



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

FEDERAL WMC 332-20 05-045-24491
S:17 T:7S R:93W Garfield CO

CallSheet #: 84931
Proposal #: 65591



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) 657-1157

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	1135	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1135	8984	85
Open Hole	Outer	n/a	8.75	n/a	n/a	8984	11326	50
Casing	Inner	4.5	4	11.6	n/a	0	11326	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS-470		
Field Storage Silo	FSS-438		
Cement Trailer Float	CTF-249	TRC-425	Jackson, Duewayne
Light Duty Vehicles	LDV-063		Castillo, Francisco
Cement Pump Float	CPF-091	TRH-082	Carrasco, Joel

Timing

Event	Date/Time
Call Out	12/13/2022 02:00
Depart Facility	12/13/2022 04:00
On Location	12/13/2022 06:00
Rig Up Iron	12/13/2022 15:15
Job Started	12/13/2022 18:00
Job Completed	12/13/2022 20:14
Rig Down Iron	12/13/2022 20:45
Depart Location	12/13/2022 22:00

General Job Information

Metrics	Value
Well Fluid Density	9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	5700 bbls
Rig Circulation Time	10 hours
Calculated Displacement	175 bbls
Actual Displacement	175 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	No

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 lb/gal
Well Fluid Density Out of Well	9 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	196 °F
BHST	260 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	55 °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
Yes	N/A	N/A	N/A

Circulation Details

NO RETURNS THROUGH OUT THE ENTIRE JOB

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	5758
2	Mud Flush	Flush	8.45			40.86		20.00	5857
3	Water	Flush	8.34			42.00		10.00	6055
4	Scavenger	Scavenger	11.00	3.08	18.84		92.00	50.39	6154
5	Lead Cement	Lead	12.70	2.00	10.99		663.00	236.44	6648
6	Tail Cement	Tail	13.50	1.85	8.97		589.00	193.61	8984
7	Displacement	DisplacementFinal	8.34			42.00		175.00	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	XCem-916	Retarder	0.45	%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	STATIC FREE	Other	0.01	lb/sk
5	Lead	Lead Cement	XCem-916	Retarder	0.45	%BWOB
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	S-8	StrengthRetrogression	25.00	%BWOB
6	Tail	Tail Cement	XCem-916	Retarder	0.35	%BWOB

