



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

FEDERAL RWF 31-9 05-045-24398
S:9 T:6S R:94W Garfield CO

CallSheet #: 79500
Proposal #: 56791



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

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	1114	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1100	10219	55
Casing	Inner	4.5	4	11.6	n/a	0	10215	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
AS Cement Trailer	CTF-019	TRS-034	
AS Cement Trailer	CTF-9309	TRH(TRB)-769	
AS Cement Trailer	CTF-048	TRC(TRB)-424	
Cement Trailer	CTF-161	TRC(TRB)-425	Manuelito, Hamilton
Field Storage Silo	FSS(CTS)-438		
Field Storage Silo	FSS(CTS)-470		
Light Duty Vehicles	LDV-063		Castillo, Francisco
Cement Pump	CPF-058	TRH-1137	Hale, Jason

Timing

Event	Date/Time
Call Out	12/22/2021 12:00
Depart Facility	12/22/2021 15:15
On Location	12/22/2021 16:00
Rig Up Iron	12/22/2021 16:30
Job Started	12/23/2021 00:40
Job Completed	12/23/2021 03:13
Rig Down Iron	12/23/2021 03:30
Depart Location	12/23/2021 05:00

General Job Information

Metrics	Value
Well Fluid Density	11.6 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	900 bbls
Rig Circulation Time	1.5 hours
Calculated Displacement	158 bbls
Actual Displacement	158 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	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	11.6 lb/gal
Well Fluid Density Out of Well	11.6 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	164 °F
BHST	234 °F

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

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 ³ /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	4533
2	Mud Flush	Flush	8.45			40.86		20.00	4651
3	Water	Flush	8.34			42.00		10.00	4887
4	Primary Cement	Primary	14.20	1.72	8.08		1449.00	444.46	5005
5	Displacement	DisplacementFinal	8.34			42.00		158.00	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	StrengthRegression	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	12/22/2021	12:00					ON LOCATION AT 16:00 HRS
2	LEAVE THE YARD	12/22/2021	15:15					CREW LEAVE THE YARD
3	ON LOCATION	12/22/2021	16:00					ON LOCATION, RIG RUNNING CASING
4	RIG UP	12/22/2021	16:30					RIG UP TRUCKS, HOSES, AND LINES
5	SAFETY MEETING	12/22/2021	23:50					PRE-JOB SAFETY MEETING
6	PRESSURE TEST	12/23/2021	00:36				5000	PRESSURE TEST PUMP AND LINES
7	PUMP SPACER	12/23/2021	00:40	8.34	4	10	401	WATER SPACER
8	PUMP SPACER	12/23/2021	00:44	9	5	20	567	MUD FLUSH SPACER
9	PUMP SPACER	12/23/2021	00:48	8.34	5	10	667	WATER SPACER
10	PRIMARY CEMENT	12/23/2021	00:55	14.2	5	50	1037	1449 SKS/444 BBLs AT 14.2 PPG, CALCULATED TOP OF CMT 2,098'
11	PRIMARY CEMENT	12/23/2021	01:05	14.2	6	50	957	100 BBLs PRIMARY CEMENT PUMPED
12	PRIMARY CEMENT	12/23/2021	01:17	14.2	7	50	959	150 BBLs PRIMARY CEMENT PUMPED
13	PRIMARY CEMENT	12/23/2021	01:27	14.2	6	50	653	200 BBLs PRIMARY CEMENT PUMPED
14	PRIMARY CEMENT	12/23/2021	01:37	14.2	5	50	569	250 BBLs PRIMARY CEMENT PUMPED
15	PRIMARY CEMENT	12/23/2021	01:49	14.2	6	50	727	300 BBLs PRIMARY CEMENT PUMPED
16	PRIMARY CEMENT	12/23/2021	01:58	14.2	6	50	693	350 BBLs PRIMARY CEMENT PUMPED
17	PRIMARY CEMENT	12/23/2021	02:06	14.2	5.8	50	671	400 BBLs PRIMARY CEMENT PUMPED
18	PRIMARY CEMENT	12/23/2021	02:16	14.2	6	44	375	444 BBLs PRIMARY CEMENT PUMPED
19	SHUTDOWN	12/23/2021	02:35					WASH PUMP AND LINES, DROP PLUG
20	DISPLACEMENT	12/23/2021	02:43	8.4	7.5	50	1467	DISPLACEMENT KCL WATER
21	DISPLACEMENT	12/23/2021	02:50	8.4	7.5	50	2351	100 BBLs DISPLACEMENT PUMPED
22	DISPLACEMENT	12/23/2021	02:57	8.4	7.5	48	3187	148 BBLs DISPLACEMENT PUMPED
23	SLOW RATE	12/23/2021	03:03	8.4	3	10	2789	SLOW RATE LAST 10 BBLs
24	LAND PLUG	12/23/2021	03:07				3803	LAND PLUG, FULL RETURNS
25	CHECK FLOATS	12/23/2021	03:13					FLOATS HELD, 2 BBLs FLOW BACK
26	RIG DOWN	12/23/2021	03:30					RIG DOWN MEETING, RIG DOWN
27	LEAVE LOCATION	12/23/2021	05:00					CREW LEAVE LOCATION

Pump Diagrams

JobMaster Program Version 5.01C1
Job Number: 79500
Customer: TERRA
Well Name: RWF 31-9

