



Terra Energy Partners, LLC

SURFACE POST JOB REPORT

FEDERAL WMC 331-20 05-045-24500
S:17 T:7S R:93W Garfield CO

CallSheet #: 85052
Proposal #: 65744



SURFACE 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	20	19.5	53	n/a	0	89	0
Open Hole	Outer	n/a	13.5	n/a	n/a	118	500	16
Open Hole	Outer	n/a	13.5	n/a	n/a	500	1141	16
Casing	Inner	9.625	8.921	36	n/a	0	1131	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Cement Trailer Float	CTF-555	TRC-053	Mendoza, Victor	
Light Duty Vehicles	LDV-061		Woronovitch, Collin	Morales, Adrian
Cement Pump Float	CPF-058	TRH-959	Beacon, Keith	

Timing

Event	Date/Time
Call Out	12/21/2022 14:10
Depart Facility	12/21/2022 19:45
On Location	12/21/2022 22:00
Rig Up Iron	12/21/2022 22:15
Job Started	12/22/2022 02:15
Job Completed	12/22/2022 04:03
Rig Down Iron	12/22/2022 04:15
Depart Location	12/22/2022 06:15

General Job Information

Metrics	Value
Well Fluid Density	8.9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	570 bbls
Rig Circulation Time	1 hours
Calculated Displacement	84 bbls
Actual Displacement	86 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	34 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	8.9 lb/gal
Well Fluid Density Out of Well	8.9 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	81 °F
BHST	99 °F

Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	45 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	180 mg/L	0-3000 mg/L
Total Alkalinity	80	0-1000
Total Hardness	100 mg/L	0-500 mg/L
Carbonates	NA mg/L	0-100 mg/L
Sulfates	120 mg/L	0-1500 mg/L
Potassium	140 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		20.00	0
2	Lead	Lead	12.30	2.21	12.72		165.00	65.04	0
3	Tail	Tail	12.80	1.97	10.87		187.00	65.45	425
4	Water	DisplacementFinal	8.34			42.00		84.00	0

Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Lead	Lead	ASTM TYPE I/II	Cement	100.00	%
2	Lead	Lead	A-7P	Accelerator	2.00	lb/sk
2	Lead	Lead	ATHX-1102	Thixotropic	1.00	lb/sk
2	Lead	Lead	FP-24	Defoamer	0.30	%BWOB
2	Lead	Lead	IntegraSeal POLI	LostCirculation	0.25	lb/sk
2	Lead	Lead	STATIC FREE	Other	0.01	lb/sk
3	Tail	Tail	ASTM TYPE I/II	Cement	100.00	%
3	Tail	Tail	A-7P	Accelerator	2.00	lb/sk
3	Tail	Tail	ATHX-1102	Thixotropic	1.00	lb/sk
3	Tail	Tail	FP-24	Defoamer	0.30	%BWOB
3	Tail	Tail	IntegraSeal POLI	LostCirculation	0.25	lb/sk
3	Tail	Tail	STATIC FREE	Other	0.01	lb/sk

