



# **Terra Energy Partners, LLC**

## **SURFACE POST JOB REPORT**

**CHEVRON GM 32-19 05-045-24360**  
**S:20 T:6S R:96W Garfield CO**

CallSheet #: 75705  
Proposal #: 50968



**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

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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) 657-1187

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# 1 Job Details & Summary

## Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Open Hole	Outer	n/a	13.5	n/a	n/a	0	500	16
Open Hole	Outer	n/a	13.5	n/a	n/a	500	1035	16
Casing	Inner	9.625	8.921	36	n/a	0	1028	0

## Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2	Mileage
Bulk Trailer	CTF-555	TRB-425	Sakveerateatkul, Tanat		56
Cement Pump	CPF-012	TRH-1140	Ware, Phillip		
Light Duty Trailers	LDV-3106		Diaz, Douglas	Aden, Mark	56

## Timing

Event	Date/Time
Call Out	12/18/2020 20:00
Depart Facility	12/18/2020 20:45
On Location	12/18/2020 21:27
Rig Up Iron	12/18/2020 21:30
Job Started	12/18/2020 23:47
Job Completed	12/19/2020 00:32
Rig Down Iron	12/19/2020 00:32
Depart Location	12/19/2020 01:15

## General Job Information

Metrics	Value
Well Fluid Density	9.3 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	330 bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	74 bbls
Actual Displacement	74 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	11 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	9.3 lb/gal
Well Fluid Density Out of Well	9.3 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 <sup>3</sup> /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sk)	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	447
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	12/18/2020	20:00					Yard call 2000 on location 2200. Crew Temps D. Diaz 96.7, M. Aden 96.8, P. Ware 95.9, Tanat 97.3
2	Depart For Location	12/18/2020	20:45					Leave Rifle yard for location
3	Arrive On Location	12/18/2020	21:27					Arrive on location, rig pulling drill pipe
4	Spot Equipment	12/18/2020	21:27					Spot in all equipment
5	Rig Up Iron	12/18/2020	21:30					Pre rig up safety meeting, ring in all equipment and lines to the cellar
6	Waiting	12/18/2020	21:45					Waiting on rig to run casing and circulate
7	Safety Meeting	12/18/2020	23:28					Pre job safety meeting with company man
8	End Circulation	12/18/2020	23:33					Rig ended circulation, circulated 30 mins @ 11 BBLs/min total of 330 BBLs
9	Waiting	12/18/2020	23:33					Waiting on rig to lay down landing joint
10	Rig Up Iron	12/18/2020	23:40					Rig up lines in the cellar
11	Pump Spacer	12/18/2020	23:47	8.34	7	15	280	Pumping fresh water spacer, returns
12	Pressure Test Lines	12/18/2020	23:50				3000	Pressure test
13	Pump Spacer	12/18/2020	23:53	8.34	8	5	302	Pumping fresh water spacer, returns
14	Pump Lead Cement	12/18/2020	23:56	12.3	7	0	363	Pumping lead cement
15	Pump Lead Cement	12/19/2020	00:04	12.3	3	51	97	Pumping lead cement
16	Pump Tail Cement	12/19/2020	00:04	12.8	3	0	97	Pumping tail cement
17	Pump Tail Cement	12/19/2020	00:11	12.8	7	54	406	Pumping tail cement
18	Drop Top Plug	12/19/2020	00:11					Dropped top plug verified by company man
19	Pump Displacement	12/19/2020	00:17	8.34	7	0	244	Pumping fresh water displacement
20	Pump Displacement	12/19/2020	00:24	8.34	8	50	432	Pumping fresh water displacement
21	Cement Back to Surface	12/19/2020	00:25			58		Cement to surface @ 63 BBLs pumped, 11 BBLs cement to surface
22	Pump Displacement	12/19/2020	00:29	8.34	3	74	246	Pumping fresh water displacement
23	Land Plug	12/19/2020	00:29				904	Land plug, FCP 246 PSI bumped to 904 PSI
24	Check Floats	12/19/2020	00:32					Bled pressure, floats held .5 BBL bled back
25	Rig Down Iron	12/19/2020	00:32					Pre rig down safety meeting, rig down lines in the cellar
26	Clean Pumps and Lines	12/19/2020	00:34					Wash and winterize pump and lines to cellar
27	Rig Down Iron	12/19/2020	00:50					Rig down all lines and equipment
28	Depart Location	12/19/2020	01:15					Leave location for Rifle shop

