Incoming
C0150032
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OGMCOAL DNR <ogmcoal@utah.gov>

(no subject)

1 message

Leonard, JD <jleonard@coalsource.com> Thu, Dec 20, 2012 at 1:56 PM
To: Ken Hoffman <kenhoffman@utah.gov>
Cc: ogmcoal@utah.gov, "Hibbs, David" <dhibbs@coalsource.com>, "Davis, Dale" <daledavis@coalsource.com>

Hi Ken,

Attached is the November monthly information for Crandall Canyon Mine, if you have any questions or need additional information please contact me.

Thank You

JD Leonard

435-888-4026

jleonard@coalsource.com

2 attachments

Ken Hoffman Crandall Final Document.xlsx
38K

November polymer.pdf
68K

Crandall Canyon Mine

Post-Treatment Mine Water 2012

Parameter	Units	January	February	March	April	May	June	July	August	September	October	November	December
		1/24/2012	2/21/2012	3/23/2012	4/17/2012	5/15/2012	6/12/2012	7/30/2012	8/31/2012	9/30/2012	10/30/2012	11/30/2012	
Field													
pH	std. units	7.6	8.1	8.5	7.8	7.5	7.5	8.1	8.2	7.6	8	7.9	
Temperature	deg. C	9 C	9 C	12 C	11 C	13 C	13 C	12 C	11 C	12 C	12 C	12 C	
Conductivity	µmhos/cm2	926	733	1066	1085	1270	933	913	984	1034	1055	1038	
Dissolved Oxygen	mg/L	9.09	8.9	8.2	8.9	9.2	8.14	11.28	11.53	9.3	9.8	9.7	
Lab													
Iron	total, mg/L	0.08	0.05	0.068	<0.05	0.09	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	
Iron	dissolved, mg/L	<0.03	<0.03	0.067	<0.03	<.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Iron	ferrous, mg/L	0.052	0	0.06	0.02	0.019	0	0.03	0.005	0.02	0.009	0.007	
Aluminum	total, mg/L	0.1	0.09	0.14	0.08	0.16	0.09	0.1	0.13	0.13	0.17	0.15	
Aluminum	dissolved, mg/L	<0.03	<0.03	<0.03	<0.03	<.03	<0.03	<0.03	<0.03	<0.03	0.04	0.05	
Manganese	total, mg/L	0.093	0.068	0.068	0.075	0.089	0.085	0.083	0.08	0.078	0.084	0.084	
Manganese	dissolved, mg/L	0.093	0.068	0.067	0.075	0.089	0.085	0.083	0.08	0.078	0.084	0.084	
Alkalinity	Bicarbonate, mg/L	357	273	275	300	367	359	368	364	362	355	360	
Alkalinity	Carbonate, mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Alkalinity	Total	357	273	275	300	367	359	368	364	362	355	360	
Sulfate	mg/L	147	110	109	120	148	150	142	138	138	138	136	
TDS	mg/L	590	446	436	477	595	575	572	556	558	576	541	
Suspended Solids	mg/L	<5	<5	<5	<5	<5	<5	14	9	<5	<5	<5	
Seep Flow	gpm	3.01	1	1	1.5	1.5	1.5	1.5	2	2	2	1.5	

