

C/007/041 Incoming
3708

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WEST RIDGE
RESOURCES, INC.

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

December 2, 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
Second Response to Deficiencies, Task #3661

Dear Mr. Haddock:

Enclosed are ^{Five} ~~four~~ (4 ea.) copies of the response to second round of deficiencies (Task #3661) for the amendment to the West Ridge MRP to include catchment structures C and E in the C Canyon drainage below the minesite. This submittal is in response to Violation #10063.

One of the deficiencies requested a correction to the disturbed acreage associated with catchment A. Please note that the disturbed area, as opposed to the permit area, as originally submitted is correct. The explanation has been provided to Ingrid Campell, to her satisfaction.

Response to the Task 3661 deficiencies are presented in green type for ease of review. These changes occur on pages 8 and 14 of Appendix 5-15. The previous changes are still shown in red and blue type, as presented earlier.

If you have questions or comments please contact me at (435) 888-4017.

Sincerely,

David Shaver
Resident Agent

RECEIVED

DEC 14 2010

DIV. OF OIL, GAS & MINING

APPLICATION FOR PERMIT PROCESSING

Permit Change
 New Permit
 Renewal
 Transfer
 Exploration
 Bond Release

Permit Number: **C/007/041**

Title of Proposal: **Change to the MRP to include Catchment structures C and E in C Canyon Drainage below mine, Response to deficiencies, Task #3661**

Mine: **WEST RIDGE MINE**

Permittee: **WEST RIDGE Resources, Inc.**

Description, include reason for application and timing required to implement.

Instructions: *If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation specialist.*

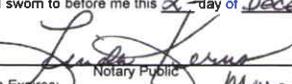
- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 1. Change in the size of the Permit Area? 0.96 acres Disturbed Area? 0.46 acres <input type="checkbox"/> increase <input type="checkbox"/> decrease. |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 2. Is the application submitted as a result of a Division Order? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 4. Does application include operations in hydrologic basins other than as currently approved? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 5. Does application result from cancellation, reduction or increase of insurance or reclamation bond? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 6. Does the application require or include public notice/publication? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 7. Does the application require or include ownership, control, right-of-entry, or compliance information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 9. Is the application submitted as a result of a Violation? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 10. Is the application submitted as a result of other laws or regulations or policies? Explain: |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 11. Does the application affect the surface landowner or change the post mining land use? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 12. Does the application require or include underground design or mine sequence and timing? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 13. Does the application require or include collection and reporting of any baseline information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 15. Does application require or include soil removal, storage or placement? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 16. Does the application require or include vegetation monitoring, removal or revegetation activities? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 17. Does the application require or include construction, modification, or removal of surface facilities? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 18. Does the application require or include water monitoring, sediment or drainage control measures? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 19. Does the application require or include certified designs, maps, or calculations? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 20. Does the application require or include subsidence control or monitoring? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 21. Have reclamation costs for bonding been provided for? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 23. Does the application affect permits issued by other agencies or permits issued to other entities? |

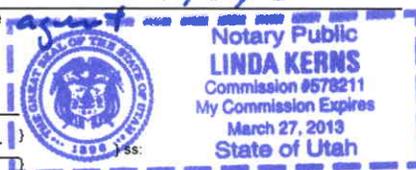
Attach 3 complete copies of the application.

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. (R645-301-123)

Signed - Name - Position - Date

Subscribed and sworn to before me this 20th day of December 2010


 Notary Public
 My Commission Expires: March 27, 2013
 Attest: STATE OF Utah COUNTY OF Carbon



