



Caerus

Surface Post Job Report

NPR 14C-10-596 05-045-23761

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,

Gage Putnam
Field Engineer I | (970) 632-2006 | Gage.Putnam@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	2/2/2018	Well	NPR 14C-10-596
End Date	2/3/2018	County	GARFIELD
Client	CAERUS OPERATING, LLC	State/Province	CO
Client Field Rep	Boyd Cottam	API	05-045-23761
Service Supervisor	Kenneth Estep	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
Open Hole	13.50			1,750.00	25.00		
Open Hole	13.50			2,042.00			
Casing	8.92	9.63	36.00	2,030.00		J-55	LTC
Previous Casing	19.50	20.00	52.73	120.00			

Shoe Length (ft): 40

HARDWARE

Bottom Plug Used?	No	Tool Type	Float Collar
Bottom Plug Provided By	-	Tool Depth (ft)	1,986.00
Bottom Plug Size	-	Max Tubing Pressure - Rated (psi)	-
Top Plug Used?	Yes	Max Tubing Pressure - Operated (psi)	-
Top Plug Provided By	Non BJ	Max Casing Pressure - Rated (psi)	3,520.00
Top Plug Size	9.625	Max Casing Pressure - Operated (psi)	2,816.00
Centralizers Used	No	Pipe Movement	None
Centralizers Quantity	-	Job Pumped Through	No Manifold
Centralizers Type	-	Top Connection Thread	8 RND
Landing Collar Depth (ft)	2,210	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	No	10 sec SGS	-
Circulation Time (min)	-	10 min SGS	-
Circulation Rate (bpm)	-	30 min SGS	-
Circulation Volume (bbls)	-	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	Yes	Gas Present	No
Mud Density In (ppg)	9.40	Gas Units	0
Mud Density Out (ppg)	9.40		
PV Mud In	-		
PV Mud Out	-		
YP Mud In	-		
YP Mud Out	-		

TEMPERATURE

Ambient Temperature (°F)	41.00	Slurry Cement Temperature (°F)	46.00
Mix Water Temperature (°F)	45.00	Flow Line Temperature (°F)	-

BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	Fresh Water	8.33					20.00
Spacer / Pre Flush / Flush	Sodium Silicate	10.00					20.00
Spacer / Pre Flush / Flush	Fresh Water	8.33					20.00
Lead Slurry	S100-12	12.00	2.5298	14.86	461	1,164.00	207.30
Tail Slurry	S100-12	12.50	2.2256	12.59	118	262.00	46.60
Displacement Final	Displacement	8.33				0.00	153.00
Tail Slurry	S100-12	12.50	2.2256	12.59	17	36.50	6.50

Cementing Treatment



Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	Sodium Silicate	SILICATE, SODIUM, A-3L	21.0000	GPB
Lead Slurry	S100-12	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Lead Slurry	S100-12	CEMENT EXTENDER, SODIUM METASILICATE, A-2	2.0000	LBS/SK
Lead Slurry	S100-12	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Lead Slurry	S100-12	IntegraSeal CELLO	0.1300	LBS/SK
Lead Slurry	S100-12	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	S100-12	Foam Preventer, FP-25	0.3000	BWOB
Tail Slurry	S100-12	CEMENT, ASTM TYPE III	100.0000	PCT
Tail Slurry	S100-12	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Tail Slurry	S100-12	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Tail Slurry	S100-12	CEMENT EXTENDER, SODIUM METASILICATE, A-2	2.0000	LBS/SK
Tail Slurry	S100-12	IntegraSeal CELLO	0.1300	LBS/SK
Tail Slurry	S100-12	Foam Preventer, FP-25	0.3000	BWOB
Top Out Slurry	S100-12	CEMENT, ASTM TYPE III	100.0000	PCT
Top Out Slurry	S100-12	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Top Out Slurry	S100-12	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Top Out Slurry	S100-12	CEMENT EXTENDER, SODIUM METASILICATE, A-2	2.0000	LBS/SK
Top Out Slurry	S100-12	IntegraSeal CELLO	0.1300	LBS/SK
Top Out Slurry	S100-12	Foam Preventer, FP-25	0.3000	BWOB

Cementing Treatment



TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Comments
2/2/2018 11:53 PM	Fresh Water	5.50	20.00	220.00	
2/3/2018 12:04 AM	Sodium Silicate	5.50	20.00	300.00	
2/3/2018 12:08 AM	Fresh Water	5.50	20.00	218.00	
2/3/2018 12:13 AM	S100-12	5.50	207.30	200.00	LEAD
2/3/2018 12:50 AM	S100-12	5.50	46.60	250.00	TAIL
2/3/2018 1:04 AM	Displacement	5.50	153.00	400.00	
2/3/2018 1:13 PM	S100-12	3.00	6.50	55.00	TOP OUT

