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# **Terra Energy Partners, LLC**

## **LONG STRING POST JOB REPORT**

**FEDERAL RWF 22-8 05-045-24315**  
**S:8 T:6S R:94W Garfield CO**

CallSheet #: 75286  
Proposal #: 50490



**LONG STRING Post Job Report**

**Attention:** Mr. Lynn Cass | (970) 263-2716 | lcass@terraep.com  
Terra Energy Partners, LLC  
4828 Loop Central Dr., Suite 900 | Houston, TX 77081

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Dear Mr. Lynn Cass,

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**

Field Engineer | (307) 757-7178 | zen.keith@americancementing.com

**Field Office**      28730 US-6, Rifle, CO 81650  
Phone: (970) 305-4888

## Table of Contents

1 Job Details & Summary .....	3
Geometry.....	3
Equipment / People .....	3
Timing .....	3
General Job Information.....	3
Well Fluid Details .....	3
Job Details.....	3
Job Details (cont.) .....	3
Circulation.....	3
Job Execution Information.....	4
Job Fluid Details .....	4
2 Job Logs .....	4
3 Water Analysis .....	5
4 Pump Diagrams .....	5

# 1 Job Details & Summary

## Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	9.625	8.921	36	0	1040	0
Open Hole	Outer		8.75	n/a	1000	9660	30
Casing	Inner	4.5	4	11.6	0	9652.19	0

## Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Mileage
Silo	Silo #25			
Bulk Trailer	CTF-340	TRB-190	Richey, Steven	34
Cement Pump	CPF-058	TRH-1140	Mcneal, Lawrence	34
Light Duty Pickups	LDV-5429		Castillo, Francisco	34

## Timing

Event	Date/Time
Call Out	11/3/2020 19:00
Depart Facility	11/3/2020 20:10
On Location	11/3/2020 20:40
Rig Up Iron	11/3/2020 21:45
Job Started	11/4/2020 01:39
Job Completed	11/4/2020 03:16
Rig Down Iron	11/4/2020 03:25
Depart Location	11/4/2020 04:45

## General Job Information

Metrics	Value
Well Fluid Density	11.7 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	630 bbls
Rig Circulation Time	1 hours
Calculated Displacement	149 bbls
Actual Displacement	149 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	No

## Well Fluid Details

Metrics	Value
Plastic Viscosity	20
Yield Point	13
10 sec. SGS	5
10 min. SGS	17
30 min. SGS	40
Filtrate	0

## Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	11.7 lb/gal
Well Fluid Density Out of Well	11.7 lb/gal

## Job Details (cont.)

Metrics	Value
BHCT	164 °F
BHST	234 °F

## Circulation

Lost Circulation Experienced
No

## Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sk)	Volume (bbl)	Top (ft)
1	1	Water	Flush	8.34			42.00		10.00	4340
1	2	Mud Flush	Flush	8.45			40.86		20.00	4481
1	3	Water	Flush	8.34			42.00		10.00	4762
1	4	Primary Cement	Primary	14.20	1.72	8.08		1115.00	342.01	4903
1	5	Displacement	DisplacementFinal	8.34			42.00		149.00	0

## Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Flush	Mud Flush	SAPP	Surfactant	10.00	lb/bbl
1	2	Flush	Mud Flush	SS-201	Surfactant	0.50	gal/bbl
1	4	Primary	Primary Cement	CLASS G	Cement	80.00	%
1	4	Primary	Primary Cement	FLY ASH (POZZOLAN)	Extender	20.00	%
1	4	Primary	Primary Cement	FL-66	FluidLoss	0.40	%BWOB
1	4	Primary	Primary Cement	FP-24	Defoamer	0.30	%BWOB
1	4	Primary	Primary Cement	GW-86	Viscosifier	0.10	%BWOB
1	4	Primary	Primary Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
1	4	Primary	Primary Cement	R-3	Retarder	0.30	%BWOB
1	4	Primary	Primary Cement	S-8	StrengthRetrogression	27.00	%BWOB