Received by Oil, Gas & Mining

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DEC 14 2010

DIV. OF OIL, GAS & MINING

ASSIGNED TRACKING NUMBER

WEST RIDGE MINE 007/041

CHANGE TO
THE MINING AND RECLAMATION PLAN

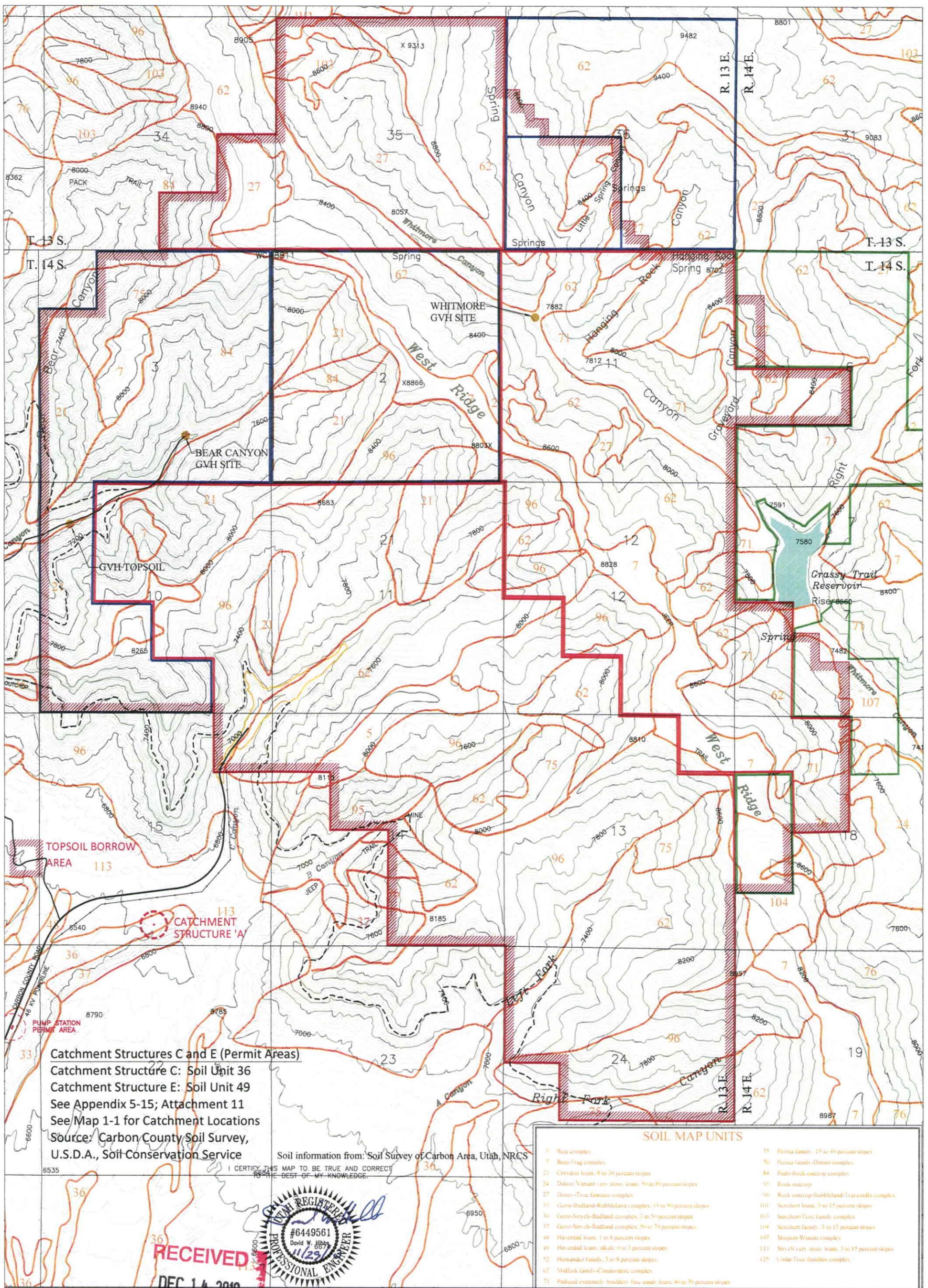
TO INCLUDE:

