



OGMCOAL DNR &lt;ogmcoal@utah.gov&gt;

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**Re: FW: Grassy Trail / UT00126 - RB&G's Monitoring Update (July 31, 2016)**

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**Steve Christensen** <stevechristensen@utah.gov>  
To: "Madsen, Karin" <kmadsen@coalsource.com>  
Cc: Bret Dixon <bretdixon@utah.gov>, OGMCOAL DNR <ogmcoal@utah.gov>

Thu, Aug 25, 2016 at 10:39 AM

Good morning Karin,

I wanted to follow up on the West Ridge monitoring requirements per Appendix 5-13A. The last report that was provided appears to be missing quite a few items. See attached.

Please follow up with RB&G and the city as soon as you can and address the missing data.

Regards,

Steve

On Fri, Aug 19, 2016 at 11:17 AM, Madsen, Karin <kmadsen@coalsource.com> wrote:

Good Morning Steve-

Please see the below response to your email questioning the April and May seismic data for Grassy Trail.

Thanks!

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**From:** Michael Hansen [mailto:[mhansen@rbengineering.com](mailto:mhansen@rbengineering.com)]  
**Sent:** Friday, August 19, 2016 11:15 AM  
**To:** Madsen, Karin  
**Subject:** Re: Grassy Trail / UT00126 - RB&G's Monitoring Update (July 31, 2016)

The only information that is actually missing are the reading from the piezometers, reservoir elevations and seepage readings. The city reads all of these and I only supplement with my own res elevations and seepage readings during site visits (there have been problems in the past with the Cities readings and calculations of the seepage... Dam safety preferred to see my numbers also).

The accelerometer located on the dam has been running continuously and has not recorded any MIS events since before February. While the inclinometer's were not read for a few months current readings show that there had not been any movement during that.

I'm not sure why the City has such a big gap in their readings. And I'm sorry that I didn't keep up on it to fill in those gaps and take my readings. I think there may have been some miscommunication as I was under the impression that

when I submitted that Final Seismic Summary for the past few years that we would no longer be monitoring for the mine (my mistake).

However I did not turn off the accelerometer seismic monitoring equipment... I just let it keep running... Which I'm glad I did that way we did not miss any events, if there had been one.

So as far as the seismic and inclinometer data we are still covered for those months (which show no MIS events or slope movement) Unless the city has more piezo readings etc. that they haven't reported... Then the cities data is all that is missing.

In the meantime I will keep taking reading.

Thanks

Michael

Sent from my iPhone

On Aug 17, 2016, at 1:42 PM, Madsen, Karin <[kmadsen@coalsource.com](mailto:kmadsen@coalsource.com)> wrote:

Please see below. Can you retrieve the april and may data?

**From:** Steve Christensen [<mailto:stevechristensen@utah.gov>]

**Sent:** Wednesday, August 17, 2016 1:46 PM

**To:** Madsen, Karin; Madsen, Karin

**Subject:** Fwd: Grassy Trail / UT00126 - RB&G's Monitoring Update (July 31, 2016)

Hi Karin,

Quick question...it appears the latest RB&G report is missing the months of April and May. Do you know what's up with that?

Steve

p.s. If RB&G is going to e-mail these reports out, you might want to let Michael Hansen know to send DOGM one. Thanks.

----- Forwarded message -----

From: **Bret Dixon** <[bretdixon@utah.gov](mailto:bretdixon@utah.gov)>

Date: Wed, Aug 17, 2016 at 12:54 PM

Subject: Grassy Trail / UT00126 - RB&G's Monitoring Update (July 31, 2016)

To: Steve Christensen <[stevechristensen@utah.gov](mailto:stevechristensen@utah.gov)>, Roddy Pirouznia <[roddypirouznia@utah.gov](mailto:roddypirouznia@utah.gov)>

Steve - I didn't see your name on this latest email.

Roddy - Please electronically store the attached .pdf file onto the Grassy Trail folder.

