



# **Terra Energy Partners, LLC**

## **SURFACE POST JOB REPORT**

**FEDERAL RWF 543-9 05-045-24396**  
**S:9 T:6S R:94W Garfield CO**

CallSheet #: 79658  
Proposal #: 57051



**SURFACE Post Job Report**

**Attention:** 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 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,

**Michael Harold**

Field Engineer II | (970) 773-3636 | michael.harold@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 (%)
Open Hole	Outer	n/a	13.5	n/a	n/a	0	500	16
Open Hole	Outer	n/a	13.5	n/a	n/a	500	1100	16
Casing	Inner	9.625	8.921	36	n/a	0	1100	0

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Cement Trailer	CTF-249	TRC(TRB)-201	Manuelito, Hamilton
Cement Pump	CPF-052	TRH-1140	Woronovitch, Collin
Light Duty Vehicles	LDV-061		Aden, Mark

### Timing

Event	Date/Time
Call Out	12/31/2021 07:30
Depart Facility	12/31/2021 16:45
On Location	12/31/2021 17:30
Rig Up Iron	12/31/2021 18:20
Job Started	12/31/2021 21:31
Job Completed	12/31/2021 23:09
Rig Down Iron	12/31/2021 23:15
Depart Location	1/1/2022 00:45

### General Job Information

Metrics	Value
Well Fluid Density	8.9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	600 bbls
Rig Circulation Time	1 hours
Calculated Displacement	85 bbls
Actual Displacement	85 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	16 bbls
Well Topped Out	No

### 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	8.9 lb/gal
Well Fluid Density Out of Well	8.9 lb/gal

### Job Details (cont.)

Metrics	Value
BHCT	80 °F
BHST	97 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	72.3 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	180	0-1000
Total Hardness	425 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	0 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

### Circulation

Lost Circulation Experienced	Losses into Spacer	Losses into Cement	Losses into Displacement
Yes	0	0	0

#### Circulation Details

No circulation until 20 bbls into cement.

### 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		20.00	0
2	Lead Cement	Lead	12.30	2.34	13.42		122.00	50.81	0
3	Tail Cement	Tail	12.80	2.08	11.46		174.00	64.35	500
4	Water	DisplacementFinal	8.34			42.00		82.00	0

### Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Lead	Lead Cement	ASTM TYPE I/II	Cement	100.00	%
2	Lead	Lead Cement	A-10	Accelerator	5.00	%BWOB
2	Lead	Lead Cement	A-2	Accelerator	2.00	lb/sk
2	Lead	Lead Cement	A-7P	Accelerator	2.00	lb/sk
2	Lead	Lead Cement	FP-24	Defoamer	0.30	%BWOB
2	Lead	Lead Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
2	Lead	Lead Cement	STATIC FREE	Other	0.01	lb/sk
3	Tail	Tail Cement	ASTM TYPE I/II	Cement	100.00	%
3	Tail	Tail Cement	A-10	Accelerator	5.00	%BWOB
3	Tail	Tail Cement	A-2	Accelerator	2.00	lb/sk
3	Tail	Tail Cement	A-7P	Accelerator	2.00	lb/sk
3	Tail	Tail Cement	FP-24	Defoamer	0.30	%BWOB
3	Tail	Tail Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
3	Tail	Tail Cement	STATIC FREE	Other	0.01	lb/sk

