

C/007/041 Incoming

# 3602  
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**COPY**



P.O. Box 910, East Carbon, Utah 84520  
Telephone (435) 888-4000 Fax (435) 888-4002

Utah Division of Oil, Gas & Mining  
Utah Coal Program  
1594 West North Temple, Suite 1210  
P.O.Box 145801  
Salt Lake City, UT 84114-5801

August 10, 2010

Attn: Daron Haddock  
Permit Supervisor

Re: West Ridge Mine C/007/041  
Permit Change to Include Catchment Structures C and E  
Response to Violation #10063

Dear Mr. Haddock:

Enclosed are five copies of an amendment to the West Ridge MRP to include catchment structures C and E in the C canyon drainage below the minesite. This submittal addresses items I and II of the NOV.

If you have any questions or need any additional information, please contact me at (435) 888-4000.

Sincerely,

David Hibbs  
President

File in:

- Confidential
- Shelf
- Expandable

In C/0070041 Incoming  
Date: 08/10/10, For additional information

RECEIVED  
AUG 11 2010  
DIV. OF OIL, GAS & MINING

COPY

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change  New Permit  Renewal  Exploration  Bond Release  Transfer

Permittee: West Ridge Resources, Inc

Mine: West Ridge Mine

Permit Number: C/007/041

Title: Response to NOV #10063 Items I and II, Coal Fines Catchment Structures

Description, Include reason for application and timing required to implement:

Response to NOV #10063

Instructions: If you answer yes to any of the first eight questions, this application may require Public Notice publication.

- 1. Change in the size of the Permit Area? Acres: \_\_\_\_\_ Disturbed Area: \_\_\_\_\_  increase  decrease.
2. Is the application submitted as a result of a Division Order? DO# \_\_\_\_\_
3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
4. Does the application include operations in hydrologic basins other than as currently approved?
5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
6. Does the application require or include public notice publication?
7. Does the application require or include ownership, control, right-of-entry, or compliance information?
8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
9. Is the application submitted as a result of a Violation? NOV # 10063 Items I and II
10. Is the application submitted as a result of other laws or regulations or policies?

Explain:

- 11. Does the application affect the surface landowner or change the post mining land use?
12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
13. Does the application require or include collection and reporting of any baseline information?
14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
15. Does the application require or include soil removal, storage or placement?
16. Does the application require or include vegetation monitoring, removal or revegetation activities?
17. Does the application require or include construction, modification, or removal of surface facilities?
18. Does the application require or include water monitoring, sediment or drainage control measures?
19. Does the application require or include certified designs, maps or calculation?
20. Does the application require or include subsidence control or monitoring?
21. Have reclamation costs for bonding been provided?
22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
23. Does the application affect permits issued by other agencies or permits issued to other entities?
24. Does the application include confidential information and is it clearly marked and separated in the plan?

Please attach three (3) review copies of the application. If the mine is on or adjacent to Forest Service land please submit four (4) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

David W. Hibbs, President, 8/11/10, David W. Hibbs

Subscribed and sworn to before me this 11th day of August, 2010

Notary Public: Mary V. Kava, state of Utah.

My commission Expires: 5-16-2012
Commission Number: 574260
Address: P.O. Box 871
City: Ferron State: UT Zip: 84523



For Office Use Only: Assigned Tracking Number: Received by Oil, Gas & Mining RECEIVED AUG 11 2010 DIV. OF OIL, GAS & MINING



APPENDIX 5-15....CATCHMENT STRUCTURES

ADD ATTACHMENT 10

## ATTACHMENTS

- |               |   |
|---------------|---|
| Attachment 1  | Location Map  |
| Attachment 2  | BLM NEPA Document (Catagorical Exclusion)   |
| Attachment 3  | BLM Right-of-Way Grant  |
| Attachment 4  | Division of Water Rights Channel Alteration Permit                                      |
| Attachment 5  | Catchment Structure A, As-Built Drawing   |
| Attachment 6  | Catchment Structure A, As-Constructed Photos  |
| Attachment 7  | Pre and Post-Reclamation Photos of Catchment Sites C, E and F                           |
| Attachment 8  | BLM Seed Mix  |
| Attachment 9  | Addendum to address Second Violation #10063, Issued July 21, 2010<br>(Items III and IV) |
| Attachment 10 | Addendum to address Second Violation #10063, Issued July 21, 2010<br>(Items I and II)   |