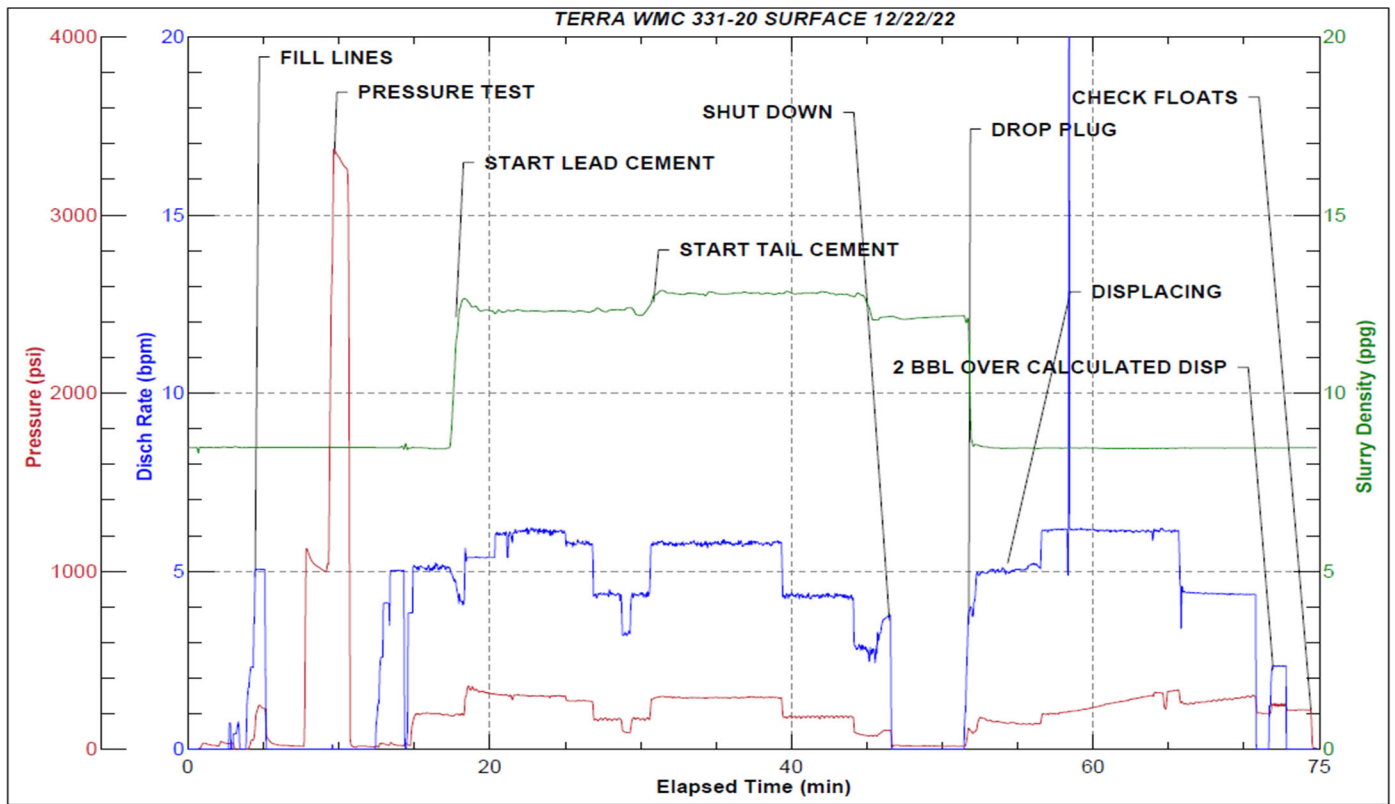
Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	12/21/2022	14:10					CREW CALLED OUT FOR LOCATION TIME OF 22:00
2	Depart Location	12/21/2022	19:45					CREW DEPARTS RCO YARD FOR RIG LOCATION
3	Arrive On Location	12/21/2022	22:00					CREW AND EQUIPMENT ARRIVED ON LOCATION
4	Rig Up Iron	12/21/2022	22:15					PRE-RIG UP MEETING / RIG UP IRON HOSES AND EQUIPMENT ON STANDBY WAITING FOR CASING TO FINISH BEING RAN @ 23:00
5	Safety Meeting	12/22/2022	02:15					PRE JOB SAFTEY-MEETING WITH RIG CREW AND COMPANY MAN
6	Fill Lines	12/22/2022	02:48	8.34	5	5	240	FILL LINES WITH 5 BBLS OF FRESH WATER
7	Pressure Test Lines	12/22/2022	02:55	8.34			3374	PRESSURE TEST PUMP AND LINES TO 3000 PSI
8	Other	12/22/2022	03:00	8.34	5	20	328	PUMP 20 BBLS FRESH WATER SPACER FULL RETURNS
9	Pump Lead Cement	12/22/2022	03:05	12.3	5.5	0	330	BEGIN PUMPING 12.3 PPG LEAD CEMENT, WEIGHT VERIFIED BY MUD SCALE
10	Pump Lead Cement	12/22/2022	03:11	12.3	6	30	311	30 BBLS LEAD CEMENT PUMPED
11	Pump Lead Cement	12/22/2022	03:17	12.3	4.5	35	170	65 BBLS (165 SKS) LEAD CEMENT PUMPED FULL RETURNS
12	Pump Tail Cement	12/22/2022	03:17	12.8	4.5	0	175	BEGIN PUMPING 12.8 PPG TAIL CEMENT, WEIGHT VERIFIED BY MUD SCALE
13	Pump Tail Cement	12/22/2022	03:23	12.8	6	30	290	30 BBLS TAIL CEMENT PUMPED
14	Pump Tail Cement	12/22/2022	03:33	12.8	3.5	35	100	65 BBLS (187 SKS) TAIL CEMENT PUMPED FULL RETURNS
15	Drop Top Plug	12/22/2022	03:39	8.34	5	0	110	DROP PLUG, WITNESSED BY COMPANY MAN. BEGIN PUMPING FRESH WATER DISPLACEMENT, FULL RETURNS
16	Pump Displacement	12/22/2022	03:43	8.34	5	20	155	20 BBLS DISPLACEMENT PUMPED, SPACER BACK @ 30 BBLS FULL RETURNS
17	Pump Displacement	12/22/2022	03:49	8.34	6	30	256	50 BBLS DISPLACEMENT PUMPED, CEMENT TO SURFACE @ 50 BBLS PUMPED, 34 BBLS TOTAL CEMENT TO SURFACE
18	Pump Displacement	12/22/2022	03:59	8.34	4	34	280	84 BBLS TOTAL DISPLACEMENT PUMPED
19	Other	12/22/2022	04:00	8.34	4	2	280	DID NOT LAND PLUG. PUMPED 2 BBLS OVER CALCULATED DISPLACEMENT TOTAL DISPLACEMENT PUMPED 86 BBLS FINAL CIRCULATING PRESSURE 280
20	Check Floats	12/22/2022	04:02					BLEED OFF CHECK FLOATS, FLOATS HELD .5 BBLS BACK
21	Rig Down Iron	12/22/2022	04:15					RIG DOWN MEETING, PICKLE, BLOW DOWN IRON, RIG DOWN EQUIPMENT, IRON AND HOSES
22	Depart Location	12/22/2022	06:15					CREW DEPARTS LOCATION FOR RCO YARD

Pump Diagrams



JobMaster Program Version 5.01C1
Job Number: 85052
Customer: TERRA
Well Name: FEDERAL WMC 331-20



Job Start: Thursday, December 22, 2022