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# **Bison IV Operating, LLC**

## **PLUG & ABANDON POST JOB REPORT**

**ROTH #14-7 05-123-14336**  
**S:7 T:7N R:59W Weld CO**

CallSheet #: 88952  
Proposal #: 72157

## Job Details & Summary

### Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	8.625	8.097	24	0	259	0
Open Hole	Outer		7.875		259	6920	0
Tubing	Inner	2.875	2.441	6.4	0	6175	0

### Equipment / People

Unit Type	Unit
Cement Pump Float	CPF-074
Cement Utility Float	CUF-162
Cement Trailer Float	CTF-408
Cement Trailer Float	CTF-574

### Timing

Event	Date/Time
Call Out	10/14/2023 15:00
Depart Facility	10/14/2023 15:15
On Location	10/14/2023 15:30
Rig Up Iron	10/14/2023 15:30
Job Started	10/14/2023 17:18
Job Completed	10/15/2023 02:04
Rig Down Iron	10/16/2023 02:20
Depart Location	10/16/2023 04:00

### General Job Information

Metrics	Value
Well Fluid Density	9.1 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	200 bbls
Rig Circulation Time	2 hours
Calculated Displacement	33.5 bbls
Actual Displacement	32.5 bbls
Well Topped Out	Yes
Top Out Volume	7 bbls

### 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	9.1 lb/gal
Well Fluid Density Out of Well	9.1 lb/gal

### Job Details (cont.)

Metrics	Value
BHCT	174 °F
BHST	210 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Flat Tank	
Temperature	60 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	180	0-1000
Total Hardness	125 mg/L	0-500 mg/L
Carbonates	140 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 <sup>3</sup> /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Designed Top (ft)
1	Flush Ahead Plug-2	Flush	8.34			42.00		20.00	0
2	Plug-2: (6175')	Plug	15.80	1.16	5.01		150.00	31.00	0
3	Plug-2 Displacement	Displacement	8.34			42.00		47.00	0
4	Flush Ahead Plug-3	Flush	8.34			42.00		20.00	0
5	Plug-3: (1602')	Plug	15.80	1.16	5.01		75.00	15.50	0
6	Plug-3 Displacement	Displacement	8.34			42.00		11.00	0
7	Flush Ahead Plug-4	Flush	8.34			42.00		20.00	0
8	Plug-4: (578')	Plug	15.80	1.16	5.01		261.00	53.9	0
9	Plug-4 Displacement	DisplacementFinal	8.34			42.00		1.00	0

### Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Plug	Plug-2: (6175')	CLASS G	Cement	100.00	%
2	Plug	Plug-2: (6175')	A-7P	Accelerator	2.00	%BWOB
5	Plug	Plug-3: (1602')	CLASS G	Cement	100.00	%
5	Plug	Plug-3: (1602')	A-7P	Accelerator	2.00	%BWOB
8	Plug	Plug-4: (578')	CLASS G	Cement	100.00	%
8	Plug	Plug-4: (578')	A-7P	Accelerator	2.00	%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	10/14/2023	15:00					Called back to location
2	Rig Up Iron	10/14/2023	15:30					Spot and rigup equipment and iron
3	Safety Meeting	10/14/2023	17:00					Safety meeting with rig crew and OSR, Job procedure was gone over.
4	Fill Lines	10/14/2023	17:18	8.34	1.5	3	200	Fill lines with 3 bbl's H2O
5	Pressure Test Lines	10/14/2023	17:25				3350	Pressure test lines to 3350 psi
6	Pump Flush	10/14/2023	17:28	8.34	2.2	20	400	Pump 20 bbl H2O flush
7	Pump Cement	10/14/2023	17:46	15.8	2.2	31	420	Pump 31 bbl's 15.8 ppg CMT ( 150 sk, 1.16 yld, 5.0 g/sk) With 2% BWOB Calcium
8	Pump Displacement	10/14/2023	18:01	8.34	2.2	33.5	100	Pump 33.5 bbl displacement with H2O per OSR
9	Shutdown	10/14/2023	18:24			32.5		Shutdown 32.5 bbl's into displacement to balance plug, Calculated TOC 5819'
10	Rig POOH	10/14/2023	18:30					
11	Circulate Well	10/14/2023	18:44	8.34	2.2	35	400	Rig pulled up 500', We circulated well for 35 bbl's with H2O, per OSR request.
12	Shutdown	10/14/2023	19:03			35		Shutdown and hand well over to rig
13	Rig POOH	10/14/2023	19:05					
14	Circulate Well	10/15/2023	05:48	8.34	2.8	10	300	Circulate Well for 10 bbl's H2O to ensure tubing is clear per OSR
15	Plug #3	10/15/2023	00:00					
16	Pump Flush	10/15/2023	09:03	8.34	2.8	25	270	Pump 25 bbl H2O flush
17	Pump Cement	10/15/2023	09:17	15.8	2.8	15.5	320	Pump 15.5 bbl's 15.8 ppg CMT ( 75 sk, 1.16 yld, 5.0 g/sk) With 2% BWOB Calcium
18	Pump Displacement	10/15/2023	09:23	8.34	2	8.2	112	Pump 33.5 bbl displacement with H2O per OSR
19	Shutdown	10/15/2023	09:27			8		Shutdown 8 bbl's into displacement to balance plug, Calculated TOC 1426'
20	Rig POOH	10/15/2023	09:30					
21	Plug #4	10/15/2023	00:00					
22	Pump Flush	10/15/2023	14:52	8.34	2.8	20	75	Pump 20 bbl H2O flush
23	Shutdown	10/15/2023	15:02					Shutdown to batch up CMT
24	Pump Cement	10/15/2023	15:14	15.8	2.5	53.9	110	Pump 53.9 bbl's 15.8 ppg CMT ( 261 sk, 1.16 yld, 5.0 g/sk) With 2% BWOB Calcium
25	Shutdown	10/15/2023	15:38					Shutdown Per OSR after pumping 53.9 bbl's CMT
26	Wash up	10/15/2023	15:45	8.34	1	1	50	Pump 1 bbl to clear lines
27	Rig POOH	10/15/2023	15:47					
28	Pump Flush	10/15/2023	19:23	8.34	2.8	20	120	Pump 20 bbl H2O flush
29	Shutdown	10/15/2023	19:30					Shutdown to batch up CMT
30	Pump Cement	10/15/2023	19:37	15.8	2.8	43.3	90	Pump 43.3 bbl's 15.8 ppg CMT ( 210 sk, 1.16 yld, 5.0 g/sk) With 2% BWOB Calcium
31	Shutdown	10/15/2023	19:53					Shutdown after pumping CMT
32	Rig POOH	10/15/2023	19:55					
33	Pump Flush	10/16/2023	01:48	8.34	2	5	30	Pump 5 bbl H2O Flush
34	Shutdown	10/16/2023	01:51					Shutdown to batch up CMT
35	Pump Cement	10/16/2023	01:58	15.8	2	7	30	Pump 7 bbl's 15.8 ppg CMT ( 34 sk, 1.16 yld, 5.0 g/sk) With 2% BWOB Calcium
36	Shutdown	10/16/2023	02:04					Pumped 7 bbl's of CMT and got 2 bbl's back to surface
37	Rig Down Iron	10/16/2023	02:20					Wash up and rig down equipment

