

BJ Cementing Treatment Report

SERVICE SUPERVISOR	Zachary Hyde	RIG	True 38
CLIENT FIELD REPRESENTATIVE	Trevor Smith	COUNTY	WELD
DISTRICT	Cheyenne, WY	STATE / PROVINCE	CO
SERVICE	Cementing		

WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)
Open Hole	8.50	0.00	0.00	15,311.00	7,196.00	5.00
Previous Casing	8.92	9.63	36.00	1,580.00	1,580.00	
Casing	4.78	5.50	20.00	15,296.00	7,196.00	

HARDWARE

Bottom Plug Used?	No	Landing Collar Depth (ft)	15,269
Top Plug Used?	Yes	Pipe Movement	None
Top Plug Provided By	Non BJ	Job Pumped Through	No Manifold
Top Plug Size	5.500	Top Connection Thread	BTC
Centralizers Used	Yes	Top Connection Size	5.5
Centralizers Type	Rigid		

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	PV Mud Out	6
Circulation Prior to Job	Yes	YP Mud In	9
Circulation Time (min)	180.00	YP Mud Out	9
Circulation Rate (bpm)	8.00	Solids Present at End of Circulation	No
Circulation Volume (bbls)	1440.00	10 sec SGS	7
Lost Circulation Prior to Cement Job	No	10 min SGS	9
Mud Density In (ppg)	9.80	30 min SGS	13
Mud Density Out (ppg)	9.80	Flare Prior to / during the Cement Job	No
PV Mud In	6	Gas Present	No

TEMPERATURE

Ambient Temperature (°F)	30.00	Slurry Cement Temperature (°F)	70.00
Mix Water Temperature (°F)	70.00	Flow Line Temperature (°F)	120.00

Client: Bayswater Exploration & Production, LLC

Well: COT EAST #TA-30-29HN

Well API: 05-123-50406

Start Date: 12/26/2019

End Date: 12/26/2019



FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H ₂ O REQ (gals/sk)	PLN TOP FLD (ft)	LENGTH (ft)	VOL (sk)	VOL (Cu Ft)	VOL (bbls)
Spacer / Pre Flush / Flush	Dye Flush	8.3300			0.00				2.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	12.0000			0.00				28.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.5000			0.00				26.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.0000			0.00				26.0000
Lead Slurry	BJCem P100.3.01C	13.2000	1.8295	9.87	0.00	6,893.00	935	1711.0000	304.7000
Tail Slurry	BJCem P50.6.02C	13.5000	1.4774	7.45	6,893.00	8,414.00	1370	2025.0000	360.5000
Displacement 2	Retarded Water w/ Clay Protection & Biocide	8.3331				0.00	0	0.0000	10.0000
Displacement Final	Water w/ Clay Protection & Biocide	8.3331			0.00			0.0000	328.6000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Spacer / Pre Flush / Flush	Dye Flush	DYE,LIQUID,BLUE	1.0000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
Lead Slurry	BJCem P100.3.01C	IntegraCare EC-2	3.0000	BWOB
Lead Slurry	BJCem P100.3.01C	FOAM PREVENTER, FP-25	0.3000	BWOB
Lead Slurry	BJCem P100.3.01C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem P100.3.01C	FLUID LOSS, FL-66	0.5000	BWOB
Lead Slurry	BJCem P100.3.01C	IntegraGuard GW-86	0.1000	BWOB
Lead Slurry	BJCem P100.3.01C	RETARDER, SR-20	0.7000	BWOB
Tail Slurry	BJCem P50.6.02C	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem P50.6.02C	RETARDER, SR-20	0.1000	BWOB
Tail Slurry	BJCem P50.6.02C	IntegraGuard GW-86	0.1000	BWOB
Tail Slurry	BJCem P50.6.02C	Flyash (Rockies)	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	FLUID LOSS, FL-66	0.2000	BWOB
Tail Slurry	BJCem P50.6.02C	EXTENDER, BENTONITE	2.0000	BWOB
Tail Slurry	BJCem P50.6.02C	CEMENT, CLASS G	50.0000	PCT
Displacement 2	Retarded Water w/ Clay Protection & Biocide	RETARDER, SR-61L	0.1000	GPB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	BIOCIDE, BIOC11139W	0.0100	GPB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	ResCare CS-2	0.0800	GPB
Displacement Final	Water w/ Clay Protection & Biocide	ResCare CS-2	0.0800	GPB
Displacement Final	Water w/ Clay Protection & Biocide	BIOCIDE, BIOC11139W	0.0100	GPB

