



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

FEDERAL NR 433-4 05-045-24471
S:3 T:6S R:94W Garfield CO

CallSheet #: 81764
Proposal #: 60210



LONG STRING 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

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,

Zen Keith

SME | (307) 757-7178 | zen.keith@americancementing.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	8199	45
Open Hole	Outer	n/a	8.75	n/a	n/a	8199	11016	45
Casing	Inner	4.5	4	11.6	n/a	0	11016	0

Timing

Event	Date/Time
Call Out	6/9/2022 05:00
Depart Facility	6/9/2022 08:35
On Location	6/9/2022 09:00
Rig Up Iron	6/9/2022 09:30
Job Started	6/9/2022 15:14
Job Completed	6/9/2022 17:20
Rig Down Iron	6/9/2022 17:30
Depart Location	6/9/2022 18:10

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS(CTS)-438		
Field Storage Silo	FSS(CTS)-470		
AS Cement Trailer Float	CTF(FTF)-148	TRH(TRB)-769	
AS Cement Trailer Float	CTF-138	TRC(TRB)-201	
AS Cement Trailer Float	CTF-901	TRB-421	
Cement Trailer Float	CTF-273	TRC(TRB)-195	Bonin, Matthew
Light Duty Vehicles	LDV-082		Kelsey, John
Cement Pump Float	CPF-052	TRH-957	Gonzales, Ivan

General Job Information

Metrics	Value
Well Fluid Density	10.9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	900 bbls
Rig Circulation Time	2 hours
Calculated Displacement	170.6 bbls
Actual Displacement	170.6 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	10.95 lb/gal
Well Fluid Density Out of Well	10.95 lb/gal

Job Details

(cont.)	
Metrics	Value
BHCT	192 °F
BHST	253 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	60 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	80	0-1000
Total Hardness	>450 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	0 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 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	5866
2	Mud Flush	Flush	8.45			40.86		20.00	5992
3	Water	Flush	8.34			42.00		10.00	6244
4	12.7 Lead	Lead	12.70	2.00	10.99		407.00	145.15	6370
5	14.2 Tail	Tail	14.20	1.72	8.09		749.00	229.63	8199
6	Displacement	DisplacementFinal	8.34			42.00		172.00	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	Lead	12.7 Lead	ASTM TYPE I/II	Cement	100.00	%
4	Lead	12.7 Lead	BA-90	BondEnhancer	3.00	lb/sk
4	Lead	12.7 Lead	FL-66	FluidLoss	0.50	%BWOB
4	Lead	12.7 Lead	FP-24	Defoamer	0.30	%BWOB
4	Lead	12.7 Lead	GW-86	Viscosifier	0.10	%BWOB
4	Lead	12.7 Lead	IntegraSeal POLI	LostCirculation	0.25	lb/sk
4	Lead	12.7 Lead	R-3	Retarder	0.45	%BWOB
4	Lead	12.7 Lead	STATIC FREE	Other	0.01	lb/sk
5	Tail	14.2 Tail	CLASS G	Cement	80.00	%
5	Tail	14.2 Tail	FLY ASH (POZZOLAN)	Extender	20.00	%
5	Tail	14.2 Tail	FL-66	FluidLoss	0.40	%BWOB
5	Tail	14.2 Tail	FP-24	Defoamer	0.30	%BWOB
5	Tail	14.2 Tail	GW-86	Viscosifier	0.10	%BWOB
5	Tail	14.2 Tail	IntegraSeal POLI	LostCirculation	0.25	lb/sk
5	Tail	14.2 Tail	R-3	Retarder	0.15	%BWOB
5	Tail	14.2 Tail	S-8	StrengthRetrogression	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	6/9/2022	05:00					Crew called to prepare for a long string cement job. RTS is 11:00
2	Safety Meeting	6/9/2022	08:30					journey management meeting
3	Depart Yard	6/9/2022	08:35					depart Rifle, CO yard for location
4	Arrive on Location	6/9/2022	09:00					arrive on location, verify all proper products, equipment and job procedures
5	Safety Meeting	6/9/2022	09:10					rig up meeting
6	Spot Units	6/9/2022	09:20					spot all equipment for rig up
7	Rig Up	6/9/2022	09:30					rig up all equipment
8	Standby	6/9/2022	10:00					crew on standby while rig runs casing
9	Safety Meeting	6/9/2022	14:00					Pre job meeting while rig circulates well with all crews involved
10	Load Lines	6/9/2022	15:14	8.34	2	3	185	load lines for psi test
11	Pressure Test	6/9/2022	15:25	8.34	1	1	5250	Pressure test pump and lines to cement head
12	Fresh Flush	6/9/2022	15:26	8.34	5	10	370	10 bbls fresh flush
13	Mud Flush	6/9/2022	15:27	8.5	5	20	380	20 bbls mud flush with chems
14	Fresh Flush	6/9/2022	15:29	8.34	5	10	390	10 bbls fresh flush
15	Lead Cement	6/9/2022	15:30	12.7	5.8	10	421	145 BBLS Lead CMT – 12.7 # 2.0 Y 11.0 MW 407 sks 10 bbls away
16	Lead Cement	6/9/2022	15:37	12.7	5.8	40	420	50 bbls away
17	Lead Cement	6/9/2022	15:45	12.7	5.8	50	429	100 bbls away
18	Lead Cement	6/9/2022	15:57	12.7	5.8	45	480	145 bbls away swap to tail cement
19	Tail Cement	6/9/2022	15:58	14.2	5.8	10	500	229 BBLS Tail CMT – 14.2 # 1.72 Y 8.1 MW 749 sks 10 bbls away
20	Tail Cement	6/9/2022	16:06	14.2	4	40	420	50 bbls away
21	Tail Cement	6/9/2022	16:33	14.2	5	130	605	180 bbls away
22	Tail Cement	6/9/2022	16:40	14.2	4	49	630	229 bbls away shutdown for washup
23	Washup	6/9/2022	16:41					Washup pump and lines to pit
24	Displacement	6/9/2022	16:48	8.34	8.5	10	965	Send plug and begin displacement, 10 bbls away
25	Displacement	6/9/2022	16:59	8.34	8.5	40	1010	50 bbls away
26	Displacement	6/9/2022	17:06	8.34	8.5	50	1392	100 bbls away
27	Displacement	6/9/2022	17:09	8.34	8.5	50	2610	150 bbls away
28	Displacement	6/9/2022	17:14	8.34	7	10	2440	160 bbls away slow rate for bump
29	Land Plug	6/9/2022	17:17	8.34	4	10.6	2600	170.6 bbls away, land plug and walk psi up to 1k over final circulating psi
30	Check Floats	6/9/2022	17:20					Check floats, floats held with 2 bbls back
31	Safety Meeting	6/9/2022	17:25					Rig down meeting
32	Rig Down	6/9/2022	17:30					Rig down all equipment
33	Safety Meeting	6/9/2022	18:00					journey management meeting
34	Depart Location	6/9/2022	18:10					crew departs location