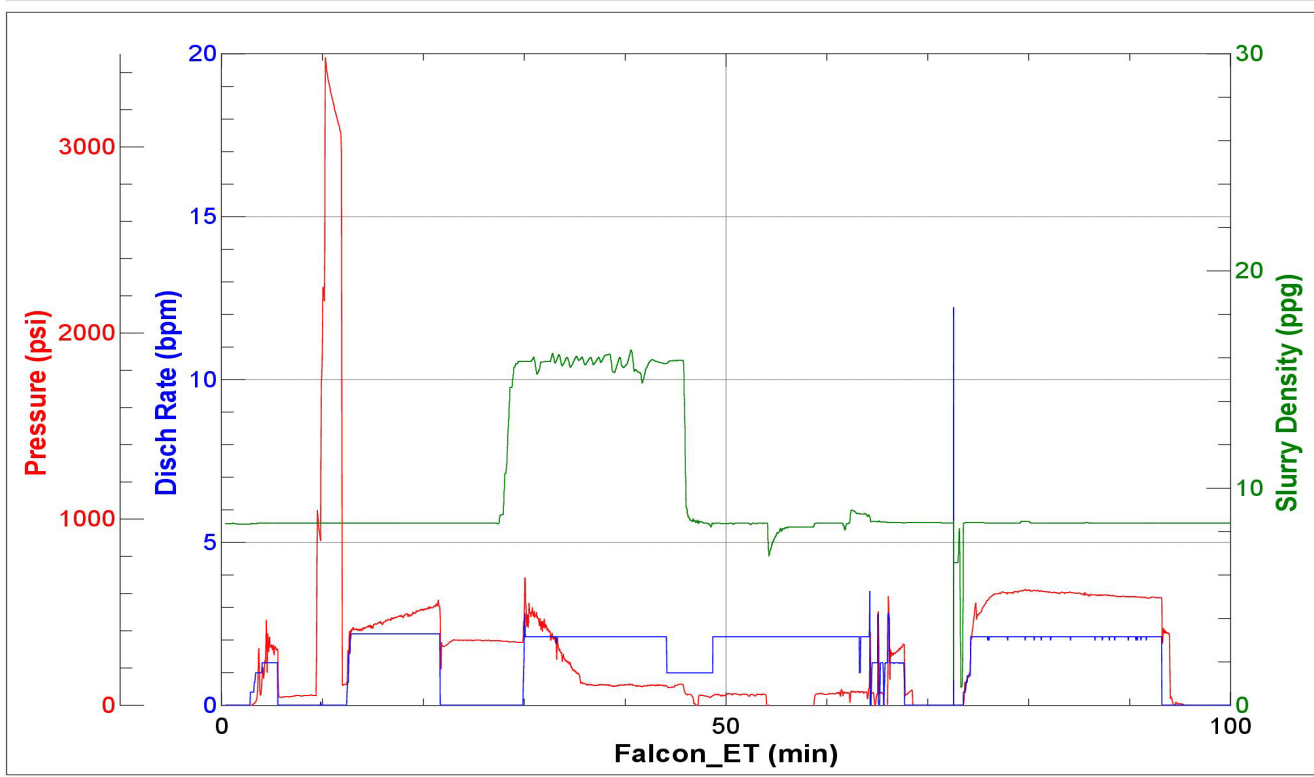


Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
38	Depart Location	10/16/2023	04:00					Depart location

