



Caerus

Surface Post Job Report

NPR 24B-10-596 05-045-23767

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	6/7/2018	Field Ticket#	FT-07471-N8F3M10202-57113
End Date	6/7/2018	Well	NPR 24B-10-596
Client	CAERUS OPERATING, LLC	API#	05-045-23767
Client Field Rep.	Leonard Stomley	Well Classification	-
Service Sup.	Jerod Dent	County	GARFIELD
District	Rifle, CO	State/Province	CO
Type of Job	Surface	Formation	-
Execution ID	EXC-07471-N8F3M102	Rig	H&P 273
Project ID	PRJ1007458		

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	14.75			2,944.00			
Casing	8.92	9.63	36.00	2,912.00		J-55	LTC

Shoe Length (ft): 40

HARDWARE

Bottom Plug Used?	No	Tool Type	Float Collar
Bottom Plug Provided By	-	Tool Depth (ft)	2,870.00
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)	2,020.00
Top Plug Size	9.625	Max Casing Pressure - Operated (psi)	1,616.00
Centralizers Used	Yes	Pipe Movement	None
Centralizers Quantity	5.00	Job Pumped Through	Manifold
Centralizers Type	Bow	Top Connection Thread	8RD
Landing Collar Depth (ft)	2,960	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)	90.00	10 min SGS	29.00
Circulation Rate (bpm)	4.00	30 min SGS	41.00
Circulation Volume (bbls)	360.00	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)	9.40	Gas Units	0
Mud Density Out (ppg)	-		
PV Mud In	13		
PV Mud Out	-		
YP Mud In	17		
YP Mud Out	-		

TEMPERATURE

Ambient Temperature (°F)	58.00	Slurry Cement Temperature (°F)	59.00
Mix Water Temperature (°F)	57.00	Flow Line Temperature (°F)	130.00

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 1	8.33			0.00				20.00
Spacer / Pre Flush / Flush	Sodium Silicate	10.00			0.00				20.00
Spacer / Pre Flush / Flush	Water 2	8.33			0.00				20.00
Lead Slurry	BJCem S100.3.01D	12.00	2.5298	14.86	0.00	2,500.00	708	1,791.00	318.90
Tail Slurry	BJCem S100.3.01D	12.50	2.2256	12.59	2,500.00	500.00	161	358.00	63.70
Displacement Final	Displacement	8.33			0.00			0.00	228.80

Cementing Treatment



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	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	CEMENT EXTENDER,SODIUM METASILICATE A-2 ANHYDROUS	2.0000	LBS/SK
Lead Slurry	BJCem S100.3.01D	IntegraSeal CELLO	0.1300	LBS/SK
Lead Slurry	BJCem S100.3.01D	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem S100.3.01D	FOAM PREVENTER, FP-25	0.3000	BWOB
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	IntegraSeal CELLO	0.1300	LBS/SK
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 ANHYDROUS	2.0000	LBS/SK

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)
6/7/2018 7:56 PM	Water 1	5.00	20.00	182.00
6/7/2018 7:59 PM	Sodium Silicate	5.00	20.00	130.00
6/8/2018 8:10 PM	Water 2	5.00	20.00	136.00
6/8/2018 8:18 PM	BJCem S100.3.01D	5.00	318.90	207.00
6/8/2018 9:26 PM	BJCem S100.3.01D	5.00	63.70	110.00
6/8/2018 9:37 PM	Displacement	10.00	228.80	842.00
	Min	Max	Avg	
Pressure (psi)	78.00	1,326.00	200.00	
Rate (bpm)	0.50	5.00	5.00	

Cementing Treatment



DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	135.00
Calculated Displacement Volume (bbls)	222.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	222.00	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	1.50
Bump Plug Pressure (psi)	842.00	Total Volume Pumped (bbls)	665.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement returns During Job	Full	Lost Circulation During Cement Job	No