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	38.00
Calculated Displacement Vol (bbls)	338.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	338.00	Amt of Spacer to Surface	80.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amt Bled Back After Job	3.00
Bump Plug Pressure (psi)	2200.00	Total Volume Pumped (bbls)	1085.00
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

Long String - Cheyenne, WY

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	12/26/2019 14:44	Callout					Crew gets called out. Requested time 1800
2	12/26/2019 15:00	Depart for Location					Crew departs for location
3	12/26/2019 17:00	Arrive on Location					Crew arrive on location
4	12/26/2019 17:00	Rig Up					Crew rigs up iron and hoses needed for job
5	12/26/2019 18:00	STEACS Briefing					Crew has a briefing with company man and rig crew discussing the job
6	12/26/2019 18:23	Prime Up	8.3300	3.00	3.00		Filled lines with 3 bbls of Dye
7	12/26/2019 18:25	Pressure Test					Pressure tested to 5500psi
8	12/26/2019 18:47	Pump Spacer	12.0000	5.00	28.00	600.00	Pumped 28 bbls of Spacer at 12ppg with surfactant
9	12/26/2019 18:52	Pump Spacer	11.5000	8.00	26.00	1000.00	Pumped 26 bbls of Spacer at 11.5ppg with surfactant
10	12/26/2019 18:56	Pump Spacer	11.0000	8.00	26.00	1000.00	Pumped 26 bbls of Spacer at 11ppg with surfactant
11	12/26/2019 19:01	Pump Lead Cement	13.2000	8.00	304.00	600.00	Pumped 304 bbls of Lead at 13.2ppg(935sk,1.82yld,9.87gal/sk)
12	12/26/2019 19:45	Pump Tail Cement	13.5000	8.00	360.00	600.00	Pumped 360bbls of Tail at 13.5ppg(1370sk,1.47yld,7.45gal/sk)
13	12/26/2019 20:31	End Pumping					Shutdown
14	12/26/2019 20:31	Wash Pumps and Lines					Washed pump and lines to pit
15	12/26/2019 20:39	Drop Top Plug					Dropped top plug
16	12/26/2019 20:39	Pump Displacement	8.3300	6.00	20.00	600.00	Pumped the first 20 bbls of displacement with fresh water and retarder
17	12/26/2019 20:41	Pump Displacement	8.3300	6.00	298.00	2400.00	Pumped 298 bbls of Displacement with rez care and biocide
18	12/26/2019 21:35	Spacer Back-to-Surface					At 220 away had spacer back to surface
19	12/26/2019 21:35	Cement Back-to-Surface					At 300 away had cement to surface. Had a total of 38 bbls back
20	12/26/2019 21:35	Pump Displacement	8.3300	3.00	20.00	2200.00	Slowed rate last 20 bbls to 3 bpm and switched back to fresh water
21	12/26/2019 21:43	Land Plug					Landed plug went 800 psi over FCP. FCP was 2200psi brought it up to 3000psi
22	12/26/2019 21:47	Check Floats					Checked floats had 3 bbls back
23	12/26/2019 21:48	Rig Down					Crew rigs down iron and hoses

Client: Bayswater Exploration & Production, LLC

Well Name / API: COT EAST #TA-30-29HN / 05-123-50406

Well 15307
MD:



