



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

Leverich SR 423-13 05-045-24561
S:13 T:7S R:94W Garfield CO

CallSheet #: 87911
Proposal #: 70217



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,

Krystal Schell

Field Engineer I | (719) 992-1830 | krystal.schell@americancementing.com

Field Office 28730 US-6, Rifle, CO 81650
Phone: (970) 657-1187

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	1175	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1134	7385	85
Open Hole	Outer	n/a	8.75	n/a	n/a	7385	10577	50
Casing	Inner	4.5	4	11.6	n/a	0	10577	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Cement Trailer Float	CTF-246	TRC-112	Ridgeway, Danny
Field Storage Silo	FSS-470		
Cement Pump Float	CPF-052	TRH-964	Burton, Devin
Light Duty Vehicles	LDV-045		McClure, Gerron

Timing

Event	Date/Time
ERTS	00/23/2023 00:00
Call Out	7/23/2023 14:00
Depart Facility	7/23/2023 18:00
On Location	7/23/2023 22:00
Rig Up Iron	7/23/2023 22:30
Job Started	7/23/2023 22:50
Job Completed	7/24/2023 01:04
Rig Down Iron	7/24/2023 02:00
Depart Location	7/24/2023 03:00

General Job Information

Metrics	Value
Well Fluid Density	10.5 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	500 bbls
Rig Circulation Time	1 hours
Calculated Displacement	163 bbls
Actual Displacement	163 bbls
Total Spacer to Surface	N/A bbls
Total CMT to Surface	N/A bbls
Well Topped Out	No
Top Out Volume	N/A bbls

Job Details

Metrics	Value
Flare Prior to Job	No
Flare Prior to Job	N/A units
Flare During Job	No
Flare During Job	N/A units
Flare at End of Job	No
Flare at End of Job	N/A units
Well Full Prior to Job	Yes
Well Fluid Density Into Well	10.5 lb/gal
Well Fluid Density Out of Well	10.5 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	172 °F
BHST	229 °F

Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	68 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	500 mg/L	0-3000 mg/L
Total Alkalinity	200	0-1000
Total Hardness	50 mg/L	0-500 mg/L
Carbonates	10 mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	500 mg/L	0-3000 mg/L
Iron	10 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	5625
2	Mud Flush	Flush	8.45			40.86		20.00	5724
3	Water	Flush	8.34			42.00		10.00	5922
4	Lead	Lead	12.50	2.21	12.30		352.00	138.42	6021
5	Tail	Tail	13.00	2.05	10.26		781.00	284.87	7385
6	Displacement	DisplacementFinal	8.34			42.00		163.00	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	Lead	ASTM TYPE IL	Cement	100.00	%
4	Lead	Lead	A-2	Accelerator	0.20	%BWOB
4	Lead	Lead	FL-66	FluidLoss	0.30	%BWOB
4	Lead	Lead	FP-24	Defoamer	0.30	%BWOB
4	Lead	Lead	GW-86	Viscosifier	0.10	%BWOB
4	Lead	Lead	R-3	Retarder	0.50	%BWOB
4	Lead	Lead	R-7C	Retarder	0.10	%BWOB
4	Lead	Lead	STATIC FREE	Other	0.01	lb/sk
4	Lead	Lead	XCem-1009	Extender	10.00	lb/sk
5	Tail	Tail	CLASS G	Cement	50.00	%
5	Tail	Tail	FLY ASH (POZZOLAN)	Extender	50.00	%
5	Tail	Tail	BENTONITE	Viscosifier	6.00	%BWOB
5	Tail	Tail	FL-66	FluidLoss	0.40	%BWOB
5	Tail	Tail	FP-24	Defoamer	0.30	%BWOB
5	Tail	Tail	GW-86	Viscosifier	0.10	%BWOB
5	Tail	Tail	IntegraSeal PHENO	LostCirculation	0.50	lb/sk
5	Tail	Tail	IntegraSeal POLI	LostCirculation	0.25	lb/sk
5	Tail	Tail	S-8	StrengthRetrogression	20.00	%BWOB
5	Tail	Tail	XCem-1009	Extender	6.00	lb/sk
5	Tail	Tail	XCem-916	Retarder	0.40	%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	ARRIVED ON LOACTION	7/23/2023	22:00					ARRIVED ON LOCATION PER CUSTOMER REQUEST @ 22:00
2	HAZARD ASSESMENT	7/23/2023	22:05					
3	SPOT EQUIPMENT	7/23/2023	22:10					
4	PRE RIG UP SAFETY MEETING	7/23/2023	22:15					
5	RIGGED UP	7/23/2023	22:30					
6	PRE JOB SAFETY MEETING	7/23/2023	22:40					PRE JOB-SAFETY MEETING
7	STAB HEAD	7/23/2023	22:45					
8	START JOB	7/23/2023	22:50					START JOB
9	PRESSURE TEST	7/23/2023	22:55	8.34	1	1	5000	PRESSURE TEST LINES 5000 PSI
10	10 BBL FW SPACER	7/23/2023	22:57	8.34	5	10	650	10 BBL FRESH WATER SPACER
11	20 BBL MUD FLUSH II	7/23/2023	22:59	8.45	5	20	790	20 BBL MUDFLUSH II
12	10 BBL FRESH WATER SPACER	7/23/2023	23:04	8.34	5	10	880	10 BBL FRESH WATER SPACER
13	START LEAD CEMENT @ 12.5	7/23/2023	23:06	12.5	6	1	913	START LEAD CEMENT @ 12.5 (2.21,12.30) 352 SACKS OR 138.4 BBLs
14	50 GONE ON LEAD	7/23/2023	23:14	12.5	6	50	790	
15	100 GONE ON LEAD	7/23/2023	23:23	12.5	6	100	630	
16	END OF LEAD	7/23/2023	23:37	12.5	6	138	680	END OF LEAD CEMENT
17	START TAIL @ 13.00	7/23/2023	23:37	13	5	1	630	START TAIL CEMENT @ 13.0 (2.05,10.26) 781 SACKS OR 285 BBLs
18	50 GONE ON TAIL	7/23/2023	23:47	13	6	50	600	
19	100 GONE ON TAIL	7/23/2023	23:54	13	6	100	620	
20	150 GONE ON TAIL	7/23/2023	23:58	13	6	150	602	
21	200 GONE ON TAIL	7/24/2023	00:06	13	6	200	650	
22	250 GONE ON TAIL	7/24/2023	00:13	13	6	250	617	
23	END OF TAIL	7/24/2023	00:23	13	3	285	389	END OF TAIL CEMENT
24	SHUTDOWN /WASH LINES	7/24/2023	00:28					SHUTDOWN/WASH LINES DROP TOP PLUG
25	START 163.02 BBL FRESH WATER DISPLACEMENT	7/24/2023	00:35	8.34	5	1	239	START 163 BBL FRESH WATER DISPLACEMENT
26	CAUGHT CEMENT	7/24/2023	00:40	8.34	7	37	750	CAUGHT CEMENT @38 BBL GONE ON DISPLACEMENT
27	50 GONE ON DISPLACEMENT	7/24/2023	00:41	8.34	7	50	820	
28	100 GONE ON DISPLACEMENT	7/24/2023	00:48	8.34	7	100	1484	
29	150 GONE ON DISPLACEMENT	7/24/2023	00:55	8.34	7	150	1985	
30	PRESSURE BEFORE SLOWING RATE	7/24/2023	00:55	8.34	7	153	2200	PRESSURE BEFORE SLOWING RATE - 2200
31	SLOW RATE PRESSURE	7/24/2023	00:56	8.34	3	153	1175	SLOW RATE PRESSURE @ 3BPM - 1175
32	PRESSURE BEFORE LANDING PLUG	7/24/2023	01:02	8.34	3	163	1525	FINAL LIFT PRESSURE BEFORE LANDING PLUG - 1525
33	LAND PLUG	7/24/2023	01:03	8.34		163	2650	LANDED PLUG @ PSI -2650
34	CHECK FLOAT	7/24/2023	01:09					RETURNED 2 BBL BACK UPON FLOAT CHECK
35	END OF SERVICES	7/24/2023	01:10					END OF CEMENTING SERVICES

