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# **Terra Energy Partners, LLC**

## **SURFACE POST JOB REPORT**

**FEDERAL NR 33-4 05-045-24467**  
**S:3 T:6S R:94W Garfield CO**

CallSheet #: 82188  
Proposal #: 60971



**SURFACE 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,

**Holly Mbugua**

Field Engineer II | holly.mbugua@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	20	19.124	94	n/a	0	81	0
Open Hole	Outer	n/a	13.5	n/a	n/a	112	500	16
Open Hole	Outer	n/a	13.5	n/a	n/a	500	1118	16
Casing	Inner	9.625	8.921	36	n/a	0	1118	0

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Cement Trailer Float	CTF-249	TRH(TRB)-769	Balint, Daniel
Cement Pump Float	CPF-136	TRH-1137	Kirchenwitz, Jacob
Light Duty Vehicles	LDV-083		Putnam, Gage
Light Duty Pickups	LDV-088		Casey Schweitzer

### Timing

Event	Date/Time
Call Out	7/1/2022 19:00
Depart Facility	7/1/2022 23:30
On Location	7/2/2022 00:30
Rig Up Iron	7/2/2022 00:45
Job Started	7/2/2022 06:22
Job Completed	7/2/2022 07:51
Rig Down Iron	7/2/2022 08:00
Depart Location	7/2/2022 09:30

### General Job Information

Metrics	Value
Well Fluid Density	9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	480 bbls
Rig Circulation Time	0.75 hours
Calculated Displacement	83 bbls
Actual Displacement	83 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	31 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	9 lb/gal
Well Fluid Density Out of Well	9 lb/gal

### Job Details (cont.)

Metrics	Value
BHCT	80 °F
BHST	98 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	62 °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 <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	Lead	12.30	2.21	12.72		179.00	70.56	0
3	Tail	Tail	12.80	1.97	10.87		183.00	64.05	500
4	Water	DisplacementFinal	8.34			42.00		83.00	0

## Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Lead	Lead	ASTM TYPE I/II	Cement	100.00	%
2	Lead	Lead	A-7P	Accelerator	2.00	lb/sk
2	Lead	Lead	FP-24	Defoamer	0.30	%BWOB
2	Lead	Lead	IntegraSeal POLI	LostCirculation	0.25	lb/sk
2	Lead	Lead	STATIC FREE	Other	0.01	lb/sk
2	Lead	Lead	XCem-1101	Thixotropic	1.00	lb/sk
3	Tail	Tail	ASTM TYPE I/II	Cement	100.00	%
3	Tail	Tail	A-7P	Accelerator	2.00	lb/sk
3	Tail	Tail	FP-24	Defoamer	0.30	%BWOB
3	Tail	Tail	IntegraSeal POLI	LostCirculation	0.25	lb/sk
3	Tail	Tail	STATIC FREE	Other	0.01	lb/sk
3	Tail	Tail	XCem-1101	Thixotropic	1.00	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	7/1/2022	19:00					CREW CALLED OUT FOR ON LOCATION TIME OF 02:00 7/2/22
2	Depart Location	7/1/2022	23:30					CREW DEPARTS RCO YARD FOR RIG LOCATION
3	Arrive On Location	7/2/2022	00:30					CREW ARRIVES ON LOCATION
4	Rig Up Iron	7/2/2022	00:45					RIG UP IRON AND HOSES
5	Safety Meeting	7/2/2022	06:17					JSA SAFETY MEETING WITH AC, RIG CREW, AND CUSTOMER REP
6	Fill Lines	7/2/2022	06:22	8.34		5		FILL LINES WITH 5 BBLS FRESH WATER
7	Pressure Test Lines	7/2/2022	06:24					PRESSURE TEST PUMP AND LINES TO 3000 PSI
8	Other	7/2/2022	06:34	8.34		5		PUMP 5 BBLS FRESH WATER FLUSH, LANDING JOINT LEAKING. SHUT DOWN, FIX LEAK
9	Fill Lines	7/2/2022	06:51	8.34	2	5	56	REFILL LINES WITH 5 BBLS FRESH WATER
10	Pressure Test Lines	7/2/2022	06:53				3700	REDO PRESSURE TEST TO 3000 PSI
11	Other	7/2/2022	06:59	8.34	5	15	352	PUMP 15 BBLS FRESH WATER FLUSH
12	Pump Lead Cement	7/2/2022	07:06	12.3	5	0	512	BEGIN PUMPING 12.3 PPG LEAD CEMENT, DENSITY VERIFIED BY MUD SCALE.
13	Pump Lead Cement	7/2/2022	07:18	12.3	6.5	70.6	537	PUMPED 70.6 BBLS LEAD CEMENT
14	Pump Tail Cement	7/2/2022	07:18	12.8	6.5	0	593	BEGIN PUMPING 12.8 PPG TAIL CEMENT, DENSITY VERIFIED BY MUD SCALE
15	Pump Tail Cement	7/2/2022	07:28	12.8	5	64.1	305	PUMPED 64.1 BBLS TAIL CEMENT
16	Clean Pumps and Lines	7/2/2022	07:28					WASH UP PUMP, WASHED UP ON PLUG
17	Drop Top Plug	7/2/2022	07:36	8.34	5	0	241	DROP PLUG, WITNESSED BY CUSTOMER REP. BEGIN DISPLACEMENT
18	Pump Displacement	7/2/2022	07:45	8.34	8.7	50	805	50 BBLS FRESH WATER DISPLACEMENT PUMPED
19	Cement Back to Surface	7/2/2022	07:45	8.34	8.7	2	810	CEMENT TO SURFACE AT 52 BBLS FRESH WATER DISPLACEMENT PUMPED. 31 BBLS CEMENT TO SURFACE
20	Pump Displacement	7/2/2022	07:51	8.34	8.7	31	363	83 BBLS FRESH WATER DISPLACEMENT PUMPED. SLOWED RATE TO 4 BPM LAST 10 BBLS TO LAND PLUG
21	Land Plug	7/2/2022	07:51				1000	PLUG LANDED. FCP - 363 PSI, BUMPED TO 1000 PSI
22	Check Floats	7/2/2022	07:55					CHECK FLOATS, FLOATS HELD, 0.5 BBLS BACK
23	Rig Down Iron	7/2/2022	08:00					RIG DOWN IRON AND HOSES
24	Depart Location	7/2/2022	09:30					AC CREW DEPARTS LOCATION

