



Great Western Operating Company LLC LONG STRING POST JOB REPORT

**SELTZER LD 09-379HC 05-001-10193
S:4 T:1S R:67W Adams CO**

CallSheet #: 77390
Proposal #: 53577



LONG STRING Post Job Report

Attention: Great Western Operating Company LLC
Great Western Operating Company LLC
1001 17TH STREET, SUITE 2000 | DENVER, CO 80202

Dear Great Western Operating Company LLC,

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

Sincerely,

Scott Pollard

Sr. Account Manager | (303) 249-6761 | scott.pollard@americacementing.com

Field Office 1716 E Allison Rd, Cheyenne, WY 82007
Phone: (307) 414-0049

Job Details & Summary

Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	9.625	8.921	36	0	2036	0
Open Hole	Outer	n/a	8.5	n/a	2036	1685.94	0
Open Hole	Outer	n/a	8.5	n/a	1685.94	18614	5
Casing	Inner	5.5	4.778	20	0	18614	0

Equipment / People

Unit Type	Unit
Field Storage Silo	FSS(CTS)-440
Field Storage Silo	FSS(CTS)-442
Field Storage Silo	FSS(CTS)-436
Field Storage Silo	FSS(CTS)-458
AS Cement Trailer Float	CTF(FUF)-308
AS Cement Trailer Float	CTF-7145
AS Cement Trailer Float	CTF-9309
AS Cement Trailer Float	CTF-9054
Cement Trailer Float	CTF-408
Cement Trailer Float	CTF-566
Cement Trailer Float	CTF-278
Cement Pump Float	CPF-182
Cement Pump Float	CPF-184
Cement Utility Float	CUF(FIF)-163
Cement Utility Float	CUF(FIF)-161
Cement Trailer Float	CTF-006

Timing

Event	Date/Time
Call Out	6/30/2021 06:00
Depart Facility	6/30/2021 09:00
On Location	6/30/2021 11:00
Rig Up Iron	6/30/2021 14:00
Job Started	6/30/2021 17:37
Job Completed	6/30/2021 19:46
Rig Down Iron	6/30/2021 20:00
Depart Location	6/30/2021 22:00

General Job Information

Metrics	Value
Well Fluid Density	11 lb/gal
Well Fluid Type	OBM
Rig Circulation Vol	2100 bbls
Rig Circulation Time	3 hours
Calculated Displacement	413.14 bbls
Actual Displacement	413 bbls
Total Spacer to Surface	40 bbls
Total CMT to Surface	0 bbls

Casing Equipment

Type	Description	Qty	MD	TVD
Centralizers		157		
Landing/Float Collar	5.5"		18,608	7,945
Float Shoe	5.5"		18,614	7,945

- **Casing Equipment-Centralizer Depths**

Production Centralizer Depths:, 1998.32, 2043.34, 2088.52, 2133.4, 2178.29, 2223.54, 2268.81, 2314.07, 2359.32, 2404.55, 2449.81, 2495.06, 2540.28, 2585.53, 2630.76, 2676, 2721.26, 2766.51, 2811.78, 2857.01, 2902.24, 2947.49, 2992.76, 3038.03, 3083.3, 3128.57, 3173.84, 3219.12, 3264.42, 3309.72, 3355, 3400.25, 3445.49, 3490.74, 3536.02, 3581.28, 3626.54, 3671.86, 3717.13, 3762.42, 3807.72, 3853.03, 3898.3, 3943.61, 3988.88, 4034.18, 4079.47, 4124.5, 4169.5, 4214.81, 4260.12, 4305.43, 4350.67, 4395.98, 4441.27, 4486.52, 4531.83, 4577.06, 4622.32, 4667.59, 4712.88, 4758.18, 4803.52, 4848.83, 4894.11, 4939.4, 4984.66, 5029.96, 5075.26, 5120.56, 5165.84, 5211.06, 5256.37, 5301.66, 5346.92, 5392.17, 5437.41, 5482.72, 5527.75, 5572.74, 5617.68, 5662.97, 5708.25, 5753.54, 5798.81, 5844.08, 5889.03, 5934.31, 5979.62, 6024.9, 6070.18, 6115.46, 6160.73, 6204.21, 6249.48, 6294.75, 6339.98, 6385.25, 6430.55, 6475.78, 6520.98, 6565.99, 6611.3, 6656.58, 6701.85, 6747.14, 6792.43, 6837.74, 6883.04, 6928.26, 6973.56, 7018.8, 7064.12, 7109.4, 7154.7, 7199.71, 7245, 7290.23, 7335.47, 7380.71, 7425.94, 7471.19, 7516.04, 7561.3, 7606.56, 7651.81, 7696.85, 7753.39, 7798.68, 7843.97, 7889.25, 7934.47, 7979.76, 8025.06, 8070.35, 8115.61, 8160.89, 8206.09, 8251.29, 8296.27, 8341.5, 8386.69, 8431.92, 8476.88, 8522.14, 8567.4, 8612.62, 8657.87, 8703.1, 8748.04, 8793.28, 8849.84, 8895.13, 8940.38, 8985.63, 9030.86, 9106.33

Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	11 lb/gal
Well Fluid Density Out of Well	11 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	190 °F
BHST	210 °F
Ambient Temperature	70 °F

Circulation

Lost Circulation Experienced
No

Job Execution Information

Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Volume (cuft)	Designed Top (ft)
1	WBM Spacer	Spacer	12.00			41.20		120.00		0
2	Water Spacer	Spacer	8.33			42.00		40.00		0
3	ACem P50.6.02C	Tail	14.50	1.48	6.66		2630.00	693.73	3892.40	1686
4	Retarded Water	Displacement	8.34			41.90		20.00		17709
5	3% KCL with Chems	DisplacementFinal	8.34			42.00		393.00		0

Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Flush	Water Spacer	Surfactant, S-801c	Surfactant	0.80	gal/bbl
3	Tail	ACem P50.6.02C	CLASS G	Cement	50.00	%
3	Tail	ACem P50.6.02C	FLY ASH (ROCKIES)	Extender	50.00	%
3	Tail	ACem P50.6.02C	EC-2	BondEnhancer	3.00	%BWOB
3	Tail	ACem P50.6.02C	FL-24	FluidLoss	0.30	%BWOB
3	Tail	ACem P50.6.02C	FL-66	FluidLoss	0.30	%BWOB
3	Tail	ACem P50.6.02C	FP-24	Defoamer	0.30	%BWOB
3	Tail	ACem P50.6.02C	GW-86	Viscosifier	0.05	%BWOB
3	Tail	ACem P50.6.02C	S-8	StrengthRetroggression	20.00	%BWOB
3	Tail	ACem P50.6.02C	SR-20	Retarder	0.05	%BWOB
3	Tail	ACem P50.6.02C	STATIC FREE	Other	0.01	lb/sk
4	Displacement	Retarded Water	SR-61L	Retarder	0.10	gal/bbl

