POST JOB REPORT

Bill Barrett Corporation

Intermediate Post Job Report

Anschutz Equus Farms 4-62-33-1724C

S:33 T:4N R:62W Weld CO

Quote #: 08235 | Execution #: 04618

Cementing Treatment

Start Date	3-14-2018	**Well**	ANSCHUTZ EQUUS FARMS 4-62-33-1724C
End Date	3-14-2018	**County**	WELD
Client	BILL BARRETT CORPORATION	**State/Province**	CO
Client Field Rep	Casey	**API**	05-123-39732
Service Supervisor	Albert Snyder	**Type of Job**	Intermediate
Field Ticket No.	3817	**District**	Cheyenne, WY

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)	Grade
Open Hole	8.75			6,735.00	6,302.00	20.00	
Casing	6.37	7.00	23.00	6,719.00	6,302.00		J-55
Previous Casing	8.92	9.63	36.00	820.00	820.00		

Shoe Length (ft): 40

HARDWARE

Bottom Plug Used?	No	**Tool Depth (ft)**	6679
Top Plug Used?	Yes	**Max Casing Pressure - Rated (psi)**	4960 psi
Top Plug Provided By	Company Man	**Max Casing Pressure - Operated (psi)**	2350 psi
Top Plug Size	7”	**Job Pumped Through**	High Pressure Head
Centralizers Used	No	**Top Connection Thread**	8 RD
Landing Collar Depth (ft)	6,679	**Top Connection Size**	7 “
Tool Type	Float Collar		

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	**PV Mud Out**	12
Circulation Prior to Job	Yes	**YP Mud In**	4
Circulation Time (min)	90 min	**YP Mud Out**	4
Circulation Rate (bpm)	8 bpm	**Solids Present at End of Circulation**	No
Circulation Volume (bbls)	400	**10 sec SGS**	2
Lost Circulation Prior to Cement Job	No	**10 min SGS**	5
Mud Density In (ppg)	11#	**30 min SGS**	4
Mud Density Out (ppg)	11#	**Flare Prior to/during the Cement Job**	No
PV Mud In	12	**Gas Present**	No

Cementing Treatment

TEMPERATURE

Ambient Temperature (°F)	60	**Slurry Cement Temperature (°F)**	70
Mix Water Temperature (°F)	70	**Flow Line Temperature (°F)**	104

BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Planned Top of Fluid (Ft)	Length (Ft)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	IntegraGuard EZSpacer	11.0000			0.00				20.0000
Lead Slurry	BJCem I100.3.01C	12.5000	2.0735	11.83	600.00	4,400.00	390	791.0000	140.8000
Tail Slurry	BJCem I100.6.01C	15.8000	1.1550	4.98	5,000.00	1,685.00	270	314.0000	55.8000
Displacement Final	Water	8.3300			0.00			0.0000	263.00

Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	SAND, S-8, Silica Flour, 200 Mesh	179.6000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	Spacer Surfactant, SS-247	0.5000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	GELLANT WATER, GW-86	0.8000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	RETARDER, SR-20	1.0200	PPB
Lead Slurry	BJCem I100.3.01C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem I100.3.01C	FLUID LOSS, FL-24	0.3000	BWOB
Lead Slurry	BJCem I100.3.01C	RETARDER, SR-20	0.4000	BWOB
Lead Slurry	BJCem I100.3.01C	Foam Preventer, FP-25	0.3000	BWOB
Lead Slurry	BJCem I100.3.01C	BONDING AGENT, BA-60	0.3000	BWOB
Tail Slurry	BJCem I100.6.01C	CEMENT, CLASS G	100.0000	PCT
Tail Slurry	BJCem I100.6.01C	DISPERSANT, CD-31	0.2000	BWOB
Tail Slurry	BJCem I100.6.01C	FLUID LOSS, FL-24	0.2000	BWOB
Tail Slurry	BJCem I100.6.01C	BONDING AGENT, BA-60	0.2000	BWOB
Tail Slurry	BJCem I100.6.01C	RETARDER, R-6	0.1000	BWOB
Tail Slurry	BJCem I100.6.01C	Foam Preventer, FP-25	0.3000	BWOB

Cementing Treatment

TREATMENT SUMMARY

Fluid	Rate (bpm)	Fluid Vol. (bbls)
IntegraGuard EZ Spacer	5.00	20.00
BJCem I100.3.01C	5.00	140.80
BJCem I100.6.01C	5.00	55.80
Water	5.00	261.50

