



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

WMC 44-24-794 05-045-24544
S:19 T:7S R:93W Garfield CO

CallSheet #: 85658
Proposal #: 66701



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,

Zen Keith

SME North | (307) 757-7178 | zen.keith@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	1171	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1138	7879	85
Open Hole	Outer	n/a	8.75	n/a	n/a	7879	11091	50
Casing	Inner	4.5	4	11.6	n/a	0	11091	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Cement Trailer Float	CTF-249	TRC-054	Wall, Lynn	Schweitzer, Casey
Field Storage Silo	FSS-470			
Field Storage Silo	FSS-438			
Light Duty Vehicles	LDV-061		Woronovitch, Collin	
Cement Pump Float	CPF-053	TRH-855	Kirchenwitz, Jacob	

Timing

Event	Date/Time
ERTS	00/04/2023 00:00
Call Out	2/4/2023 11:00
Depart Facility	2/4/2023 18:30
On Location	2/4/2023 20:00
Rig Up Iron	2/4/2023 20:15
Job Started	2/4/2023 22:50
Job Completed	2/5/2023 02:23
Rig Down Iron	2/5/2023 02:45
Depart Location	2/5/2023 04:30

General Job Information

Metrics	Value
Well Fluid Density	9.2 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	900 bbls
Rig Circulation Time	1.5 hours
Calculated Displacement	171.4 bbls
Actual Displacement	171.4 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	9.2 lb/gal
Well Fluid Density Out of Well	9.2 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	178 °F
BHST	236 °F
Initial ISIP	psi
Final ISIP	psi
Sks in Formation	sks
Injection #1	bpm
Injection #1	psi
Injection #2	bpm
Injection #2	psi

Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	52 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	120 mg/L	0-3000 mg/L
Total Alkalinity	80	0-1000
Total Hardness	100 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	160 mg/L	0-1500 mg/L
Potassium	200 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	6202
2	Mud Flush	Flush	8.45			40.86		20.00	6301
3	Water	Flush	8.34			42.00		10.00	6499
4	Lead	Lead	12.50	2.26	12.59		323.00	129.82	6598
5	Tail	Tail	13.00	2.05	10.26		784.00	285.96	7879
6	Displacement	DisplacementFinal	8.34			42.00		171.40	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	ASTM TYPE I/II	Cement	100.00	%
4	Lead	Lead	ATHX-1102	Thixotropic	0.10	%BWOB
4	Lead	Lead	FL-66	FluidLoss	0.30	%BWOB
4	Lead	Lead	FP-24	Defoamer	0.30	%BWOB
4	Lead	Lead	GW-86	Viscosifier	0.10	%BWOB
4	Lead	Lead	IntegraSeal PHENO	LostCirculation	0.50	lb/sk
4	Lead	Lead	IntegraSeal POLI	LostCirculation	0.25	lb/sk
4	Lead	Lead	R-7C	Retarder	0.10	%BWOB
4	Lead	Lead	STATIC FREE	Other	0.01	lb/sk
4	Lead	Lead	XCem-1009	Extender	10.00	lb/sk
4	Lead	Lead	XCem-916	Retarder	0.45	%BWOB
5	Tail	Tail	CLASS G	Cement	50.00	%
5	Tail	Tail	FLY ASH (POZZOLAN)	Extender	50.00	%
5	Tail	Tail	BENTONITE	Viscosifier	6.00	%BWOB
5	Tail	Tail	FL-66	FluidLoss	0.40	%BWOB
5	Tail	Tail	FP-24	Defoamer	0.30	%BWOB
5	Tail	Tail	GW-86	Viscosifier	0.10	%BWOB
5	Tail	Tail	IntegraSeal PHENO	LostCirculation	0.50	lb/sk
5	Tail	Tail	IntegraSeal POLI	LostCirculation	0.25	lb/sk
5	Tail	Tail	S-8	StrengthRetrogression	20.00	%BWOB
5	Tail	Tail	XCem-1009	Extender	6.00	lb/sk
5	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	2/4/2023	11:00					CREW CALLED OUT FOR ON LOCATION TIME OF 19:30
2	Depart Location	2/4/2023	18:30					CREW DEPARTS RCO YARD FOR RIG LOCATION
3	Arrive On Location	2/4/2023	20:00					CREW AND EQUIPMENT ARRIVES ON LOCATION. RIG STILL RUNNING CASING
4	Safety Meeting	2/4/2023	20:05					PRE RIG UP SAFETY MEETING
5	Rig Up Iron	2/4/2023	20:15					RIG UP IRON HOSES AND EQUIPMENT
6	Other	2/4/2023	21:00					RIG LANDED CASING @ 21:30. RIG CIRCULATED FOR 1.5 HOURS. TOTAL VOLUME 900 BBLs.
7	Safety Meeting	2/4/2023	22:50					PRE JOB SAFETY MEETING WITH RIG CREW AND COMPANY MAN.
8	Fill Lines	2/4/2023	23:48	8.34	5	10	416	FILL LINES WITH 10 BBLs OF FRESHWATER. RETURNS
9	Pressure Test Lines	2/4/2023	23:53	8.34			5293	PRESSURE TEST PUMP AND IRON TO 5000 PSI
10	Pump Spacer	2/4/2023	23:56	8.45	5	0	523	BEGIN PUMPING MUD FLUSH + SURFACTANT.
11	Pump Spacer	2/5/2023	00:00	8.45	5	20	498	PUMP 20 BBLs MUD FLUSH + SURFACTANT PUMPED. RETURNS
12	Pump Spacer	2/5/2023	00:01	8.34	5	10	532	PUMP 10 BBLs FRESHWATER FLUSH
13	Shutdown	2/5/2023	00:03					SHUTDOWN AND BATCH UP LEAD CEMENT
14	Pump Lead Cement	2/5/2023	00:08	12.5	5	0	612	BEGIN PUMPING 12.5 PPG LEAD CEMENT, WEIGHT VERIFIED BY MUD SCALE
15	Pump Lead Cement	2/5/2023	00:19	12.5	5	50	378	50 BBLs LEAD CEMENT PUMPED
16	Pump Lead Cement	2/5/2023	00:29	12.5	5	50	379	100 BBLs LEAD CEMENT PUMPED. RETURNS
17	Pump Lead Cement	2/5/2023	00:36	12.5	3.6	30	383	130 BBLs (323 SKS) TOTAL LEAD CEMENT PUMPED.
18	Pump Tail Cement	2/5/2023	00:36	13	3.6	0	452	BEGIN PUMPING 13 PPG TAIL CEMENT. WEIGHT VERIFIED BY MUD SCALE.
19	Pump Tail Cement	2/5/2023	00:47	13	5	50	502	50 BBLs TAIL CEMENT PUMPED
20	Pump Tail Cement	2/5/2023	00:57	13	5	50	532	100 BBLs TAIL CEMENT PUMPED
21	Pump Tail Cement	2/5/2023	01:07	13	4.8	50	491	150 BBLs TAIL CEMENT PUMPED RETURNS
22	Pump Tail Cement	2/5/2023	01:19	13	5.3	50	519	200 BBLs TAIL CEMENT PUMPED
23	Pump Tail Cement	2/5/2023	01:29	13	3.6	50	362	250 BBLs TAIL CEMENT PUMPED
24	Pump Tail Cement	2/5/2023	01:42	13	3	36	324	286 BBLs (784 SKS) TOTAL TAIL CEMENT PUMPED.
25	Clean Pumps and Lines	2/5/2023	01:43					BLOW RIG AIR TO CLEAR LINES, VALVE MANIFOLD TO WASH UP PUMP AND LINES TO PIT
26	Drop Top Plug	2/5/2023	01:56	8.34	5	2	182	DROP PLUG, WITNESSED BY CUSTOMER REP. BEGIN KCL DISPLACEMENT.
27	Pump Displacement	2/5/2023	02:03	8.34	7	50	653	50 BBLs DISPLACEMENT PUMPED. CAUGHT PRESSURE @ 45 BBLs DISPLACED. RETURNS.
28	Pump Displacement	2/5/2023	02:11	8.34	7	50	1360	100 BBLs 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	2/5/2023	02:18	8.34	7	50	2218	150 BBLS DISPLACEMENT PUMPED. FCP-2390 PSI @ 7 BPM BEFORE SLOW DOWN. RETURNS. RIG RECOVERED 615 BBLS
30	Pump Displacement	2/5/2023	02:21	8.34	4	21.4	2098	171.4 BBLS (CALCULATED) DISPLACEMENT PUMPED
31	Land Plug	2/5/2023	02:21				3100	PLUG LANDED FCP-2098 PSI BUMPED TO 3100 PSI
32	Check Floats	2/5/2023	02:23					BLEED PRESSURE OFF AND CHECK FLOATS, FLOATS HELD 2 BBLS BACK
33	Rig Down Iron	2/5/2023	02:45					PRE RIG DOWN SAFETY MEETING. PICKLE/ BLOW DOWN IRON, RIG DOWN EQUIPMENT, IRON AND HOSES
34	Depart Location	2/5/2023	04:30					CREW DEPARTS LOCATION

