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# **Terra Energy Partners, LLC**

## **LONG STRING POST JOB REPORT**

**FEDERAL RWF 443-9 05-045-24394**  
**S:9 T:6S R:94W Garfield CO**

CallSheet #: 79918  
Proposal #: 57115



**LONG STRING 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 (%)
Casing	Outer	9.625	8.921	36	n/a	0	1118	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1118	9454	55
Casing	Inner	4.5	4	11.6	n/a	0	9454	0

### Timing

Event	Date/Time
Call Out	1/21/2022 08:00
Depart Facility	1/21/2022 12:00
On Location	1/21/2022 13:00
Rig Up Iron	1/21/2022 13:30
Job Started	1/21/2022 18:36
Job Completed	1/21/2022 20:53
Rig Down Iron	1/21/2022 21:30
Depart Location	1/21/2022 23:00

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS(CTS)-438		
Field Storage Silo	FSS(CTS)-470		
Cement Trailer	CTF-254	TRC(TRB)-195	Manuelito, Hamilton
AS Cement Trailer	CTF-138	TRC(TRB)-194	
Light Duty Vehicles	LDV-061		Putnam, Gage
Cement Pump	CPF-058	TRH-855	Mark Aden

### General Job Information

Metrics	Value
Well Fluid Density	10.7 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	500 bbls
Rig Circulation Time	1.5 hours
Calculated Displacement	146 bbls
Actual Displacement	146 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	Yes
Flare Prior to Job	3500 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	10.7 lb/gal
Well Fluid Density Out of Well	10.7 lb/gal

### Job Details (cont.)

Metrics	Value
BHCT	164 °F
BHST	234 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	67 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 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	350 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
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	3991
2	Mud Flush	Flush	8.45			40.86		20.00	4109
3	Water	Flush	8.34			42.00		10.00	4345
4	Primary Cement	Primary	14.20	1.72	8.08		1401.00	429.74	4463
5	Displacement	DisplacementFinal	8.34			42.00		146.00	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	Primary	Primary Cement	CLASS G	Cement	80.00	%
4	Primary	Primary Cement	FLY ASH (POZZOLAN)	Extender	20.00	%
4	Primary	Primary Cement	FL-66	FluidLoss	0.40	%BWOB
4	Primary	Primary Cement	FP-24	Defoamer	0.30	%BWOB
4	Primary	Primary Cement	GW-86	Viscosifier	0.10	%BWOB
4	Primary	Primary Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
4	Primary	Primary Cement	R-3	Retarder	0.30	%BWOB
4	Primary	Primary Cement	S-8	StrengthRetgression	27.00	%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	1/21/2022	08:00					CREW CALLED OUT FOR ON LOCATION TIME OF 12:00 1/21/22
2	Depart Location	1/21/2022	12:00					DEPART RCO YARD FOR LOCATION
3	Arrive On Location	1/21/2022	13:00					ARRIVE ON TERRA LOCATION
4	Rig Up Iron	1/21/2022	13:30					RIG UP IRON AND HOSES
5	Safety Meeting	1/21/2022	17:40					JSA SAFETY MEETING WITH AC CREW, RIG HANDS, AND CUSTOMER REP
6	Fill Lines	1/21/2022	18:36	8.34	2	6.5	353	FILL LINES WITH FRESH WATER
7	Pressure Test Lines	1/21/2022	18:41	8.34			5372	PRESSURE TEST PUMP AND LINES TO 5000 PSI
8	Other	1/21/2022	18:44	8.34	4	3.5	490	PUMP REMAINING FRESH WATER FLUSH
9	Other	1/21/2022	18:46	8.45	4	20	532	PUMP MUD FLUSH + SURFACTANT
10	Other	1/21/2022	18:51	8.34	4	10	656	PUMP FRESH WATER FLUSH
11	Pump Cement	1/21/2022	18:53	14.2	4	0	778	BEGIN PUMPING PRIMARY CEMENT. DENSITY VERIFIED WITH MUD SCALE
12	Pump Cement	1/21/2022	19:03	14.2	5	50	772	50 BBLS PRIMARY CEMENT PUMPED
13	Pump Cement	1/21/2022	19:12	14.2	5.5	50	700	100 BBLS PRIMARY CEMENT PUMPED
14	Pump Cement	1/21/2022	19:21	14.2	5.5	50	702	150 BBLS PRIMARY CEMENT PUMPED
15	Pump Cement	1/21/2022	19:30	14.2	5.5	50	681	200 BBLS PRIMARY CEMENT PUMPED
16	Pump Cement	1/21/2022	19:40	14.2	4	50	435	250 BBLS PRIMARY CEMENT PUMPED SLOW RATE DUE TO DELIVERY ISSUES
17	Pump Cement	1/21/2022	19:52	14.2	4	50	422	300 BBLS PRIMARY CEMENT PUMPED
18	Pump Cement	1/21/2022	20:03	14.2	5	50	585	350 BBLS PRIMARY CEMENT PUMPED
19	Pump Cement	1/21/2022	20:14	14.2	4	50	491	400 BBLS PRIMARY CEMENT PUMPED
20	Pump Cement	1/21/2022	20:23	14.2	4	30	149	430 BBLS PRIMARY CEMENT PUMPED
21	Clean Pumps and Lines	1/21/2022	20:27					BLOW DOWN LINE, WASH UP PUMP AND LINES
22	Drop Top Plug	1/21/2022	20:31					DROP PLUG, VERIFIED BY CUSTOMER REP. BEGIN KCL DISPLACEMENT
23	Pump Displacement	1/21/2022	20:39	8.34	8	50	1544	50 BBLS KCL DISPLACEMENT PUMPED
24	Pump Displacement	1/21/2022	20:45	8.34	8	50	2421	100 BBLS KCL DISPLACEMENT PUMPED
25	Pump Displacement	1/21/2022	20:50	8.34	8	36	2945	136 BBLS KCL DISPLACEMENT PUMPED
26	Pump Displacement	1/21/2022	20:53	8.34	4	10	2643	146 BBLS KCL DISPLACEMENT PUMPED, SLOWED RATE LAST 10 BBLS
27	Land Plug	1/21/2022	20:53				3620	LAND PLUG. FCP - 2643 PSI, BUMPED TO 3620 PSI
28	Check Floats	1/21/2022	20:58					CHECK FLOATS. FLOATS HELD, 2 BBLS BACK
29	Rig Down Iron	1/21/2022	21:30					RIG DOWN IRON AND HOSES
30	Depart Location	1/21/2022	23:00					DEPART LOCATION FOR RCO YARD

