

STATE OF  
COLORADO

Andrews - DNR, Dave &lt;david.andrews@state.co.us&gt;

COGCC Document No. 2056171  
API No. 081-07820**Hamill 19-16D / Dry Hole P&A Information****Andrews - DNR, Dave** <david.andrews@state.co.us>

Tue, Oct 27, 2015 at 8:25 AM

To: Mike Griffis &lt;mike.griffis@grmroilandgas.com&gt;

Cc: Andrew Stone - DNR &lt;andrewg.stone@state.co.us&gt;, Emily Waldron - DNR &lt;emily.waldron@state.co.us&gt;, Sarah Freeman - DNR &lt;sarah.freeman@state.co.us&gt;

Sarah,

I advised Mike to expedite the Form 5 and Form 6 Subsequent Report of Abandonment after the plugging. There will be no Form 6 Notice of Intent to Abandon for this dry hole. I am scanning a copy of this email to the well file (081-07820) as a verbal approval, and a RemindmE has also been added.

Thanks,

Dave

David D. Andrews, P.E., P.G.  
Engineering Supervisor - Western Region



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On Mon, Oct 26, 2015 at 9:47 PM, Mike Griffis <mike.griffis@grmroilandgas.com> wrote:  
Thanks. We'll bump the MW and commence plugging ops.

Mike Griffis  
Operations Manager  
GRMR Oil & Gas  
303-819-7354  
Sent from my iPhone, please excuse typos.

On Oct 26, 2015, at 21:39, Andrews - DNR, Dave <david.andrews@state.co.us> wrote:

Thanks, Mike.

As discussed, plugs must be a minimum of 100' with the bottom of plug at the top of the formations shown below, and the top of the plug approximately 100' above the top of the formations shown in your email, plus an additional plug above the Shinarump Formation. The surface casing shoe plug must be tagged to verify a top at least 50' above the shoe. A 50' surface plug is also required in casing. This is your verbal approval to proceed.

We need to comply with Rule 319.a., so yes on the MW increase:

Wellbore fluids shall be in a static state prior to pumping balanced cement plugs, unless the cement plug is being placed as a preliminary step to counteract a high pressure or a lost circulation zone before establishing a static state. Intervals between plugs shall be filled with wellbore fluids of sufficient density to exert hydrostatic pressure exceeding the greatest formation pressure encountered while drilling such interval. If mud is necessary to maintain wellbore fluids in a static state prior to setting plugs, a minimum mud weight of 9 pounds per gallon shall be used.

Thanks,

Dave

David D. Andrews, P.E., P.G.  
Engineering Supervisor - Western Region

<image001.jpg>

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On Mon, Oct 26, 2015 at 9:20 PM, Mike Griffis <[Mike.Griffis@grmroilandgas.com](mailto:Mike.Griffis@grmroilandgas.com)> wrote:

David,

Thanks again for your time on the phone. Please reference API# 05-081-07820-00 / COGCC Form 2# 40079988.

Current well status: On bottom circulating.

9-5/8" 36# J-55 (8.921" ID) Surface Casing set at 810' MD / 809' TVD (Form 2 specifies a minimum depth of 800').

7-7/8" Hole to TD of 6980' MD / 6958' TVD

Here are our log tops:

All tops are wireline tops unless otherwise stated:

Buck Peak: 2832'

Tow Creek (NBRR): 3154'

Wolf Mountain: 3400'

NBRR 3<sup>rd</sup> Bench: 4000'

Carlile: 4102'

Frontier: 4288' [Kfss @ 4362']

Mowry: 4716'

Muddy: 4768'

Dakota: 4810'

Lakota: 4878'

Morrison: 4932' [Porosity zone at 5042']

Entrada: 5438'

Chinle [Redbeds]: 5580'

Shinarump: 5956'

Moenkopi: 6126'

Permian: 6542'

Weber: None noted on mudlogs

Eagle Valley Evaporites: 6800'

I would assume that we need to lay plugs across the following intervals:

Plug 1: Entrada: 5580 – 5338

Plug 2: Dakota group: 4932 - 4668

Plug 3: Frontier: 4380 - 4188

Plug 4: Tow Creek (NBRR): 3400 – 3054

Plug 5: 150' plug across the surface casing shoe

Plug 6: Minimum 50' plug at the surface

In 7-7/8" hole, I would plan on adding 50% excess volume (0.5074 cuft/ft) – I still have not heard back from our cement company about the yield of the cement, so my volumes are only estimated in ft<sup>3</sup>. I read that the minimum weight for a mud between the plugs is 9.0 ppg, we are currently circulating 8.8 ppg. Will we need to increase the MW? We plan on setting balanced plugs with DP as we POOH.

Plug 1: 122.8 cuft

Plug 2: 134.0 cuft

Plug 3: 97.4 cuft

Plug 4: 175.6 cuft

Plug 5: 70.61 cuft (assume 75' outside and 75' inside the casing)

Plug 6: 25 cuft

I also attached the .tif log. If you don't have a log reader for .tif files, MS can open it up in a picture viewer, but you'll have to zoom in to see the log (the picture is the entire log strip). Please advise if you would like to see any changes or if this will be satisfactory to the COGCC.

Mike Griffis

Operations Manager

GRMR Oil & Gas

Office: 303-515-5921

Cell: 303-819-7354