*COAL-FINES CATCHMENT STRUCTURES
C AND E
IN THE C CANYON DRAINAGE
BELOW THE WEST RIDGE MINE*

THIS IS IN RESPONSE TO VIOLATION #10063
WHICH REQUIRES A SECOND CLEANUP OF THE
COAL FINES BELOW THE MINE

SECOND RESPONSE TO DEFICIENCIES
TASK #3661

SUBMITTED: DECEMBER 6, 2010



Catchment Structures C and E (Permit Areas)
 Catchment Structure C: Soil Unit 36
 Catchment Structure E: Soil Unit 49
 See Appendix 5-15; Attachment 11
 See Map 1-1 for Catchment Locations
 Source: Carbon County Soil Survey,
 U.S.D.A., Soil Conservation Service

Soil information from: Soil Survey of Carbon Area, Utah, NRCS

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



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 DEC 14 2010

SOIL MAP UNITS			
8	Bice complex	75	Perma family, 15 to 40 percent slopes
9	Bice-Trag complex	76	Perma family-Daino complex
21	Crydon loam, 8 to 30 percent slopes	84	Pods-Rock outcrop complex
24	Daino Variant very stony loam, 30 to 30 percent slopes	95	Rock outcrop
27	Doney-Tone families complex	96	Rock outcrop/Hubbleland-Travestilla complex
33	Gero-Bulland-Rubbleland complex, 15 to 50 percent slopes	101	Scratch loam, 3 to 15 percent slopes
36	Gero-Strych-Badland complex, 3 to 50 percent slopes	103	Scratch-Torc family complex
37	Gero-Strych-Badland complex, 50 to 70 percent slopes	104	Scratch family, 3 to 15 percent slopes
48	Haverdad loam, 1 to 8 percent slopes	107	Shupers-Wineto complex
49	Haverdad loam, alkali, 0 to 3 percent slopes	113	Strych very stony loam, 3 to 15 percent slopes
52	Hernandez family, 3 to 8 percent slopes	125	Unita-Tone families complex
62	Midfork family-Comodore complex		
71	Pathard extremely bouldery fine sands loam, 40 to 70 percent slopes		

WEST RIDGE MINE
 DIV. OF OIL, GAS & MINING
 Map 2-1
 Regional Soil Map

- LEGEND:**
- Permit Boundary
 - Federal Lease
 - State Lease
 - Penta Creek Fee
 - Surface Facility Area
 - GVH Site
 - Soil Mapping Boundary
 - Soil Map Number



SCALE: 1"=2000'

APPENDIX 5-15

COAL-FINES CATCHMENT STRUCTURE
C CANYON DRAINAGE

ATTACHMENTS

Attachment 1	Location Map
Attachment 2	BLM NEPA Document (Catagorical Exclusion)
Attachment 3	BLM Right-of-Way Grant
Attachment 4	Div. 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
Attachment 10	Catchment Structures C and E, As-Constructed Photos (Re-Constructed, 2010)
Attachment 11	Catchment Structures C and E, As-Constructed Drawings (Re-Constructed, 2010)
Attachment 12	MSDS Sheet for Flocculant 83400
Attachment 13	Soils Information, Catchments C and E

COAL-FINES CATCHMENT STRUCTURE
C CANYON DRAINAGE

1) Introduction:

West Ridge Resources became aware of excessive coal fines in the discharge water from the West Ridge Mine, and subsequent accumulations in the C Canyon drainage beyond the permit area below the minesite, in late January, 2009. The company immediately notified the various state and federal agencies involved, namely Division of Oil, Gas & Mining (DOGM), Division of Water Quality (DWQ), Bureau of Land Management (BLM), Utah School & Institutional Trust Lands Administration (SITLA), and Utah Division of Water Rights (DWRights). On January 29, 2009, DOGM issued Citation No. 10033 for offsite sediment. After that there were a number of on-site meetings to assess the situation, followed by several planning meetings designed to come to a consensus agreement among all the agencies as to the best plan to mitigate the discharge problem from the mine and the accumulations situation in the drainage. At the request of the various regulatory agencies, the accumulation material was sampled and analyzed for RCRA metals, volatile organic compounds, semi-volatile organics, as well as other analytes requested specifically by DOGM, to make sure that the material was not toxic, hazardous, or acid-forming. These analyses were then factored into the formulation of an acceptable containment and clean-up plan. Based on these site inspections and planning meetings, and the results of the analyses, a conceptual plan was then agreed upon. This plan consisted of an initial containment phase, followed later by a clean-up phase, and finally site reclamation. This plan was then formally submitted to DOGM and DWQ on March 27, 2009, as part of the abatement requirements for the violations issued by those agencies. The plan was subsequently accepted and the cleanup operation implemented accordingly. The elements of this plan are described below.

