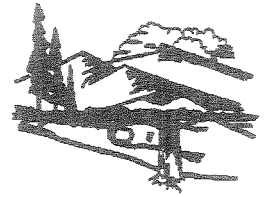




Department of Environmental Quality



To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matthew H. Mead, Governor

John Corra, Director

March 7, 2013

Mr. Ken Eltschlager
Blasting Engineer
OSM
3 Parkway Center
Pittsburgh, PA 15220

RE: Well Camera Discs

Dear Ken:

Attached are two discs of the videos we recorded when we used the borehole camera on the Bricker Well on August 31, 2011. The well was at N 44.31639° and W105.35328°. The top of the casing was at 4,508' and that was 15" above the ground surface. The well was originally completed in November of 1980 to a depth of 425'. Perforations were reported to be 1/8" saw cuts starting at 305'. The well was packed with pea gravel and there were no screens.

The camera showed that the perforations were drill holes and they actually started at about 260'. It was silted in at 363.6' and the water level was at 333.3'.

Disc no. 1 has 4 clips I believe that takes the camera down to the depth where it was silted in and back to the water level. It ended a few minutes before the shot at the Wyodak Mine just to the southwest of the well. Disc no. 2 starts shortly before the shot and we actually had the camera in water at 335.4'. We decided on that instead of hovering right above the water because water dripping off the camera and cables as well as water running in from joint separations in the casing caused constant rippling on the water surface. The shot occurred at about the 2:40 mark on video VTS_01_VOB on disc no. 2. The other two clips on disc 2 are pulling the camera up out of the well. As you can see when the detonation happened there was no disturbance in the water. We could hear the warning signals and we heard the shot, saw the dust and could feel slight ground vibration where we were standing near the well. The microphone wasn't picking up much of our conversation as it was windy and at the time of the shot we were gathered away from the unit and waiting on the shot. If we use this camera again I would have someone holding the microphone and narrating the whole time.

We let the landowner watch the screen as the shot was fired and he could see there was no effect to the water in the well at that depth. He was surprised to discover that his 1980 well was not completed as the driller recorded it. He was also a little surprised when our ground water hydrologist, Mark Taylor, told him and the well driller that his new well was not completed

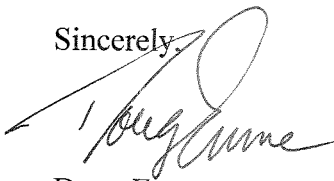


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properly. The new well was also packed with pea gravel and no screens were used. The driller told us that is how they complete all wells they drill. With no screens to keep sediment out the effective life of the wells is much shorter, as is the pump life.

If you have any questions please call me

Sincerely,

A handwritten signature in cursive script, appearing to read "Doug Emme". The signature is written in black ink and is positioned to the right of the word "Sincerely,".

Doug Emme
Blasting Engineer

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Attachments