Job Logs

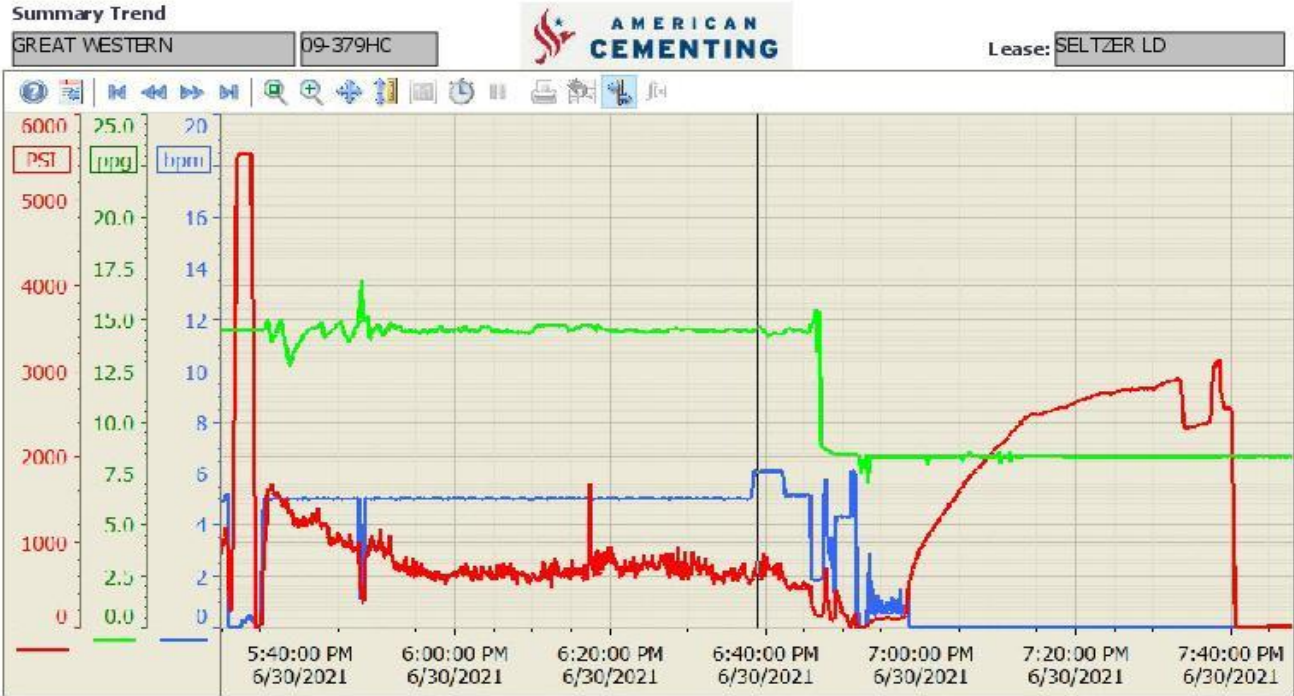
Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Cumulative Pump Volume (bbls)	Pipe Pressure (psi)	Annular Pressure (psi)	Comment
1	Call Out	6/30/2021	06:00						ACC gets called out , Requested time on location was 1200 hrs 6/30/21
2	Depart Facility	6/30/2021	09:00						ACC departs facility
3	Arrive To Location	6/30/2021	11:00						ACC arrives to location , Rig is currently running casing have about 1500' left to runn cant spot equipment due to casing crew in the way
4	Rig Up	6/30/2021	14:00						Casing crew out of way ACC sptted in equipment and starts rigging up equipment and iron
5	Safety Meeting	6/30/2021	14:30						ACC had a pre job safety meeting with rig hands and and OSR , went over job procedure
6	Rig Up	6/30/2021	15:00						ACC conituned to finish rigging up equipment and iron
7	Rig Pump WBM Spacer	6/30/2021	17:04	12	8	120	1300		Rig starts pumping WMB 12 ppg spacer at 8 bpm w/ 1300 psi
8	Rig Pump FW Spacer	6/30/2021	17:19	8.33	8	40	1000		Rig starts pumping FW spacer 8.33 ppg spacer at 8 bpm w/ 1000 psi
9	Shut Down	6/30/2021	17:27						Rig shuts down pumping
10	Drop Bottom Plug	6/30/2021	17:30						Drop bottom plug
11	Pressure Test	6/30/2021	17:35				5000		Pumped 5 bbls w/each pump to fill lines and pressure test pumps and lines to 5000 psi
12	Pump Cement	6/30/2021	17:40	14.5	10		1600		Start pumping primary cement at 10 bpm w/ 1600 psi at 14.5 ppg , NOTE density was verified by OSR with mud scales
13	Pumping Cement	6/30/2021	18:16	14.5	10	325	800		At 157 bbls gone into cement CPF-184 swapped silos (325 bbls gone w/ both pumps at 10 bpm w/800 psi)
14	Busrt Bottom Plug	6/30/2021	18:22	14.5	10	435	1600		AT 435 bbls gone into cement landed bottom plug at 10 bpm at 1600 psi ALSO CPF-182 swapped silos at 221 bbls gone
15	CPF-184 Shut Down	6/30/2021	18:48	14.5		634			CPF-184 Shuts down at 320 bbls gone and starts washing to open top . Note at 634 bbls gone w/ both pumps
16	CPF-182 Shut Down	6/30/2021	18:53	14.5		693.73			At 693.73 bbls gone CPF-182 shuts down and starts washing pump to open top (Pumped total of 693.73 bbls 14.5 ppg 2630 sks 1.48 yld 6.7 g/sk)



