

Cement Post Job Report

Client: Cub Creek Energy, LLC

Well Name: Knight #12

API #: 05-123-47905-00

Job Date: May 1, 2021

Job Type: New Well - 5.5" Production String

Cement Company & Contact: EXERO Well Integrity -
Cheve Meyer 720-239-3819



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Treatment Report

Client	Well Name & Number	Rig Name & Number	Date
Cub Creek Energy, LLC	Knight 12	Akita 518	5/1/2021

Job Type	Wellhead Connection Type	Casing/Tubing Thread Type	Well MD	Well TVD	Deg. Dev.
Production	CRT Connection	GBCD	18128	6659	90
Max Casing/Tubing/DP PSI	Max. Allowed Annular PSI	Number of Stages	DV Tool Depth (ft. from Surface)		
5000	NA	NA	NA		
Packer/Retainer Depth (ft)	Top of Perfs (ft)	Bottom of Perfs (ft)	Tapered String (Y,N)		
NA	NA	NA	No		

Pipe Detail:							
String	Type (Casing, Tubing, DP)	OD (in)	Wt. (lb/ft)	ID (in)	Open Hole Size (in)	Excess %	Depth (ft)
Surface	Casing	9.625	36	8.921	13.5	13	1531
Production	Casing	5.5	17	4.892	8.5	8	18111.9

Materials, Volumes & Rates							
Prelflush/Spacer		Lead System: Class G		Tail System: Class G		Displacement	
Spacer 1	Production OBM Spacer	Density	12.50	Density	14.00	Fluid Type	Water
Density	12	Sacks	1044.00	Sacks	1888.00	Density	8.3
Volume	100	Vol/bbls	317.95	Vol/bbls	521.19	Volume (bbls)	420.0
Rate (bpm)	10	Rate (bpm)	12.00	Rate (bpm)	9.00	Clay Stabilizer	1 gal per 1000gal
Spacer 2		Yield	1.71	Yield	1.55	Biocide Volume	10 Gallons
Density		Gal/Sack	9.03	Gal/Sack	7.15	Bump (PSI)	2100.0
Volume		% Excess	8.00	% Excess	8.00	Rate (bpm)	10.0
Rate (bpm)		Lead Top	0 - Returns to Surface	Tail Top	5921 - Calc from Job	Slow Rate at	

Pre-job Mud & Well Conditions					
Mud Properties:		Pipe Rotation		Circulation Data:	
Mud Type	OBM	Rotate (Y,N)	Yes	Time Circulated (hrs)	3.5
Mud Weight (ppg)	11.8	Rate	40 rpm	Circulation Rate (bpm)	2.3 - 13.9 bpm, 10 bpm Average
Flow Line Temp (F)		Torque Val.	17k Max	Full Circulation (Y,N,Partial)	Yes
Visc. (sec/qt)		Rotate Time	1 hour	Gas Present	
PV (cP)	20	Pipe Reciprocation		Units of Gas (Pason)	
Yield Point	6	Recip (Y,N)	No	Centralizers & Plugs	
10 Sec Gel	5	Stroke (ft)	NA	Quantity/Type	420 - Citadel Sabo Composite 8.25" OD
10 Min Gel	7	Recip Time	NA	Top Plug/Type	5.5" - Double 1500# Rupture
30 Min Gel	9			Bottom Plug/Type/Burst PSI	5.5" - Single 1500# Rupture

Post Job Details			
Actual Displacement (bbls)	420	Gas After Placement/Units?	No
Bump Plug/Final PSI	2100	Spacer to Surface?	Yes
Floats Holding?	Yes	Spacer Volume to Pit (bbls)	100
Full Returns Throughout Job? (Y,N,P)	No	Cement to Surface?	No
Volume/Time When Returns Lost	260bbls into tail for about 4 minutes	Cement Volume to Pit (bbls)	
Volume/Time When Regained Returns	290away	Surface Top Out?	No
Total Water Used on Job (bbls)	1100	Top Out Volume (bbls)	NA

Additional Post Treatment Comments	
Spacer to surface at 310 bbls away.	
50 bbls of spotty cement back to surface.	

Knight 12 Pump Chart – Pressure / Rate / Density

