



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

FEDERAL RWF 522-8 05-045-24321
S:8 T:6S R:94W Garfield CO

CallSheet #: 75173
Proposal #: 50283



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

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@americacementing.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)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	9.625	8.921	36	n/a	0	1040	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1000	9467	45
Casing	Inner	4.5	4	11.6	n/a	0	9457	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Mileage
Bulk Trailer	CTF-273	TRB-421	Richey, Steven	28
Silo	Silo #25			
Cement Pump	CPF-058	TRH-1140	Gonzales, Ivan	28
Light Duty Pickups	LDV-5429		Castillo, Francisco	28

Timing

Event	Date/Time
Call Out	10/20/2020 03:00
Depart Facility	10/20/2020 04:45
On Location	10/20/2020 05:10
Rig Up Iron	10/20/2020 06:35
Job Started	10/20/2020 11:23
Job Completed	10/20/2020 12:55
Rig Down Iron	10/20/2020 13:15
Depart Location	10/20/2020 14:00

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	146 bbls
Actual Displacement	146 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	N/A

Well Fluid Details

Metrics	Value
Plastic Viscosity	25
Yield Point	18
10 sec. SGS	7
10 min. SGS	22
30 min. SGS	50
Filtrate	0
Flow Line Temp.	118

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 ³ /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	4194
1	2	Mud Flush	Flush	8.45			40.86		20.00	4320
1	3	Water	Flush	8.34			42.00		10.00	4572
1	4	Primary Cement	Primary	14.20	1.72	8.08		1242.00	380.97	4698
1	5	Displacement	DisplacementFinal	8.34			42.00		146.00	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	10/20/2020	03:00					ON LOCATION AT 07:00 HRS
2	LEAVE YARD	10/20/2020	04:45					LEAVE THE YARD
3	ON LOCATION	10/20/2020	05:10					ON LOCATION, RIG RUNNING CASING
4	RIG UP	10/20/2020	06:35					RIG UP MEETING, RIG UP
5	SAFETY MEETING	10/20/2020	09:30					PRE-JOB SAFETY MEETING
6	PRESSURE TEST	10/20/2020	11:18				5100	PRESSURE TEST LINES
7	PUMP SPACER	10/20/2020	11:23	8.34	7.7	10	925	WATER SPACER
8	PUMP SPACER	10/20/2020	11:25	8.4	7.7	20	1083	MUD FLUSH SPACER
9	PUMP SPACER	10/20/2020	11:28	8.34	7.7	10	1077	WATER SPACER
10	PUMP CEMENT	10/20/2020	11:31	14.2	6	50	927	1242 SKS / 380 BBLS AT 14.2 PPG
11	PUMP CEMENT	10/20/2020	11:38	14.2	6.5	50	837	100 BBLS CEMENT PUMPED
12	PUMP CEMENT	10/20/2020	11:46	14.2	8	50	1049	150 BBLS CEMENT PUMPED
13	PUMP CEMENT	10/20/2020	11:52	14.2	8	50	1063	200 BBLS CEMENT PUMPED
14	PUMP CEMENT	10/20/2020	11:58	14.2	8	50	1075	250 BBLS CEMENT PUMPED
15	PUMP CEMENT	10/20/2020	12:04	14.2	8	50	1071	300 BBLS CEMENT PUMPED
16	PUMP CEMENT	10/20/2020	12:11	14.2	6	80	827	380 BBLS CEMENT PUMPED
17	SHUTDOWN	10/20/2020	12:25					SHUTDOWN, WASH LINES
18	DISPLACEMENT	10/20/2020	12:38	8.4	10	50	1836	DISPLACEMENT KCL WATER
19	DISPLACEMENT	10/20/2020	12:43	8.4	10	86	2987	86 BBLS DISPLACEMENT KCL WATER
20	DISPLACEMENT	10/20/2020	12:52	8.4	4.5	10	2445	136 BBLS DISPLACEMENT, SLOW RATE
21	LAND PLUG	10/20/2020	12:55				3391	LAND PLUG, FULL RETURNS
22	CHECK FLOATS	10/20/2020	12:58					FLOATS HELD, 2 BBLS FLOW BACK
23	RIG DOWN	10/20/2020	13:15					RIG DOWN MEETING, RIG DOWN
24	LEAVE LOCATION	10/20/2020	14:00					CREW LEAVE LOCATION

3 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	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

BJ JobMaster Program Version 5.01C 1
 Job Number: 75173
 Customer: TERRA
 Well Name: RWF 522-8

