



# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

# Inspection Report

Permit Number:	C0150032
Inspection Type:	PARTIAL
Inspection Date:	Monday, July 30, 2012
Start Date/Time:	7/30/2012 8:30:00 AM
End Date/Time:	7/30/2012 1:00:00 PM
Last Inspection:	Wednesday, June 20, 2012

Representatives Present During the Inspection:	
Company	JD Leonard
OGM	Karl Houskeeper

Inspector: Karl Houskeeper

Weather: Clear Skies, Temp. 73 Deg. F.

InspectionID Report Number: 3178

Accepted by: jhelfric  
7/30/2012

Permittee: **GENWAL RESOURCES INC**  
 Operator: **GENWAL RESOURCES INC**  
 Site: **CRANDALL CANYON MINE**  
 Address: **PO BOX 910, EAST CARBON UT 84520-0910**  
 County: **EMERY**  
 Permit Type: **PERMANENT COAL PROGRAM**  
 Permit Status: **ACTIVE**

#### Current Acreages

6,235.80	<b>Total Permitted</b>
27.15	<b>Total Disturbed</b>
	<b>Phase I</b>
	<b>Phase II</b>
	<b>Phase III</b>

#### Mineral Ownership

- Federal
- State
- County
- Fee
- Other

#### Types of Operations

- Underground
- Surface
- Loadout
- Processing
- Reprocessing

Report summary and status for pending enforcement actions, permit conditions, Division Orders, and amendments:

*Karl R. Houskeeper*

Inspector's Signature:

Date: Monday, July 30, 2012

Karl Houskeeper,  
Inspector ID Number: 49



**REVIEW OF PERMIT, PERFORMANCE STANDARDS PERMIT CONDITION REQUIREMENTS**

1. Substantiate the elements on this inspection by checking the appropriate performance standard.
  - a. For COMPLETE inspections provide narrative justification for any elements not fully inspected unless element is not appropriate to the site, in which case check Not Applicable.
  - b. For PARTIAL inspections check only the elements evaluated.
2. Document any noncompliance situation by reference the NOV issued at the appropriate performance standard listed below.
3. Reference any narratives written in conjunction with this inspection at the appropriate performance standard listed below.
4. Provide a brief status report for all pending enforcement actions, permit conditions, Divison Orders, and amendments.

	Evaluated	Not Applicable	Comment	Enforcement
1. Permits, Change, Transfer, Renewal, Sale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Signs and Markers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Topsoil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.a Hydrologic Balance: Diversions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.b Hydrologic Balance: Sediment Ponds and Impoundments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.c Hydrologic Balance: Other Sediment Control Measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.d Hydrologic Balance: Water Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.e Hydrologic Balance: Effluent Limitations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Explosives	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Disposal of Excess Spoil, Fills, Benches	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Coal Mine Waste, Refuse Piles, Impoundments	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Noncoal Waste	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Protection of Fish, Wildlife and Related Environmental Issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Slides and Other Damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Contemporaneous Reclamation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Backfilling And Grading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Revegetation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Subsidence Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Cessation of Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.a Roads: Construction, Maintenance, Surfacing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.b Roads: Drainage Controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Other Transportation Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Support Facilities, Utility Installations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. AVS Check	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Air Quality Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Bonding and Insurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**2. Signs and Markers**

The mine identification sign is located at the access point into the permit area from the USFS service road. The sign contains all of the required information.

**4.b Hydrologic Balance: Sediment Ponds and Impoundments**

Observed thistle on the access road into the sediment pond and on the interior of the sediment pond embankments. The thistle needs to be removed and treated.

