

Cementing Treatment



Start Date	8/1/2018	Field Ticket#	FT-09315-M8C3H10202-90630
End Date	8/1/2018	Well	KTC FARMS D-35-36HN
Client	BAYSWATER EXPLORATION & PRODUCTION, LLC	API#	05-123-47090
Client Field Rep.	Scott Osborn	Well Classification	
Service Sup.	Paul Linn III	County	WELD
District	Rifle, CO	State/Province	CO
Type of Job	Surface	Formation	
Execution ID	EXC-09315-M8C3H102	Rig	
Project ID	PRJ1009135		

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	Excess(%)	Grade	Thread
Open Hole	13.50	0.00	0.00	1,578.00	25.00		
Casing	8.92	9.63	36.00	1,567.00			

Shoe Length (ft): 42.19

HARDWARE

Bottom Plug Used?	No	Tool Type	Float Collar
Top Plug Used?	Yes	Tool Depth (ft)	1,525.89
Top Plug Provided By	Non BJ	Max Casing Pressure - Rated (psi)	2,220.00
Top Plug Size	9.625	Max Casing Pressure - Operated (psi)	1,776.00
Centralizers Used	Yes	Pipe Movement	None
Centralizers Quantity	16.00	Job Pumped Through	Manifold
Centralizers Type	Bow	Top Connection Thread	8 RND
Landing Collar Depth (ft)	1,458	Top Connection Size	9.625

Cementing Treatment



CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Solids Present at End of Circulation	No
Circulation Prior to Job	Yes	10 sec SGS	1.00
Circulation Time (min)	30.00	10 min SGS	2.00
Circulation Rate (bpm)	11.90	30 min SGS	2.00
Circulation Volume (bbls)	357.00	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)	8.70	Gas Units	0
Mud Density Out (ppg)	8.70		
PV Mud In	1		
PV Mud Out	1		
YP Mud In	4		
YP Mud Out	4		

TEMPERATURE

Ambient Temperature (°F)	88.00	Slurry Cement Temperature (°F)	80.50
Mix Water Temperature (°F)	76.20	Flow Line Temperature (°F)	0.00

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	Water	8.3337			0.00				20.0000
Lead Slurry	BJCem S100.03.1C	12.0000	2.5298	14.86	0.00	1000	242	611.0000	108.7000
Tail Slurry	BJCem S100.03.1C	12.5000	2.2256	12.59	1,000.00	500	146	324.0000	57.6000
Displacement Final	Water	8.3337			0.00			0.0000	112.7000

Cementing Treatment



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

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)
8/1/2018 2:52:00 PM	Water	6.00	20.00	141.00
8/1/2018 2:58:00 PM	BJCem S100.03.1C	6.00	109.04	230.00
8/1/2018 3:18:00 PM	BJCem S100.03.1C	6.00	57.99	261.00
8/1/2018 3:32:00 PM	Water	8.00	117.95	191.00

	Min	Max	Avg
Pressure (psi)	55.00	552.00	181.00
Rate (bpm)	2.00	8.00	6.00

Cementing Treatment



DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	19.00
Calculated Displacement Volume (bbls)	117.95	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	118.00	Amount of Spacer to Surface	20.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amount Bled Back After Job	0.50
Bump Plug Pressure (psi)	386.00	Total Volume Pumped (bbls)	299.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement returns During Job	Full	Lost Circulation During Cement Job	No

