



Crestone Peak Resources Operating

Lochbuie Land 2C-25H-D166

API # 05-123-47990

Surface

1/3/2019

Quote #: 24289

Execution #: 14495



Crestone Peak Resources Operating

Attention: Mr. Jerry Thorstad | (303) 829-8179 | Jerry.Thorstad@Crestonepr.com

Crestone Peak Resources Operating | 10188 E I25 Frontage Rd. | Firestone, CO. 80504

Dear Mr. Jerry Thorstad,

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,
Jason Creel
Field Engineer I | (307) 256-0306 | Jason.Creel@bjservices.com

Field Office 1716 East Allison Rd., Cheyenne WY, 82007
Phone: (307) 638-5585

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

BJ Cementing Treatment Report

SERVICE SUPERVISOR	Hector Montoya	SERVICE	Cementing
CLIENT FIELD REPRESENTATIVE	CRESTONE	COUNTY	WELD
DISTRICT	Cheyenne, WY	STATE / PROVINCE	CO

WELL GEOMETRY

TYPE	OD (in)	ID (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)
Casing	9.63	8.84	40.00	2,364.00	2,357.00	
Open Hole	0.00	13.50	0.00	2,379.00	2,368.00	25.00

HARDWARE

Bottom Plug Used?	No	Landing Collar Depth (ft)	2,342
Top Plug Used?	Yes	Max Casing Pressure - Rated (psi)	3520.00
Top Plug Provided By	Non BJ	Max Casing Pressure - Operated (psi)	2860.00
Top Plug Size	9.625	Job Pumped Through	Manifold
Centralizers Used	Yes	Top Connection Thread	LTC
Centralizers Quantity	55.00	Top Connection Size	9.625
Centralizers Type	Bow		

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Mud Density In (ppg)	9.00
Circulation Prior to Job	Yes	Mud Density Out (ppg)	9.00
Circulation Time (min)	30.00	Solids Present at End of Circulation	No
Circulation Rate (bpm)	50.00	Flare Prior to / during the Cement Job	No
Circulation Volume (bbls)	150.00	Gas Present	No
Lost Circulation Prior to Cement Job	No		

TEMPERATURE

Ambient Temperature (°F)	35.00	Slurry Cement Temperature (°F)	60.00
Mix Water Temperature (°F)	60.00	Flow Line Temperature (°F)	50.00

FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H ₂ O REQ (gals/sk)	VOL (sk)	VOL (Cu Ft)	VOL (bbls)
Tail Slurry	S100.3.XC	14.2000	1.4614	7.34	998	1459.0000	259.7000
Displacement Final	Displacement	8.3337				0.0000	177.5000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Tail Slurry	S100.3.XC	CEMENT, ASTM TYPE III	100.0000	PCT

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ
Calculated Displacement Vol (bbls)	177.00
Actual Displacement Vol (bbls)	177.00
Did Float Hold?	Yes
Bump Plug	Yes
Bump Plug Pressure (psi)	1300.00
Were Returns Planned at Surface	Yes
Cement Returns During Job	Full

Amt of Cement Returned / Reversed	55.00
Method Used to Verify Returns	Visual
Amt of Spacer to Surface	20.00
Pressure Left on Casing (psi)	0.00
Amt Bled Back After Job	1.00
Total Volume Pumped (bbls)	465.00
Top Out Cement Spotted	No
Lost Circulation During Cement Job	No

BJ Cementing Event Log

Surface - Cheyenne, WY - Hector Montoya

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	01/03/2019 03:00	Callout					BJ Crew gets called out
2	01/03/2019 04:11	STEACS Briefing					BJ Crew talks about the hazards of driving to location
3	01/03/2019 04:30	Arrive on Location					BJ Crew safely arrives on location
4	01/03/2019 08:00	STEACS Briefing					BJ Crew talks about the hazards of spotting equipment and rigging up
5	01/03/2019 08:30	Rig Up					Rig Up
6	01/03/2019 09:50	STEACS Briefing					BJ Crew and Rig Crew talk about the hazards of pumping the job
7	01/03/2019 10:12	Prime Up	8.3300	3.00	3.00	100.00	Fill Lines
8	01/03/2019 10:16	Pressure Test					Pressure Test to 3000psi
9	01/03/2019 10:20	Pump Spacer	8.3300	3.00	20.00	100.00	Pump 20bbl water with Flake
10	01/03/2019 10:35	Pump Tail Cement	14.2000	5.00	260.00	210.00	Pump 260bbl Tail cement at 14.2ppg, 1005sks of S100.3.XC, yield 1.46, 7.34gps, 175bbl mix water
11	01/03/2019 11:34	Drop Top Plug					Customer witnesses top plug leave
12	01/03/2019 11:38	Pump Displacement	8.3300	7.00	165.00	700.00	Pump a total of 177.5bbl Fresh Water Displacement
13	01/03/2019 11:39	Cement Back-to-Surface					55bbl back to Surface
14	01/03/2019 12:02	Pump Displacement	8.3300	3.00	10.00	1300.00	Slow rate 10bbl to land plug
15	01/03/2019 12:09	Land Plug				1300.00	Land Plug, final circulating pressure was 810psi took to 1300psi
16	01/03/2019 12:10	Check Floats					Floats held, 1bbl back to the truck
17	01/03/2019 12:15	STEACS Briefing					BJ Crew talks about the hazards of rigging down
18	01/03/2019 12:30	Rig Down					Rig Down
19	01/03/2019 13:30	Leave Location					BJ Crew departs location

CRESTONE

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