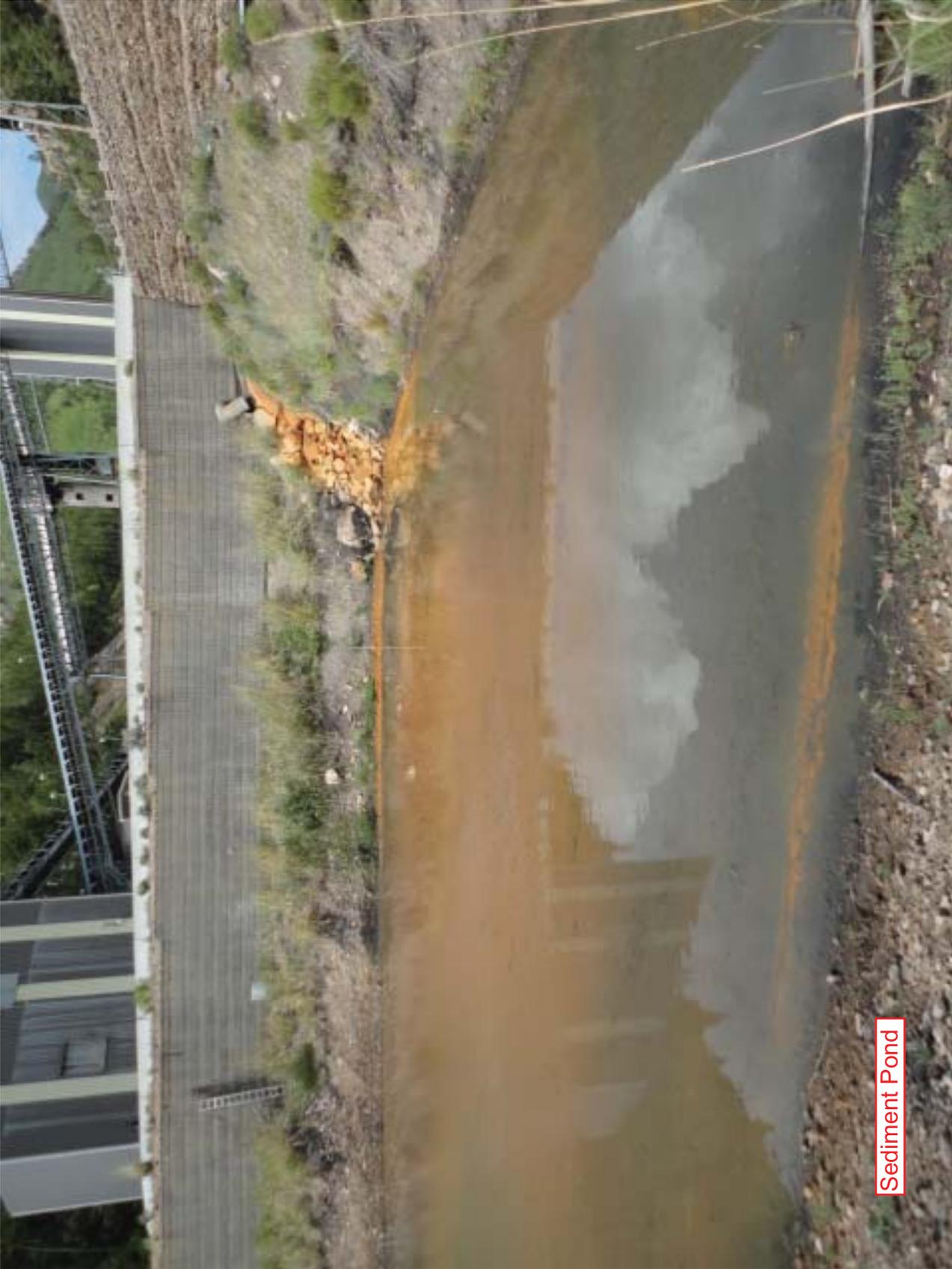
**8. Noncoal Waste**

Observed garbage in the diversion just above the iron treatment building. The garbage needs to be gathered and be properly disposed of.