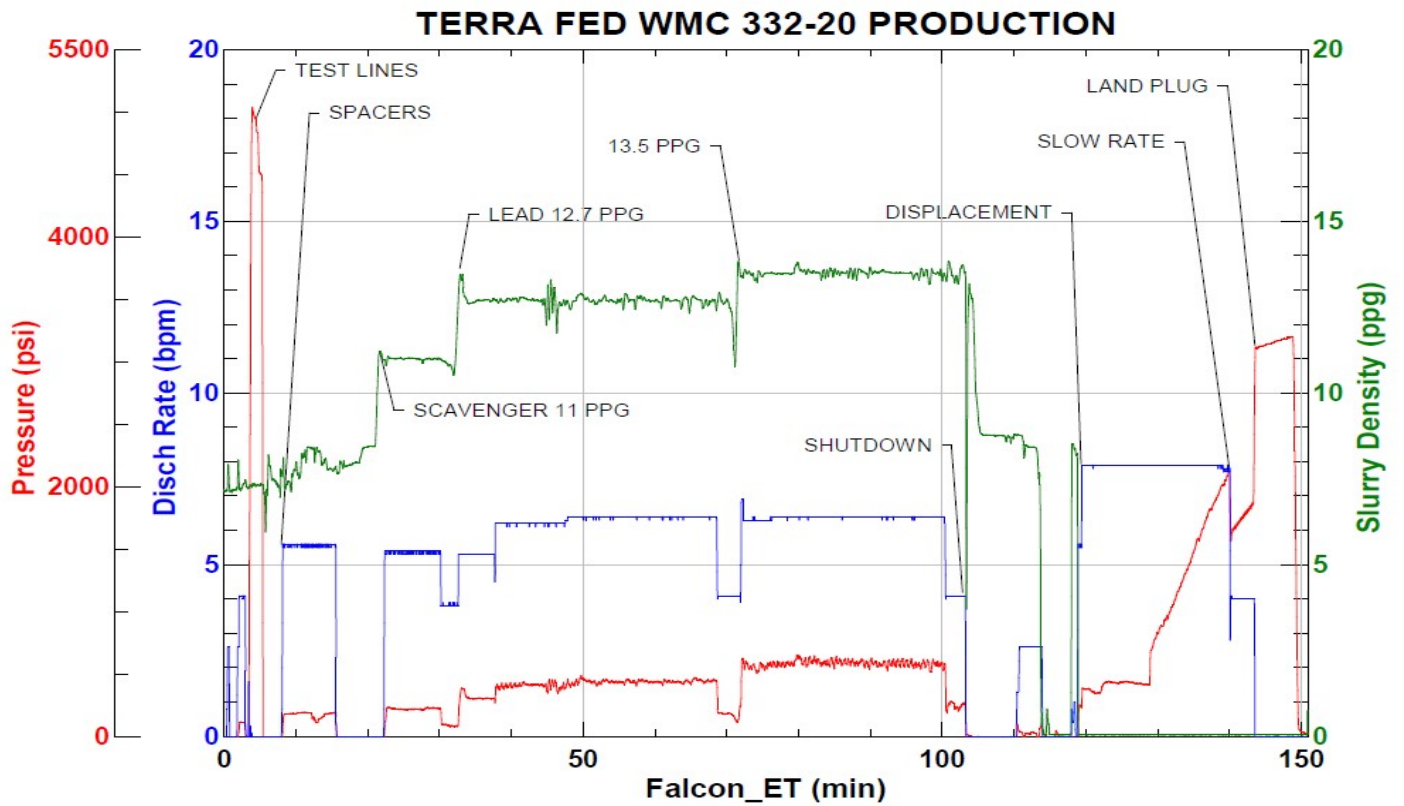
Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	CALLOUT	12/13/2022	02:00					ON LOCATION AT 06:00 HRS
2	LEAVE THE YARD	12/13/2022	04:00					PUMP AND FL LEAVE THE YARD
3	DELIVERY TRUCK #1	12/13/2022	04:00					1ST DELIVERY TRUCK STUCK ON LOCATION
4	ON LOCATION	12/13/2022	06:00					PUMP ARRIVE ON LOCATION BEFORE GETTING TO THE RIG, UNABLE TO RIG UP
5	LAND CASING	12/13/2022	07:00					RIG LAND CASING AND CIRCULATE
6	DELIVERY TRUCK #1	12/13/2022	08:45					1ST DELIVERY TRUCK UN-STUCK, DELIVERED, AND LEFT LOCATION
7	DELIVERY TRUCK #2	12/13/2022	09:00					2ND DELIVERY TRUCK ON LOCATION AND GETS STUCK
8	DELIVERY TRUCK #2	12/13/2022	12:10					2ND DELIVERY TRUCK UN-STUCK, DELIVERED, AND LEFT LOCATION
9	DELIVERY TRUCK #3	12/13/2022	13:05					3RD DELIVERY TRUCK ON LOCATION
10	DELIVERY TRUCK #3	12/13/2022	14:15					DELIVERED, AND OFF LOCATION
11	ON LOCATION	12/13/2022	14:50					PUMP AND BULK TRUCK ON LOCATION
12	RIG UP	12/13/2022	15:15					RIG UP MEETING, RIG UP
13	SAFETY MEETING	12/13/2022	16:45					PRE-JOB SAFETY MEETING
14	PRESSURE TEST	12/13/2022	17:55				5047	PRESSURE TEST LINES
15	WATER SPACER	12/13/2022	18:00	8.34	5.5	10	183	WATER SPACER
16	MUD FLUSH	12/13/2022	18:01	9	5.5	20	185	MUD FLUSH
17	WATER SPACER	12/13/2022	18:04	8.34	5.5	10	183	WATER SPACER
18	SCAVENGER	12/13/2022	18:14	11	5.5	50	375	SCAVENGER 92 SKS/50 BBLS AT 11 PPG
19	LEAD CEMENT	12/13/2022	18:24	12.7	6.2	50	361	LEAD 663 SKS/236 BBLS AT 12.7 PPG
20	LEAD CEMENT	12/13/2022	18:34	12.7	6.5	50	437	100 BBLS LEAD CEMENT PUMPED
21	LEAD CEMENT	12/13/2022	18:41	12.7	6.5	50	433	150 BBLS LEAD CEMENT PUMPED
22	LEAD CEMENT	12/13/2022	18:49	12.7	6.5	86	427	236 BBLS LEAD CEMENT PUMPED
23	TAIL CEMENT	12/13/2022	19:03	13.5	6.5	50	631	TAIL 589 SKS/194 BBLS AT 13.5 PPG
24	TAIL CEMENT	12/13/2022	19:11	13.5	6.5	50	613	100 BBLS TAIL CEMENT PUMPED
25	TAIL CEMENT	12/13/2022	19:18	13.5	6.5	47	607	147 BBLS TAIL CEMENT PUMPED
26	TAIL CEMENT	12/13/2022	19:26	13.5	6.5	47	597	194 BBLS TAIL CEMENT PUMPED
27	SHUTDOWN	12/13/2022	19:34					WASH PUMP AND LINES
28	DISPLACEMENT	12/13/2022	19:49	8.5	8	50	433	DISPLACEMENT KCL WATER
29	DISPLACEMENT	12/13/2022	19:56	8.5	8	50	1035	100 BBLS DISPLACEMENT PUMPED
30	DISPLACEMENT	12/13/2022	20:03	8.5	8	65	2119	165 BBLS DISPLACEMENT PUMPED
31	SLOW RATE	12/13/2022	21:11	8.5	4	10	1835	SLOW RATE
32	LAND PLUG	12/13/2022	20:14				3105	LAND PLUG, NO RETURNS
33	CHECK FLOATS	12/13/2022	20:21					FLOATS HELD, 1.5 BBLS FLOW BACK
34	RIG DOWN	12/13/2022	20:45					RIG DOWN MEETING, RIG DOWN
35	LEAVE LOCATION	12/13/2022	22:00					CREW LEAVE LOCATION

Pump Diagrams



JobMaster Program Version 5.01C1
 Job Number: 84931
 Customer: TERRA
 Well Name: FED WMC 332-20



Job Start: Tuesday, December 13, 2022