

OK Incoming
c/015/0082

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From: "Karla Knoop" <kknoop@jbrenv.com>
To: "Shaver, Dave" <dshaver@coalsource.com>, "Jeffrey Studenka" <jstuden...
Date: 5/27/2008 1:34 PM
Subject: Crandall mine water discharge - lab report for May 14 sample and trend/compliance information
Attachments: Crandall 002 May 14.pdf; Crandall 2008 UPDES compliance.xls; Crandall 2008 wq trends.xls

All,

Please see attached Crandall Canyon mine water discharge laboratory results for the sample taken May 14th. Excel files showing trends and UPDES permit compliance are also attached.

As shown, trends have stabilized and water quality has continued to meet all applicable permit limits. As a result, UtahAmerican has requested and received approval from the Utah Division of Water Quality to discontinue the 2nd monthly sampling each month and to discontinue the additional metals analyses. Beginning June 1, sampling of the mine discharge will be as required by the UPDES permit. I also plan to discontinue this routine group email. Should significant changes in water quality occur in the future, UtahAmerican has committed to DWQ that accelerated sampling and/or additional analyte analysis will begin again. If that occurs, this email group will also be notified.

Please feel free to contact me or Dave Shaver if you have any questions or concerns.

Regards,
Karla

Karla Knoop, Hydrologist

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Report Date
 5/23/2008

Client
 UtahAmerican Energy Inc.
 Genwal Resources, Inc.
 PO Box 1077
 Price, UT. 84501
 Dave Shaver
 (435)888-4017

Sample I.D.
 002
Sampled By: KDK
Date: 5/14/2008 Time: 11:55
Received
Date: 5/14/2008 Time: 14:52

Field Measurements				
<u>Cond. uS</u>	<u>Temp. C</u>	<u>pH</u>	<u>D.O. ppm</u>	<u>Turbidity NTU</u>
1165	12.4	7.98	9.2	

Notes:

Lab I.D. #: 606 Mine Code 08 Site Code 40

Certificate of Analysis

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Date</u>	<u>Time</u>	<u>Analyst</u>
<u>Wet Chem.</u>							
Oil & Grease	<5	mg/L	5	EPA 1664 A	5/19/2008	10:59	SB
Solids, Total Dissolved	868	mg/L	20	SM 2540 C-97	5/15/2008	13:47	SB
Solids, Total Suspended	<4	mg/L	4	SM 2540 D-97	5/15/2008	13:47	SB
<u>Metals by ICP</u>							
Aluminum, Dissolved	0.16	mg/L	0.02	EPA 200.7	5/22/2008	16:42	SB
Iron, Dissolved	0.010	mg/L	0.010	EPA 200.7	5/22/2008	16:42	SB
Iron, Total	0.457	mg/L	0.010	EPA 200.7	5/22/2008	12:46	SB
Nickel, Dissolved	0.067	mg/L	0.003	EPA 200.7	5/22/2008	16:42	SB
Zinc, Dissolved	0.074	mg/L	0.005	EPA 200.7	5/22/2008	16:42	SB

