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Incoming 0070041

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From: "Rob Johnson" <robj@rbgengineering.com>
To: <Gregg_Hudson@blm.gov>, <James_Kohler@blm.gov>, <Jeff_McKenzie@blm.gov>, <Peter_Brinton@blm.gov>, <Stan_Perkes@blm.gov>, <Steve_Falk@blm.gov>, <Steve_Rigby@blm.gov>, <jllewelyn@co.carbon.ut.us>, <ecc@emerytelcom.net>, <sunny1@emerytelcom.net>, "Brad Price" <bprice@rbgengineering.com>, "Michael Hansen" <Mhansen@rbgengineering.com>, <bretdixon@utah.gov>, <davemarble@utah.gov>, <jblake@utah.gov>, <karlhouskeeper@utah.gov>, <marcstilson@utah.gov>, <pamgrubaughlittig@utah.gov>, <petehess@utah.gov>, <stevefluke@utah.gov>, <tomfaddies@utah.gov>, <waynehedberg@utah.gov>, <waynewestern@utah.gov>, <dshaver@utahamerican.com>
Date: 12/5/2006 8:56:14 AM
Subject: Grassy Trail - Monitoring Schedule

The updated memo is attached. At Bret Dixon's request, the following items were changed from the previous version:

- Survey Points - A line was added to indicate the expected survey accuracy
- Monitoring of Events Reported by UUSS - Threshold acceleration for reading of all instrumentation was changed to 0.2g
- Each reference to "left" or "right" abutment has been clarified by noting the direction ("east" or "west", respectively) in parentheses.

We will proceed with monitoring according to the attached schedule. It is anticipated that we will meet again in May 2007 to discuss the need for continued monitoring.

Rob Johnson
RB&G Engineering, Inc.
Provo (801) 374-5771
SLC (801) 521-5771
Fax (801) 374-5773



Memo

To: Bret Dixon, Utah Dam Safety
Dave Shaver, West Ridge Resources

From: Brad Price

Date: December 4, 2006

Re: Monitoring Schedule, Grassy Trail Dam & Reservoir

An overview of data obtained to date from instrumentation at Grassy Trail Reservoir was presented at a meeting held November 8, 2006. At this time, the mining operation has moved to another location away from the dam, allowing a reduction in the monitoring frequency for some instrumentation. It was determined at the November 8 meeting that a new monitoring schedule should be established, and that another meeting would be held in approximately six months to re-evaluate the monitoring program. Our recommendations for monitoring during this six-month time period are summarized below.

Accelerometers

Based on the present rate of activity being recorded by the accelerometers, the memory of these devices does not need to be cleared more frequently than once per month. Under the present conditions, it is our opinion that monthly monitoring of the accelerometers will provide data on a sufficiently frequent basis during the next six months.

Inclinometers

It is our opinion that inclinometers should be monitored once a month during the next six months. These devices can be monitored during the same monthly site visit required to obtain accelerometer data.

Piezometers and Drains

We recommend that water elevations in piezometers and seepage flow from drains be recorded on a weekly basis during the next six months. The dam should also be visually inspected during this weekly visit. Care should be taken to note any new cracking, slumping, seepage, or other irregularities on the dam and surrounding slopes – particularly in the vicinity of the right (west) abutment. As agreed upon at the meeting, an additional piezometer will be installed near the right (west) abutment.

Survey Points

At the meeting, Dave Shaver indicated that West Ridge Resources will provide a monthly survey of subsidence monitoring points located on the dam. The basis for the survey will be a point located on the left (east) abutment, which is assumed to be stationary based on monitoring performed to date. The survey accuracy should be ± 0.01 foot vertical and ± 0.02 foot horizontal.

Monitoring of Events Reported by University of Utah Seismic Station (UUSS)

It was agreed at the November 8 meeting that daily reviews of the UUSS web site should continue through the next six months. The threshold criteria used to trigger an immediate site visit will remain in effect. If an event of magnitude greater than 3.0 is reported within 5 miles of the dam, thorough site reconnaissance and reading of accelerometer data will be performed within 24 hours. Reading of all other instrumentation will be performed if any recorded ground acceleration exceeds 0.2g.

Under the anticipated conditions, the proposed schedule of monitoring frequencies and responsibilities is summarized on the table below. The recommended frequency may be changed at any time if instrumentation readings, visual observations, or any other factor indicates that this program is insufficient.

ITEM(S) TO BE MONITORED	MONITORING FREQUENCY	MONITORING RESPONSIBILITY	FREQUENCY OF DATA DISTRIBUTION*
Accelerometers, Inclinometers, & Reconnaissance by Geologist/Engineer	Monthly	RB&G Engineering East Carbon City (forward data to RB&G weekly)	Monthly

*Data to be distributed monthly to persons on the list below. Any unusual readings or observations should be reported to the group immediately.

Name			
	Trust Lands	801-538-5152	
		801-539-4162	Peter Brinton@blm.gov
	Utah Dam Safety	801-538-7373	
Faddies, Tom		801-538-5150	tomfaddies@utah.gov
Falk, Stephen	BLM - Price	435-636-3605	Steve Falk@blm.gov
		801-538-5259	stevefluke@utah.gov
		801-538-5268	
Hansen, Michael	RB&G Engineering	801-374-5771	mhansen@rbaengineering.com
Hedberg, Wavne		801-538-5286	wavnehedberg@utah.gov
Hess, Pete		435-613-1146 x203	petehess@utah.gov
Houskeeper, Karl	DOGMA - Price	435-613-1146 x201	karlhouskeeper@utah.gov
Hudson, Gregg		801-539-4040	Gregg_Hudson@blm.gov
Kohler, James		801-539-4037	James_Kohler@blm.gov
	Carbon Co. Emerg. Services	435-636-3251	jilwelyn@co.carbon.ut.us
Marble, Dave	Utah Dam Safety	801-538-7376	davemarble@utah.gov
McKenzie, Jeff		801-539-4038	
Perkes, Stan		801-539-4036	
Price, Brad	RB&G Engineering	801-374-5771	bprice@rbaengineering.com
	BLM / FS - Price	435-636-3604	
Shaver, Dave	West Ridge Resources		dshaver@utahamerican.com
	Water Rights - Price	435-637-1303	
		801-538-5263	
Wood, Larry	East Carbon City	435-888-6613	ecc@emervtelcom.net
		435-888-4444	sunny1@emerytelcom.net