Pump Diagrams

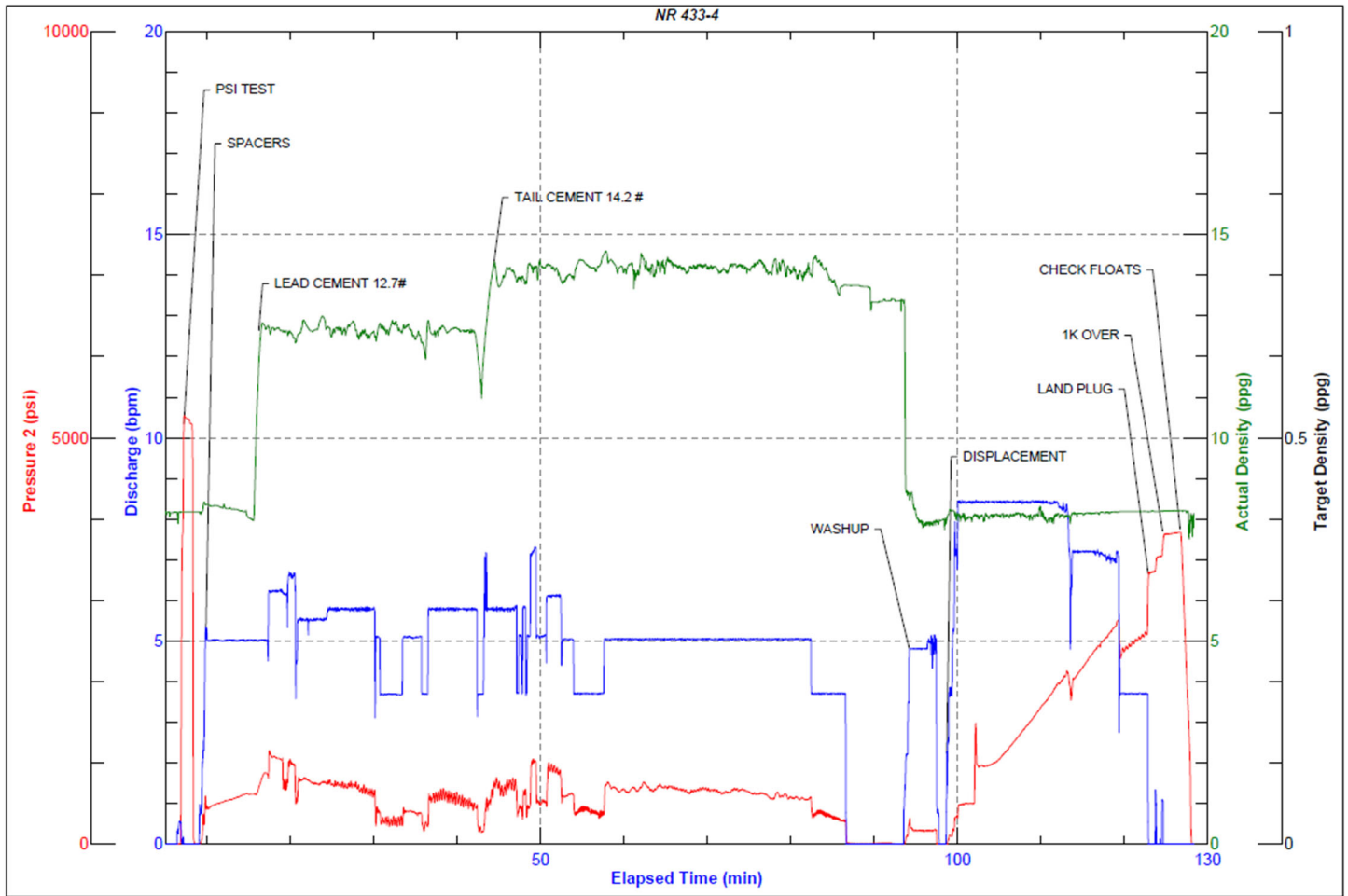


JobMaster Program Version 5.01C1

Job Number: 81764

Customer: Terra

Well Name: NR 433-4



Job Start: Thursday, June 09, 2022