety.
7	Start Job	9/1/2022	08:09:00	8.43	0.00	92.00	9.30	TD 16905' TP 16892' FC 16887 5 1/2" 17# Production Casing, 9 5/8" 36# Surface Casing set at 1644', TVD 6222', Estimated top of Tail cement 6588', Estimated top of Lead cement 2325'.
8	Drop Bottom Plug	9/1/2022	08:15:03	8.25	0.00	92.00	9.30	Plug pre loaded and dropped in front of company rep.
9	Test Lines	9/1/2022	08:20:07	8.33	0.00	360.00	6.00	Set kick outs to 500psi and check low pressure kick outs. Then bring pressure up to 500psi and hold.
10	Pump Spacer 1	9/1/2022	08:29:22	8.29	1.60	446.00	0.00	Pump 50bbls of 11.5ppg 3.83yield Tuned Prime Spacer. Pumped at 5.5bbl/min 500psi.
11	Check Weight	9/1/2022	08:32:32	11.46	5.10	585.00	15.10	Weight verified by pressurized scales.
12	Pump Cap Cement	9/1/2022	08:37:45	11.89	5.40	501.00	0.00	Pump 165bbls (555sks) of 13ppg 1.67yield Cap Cement. Pumped at 8.5bbl/min 700psi.

13	Check Weight	9/1/2022	08:39:44	13.04	6.50	754.00	11.80	Weight verified by pressurized scales.
14	Check Weight	9/1/2022	08:53:21	13.11	7.90	577.00	117.50	Weight verified by pressurized scales.
15	Pump Lead Cement	9/1/2022	09:00:39	12.97	7.00	495.00	168.90	Pump 173.9bbls (630sks) of 13ppg 1.55yield Lead Cement. Pumped at 9bbl/min 1000psi.
16	Check Weight	9/1/2022	09:01:55	12.99	7.00	563.00	8.90	Weight verified by pressurized scales.
17	Pump Tail Cement	9/1/2022	09:21:52	13.02	6.10	512.00	178.20	Pump 420.5bbls (1485sks) of 13.2ppg 1.59yield Tail Cement. Pumped at 9bbl/min 1200psi.
18	Check Weight	9/1/2022	09:23:20	13.16	6.10	436.00	9.00	Weight verified by pressurized scales.
19	Check Weight	9/1/2022	09:44:22	13.27	9.00	717.00	175.00	Weight verified by pressurized scales.
20	Check Weight	9/1/2022	10:01:55	13.33	6.60	458.00	328.50	Weight verified by pressurized scales.
21	Shutdown	9/1/2022	10:23:21	13.53	0.00	75.00	457.40	Shutdown and clean pumps and lines
22	Drop Top Plug	9/1/2022	10:35:51	8.33	0.00	39.00	16.10	Plug loaded into HES head. Plug loaded and dropped in front of company rep.
23	Pump Displacement	9/1/2022	10:35:53	8.33	0.00	39.00	16.10	Pump 391bbls of H2O. First 20bbls with MMCR. Pumped at 10bbl/min and slowed rate with pressure increase. Base oil to surface at 250bbls away. Tuned prime spacer to surface at 290bbls away bringing 50bbls spacer and 51bbls of cement to surface.
24	Bump Plug	9/1/2022	11:36:56	8.35	4.10	2250.00	402.00	Bumped plug at calculated displacement of 391bbls. Final lift pressure was 2250psi. Took pressure 500psi over and held.
25	Check Floats	9/1/2022	11:40:27	8.35	0.00	2833.00	403.20	Opened release line to check floats. After 3.5bbls back floats held.
26	End Job	9/1/2022	11:41:50	8.33	0.00	43.00	0.00	Thank you, Steve Markovich and crew.
27	Rig-Down Equipment	9/1/2022	11:50:00	8.37	0.00	37.00	14.00	Rig down HES lines and equipment.
28	Crew Leave Location	9/1/2022	13:30:00					Crew depart from location.

3.0 Attachments

3.1 Real Time iCem Job Chart

