



## STAGE/TOP OUT/REMEDIAL CEMENT

Cement work date: \_\_\_\_\_

Method used	String	Cementing tool setting/perf depth	Cement volume	Cement top	Cement bottom

Details of work:

Using a plug and packer a hole was found in the casing between 2687' and 2119'. The casing was cut at 2772' and laid down. The cut joint was backed off and laid down. New 5.5" 17# P-110 was made up and run in and screwed back in to the joint looking up. Re-landed casing. Pressure test was successful.

## FORMATION LOG INTERVALS AND TEST ZONES

FORMATION NAME	Measured Depth		Check if applies		COMMENTS (All DST and Core Analysis must be submitted to COGCC)
	Top	Bottom	DST	Cored	
PARKMAN	3,576	3,716	NO	NO	
SUSSEX	4,899	5,070	NO	NO	
SHANNON	6,119	6,332	NO	NO	
SHARON SPRINGS	7,695		NO	NO	
NIOBRARA	7,953		NO	NO	

Operator Comments:

This well was drilled during the second rig occupation on the B-Farm Pad.

No open-hole logs were run; Open-hole composite log was run on the B-FARM LD 18-034HC (001-10098); Approved APD had BMP requiring one well on pad to be logged with an open hole resistivity log with gamma ray.

Openholes size on the CBL is incorrectly reported

Cement Coverage:

Per the email from M. Andrews to D. Burns on 5/7/2019;

"after closer review it appears to have better coverage than originally thought. In an effort to get a better view of cement top we had a radial bond log run on the well (see attached log). It looks like we have cement to 3400' which covers the Nio and Sussex meeting the requirements of the COA."

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_

Print Name: Renee Kendrick

Title: Sr. Regulatory Analyst

Date: \_\_\_\_\_

Email: rkendrick@gwogco.com

### Attachment Check List

Att Doc Num	Document Name	attached ?	
<b>Attachment Checklist</b>			
402045862	CMT Summary *	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	Core Analysis	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
402182049	Directional Survey **	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	DST Analysis	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	Logs	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	Other	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<b>Other Attachments</b>			
402045820	LAS-MWD/LWD	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
402045858	DIRECTIONAL DATA	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
402171782	PDF-MWD/LWD	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
402188394	PDF-CEMENT BOND	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
402188400	PDF-CEMENT BOND	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
402266728	PDF-CEMENT BOND	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
402266729	PDF-MWD/LWD	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
402266732	PDF-CEMENT BOND	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
402266734	PDF-CEMENT BOND	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
402266735	PDF-MUD	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

### General Comments

User Group	Comment	Comment Date
Engineer	<ul style="list-style-type: none"> <li>•CBL header covered</li> <li>•No detail re: add cement for Nio and SX isolation per following note to COGCC                      "wanted to follow up on the B-Farm 18-391HNX that had a casing joint split when cementing the primary job. Dana mentioned this well in her email a couple weeks ago. The hole was found at 2772 ft and the casing was backed off and replaced. As a result of the ruptured joint the primary cement job leaves a lot to be desired. - We have since changed casing providers but we still have this well to deal with. - I have attached a summary and CBLs. - There is no bradenhead pressure on the well. - Cement coverage across Nio top and Sussex is very spotty according to the logs. - Its not true free pipe and its possible there is contaminated cement or a micro-annulus as a results of the disrupted primary job - We'd like to frac tomorrow and frac up to 9850 ft MD which is 1000 ft from where we estimate cement to be in the lateral, monitoring the BH the whole time. - Once we frac up to 9850 ft MD with no BH pressure we will perforate and attempt to provide Nio and Sussex coverage."</li> </ul>	12/10/2019

Total: 1 comment(s)

