



Caerus

Surface Post Job Report

NPR 15B-10-596 05-045-23784

S:10 T:5S R:96W Garfield CO

Quote #:

I Execution #:



Caerus

Attention: Mr. Steve Schmitz | (720) 880-6412 | sschmitz@caerusoilandgas.com

Caerus | 1001 17th Street, Suite 1600 | Denver, CO 80202

Dear Mr. Schmitz,

Thank you for the opportunity to provide cementing services on this well. BJ Services strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact BJ Services at any time.

Sincerely,

Zen Keith
Field Engineer III | (307) 757-7178 | Zen.Keith@BJServices.com

Field Office 28730 US-6, Rifle, CO 81650
Phone: (970) 632-2412

Sales Office 999 18th St. Suite 1200 Denver, CO 80202
Phone: (281) 408-2361

Cementing Treatment



Start Date	3/3/2018	Well	NPR 15B-10-596
End Date	3/3/2018	County	GARFIELD
Client	CAERUS OPERATING, LLC	State/Province	CO
Client Field Rep	Whitey Cottam	API	05-045-23784
Service Supervisor	Paul Linn III	Formation	
Field Ticket No.	Surface	Rig	H&P 273
District	Rifle, CO	Type of Job	Surface

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	Excess(%)	Grade	Thread
Previous Casing	19.50	20.00	52.73	100.00			
Open Hole	13.50			1,500.00	10.00		
Open Hole	13.50			2,070.00			
Casing	8.92	9.63	36.00	2,051.00		J-55	LTC

Shoe Length (ft): 40

HARDWARE

Top Plug Used?	Yes	Tool Type	Float Collar
Top Plug Provided By	Non BJ	Tool Depth (ft)	2,007.00
Top Plug Size	9.625	Pipe Movement	None
Centralizers Used	Yes	Job Pumped Through	Manifold
Landing Collar Depth (ft)	1,960	Top Connection Thread	8 rnd.
		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	9.00
Circulation Time (min)	60.00	10 min SGS	22.00
Circulation Rate (bpm)	7.00	30 min SGS	34.00
Circulation Volume (bbls)	420.00	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	Yes
Mud Density In (ppg)	9.20	Gas Units	0
Mud Density Out (ppg)	9.20		
PV Mud In	13		
PV Mud Out	13		
YP Mud In	16		
YP Mud Out	16		

TEMPERATURE

Ambient Temperature (°F)	52.00	Slurry Cement Temperature (°F)	90.30
Mix Water Temperature (°F)	64.00	Flow Line Temperature (°F)	102.00

Cementing Treatment



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 1	8.3300			0.00				20.0000
Spacer / Pre Flush / Flush	Sodium Silicate	10.0000			0.00				20.0000
Spacer / Pre Flush / Flush	Water 2	8.3300			0.00				20.0000
Lead Slurry	BJCem S100.3.01D	12.0000	2.5298	14.86	0.00	1,500.00	360	909.0000	161.8000
Tail Slurry	BJCem S100.3.01D	12.5000	2.2256	12.59	1,500.00	500.00	118	262.0000	46.6000
Displacement Final	Displacement	8.3300			0.00			0.0000	151.5000

Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	Sodium Silicate	SILICATE, SODIUM, A-3L	21.0000	GPB
Lead Slurry	BJCem S100.3.01D	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem S100.3.01D	Foam Preventer, FP-25	0.3000	BWOB
Lead Slurry	BJCem S100.3.01D	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Lead Slurry	BJCem S100.3.01D	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Lead Slurry	BJCem S100.3.01D	IntegraSeal CELLO	0.1300	LBS/SK
Lead Slurry	BJCem S100.3.01D	CEMENT EXTENDER, SODIUM METASILICATE, A-2	2.0000	LBS/SK
Tail Slurry	BJCem S100.3.01D	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Tail Slurry	BJCem S100.3.01D	CEMENT, ASTM TYPE III	100.0000	PCT
Tail Slurry	BJCem S100.3.01D	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Tail Slurry	BJCem S100.3.01D	CEMENT EXTENDER, SODIUM METASILICATE, A-2	2.0000	LBS/SK
Tail Slurry	BJCem S100.3.01D	IntegraSeal CELLO	0.1300	LBS/SK
Tail Slurry	BJCem S100.3.01D	Foam Preventer, FP-25	0.3000	BWOB