## Pump Diagrams

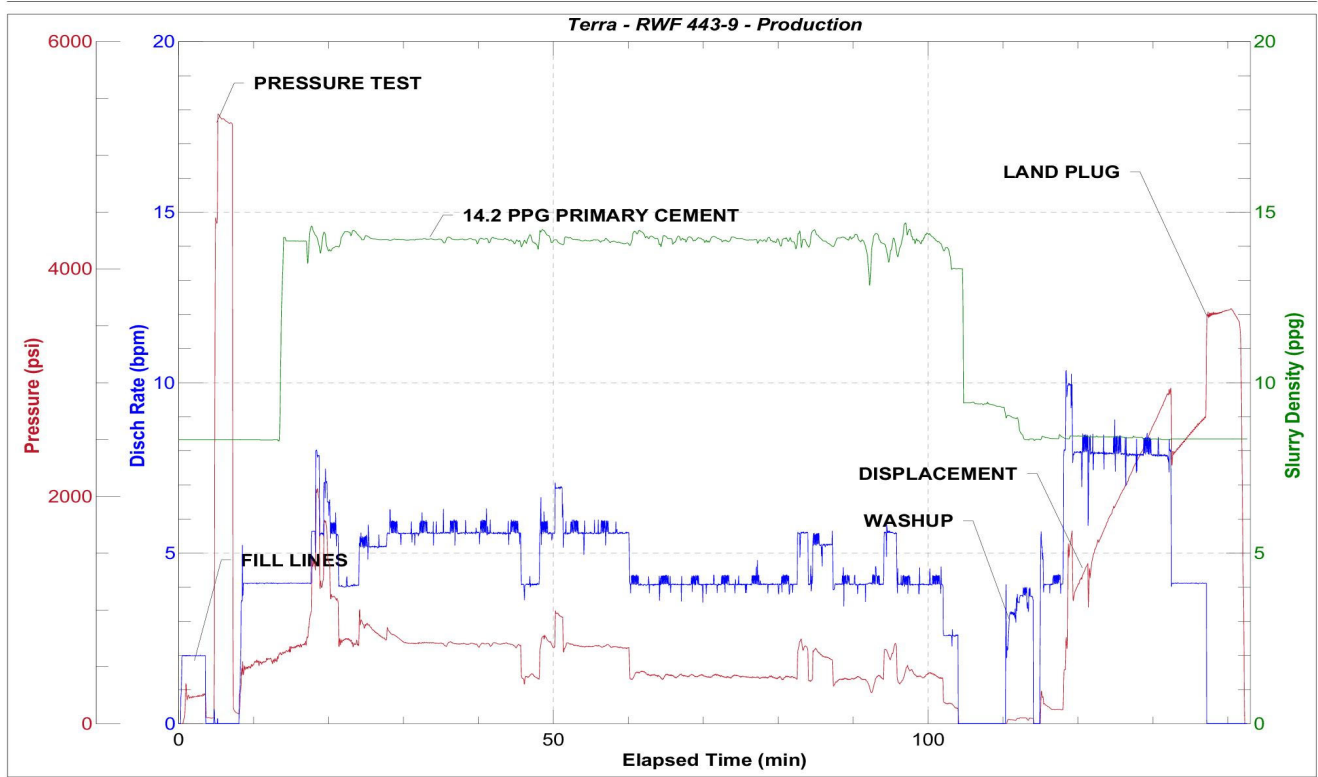


JobMaster Program Version 5.01C1

Job Number: 79918

Customer: Terra

Well Name: RWF 443-9



BJ Services

Job Start: Friday, January 21, 2022