

## Assessment of P&A Wells Within 1/4 Mile of Proposed CBM Well

October 26, 2015

**Operator:** BP America Production Company

**Proposed Well:** Horthor 31-03 (Lat 1; Lat 1 ST 1; Lat 2; Lat 2 ST 1) (API Pending)

**Location:** Sec 31, T33N, R06W

Based on a review of COGCC records, the following wells were identified as plugged and abandoned within ¼ mile of our proposed well.

**Well Name:** Jones 1 (API 05-067-05220)

**Location:** CSW Sec 31, T33N, R06W

**Drilled By:** Fred Pool

**Operator Name:** Durango Syndicate

**Date Plugged:** December 1970

The subject well was completed in May 1962 as a vertical Mesa Verde and Dakota producer with a TD of 7980'. Perforations were shot from 5450' – 5702' and 7716' to 7838' and each set of perforations was fracture stimulated. The well was originally completed with the equipment summarized in the table below. Note that only the number of sacks used to cement the casing was reflected in the records. As a result, TOC for the surface and intermediate strings was calculated assuming a hole size consistent with each casing string, Class G neat cement with a yield of 1.15 cu. ft./sk, and a gauge hole. TOC for the production string was inferred based on the amount of casing removed during the P&A.

Casing String	Hole Size (in)	Casing Type	Top (ft)	Bottom (ft)	TOC (ft)	TOC Depth Method	Install Date	Removal Date
Surface	12-1/4"	10 3/4" 32.6 ppf	0	260	Surf	Calculated (50 sx)	1962	-
Intermediate	9-1/2"*	7 5/8" 24 ppf	0	3360	2047'	Calculated (200 sx)	1962	610' Dec 1970
Production	6-1/2"*	5 1/2" 17 & 15.5ppf	0	7980	3100'	Inferred based on casing removal	1962	3100' Dec 1970
Perforations			5450	5456			1962	
			5490	5520				
			5583	5592				
			5684	5702				
			7716	7728				
			7757	7762				
			7766	7772				
			7804	7838				

This well was plugged and abandoned in December 1970. A plug was set across the perforations from 5440' to 5700'. The 5 -1/2" production casing was cut at 3100' and a cement plug was set across the 5-1/2" stub. The 7-5/8" intermediate was cut at 610' and a cement plug was set across the 7-5/8" stub. Plugs were set at the base and top of the 10-3/4" surface casing and a P&A marker was installed.

In addition, BP contacted the surface owner in an effort to gain access to the former Jones 1 location for the purpose of conducting a visual inspection. The surface owner denied our access request.

Based on our review of available records and the assumptions stated above, it appears the subject well has been abandoned in a manner which provides an estimated 719' of cement above the Fruitland Coal behind the intermediate casing.