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# **Terra Energy Partners, LLC**

## **LONG STRING POST JOB REPORT**

**WMC 343-24-794 05-045-24549**  
**S:19 T:7S R:93W Garfield CO**

CallSheet #: 85801  
Proposal #: 66961



### 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

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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	1138	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1138	7659	85
Open Hole	Outer	n/a	8.75	n/a	n/a	7659	10878	50
Casing	Inner	4.5	4	11.6	n/a	0	10878	0

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS-438		
Cement Trailer Float	CTF-254	TRC-202	Balint, Daniel
Light Duty Vehicles	LDV-063		Castillo, Francisco
Cement Pump Float	CPF-053	TRH-1140	Kirchenwitz, Jacob

### Timing

Event	Date/Time
ERTS	00/15/2023 00:00
Call Out	2/15/2023 17:00
Depart Facility	2/15/2023 20:23
On Location	2/15/2023 21:39
Rig Up Iron	2/15/2023 22:00
Job Started	2/16/2023 08:29
Job Completed	2/16/2023 10:43
Rig Down Iron	2/16/2023 11:15
Depart Location	2/16/2023 12:30

### General Job Information

Metrics	Value
Well Fluid Density	9.3 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	3600 bbls
Rig Circulation Time	6 hours
Calculated Displacement	168 bbls
Actual Displacement	168 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	179 °F
BHST	237 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	75 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	240	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	250 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 <sup>3</sup> /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	5983
2	Mud Flush	Flush	8.45			40.86		20.00	6082
3	Water	Flush	8.34			42.00		10.00	6280
4	Lead	Lead	12.50	2.26	12.59		323.00	129.82	6379
5	Tail	Tail	13.00	2.05	10.26		784.00	285.96	7659
6	Displacement	DisplacementFinal	8.34			42.00		168.00	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	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-3	Retarder	0.45	%BWOB
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
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	2/15/2023	17:00					ON LOCATION AT 18:00 HRS
2	LEAVE THE YARD	2/15/2023	20:23					CREW LEAVE THE YARD, CREW COMING OFF OF ANOTHER JOB
3	ON LOCATION	2/15/2023	21:39					CREW ON LOCATION, RIG LANDED
4	RIG UP	2/15/2023	22:00					RIG UP MEETING, RIG UP
5	SAFETY MEETING	2/16/2023	00:15					PUMP WAS UNABLE TO MAINTANE AIR PRESSURE AFTER MEETING, CALLED FOR ANOTHER PUMP
6	ON LOCATION	2/16/2023	05:30					2ND PUMP ON LOCATION
7	SAFETY MEETING	2/16/2023	08:15					PRE-JOB SAFETY MEETING
8	PRESSURE TEST	2/16/2023	08:29				5183	PRESSURE TESTS LINES
9	WATER SPACER	2/16/2023	08:32	8.34	5	10	695	WATER SPACER
10	MUD FLUSH	2/16/2023	08:34	9	5	20	709	MUD FLUSH SPACER
11	WATER SPACER	2/16/2023	08:38	8.34	5	10	679	WATER SPACER
12	LEAD CEMENT	2/16/2023	08:41	12.7	5	65	513	LEAD 323 SKS/130 BBLS AT 12.7 PPG
13	LEAD CEMENT	2/16/2023	08:53	12.7	5	65	471	130 BBLS LEAD CEMENT PUMPED
14	TAIL CEMENT	2/16/2023	09:06	13	6.7	50	957	TAIL 784 SKS/286 BBLS AT 13 PPG
15	TAIL CEMENT	2/16/2023	09:13	13	6.7	50	963	100 BBLS TAIL CEMENT PUMPED
16	TAIL CEMENT	2/16/2023	09:21	13	5.5	50	733	150 BBLS TAIL CEMENT PUMPED
17	TAIL CEMENT	2/16/2023	09:29	13	5.5	50	665	200 BBLS TAIL CEMENT PUMPED
18	TAIL CEMENT	2/16/2023	09:38	13	5.5	86	667	286 BBLS TAIL CEMENT PUMPED
19	SHUTDOWN	2/16/2023	10:01					WASH PUMP AND LINES
20	DISPLACEMENT	2/16/2023	10:14	8.7	7	50	877	DISPLACEMENT WITH KCL WATER
21	DISPLACEMENT	2/16/2023	10:22	8.7	7	50	1807	100 BBLS DISPLACEMENT PUMPED
22	DISPLACEMENT	2/16/2023	10:30	8.7	7	48	2245	148 BBLS DISPLACEMENT PUMPED
23	DISPLACEMENT	2/16/2023	10:38	13	4	20	2177	SLOW RATE
24	LAND PLUG	2/16/2023	10:43					LAND PLUG
25	CHECK FLOATS	2/16/2023	10:47					FLOATS HELD, 2 BBLS FLOW BACK
26	RIG DOWN	2/16/2023	11:15					RIG MEETING, RIG DOWN
27	LEAVE LOCATION	2/16/2023	12:30					CREW LEAVE LOCATION