Pre-Treatment Mine Water 2012

Parameter	Units	January	February	March	April	May	June	July	August	September	October	November	December
Field													
pH	std. units	7.3	7.5	7.3	7.4	7.3	7.3	7	7.2	7	7.1	7.2	
Temperature	deg. C	11 C	11 C	11 C	11 C	12 C	10 C	11C	11 C	12 C	12 C	12 C	
Conductivity	µmhos/cm2	919	723	1290	1254	1290	982	921	1010	960	975	988	
Dissolved Oxygen	mg/L	7.1	7.8	7.4	7.5	7.6	7.5	7.08	6.83	6.8	6.7	6.9	
Lab													
Iron	total, mg/L	2.290	1.580	2.960	2.450	2.730	4.020	2.990	2.720	2.090	1.770	1.990	
Iron	dissolved, mg/L	0.03	0.06	<0.03	0.17	<0.03	<0.03	<0.03	0.05	0.09	0.07	<0.03	
Iron	ferrous, mg/L	0.96	0.469	1.236	0.754	0.809	0.901	0.803	0.674	0.627	0.488	0.663	
Aluminum	total, mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	
Aluminum	dissolved, mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	
Manganese	total, mg/L	0.097	0.071	0.105	0.094	0.097	0.098	0.099	0.102	0.083	0.088	0.09	
Manganese	dissolved, mg/L	0.097	0.071	0.105	0.094	0.097	0.093	0.088	0.093	0.082	0.086	0.09	
Alkalinity	Bicarbonate, mg/L	375	282	359	371	378	371	375	370	373	367	369	
Alkalinity	Carbonate, mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Alkalinity	Total	375	282	359	371	378	371	375	370	373	367	369	
Sulfate	mg/L	148	108	148	145	151	151	144	141	139	135	136	
TDS	mg/L	603	448	591	576	596	581	576	565	565	573	545	
Suspended Solids	mg/L	<5	<5	<5	<5	<5	<5	23	5	<5	<5	<5	
Chloride	mg/L	9	7	9	9	9	9	9	9	9	9	8	
Calcium	Dissolved, mg/L	98.75	72.01	100.65	99.14	99.6	98.47	93.58	97.21	93.7	97.41	95.74	
Potassium	Dissolved, mg/L	8.25	5.99	8.24	8.12	8.09	7.9	8.14	8.22	8.16	7.87	7.89	
Sodium	Dissolved, mg/L	33.68	24.69	33.74	32.94	32.75	31.9	32.29	34.4	32.9	34.2	33.26	
Magnesium	Dissolved, mg/L	53.18	38.57	54.42	54.95	55.73	54.4	50.85	53.56	51.37	52.95	50.5	
Silica	Dissolved, mg/L	8.51	5.92	7.98	8.84	8.26	7.94	9.18	9.25	8.45	9.13	8.84	
Hot Acidity	mg/L	-374	<5	-376	-370	-376	-368	-374	<5	-370	-374	-372	
Average Flow	gpm	429	430	395	389	412	399	393	400	400	446	411	

SGS

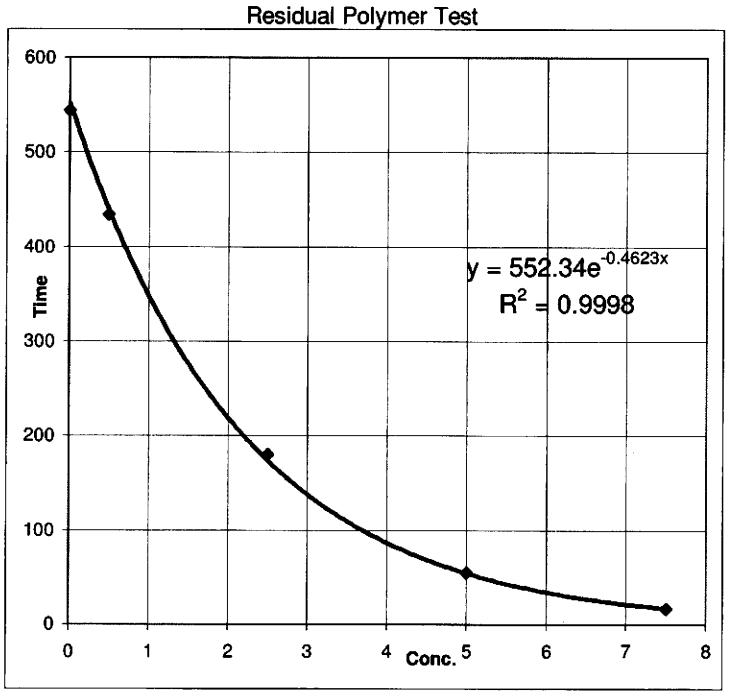
Analysis Report

Genwal Resources Inc.
794 "C" Canyon Road
East Carbon, UT 84520

Client Sample ID: Polymer Test
Date Sampled: 11/2/2012
Date Received: 11/2/2012
Product Description:
Sample Taken At: Genwal Mine
Sample Taken By: JD
Time Received: 1335
Time Sampled: 1230

Coagulant (1mg/l) and Flocculent

Exponent	INTERCEPT	
-0.4623	552.340000	
Standards	Time	Conc. Mg/l
BLANK	544	0
1	434	0.5
2	180	2.5
3	55	5
4	17	7.5



Comments: Customer supplied method

Residual Polymer (based on 1 mg/l Coagulant)

Sample #	mL of Sample	Time	Conc. Mg/l
1216292-001	45	502	0.21

ND = none detect (<0 mg/l)

Domenic Ibanez
Water Lab Supervisor

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