



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

FEDERAL RWF 331-9 05-045-24402
S:9 T:6S R:94W Garfield CO

CallSheet #: 79405
Proposal #: 56329



LONG STRING Post Job Report

Attention: Dustin Childers | (936) 524-8828 | dchilders@terraep.com
Terra Energy Partners, LLC
4828 Loop Central Dr., Suite 900 | Houston, TX 77081

Dear 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,

Michael Harold

Field Engineer II | (970) 773-3636 | michael.harold@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	1119	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1100	10036	55
Casing	Inner	4.5	4	11.6	n/a	0	10029.43	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS(CTS)-438		
Field Storage Silo	FSS(CTS)-470		
AS Cement Trailer	CTF-901		
AS Cement Trailer	CTF-7145		
AS Cement Trailer	CTF-9309		
Cement Trailer	CTF-340	TRB-421	
Cement Pump	CPF-136	TRH-959	Woronovitch, Collin
Light Duty Vehicles	LDV-061		Linn, Paul

Timing

Event	Date/Time
Call Out	12/13/2021 01:38
Depart Facility	12/13/2021 09:43
On Location	12/13/2021 10:52
Rig Up Iron	12/13/2021 17:42
Job Started	12/13/2021 20:54
Job Completed	12/13/2021 23:00
Rig Down Iron	12/13/2021 23:12
Depart Location	12/14/2021 00:33

General Job Information

Metrics	Value
Well Fluid Density	11.3 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	550 bbls
Rig Circulation Time	1 hours
Calculated Displacement	154.82 bbls
Actual Displacement	155 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	Yes
Flare Prior to Job	2536 units
Flare During Job	No
Flare During Job	1523 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	11.3 lb/gal
Well Fluid Density Out of Well	11.3 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	164 °F
BHST	234 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	65.5 °F	50-80 °F
pH Level	7.5	5.5-8.5
Chlorides	385 mg/L	0-3000 mg/L
Total Alkalinity	200	0-1000
Total Hardness	120 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	>350 mg/L	0-1500 mg/L
Potassium	550 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
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	4425
2	Mud Flush	Flush	8.45			40.86		20.00	4543
3	Water	Flush	8.34			42.00		10.00	4779
4	Primary Cement	Primary	14.20	1.72	8.08		1441.00	442.01	4897
5	Displacement	DisplacementFinal	8.34			42.00		157.00	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	Primary	Primary Cement	CLASS G	Cement	80.00	%
4	Primary	Primary Cement	FLY ASH (POZZOLAN)	Extender	20.00	%
4	Primary	Primary Cement	FL-66	FluidLoss	0.40	%BWOB
4	Primary	Primary Cement	FP-24	Defoamer	0.30	%BWOB
4	Primary	Primary Cement	GW-86	Viscosifier	0.10	%BWOB
4	Primary	Primary Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
4	Primary	Primary Cement	R-3	Retarder	0.30	%BWOB
4	Primary	Primary Cement	S-8	StrengthRetrogression	27.00	%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	12/13/2021	01:38					Callout, on location of 11:00 12/13/21
2	Safety Meeting	12/13/2021	09:30					Pre-Convoy Safety meeting
3	Depart Location	12/13/2021	09:43					Depart Rifle yard for H&P 329
4	Arrive On Location	12/13/2021	10:52					Arrive on location rig was running casing, couldn't spot on until 17:30
5	Safety Meeting	12/13/2021	17:25					Pre-Rig up safety meeting
6	Rig Up Iron	12/13/2021	17:42					Rig up all ground equipment
7	Safety Meeting	12/13/2021	20:00					Pre-Job Safety meeting with rig crew, company man, and American Cementing crew
8	Rig Up Iron	12/13/2021	20:15					Load plug in plug container (verified by company man), stab plug container and hook up lines
9	Fill Lines	12/13/2021	20:54	8.4	4	5	522	Fill lines
10	Pressure Test Lines	12/13/2021	20:56				5429	Pressure test to 5429 psi
11	Pump Spacer	12/13/2021	21:01	8.4	5	10	534	Pump Water spacer
12	Pump Spacer	12/13/2021	21:08	8.5	5	20	568	Pump Mud Flush
13	Pump Spacer	12/13/2021	21:10	8.4	5	10	841	Pump Water spacer
14	Pump Cement	12/13/2021	21:12	14.2	6.5	5	1535	Pump Primary Cement @ 14.2 ppg
15	Pump Cement	12/13/2021	21:16	14.2	6.5	50	1215	Pump Primary Cement
16	Pump Cement	12/13/2021	21:29	14.2	7.5	100	1389	Pump Primary Cement
17	Pump Cement	12/13/2021	21:35	14.2	7.5	150	1089	Pump Primary Cement
18	Pump Cement	12/13/2021	21:44	14.2	7	200	933	Pump Primary Cement
19	Pump Cement	12/13/2021	21:50	14.2	7	250	1142	Pump Primary Cement
20	Pump Cement	12/13/2021	21:56	14.2	8	300	1138	Pump Primary Cement
21	Pump Cement	12/13/2021	22:05	14.2	8	350	1238	Pump Primary Cement
22	Pump Cement	12/13/2021	22:11	14.2	5.5	400	556	Pump Primary Cement
23	Pump Cement	12/13/2021	22:22	14.2	5.5	450	695	Pump Primary Cement
24	Shutdown	12/13/2021	22:22					Shutdown with 450 bbl of cement away
25	Clean Pumps and Lines	12/13/2021	22:24					Clean pumps and lines to pit
26	Drop Top Plug	12/13/2021	22:32					Drop plug, verified by company man
27	Pump Displacement	12/13/2021	22:34	8.4	8	10	487	Pump KCL Displacement
28	Pump Displacement	12/13/2021	22:40	8.4	8	50	1314	Pump KCL Displacement
29	Pump Displacement	12/13/2021	22:47	8.4	8	100	2211	Pump KCL Displacement
30	Pump Displacement	12/13/2021	22:54	8.4	6	140	2729	Pump KCL Displacement
31	Pump Displacement	12/13/2021	22:57	8.4	4	155	2772	Pump KCL Displacement
32	Land Plug	12/13/2021	22:57				3850	Landed the plug @ 2772 psi took to 3850 psi
33	Check Floats	12/13/2021	23:00					Check floats, floats held 2 1/4 bbls back
34	Safety Meeting	12/13/2021	23:04					Pre-Rig down safety meeting
35	Rig Down Iron	12/13/2021	23:12					Rig down all equipment
36	Safety Meeting	12/14/2021	00:22					Pre-Convoy Safety meeting
37	Depart Location	12/14/2021	00:33					Depart from location for Rifle yard. Thank you for using American Cementing, Andrew Linn, and crew