2) Containment:

Containment was accomplished by constructing four catchment structures at selected locations within the C Canyon drainage below the mine. These catchments were located at various intervals over a seven-mile stretch of the drainage, and all were accessible by way of pre-existing roads. The location of these structures, at sites A, C, E and F, is shown on Attachment 1. (It was subsequently determined that the catchments at sites B and D would not have to be utilized.)

Due to the urgency of the situation, it was agreed early-on by all parties that a containment plan should be implemented as soon as possible in order to prevent the coal-fines material from migrating any further down the C Canyon drainage. Toward this end, BLM, DWRights, and SITLA all issued expedited approvals to allow immediate construction of the catchment structures, and road access thereto. BLM issued a right-of-way for catchment Site A on Feb. 9, and for the other sites and access roads on Feb. 23; DWRights issued channel alteration permits on Feb. 3; and SITLA issued right-of-entry agreements for the access roads on Feb. 17.

In preparation for issuing the necessary rights-of-way for the catchments, BLM determined under the NEPA review that the sites qualified for a Categorical Exclusion (CX), as shown in Attachment 2. The following reasons contributed to this determination:

a) The fact that all catchment construction was to be done within the existing drainage channel and adjacent flood-plain, therefore within the zone that is subject to regular flashflood scouring events. Within this flood-plain, vegetation and topsoil resources were not well developed due to the frequent storm-related scouring within the confines of the flood-plain.

b) The fact that each unit was of relatively small size, i.e., less than 10,000 sq. ft. (0.23 acres).

c) The fact that each site was accessed by an existing road which required no upgrade or additional disturbance.

d) The fact that the BLM's current management plan did not identify any environmental issues in the area, such as T&E, visual resources, recreational resources, etc.

e) The fact that on-site cultural resource surveys determined nothing of significance.

Because of prior road authorizations, work was commenced first at Site A on Feb. 11, 2009. All construction of site A was done within the pre-existing right-of-way UTU-1256 for the adjacent road. Work then moved to Site F, the lowest unit downstream. It was felt that this site represented a reasonable line of defense against future downstream fines migration, and was therefore assigned an elevated priority for construction. This facility was completed on March 16. Construction at Site E was completed on March 23, and Site C was completed in mid-April.

All work on the catchments was done under the appropriate permits, rights-of-way, and other authorizations granted from BLM, SITLA and Division of Water Rights (stream alteration). Archeological clearances were completed where necessary. No cultural resource clearance was required for Site A because it was constructed within the right-of-way of the existing road and the area had already been cleared. Refer to Attachment 3 for BLM right-of-way grant for the catchment site. Refer to Attachment 4 for the DWRights channel alteration permit.

Each catchment structure consisted of a small stilling basin excavated out of the natural drainage channel, a small low-lying impoundment dam to contain the basin, and a series of siltation filtering devices installed within the dam. Therefore, each catchment was designed to employ elements of both settling and filtration. A bypass culvert, consisting of a 12" dia. poly-pipe, was constructed around each unit to allow the stream flow to be diverted around the stilling basin and filter boxes at times when the basins were being cleaned or the filters were being replaced. Refer to Attachment 5 for an as-built drawing of Catchment Structure A, and to Attachment 6 for as-constructed photos of the facility.

