

**From:** [Diane McCoy - DNR](#)  
**To:** [Metzger, Sterling](#)  
**Cc:** [Light, Cheryl](#); [Green, Doreen](#)  
**Subject:** Re: HSR-Miller 1-26A API# 05-123-19964  
**Date:** Monday, May 09, 2016 9:59:56 AM  
**Attachments:** [image003.jpg](#)

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Good morning,

I am fine with changing the depth of where the casing is cut and using 12 ppg mud to attain a static well condition in order to get a good cement plug. After the plug is pumped, shut down and wait on cement at minimum 4 hours. Check for pressure, if pressure remains call COGCC for an update to plugging orders in order to verify gas migration has been eliminated. The plug must be tagged at 670' or shallower.

Since there is sustained bradenhead pressure please collect samples as described below.

Collect both production and bradenhead gas samples for laboratory analysis of gas composition and stable carbon isotopes. The compositional analysis at a minimum shall include Hydrogen, Argon, Oxygen, Carbon Dioxide, Nitrogen, Carbon Monoxide, Methane, Ethene, Ethane, Propene, Propane, Isobutane, Butane, Isopentane, Pentane, Hexanes +, Specific Gravity and British Thermal Units (BTU). Stable carbon isotope analysis shall include delta DC1, delta 13C1, delta 13C2, delta 13C3, delta 13C4, delta 13NC4, delta 13C5 (If Possible), delta 13NC5 (If Possible), delta 13C6+ (If Possible). And stable isotopes of CO2 if possible (delta 13 CO2 and Delta 18O CO2).

If water is present in the bradenhead, collect production and bradenhead water samples for laboratory analysis of Volatile Organic Compounds (VOCs) via EPA Method 8260 or similar and for Semi volatile Organic Compounds (SVOCs) via EPA method 8270 or similar. In addition, operators shall have the samples analyzed for the major cations and anions so that an evaluation of the water source may be conducted. The analysis shall include Na, K, Ca and Mg for cations and sulfate, chloride, bromide and total alkalinity (including bicarbonate, carbonate and total alkalinity) for anions, plus a measurement of total dissolved solids. Field water analysis should be carried out according to API RP 45. Below is the list of measurements that should be carried out immediately in the field after collecting a sample of oilfield waters: pH, Temperature, Alkalinity, Dissolved oxygen, CO2, H2S, Total and soluble iron, Turbidity on an unfiltered sample, Total suspended solids with at least primary filtration and washing performed in the field, Bacteria with filtering and/or culturing in the field and incubation and counting performed in the laboratory

Copies of all final laboratory analytical results shall be provided to the COGCC within three (3) months of collecting the samples. The analytical results shall be submitted to the COGCC in an approved electronic data deliverable format.

Thanks,

Diane McCoy  
Engineer



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On Wed, May 4, 2016 at 3:43 PM, Metzger, Sterling <[Sterling.Metzger@anadarko.com](mailto:Sterling.Metzger@anadarko.com)> wrote:

Diane,

Daniel Reeves approved this for 6 but I couldn't find his information so I wanted to know if you could help me out.

In order to remove bradenhead pressure (50 psi) we are going to make some changes to the procedure. We are proposing to cut casing 300' deeper at 1290'. Pump 20 bbls of 12ppg mud which will cover a 200' interval. Then we will pump our open hole balance plug at 1090'-570' this will require us to pump 220 sx of cement to account for the additional volume of the open hole. Please respond with your approval.

Thanks,

Sterling

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