



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

WMC 444-24-794 05-045-24542
S:19 T:7S R:93W Garfield CO

CallSheet #: 85558
Proposal #: 66492



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	1145	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1145	8129	85
Open Hole	Outer	n/a	8.75	n/a	n/a	8129	11324	50
Casing	Inner	4.5	4	11.6	n/a	0	11324	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Field Storage Silo	FSS-470			
Field Storage Silo	FSS-438			
Cement Trailer Float	CTF-340	TRC-180	Schiro, Aaron	Balint, Daniel
Cement Pump Float	CPF-053	TRH-1140	Kirchenwitz, Jacob	
Light Duty Vehicles	LDV-083		Putnam, Gage	

Timing

Event	Date/Time
ERTS	00/30/2023 00:00
Call Out	1/29/2023 16:00
Depart Facility	1/29/2023 18:30
On Location	1/29/2023 20:00
Rig Up Iron	1/29/2023 20:15
Job Started	1/30/2023 02:57
Job Completed	1/30/2023 05:08
Rig Down Iron	1/30/2023 05:38
Depart Location	1/30/2023 06:20

General Job Information

Metrics	Value
Well Fluid Density	9.3 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	865 bbls
Rig Circulation Time	1.5 hours
Calculated Displacement	175 bbls
Actual Displacement	175 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	9.3 lb/gal
Well Fluid Density Out of Well	9.3 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	178 °F
BHST	236 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	70 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	72 mg/L	0-3000 mg/L
Total Alkalinity	120	0-1000
Total Hardness	80 mg/L	0-500 mg/L
Carbonates	NA mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	450 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	5958
2	Mud Flush	Flush	8.45			40.86		20.00	6057
3	Water	Flush	8.34			42.00		10.00	6255
4	Scavenger	Scavenger	11.00	3.08	18.84		92.00	50.39	6354
5	Lead	Lead	12.50	2.26	12.59		323.00	129.82	6848
6	Tail	Tail	13.00	2.05	10.26		784.00	285.96	8129
7	Displacement	DisplacementFinal	8.34			42.00		175.00	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	Scavenger	Scavenger	ASTM TYPE I/II	Cement	65.00	%
4	Scavenger	Scavenger	FLY ASH (POZZOLAN)	Extender	35.00	%
4	Scavenger	Scavenger	BENTONITE	Viscosifier	6.00	%BWOB
4	Scavenger	Scavenger	FP-24	Defoamer	0.30	%BWOB
4	Scavenger	Scavenger	GW-86	Viscosifier	0.10	%BWOB
4	Scavenger	Scavenger	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
4	Scavenger	Scavenger	XCem-916	Retarder	0.45	%BWOB
5	Lead	Lead	ASTM TYPE I/II	Cement	100.00	%
5	Lead	Lead	ATHX-1102	Thixotropic	0.10	%BWOB
5	Lead	Lead	FL-66	FluidLoss	0.30	%BWOB
5	Lead	Lead	FP-24	Defoamer	0.30	%BWOB
5	Lead	Lead	GW-86	Viscosifier	0.10	%BWOB
5	Lead	Lead	IntegraSeal PHENO	LostCirculation	0.50	lb/sk
5	Lead	Lead	IntegraSeal POLI	LostCirculation	0.25	lb/sk
5	Lead	Lead	R-7C	Retarder	0.10	%BWOB
5	Lead	Lead	STATIC FREE	Other	0.01	lb/sk
5	Lead	Lead	XCem-1009	Extender	10.00	lb/sk
5	Lead	Lead	XCem-916	Retarder	0.45	%BWOB
6	Tail	Tail	CLASS G	Cement	50.00	%
6	Tail	Tail	FLY ASH (POZZOLAN)	Extender	50.00	%
6	Tail	Tail	BENTONITE	Viscosifier	6.00	%BWOB
6	Tail	Tail	FL-66	FluidLoss	0.40	%BWOB
6	Tail	Tail	FP-24	Defoamer	0.30	%BWOB
6	Tail	Tail	GW-86	Viscosifier	0.10	%BWOB
6	Tail	Tail	IntegraSeal PHENO	LostCirculation	0.50	lb/sk
6	Tail	Tail	IntegraSeal POLI	LostCirculation	0.25	lb/sk
6	Tail	Tail	S-8	StrengthRetgression	20.00	%BWOB
6	Tail	Tail	XCem-1009	Extender	6.00	lb/sk
6	Tail	Tail	XCem-916	Retarder	0.40	%BWOB