## Pump Diagrams

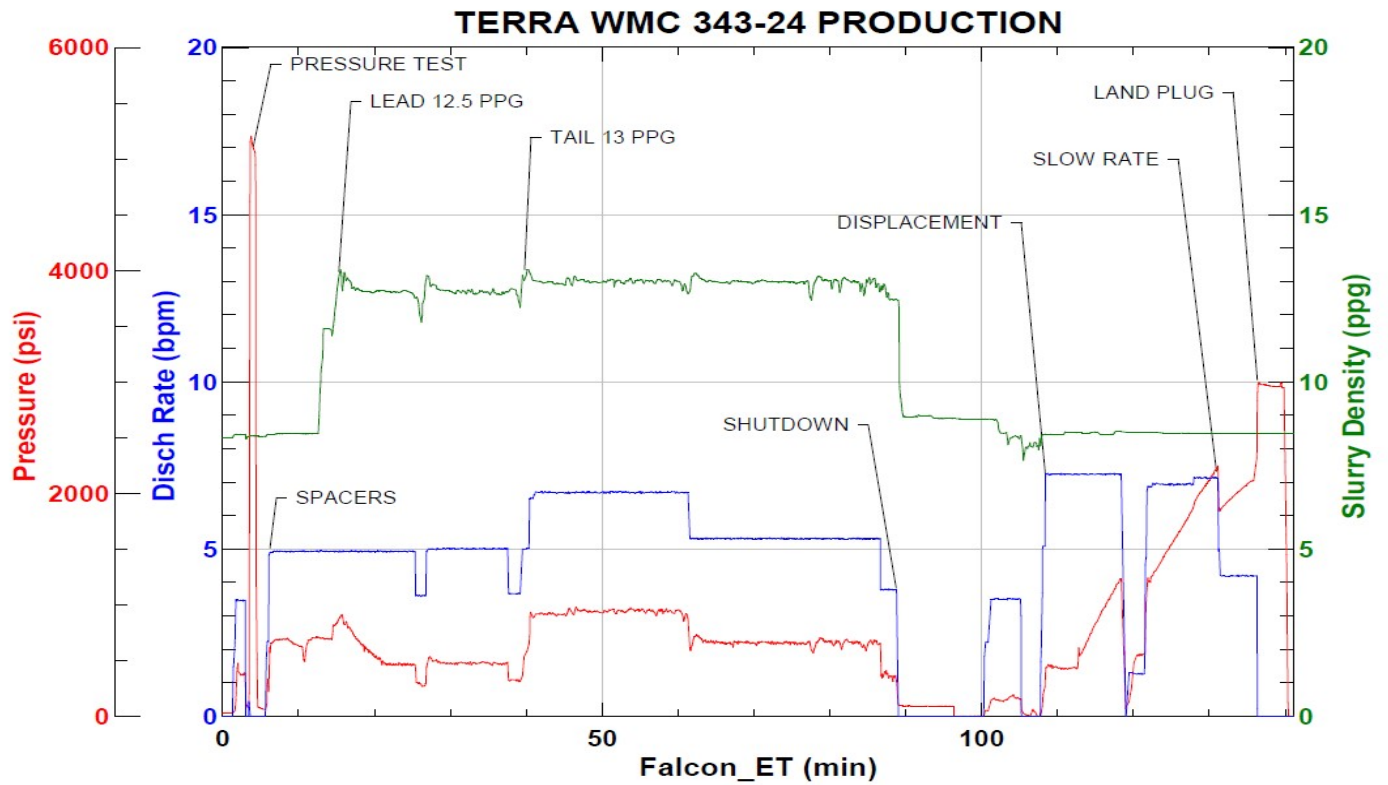


JobMaster Program Version 5.01C1

Job Number: 85801

Customer: TERRA

Well Name: WMC 343-24



Job Start: Thursday, February 16, 2023