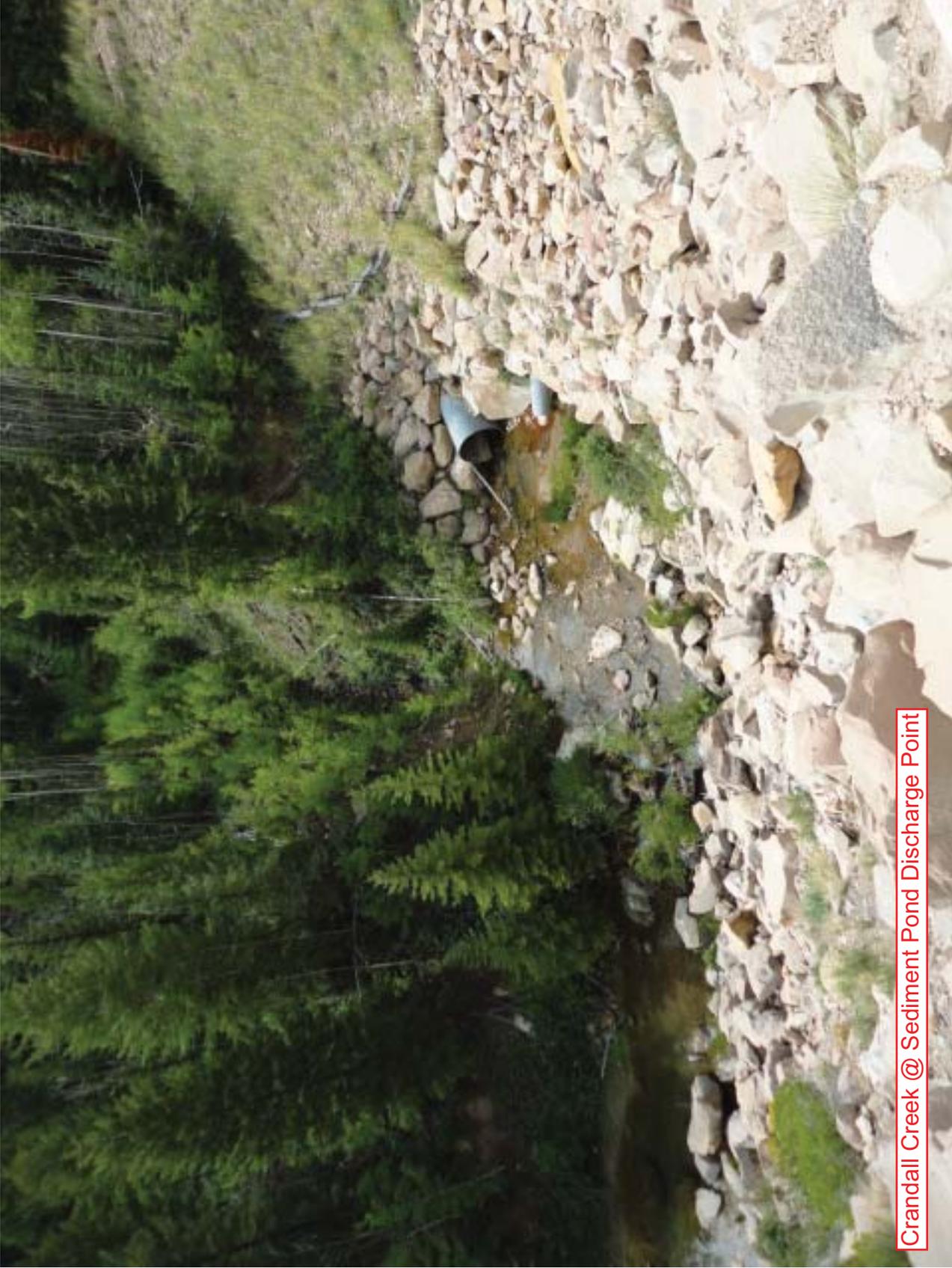
Found a car battery setting on the concrete pad next to the iron treatment building where the propane tank is stored. The battery needs to be removed from this location and properly stored or disposed of.



Sediment Pond



Sediment Pond



Crandall Creek @ Sediment Pond Discharge Point



Crandall Creek



Sediment Pond



Mine Water Treatment Basin (Looking West)



Mine Water Treatment Basin Outlet



Ditch DD-10



Mine Water Treatment Highwall



Mine Water Treatment Highwall

7/30/12

# Crandall Canyon Inspection Check List

## I. Routine Questions/Observations:

### a. Chemical Injection System Questions- (Inspection Report Section 4.e

#### Hyd. Balance: Effluent Lmt's)

i. Q1: What is the flow rate of the mine-water discharge?

A: 385 gallons per minute (gpm)

ii. Q2: What is the injection rate of the flocculant?

A: 5.5 parts per million (ppm)

a. Note: Flocculant is NALCO 7763- polyacrylamide. Historically injected at 2.5-3.0 ppm. Now being injected at approximately 5-6 ppm. As a result, residual polymer tests are required monthly. Stored in 275 gallon totes.

iii. Q3: If the flocculant is being injected above 3.0 ppm (NSF 60 limit), what is the status of the monthly residual polymer testing that must be reported to DOGM?

A: Scheduled to take a sample this afternoon.  
Past samples have shown no residual polymer.

iv. Q4: What is the injection rate of the coagulant?

A: 21.179

a. Note: Coagulant is NALCO 8187- polyaluminum chloride. Stored in 3 x 2,000 gallon tanks. Historically injected between 30-40 ppm. Since December 2011, they've been injection at approximately 50-60 ppm.

v. Q5: How often are you cleaning out the treatment basin? (i.e. once a week, twice a week, once a month? etc.) How much time is spent during each clean-out event (i.e. how many hours?)

A: Approximately once a week.  
Next cleaning scheduled 7/31/12.

vi. **Q6:** Has the treatment system been down due to maintenance issues, electricity outages etc.?

1. **A:** NO (if yes, see next set of questions)

vii. **Q7:** What caused the treatment system to go down? How long was the system down? Did you sample the effluent during that time? Why or why not. How was the problem resolved? What has been done to prevent the down time from happening in the future?