**ATTACHMENT 10**

**ADDENDUM TO ADDRESS SECOND  
VIOLATION  
(ITEMS I and II)**

**VIOLATION #10063  
ISSUED JULY 21, 2010**

ATTACHMENT 10:  
ADDENDUM TO ADDRESS SECOND VIOLATION (ITEMS I and II)  
VIOLATION #10063, ISSUED JULY 21, 2010

On July 21, 2010, the company received a second violation for additional accumulations of coal fines in the C Canyon drainage below the West Ridge Mine. The accumulations were the result of non-compliance discharge which occurred after the successful channel cleanup of the previous summer (2009). Representatives from the Division and DWQ inspected the drainage and determined that the coal fines must be cleaned up from the mine down to and including Catchment E.

Attachment 10 addresses the measures that the company will take to ensure that the coal fine accumulations will not be an issue in the future.

- I. Visual Inspections
- II. Underground Piping System
- III. Mine Water Monitoring/Treatment System (Turbidity Analyzer)
- IV. Schroeder Industries Filtration System
- V. Additional Underground Sampling

I. Visual Inspections:

On July 22<sup>nd</sup>, the company began visual inspections on the mine-water discharge at Outfall 002. The visual inspections are being recorded every shift by a qualified representative of the company. These records are kept in the shift formans office and will be available for review anytime.

The inspection records will include the representative's name, the date and time of inspection and observations for oil and grease, floating or suspended solids, foam and color. See Exhibit 1.

II. Underground Piping System: (See Map 1)

1. Water Filtration From the Mining Areas:
  - Mains section water at the bottom of the mine is pumped up the right side of the mine to a tank at xc78 (Cyan line) in the right return. From the xc78 tank the water is pumped to a tank at xc67 (Dark brown line) in the right return and relayed to another tank at xc56. These tanks are designed to settle out solids and are cleaned weekly. From xc56 the water is pumped into the Sealed District 2 gob at 8<sup>th</sup> Right (Magenta line). The gob acts as a settling area to collect solids from the water. The settled water is then collected from the 9<sup>th</sup> Right sediment dam.

- West side water is pumped from sump to sump beginning at Sump 18 in 14<sup>th</sup> West, the water is then pumped to Sump 16 in 13<sup>th</sup> West then from
  - i. Sump 16 in 13<sup>th</sup> West to Sump 15 in 12<sup>th</sup> West (Blue line) then from
  - ii. Sump 15 in 12<sup>th</sup> West to Sump 14 in 11<sup>th</sup> West (Light brown line) to
  - iii. Sump 14 in 11<sup>th</sup> West to Sump 13 in 10<sup>th</sup> West (Light Dark Green line) to
  - iv. Sump 13 in 10<sup>th</sup> West to Sump 12 in 9<sup>th</sup> West (Light purple line) to
  - v. Sump 12 in 9<sup>th</sup> West to 8<sup>th</sup> Right Seal into the Sealed District 1 gob (Light brown line)

The gob acts as a settling area to collect solids from the water. The settled water is then collected from the 9<sup>th</sup> Right sediment dam.

