



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

FEDERAL WMC 13-20 05-045-24496
S:17 T:7N R:93W Garfield CO

CallSheet #: 84162
Proposal #: 64425



LONG STRING Post Job Report

Attention: Mr. Dustin Childers | (936) 524-8828 | dchilders@terraep.com
Terra Energy Partners, LLC
4828 Loop Central Dr., Suite 900 | Houston, TX 77081

Dear Mr. Dustin Childers,

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,

Krystal Schell

Field Engineer I | (719) 992-1830 | krystal.schell@americacementing.com

Field Office 28730 US-6, Rifle, CO 81650
Phone: (970) 657-1157

Job Details & Summary

Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	9.625	8.921	36	n/a	0	1133	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1145	9275	60
Open Hole	Outer	n/a	8.75	n/a	n/a	9275	11591	50
Casing	Inner	4.5	4	11.6	n/a	0	11591	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Field Storage Silo	FSS-470			
Field Storage Silo	FSS-438			
12/30/1899 6:30:00 AM	CTF-048	TRC-201	Wall, Lynn	
AS Cement Trailer Float	CTF-9309	TRC-201	Wall, Lynn	
Cement Trailer Float	CTF-249	TRC-059	Bradbrook, Jeremy	
Cement Pump Float	CPF-091	TRH-082	Carrasco, Joel	
Light Duty Vehicles	LDV-062		Lancaster, Stephen	Woronovitch, Collin

Timing

Event	Date/Time
Call Out	10/26/2022 22:00
Depart Facility	10/27/2022 01:30
On Location	10/27/2022 13:08
Rig Up Iron	10/27/2022 15:21
Job Started	10/27/2022 16:30
Job Completed	10/27/2022 19:28
Rig Down Iron	10/27/2022 19:34
Depart Location	10/27/2022 21:30

General Job Information

Metrics	Value
Well Fluid Density	9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	692 bbls
Rig Circulation Time	1.5 hours
Calculated Displacement	179 bbls
Actual Displacement	179 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	N/A

Job Details

Metrics	Value
Flare Prior to Job	No
Flare Prior to Job	0 units
Flare During Job	No
Flare During Job	0 units
Flare at End of Job	No
Flare at End of Job	0 units
Well Full Prior to Job	Yes
Well Fluid Density Into Well	9 lb/gal
Well Fluid Density Out of Well	9 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	206 °F
BHST	270 °F

Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	48 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	72 mg/L	0-3000 mg/L
Total Alkalinity	130	0-1000
Total Hardness	70 mg/L	0-500 mg/L
Carbonates	N/A mg/L	0-100 mg/L
Sulfates	190 mg/L	0-1500 mg/L
Potassium	430 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

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)	Designed Top (ft)
1	Water	Flush	8.34			42.00		10.00	6462
2	Mud Flush	Flush	8.45			40.86		20.00	6576
3	Water	Flush	8.34			42.00		10.00	6805
4	Lead Cement	Lead	12.70	2.00	10.99		579.00	206.49	6919
5	Tail Cement	Tail	13.50	1.85	8.97		589.00	193.58	9275
6	Displacement	DisplacementFinal	8.34			42.00		180.00	0

Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Flush	Mud Flush	SAPP	Surfactant	10.00	lb/bbl
2	Flush	Mud Flush	SS-201	Surfactant	0.50	gal/bbl
4	Lead	Lead Cement	ASTM TYPE I/II	Cement	100.00	%
4	Lead	Lead Cement	BA-90	BondEnhancer	3.00	lb/sk
4	Lead	Lead Cement	FL-66	FluidLoss	0.50	%BWOB
4	Lead	Lead Cement	FP-24	Defoamer	0.30	%BWOB
4	Lead	Lead Cement	GW-86	Viscosifier	0.10	%BWOB
4	Lead	Lead Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
4	Lead	Lead Cement	R-3	Retarder	0.45	%BWOB
4	Lead	Lead Cement	STATIC FREE	Other	0.01	lb/sk
5	Tail	Tail Cement	BA-90	BondEnhancer	10.00	%
5	Tail	Tail Cement	CLASS G	Cement	70.00	%
5	Tail	Tail Cement	FLY ASH (POZZOLAN)	Extender	20.00	%
5	Tail	Tail Cement	BENTONITE	Viscosifier	6.00	%BWOB
5	Tail	Tail Cement	FL-24	FluidLoss	0.40	%BWOB
5	Tail	Tail Cement	FP-24	Defoamer	0.30	%BWOB
5	Tail	Tail Cement	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
5	Tail	Tail Cement	R-3	Retarder	0.30	%BWOB
5	Tail	Tail Cement	S-8	StrengthRetrogression	25.00	%BWOB

Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	10/26/2022	22:00					CREW CALLED OUT FOR ON LOCATION TIME OF 10/27/22 04:00
2	Depart Location	10/27/2022	01:30					DEPART RCO YARD FOR LOCATION
3	Arrive On Location	10/27/2022	15:20					ARRIVE ON CUSTOMER SITE
4	Rig Up Iron	10/27/2022	15:21					RIG UP IRON AND HOSES
5	Safety Meeting	10/27/2022	16:30					JSA SAFETY MEETING WITH AC CREW, RIG HANDS, AND CUSTOMER REP
6	Fill Lines	10/27/2022	16:55	8.34	2	10	70	FILL LINES WITH FRESH WATER
7	Pressure Test Lines	10/27/2022	17:04	8.34			5000	PRESSURE TEST PUMP AND LINES TO 5000 PSI
8	Pump mud flush	10/27/2022	17:09	8.45	5	20	540	PUMP MUD FLUSH + SURFACTANT
9	Pump fresh water flush	10/27/2022	17:15	8.34	5	10	533	PUMP FRESH WATER FLUSH
10	Pump Lead Cement	10/27/2022	17:17	12.7	5	5	568	BEGIN PUMPING LEAD CEMENT. DENSITY VERIFIED WITH MUD SCALE
11	Pump Lead Cement	10/27/2022	17:28	12.7	5	50	383	50 BBLS LEAD CEMENT PUMPED
12	Pump Lead Cement	10/27/2022	17:38	12.7	5	100	394	100 BBLS LEAD CEMENT PUMPED
13	Pump Lead Cement	10/27/2022	17:49	12.7	4	150	295	150 BBLS LEAD CEMENT PUMPED
14	Pump Lead Cement	10/27/2022	18:02	12.7	5	207	285	207 BBLS LEAD CEMENT PUMPED
15	Pump Tail Cement	10/27/2022	18:04	13.5	5	5	495	BEGIN PUMPING TAIL CEMENT. DENSITY VERIFIED WITH MUD SCALE
16	Pump Tail Cement	10/27/2022	18:13	13.5	5	50	512	50 BBLS TAIL CEMENT PUMPED,
17	Pump Tail Cement	10/27/2022	18:23	13.5	5	100	600	100 BBLS TAIL CEMENT PUMPED
18	Pump Tail Cement	10/27/2022	18:35	13.5	5	150	491	150 BBLS TAIL CEMENT PUMPED
19	Pump Tail Cement	10/27/2022	18:46	13.5	4	190	516	190 BBLS TAIL CEMENT PUMPED.
20	Pump Tail Cement	10/27/2022	18:48	13.5	4	194	441	194 BBLS TAIL CEMENT PUMPED
21	Clean Pumps and Lines	10/27/2022	18:50					BLOW DOWN STANDPIPE, WASH UP PUMP, AND LINES
22	Drop Top Plug	10/27/2022	19:02	8.34	6	5	418	DROP PLUG, VERIFIED BY CUSTOMER REP. BEGIN KCL DISPLACEMENT
23	Pump Displacement	10/27/2022	19:09	8.34	7	50	440	50 BBLS KCL DISPLACEMENT PUMPED
24	Pump Displacement	10/27/2022	19:16	8.34	7	100	1125	100 BBLS KCL DISPLACEMENT PUMPED
25	Pump Displacement	10/27/2022	19:24	8.34	7	150	1876	150 BBLS KCL DISPLACEMENT PUMPED
26	Pump Displacement	10/27/2022	19:27	8.34	4	175	1715	175 BBLS KCL DISPLACEMENT PUMPED
27	Land Plug	10/27/2022	19:28	8.34	4	179	1815	LAND PLUG. FCP - 1815 PSI, BUMPED TO 2850 PSI
28	Check Floats	10/27/2022	19:33					CHECK FLOATS. FLOATS HELD, 2 BBLS BACK
29	Rig Down Iron	10/27/2022	19:34					RIG DOWN IRON AND HOSES. BLEW OUT IRON, AND WASHUP HOSE
30	Depart Location	10/27/2022	21:30					DEPART LOCATION FOR RCO YARD