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
36	POST/ PRE RIG DOWN SAFETY MEETING	7/24/2023	01:15					
37	RIGGED DOWN	7/24/2023	02:00					
38	PRE CONVOY SAFETY MEETING	7/24/2023	02:15					
39	DEPART LOCATION	7/24/2023	02:30					
40	END OF JOB	7/24/2023	03:00					END OF JOB

Pump Diagrams



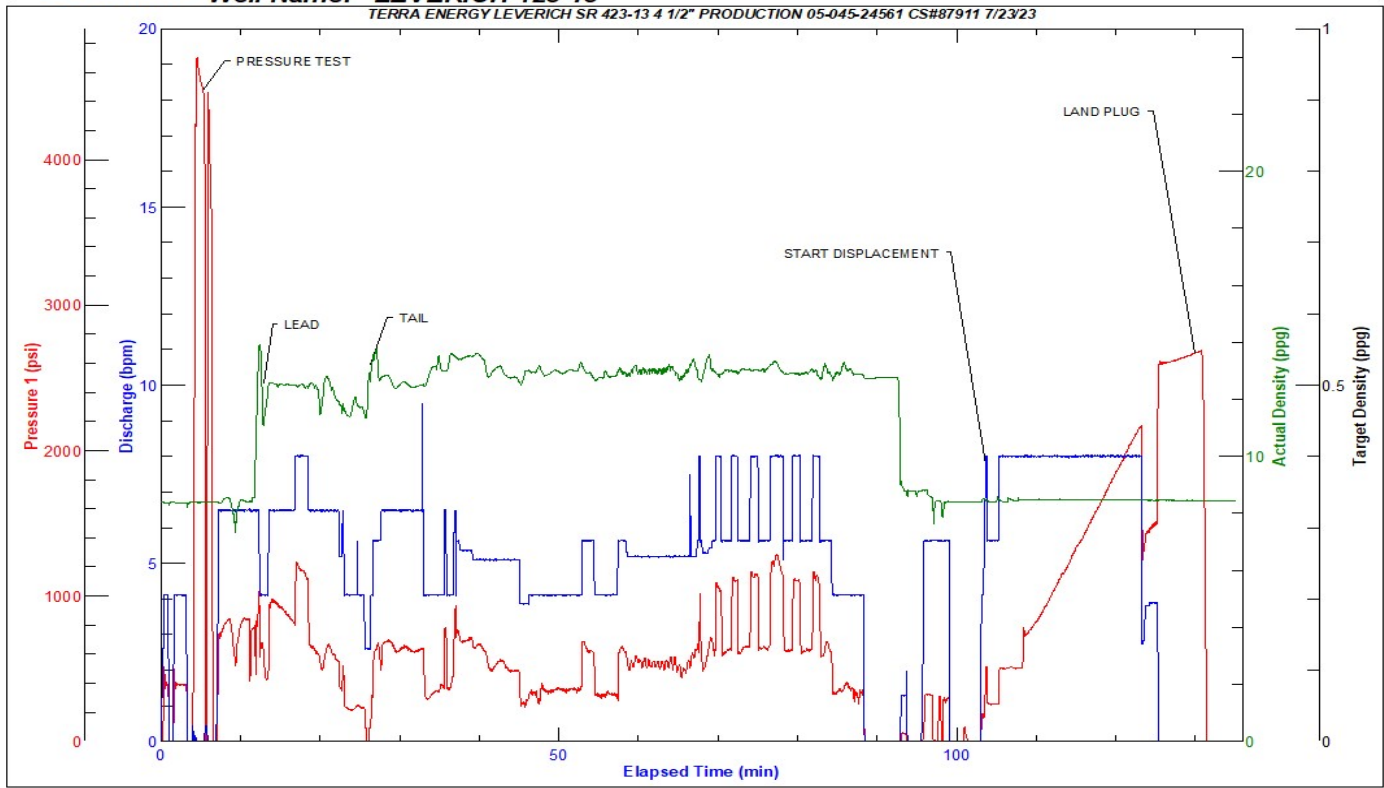
JobMaster Program Version 5.01C1

Job Number: 87911

Customer: TERRA

Well Name: LEVERICH 423 13

TERRA ENERGY LEVERICH SR 423-13 4 1/2" PRODUCTION 05-045-24561 CS#87911 7/23/23



Job Start: Sunday, July 23, 2023