



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

Leverich SR 321-24 05-045-24555
S:13 T:7S R:94W Garfield CO

CallSheet #: 87809
Proposal #: 70147



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@americacementing.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	1175	7658	85
Open Hole	Outer	n/a	8.75	n/a	n/a	7658	10805	50
Casing	Inner	4.5	4	11.6	n/a	0	10805	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Cement Trailer Float	CTF-182	TRC-201	Hutchinson, Michael
Field Storage Silo	FSS-470		
Field Storage Silo	FSS-438		
Light Duty Vehicles	LDV-061		Woronovitch, Collin
Cement Pump Float	CPF-136	TRH-855	Bradbrook, Jeremy

Timing

Event	Date/Time
ERTS	00/17/2023 00:00
Call Out	7/16/2023 18:40
Depart Facility	7/16/2023 20:30
On Location	7/16/2023 22:30
Rig Up Iron	7/17/2023 05:15
Job Started	7/17/2023 09:20
Job Completed	7/17/2023 12:18
Rig Down Iron	7/17/2023 12:30
Depart Location	7/17/2023 13:45

General Job Information

Metrics	Value
Well Fluid Density	9.5 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	564 bbls
Rig Circulation Time	1 hours
Calculated Displacement	167 bbls
Actual Displacement	167 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	9.5 lb/gal
Well Fluid Density Out of Well	9.5 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	172 °F
BHST	228 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	70 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	400 mg/L	0-3000 mg/L
Total Alkalinity	180	0-1000
Total Hardness	120 mg/L	0-500 mg/L
Carbonates	NA mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	180 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 (sk)	Volume (bbl)	Designed Top (ft)
1	Water	Flush	8.34			42.00		10.00	5877
2	Mud Flush	Flush	8.45			40.86		20.00	5976
3	Water	Flush	8.34			42.00		10.00	6174
4	Lead	Lead	12.50	2.21	12.30		357.00	140.39	6273
5	Tail	Tail	13.00	2.05	10.26		772.00	281.58	7658
6	Displacement	DisplacementFinal	8.34			42.00		167.00	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	Callout	7/16/2023	23:00					CREW CALLED OUT FOR ON LOCATION OF 7:00
2	Depart Location	7/16/2023	20:30					7/17 CREW ALREADY STAGED ON LOCATION DEPART RCO YARD FOR LOCATION
3	Arrive On Location	7/16/2023	22:30					ARRIVE ON LOCATION. RIG RUNNING CASING
4	Safety Meeting	7/17/2023	05:00					PRE RIG UP JSA. SPOT EQUIPMENT
5	Rig Up Iron	7/17/2023	05:15					RIG UP ALL IRON, HOSES, AND EQUIPMENT
6	Standby	7/17/2023	06:45					WAITING ON RIG TO FINISH RUNNING CASING AND CIRCULATE. RIG LANDED CASING @ 8:30. RIG CIRCULATED FOR 1 HOUR. TOTAL VOLUME 564 BBLs. FINISH RIGGING UP HEAD AND FLOOR.
7	Safety Meeting	7/17/2023	09:20					PRE JOB SAFETY MEETING WITH RIG CREW AND COMPANY MAN.
8	Fill Lines	7/17/2023	10:05	8.34	5	10	446	FILL LINES WITH 10 BBLs OF FRESHWATER. FULL RETURNS
9	Pressure Test Lines	7/17/2023	10:08	8.34	1	1	4584	PRESSURE TEST PUMP AND IRON TO 4500 PSI
10	Pump Spacer	7/17/2023	10:11	8.45	4	0	500	BEGIN PUMPING MUD FLUSH + SURFACTANT.
11	Pump Spacer	7/17/2023	10:16	8.45	4.8	20	584	PUMP 20 BBLs MUD FLUSH + SURFACTANT PUMPED. FULL RETURNS
12	Pump Spacer	7/17/2023	10:16	8.34	4.8	0	665	PUMP 10 BBLs FRESHWATER FLUSH
13	Pump Spacer	7/17/2023	10:19	8.34	4.8	10	690	10 BBLs FRESHWATER AWAY SWAP TO LEAD
14	Pump Lead Cement	7/17/2023	10:19	12.5	6.1	0	795	BEGIN PUMPING 12.5 PPG LEAD CEMENT, WEIGHT VERIFIED BY MUD SCALE
15	Pump Lead Cement	7/17/2023	10:19	12.5	6.1	50	736	50 BBLs LEAD CEMENT PUMPED
16	Pump Lead Cement	7/17/2023	10:36	12.5	5.1	50	449	100 BBLs LEAD CEMENT PUMPED. FULL RETURNS
17	Pump Lead Cement	7/17/2023	10:43	12.5	5.1	40	490	140 BBLs (357 SKS) TOTAL LEAD CEMENT PUMPED.
18	Pump Tail Cement	7/17/2023	10:43	13	5.1	0	593	BEGIN PUMPING 13 PPG TAIL CEMENT. WEIGHT VERIFIED BY MUD SCALE.
19	Pump Tail Cement	7/17/2023	10:53	13	5.1	50	594	50 BBLs TAIL CEMENT PUMPED
20	Pump Tail Cement	7/17/2023	11:02	13	5.1	50	605	100 BBLs TAIL CEMENT PUMPED
21	Pump Tail Cement	7/17/2023	11:12	13	5.4	50	614	150 BBLs TAIL CEMENT PUMPED. FULL RETURNS
22	Pump Tail Cement	7/17/2023	11:22	13	5	50	514	200 BBLs TAIL CEMENT PUMPED
23	Pump Tail Cement	7/17/2023	11:31	13	5	50	552	250 BBLs TAIL CEMENT PUMPED
24	Pump Tail Cement	7/17/2023	11:38	13	3.5	32	182	282 BBLs (772 SKS) TOTAL TAIL CEMENT PUMPED.
25	Clean Pumps and Lines	7/17/2023	11:39					BLOW RIG AIR TO CLEAR LINES, VALVE MANIFOLD TO WASH UP PUMP AND LINES TO PIT
26	Drop Top Plug	7/17/2023	11:48	8.34	4.5	2	210	DROP PLUG, WITNESSED BY DRILLER AND COMPANY MAN BEGIN KCL DISPLACEMENT.

