



Terra Energy Partners, LLC

SURFACE POST JOB REPORT

FEDERAL NR 542-3 05-045-24464

S:3 T:6S R:94W Garfield CO

CallSheet #: 80626

Proposal #: 58202



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,

Zen Keith

SME | (720) 934-5850 | zen.keith@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	19.124	94		0	80	0
Open Hole	Outer	n/a	13.5	n/a	n/a	0	500	16
Openhole	Outer		13.5			500	1126	16
Casing	Inner	9.625	8.921	11.6	LTC	0	1126	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Cement Trailer Float	CTF-280	TRC(TRB)-112	Kirchenwitz, Jacob
Cement Pump Float	CPF-012	TRH-964	Gonzales, Ivan
Light Duty Vehicles	LDV-083		Putnam, Gage

Timing

Event	Date/Time
Call Out	3/18/2022 20:15
Depart Facility	3/18/2022 20:20
On Location	3/19/2022 01:00
Rig Up Iron	3/19/2022 01:15
Job Started	3/19/2022 06:36
Job Completed	3/19/2022 07:29
Rig Down Iron	3/19/2022 07:45
Depart Location	3/19/2022 08:45

General Job Information

Metrics	Value
Well Fluid Density	8.9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	250 bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	82.8 bbls
Actual Displacement	82.8 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	13 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	80 °F
BHST	97 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	62 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	72 mg/L	0-3000 mg/L
Total Alkalinity	120	0-1000
Total Hardness	80 mg/L	0-500 mg/L
Carbonates	NA mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	450 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 Cement	Lead	12.30	2.34	13.42		122.00	50.81	0
3	Tail Cement	Tail	12.80	2.08	11.46		174.00	64.35	500
4	Water	DisplacementFinal	8.34			42.00		83.00	0

Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Lead	Lead Cement	ASTM TYPE I/II	Cement	100.00	%
2	Lead	Lead Cement	A-10	Accelerator	5.00	%BWOB
2	Lead	Lead Cement	A-2	Accelerator	2.00	lb/sk
2	Lead	Lead Cement	A-7P	Accelerator	2.00	lb/sk
2	Lead	Lead Cement	FP-24	Defoamer	0.30	%BWOB
2	Lead	Lead Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
2	Lead	Lead Cement	STATIC FREE	Other	0.01	lb/sk
3	Tail	Tail Cement	ASTM TYPE I/II	Cement	100.00	%
3	Tail	Tail Cement	A-10	Accelerator	5.00	%BWOB
3	Tail	Tail Cement	A-2	Accelerator	2.00	lb/sk
3	Tail	Tail Cement	A-7P	Accelerator	2.00	lb/sk
3	Tail	Tail Cement	FP-24	Defoamer	0.30	%BWOB
3	Tail	Tail Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
3	Tail	Tail Cement	STATIC FREE	Other	0.01	lb/sk

