

BJ Cementing Treatment Report

SERVICE SUPERVISOR	Eric Dewit	RIG	True 33
CLIENT FIELD REPRESENTATIVE	Mark Stoner	COUNTY	ADAMS
DISTRICT	Cheyenne, WY	STATE / PROVINCE	CO
SERVICE	Cementing		

WELL GEOMETRY

TYPE	OD (in)	ID (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)	GRADE	THREAD
Open Hole	0.00	13.50	0.00	1,568.00	1,568.00	30.00		
Casing	9.63	8.92	36.00	1,557.00	1,557.00		J-55	LTC

HARDWARE

Top Plug Used?	Yes	Tool Type	Float Collar
Top Plug Provided By	Non BJ	Tool Depth (ft)	1,512.00
Top Plug Size	9.625	Max Casing Pressure - Rated (psi)	2815.00
Centralizers Used	No	Max Casing Pressure - Operated (psi)	1500.00
Centralizers Quantity	20.00	Pipe Movement	None
Centralizers Type	Bow	Job Pumped Through	Manifold
Landing Collar Depth (ft)	1,512	Top Connection Thread	LTC
		Top Connection Size	9.625

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	PV Mud In	30
Circulation Prior to Job	No	PV Mud Out	30
Circulation Time (min)	2.00	YP Mud In	20
Circulation Rate (bpm)	4.50	YP Mud Out	20
Circulation Volume (bbls)	540.00	Solids Present at End of Circulation	No
Lost Circulation Prior to Cement Job	No	Flare Prior to / during the Cement Job	No
Mud Density In (ppg)	8.90	Gas Present	No
Mud Density Out (ppg)	8.90		

TEMPERATURE

Ambient Temperature (°F)	35.00	Mix Water Temperature (°F)	48.00
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FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H ₂ O REQ (gals/sk)	VOL (sk)	VOL (Cu Ft)	VOL (bbls)
Spacer / Pre Flush / Flush	Water	8.3337					20.0000
Lead Slurry	BJCem S100.03.1C	12.0000	2.5298	14.86	250	635.0000	113.0000
Lead Slurry	BJCem S100.03.1C	13.0000	1.9869	10.80	170	336.0000	59.8000
Displacement Final	Water	8.3300				0.0000	116.9000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Spacer / Pre Flush / Flush	Water	Fresh Water	100.0000	PCT
Lead Slurry	BJCem S100.03.1C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem S100.03.1C	FOAM PREVENTER, FP-25	0.3000	BWOB
Lead Slurry	BJCem S100.03.1C	Cement Additive, Sodium Metasilicate A-2	2.0000	LBS/SK
Lead Slurry	BJCem S100.03.1C	IntegraSeal POLI	0.1300	LBS/SK
Lead Slurry	BJCem S100.03.1C	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Lead Slurry	BJCem S100.03.1C	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Lead Slurry	BJCem S100.03.1C	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Lead Slurry	BJCem S100.03.1C	FOAM PREVENTER, FP-25	0.3000	BWOB
Lead Slurry	BJCem S100.03.1C	IntegraSeal POLI	0.1300	LBS/SK
Lead Slurry	BJCem S100.03.1C	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Lead Slurry	BJCem S100.03.1C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem S100.03.1C	Cement Additive, Sodium Metasilicate A-2	2.0000	LBS/SK
Displacement Final	Water	Fresh Water	100.0000	PCT

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	16.00
Calculated Displacement Vol (bbls)	116.90	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	114.50	Amt of Spacer to Surface	10.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amt Bled Back After Job	0.50
Bump Plug Pressure (psi)	1084.00	Total Volume Pumped (bbls)	325.50
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Full	Lost Circulation During Cement Job	No

