



Laramie Energy

Kick Off Plug Cement Report

CC 0697-03-17E 05-045-23797

S:3 T:6S R:97W Garfield CO

Quote #:

I Execution #:



Laramie Energy

Attention: Mr. Aaron Duncan | (303) 339-4913 | aduncan@laramie-energy.com

Laramie Energy | 1401 17th St, Suite 1400 | Denver, CO 80202

Dear Mr. Duncan,

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	8/8/2018	Field Ticket#	FT-09698-H0D8G70202-42824
End Date	8/8/2018	Well	0697-03-17E CC 0697-03-17E
Client	LARAMIE ENERGY	API#	05-045-23797
Client Field Rep.	MATT	Well Classification	
Service Sup.	Francisco Castillo	County	GARFIELD
District	Rifle, CO	State/Province	CO
Type of Job	Plug & Abandon- Plug	Formation	
Execution ID	EXC-09698-H0D8G702	Rig	H&P 290
Project ID	PRJ1009508		

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	Excess(%)	Grade	Thread
Previous Casing	8.92	9.63	36.00	2,575.00		J-55	
Drill Pipe	4.28	5.00	19.50	3,409.00			
Open Hole	10.40	0.00	0.00	4,377.00	10.00		
Tubing	2.44	2.88	6.40	4,377.00			

HARDWARE

Max Tubing Pressure - Rated (psi)	10570
Max Tubing Pressure - Operated (psi)	8456
Pipe Movement	None
Job Pumped Through	No Manifold
Top Connection Thread	XH
Top Connection Size	1502

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	8.00
Circulation Time (min)	32.00	10 min SGS	34.00
Circulation Rate (bpm)	9.50	30 min SGS	51.00
Circulation Volume (bbls)	300.00	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)	9.40		
PV Mud In	19		
YP Mud In	27		

TEMPERATURE

Ambient Temperature (°F)	67.00	Slurry Cement Temperature (°F)	73.00
Mix Water Temperature (°F)	67.00	Flow Line Temperature (°F)	

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	IntegraGuard EZ Spacer	11.0000			0.00				43.0000
Tail Slurry	Plug 1	15.8000	1.1480	5.00		0	340	391.0000	69.6000
Displacement 1	IntegraGuard EZ Spacer	11.0000			0.00			0.0000	5.0000
Displacement Final	WBM	9.4000			0.00			0.0000	55.0000

Cementing Treatment



Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	RETARDER, R-3	1.4000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	SAND, S-8, Silica Flour, 200 Mesh	168.8967	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	GELLANT WATER, GW-86	0.8000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	RETARDER, R-7C	0.3000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	EXTENDER, BENTONITE	10.0000	PPB
Tail Slurry	Plug 1	CEMENT, CLASS G	100.0000	PCT

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Annulus Pressure (psi)	Comments
8/8/2018 11:00:00 PM	IntegraGuard EZ Spacer	3.50	43.00	104.00		SPACER AHEAD
8/8/2018 11:15:00 PM	Plug 1	3.50	69.60	150.00		15.8 PPG CEMENT
8/8/2018 11:32:00 PM	IntegraGuard EZ Spacer	3.50	5.00	127.00		SPACER BEHIND
8/8/2018 11:34:00 PM	Fresh Water	5.70	55.00	135.00		FRESH WATER DISPLACEMENT

	Min	Max	Avg
Pressure (psi)			
Rate (bpm)	3.50	5.70	9.20

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	0.00
Calculated Displacement Volume (bbls)	55.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	55.00	Amount of Spacer to Surface	0.00
Were Returns Planned at Surface	No	Pressure Left on Casing (psi)	0.00
Cement returns During Job	None	Amount Bled Back After Job	0.00
		Total Volume Pumped (bbls)	172.00
		Top Out Cement Spotted	No
		Lost Circulation During Cement Job	No

Cementing Treatment



Start Date	8/8/2018	Field Ticket#	FT-09698-H0D8G70202-42824
End Date	8/9/2018	Well	0697-03-17E CC 0697-03-17E
Client	LARAMIE ENERGY	API#	05-045-23797
Client Field Rep.	MATT	Well Classification	
Service Sup.	Francisco Castillo	County	GARFIELD
District	Rifle, CO	State/Province	CO
Type of Job	Plug & Abandon- Plug	Formation	
Execution ID	EXC-09698-H0D8G702	Rig	
Project ID	PRJ1009508		

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	Excess(%)	Grade	Thread
Previous Casing	8.92	9.63	36.00	2,575.00			
Drill Pipe	4.28	5.00	19.50	2,710.00			
Open Hole	10.40	0.00	0.00	3,678.00			
Tubing	2.44	2.88	6.40	3,678.00			

HARDWARE

Max Casing Pressure - Rated (psi)	10,570.00
Max Casing Pressure - Operated (psi)	8,456.00
Pipe Movement	None
Job Pumped Through	No Manifold
Top Connection Thread	1502
Top Connection Size	5

