

# US Treatment Report



**Customer:** PDC Energy  
**Rep:** Kalib Ford  
**Supervisor:** Travis Tolman

**Rig:** Precision 462  
**Well:** SEELEY FEDERAL 108-10N-30B-L  
**UWI:** Seeley Federal 108-10N-308-L

**Job #:** JOB00080223  
**Job Date:** Feb 1 2020  
**Time Requested:** 9:30

**Job Type:** US Primary **Time Arrived:** 7:00

**Casing-Production Surface:** **Time Released:** Feb 1 2020 18:00

## Scavenger

55.29 sk MAG EV 12.9 + 0.80% MCR-3 + 0.50% MCR-1 + 0.70% MCFL-7 + 1.00% MCFW-1 + 0.50% MCGC-1 + 0.20% MCDF-P  
 Weight: 12lb/gal

Yield: 1.93 ft3/sk = 19bbbs Mix Water: 10.71 gal/sk = 592.08 gal

959.7 sk MAG EV 12.9 + 0.80% MCR-3 + 0.50% MCR-1 + 0.70% MCFL-7 + 1.00% MCFW-1 + 0.50% MCGC-1 + 0.20% MCDF-P

Yield: 1.53 ft3/sk = 261.51bbbs Mix Water: 7.72 gal/sk = 7408.96gal

1836 sk MAG EV 13.7 + 0.50% MCA-2 + 0.35% MCR-H + 0.30% MCI-2 + 0.80% MCFL-7 + 0.30% MCFR-2 + 0.50% MCFW-1 + 0.50% MCGC-1 + 0.20% MCDF-P

Yield: 1.35ft3/sack = 441.44bbbs Mix Water: 6.4gal/sack = 11750.4gal

BHCT (F)	235	BHST (F)	235	Casing 1 Casing Size (in)	5.5
Casing 1 Grade	HCP-110	Casing 1 Weight (lb/ft)	20	Casing 2 Casing Size (in)	9.625
Casing 2 Grade	J-55	Casing 2 Weight (lb/ft)	36	Collapse Csg Pressure (psi)	11080
Float Depth (ft)	17427	Funnel Vis (sec/qt)	57	Hole Size (in)	8.5
Max Csg Pressure (psi)	12640	Mud Density (lb/gal)	10.0	Mud Type	OBM
Plug Size (in)	5.5	Plug Type	Rig	TMD (ft)	17434
TVD (ft)	7010		Supplied		

Treatment Info: Sacks Used: 0 Sacks Not Used: 0

Preflush: 5bbbs Fresh Water & 38bbbs MAG Sweep-H + MAG Clean-1 & 19bbbs MAG Sweep-H

Circulation Time: 2.5

Slurry Temp: 77 Bulk Sample: Yes

Water Temp: 63 Water Sample: Yes

Bulk Temp: 68 Slurry Sample: Yes

Slurry Returns: 10 Plug Bumped: Yes Pump Out Lines: Yes Float Held: Yes

Displace: 10bbbs Sugar Water & 5bbbs Fresh Water

Time	Pressure psi	Annular Pressure psi	Volume Per Stage bbls	Total Stage Volume bbls	Rate bbls/min	Treatment Detail
07:00	0.00					Arrive on Location - On location time of 0930
12:45	0.00					Safety Meeting - Safety meeting with company man rig hands and crew
13:10	0.00					Drop Plug - Drop first bottom plug

13:13	284.00		5	5	2	Fill Lines - Load lines with fresh water
13:17	6,204.00					Start Pressure Test - Pressure test with fresh water
13:22	361.00		38	38	3.5	Pump Preflush - Pump MAG Sweep H+MAG Clean 1 at 11#
13:33	366.00		19	19	3.5	Pump Preflush - Pump MAG Sweep H at 11.5#
13:40	496.00		19	19	5	Pump Scavenger - Pump scavenger at 12#-1.93 Y
13:45	772.00		261	261	7.2	Pump Slurry - Pump lead cement at 12.9#-1.53Y-7.72 gps, est top of lead at 444'
14:25	886.00		441	441	7	Pump Slurry - Pump tail cement at 13.7#-1.35Y-6.4gps est top of tail at 6618'
15:45	0.00					Stop Pumping
15:47	0.00					Pump Out Treating Lines
15:49	0.00					Drop Plug - Drop top plug, witnessed by tool hand
15:55	3,000.00		160	160	10.6	Displace - Displace with fresh water, first 10bbbls with sugar, rest with Bio-cide, calculated displacement 386.4bbbls
16:11	2,960.00		180	180	9.2	Decrease Rate - Slowed rate
16:32	2,652.00		20	20	7.8	Decrease Rate - Slowed rate
16:35	1,950.00		26	26	4	Decrease Rate - Slow rate to land plug
16:39	2,452.00					Bump Plug - Land plug, actual displacement 386.4bbbls, got 76bbbls of pre-flush back to surface plus 10bbbls of cement
16:40	4,164.00		2	2	2	Pressure up to shift tool
16:42	1,947.00		1.5	1.5	4	Displace - Pump wet shoe
16:43	1,632.00					Stop Pumping
16:44	0.00					Check Floats - Check float, got 2.5bbbls back
16:50	0.00					Wash Up Truck
17:00	0.00					Rig Out
18:00	0.00					Leave Location