	Min	Max	Avg
Pressure (psi)	71.00	700.00	300.00
Rate (bpm)	3.50	5.50	5.50

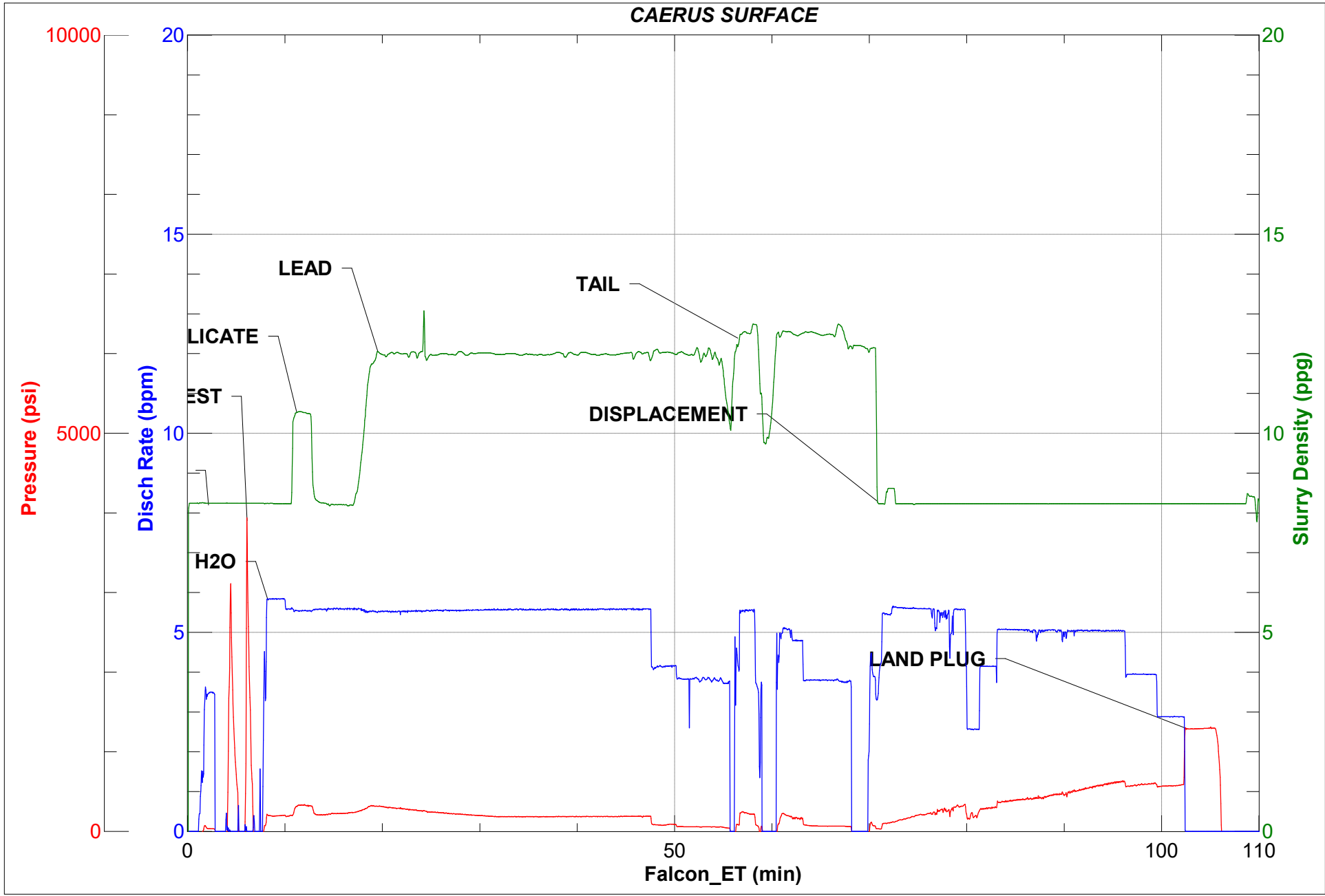
DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	0.00
Calculated Displacement Volume (bbls)	153.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	153.00	Amount of Spacer to Surface	0.00
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)	700.00	Total Volume Pumped (bbls)	467.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	Yes
Cement returns During Job	None	Lost Circulation During Cement Job	Yes

Customer Name CAERUS District RIFLE
 Well Name NPR 14C-10 Supervisor KEN ESTEP
 Job Type Long String Engineer Gage Putnam