**A:** NA  
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viii. **Q8:** Has the treatment system been modified/changed in any way since the last inspection? If so, how? (i.e. have they added or removed pieces of equipment, e.g. pumps, monitors, additional automation etc.)

**A:** NA  
System is automated Electronically.  
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ix. **Q9:** How much time are they spending working on the treatment system? (i.e. 20 hours a week, 40 hours a week? ) Ask for the hours from the company and the hours from the Scamp guys. *Note:* Dale Davis is the primary company man and Jerry Cripps is the primary Scamp contractor.

**A:** Approximately 16 Hrs/week  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b. **Chemical Injection System- Observations** (Inspection Report Section 4.e Hyd. Balance: Effluent Lmt's)

i. If possible, note the chemical levels in the tanks (i.e. 3 x 2,000 gallon totes of coagulant), the flocculant level in the tote and number of totes on-site.

Flocculant is 6" above bottom of tote  
spare tote is on site.

c. **Crandall Creek- Observations** (Inspection Report Section 4.e Hyd. Balance: Effluent Limitations)

i. Note any observable staining (or lack thereof) in the channel of Crandall Creek.

No staining.

d. **Treatment Basin and Highwall- Questions/Observations** (Inspection Report Section 4.b- Sediment Ponds and Impoundments)

i. Q1: Has any debris recently fallen from the highwall? Did it hit the pond or any other equipment of the treatment system? If so, document with photo and ask for conditions/circumstances for that event.

1. A:

NO

ii. Note any signs of instability, leaks or issues with the treatment basin embankment.

NO

iii. Look for evidence of additional debris in the treatment basin itself (i.e. from the highwall).

NONE

iv. Note the quality of the water discharging from the outlet of the treatment basin. Look for any particles of flocculant/coagulant discharging from the outlet.

Clear

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
v. Note whether the aqua colored highwall discharge pipe is producing water and approximate discharge volume (historically 2-5 gpm). Approximately 1 gpm

vi. Note the approximate accumulations of sludge material in each of the cells (#1-5).

Second cell scheduled to be cleaned tomorrow 7/31/12.

e. **Primary Sediment Pond- Questions/Observations- (Inspection Report Section 4.b Hyd. Balance: Sediment Ponds and Impoundments)**

i. Note presence/absence of orange sludge material in the pond.

Sludge is Present

ii. Note sediment level relative to sediment clean-out markers.

appears to be at marker

iii. Note water level relative to 10-year, 24-hour marker.

f. **Diversion Questions/Observations-** (Inspection Report Section 4.a Hyd. Balance: Diversions)

- i. Inspect disturbed drainage ditch DD-10A (directly adjacent to NE corner of treatment basin). Look for coal/rock debris from highwall overhead. Historically, they have had debris fall into this diversion after rain storms. Requires regular maintenance (i.e. cleaning). If there is debris in the ditch, direct Operator to clean out debris within reasonable time frame (i.e. before next inspection).

*Recently cleaned.*

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## II. **Photo Points** (10 pictures total)

- i. **Treatment Basin/Highwall** (2x pictures with back against retaining wall on south side of road. One picture of western portion and one picture of eastern portion. Needed to document debris that WILL fall off that highwall.)
- ii. **Discharge from Treatment Basin** (close-up of water coming over the spillway on east side of treatment basin i.e. Outfall 002).
- iii. **Diversion Ditch DD-10** (ditch directly adjacent to treatment basin on east side)
- iv. **Wide shot of Treatment Basin from Outfall 002** (east side by spillway)
- v. **Primary Sediment Pond** (from NW corner looking down. If accessible, take photo of 10-year, 24-hour storm level marker located in the NW corner of the pond. Also, take photo of sediment clean-out markers .
- vi. **Primary Sediment Pond** (2x pictures from catwalk to get the entire pond.)
- vii. **Crandall Creek** (from emergency spillway of primary sediment pond).
- viii. **Crandall Creek** (from up above on the road next to the 'Buffer Zone' sign).

## III. **Water Sampling**

a. **Pre-Treatment Sample** (Label Pre-002)

- i. Purge sample port for a minimum of one hour. Make note of purge time in inspection report. **VERY IMPORTANT!!!** Sample for total iron (T-Fe) and Sulfate (SO4).

- 1. Purge time (min. 1 hour)=
- 

*No sample*

**b. Mine-Water Treatment Basin (Label Outfall 002)**

- i. Obtain sample from treatment basin outlet on a random basis or as necessary (i.e. noticeable particles discharging out of treatment basin). Label Sample *Outfall 002*. Sample for total iron (T-Fe) and total aluminum (T-Al).