Pump Diagrams

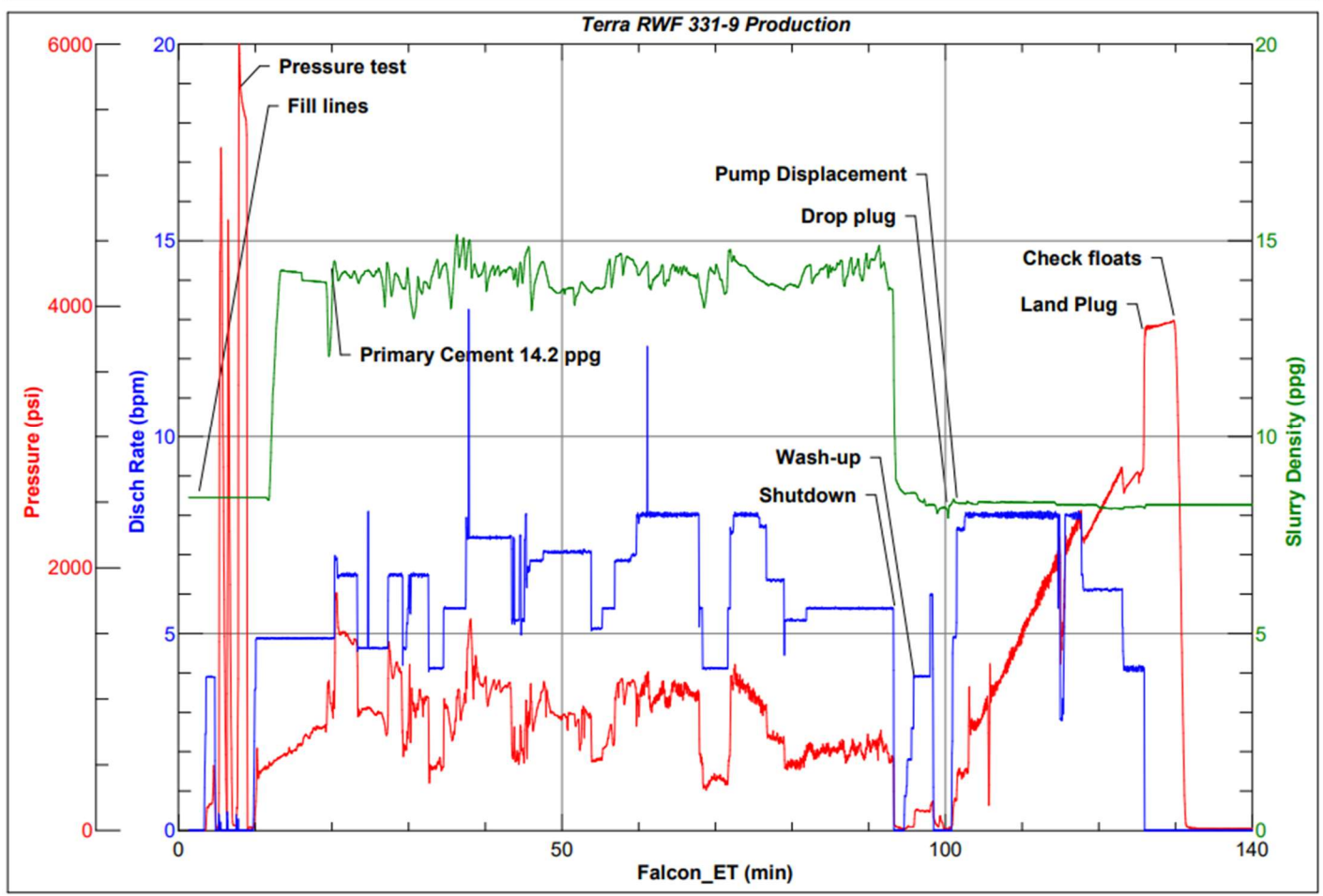


JobMaster Program Version 5.01C1

Job Number: 79405

Customer: Terra

Well Name: RWF 331-9



BJ Services

Job Start: Monday, December 13, 2021