BJ Cementing Event Log

Surface - Cheyenne, WY - Eric Dewit

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	12/25/2018 23:40	Callout					Customer requested crew to be on location at 6:00 12/26/18
2	12/25/2018 23:40	Depart for Location					Leave yard and travel to location
3	12/26/2018 03:00	Arrive on Location					Arrive on location, Rig is running in the hole with surface casing
4	12/26/2018 05:00	Other (See comment)					Pre-Rig up STEACS Briefing with crew before we spot trucks on location
5	12/26/2018 06:00	Spot Units					Spot trucks on location
6	12/26/2018 06:15	Rig Up					Rig up water, bulk, and High Pressure treating iron on the ground
7	12/26/2018 07:30	Rig					Done rigging up what we can, waiting on the rig to finish running casing
8	12/26/2018 09:20	Rig Up					Casing is on bottom, rig up cement head, and stand pipe to the floor
9	12/26/2018 09:30	Rig					Rig ties into BJ Cement head to circulate through
10	12/26/2018 10:00	Other (See comment)					Pre-job safety meeting with the rig crew, company man, and BJ crew
11	12/26/2018 10:12	Open Wellhead	8.3400	2.50	3.00	94.00	Load lines with 3 bbls of fresh water
12	12/26/2018 10:14	Pressure Test	8.3400	0.00	0.00	3800.00	Pressure test pumps and lines
13	12/26/2018 10:17	Pressure Test	8.3400	4.50	20.00	120.00	Pump 20 bbls of Fresh water + Dye ahead
14	12/26/2018 10:22	Pressure Test	11.5000	0.00	0.00	0.00	Attempt to batch Lead cement. We were unable to read an accurate density (issue with the Micro Motion)
15	12/26/2018 10:36	Equipment Issue	0.0000	0.00	0.00	0.00	Called for a new pump, we had to pump cement that was on the pump to a wash up tank. We tried to find the issue while the other pump was on the way
16	12/26/2018 12:06	Rig Up	0.0000	0.00	0.00	0.00	We were able to fix the issue with the Micro Motion. We rigged back up to the cement head ad got ready to go back down hole
17	12/26/2018 12:17	Open Wellhead	8.3400	2.10	2.00	69.00	Load lines with 2 bbls of fresh water
18	12/26/2018 12:18	Pressure Test	8.3400	0.00	0.00	4233.00	Pressure test pumps and lines
19	12/26/2018 12:21	Pump Spacer	8.3400	5.00	20.00	145.00	Pump 20 bbls of fresh water ahead
20	12/26/2018 12:27	Pump Lead Cement	12.0000	5.00	109.00	196.00	Batch and pump 250 sks of Lead cement @12 ppg
21	12/26/2018 12:50	Pump Tail Cement	13.0000	4.90	60.00	196.00	Pump 170 sks of Tail cement @13 ppg
22	12/26/2018 13:04	Drop Top Plug	0.0000	0.00	0.00	0.00	Shut down, wash pump, and drop the top plug
23	12/26/2018 13:15	Pump Displacement	8.3400	6.00	0.00	221.00	Send plug start fresh water displacement

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Client: Petro Operating Company

Well: BEF WEST #16

Well 05-001-10222

API:



Plan #: ORD-14270-S4Q9C7

Execution #: EXC-14270-S4Q9C702

Quote #: QUO-24513-J2H0Y3

24	12/26/2018 13:35	Cement Back-to-Surface	8.3400	2.50	98.00	424.00	Start getting good cement to surface, and drop rate to 2.5 bbls/min
25	12/26/2018 13:40	Land Plug	8.3400	2.50	114.50	1084.00	Land the plug @482 psi, bump up to 1084 and hold for 10 min. 16 bbls of cement to surface
26	12/26/2018 13:50	Check Floats	0.0000	0.00	0.00	0.00	Check floats, floats held .5 bbls back to the truck
27	12/26/2018 13:51	Other (See comment)	0.0000	0.00	0.00	0.00	Pre-Rig down STEACS Briefing
28	12/26/2018 14:00	Rig Down	0.0000	0.00	0.00	0.00	Rig everything down



JobMaster Program Version 4.02C1

Job Number: 12227

Customer: Petro

Well Name: BEF West #16