Quote #: QUO-40538-T9P8W7

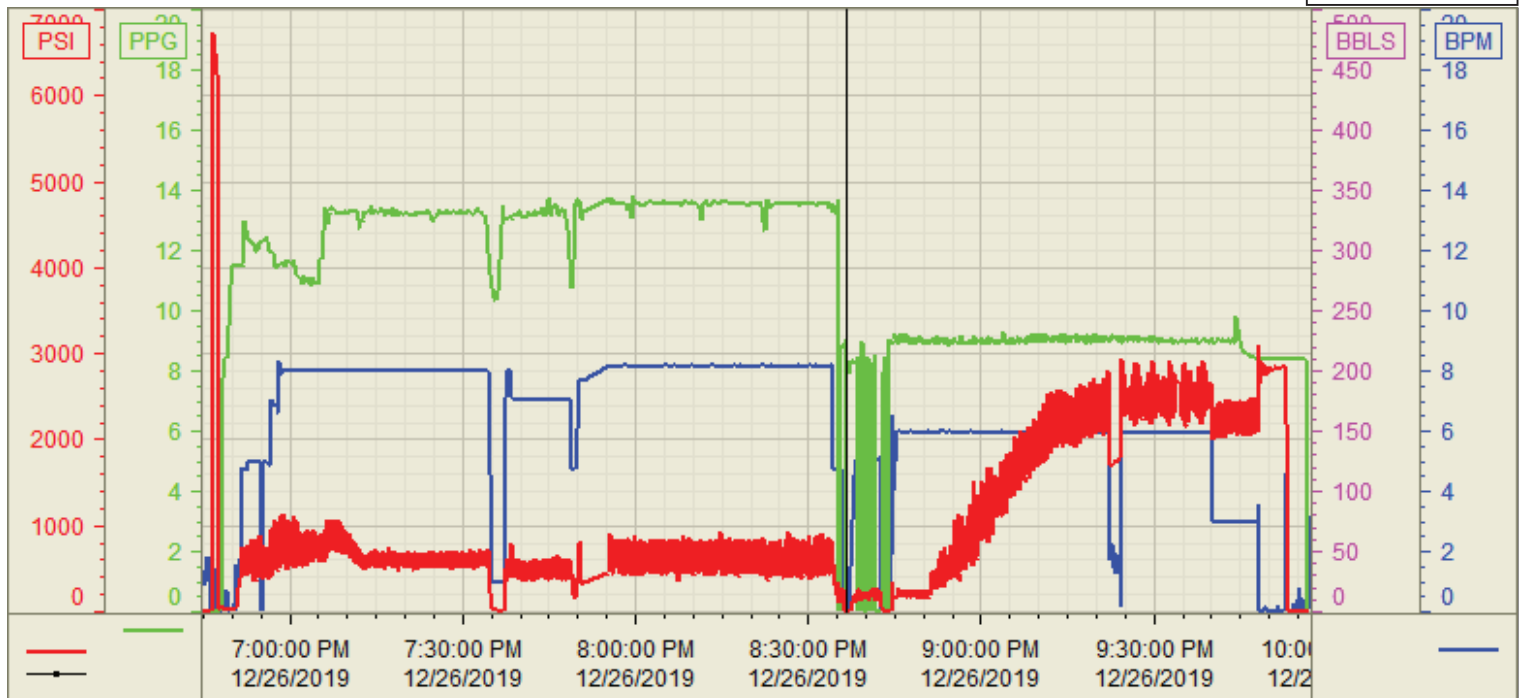
Plan #: ORD-23434-F0Y9G7

Execution #: EXC-23434-F0Y9G702

Customer: Bayswater
 Well Number: TA-30-29HN
 Lease Info: COT EAST



Print Date/Time
 12/26/2019 10:24:24 PM



	Name	Y value	X value/time stamp	Tag name Y
1	PS - Press (PSI)	0.0	12/26/2019 8:36:41 PM	Cementer\PS_DISCHARGE_PRESS_DIAL
2	Den - Density (PPG)	0.01	12/26/2019 8:36:36 PM	Cementer\DENSITY_ACTUAL_RATE
3	Combined Rate (BPM)	0.00	12/26/2019 8:36:40 PM	Cementer\Flow_Combined
4	Trend 1			
5				

Source: Control1 10:24:18 PM