The filtration devices consist of a series of excelsior log sediment traps, contained within steel holding boxes. These boxes are designed to hold the filter logs firmly in place and prevent the streamflow from bypassing under the logs or around the ends. The holding boxes are also designed to allow the logs to be quickly and easily replaced as needed with new ones as they fill up with accumulations.

3) Clean-up:

Prior to clean-up operations, the entire C Canyon drainage channel was inspected by representatives of the various state and federal regulatory agencies and company representatives. This inspection tour took place in late April, 2009, after all the catchment structures were in place. The purpose of this inspection tour was to assess the extent and magnitude of the coal-fines accumulation material as part of formulating the final clean-up plan. Most of the accumulations were observed to be between the mine and Site A. Based on the results of the inspection tour it was determined that active cleaning techniques would be more appropriate in the channel immediately below the mine in the area of highest concentrations, while passive, non-invasive natural cleaning processes would be more appropriate in the remaining channel below Site A where the accumulations were less.

In order to facilitate the clean-up effort, the company utilized a flocculant chemical additive during the active portion of clean-up. This involved metering the chemical into the stream-flow immediately above catchment unit A. The flocculant was metered into the flow at a rate determined by previous bench testing on the material. and was only utilized during active portions of the clean-up

The clean-up operations were conducted under complete oversight from the various regulatory agencies,. Active cleaning began on June 30, 2009, at the minesite and proceeded downstream from there. Cleaning involved hand crews utilizing household sweeping brooms to dislodge and break up the accumulated material. The stream-flow then carried the material down to the first catchment structure at Site A, where it was captured and later removed. On August 26, the cleanup was completed, the channel was inspected by officials from DOGM and DWQ, and the violation was officially abated.

4) Reclamation:

After the clean-up was determined successful by the government agencies involved (DOGM, DWQ and BLM), and the violation was formally abated, it was determined that catchment A should be left in-place to provide an element of insurance against unforeseen upset conditions which might possibly arise in the future involving the mine water discharge. Therefore, since this catchment would continue to remain in service as part of the mine operation, it was decided that it should be included in the SMCRA Mining and Reclamation permit and within the permit area.

It was also determined at that time that catchment structures C, E and F should be reclaimed since they were no longer needed either for containment or cleanup. The company then applied to BLM for relinquishment of the right-of-way for these sites. Based on BLM authorization, reclamation of sites C, E and F were completed in October 2009 under the terms of the right-of-way UTU-87111, and BLM signed-off on the reclamation of these areas for shortly thereafter, subject to demonstration of successful re-vegetation the following summer (2010).

In reclaiming catchments C, E and F, undisturbed segments of the channel above and below the catchment sites were used as a basis of comparison in restoring the areas to an acceptable reclaimed condition. It should be noted that these sites were originally constructed totally within the natural flood-plain of the drainage channel. This was one of the reasons the BLM issued the right-of-way under Categorical Exclusion (CX), without requiring more extensive environmental analysis. These areas are subject to cyclic regular inundations from high-intensity high volume runoff events which add a natural dynamics toward augmenting successful future reclamation.

Successful reclamation of sites C, D and F can be used as a model for the future reclamation of site A. Therefore the reclamation plan for site A consists of what was done at the other three sites, and is described in more detail below. Pre-reclamation and post-reclamation photos of these sites are included in Attachment 7, since these sites serve as a model for future reclamation of Site A. It should be noted that these photos were taken shortly after reclamation in the fall of 2009. Although reseeding has been done at these sites as per BLM requirements, the vegetation has not yet had a chance to become re-established, but should be evident by the summer of 2010.

Reclamation of site A will begin at such time as the company and the regulatory agencies agree that it is no longer needed as a back-up facility to ensure protection to the drainage channel in the event of a future unforeseen discharge of coal-fines from the mine. This could be when the mine no longer discharges water, or when the mine undergoes final reclamation.

