

Cementing Treatment



Start Date	7/31/2018	Field Ticket#	FT-09307-J4L0B60202-39878
End Date	7/31/2018	Well	KTC FARMS C-35-36HN
Client	BAYSWATER EXPLORATION & PRODUCTION, LLC	API#	05-123-47089
Client Field Rep.	Marsh	Well Classification	
Service Sup.	Paul Linn III	County	WELD
District	Rifle, CO	State/Province	CO
Type of Job	Surface	Formation	
Execution ID	EXC-09307-J4L0B602	Rig	
Project ID	PRJ1009128		

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	Excess(%)	Grade	Thread
Open Hole	13.50	0.00	0.00	1,550.00	25.00		
Casing	8.92	9.63	36.00	1,540.00			

Shoe Length (ft): 40.6

HARDWARE

Bottom Plug Used?	No	Tool Type	Float Collar
Top Plug Used?	Yes	Tool Depth (ft)	1,498.75
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

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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)	70.00	Slurry Cement Temperature (°F)	73.40
Mix Water Temperature (°F)	68.80	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

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

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)
7/31/2018 9:54:00 PM	Water	6.00	20.00	268.00
7/31/2018 9:59:00 PM	BJCem S100.03.1C	6.00	109.04	279.00
7/31/2018 10:17:00 PM	BJCem S100.03.1C	6.00	57.99	306.00
7/31/2018 10:33:00 PM	Water	8.00	115.85	245.00

	Min	Max	Avg
Pressure (psi)	48.00	632.00	306.00
Rate (bpm)	2.00	8.00	6.00

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DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	20.00
Calculated Displacement Volume (bbls)	115.85	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	115.50	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)	406.00	Total Volume Pumped (bbls)	299.50
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 C-35-36HN

Job Type: Surface

Quote ID: QUO-16142-L1K9Y5

Plan ID: ORD-09307-J4LOB6

Execution ID: EXC-09307-J4LOB602

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	07/31/2018 14:00	Callout					CALL OUT ON LOCATION TIME OF 20:00
2	07/31/2018 17:30	Arrive on Location					ARRIVE ON LOCATION, RIG CREW WAS PULLING DRILL PIPE
3	07/31/2018 17:36	Spot Units					DID A SITE ASSEMENT AND ROCK DRILL, AND SPOTTED IN EQUIPMENT
4	07/31/2018 17:42	Safety Meeting					PRE RIG UP SAFETY MEETING WITH ALL BJ CEMENT CREW
5	07/31/2018 17:51	Rig Up					RIG IN ALL EQUIPMENT
6	07/31/2018 18:08	Customer					WAIT ON RIG TO FINISH RUNNING CASING
7	07/31/2018 21:00	Safety Meeting					PRE JOB SAFETY MEETING WITH RIG CREW AND ALL BJ CEMENT CREW
8	07/31/2018 21:22	Rig Up					LOAD PLUG CONTAINER AND STAB PLUG CONTAINER AND HOOK UP LINES

EVENT LOG



Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
9	07/31/2018 21:49	Prime Up	8.3300	2.00	5.00	48.00	FILL LINES WITH 5 BBLS OF FRESH WATER
10	07/31/2018 21:51	Pressure Test				5,736.00	PRESSURE TESTED TO 5736 PSI, PRESSURE HELD
11	07/31/2018 21:54	Pump Spacer	8.3300	6.00	20.00	268.00	PUMPED FRESH WATER SPACER WITH DYE IN IT
12	07/31/2018 21:58	Pump Lead Cement	12.0000	6.00	50.00	279.00	PUMPED LEAD CEMENT 12 PPG 242 SKS 2.53 CUFT/SK 14.86 GAL/SK, 109.04 BBLS OF LEAD CEMENT REQUIRING 85.62 BBLS OF MIX WATER. WEIGHT VERIFIED WITH MUD SCALE
13	07/31/2018 22:06	Pump Lead Cement	12.0000	6.00	100.00	275.00	PUMPED LEAD CEMENT
14	07/31/2018 22:14	Pump Lead Cement	12.0000	6.00	109.00	275.00	FINISHED PUMPING LEAD CEMENT
15	07/31/2018 22:16	Pump Tail Cement	12.5000	6.00	30.00	306.00	PUMPED TAIL CEMENT, 12.5 PPG 146 SKS 2.23 CUFT/SK 12.59 GAL/SK FOR 57.99 BBLS OF TAIL CEMENT REQUIRING 43.77 OF MIX WATER. WEIGHT VERIFIED BY MUD SCALES
16	07/31/2018 22:21	Pump Tail Cement	12.5000	3.00	40.00	85.00	PUMPED TAIL CEMENT
17	07/31/2018 22:23	Pump Tail Cement	12.5000	3.00	55.00	82.00	FINISHED PUMPING TAIL CEMENT
18	07/31/2018 22:27	Drop Top Plug					DROPPED TOP PLUG VERIFIED BY DRILLER
19	07/31/2018 22:33	Pump Displacement	8.3300	8.00	50.00	335.00	PUMPED FRESH WATER DISPLACEMENT
20	07/31/2018 22:39	Pump Displacement	8.3300	8.00	100.00	632.00	PUMPED FRESH WATER DISPLACEMENT
21	07/31/2018 22:46	Cement Back to Surface					20 BBLS OF CEMENT TO SURFACE

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Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
22	07/31/2018 22:46	Pump Displacement	8.3300	2.00	115.50	406.00	FINISHED PUMPING FRESH WATER DISPLACEMENT
23	07/31/2018 22:50	Land Plug				910.00	LANDED PLUG AT 406 PSI, TOOK TO 910
24	07/31/2018 22:53	Check Floats					CHECK FLOATS 1/2 BBL BACK
25	07/31/2018 22:55	Safety Meeting					PRE RIG DOWN SAFETY MEETING WITH RIG CREW
26	07/31/2018 23:08	Rig Down					RIG DOWN RIG FLOOR
27	07/31/2018 23:08	Clean Pumps and Lines					WASH PUMPS AND LINES TO CELLAR
28	07/31/2018 23:22	Safety Meeting					PRE RIG DOWN SAFETY MEETING
29	07/31/2018 23:30	Rig Down					RIG DOWN ALL EQUIPMENT
30	07/31/2018 23:42	Leave Location					LEAVE LOCATION, THANK YOU FOR USING BJ SERVICES, ANDREW LINN