2. Treated Water Pumped to 4<sup>th</sup> Right:

- The water is pumped out of 9<sup>th</sup> Right through the treatment area, where it is treated for iron and TSS through aeration and chemical injection. From the treatment area the mine-water is pumped into the Sealed District 1 gob at 4<sup>th</sup> Right (Blue line). The gob acts as a settling area to collect solids from the water. The settled water is then collected from the 5<sup>th</sup> Right sediment dam.
- Mine-water from 8<sup>th</sup> West to 6<sup>th</sup> West that comes out of the seals has already settled in each of the gobs. The water is thus pumped directly into the Sealed District 1 gob at 4<sup>th</sup> Right (Magenta lines). The gob acts as a settling area to collect solids from the water. The settled water is then collected from the 5<sup>th</sup> Right sediment dam.

3. Water Run to the Surface:

- From the 5<sup>th</sup> Right collection point there are three separate lines that run to the surface (Lime green, dark red, and brown lines).

4. Water Filtration and Discharge:

- At the surface all the discharging pipes will join and run through the Schroeder Industries BH10 Multi-Bag Filters before being discharged into the stream.

III. Mine Water Monitoring/Treatment System (Turbidity Analyzer):

West Ridge has chosen the HACH Solitax sc sensor that will be capable of monitoring both turbidity and total suspended solids (TSS) from the 5<sup>th</sup> Right sump area. Fifth Right is the collection area for the majority of the water pumped from the West Ridge Mine. The Solitax sensor measures using a combined infrared absorption scattered light technique that measures turbidity values in accordance with DIN EN 27027. An additional sensor photo receptor is used to measure suspended solids. The mine is proposing sensors for both turbidity and TSS; these sensors will be installed in the suction line of the pumps in 5<sup>th</sup> Right sump that connects to all discharge lines. This arrangement will allow for monitoring of all discharge water from the mine.

The Sensors will be installed and maintained according to the manufactures recommendations. The sensor will be installed fully immersed in a horizontal up-flow pipe section on the suction line of the pumps. The controller will be installed within 7.8M of the sensors.

The Calibration for turbidity will be done using the 800 NTU Turbidity Standard Solutions and Calibration Kit (at. No. 57330-00) standard. Also a zero-point calibration will be done using deionized water. The 800 NTU standard will be divided by the measured value to determine the new Factor to be entered into the sc-100 controller. Calibration for turbidity will be done on a monthly basis. If the sensor is drifting in calibration, calibrating will be done more frequently.

Calibration for TSS will be done using a single point calibration using actual samples. A grab sample will be taken monthly and sent out to a water lab to determine the TSS value. The lab value will then be divided by the measured value resulting in a new Factor. This new Factor will then be entered into the sc-100 controller. Calibration for TSS will be done on a monthly basis. If the sensor is drifting in calibration, calibrating will be done more frequently.

Digital data from the sensors will be sent to the sc-100 controller and to the conspec system simultaneously where it will be analyzed and stored. The Continuous Mine Monitoring System ("Conspec") is monitored on the surface by an attendant at all times.

An audio and visual alarm will be initiated at the conspec terminal when the TSS limit exceeds 35 mg/l. This alarm will be considered the low level alarm. The conspec operator will immediately notify the responsible person (person in charge) who will, as soon as practical, investigate the low level alarm and take appropriate action.

Should the TSS level reach 70 mg/l or above, a high level alarm will be initiated using both audio and visual means. The conspec operator will immediately notify the responsible person who will take appropriate actions which could include turning the pumps off. By turning off the pumps all mine water discharge will cease.

During times of maintenance or breakdown, when and if both sensors go off line, visual monitoring will be initiated at mine-water Outfall discharge 002. Visual observations will be taken at least twice a shift and recorded in a logbook. The observer will note any changes in flow, amount of foam, suspended solids, color or general condition of the outflow. If any obvious visual changes are observed all mine water discharge will cease and the system evaluated.

A hardbound logbook will be maintained at the mine that includes the dates, times, and personnel who performed maintenance and calibration on the mine-water monitoring/treatment system and will be available for inspection upon request.

The SOLITAX sc Suspended Solids and Turbidity Analyzer is on order and is expected to arrive in 30 days with 10 days for installation and setup.

