

	PDC ENERGY	YARD CALL	4/2/2019		DISTRICT
	Popham 19N	RTS DATE	4/2/2019		Brighton
		YARD RTN			
Personnel/Equipment					
Driver	Assignment	Tractor	Trailer	Comments	
Francisco Flores	Supervisor	530317	449087		
James Verhey	Operator		445051		
Brett Moll	Operator		445070		
Vernon Fox	Bulker		444002		
Jeremy McCumber	Bulker		444002		
BLEND INFO					
Amount	Units	System/Additives	Density (ppg)	Yield (cuft/sk)	Water Req. (gal/sk)
0	SX	0			
0.00					
0.00	SX	80 bbls water + 1600 lbs SAPP			
80.00	bbl	+20.0 PPB CJ890			
0	SX	80 bbls ppg Weighted Spacer - 80 bbls of 12.5 ppg Weighted Spacer: 66.3 bbl Fresh Water + 17570 lbs Barite + 80 lbs Citric Acid + 997 lbs MS Spacer + 40 lbs X-Air			
80.00	bbl	+219.63 PPB CJ300+1.0 PPB CJ209+0.5 PPB CJ776+12.46 PPB CJ801	12.5		
25	SX	C&J Non Latex Lead 1-1			
0.00		50 % CJ914+50 % CJ010-74 +2.0 % CJ020+0.4 % CJ548+0.3 % CJ240+10.0 % CJ041+0.3 % CJX157011	14	1.37	5.98
755	SX	C&J Latex Lead 1-1			
183.60	bbl	50 % CJ914+50 % CJ010-74 +2.0 % CJ020+0.4 % CJ548+0.3 % CJ240+10.0 % CJ041+0.3 % CJX157011+1.0 GPS CJ550L+0.2 GPS CJ891	14	1.37	4.71
1065	SX	C&J Tail 1-1			
229.86	bbl	65 % CJ914+35 % CJ010-74 +0.3 % CJ704+0.15 % CJ210K+0.5 % CJ511	14.5	1.22	5.41
0	SX	Displacement			
0	SX				
0	SX				
278.74	bbl				

Job Summary

 Ticket Number: **BCO-1904-0002** Ticket Date: **4/2/2019**
 TN#

COUNTY	COMPANY	API Number
Weld	PDC ENERGY	05-123-47819
WELL NAME	RIG	JOB TYPE
Popham 19N	Ensign 161	Production Casing
SURFACE WELL LOCATION	CJES Field Supervisor	CUSTOMER REP
40.33728 -104.53751	Francisco Flores	Chris McMullen

EMPLOYEES
James Verhey
Brett Moll
Vernon Fox
Jeremy McCumber

WELL PROFILE			
Max Treating Pressure (psi):	3500	Bottom Hole Static Temperature (°F):	
Bottom Hole Circulating Temperature (°F):		Well Type:	Oil

Open Hole

1	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
	8.5	12626	1631		
2	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)

Casing/Tubing/Drill Pipe

Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Surface	9.625	36		1631	0		
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Production	5.5	20		12626	0		
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)

CEMENT DATA

Stage 1:	From Depth (ft):	6961	To Depth (ft):	2299	
	Type: Lead Cement				
	Volume (sacks):	780	Volume (bbls):	190.2	
Cement & Additives:			Density (ppg)	Yield (ft³/sk)	Water Req.
			14	1.37	4.71

Stage 2:	From Depth (ft):	12626	To Depth (ft):	6961	
	Type: Tail Cement				
	Volume (sacks):	1065	Volume (bbls):	231.4	
Cement & Additives:			Density (ppg)	Yield (ft³/sk)	Water Req.
			14.5	1.22	5.41

Stage 3:	From Depth (ft):		To Depth (ft):		
	Type:				
	Volume (sacks):		Volume (bbls):		
	Cement & Additives:		Density (ppg)	Yield (ft³/sk)	Water Req.

Stage 4:

Type:

From Depth (ft):

To Depth (ft):

Volume (sacks):

Volume (bbls):

Cement & Additives:

Density (ppg)

Yield (ft^3/sk)

Water Req.

SUMMARY

Preflushes:	3 bbls of Fresh Water	Calculated Displacement (bbl):	279.5	Stage 1	279.5	Stage 2	
	80 bbls of SAPP	Actual Displacement (bbl):	279.5				
	80 bbls of Weighted Spacer	Plug Bump (Y/N):	Y	Bump Pressure (psi):	2500		
Total Preflush/Spacer Volume (bbl):	163	Lost Returns (Y/N):	N	(if Y, when)			
Total Slurry Volume (bbl):	421.6						
Total Fluid Pumped	870.1						
Returns to Surface:	Preflush	50 bbls					

Job Notes (fluids pumped / procedures / tools / etc.):

Mix/pump 1600lbs SAPP treated water, followed by 80 bbls of Barite weighted spacer. Mix/pump 25sx@14ppg 1.37Y non-latex lead cement, then get into latex lead cement 755sx@14ppg 1.37Y. 1065sx@14.5ppg 1.22Y Tail cement. Shut down wash up SCM. Calculated displacement@279.5 bbls of treated water. Check floats, bleed back to SCM. RTFO. Pumped job per customers request. Job went well. Thank you!

 Thank You For Using
 CJES O-TEX Cementing

Customer Representative Signature:

Cement Job Log

C&J ENERGY SERVICES									
Customer:	PDC ENERGY			Date:	4/2/2019		Serv. Supervisor: Francisco Flores		
Cust. Rep.:	Chris McMullen			Ticket #:	BCO-1904-0002		Serv. Center Brighton - 3021		
Lease:	Popham 19N			API Well #:	05-123-47819		County:	Weld	State: CO
Well Type:	Oil			Rig:	Ensign 161		Type of Job:	Production Casing	
Materials Furnished by C&J ENERGY SERVICES									
Plugs		Casing Hardware		Physical Slurry Properties					
				Sacks of Cement	Fluid Dens (lb/gal)	Excess	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbls)
0									
80 bbls water + 1600 lbs SAPP		+20.0 PPB CJ890							80.00
80 bbls ppg Weighted Spacer - 80 bbls of		+219.63 PPB CJ300+1.0 PPB CJ209+0.5 PPB CJ776+12.46 PPB CJ801			12.5				80.00
C&J Non Latex Lead 1-1		50 % CJ914+50 % CJ010-74 +2.0 % CJ020+0.4 % CJ548+0.3 % CJ240+10.0 % CJ041+0.3 % CJX157011		25	14		1.37	5.98	6.08 4
C&J Latex Lead 1-1		50 % CJ914+50 % CJ010-74 +2.0 % CJ020+0.4 % CJ548+0.3 % CJ240+10.0 % CJ041+0.3 % CJX157011+1.0 GPS CJ550L+0.2 GPS CJ891		755	14		1.37	4.71	183.66 85
C&J Tail 1-1		65 % CJ914+35 % CJ010-74 +0.3 % CJ704+0.15 % CJ210K+0.5 % CJ511		1065	14.5		1.22	5.41	230.59 137
Displacement									278.74
50 % CJ914+50 % CJ010-74+2.0 % CJ020									
Displacement Chemicals:									

C&J ENERGY SERVICES

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4/6/2019