



Terra Energy Partners, LLC

SURFACE POST JOB REPORT

FEDERAL RWF 321-8 05-045-24318
S:8 T:6S R:94W Garfield CO

CallSheet #: 75433
Proposal #: 50731



SURFACE Post Job Report

Attention: Mr. Lynn Cass | (970) 263-2716 | lcass@terraep.com
Terra Energy Partners, LLC
4828 Loop Central Dr., Suite 900 | Houston, TX 77081

Dear Mr. Lynn Cass,

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

Field Engineer | (307) 757-7178 | zen.keith@americacementing.com

Field Office 28730 US-6, Rifle, CO 81650
Phone: (970) 305-4888

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1 Job Details & Summary

Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)	Excess (%)
Open Hole	Outer		13.5		0	500	16
Open Hole	Outer		13.5		500	1000	16
Casing	Inner	9.625	8.921	36	0	1000	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Mileage
Bulk Trailer	CTF-161	TRB-090	Kirchenwitz, Jacob	58
Cement Pump	CPF-011	TRH-957	Brennecke, Dirk	58
Light Duty Pickups	LDV-3104		Linn, Paul	58

Timing

Event	Date/Time
Call Out	11/20/2020 02:30
Depart Facility	11/20/2020 06:22
On Location	11/20/2020 06:00
Rig Up Iron	11/20/2020 07:16
Job Started	11/20/2020 12:03
Job Completed	11/20/2020 12:46
Rig Down Iron	11/20/2020 13:21
Depart Location	11/20/2020 14:16

General Job Information

Metrics	Value
Well Fluid Density	9.5 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	400 bbls
Rig Circulation Time	1 hours
Calculated Displacement	77.44 bbls
Actual Displacement	77.5 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	18 bbls
Well Topped Out	No

Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
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	80 °F
BHST	97 °F

Circulation

Lost Circulation Experienced
No

Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Top (ft)
1	1	Water	Flush	8.34			42.00		20.00	0
1	2	Lead Cement	Lead	12.30	2.34	13.42		122.00	50.82	0
1	3	Tail Cement	Tail	12.80	2.08	11.46		146.00	53.99	500
1	4	Water	DisplacementFinal	8.34			42.00		74.00	0

Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Lead	Lead Cement	ASTM TYPE III	Cement	100.00	%
1	2	Lead	Lead Cement	A-10	Accelerator	5.00	%BWOB
1	2	Lead	Lead Cement	A-2	Accelerator	2.00	lb/sk
1	2	Lead	Lead Cement	A-7P	Accelerator	2.00	lb/sk
1	2	Lead	Lead Cement	FP-24	Defoamer	0.30	%BWOB
1	2	Lead	Lead Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
1	3	Tail	Tail Cement	ASTM TYPE III	Cement	100.00	%
1	3	Tail	Tail Cement	A-10	Accelerator	5.00	%BWOB
1	3	Tail	Tail Cement	A-2	Accelerator	2.00	lb/sk
1	3	Tail	Tail Cement	A-7P	Accelerator	2.00	lb/sk
1	3	Tail	Tail Cement	FP-24	Defoamer	0.30	%BWOB
1	3	Tail	Tail Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk

2 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	11/20/2020	02:30					Callout, on location of 12:00 on 11/20/2020
2	Safety Meeting	11/20/2020	06:10					Pre-Convoy Safety meeting
3	Depart Location	11/20/2020	06:22					Depart from Rifle yard for H&P 318
4	Safety Meeting	11/20/2020	07:08					Pre-Rig Up Safety meeting
5	Rig Up Iron	11/20/2020	07:16					Rig up all ground equipment
6	Safety Meeting	11/20/2020	11:38					Pre-Job Safety meeting with rig crew, company man, and American Cementing
7	Rig Up Iron	11/20/2020	11:52					Load plug in plug container (verified by company man), stab plug container, hook up lines
8	Fill Lines	11/20/2020	12:03	8.4	2	5	101	Fill lines with 5 bbls of fresh water
9	Pressure Test Lines	11/20/2020	12:06				3864	Pressure test to 3854 psi
10	Pump Spacer	11/20/2020	12:09	8.4	5	20	318	Pump Water spacer
11	Pump Lead Cement	11/20/2020	12:12	12.3	7.5	5	880	Pump Lead Cement @ 12.3 ppg
12	Pump Lead Cement	11/20/2020	12:17	12.3	7.5	35	868	Pump Lead Cement
13	Pump Lead Cement	11/20/2020	12:19	12.3	5	52	466	Finished pumping Lead Cement with 52 bbls away
14	Pump Tail Cement	11/20/2020	12:21	12.8	7.5	5	752	Pump Tail Cement @ 12.8 ppg
15	Pump Tail Cement	11/20/2020	12:25	12.8	7.5	35	814	Pump Tail Cement
16	Pump Tail Cement	11/20/2020	12:30	12.8	4	56	466	Pump Tail Cement
17	Shutdown	11/20/2020	12:30					Shutdown with 56 bbls of Tail Cement away
18	Drop Top Plug	11/20/2020	12:32					Drop plug, verified by company man
19	Pump Displacement	11/20/2020	12:33	8.4	10	10	888	
20	Pump Displacement	11/20/2020	12:38	8.4	10	50	1053	Pump Fresh water displacement
21	Pump Displacement	11/20/2020	12:39	8.4	10	64	1133	Pump Fresh water displacement
22	Pump Displacement	11/20/2020	12:43	8.4	2.5	77	378	Pump Fresh water displacement
23	Cement Back to Surface	11/20/2020	12:43					18 bbls of cement to surface
24	Land Plug	11/20/2020	12:43				1053	Landed the plug @ 378 psi took to 1053 psi
25	Check Floats	11/20/2020	12:46					Check floats, floats held 1/2 bbl back
26	Safety Meeting	11/20/2020	12:56					Pre-Rig Down safety meeting with rig crew
27	Rig Down Iron	11/20/2020	13:03					Rig down rig floor
28	Safety Meeting	11/20/2020	13:11					Pre-Rig Down Safety meeting with American Cementing crew
29	Rig Down Iron	11/20/2020	13:21					Rig Down all equipment
30	Safety Meeting	11/20/2020	14:06					Pre-Convoy Safety meeting
31	Depart Location	11/20/2020	14:16					Depart from location for Rifle yard. Thank you for using American Cementing, Andrew Linn, and crew