## Pump Diagrams

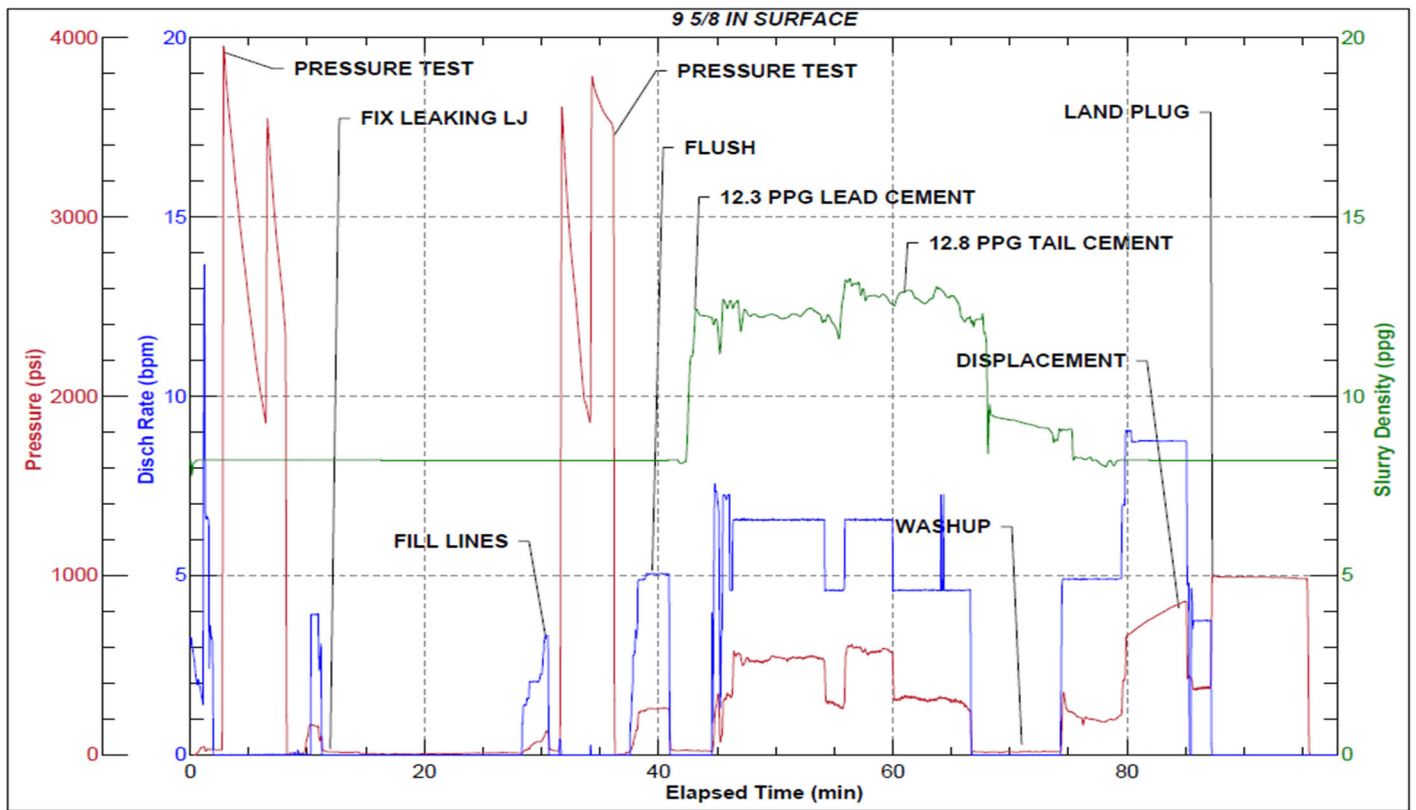


JobMaster Program Version 5.01C1

Job Number: 82188

Customer: Terra

Well Name: Federal NR 33-4



Job Start: Saturday, July 02, 2022