Pump Diagrams

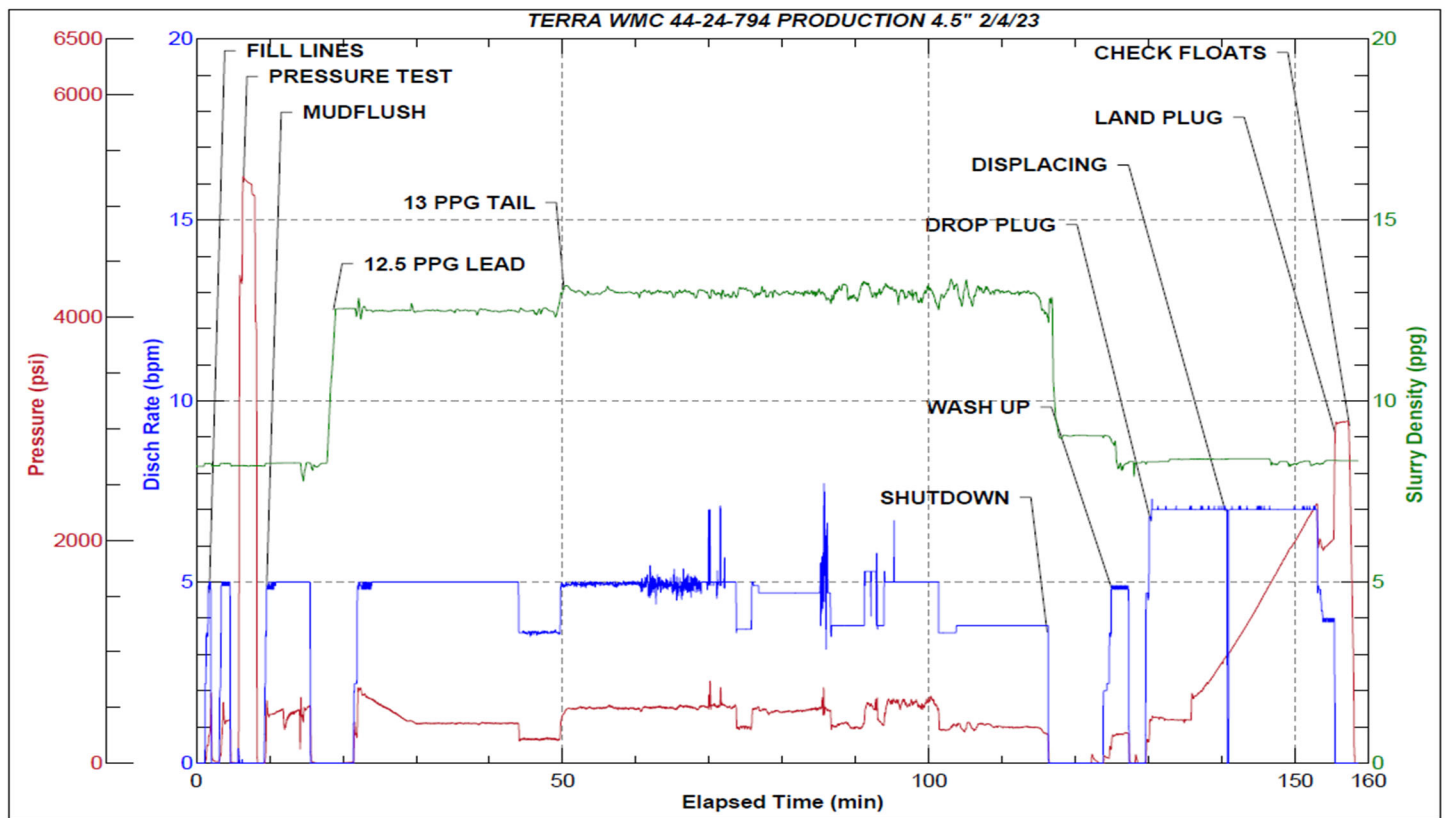


JobMaster Program Version 5.01C1

Job Number: 85658

Customer: TERRA

Well Name: WMC 44-24-794



Job Start: Saturday, February 04, 2023