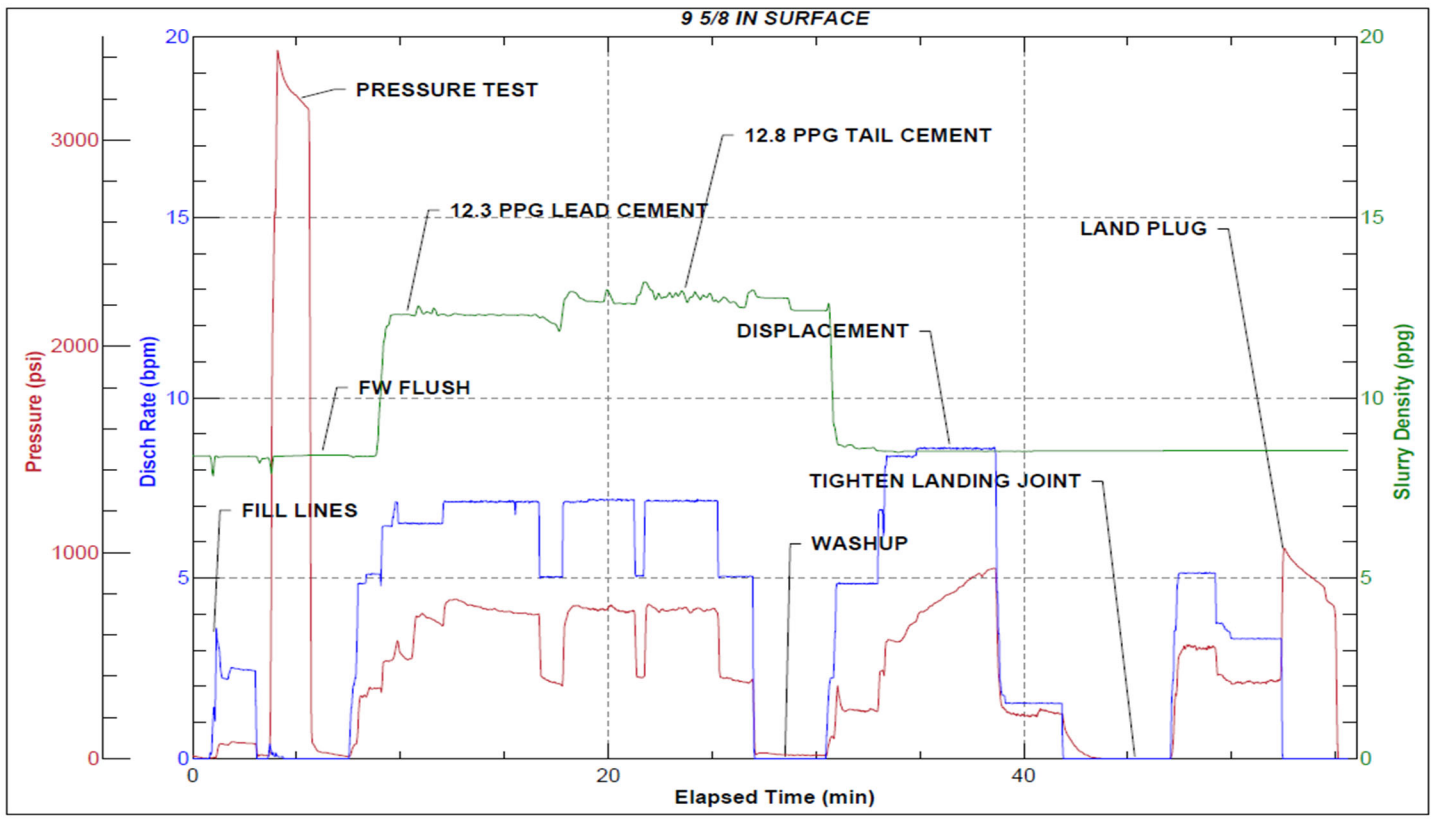
Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	3/18/2022	20:15					CREW CALLED OUT FOR ON LOCATION TIME OF 02:00 3/19/22
2	Depart Location	3/18/2022	20:20					CREW DEPARTS RCO YARD FOR RIG LOCATION
3	Arrive On Location	3/19/2022	01:00					CREW ARRIVES ON LOCATION
4	Rig Up Iron	3/19/2022	01:15					RIG UP IRON AND HOSES
5	Safety Meeting	3/19/2022	06:23					JSA SAFETY MEETING WITH AC, RIG CREW, AND CUSTOMER REP
6	Fill Lines	3/19/2022	06:36	8.34	2	5	78	FILL LINES WITH 5 BBLS FRESH WATER
7	Pressure Test Lines	3/19/2022	06:40				3430	PRESSURE TEST PUMP AND LINES TO 3000 PSI
8	Other	3/19/2022	06:43	8.34	5	15	324	PUMP REMAINING 15 BBLS FRESH WATER FLUSH
9	Pump Lead Cement	3/19/2022	06:46	12.3	5	50.8	502	PUMPED 50.8 BBLS 12.3 PPG LEAD CEMENT, DENSITY VERIFIED BY MUD SCALE
10	Pump Tail Cement	3/19/2022	06:53	12.8	7	64.4	740	PUMPED 64.4 BBLS 12.8 PPG TAIL CEMENT, DENSITY VERIFIED BY MUD SCALE
11	Clean Pumps and Lines	3/19/2022	07:03					WASH UP PUMP, WASHED UP ON PLUG
12	Drop Top Plug	3/19/2022	07:06	8.34	4	0	374	DROP PLUG, WITNESSED BY CUSTOMER REP. BEGIN DISPLACEMENT
13	Pump Displacement	3/19/2022	07:14	8.34	8.5	50	901	50 BBLS FRESH WATER DISPLACEMENT PUMPED, SHUT DOWN AT 60 BBLS AWAY TO TIGHTEN LEAKING LANDING JOINT
14	Cement Back to Surface	3/19/2022	07:24	8.34	1.5	20	544	CEMENT TO SURFACE AT 70 BBLS FRESH WATER DISPLACEMENT PUMPED. 12.8 BBLS CEMENT TO SURFACE
15	Pump Displacement	3/19/2022	07:29	8.34	3.5	12.8	480	82.8 BBLS FRESH WATER DISPLACEMENT PUMED. SLOWED RATE LAST 10 BBLS TO LAND PLUG
16	Land Plug	3/19/2022	07:29				913	PLUG LANDED. FCP - 480 PSI, BUMPED TO 913 PSI
17	Check Floats	3/19/2022	07:31					CHECK FLOATS, FLOATS HELD, 0.5 BBLS BACK
18	Rig Down Iron	3/19/2022	07:45					RIG DOWN IRON AND HOSES
19	Depart Location	3/19/2022	08:45					AC CREW DEPARTS LOCATION

Pump Diagrams



JobMaster Program Version 5.01C1
Job Number: 80626
Customer: TERRA
Well Name: FEDERAL NR 542-3



Job Start: Saturday, March 19, 2022