Seq No.	Start Date		Event	Equipment	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	2/2/2018	12:00	CREW CALL OUT						CREW CALL OUT REQUESTED TIME 6:00
2	2/2/2018	15:45	SAFETY MEETING						JOURNEY MANAGEMENT SAFETY MEETING WITH CREW
3	2/2/2018	16:00	LEAVE YARD						DEPART FOR LOCATION
4	2/2/2018	18:00	ON LOCATION						ARRIVE ON LOCATION
5	2/2/2018	18:10	SAFETY MEETING						STEACS SAFETY MEETING WITH CREW
6	2/2/2018	18:25	SPOT EQUIPMENT						SPOT IN ALL EQUIPMENT USING SPOTTERS AND GROUND GUIDES
7	2/2/2018	18:40	SAFETY MEETING						STEACS RIG UP MEETING WITH CREW
8	2/2/2018	18:50	RIG UP						RIG UP IRON AND ALL HOSES. RIG UP SILOS AND HOSES
9	2/2/2018	19:30	WAIT ON RIG						WAIT ON RIG TO FINISH RUNNING CASING
10	2/2/2018	22:15	RIG ON BOTTOM						RIG ON BOTTOM CIRCULATING
11	2/2/2018	23:00	SAFETY MEETING						SAFETY MEETING WITH RIG CREW
12	2/2/2018	23:53	H2O		8.33	3.5	5	71	PUMP H2O
13	2/2/2018	23:58	TEST					4000	PRESSURE TEST
14	2/2/2018	0:02	H2O		8.33	5.5	15	220	PUMP H2O
15	2/2/2018	0:04	SODIUM SILICATE		9.4	5.5	20	300	PUMP SODIUM SILICATE
16	2/2/2018	0:08	H2O		8.33	5.5	20	218	PUMP H2O
17	2/2/2018	0:13	LEAD		12	5.5		320	PUMP LEAD CEMENT @ (12 PPG 2.52 YIELD 14.86 GAL/SK) 461 SKS (207 BBLS)
18	2/2/2018	0:24	LEAD		12	5.5	60	200	60 BBLS PUMPED
19	2/2/2018	0:31	LEAD		12	5.5	100	185	100 BBLS PUMPED
20	2/2/2018	0:40	LEAD		12	5.5	150	190	150 BBLS PUMPED
21	2/2/2018	0:42	SLOW		12	4.1	160	82	SLOW RATE
22	2/2/2018	0:50	TAIL		12.5	5.5		250	PUMP TAIL CEMENT @ (12.5 PPG 2.22 YIELD 12.59 GAL/SK) 118 SKS (46.7 BBLS)
23	2/3/2018	1:04	DISPLACE		8.33	5.5		100	PUMP DISPLACEMENT
24	2/3/2018	1:13	RETURNS		8.33	5.5	45	300	RETURNS TO SURFACE
25	2/3/2018	1:15	DISPLACE		8.33	2.5	50	250	50 BBLS GONE
26	2/3/2018	1:25	DISPLACE		8.33	5	100	580	100 BBLS PUMPED
27	2/3/2018	1:31	LOST RETURNS		8.33	4	130	630	LOST RETURNS
28	2/3/2018	1:34	SLOW		8.33	2.5	140	600	SLOW RATE
29	2/3/2018	1:37	LAND PLUG				153	700	LAND PLUG @ 700 PSI TOOK IT TO 1350 PSI
30	2/3/2018	1:39	CHECK FLOATS						FLOATS HELD 1/2 BBL BACK
31	2/3/2018	1:45	WASH PUMP						WASH PUMPS AND LINES TO PIT
32	2/3/2018	2:15	DRAIN LINES						DRAIN HOSES AND LINES
33	2/3/2018	2:30	WAIT						WAIT ON CEMENT
34	2/3/2018	6:30							MUD AT SURFACE. CALLED FOR 1" TOP OUT PIPE. WELDER CALLED TO CUT HOLE IN CONDUCTOR FOR 1"
35	2/3/2018	10:00	RIG UP 1"						RIG UP 1" PIPE FOR TOP OUT. 25' DOWN HIT SOLID. COMPANY MAN SAYS TO TOP IT OUT THERE
36	2/3/2018	13:07	TOP OUT						PUMP TOP OUT CEMENT 17 SKS (12.5 PPG 2.22 YIELD 12.59 GAL/SK) 6.5 BBLS
37	2/3/2018	13:13	CEMENT		12.5		6.5		CEMENT RETURNS TO SURFACE
38	2/3/2018	13:15	SAFETY MEETING						SAFETY MEETING WITH CREW
39	2/3/2018	13:30	WASH PUMP						WASH PUMPS AND LINES
40	2/3/2018	13:45	SAFETY MEETING						RIG DOWN SAFETY MEETING
41	2/3/2018	14:00	RIG DOWN IRON						RIG DOWN IRON AND HOSES
42	2/3/2018	14:45	SAFETY MEETING						JOURNEY MANAGEMENT SAFETY MEETING WITH CREW
43	2/3/2018	15:00	LEAVE						DEPART LOCATION





JobMaster Program Version 4.02C1

Job Number: 20094

Customer: CAERUS

Well Name: PUCKETT 14a-29

