



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

FEDERAL #WMC 531-20 05-045-24498
S:17 T:7S R:93W Garfield CO

CallSheet #: 84706
Proposal #: 65236



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,

Holly Mbugua

Field Engineer II | (720) 505-1300 | holly.mbugua@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	1133	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1115	8859	85
Open Hole	Outer	n/a	8.75	n/a	n/a	8859	11160	50
Casing	Inner	4.5	4	11.6	n/a	0	11160	0

Timing

Event	Date/Time
Call Out	11/30/2022 11:35
Depart Facility	11/30/2022 15:30
On Location	11/30/2022 17:00
Rig Up Iron	11/30/2022 17:15
Job Started	11/30/2022 21:02
Job Completed	11/30/2022 23:45
Rig Down Iron	11/30/2022 23:49
Depart Location	12/1/2022 13:30

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Cement Trailer Float	CTF-254	TRC-059	Morales, Adrian
Field Storage Silo	FSS-470		
Field Storage Silo	FSS-438		
Light Duty Vehicles	LDV-062		Lancaster, Stephen
Cement Pump Float	CPF-052	TRH-957	Brady, Shawn

General Job Information

Metrics	Value
Well Fluid Density	8.9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	1365 bbls
Rig Circulation Time	1.5 hours
Calculated Displacement	172 bbls
Actual Displacement	172 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	8.9 lb/gal
Well Fluid Density Out of Well	8.9 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	206 °F
BHST	270 °F

Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	62 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	170	0-1000
Total Hardness	400 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	5650
2	Mud Flush	Flush	8.45			40.86		20.00	5749
3	Water	Flush	8.34			42.00		10.00	5947
4	Scavenger	Scavenger	11.00	3.07	18.84		92.00	50.38	6046
5	Lead Cement	Lead	12.70	2.00	10.99		659.00	235.01	6540
6	Tail Cement	Tail	13.50	1.85	8.97		589.00	193.58	8859
7	Displacement	DisplacementFinal	8.34			42.00		174.00	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	Scavenger	Scavenger	ASTM TYPE I/II	Cement	65.00	%
4	Scavenger	Scavenger	FLY ASH (POZZOLAN)	Extender	35.00	%
4	Scavenger	Scavenger	BENTONITE	Viscosifier	6.00	%BWOB
4	Scavenger	Scavenger	FP-24	Defoamer	0.30	%BWOB
4	Scavenger	Scavenger	GW-86	Viscosifier	0.10	%BWOB
4	Scavenger	Scavenger	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
4	Scavenger	Scavenger	R-3	Retarder	0.40	%BWOB
5	Lead	Lead Cement	ASTM TYPE I/II	Cement	100.00	%
5	Lead	Lead Cement	BA-90	BondEnhancer	3.00	lb/sk
5	Lead	Lead Cement	FL-66	FluidLoss	0.50	%BWOB
5	Lead	Lead Cement	FP-24	Defoamer	0.30	%BWOB
5	Lead	Lead Cement	GW-86	Viscosifier	0.10	%BWOB
5	Lead	Lead Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
5	Lead	Lead Cement	R-3	Retarder	0.45	%BWOB
5	Lead	Lead Cement	STATIC FREE	Other	0.01	lb/sk
6	Tail	Tail Cement	BA-90	BondEnhancer	10.00	%
6	Tail	Tail Cement	CLASS G	Cement	70.00	%
6	Tail	Tail Cement	FLY ASH (POZZOLAN)	Extender	20.00	%
6	Tail	Tail Cement	BENTONITE	Viscosifier	6.00	%BWOB
6	Tail	Tail Cement	FL-24	FluidLoss	0.40	%BWOB
6	Tail	Tail Cement	FP-24	Defoamer	0.30	%BWOB
6	Tail	Tail Cement	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
6	Tail	Tail Cement	R-3	Retarder	0.30	%BWOB
6	Tail	Tail Cement	S-8	StrengthRetrogression	25.00	%BWOB