Job Logs

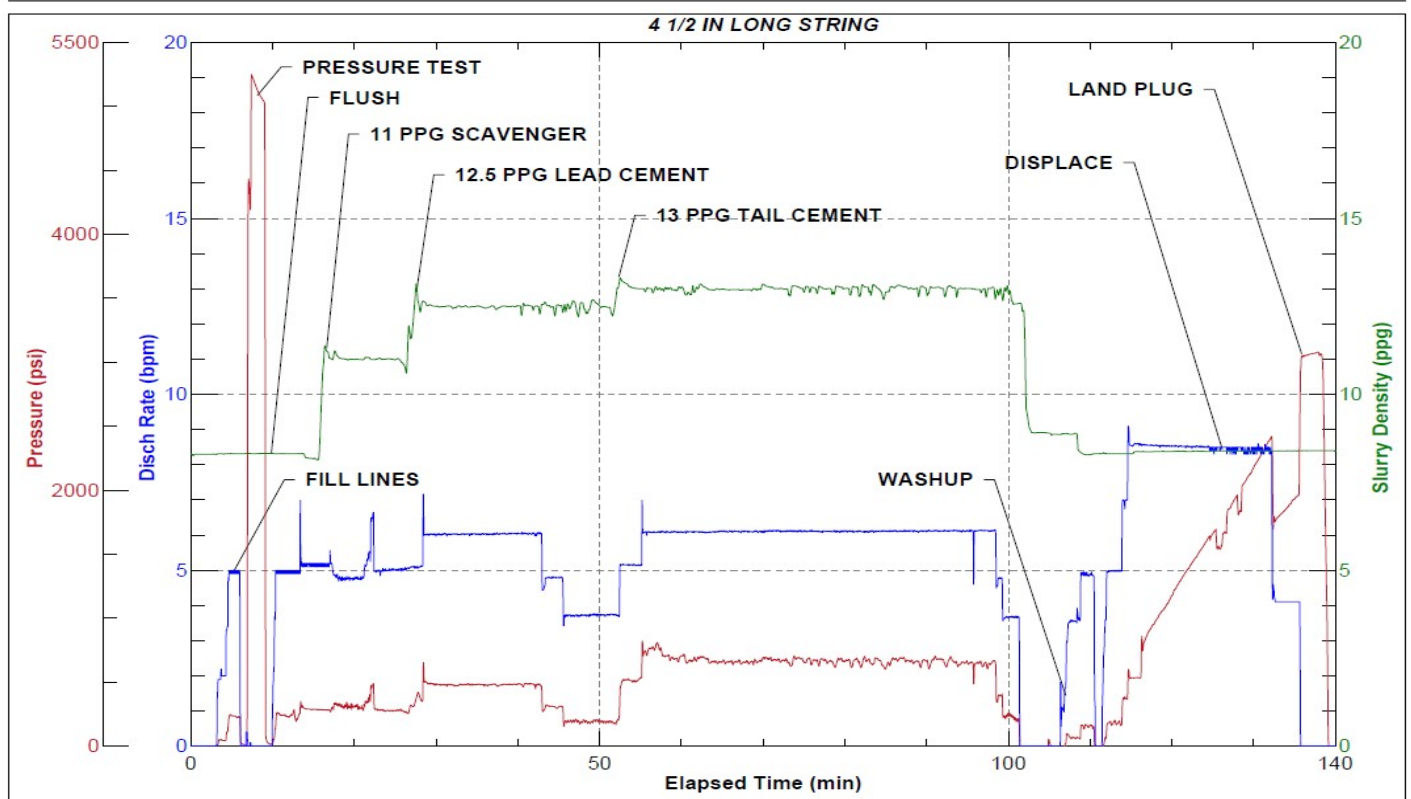
Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	1/29/2023	16:00					CREW CALLED OUT FOR ON LOCATION TIME OF 00:00 1/30/23
2	Depart Location	1/29/2023	18:30					DEPART RCO YARD FOR LOCATION
3	Arrive On Location	1/29/2023	20:00					ARRIVE ON CUSTOMER SITE
4	Rig Up Iron	1/29/2023	20:15					RIG UP IRON AND HOSES
5	Waiting	1/29/2023	21:15					WAITING FOR RIG TO FINISH RUNNING CASING
6	Safety Meeting	1/30/2023	02:00					JSA SAFETY MEETING WITH AC CREW, RIG HANDS, AND CUSTOMER REP
7	Fill Lines	1/30/2023	02:57	8.34	5	10	234	FILL LINES WITH 10 BBLs FRESH WATER
8	Pressure Test Lines	1/30/2023	03:00				5000	PRESSURE TESTED PUMP AND LINES AT 5000 PSI
9	Other	1/30/2023	03:03	8.45	5	20	266	PUMP 20 BBLs MUD FLUSH + SURFACTANT
10	Other	1/30/2023	03:07	8.34	5	10	288	PUMP 10 BBLs FRESH WATER FLUSH
11	Pump Spacer	1/30/2023	03:10	11	5	0	340	BEGIN PUMPING SCAVENGER SLURRY. DENSITY VERIFIED WITH PRESSURIZED MUD SCALE
12	Pump Spacer	1/30/2023	03:20	11	5	50.4	333	50.4 BBLs SCAVENGER PUMPED
13	Pump Lead Cement	1/30/2023	03:20	12.5	5	0	375	BEGIN PUMPING LEAD CEMENT. DENSITY VERIFIED WITH PRESSURIZED MUD SCALE
14	Pump Lead Cement	1/30/2023	03:29	12.5	6	50	500	50 BBLs LEAD CEMENT PUMPED
15	Pump Lead Cement	1/30/2023	03:38	12.5	5	50	341	100 BBLs LEAD CEMENT PUMPED
16	Pump Lead Cement	1/30/2023	03:45	12.5	4	29.8	218	129.8 BBLs LEAD CEMENT PUMPED
17	Pump Tail Cement	1/30/2023	03:45	13	4	0	258	BEGIN PUMPING TAIL CEMENT. DENSITY VERIFIED WITH PRESSURIZED MUD SCALE