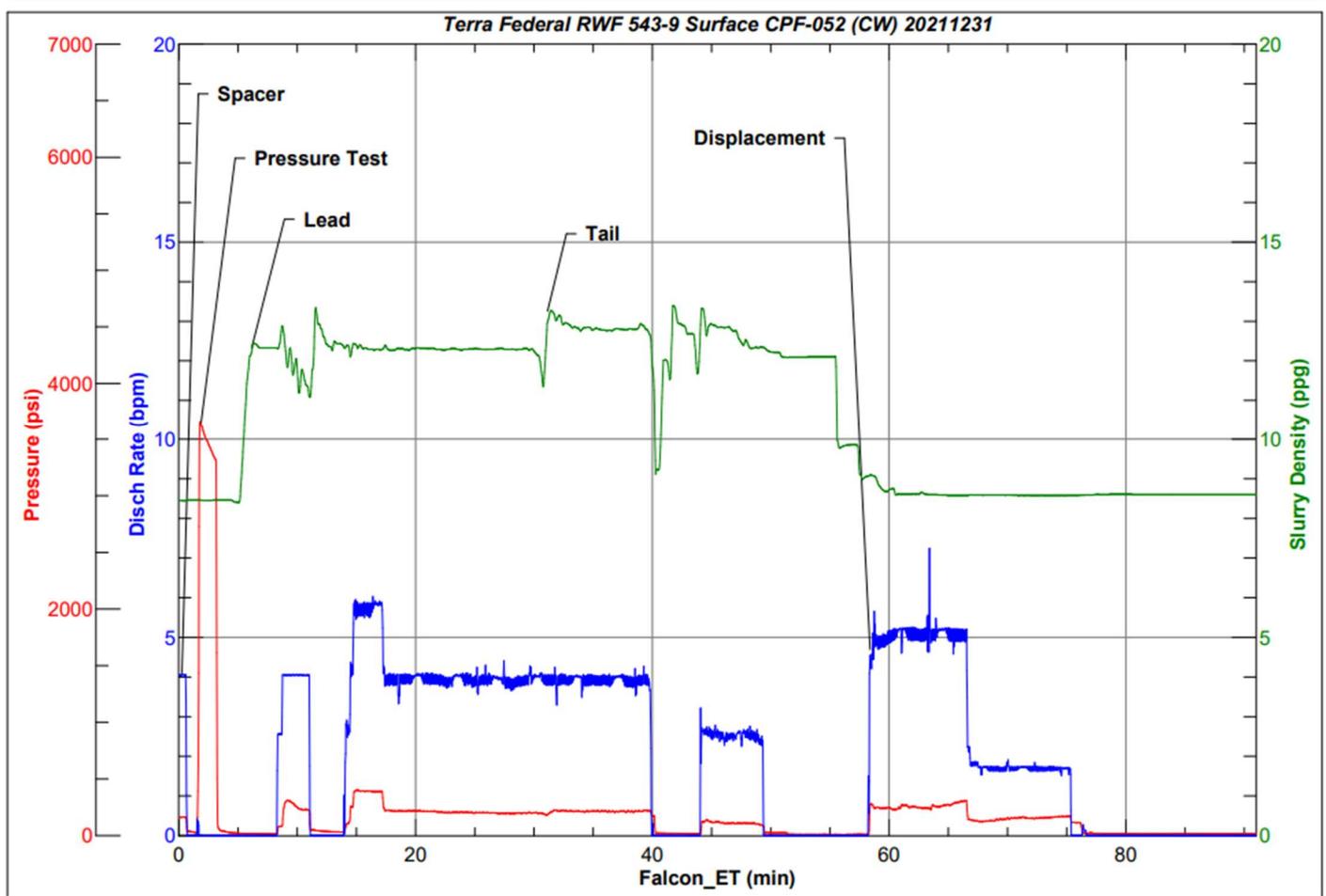
## Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	12/31/2021	07:30					Yard call 7:30 on location 17:30
2	Depart For Location	12/31/2021	16:45					Leave Rifle yard for location
3	Arrive On Location	12/31/2021	17:30					Arrive on location, rig pulling drill pipe
4	Spot Equipment	12/31/2021	18:00					Spot in all equipment
5	Rig Up Iron	12/31/2021	18:20					Pre rig up safety meeting, rig in all equipment and lines to the cellar
6	Safety Meeting	12/31/2021	20:55					Pre job safety meeting with company man
7	End Circulation	12/31/2021	21:00					Rig ended circulation, circulated 60 mins @ 10 BBLS/min total of 600 BBLS
8	Pump Spacer	12/31/2021	21:34	8.34	4	10	151	Pumping fresh water spacer, returns
9	Pressure Test Lines	12/31/2021	21:39				3000	Pressure test
10	Pump Lead Cement	12/31/2021	21:45	12.3	4	0	226	Pumping lead cement
11	Pump Lead Cement	12/31/2021	22:01	12.3	4	51	187	Pumping lead cement
12	Pump Tail Cement	12/31/2021	22:09	12.8	4	0	220	Pumping tail cement
13	Pump Tail Cement	12/31/2021	22:23	12.8	4	50	224	Pumping tail cement
14	Pump Tail Cement	12/31/2021	22:28	12.8	4	64	227	Pumping tail cement
15	Drop Top Plug	12/31/2021	22:31					Dropped top plug verified by company man
16	Pump Displacement	12/31/2021	22:36	8.34	4	0	220	Pumping fresh water displacement
17	Pump Displacement	12/31/2021	22:51	8.34	2	50	257	Pumping fresh water displacement
18	Cement Back to Surface	12/31/2021	22:55			69		Cement to surface @ 69 BBLS pumped. Total of 16 BBLS to surface
19	Pump Displacement	12/31/2021	23:04	8.34	5	85	311	Pumping fresh water displacement
20	Land Plug	12/31/2021	23:04				877	Land plug, FCP 311 PSI bumped to 877 PSI
21	Check Floats	12/31/2021	23:09					Bled pressure, floats held 1.5 BBL bled back
22	Rig Down Iron	12/31/2021	23:15					Pre rig down safety meeting, rig down lines in the cellar
23	Depart Location	1/1/2022	00:45					Leave location for Rifle shop

# Pump Diagrams



JobMaster Program Version 5.01C1  
Job Number: 79658  
Customer: Terra  
Well Name: Federal RWF 543-9



BJ Services

Job Start: Friday, December 31, 2021