## 2 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	11/3/2020	19:00					ON LOCATION AT 22:00
2	LEAVE YARD	11/3/2020	20:10					LEAVE THE YARD
3	ARRIVE ON LOCATION	11/3/2020	20:40					ON LOCATION, RIG RUNNING CASING
4	RIG UP	11/3/2020	21:45					RIG UP MEETING, RIG UP
5	SAFETY MEETING	11/4/2020	01:15					PRE-JOB SAFETY MEETING
6	PRESSURE TEST	11/4/2020	01:36				5000	PRESSURE TEST LINES
7	PUMP SPACER	11/4/2020	01:39	8.34	6	10	640	WATER SPACER
8	PUMP SPACER	11/4/2020	01:40	8.4	6	20	750	MUD FLUSH SPACER
9	PUMP SPACER	11/4/2020	01:44	8.34	5.7	10	867	WATER SPACER
10	PUMP CEMENT	11/4/2020	01:51	14.2	5.7	50	893	1115 SKS 341.5 BBLS AT 14.2 PPG, CALCULATED TOP OF CMT 3,418'
11	PUMP CEMENT	11/4/2020	02:01	14.2	7.7	50	1231	100 BBLS CEMENT PUMPED
12	PUMP CEMENT	11/4/2020	02:10	14.2	7.7	50	971	150 BBLS CEMENT PUMPED
13	PUMP CEMENT	11/4/2020	02:16	14.2	7.7	50	1021	200 BBLS CEMENT PUMPED
14	PUMP CEMENT	11/4/2020	02:23	14.2	7.7	50	1001	250 BBLS CEMENT PUMPED
15	PUMP CEMENT	11/4/2020	02:29	14.2	7.7	50	991	300 BBLS CEMENT PUMPED
16	PUMP CEMENT	11/4/2020	02:36	14.2	5.7	42	591	342 BBLS CEMENT PUMPED
17	SHUTDOWN	11/4/2020	02:47					SHUTDOWN, WASH LINES, DROP PLUG
18	DISPLCEMENT	11/4/2020	02:58	8.4	10	50	1871	DISPLACEMENT KCL
19	DISPLCEMENT	11/4/2020	03:04	8.4	10	89	3017	139 BBLS DISPLACEMENT
20	DISPLCEMENT	11/4/2020	03:13	8.4	4	10	2395	SLOW RATE
21	LAND PLUG	11/4/2020	03:16				3383	LAND PLUG, FULL RETURNS
22	CHECK FLOATS	11/4/2020	03:19					FLOATS HELD, 2 BBLS FLOW BACK
23	RIG DOWN	11/4/2020	03:25					RIG DOWN MEETING, RIG DOWN
24	LEAVE LOCATION	11/4/2020	04:45					LEAVE LOCATION

### 3 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

### 4 Pump Diagrams

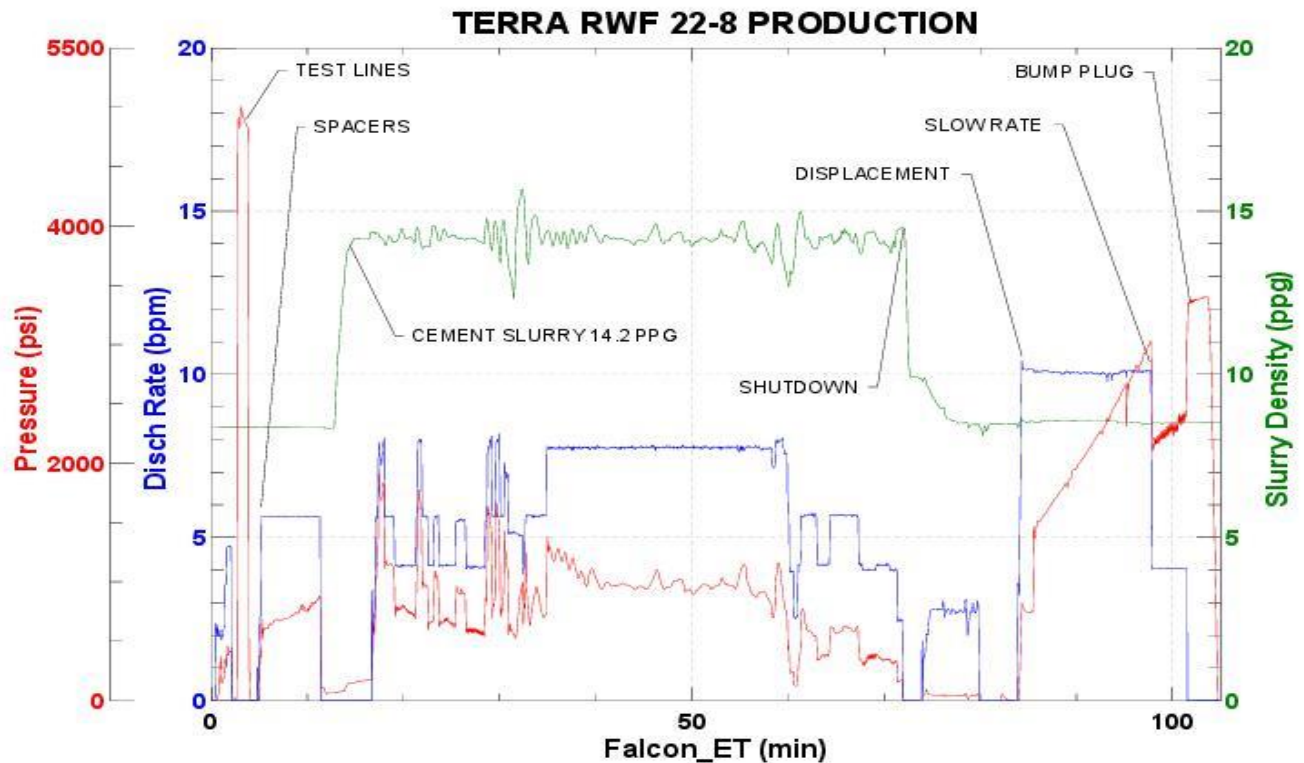


JobMaster Program Version 5.01C 1

Job Number: 75286

Customer: TERRA

Well Name: RWF 22-8



BJ Services

Job Start: Wednesday, November 04, 2020