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
27	Pump Displacement	7/17/2023	11:59	8.34	8	50	1251	50 BBLS DISPLACEMENT PUMPED. CAUGHT PRESSURE @ 30 BBLS DISPLACED. FULL RETURNS.
28	Pump Displacement	7/17/2023	12:05	8.34	8	50	1891	100 BBLS DISPLACEMENT PUMPED
29	Pump Displacement	7/17/2023	12:11	8.34	8	50	2695	150 BBLS DISPLACEMENT PUMPED. MAX LIFT- 2718 PSI @ 8 BPM BEFORE SLOW DOWN @ 155 BBLS DISPLACED
30	Pump Displacement	7/17/2023	12:15	8.34	4	17	2190	167 BBLS (CALCULATED) DISPLACEMENT PUMPED
31	Land Plug	7/17/2023	12:15				3080	PLUG LANDED FCP-2190 PSI BUMPED TO 3080 PSI
32	Check Floats	7/17/2023	12:18					BLEED PRESSURE OFF AND CHECK FLOATS, FLOATS HELD 2 BBLS BACK
33	Rig Down Iron	7/17/2023	12:30					PRE RIG DOWN SAFETY MEETING. RIG DOWN EQUIPMENT, IRON AND HOSES
34	Depart Location	7/17/2023	13:45					CREW DEPARTS LOCATION

Pump Diagrams

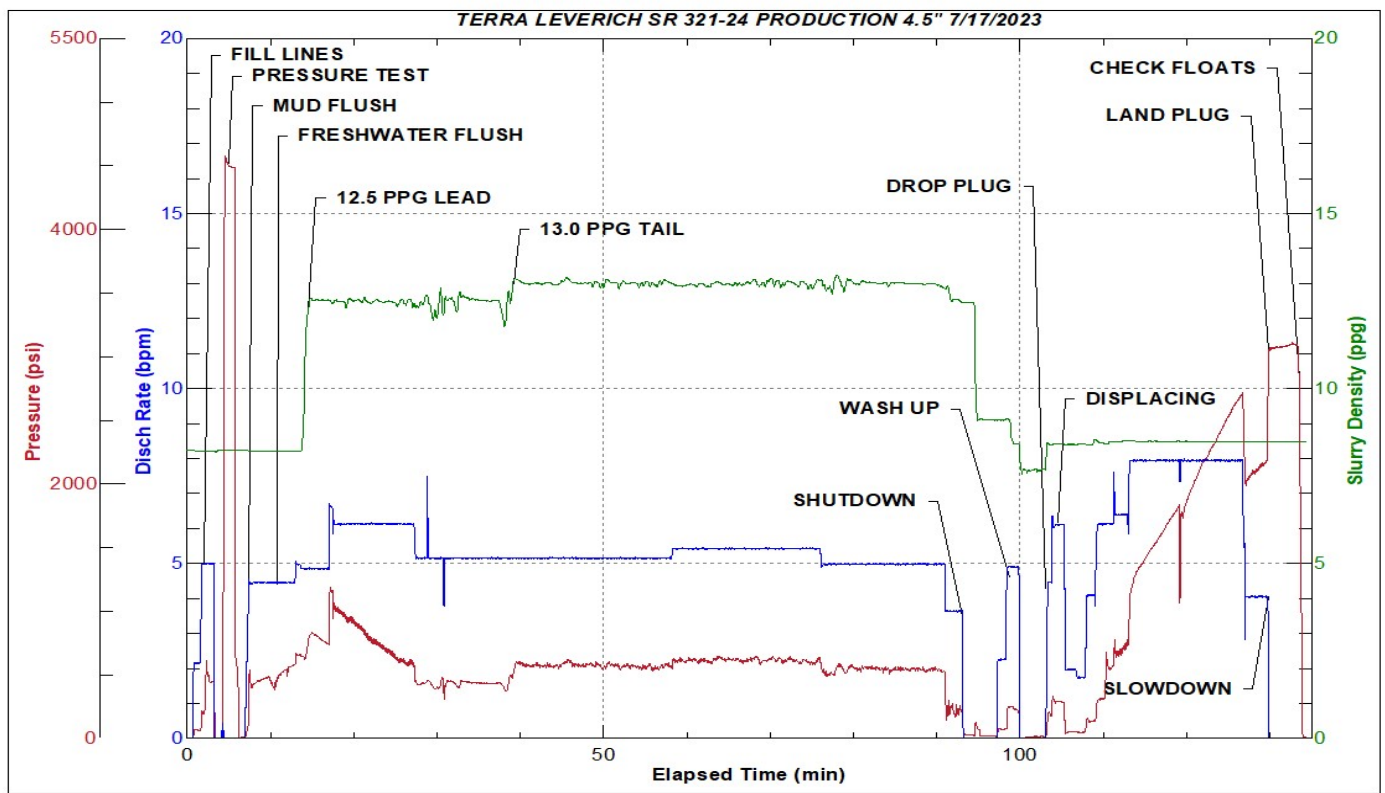


JobMaster Program Version 5.01C1

Job Number: 87809

Customer: TERRA

Well Name: LEVERICH SR 321-24



Job Start: Monday, July 17, 2023