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	8.00
Circulation Time (min)	60.00	10 min SGS	34.00
Circulation Rate (bpm)	9.60	30 min SGS	51.00
Circulation Volume (bbls)	576.00	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	
PV Mud In	19		
YP Mud In	27		

TEMPERATURE

Ambient Temperature (°F)	73.00	Slurry Cement Temperature (°F)	73.00
Mix Water Temperature (°F)	67.00	Flow Line Temperature (°F)	

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	IntegraGuard EZ Spacer	11.0000			0.00				47.3000
Tail Slurry	Plug 2	17.0000	0.9904	3.78		0	360	356.0000	63.4000
Displacement 1	IntegraGuard EZ Spacer	11.0000			0.00			0.0000	5.0000
Displacement Final	WBM	8.3400			0.00			0.0000	43.0000

Cementing Treatment



Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	EXTENDER, BENTONITE	10.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	GELLANT WATER, GW-86	0.8000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	RETARDER, R-3	1.4000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	SAND, S-8, Silica Flour, 200 Mesh	168.8967	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	RETARDER, R-7C	0.3000	PPB
Tail Slurry	Plug 2	CEMENT, CLASS G	100.0000	PCT
Tail Slurry	Plug 2	DISPERSANT, CD-31	0.4000	BWOB

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Annulus Pressure (psi)	Comments
8/9/2018 3:09:00 AM	IntegraGuard EZ Spacer	3.00	47.30	143.00		WEIGHTED SPACER
8/9/2018 3:16:00 AM	Plug 2	3.50	63.40	367.00		CEMENT PLUG
8/9/2018 3:34:00 AM	IntegraGuard EZ Spacer	3.50	5.00	201.00		WEIGHTED SPACER
8/9/2018 3:35:00 AM	WBM	5.50	43.00	125.00		FRESH WATER DISPLACEMENT
		Min		Max		Avg
Pressure (psi)						
Rate (bpm)		3.00		5.50		4.25

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Method Used to Verify Returns	Visual
Calculated Displacement Volume (bbls)	43.00	Total Volume Pumped (bbls)	158.00
Actual Displacement Volume (bbls)	43.00	Top Out Cement Spotted	No
Did Float Hold?	No	Lost Circulation During Cement Job	No
Bump Plug	No		
Were Returns Planned at Surface	No		

EVENT LOG



Customer Name: LARAMIE ENERGY

Well Name: 0697-03-17E CC 0697-03-17E

Job Type: PTA/KOP

Quote ID: QUO-17013-G6Y6V5

Plan ID: ORD-09698-H0D8G7

Execution ID: EXC-09698-H0D8G702

District: Rifle, CO

BJ Supervisor: Francisco Castillo

Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
1	08/08/2018 18:00	Other (See comment)					BJ CREW LEAVE THE YARD
2	08/08/2018 20:00	Arrive on Location					ON LOCATION, RIG RUNNING DRILL PIPE
3	08/08/2018 20:30	Rig Up					RIG UP BJ EQUIPMENT
4	08/08/2018 22:20	Safety Meeting					PRE-JOB SAFETY MEETING
5	08/08/2018 22:47	Pressure Test				3,800.00	TEST LINES
6	08/08/2018 23:00	Pump Spacer	11.0000	3.50	43.00	104.00	WEIGHTED SPACER AT 11 PPG
7	08/08/2018 23:15	Pumping Cement	15.8000	3.50	69.00	150.00	CEMENT 340SKS/69BBLS AT 15.8PPG, 1.15, 5.0 GAL/SK
8	08/08/2018 23:32	Pump Spacer	11.0000	3.50	5.00	127.00	WEIGHTED SPACER AT 11 PPG
9	08/08/2018 23:34	Pump Displacement	8.3400	5.70	55.00	135.00	DISPLACEMENT FRESH WATER PER COMPANY-MAN
10	08/08/2018 23:45	End Pumping					SHUTDOWN/WASH UP/GET READY FOR KOP
11	08/09/2018 00:00	Other (See comment)					RIG STARTED PULLING DRILL PIPE AT 30FT/MIN UP TO 3678', 55' ABOVE THE PLUG CALCULATED AT 3733'
12	08/09/2018 00:30	Other (See comment)					RIG STARTED CIRCULATING WELL AT 9.6BPM FOR 60 MIN. GOT 5BBLS OF CEMENT TO SURFACE