Job Logs

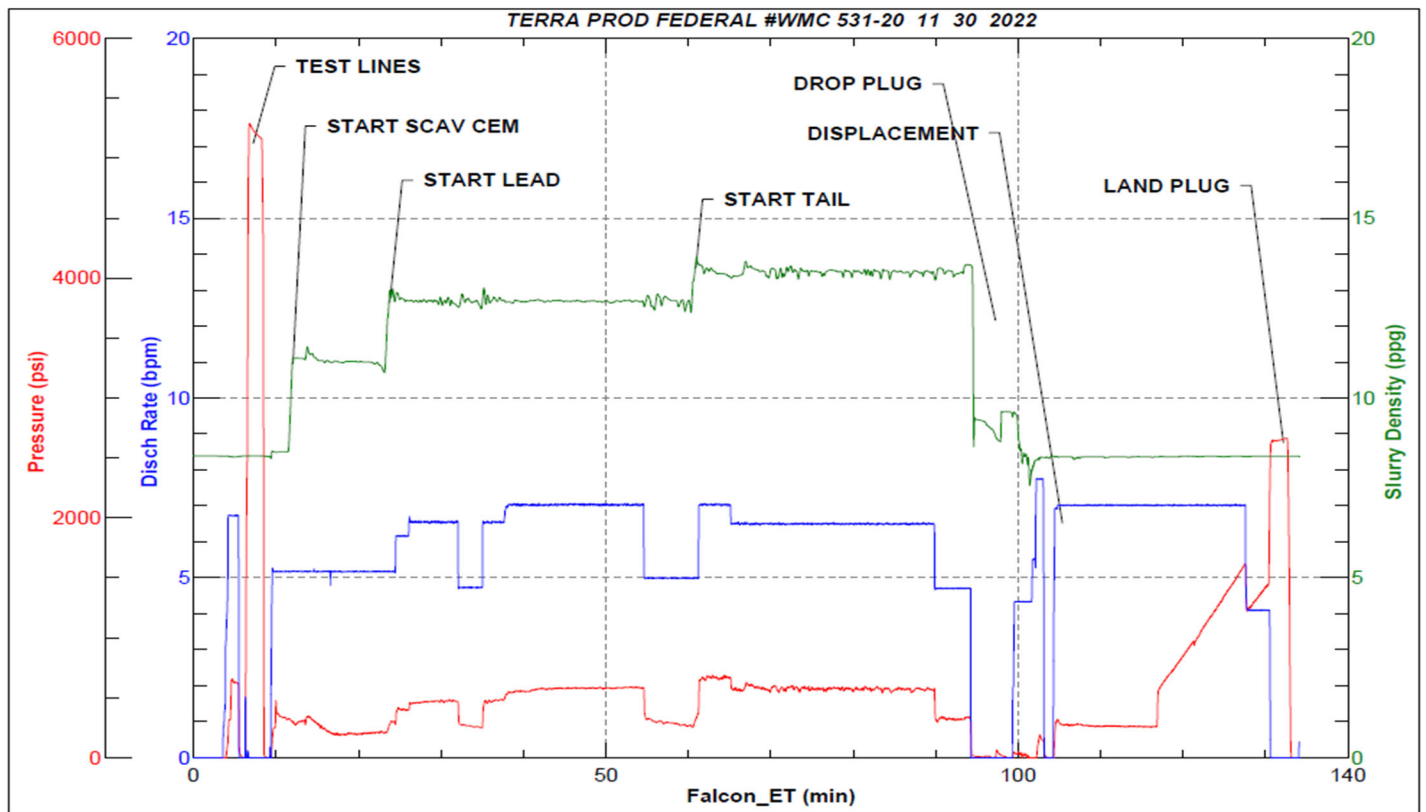
Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	11/30/2022	11:35					CREW CALLED OUT FOR ON LOCATION TIME OF 11/30/22 @ 17:00
2	Depart Location	11/30/2022	15:30					DEPART RCO YARD FOR LOCATION,
3	Arrive On Location	11/30/2022	17:00					ARRIVE ON CUSTOMER SITE,PUMP STAGED AT LOWER PAD WHILE WAITING ON LAST AIR SLIDE TO BE UNLOADED, BULK TRUCK ON LOCAITON @ 20:19
4	Rig Up Iron	11/30/2022	17:15					RIG UP IRON AND HOSES
5	Finished rigging up	11/30/2022	21:15					DONE RIGGING UP FOR JOB ,
6	Safety Meeting	11/30/2022	21:02					JSA SAFETY MEETING WITH AC CREW, RIG HANDS, AND CUSTOMER REP
7	Fill Lines	11/30/2022	21:31	8.34	2	10	70	BLEW AIR THROUGH LINES FROM PUMP TO RIG FLOOR TO ASSURE NO BLOCKAGES,FILL LINES WITH FRESH WATER
8	Pressure Test Lines	11/30/2022	21:35	8.34			5000	PRESSURE TEST PUMP AND LINES TO 5000 PSI
9	Pump mudflush	11/30/2022	21:46	8.45	5	20	330	PUMP MUD FLUSH + SURFACTANT
10	Pump FW flush	11/30/2022	21:48	8.34	5	10	371	PUMP FRESH WATER FLUSH
11	Pump Scavenger	11/30/2022	21:50	12.7	5	5	296	BEGIN PUMPING LEAD CEMENT. DENSITY VERIFIED WITH MUD SCALE
12	Pump Lead Cement	11/30/2022	21:59	12.7	6.5	50	479	50 BBLS LEAD CEMENT PUMPED
13	Pump Lead Cement	11/30/2022	22:15	12.7	7	100	560	100 BBLS LEAD CEMENT PUMPED
14	Pump Lead Cement	11/30/2022	22:23	12.7	7	150	581	150 BBLS LEAD CEMENT PUMPED
15	Pump Lead Cement	11/30/2022	22:36	12.7	5	235	327	235 BBLS LEAD CEMENT PUMPED
16	Pump Tail Cement	11/30/2022	22:41	13.5	5	5	378	BEGIN PUMPING TAIL CEMENT. DENSITY VERIFIED WITH MUD SCALE