# Pump Diagrams



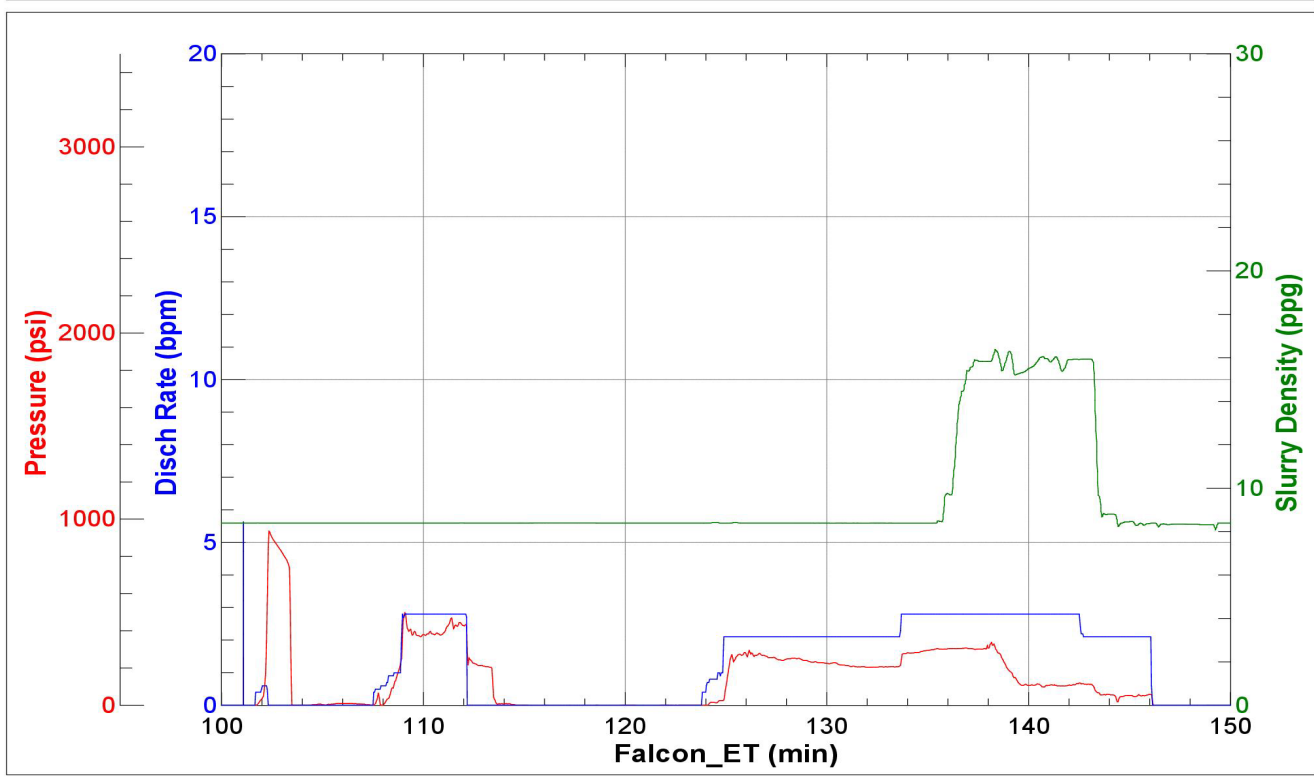
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 Well Name: Roth 14-7 Plug #2



Job Start: Saturday, October 14, 2023



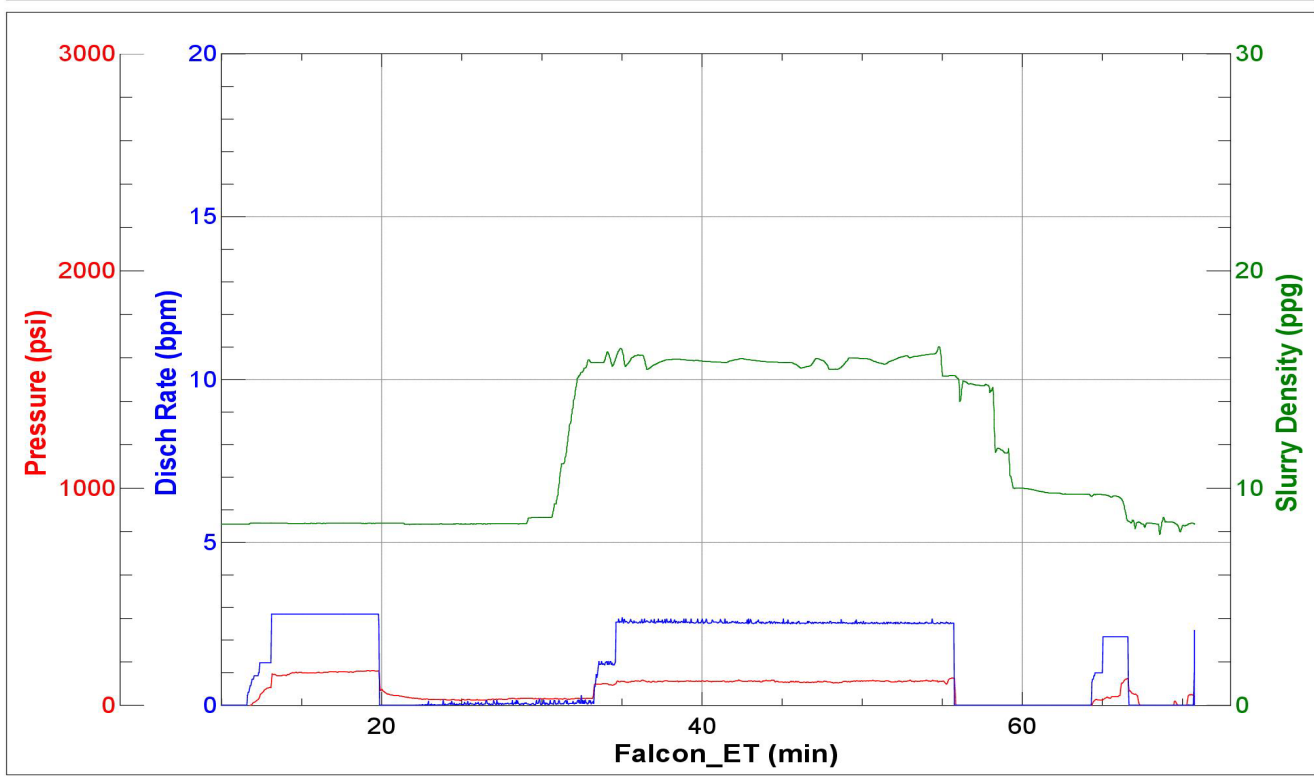
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 Customer: Bison IV Operating, LLC  
 Well Name: Roth 14-7 Plug #3