	Min	Max	Avg
Pressure (psi)	0 psi	2350 psi	1175 psi
Rate (bpm)	0 psi	8 bpm	4bpm

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ Services	**Amount of Cement Returned/Reversed**	10 barrels
Calculated Displacement Volume (bbls)	263 bbls	**Method Used to Verify Returns**	Visual
Actual Displacement Volume (bbls)	263bbls	**Amount of Spacer to Surface**	20 Barrels
Did Float Hold?	Yes	**Pressure Left on Casing (psi)**	0 psi
Bump Plug	Yes	**Amount Bled Back After Job**	2.5 bbls
Bump Plug Pressure (psi)	2350	**Total Volume Pumped (bbls)**	486 bbls
Were Returns Planned at Surface	Yes	**Top Out Cement Spotted**	No
Cement returns During Job	Yes	**Lost Circulation During Cement Job**	No

COMMENTS

Job Summary

Plug landed on Calculated that was 263 barrels
Float did hold flowed back 2.5 bbls
Displace with water. Got back 10 bbls of cement and 20 bbls of spacer
Mixed and pump all cement on location got dry samples and wet samples
All bleds were scaled before pumping down hole. Job went as planned, company happy

Customer Name BILL BARRETT
Well Name ANSHUTZ EQUIS FARMS 4
Job Type Intermediate

District Cheyenne
Supervisor ALBET SNYDER
Engineer

Seq No.	Start Date/Time	Event	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	3/14/2018 8:00	Caled out						Called out at 8:00 am
2	3/14/2018 9:30	Journey Steacs						Discussed Journey to location
3	3/14/2018 13:30	Requested on location						Requested on Location 13:30
4	3/14/2018 11:00	Arrived on Location						Arrived at 11:00 1.5 hours Early rig was still running casing
5	3/14/2018 11:30	Steacs rig up						Discussed our rig up process
6	3/14/2018 11:45	Rig up	50					Used team work worked slow not to hurry
7	3/14/2018 14:30	Safety Meeting	53					Discussed with rig crew what we plan to accomplish
8	3/14/2018 14:58	Fill ines		8.33	1	2	200	Filled lines with fresh water
9	3/14/2018 15:00	Test lines		8.33	1	1	5000	Lines tested good
10	3/14/2018 15:04	Water Spacer		8.33	3	20	390	water spacer
11	3/14/2018 15:09	EZ Spacer		11#	4	20	420	Mix and pump 20 bbls of interaguard ez Spacer
12	3/14/2018 15:14	Lead cement		12.5#	6	144	720	Mix and pump 390 sks of BJ CEM 100.3.01c at 12.5 with 2.07 yield and 11.83 water requiement
13	3/14/2018 15:40	Tail Cement		15.8#	4	55.3	320	Mix and pump 270 sks of bj cem 100.6.01c at 15.8# with 1.15 yeld and 4.98 water requirement
14	3/14/2018 15:52	Drop plug wash on top						Washed on top of plug use their plg
15	3/14/2018 16:03	Pump Displacement	64	8.33	8	50	300	Water Displacement
16	3/14/2018 16:09	Pump Displacement	64	8.33	8	100	400	Water Displacement
17	3/14/2018 16:16	Pump Displacement	64	8.33	8	150	1000	Water Displacement
18	3/14/2018 16:22	Pump Displacement	64	8.33	8	212	1700	water spacer back to surface 20 bbls
19	3/14/2018 16:27	Pump Displacement	64	8.33	8	232	2250	Spacer back to the surface all 20 bbls
20	3/14/2018 16:30	Slow rate		8.33	3	252	1600	Cement back to surface 10 bbls to the surface
21	3/14/2018 16:30	Land the plug		8.33	3	263	1750/2350	Plug landed on Calculated
22	3/14/2018 16:37	Check the Float						fFloat is holding flowed back 2.5 bbls
23	3/14/2018 16:40	Casing Pressure test		8.33	2	2	2000	Hold for 15 minutes
24	3/14/2018 16:55	End of job						Test was good end of the job
25	3/14/2018 17:20	Rig down Steacs						Discussed our rig down process
26	3/14/2018 17:25	Rig Down	73					Used team work worked slow not to hurry
27	3/14/2018 18:20	Afeter Action Review						Discussed entire job talking about how we can improve the next time
28	3/14/2018 18:30	Journey Steacs						Planned our Journey back to yard
29	3/14/2018 18:45	Depart Location						Depart traveling in a convoy