17	Pump Tail Cement	11/30/2022	22:44	13.5	6.5	50	556	50 BBLS TAIL CEMENT PUMPED,
18	Pump Tail Cement	11/30/2022	22:51	13.5	6.5	100	568	100 BBLS TAIL CEMENT PUMPED (full returns)
19	Pump Tail Cement	11/30/2022	22:59	13.5	6.5	150	578	150 BBLS TAIL CEMENT PUMPED
20	Pump Tail Cement	11/30/2022	23:04	13.5	4.7	190	329	190 BBLS TAIL CEMENT PUMPED.
21	Pump Tail Cement	11/30/2022	23:08	13.5	4.7	194	322	194 BBLS TAIL CEMENT PUMPED
22	Clean Pumps and Lines	11/30/2022	23:09					BLOW DOWN STANDPIPE, WASH UP PUMP AND LINES
23	Drop Top Plug	11/30/2022	23:20	8.34	5	5	141	DROP PLUG, VERIFIED BY CUSTOMER REP. BEGIN KCL DISPLACEMENT,(no returns)
24	Pump Displacement	11/30/2022	23:27	8.34	7	50	271	50 BBLS KCL DISPLACEMENT PUMPED (full returns)
25	Pump Displacement	11/30/2022	23:34	8.34	7	100	763	100 BBLS KCL DISPLACEMENT PUMPED (no returns)
26	Pump Displacement	11/30/2022	23:41	8.34	7	150	1497	150 BBLS KCL DISPLACEMENT PUMPED

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	11/30/2022	23:45	8.34	4	172	1420	172 BBLS KCL DISPLACEMENT PUMPED, (got returns back @ 155 bbls pumped)
28	Land Plug	11/30/2022	23:45	8.34	4	172	2623	LAND PLUG. FCP - 1420 PSI, BUMPED TO 2623 PSI
29	Check Floats	11/30/2022	23:48					CHECK FLOATS. FLOATS HELD, 2 BBLS BACK
30	Rig Down Iron	11/30/2022	23:49					RIG DOWN IRON AND HOSES, BLEW OUT IRON AND WASHUP HOSE W AIR
31	Depart Location	12/1/2022	13:30					DEPART LOCATION FOR RCO YARD

Pump Diagrams



JobMaster Program Version 5.01C1
Job Number: 84706
Customer: TERRA
Well Name: FEDERAL WMC 531-20



Job Start: Wednesday, November 30, 2022