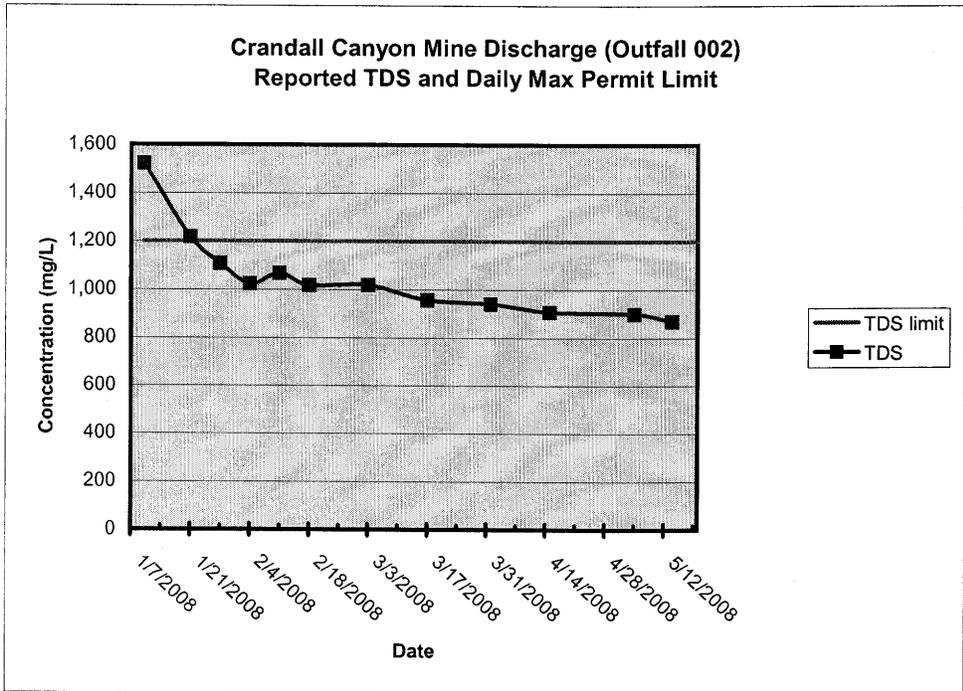
Brandon Pierce
 Technical Director

All reported results meet the requirements of NELAC, except for Balance and Hardness.
 Balance and Hardness are calculated from certified results.

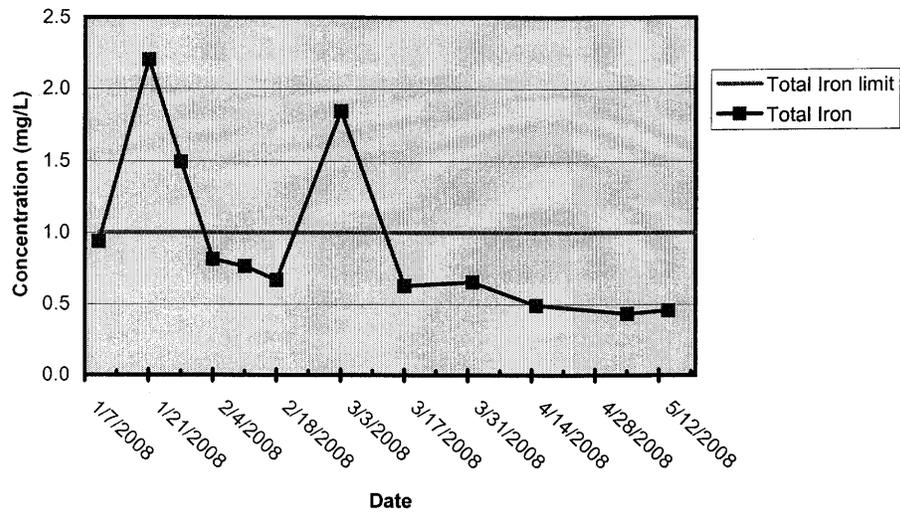
UtahAmerican Energy, Inc., Genwal Resources, Inc., Crandall Canyon Mine
In-mine Groundwater Discharge
Comparison of 2008 Data with UPDES Daily Maximum Permit Effluent Limitations (mg/L)

Date	Outfall	TDS		TSS		Fe (tot)		Oil & Grease	
		Limit	Reported	Limit	Reported	Limit	Reported	Limit	Reported
10-Jan-08	002	1,200	1,523	70	6	1.0	0.937	10	<5
21-Jan-08	002	1,200	1,218	70	10	1.0	2.204	10	<5
28-Jan-08	002	1,200	1,108	70	12	1.0	1.494	10	<5
4-Feb-08	002	1,200	1,025	70	4	1.0	0.815	10	<5
11-Feb-08	002	1,200	1,068	70	<4	1.0	0.765	10	<5
18-Feb-08	002	1,200	1,018	70	<4	1.0	0.668	10	<5
3-Mar-08	002	1,200	1,019	70	35	1.0	1.846	10	<5
17-Mar-08	002	1,200	957	70	4	1.0	0.626	10	<5
1-Apr-08	002	1,200	941	70	4	1.0	0.653	10	<5
15-Apr-08	002	1,200	907	70	4	1.0	0.491	10	<5
5-May-08	002	1,200	899	70	<4	1.0	0.433	10	<5
14-May-08	002	1,200	868	70	<4	1.0	0.457	10	<5
20-May-08	002	1,200		70		1.0		10	
14-Jan-08	001	1,200	1,687	70	10	1.0	0.758	10	<5

- Note 1: 14-Jan-08 sample is discharge from the sediment pond. It was influenced by water previously retained in pond as well as in-mine groundwater that had flowed overland to the pond.
- Note 2: In addition to the TDS daily maximum limit of 1,200 mg/L, the permit also has a limit of 500 mg/L for TDS 30-day average, and Genwal participates in a salinity offset program to ensure that this limit is in compliance.
- Note 3: In addition to the TSS daily maximum limit of 70 mg/L, the permit also has limit of 25 mg/L for TSS 30-day average and a limit of 35 mg/L for TSS 7-day average.



**Crandall Canyon Mine Discharge (Outfall 002)
Reported Total Iron and Daily Max Permit Limit**



Crandall Canyon Mine Discharge (Outfall 002) TDS Trend

