

Bratcher, Mike, EMNRD

From: Randall Hicks <r@rthicksconsult.com>
Sent: Tuesday, November 08, 2016 2:11 PM
To: Billings, Bradford, EMNRD; Bratcher, Mike, EMNRD; Patterson, Heather, EMNRD
Cc: 'Michael Barrett'; 'Jerry Smith'; 'Steve Forister'; 'Eric Tovar'; mike@rthicksconsult.com
Subject: : ASAU #150 Monitor Well

Dear Mr. Billings, Ms. Patterson and Mr. Bratcher

At the meeting of 10/15, 2016, OCD staff clearly expressed the requirement to install a monitoring well within the footprint of the [above-referenced](#) release. After securing a permit from the OSE (a 5-10 day process), this well will be installed as soon as the driller's schedule allows. We will alert OCD when the schedule is established and at least 48 hours prior to drilling. The well will be installed in a manner consistent with State of NM guidance for monitoring wells (<https://www.env.nm.gov/gwb/documents/MonitoringWellGuidelinesFINAL-March2011.pdf>). We will modify the construction protocol to allow this well to serve as a soil vapor extraction well in addition to collection of groundwater samples. The well design is:

- Re-enter existing soil boring and clean out slough to 50-feet (TD)
- Advance 8-inch boring to 15-20 feet below the observed water table with soil sampling every 5-feet to top of groundwater, which is expected between 52-60 feet
- Clean out boring and remove no more than 100 gallons of water to drums or other containers
- Measure the water level in the open boring every 5 minutes for at least 30 minutes or when 3 consecutive measurements show a constant, non-rising water level. If the water level is rising very slowly, plot the depth v. time and predict the static water level
- Install Schedule 40 PVC flush-thread pipe and 0.020 slot screen such that
 - A 2-5 foot blank pipe is below the screen to capture any sediment
 - 15 feet of screen lies below the static water table
 - Screen extends above the water table to about 10-feet below ground level
- Use 12/20 silica sand for the filter pack surrounding the screen
- Provide a bentonite hole plug overlain by neat cement grout to about 6-inches below ground surface.
- Cut the blank well casing as required to allow installation of a well vault that is flush with ground surface and a 2-inch Tee and pipe extending beneath the ground for connection to an SVE blower
- Surface completion will be
 - 2 foot by 2 foot x 4-inch thick concrete pad with rebar
 - 12-inch manhole vault over the well
 - A second temporary vault or cover at the end of the SVE pipe extension

After the well is installed and developed, we will wait at least 5 days before sampling. Upon receipt of laboratory results for BTEX, Chloride and TDS, we will conference with OCD and determine the next steps that will result in a remediation plan under Part 29.

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From: Michael Barrett [<mailto:mbarrett@limerockresources.com>]
Sent: Tuesday, November 08, 2016 1:02 PM
To: mike@rthicksconsult.com; Randall Hicks
Cc: Jerry Smith; Steve Forister; Eric Tovar
Subject: FW: ASAU #150 Monitor Well

FYI

Mike, give me a call regarding this please

From: Steven Hunter
Sent: Tuesday, November 08, 2016 1:00 PM
To: Michael Barrett
Cc: Justin Thompson; Jerry Smith; Steve Forister
Subject: Re: ASAU #150 Monitor Well

Advise the OCD that we will agree to install the monitoring well.
Steve

Steven J. Hunter
Production Manager
Lime Rock Resources
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On Nov 8, 2016, at 2:58 PM, Michael Barrett <mbarrett@limerockresources.com> wrote:

Steven, just discussed this w/ Justin & he is in agreement that we do not have any option to the monitor well considering the shallow groundwater in this area.

Michael Barrett
Production Superintendant
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