Pump Diagrams

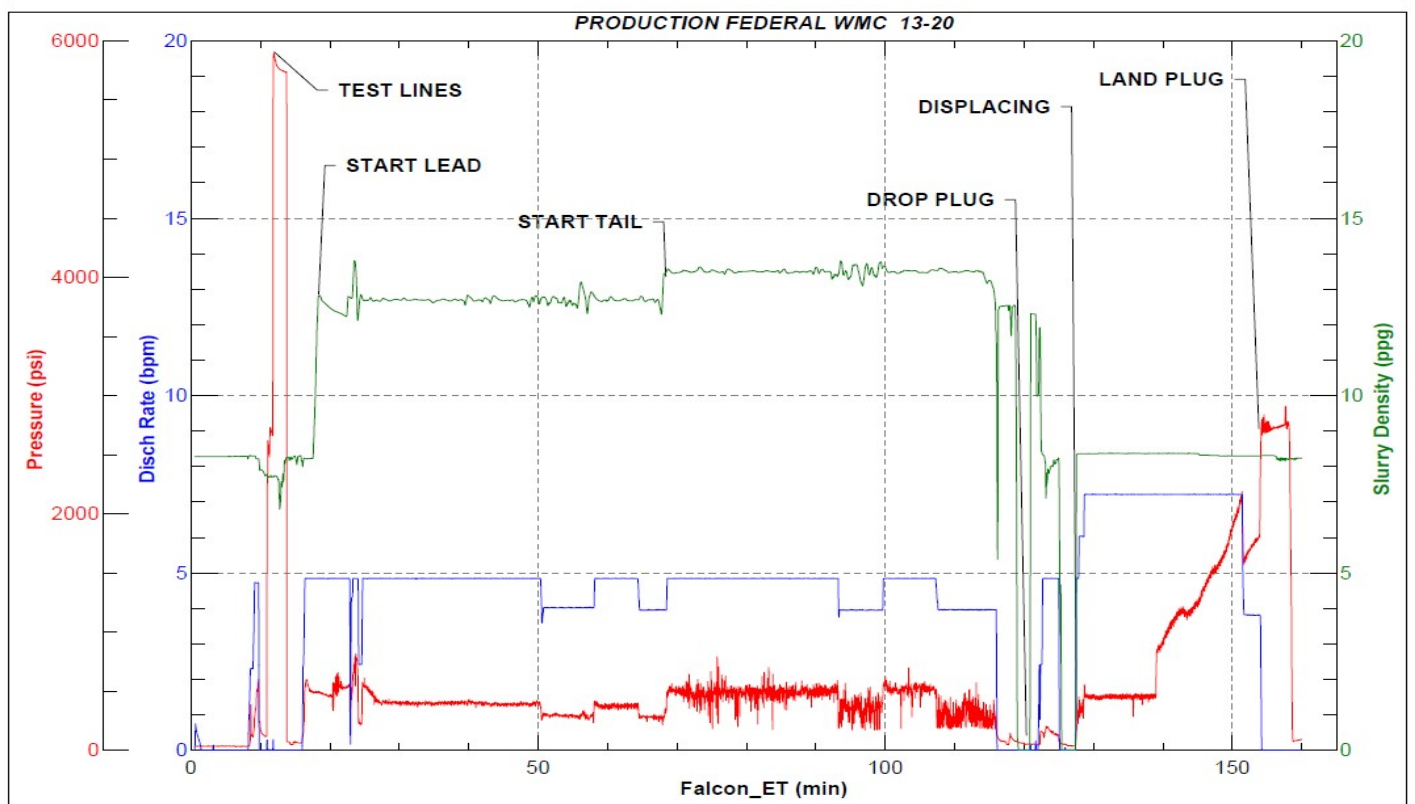


JobMaster Program Version 5.01C1

Job Number: 84162

Customer: TERRA

Well Name: FEDERAL WMC 13-20



Job Start: Thursday, October 27, 2022