Customer Name Caerus
 Well Name NPR 24B-10
 Job Type Surface

District Rifle
 Supervisor Jerod Dent
 Engineer Gage Putnam



Seq No.	Start Date	Start Time	Event	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	6/7/2018	12:00	Callout					BJ crew called to Caerus NPR 24B-10 Surface. RTS 17:00
2	6/7/2018	13:00	Depart Facility					BJ crew depart for location
3	6/7/2018	14:30	Arrive on location					BJ crew arrive at location.
4	6/7/2018	14:40	Safety meeting					Discuss spotting in equipment and hazards on location
5	6/7/2018	14:50	Spot equipment					Spot in all equipment
6	6/7/2018	15:15	Rig up					Rig up all equipment
7	6/7/2018	15:45	Waiting					Wait on rig to run casing
8	6/7/2018	18:30	Rig up					Rig up floor and remaining ground fittings
9	6/7/2018	18:50	Safety meeting					BJ crew, customer representative and rig crew discuss job procedures and safety concerns such as muster point, emergency contacts, fire ext, first aid, pinch points, red zones, SSE, pressure etc.
10	6/7/2018	19:50	Start job					BJ crew start cement job
11	6/7/2018	19:51	Fill lines	8.33	2	5	78	Fill lines with 5 bbls water ahead
12	6/7/2018	19:54	Pressure test				3790	Pressure test lines to 3,000 psi
13	6/7/2018	19:56	Pump Spacer	8.33	5	15	182	Pump 15 bbls fresh water spacer ahead
14	6/7/2018	19:59	Pump Spacer	10	5	20	130	Pump 20 bbls 50/50 sodium Silicate/water spacer
15	6/7/2018	20:10	Pump Spacer	8.33	5	20	131	Pump 20 bbls fresh water spacer behind
16	6/7/2018	20:18	Pump Lead	12	5	0	244	Begin to mix and pump 708 sks of BJ Cem S100 lead cement at 12 ppg, 2.53 yld, 14.86 gal/sk (Total 319 bbls cement)
17	6/7/2018	20:30	Pump Lead	12	5	50	135	50 bbls Lead away
18	6/7/2018	20:40	Pump Lead	12	3	100	135	100 bbls Lead away
19	6/7/2018	20:50	Pump Lead	12	3	150	138	150 bbls Lead away
20	6/7/2018	21:01	Pump Lead	12	5	200	125	200 bbls Lead away
21	6/7/2018	21:11	Pump Lead	12	5	250	128	250 bbls Lead away
22	6/7/2018	21:21	Pump Lead	12	5	300	95	300 bbls Lead away
23	6/7/2018	21:24	Pump Lead	12	5	319	98	319 bbls Lead away
24	6/7/2018	21:25	Pump Tail	12.5	5	0	148	Mix and pump 161 sks of BJ Cem S100 tail cement at 12.5 ppg, 2.23 yld, 12.59 gal/sk (Total 63.8 bbls cement)
25	6/7/2018	21:32	Pump Tail	12.5	5	50	108	50 bbls Tail away
26	6/7/2018	21:36	Pump Tail	12.5	5	60	110	60 bbls Tail away
27	6/7/2018	21:37	Shutdown					Shutdown
28	6/7/2018	21:38	Drop top plug					Drop top plug
29	6/7/2018	21:39	Pump Displacement	8.33	4	0	171	Pump Water displacement
30	6/7/2018	21:50	Pump Displacement	8.33	4	50	302	50 bbls displacement away
31	6/7/2018	22:01	Pump Displacement	8.33	4	100	445	100 bbls displacement away
32	6/7/2018	22:12	Pump Displacement	8.33	4	150	634	150 bbls displacement away
33	6/7/2018	22:24	Pump Displacement	8.33	4	200	813	200 bbls displacement away
34	6/7/2018	22:25	Pump Displacement	8.33	4	212	826	Slow rate with 212 bbls displacement away
35	6/7/2018	22:26	Land Plug	8.33	4	218	842	Land plug with 218 bbls of water displacement away (Total of 222 with 4 bbls cement on top of plug)
36	6/7/2018	22:30	Check Floats				1326	Check floats
37	6/7/2018	22:31	End Job					Floats held with 1.5 bbls back to truck
38	6/7/2018	22:35	Other	8.5	2	10	116	Pump 10 bbls of retarded sugar water down parasite string. Breakover pressure was 116 psi.
39	6/7/2018	22:40	Rig Down					Rig down all equipment
40	6/7/2018	23:58	Depart Location					Depart location for facility



JobMaster Program Version 4.02C1

Job Number: 6108

Customer: Caerus

Well Name: NPR 24B-10