Cementing Treatment



TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Annulus Pressure (psi)	Comments
3/3/2018 3:30 PM	Water 1	4.00	20.00	293.00		
3/3/2018 3:34 PM	Sodium Silicate	3.50	20.00	223.00		
3/3/2018 3:46 PM	Water 2	4.00	20.00	233.00		
3/3/2018 3:54 PM	BJCem S100.3.01D	3.00	162.00	201.00		
3/3/2018 4:34 PM	BJCem S100.3.01D	4.00	46.87	105.00		
3/3/2018 4:53 PM	Displacement	4.00	155.10	118.00		

	Min	Max	Avg
Pressure (psi)	0	720	125
Rate (bpm)	2.00	5.00	3.50

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	25.00
Calculated Displacement Volume (bbls)	155.10	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	145.00	Amount of Spacer to Surface	60.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amount Bled Back After Job	1.00
Bump Plug Pressure (psi)	724.00	Top Out Cement Spotted	No
Were Returns Planned at Surface	Yes	Lost Circulation During Cement Job	No
Cement returns During Job	Full		

Customer Name CAERUS District Rifle
 Well Name NPR 15B-10 Supervisor ANDREW LINN / CHAD TUREK
 Job Type Surface Engineer ZEN KEITH



Seq No.	Start Date	Start Time	Event	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	3/3/2018	7:45	CALL OUT					CALL OUT ON LOCATION TIME OF 14:00
2	3/3/2018	11:02	STEACS					PRE CONVOY SAFETY MEETING
3	3/3/2018	12:06	LEAVE RIFLE YARD					LEAVE RIFLE YARD FOR H&P 273.
4	3/3/2018	13:28	ARRIVE ON LOCATION					ARRIVE ON LOCATION. RIG CREW WAS RUNNING CASING.
5	3/3/2018	13:32	SITE ASSESMENT					DID ROCK DRILL WITH CREW AND WALKED LOCATION
6	3/3/2018	13:38	SPOT EQUIPMENT					SPOT IN EQUIPMENT AND RIG UP ALL GROUND EQUIPMENT
7	3/3/2018	13:41	STEACS					PRE RIG UP SAFETY MEETING
8	3/3/2018	13:50	RIG UP					RIGGED IN ALL GROUND EQUIPMENT
9	3/3/2018	14:00	STEACS					PRE JOB SAFETY MEETING WITH RIG CREW AND ALL BJ SERVICES CEMENT CREW
10	3/3/2018	14:11	RIG UP					STAB PLUG CONTAINER, LOAD PLUG IN PLUG CONTAINER, AND HOOK UP LINES TO PLUG CONTAINER
11	3/3/2018	15:23	FILL LINES	8.33	2	5	168	FILL LINES WITH 5 BBLS. OF FRESH WATER AT 2 BBLS./MIN.
12	3/3/2018	15:26	PRESSURE TEST				3384	PRESSURE TEST TO 5906 PSI. PRESSURE HELD
13	3/3/2018	15:30	FRESH WATER SPACER	8.33	3.5	20	293	REMAINING 15 BBLS. OF FRESH WATER FOR A TOTAL OF 20 BBLS. OF FRESH WATER
14	3/3/2018	15:34	SODIUM SILICATE SPACER	10.5	2.5	20	159	SODIUM SILICATE SPACER 50/50
15	3/3/2018	15:46	FRESH WATER SPACER	8.33	4	20	233	FRESH WATER SPACER