The BLM right-of-way for site A includes 0.23 acres. There is a pre-existing BLM road which runs through the site, which will remain in place after final reclamation. Existing disturbance associated with the installation of site A involves less than 0.12 acres, all located in the stream flood channel north of the existing road. Once started the reclamation will proceed in the following order:

- 1) The channel flow will be temporarily diverted through the by-pass pipe. The impounded water in the stilling basin will then be drained off, and any remaining coal-fines accumulation material will be cleaned out of the basin and hauled off-site to an approved disposal facility (such as ECDC).
- 2) The concrete barriers between the road and the basin, which presently serve as a public safety barricade, will be removed and utilized at another location within the company.

- 3) The steel containment structures for the filter logs will be removed and hauled off-site to an approved disposal site, such as a scrap-metal recycle facility.
- 4) The low-lying outlet dams (where the filter boxes were located) will be excavated out to the original stream bottom elevation and configuration. The excavated material will be used to help fill up the stilling basin.
- 5) The rest of the stilling basin will be backfilled with the material from the adjacent equipment storage area, and from the "excess fill storage area" located between the basin and the steep bank immediately to the north. This is the material that was originally dug out of the channel to construct the stilling basin. Additional material from the small material storage pad will also be used to blend back into the excavated channel area. In this manner the stream channel surface can be restored as it is filled back up, and the configuration of the adjacent channel flanks will also be restored at the same time.
- 6) As the re-contouring process continues, boulders and large rocks will be arranged within the channel and along the channel flanks in an attempt to mimic the pre-existing channel morphology as much as possible, and to blend in with the visual appearance of the natural channel above and below the reclamation site.
- 7) The boulder placement will be done not only for visual appearance, but also for erosional control. This will be done by placing boulders in and along the reclaimed channel to slow and control the water-flow velocity. Additional armoring will be placed along the outer bank of the curved section of channel in the area where the filter boxes were removed. The boulder placement will be done to match the natural appearance of the area.
- 8) After the channel has been restored, and the channel flanks have been reclaimed by removing the material storage pad, the by-pass pipe will be removed. The bypass pipe has been installed more-or-less parallel with the channel and buried under the pad and the existing road. Therefore, after the material pad have been reclaimed, the bypass pipe will be easily accessible. Once the channel water-flow has been returned to the newly-reclaimed channel, and the bypass pipe removed, the final re-contouring of the channel flanks will be done.
- 9) All reconstructed bank areas and flanks will be roughened and scarified in preparation for re-seeding. It should be noted that since the site was constructed within the channel and the immediate flood plain, there was no topsoil salvaging done during initial construction. There was little definable topsoil in the pre-existing site, which consisted primarily of flash-flood alluvial debris, and vegetation was sparse. However, after the pad material is removed, and the excess fill material from the "excess fill material area" is backfilled into the basin

area as part of the channel restoration, the original pre-existing flood-plain contour will be re-established.

- 10) The disturbed areas will then be re-seeded using a seed mix recommended by the BLM. See Attachment 8 for the proposed seed mix. This is the same seed mix that was used on the reclamation of catchment site C located nearby. Seed will be hand-broadcast and then raked in. After the areas have been re-seeded, a layer of wood straw will be scattered over the reclaimed areas. As required by BLM, re-seeding will be done in to fall of the year (after November) to increase the potential for successful germination.
- 11) Upon final reclamation, the reclaimed surface soils in the vicinity of the former catchments will be tested for pH, EC and SAR to allow for the evaluation of the salinity and the need for a revision or addition to the final seed mix to enhance germination and establishment.

Note: Catchment A is being left in place as a contingency for potential future cleanup events. In the meantime, the basin is likely to fill up with natural sediment material from normal precipitation events. This material will not be cleaned out unless and until the basin needs to be pressed back into service in the unlikely event of a future coal fines cleanup resulting from an inadvertent discharge. Also, the excelsior logs will not be maintained in the filter boxes until such time as they may be needed for future cleanup efforts.