Job Start: Saturday, October 14, 2023



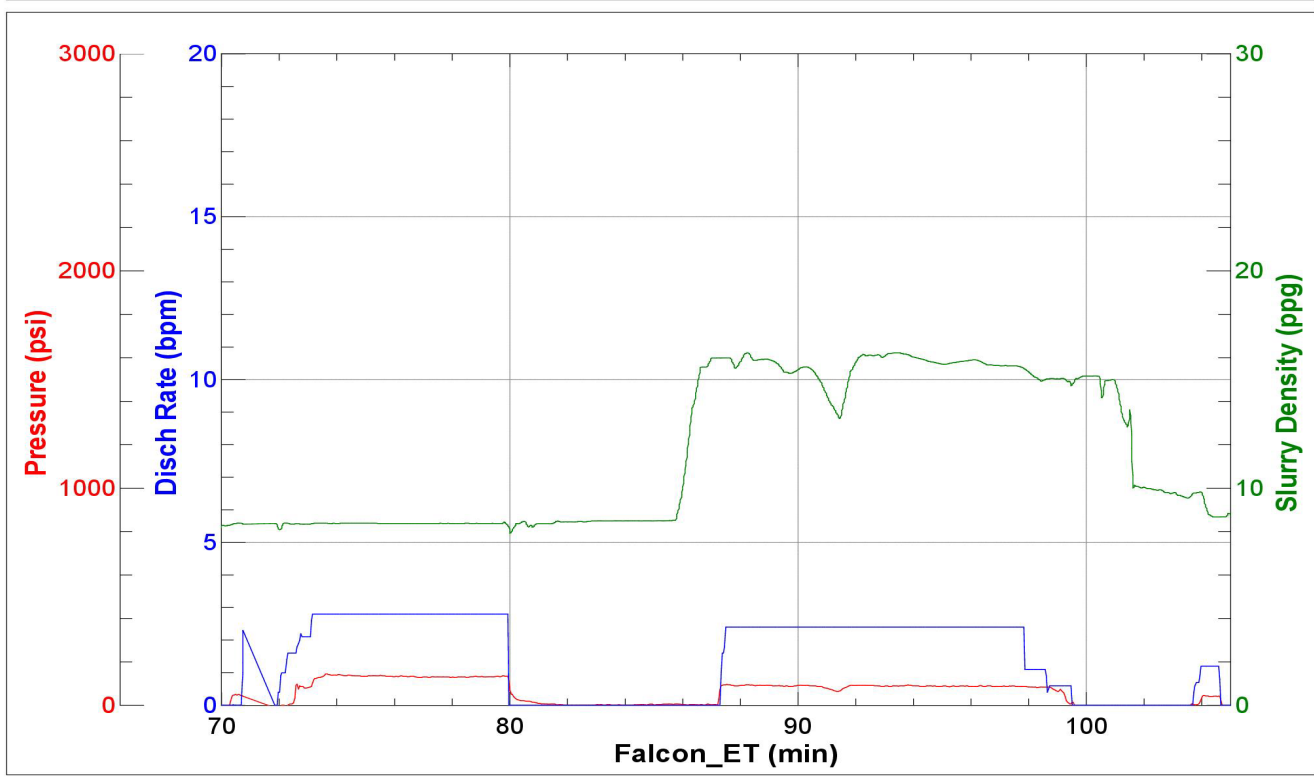
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 Well Name: Roth 14-7 Surface Plug