#### IV. Schroeder Industries Filtration System:

On July 30, 2010, West Ridge Resources ordered the Schroeder Industries BH10 Multi-Bag Filtration System. The BH10 is estimated to arrive in 4 to 6 weeks. This system will be installed on the surface near the main ventilation fan (See Map 1). It should be noted that after the installation of the Filtration System, the company will try different micron sized bags to see what filters will work best for this application. The BH10 filters will then be used to ensure discharge water meets effluent limitations outlined in the UPDES Permit.

All mine-water discharge pipes will join together at the surface before being filtered. All mine-water will then be routed to the Schroeder BH10 Filtration System (Exhibit 3). This system is designed to filter up to 2000 gpm of discharge water. A bypass pipe will be installed to provide for filter changes and cleaning. Filters will be changed out on a regular basis.

#### V. Additional Underground Sampling:

A monthly sample of the in-mine water will be collected prior to treatment and analyzed for operational field and laboratory parameters. Parameters will include total and dissolved iron, sulfate, alkalinity, total and dissolved solids, field conductivity, field temperature, field dissolved oxygen and field pH. The sample will be collected in 9<sup>th</sup> right between the seal and treatment area. This sample point will be called UG-1. See Map 1 for location.



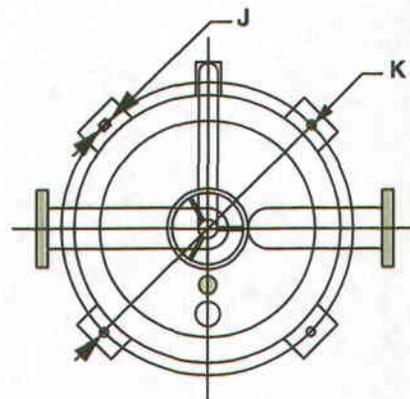
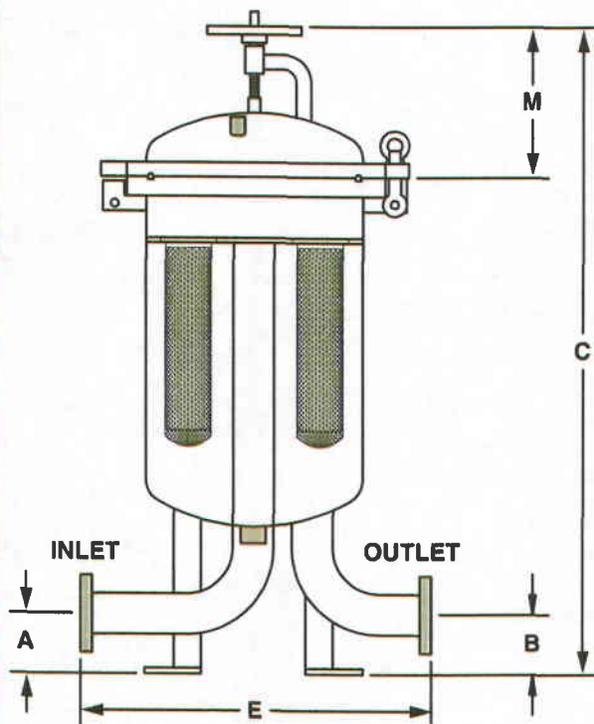
# Multi Bag Housings

**BH2-  
BH10**

**Multi Bag  
Housing**

**150 psi**

**10 bar**



**FLOOR MOUNTING  
PATTERN**

NOTE:  
Drawings may change without notice. Contact Factory for certified drawings.