5) Bonding:

The following bonding calculations are provided:

1) Demolition: a) Remove the steel filter boxes. There are a total of 22 of these filter boxes at the catchment site. They measure 13' long x 2' wide x 2.5' high. They are equipped with lifting lugs and can easily be removed from the site, loaded on a flatbed truck, and hauled off. They are valuable for scrap, and can easily be properly disposed of. Demolition cost is estimated to be about the same as for the powder magazines (bond item 04) at the West Ridge Mine, which have been determined at \$154 each. Therefore, the demolition cost associated with the filter boxes is estimated at $22 \times \$154 = \$3,388$.

2) Demolition: b) Removal of the bypass pipe. There is a total of 50' of 12" poly pipe installed at this site. This pipe is put together in 20' lengths with removable couplers. It is easy to dis-assemble, and can be re-used after being removed from the sites. Demolition and removal cost of this pipe is estimated to be about the same as for similar culverts (bond item 27) at the West Ridge Mine, which has been determined to be \$442.

3) Earthwork: Based on the estimated quantity of backfill required to reclaim comparable sites C, E and F, the estimated time required to backfill and grade the site is about 12 days or 96 working hours. Similar earthwork cost for the West Ridge Mine (i.e., “establish rubbleland surface” bond item) is estimated to be \$19,230/111 hrs = \$173/hr. Therefore, it is estimated to cost about \$173 x 96 hrs = \$16,608 for earthwork reclamation of the catchment site. This is in line with historical costs incurred in reclaiming the lower catchment sites.

4) Revegetation: The total area of the catchment site is 0.92 acres. The existing West Ridge pumphouse, which is located nearby in a similar is 0.9 acres, or 0.21 times larger, and its re-vegetation cost is presently bonded at \$4506. Therefore, the re-vegetation cost for the catchment site is estimated to be about \$4506.

The total reclamation cost for the catchment site is estimated at:

Demolition	\$3,830
Earthwork	\$16,608
Re-vegetation	\$4,506
Direct Cost	\$24,944
Indirect Cost (26.8%)	\$6,685
<u>TOTAL</u>	<u>\$31,628</u>

The present West Ridge Mine reclamation bond amount is \$1,966,000 (as of November 12, 2008), and the bond posted is \$2,117,000. In other words, there is presently \$151,000 excess bonding currently in place. Therefore, the existing bond should be adequate to include the reclamation of the catchment site.

6) Second Violation:

On July 21, 2010, the company incurred a second violation for additional coal fines accumulations in the drainage below the mine. A complete discussion of this situation is included in Attachment 9 of this Appendix, “Addendum to Address Second Violation #10063, Issued July 21, 2010”.

ATTACHMENT 9

ADDENDUM TO ADDRESS SECOND
VIOLATION

VIOLATION #10063
ISSUED JULY 21, 2010

ATTACHMENT 9: ADDENDUM TO ADDRESS SECOND VIOLATION VIOLATION 10063, ISSUED JULY 21, 2010

Historical Note: The preceding discussion was approved by the Division and was incorporated into the Mining and Reclamation Plan on May, 2010. Shortly thereafter, on July, 2010, the company incurred a second violation for coal fines accumulations from the mine. The following narrative has been submitted in response to this most recent violation. It is presented in the same format as the preceding discussion.

1a) Introduction:

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. This is a distance of about five miles measured straight-line, and perhaps seven miles total, considering channel meander and sinuosity.

As part of the violation abatement requirements, the Division determined that Catchments C and E would have to be permitted as part of the MRP. It also determined that these catchments could be re-constructed and utilized as part of the required cleanup process prior to having the approval of the MRP amendment. Reconstruction work on the catchments was completed in August, 2010, and cleanup began in September, 2010.

2a) Containment:

After the channel was cleaned in the summer of 2009 and the initial violation was formally abated, the company reclaimed Catchments C and E in November, 2009. The BLM was in the final stages of approving the reclamation when the second violation occurred.

Fortunately, the BLM right-of-way for Catchment C and E is still in place (refer to Attachment 3). Also, Division of Water Rights has approved an Emergency Authorization for the catchments (identical to the one issued previously, refer to Attachment 4) and is proceeding with the extension of the previously-issued stream alteration permit for catchments C and E.