Thanks,

Bret

——— Forwarded message ———

From: **Michael Hansen** <[mhansen@rbgengineering.com](mailto:mhansen@rbgengineering.com)>

Date: Tue, Aug 9, 2016 at 1:18 PM

Subject: Grassy Trail Reservoir Monitoring update for July 31, 2016

To: Karin Madsen <[kmadsen@coalsource.com](mailto:kmadsen@coalsource.com)>

Cc: "[jmckenzi@blm.gov](mailto:jmckenzi@blm.gov)" <[dhibbs@coalsource.com](mailto:dhibbs@coalsource.com)>, [jmckenzi@blm.gov](mailto:jmckenzi@blm.gov), [mglasson@blm.gov](mailto:mglasson@blm.gov), [Stan\\_Perkes@blm.gov](mailto:Stan_Perkes@blm.gov), [Steve\\_Falk@blm.gov](mailto:Steve_Falk@blm.gov), [steve\\_rigby@blm.gov](mailto:steve_rigby@blm.gov), [jllewelyn@co.carbon.ut.us](mailto:jllewelyn@co.carbon.ut.us), [dhibbs@coalsource.com](mailto:dhibbs@coalsource.com), [ecc@emerytelcom.net](mailto:ecc@emerytelcom.net), [sunny1@emerytelcom.net](mailto:sunny1@emerytelcom.net), Brad Price <[bprice@rbgengineering.com](mailto:bprice@rbgengineering.com)>, Rob johnson <[rjohnson@rbgengineering.com](mailto:rjohnson@rbgengineering.com)>, [bretdixon@utah.gov](mailto:bretdixon@utah.gov), [danadean@utah.gov](mailto:danadean@utah.gov), [davemarble@utah.gov](mailto:davemarble@utah.gov), [jblake@utah.gov](mailto:jblake@utah.gov), [karlhouskeeper@utah.gov](mailto:karlhouskeeper@utah.gov), [marcstilson@utah.gov](mailto:marcstilson@utah.gov), [stevedemczak@utah.gov](mailto:stevedemczak@utah.gov), [tomfaddies@utah.gov](mailto:tomfaddies@utah.gov)

Karin,

See attached Project Report for monitoring site visits up to July 31, 2016.

Michael

Michael N. Hansen, P.G.  
Engineering Geologist

**RB&G ENGINEERING, INC.**

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<MIS Project Report 7-31-16.pdf.txt>

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 **West Ridge Monitoring Issues\_ August 25th, 2016.docx**  
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**Grassy Trail- West Ridge Monitoring- Feb, 25, 27; March 12, 21, 23; June 16; July 3, 17, 31 2016**

Weekly Requirements:

- a. Site reconnaissance/visual inspection (RB&G):
  - a. The site inspection reports/data do not appear to have been included.
- b. Piezometer readings (City)
  - a. The table that summarizes this data does not appear to have been provided as in previous reports (i.e. "Grassy Trail Dam Piezometer & Observation Well Readings").
- c. Accelerometer readings (RB&G)
  - a. Does not appear the accelerometer readings are included in the report.
- d. Flow rates at east seep, west seep and toe drains. (RB&G and/or E. Carbon, in cooperation)
  - a. Missing dam seepage readings for May of 2016.

Monthly Requirements (in addition to Weekly)

- a. Inclinator Readings (RB&G)
  - a. Inclinator reading dates not provided for the months of April and May.
- b. Relative elevations of subsidence monitoring monuments located on the dam.(Registered professional surveyor under contract with West Ridge Resources)
  - a. Does not appear that the survey data provided for the month of May.
- c. Monthly e-mails of accelerometer, piezometer and inclinometer measurements prepared by RB&G.
  - a. Accelerometer-
    - i. Accelerometer data does not appear to have been provided although RB&G's e-mail indicates that it's been running "continuously". What am I missing?
    - ii. Piezometer data does not appear to have been provided.
    - iii. Inclinator readings missing for April and May 2016.