3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	69.6 °F	50-80 °F
pH Level	8	5.5-8.5
Chlorides	400 mg/L	0-3000 mg/L
Total Alkalinity	0	0-1000
Total Hardness	>200 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	320 mg/L	0-1500 mg/L
Potassium	0 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

4 Pump Diagrams

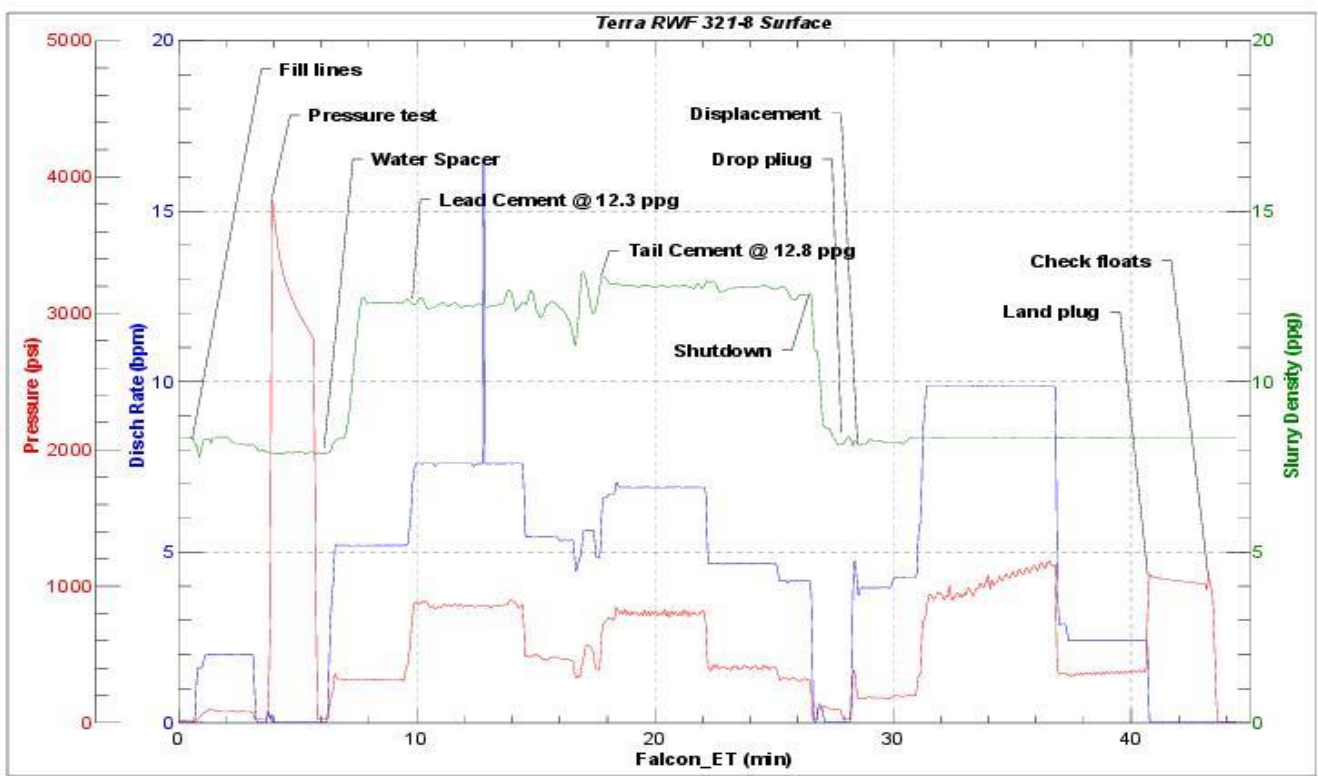


JobMaster Program Version 5.01C 1

Job Number:

Customer:

Well Name:



BJ Services

Job Start: Friday, November 20, 2020