18	Pump Tail Cement	1/30/2023	03:54	13	6	50	693	50 BBLs TAIL CEMENT PUMPED
19	Pump Tail Cement	1/30/2023	04:02	13	6	50	700	100 BBLs TAIL CEMENT PUMPED
20	Pump Tail Cement	1/30/2023	04:10	13	6	50	700	150 BBLs TAIL CEMENT PUMPED
21	Pump Tail Cement	1/30/2023	04:18	13	6	50	725	200 BBLs TAIL CEMENT PUMPED
22	Pump Tail Cement	1/30/2023	04:26	13	6	50	700	250 BBLs TAIL CEMENT PUMPED
23	Pump Tail Cement	1/30/2023	04:34	13	6	36	665	286 BBLs TAIL CEMENT PUMPED
24	Clean Pumps and Lines	1/30/2023	04:34					SHUT DOWN. BLOW DOWN STANDPIPE, WASH UP PUMP AND LINES
25	Drop Top Plug	1/30/2023	04:45	8.34	5	0	219	DROP PLUG, VERIFIED BY CUSTOMER REP. BEGIN KCL DISPLACEMENT
26	Pump Displacement	1/30/2023	04:52	8.34	8.5	50	1100	50 BBLs KCL DISPLACEMENT PUMPED
27	Pump Displacement	1/30/2023	04:57	8.34	8.5	50	1704	100 BBLs KCL DISPLACEMENT PUMPED
28	Pump Displacement	1/30/2023	05:04	8.34	8.5	50	2370	150 BBLs KCL DISPLACEMENT PUMPED

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
29	Pump Displacement	1/30/2023	05:08	8.34	4	25	2010	175 BBLS KCL DISPLACEMENT PUMPED
30	Land Plug	1/30/2023	05:08				3120	LAND PLUG. FCP - 2010 PSI, BUMPED TO 3120 PSI
31	Check Floats	1/30/2023	05:11					CHECK FLOATS. FLOATS HELD, 2 BBLS BACK
32	Rig Down Iron	1/30/2023	05:38					BLOW DOWN LINES, RIG DOWN IRON AND HOSES
33	Depart Location	1/30/2023	06:20					DEPART LOCATION FOR RCO YARD

Pump Diagrams



JobMaster Program Version 5.01C1
Job Number: 85558
Customer: Terra
Well Name: WMC 444-24-794



Job Start: Monday, January 30, 2023