## Multiple Bag Housing Dimensions

Number of Bags	Available Porting	A		B		C		E		J (dia)		K (dia)		M		Max Flow	
		inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	gpm	L/min		
2	3" Flange	4.25	108	4.25	108	52.99	1346	22.99	584	0.67	17	20.31	516	10.00	254	400	1514
	4" Flange	5.00	127	5.00	127	55.00	1397	25.98	660	0.67	17	20.31	516	10.00	254	400	1514
3	3" Flange	4.25	108	4.25	108	62.01	1575	27.01	686	0.67	17	22.32	567	17.01	432	600	2271
	4" Flange	5.00	127	5.00	127	64.02	1626	28.50	724	0.67	17	22.32	567	17.01	432	600	2271
4	3" Flange	4.25	108	4.25	108	57.99	1473	27.48	698	0.67	17	27.72	704	15.98	406	800	3028
	4" Flange	5.00	127	5.00	127	62.01	1575	29.02	737	0.67	17	27.72	704	17.76	451	800	3028
	6" Flange	5.98	152	5.98	152	64.02	1626	34.49	876	0.67	17	29.53	750	15.75	400	800	3028
6	3" Flange	4.25	108	4.25	108	59.02	1499	28.50	724	0.67	17	29.53	750	16.77	426	1200	4542
	4" Flange	5.00	127	5.00	127	60.98	1549	30.00	762	0.67	17	29.53	750	16.73	425	1200	4542
	6" Flange	5.98	152	5.98	152	64.02	1626	34.49	876	0.67	17	29.53	750	15.75	400	1200	4542
8	4" Flange	5.00	127	5.00	127	65.00	1651	34.02	864	0.67	17	37.80	960	18.74	476	1600	6057
	6" Flange	5.98	152	5.98	152	70.00	1778	39.02	991	0.67	17	37.80	960	20.75	527	1600	6057
	8" Flange	7.24	184	7.24	184	72.01	1829	41.22	1047	0.67	17	37.80	960	22.76	578	1600	6057
10	6" Flange	5.98	152	5.98	152	70.98	1803	42.99	1092	0.67	17	41.81	1062	20.98	533	2000	7571
	8" Flange	7.24	184	7.24	184	71.10	1806	42.01	1067	0.67	17	41.81	1062	21.10	536	2000	7571
	10" Flange	8.50	216	8.50	216	7.87	200	47.99	1219	0.67	17	45.79	1163	23.50	597	2000	7571

## Specifications

Max. Working Pressure: 150 psi (10 bar)  
 Max. Working Temperature: 165°F (75°C)  
 Support Legs: Fixed  
 Lid Closure: Swing Bolts

G:\Current Drawings\Mine Maps\West Ridge Mine\MineWater\_Issue\DOGM\_CIT Dated 2010-07-14\pumping Diagram 8-10-10.dwg, Layout2, 8/11/2010 8:39:43 AM

TYPICAL TEE  
PIPE CONNECTOR

TYPICAL VALVE -  
NORMALLY OPEN

DRAIN TO POND  
ONLY DURING  
FILTER CHANGES

TYPICAL VALVE -  
NORMALLY CLOSED

FILTER

DRAIN TO  
STREAM

FAN

6" WATER PIPE FROM BELT ENTRY

8" WATER PIPE  
PORTAL

10" WATER PIPE  
PORTAL

BYPASS



I CERTIFY THIS MAP TO BE TRUE AND CORRECT  
TO THE BEST OF MY KNOWLEDGE.



### SURFACE FILTER PIPING SCHEMATIC



WEST RIDGE  
RESOURCES, INC.  
794 NORTH "C" CANYON ROAD  
EAST CARBON, UTAH 84520

MSHA MINE ID # 42-02233

DRAWN BY	PJ	SCALE	NONE
APPROVED BY	DH	DATE	10 AUGUST 2010
SHEET			EXHIBIT 3

## CHAPTER 7...REPLACEMENT PAGES

## Wells

Only one groundwater monitoring well (DH86-2) exists in the permit area. This well monitors the Sunnyside Sandstone Member of the Blackhawk Formation, which is below the coal seam that will be mined. In addition to field parameters and operational water quality parameters, water level will be measured in this well.