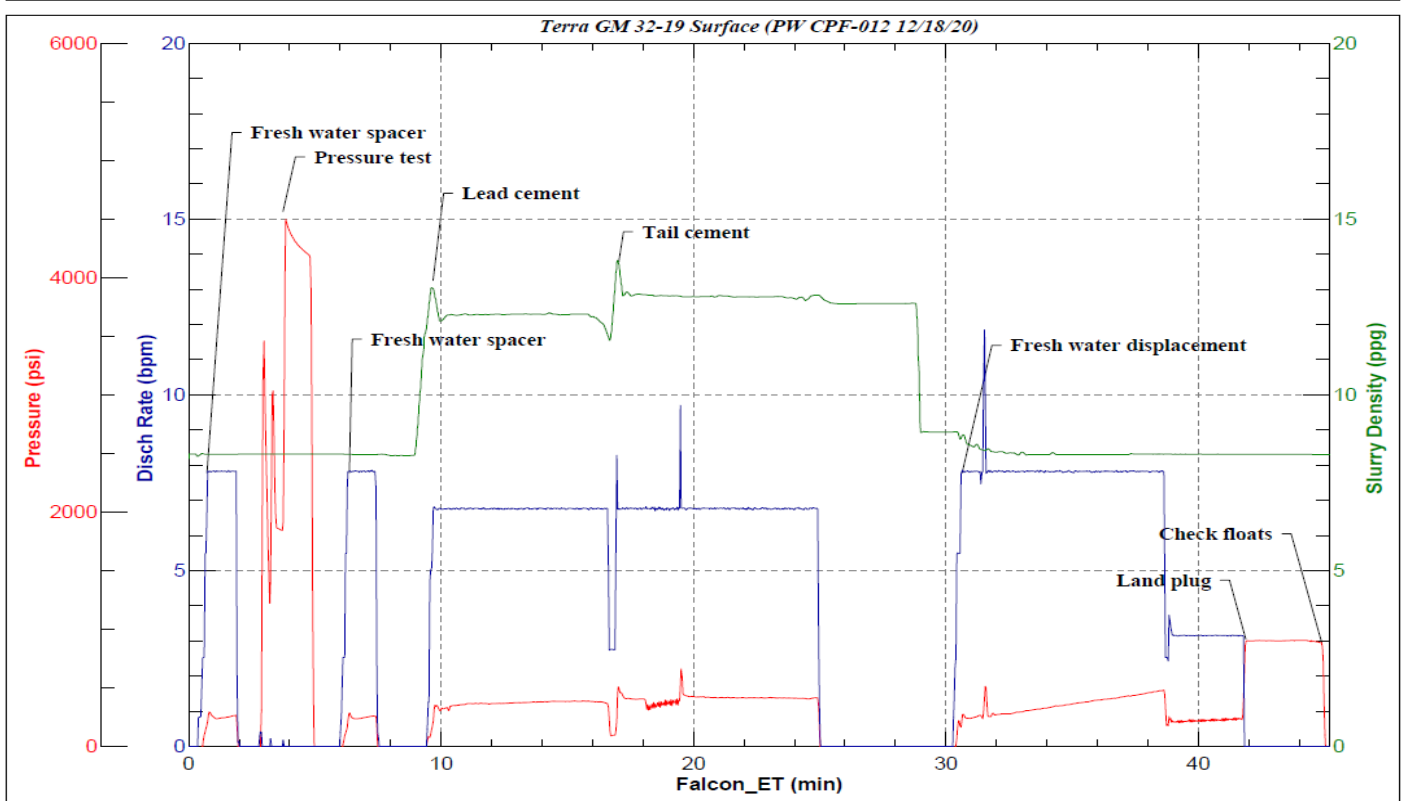
### 3 Water Analysis

Metrics	Value	Recommended
Water Source	Frac Tank	
Temperature	68 °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	425 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	<200 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 5.01C1**  
 Job Number: 75705  
 Customer: Terra  
 Well Name: GM 32-19



BJ Services

Job Start: Friday, December 18, 2020