16	3/3/2018	15:52	LEAD CEMENT	12	3	5	201	LEAD CEMENT 12 PPG. 360 SKS. 2.53 CUFT./SK. 14.86 GAL./SK. FOR 162.21 BBLS OF LEAD REQUIRING A TOTAL OF 127.37 BBLS. OF MIX WATER. WEIGHT VERIFIED WITH MUD SCALES. CALCULATED TOP OF LEAD IS 0 FT. CALCULATED HEIGHT OF LEAD IS 1551.92 FT.
17	3/3/2018	16:09	LEAD CEMENT	12	3	50	128	PUMPED LEAD CEMENT
18	3/3/2018	16:24	LEAD CEMENT	12	4	100	113	PUMPED LEAD CEMENT
19	3/3/2018	16:33	LEAD CEMENT	12	4	142	107	FINISHED PUMPING LEAD CEMENT WITH 142 BBLS. AWAY.
20	3/3/2018	16:34	TAIL CEMENT	12.5	4	5	105	TAIL CEMENT 12.5 PPG. 118 SKS. 2.23 CUFT./SK. 12.59 GAL./SK. FOR 46.87 BBLS OF TAIL REQUIRING A TOTAL OF 35.37 BBLS. OF MIX WATER. WEIGHT VERIFIED WITH MUD SCALES. CALCULATED TOP OF TAIL IS 1551.92 FT. CALCULATED HEIGHT OF TAIL IS 499.08 FT.
21	3/3/2018	16:46	TAIL CEMENT	12.5	4	50	101	FINISHED PUMPING TAIL CEMENT WITH 50 BBLS. AWAY.
22	3/3/2018	16:46	SHUT DOWN					SHUT DOWN
23	3/3/2018	16:48	DROP PLUG					BREAK TOP OFF OF PLUG CONTAINER AND DROP TOP PLUG VERIFIED BY COMPANY MAN
24	3/3/2018	16:53	DISPLACEMENT	8.33	6	10	148	FRESH WATER DISPLACEMENT WITH THE FIRST 6 BBLS. OF DISPLACEMENT BEING TAIL CEMENT AT 12.5 PPG.
25	3/3/2018	17:02	DISPLACEMENT	8.33	4	50	337	FRESH WATER DISPLACEMENT
26	3/3/2018	17:10	DISPLACEMENT	8.33	4	80	487	FRESH WATER DISPLACEMENT
27	3/3/2018	17:10	DISPLACEMENT	8.33	3	85	471	FRESH WATER DISPLACEMENT
28	3/3/2018	17:25	DISPLACEMENT	8.33	3	130	683	FRESH WATER DISPLACEMENT
29	3/3/2018	17:25	CEMENT TO SURFACE					25 BBLS. OF CEMENT TO SURFACE
30	3/3/2018	17:25	DISPLACEMENT	8.33	2	135	645	FRESH WATER DISPLACEMENT
31	3/3/2018	17:34	DISPLACEMENT	8.33	2	155	724	FRESH WATER DISPLACEMENT
32	3/3/2018	17:34	LAND PLUG				1820	LAND PLUG AT 724 PSI. TOOK TO 1820 PSI.
33	3/3/2018	17:41	CHECK FLOATS					CHECK FLOATS, FLOATS HELD 1 BBL. BACK
34	3/3/2018	17:41	SHUT DOWN					SHUT DOWN
35	3/3/2018	17:55	PUMP SUGAR WATER					PUMPED 20 BBLS. OF SUGAR WATER INTO CELLAR TO WASH OUT CEMENT IN CELLAR PUMP
36	3/3/2018	18:33	WASH PUMPS AND LINES					WASH PUMPS AND LINES TO CELLAR
37	3/3/2018	18:33	BLOW DOWN SILO					BLOW DOWN SILO 3 INTO BULK TRUCK
38	3/3/2018	18:59	RIG DOWN					RIG DOWN ALL EQUIPMENT
39	3/3/2018	19:19	AAR					AFTER ACTION REVIEW
40	3/3/2018	19:27	STEACS					PRE CONVOY SAFETY MEETING
41	3/3/2018	19:40	DEPART LOCATION					DEPART FROM H&P 273 FOR RIFLE YARD. THANK YOU FOR USING BJ SERVICES, ANDREW LINN AND CREW.



JobMaster Program Version 4.02C1

Job Number: 3570

Customer: CAERUS

Well Name: NPR 15B-10