## Underground Sampling

UG-1 Starting in the fall of 2010, West Ridge Resources will begin an underground monitoring program on the pre-treatment mine-water. A monthly sample of the in-mine water will be collected prior to treatment and analyzed for operational field and laboratory parameters. Parameters will include total and dissolved iron, sulfate, alkalinity, total and dissolved solids, field conductivity, field temperature, field dissolved oxygen and field pH. The sample will be collected in 9<sup>th</sup> right between the seal and treatment area. This sample point will be called UG-1. Please refer to Appendix 5-15, Attachment 10 for a description and location of UG-1.

**Table 7-1 Hydrologic monitoring protocols and locations**

**MONITORING PROTOCOLS**

*Discharge and water level measurements*

Protocol	Applies to	Parameter	Frequency
A	Streams	discharge	quarterly
B	Springs	discharge	quarterly
C	Monitoring wells	water level	quarterly
D	Underground	pre-treatment	monthly

*Water quality*

Protocol	Applies to	Parameters	Table	Frequency
1	Streams	operational field and laboratory for two years, then field only with DOGM concurrence	7-2	*quarterly
2	Springs	operational field and laboratory for two years, then field only with DOGM concurrence	7-3	quarterly
3	Monitoring wells	operational field and laboratory for two years, then field only with DOGM concurrence	7-3	quarterly

\*samplers will be checked following precipitation events

**MONITORING LOCATIONS**

Site	Protocols	Comments
<i>Streams</i>		
ST-3	A,1	Grassy Trail Creek upstream of permit area
ST-4	A,1	Bear Creek downstream of permit area (Note 1)
ST-5*	A,1	B and C Canyon downstream of permit area
ST-6A*	A,1	C Canyon upstream of mine site area
ST-6*	A,1	C Canyon downstream of mine site area
ST-7*	A,1	A Canyon downstream of permit area
ST-8	A,1	Grassy Trail Creek downstream of permit area
ST-9	A,1	Grassy Trail Creek at Grassy Trail Reservoir inlet
ST-10	A,1	Grassy Trail Creek above permit area
ST-11	A,1	Bear Canyon Shallow Point (Note 2)
ST-12	A,1	Bear Canyon Falls (Note 3)
ST-13	A,1	Bear Canyon Below Forks
ST-15	A,1	Spring Canyon Stream (Note 4)
<i>Springs</i>		
SP-12	B,2	Colton Fm. upper Whitmore Canyon
SP-13	B,2	Colton Fm. upper Whitmore Canyon
SP-15	B,2	Colton Fm. near Grassy Trail Reservoir

WR-1	B,2	Colton Fm. on West Ridge
WR-2	B,2	Colton Fm. on West Ridge
SP-16	B,2	North Horn Fm. in Whitmore Canyon
SP-8	B,2	North Horn Fm. in C Canyon
SP-101	B,2	Little Spring Bottom (Note 5)
SP-102	B,2	Spring Canyon Hillside (Note 5)
S-80	B,2	Hanging Rock Spring

**Wells**

DH86-2	C-3	Sunnyside Sandstone in C Canyon
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**Underground**  
UG-1

D

West Ridge Mine

Note 1: ST-4 was discontinued in the third quarter of 2005 and replaced with ST-13.

Note 2: ST-11 will be monitored monthly from May 15 through September 15 as long as flow is present during the flow season of 2005 and 2006 and quarterly throughout the remainder of the year. Thereafter, monitoring will be done on a quarterly basis.

Note 3: ST-12 will be monitored twice a year (late spring/early summer and late summer/early fall) during 2005 and 2006. Based on the results of this monitoring, the plan will be reassessed to determine if this site should be included in the permanent monitoring plan.

Note 4: ST-15 will be monitored for baseline data for the first two years (starting third quarter 2005) according to the surface water monitoring parameters outlined in Table 7-2.

Note 5: SP-101 and SP-102 will be monitored for baseline data for the first two years (starting third quarter 2005) according to the ground water monitoring parameters outlined in Table 7-3.