Job Start: Sunday, October 15, 2023



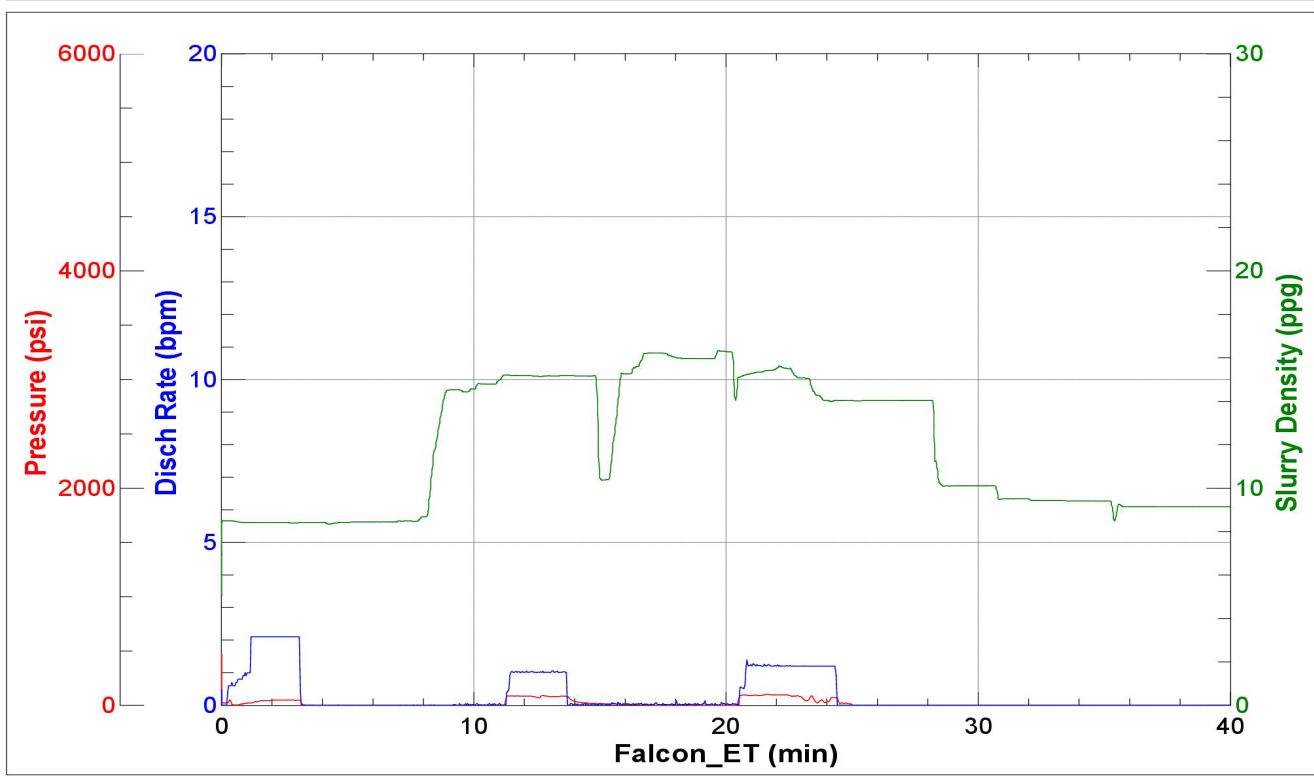
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 Job Number: 88843  
 Customer: Bison IV Operating, LLC  
 Well Name: Roth 14-7 Surface Plug #2



Job Start: Sunday, October 15, 2023



JobMaster Program Version 5.01C1  
 Job Number: 88952  
 Customer: Bison IV Operating, LLC  
 Well Name: Roth 14-7 Topout



Job Start: Monday, October 16, 2023