EVENT LOG



Customer Name: BAYSWATER EXPLORATION & PRODUCTION, LLC

Well Name: KTC FARMS D-35-36HN

Job Type: Surface

Quote ID: QUO-16143-X6R4F7

Plan ID: ORD-09315-M8C3H1

Execution ID: EXC-09315-M8C3H102

District: Rifle, CO

BJ Supervisor: Paul Linn III

Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
1	08/01/2018 06:00	Callout					CALL OUT ON LOCATION TIME OF 12:00
2	08/01/2018 11:30	Arrive on Location					ARRIVED ON LOCATION, RIG WAS PULLING DRILL PIPE
3	08/01/2018 11:38	Spot Units					SITE ASSESMENT, DID ROCK DRILL, SPOT EQUIPMENT
4	08/01/2018 11:46	Safety Meeting					PRE RIG UP SAFETY MEETING
5	08/01/2018 11:58	Rig Up					RIG UP ALL EQUIPMENT
6	08/01/2018 12:25	Customer					WAIT ON RIG TO RUN CASING
7	08/01/2018 14:10	Safety Meeting					PRE JOB SAFETY MEETING WITH RIG CREW AND ALL BJ SERVICES CEMENT CREW
8	08/01/2018 14:26	Rig Up					LOAD PLUG CONTAINER, STAB PLUG CONTAINER, AND HOOK UP LINES
9	08/01/2018 14:45	Prime Up	8.3300	2.00	5.00	55.00	FILL LINES
10	08/01/2018 14:48	Pressure Test				6,915.00	PRESSURE TESTED TO 6915, PRESSURE HELD

EVENT LOG



Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
11	08/01/2018 14:52	Pump Spacer	8.3300	6.00	20.00	141.00	FRESH WATER SPACER WITH DYE IN IT
12	08/01/2018 14:58	Pump Lead Cement	12.0000	6.00	50.00	241.00	PUMPED LEAD CEMENT 12 PPG. 242 SKS, 2.23 CUFT/SK 14.86 GAL/SK FOR 109.04 BBLS REQUIRING 85.62 BBLS OF MIX WATER. WEIGHT VERIFIED WITH MUD SCALES, TOP OF LEAD IS 0 FT, WITH A HEIGHT OF 939 FT.
13	08/01/2018 15:07	Pump Lead Cement	12.0000	6.00	100.00	259.00	PUMPED LEAD CEMENT
14	08/01/2018 15:15	Pump Lead Cement	12.0000	6.00	109.00	254.00	FINISHED PUMPING LEAD CEMENT
15	08/01/2018 15:17	Pump Tail Cement	12.5000	6.00	28.00	261.00	PUMPED TAIL CEMENT 12.5 PPG. 146 SKS. 2.53 CUFT/SK 12.59 GAL/SK FOR 57.99 BBLS OF TAIL CEMENT REQUIRING 43.77 BBL OF MIX WATER. WEIGHT VERIFIED WITH MUD SCALE, TOP OF TAIL IS 939 FT, WITH A HEIGHT OF 629.08 FT.
16	08/01/2018 15:22	Pump Tail Cement	12.5000	4.50	52.00	102.00	FINISHED PUMPING TAIL CEMENT CEMENT
17	08/01/2018 15:27	Drop Top Plug					DROPPED TOP PLUG, VERIFIED BY COMPANY MAN
18	08/01/2018 15:32	Pump Displacement	8.3300	8.00	50.00	227.00	PUMPED FRESH WATER DISPLACEMENT
19	08/01/2018 15:39	Pump Displacement	8.3300	8.00	100.00	552.00	PUMPED FRESH WATER DISPLACEMENT
20	08/01/2018 15:45	Cement Back to Surface					19 BBLS OF CEMENT TO SURFACE
21	08/01/2018 15:45	Pump Displacement	8.3300	2.00	118.00	386.00	FINISHED PUMPING DISPLACEMENT
22	08/01/2018 15:53	Land Plug				747.00	LANDED PLUG AT 386 PSI, TOOK TO 747 PSI.
23	08/01/2018 15:56	Check Floats					CHECK FLOATS 1/2 BBL BACK
24	08/01/2018 16:00	Safety Meeting					PRE RIG DOWN SAFETY MEETING WITH RIG CREW
25	08/01/2018 16:10	Rig Down					RIG DOWN RIG FLOOR

EVENT LOG



Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
26	08/01/2018 16:10	Clean Pumps and Lines					WASH PUMPS AND LINES TO CELLAR
27	08/01/2018 16:38	Safety Meeting					PRE RIG DOWN SAFETY MEETING WITH ALL BJ CEMENT CREW
28	08/01/2018 16:46	Rig Down					RIG DOWN ALL EQUIPMENT
29	08/01/2018 16:55	Leave Location					LEAVE LOCATION, THANK YOU FOR USING BJ SEVICES, ANDREW LINN AND CREW