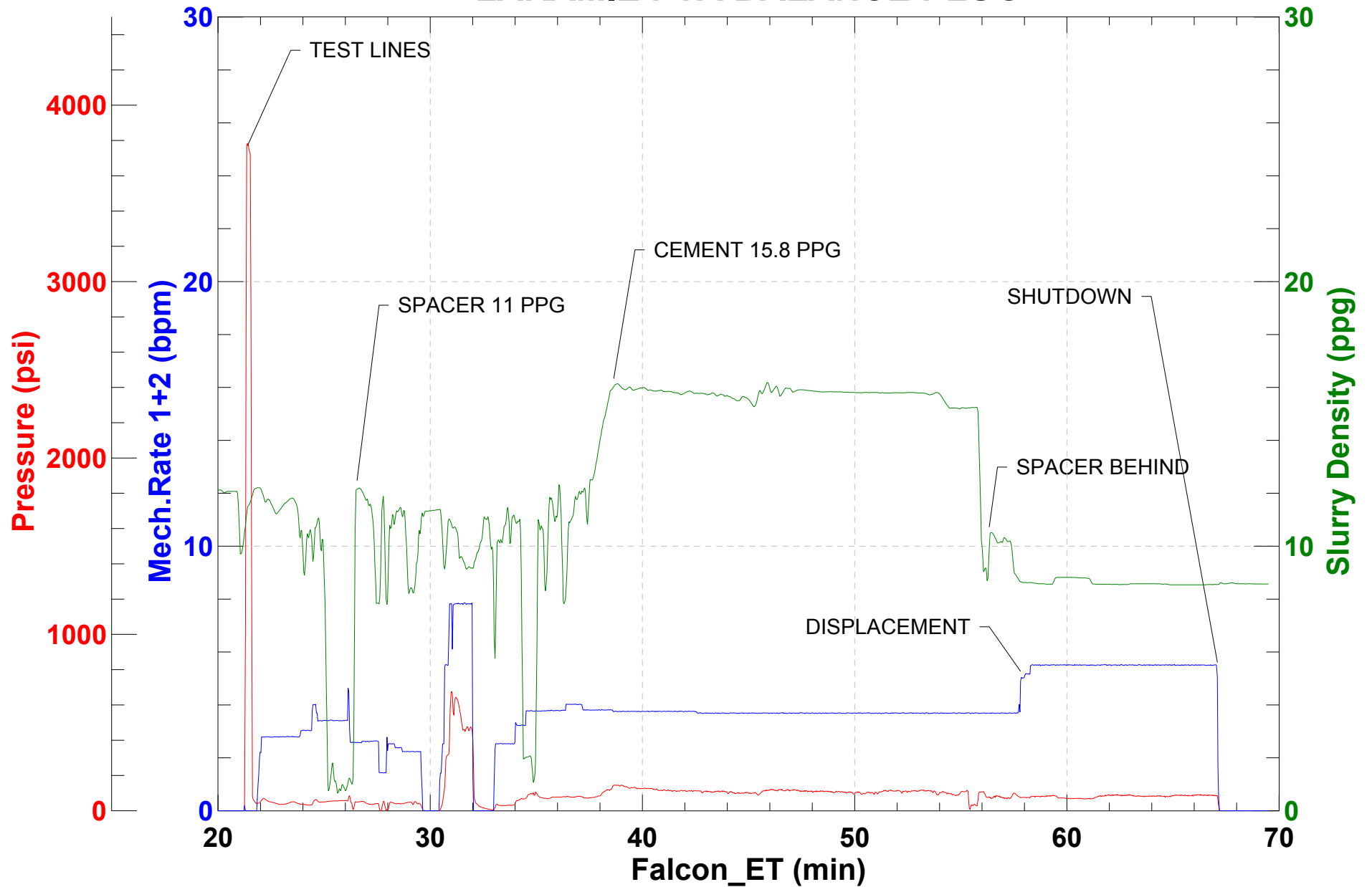
EVENT LOG



Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
13	08/09/2018 02:50	Safety Meeting					PRE-JOB SAFETY MEETING
14	08/09/2018 03:01	Pressure Test				4,200.00	TEST LINES
15	08/09/2018 03:09	Pump Spacer	11.0000	3.00	47.00	143.00	WEIGHTED SPACER 11 PPG
16	08/09/2018 03:16	Pumping Cement	17.0000	3.50	63.00	367.00	KOP CEMENT 360SKS/63BBLS AT 17PPG, 0.99, 3.78 GAL/SK
17	08/09/2018 03:34	Pump Spacer	11.0000	3.50	5.00	201.00	WEIGHTED SPACER AT 11 PPG BEHIND
18	08/09/2018 03:35	Pump Displacement	8.3400	5.50	43.00	125.00	DISPLACEMENT FRESH WATER
19	08/09/2018 03:45	End Pumping					SHUTDOWN/DISCONNECT LINES
20	08/09/2018 03:54	Rig Down					RIG DOWN BJ EQUIPMENT
21	08/09/2018 03:55	Other (See comment)					RIG PULL DRILL PIP 30FT/MIN TO 2540'
22	08/09/2018 04:25	Other (See comment)					RIG CIRC WELL 9.5BPM, NO CEMENT RETURNS
23	08/09/2018 05:00	Leave Location					BJ CREW LEAVE LOCATION, THANK YOU FOR YOUR BUSINESS



LARAMIE PTA BALANCE PLUG





LARAMIE KICK OFF PLUG