17	Drop Top Plug	6/30/2021	18:55						Drop Top Plug
18	Pump Disp.	6/30/2021	18:57	8.33	10		700		Start pumping disp at 10 bpm w/ 700 psi 1st 20 bbls w/ SR-61 retarder
19	Spacer To Surface	6/30/2021	19:36	8.5	10	373	3300		At 373 bbls away into kcl disp. Got spacer back to surface and started dumping to open top returns at 10 bpm w/3300 psi
20	Slow Down Rate	6/30/2021	19:39	8.5	5	390	2500		At 390 bbls away into disp slow down rate to 5 bpm w/ 2500 psi
21	Land Plug	6/30/2021	19:42	8.33	5	413	2500	3200	Landed plug at 413 bbls gone Final circ pressure was 2500 psi , bumped plug to 3200 psi
22	Bleed Back To Pump	6/30/2021	19:44						Bleed back 500 psi to pump got 1 bbl back
23	Check Floats	6/30/2021	19:46						Check floats to rig trip tanks got 3.8 bbls back
24	Rig Down	6/30/2021	20:00						ACC starts rigging down equipment and iron
25	Depart Location	6/30/2021	22:00						ACC departs location
26	Other	6/30/2021	22:01						Total Spacer to Surface- 40 bbls
27	Other	6/30/2021	22:02						Calculated top of cement - 1685.94 '

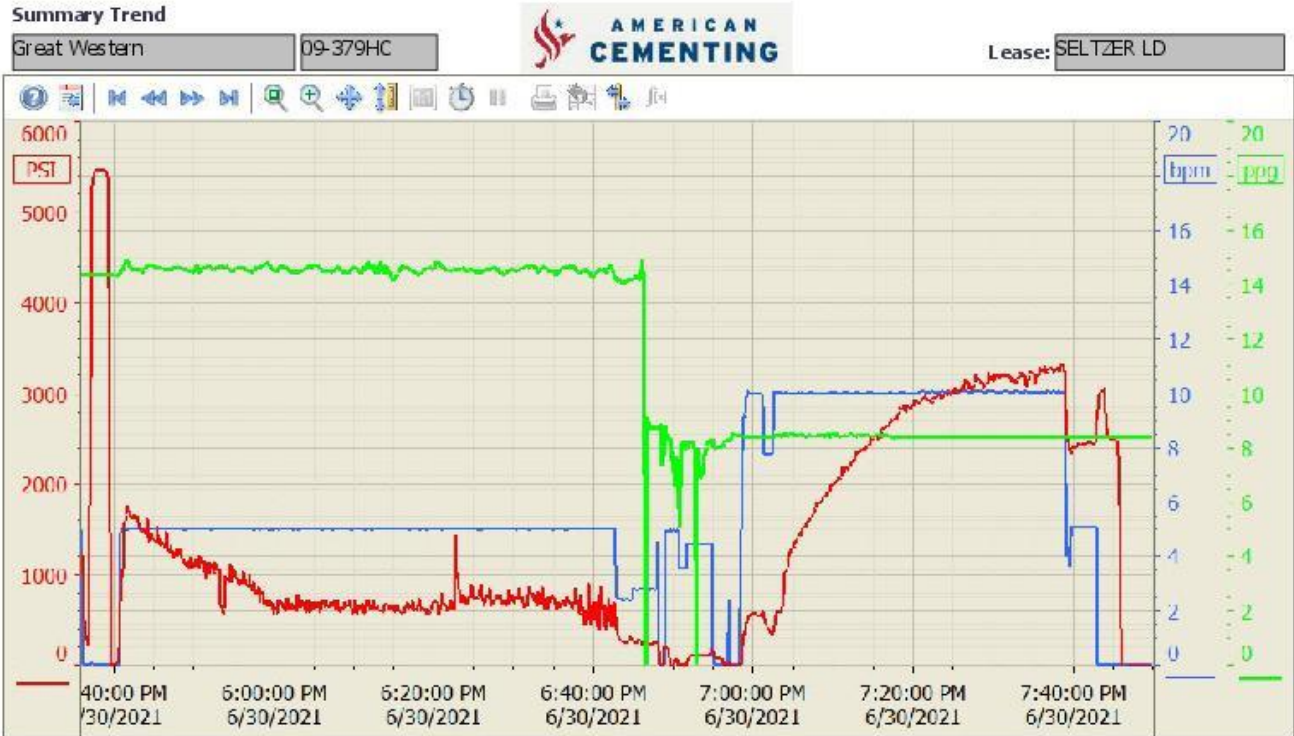
Pump Diagrams

Pump 182



6/30/2021 9:09:48 PM

Pump 184



6/30/2021 9:06:26 PM