The company reconstructed catchments C and E similar to what was done in 2009 (as described above), and to utilize these re-constructed catchments, as well as existing Catchment A, in the clean-up response to the second violation #10063. As-constructed photos of the catchments during the 2009 clean-up are included as part of this attachment. Photos of the re-constructed catchments are also shown in this attachment. As-built drawings and cross-sections of these catchment structures are included in Attachment 10.

3a) Clean-up:

Based on previous successful clean-up efforts in this drainage during the preceding summer of 2009, the company is utilizing an identical cleaning procedure for the 2010 cleanup. Much of this cleanup has already been accomplished. In summary, this procedure consists of the following:

a) Prior to cleaning, catchment structures will be in place at downstream locations A, C and E, as shown on attachment 1. These structures will all include settling basins and filter containment boxes, as previously described.

b) During cleaning operations, the downstream receiving catchment will be equipped with a flocculant chemical injection system identical to the one used in the previous cleanup. This would include a flocculant storage tote, a metering pump, a make-up water pump, and an application apparatus to inject the floc into the stream. This system would be installed immediately above the inlet of the catchment ponds. The flocculant to be used is Nalco 83400, and the MSDS sheet for this chemical is provided in Attachment 12.

c) Clean-up will be performed by 4-5 man crews using ordinary bristle sweep brooms. Crewmen will sweep the accumulations from the sides of the channel using a swirling sweeping motion. The dislodged accumulations will then be carried downstream by the stream-flow. Crewmen will be instructed to stay within the channel during cleaning operations, rather than sweeping from the banks, in order to minimize damage the riparian plant-life along the channel banks. The brooming method has been previously approved by the regulatory agencies because it is effective in removing the accumulations but is gentle enough not to damage the natural channel armoring.

d) When the dislodged accumulations suspended in the streamflow reaches the downstream catchment structure, the chemical flocculant will be injected into the water. Experience has shown this method to be very effective in quickly dropping out the suspended coal fines. Filter logs will also be maintained at the catchment outlets to provide a secondary means of capturing the coal fines.

e) After the catchment basins have filled up with fines, the stream cleaning operations will be temporarily halted. The channel flow will be diverted around the catchment basin, and the solids allowed to dry out for several days. Experience has demonstrated that within a couple of days the coal fines can then be easily handled. A back-hoe will scoop the fines out of the basin and load it into a dump truck. The material will then be hauled to the West Ridge mine where it will be disposed of at the main coal pile. It will later be blended back into the run-of-mine coal as part of the commercial product.

f) During cleanup operations, crews will exercise caution to prevent damage to riparian vegetation growing along the banks and edges of the channel, based on the protocol established by the regulatory agencies in the previous cleanup efforts. The same contractor involved with the

2009 cleanup, using the same foreman and crew, and familiar with the protocol, will perform the cleanup.

4a) Reclamation:

The catchments will remain as permitted structures until the Division determines they are no longer required. The catchments have been constructed and are being utilized during the violation 10063 cleanup operations during August, September and October, 2010. After the cleanup is completed the steel filter boxes will be carefully removed and placed in safe storage off-site for possible future use. Interim reclamation of the channel area where the filter boxes were removed will then be conducted. Also, the settling basins will be cleaned of all coal fines. The sites will then be "moth-balled" until such time as they may once again possibly be needed for future cleaning activity, or else are finally reclaimed. During this "moth-ball" period the sites will be permitted but will not be actively maintained. During this interim period the settling basins will be allowed to fill naturally with native stream-silt, at least temporarily until final reclamation. The C Canyon drainage in the area of catchments C and E is subject to violent flash-flooding, especially during late-summer thunderstorm conditions. Therefore, any structures left in the channel for any length of time would be quickly destroyed. Therefore, there is a high probability that the catchments will be reduced to a state of non-functionality at some time after the 2010 cleanup is completed. However, they can easily be re-stored to functionality in a matter of three or four days in the future if the need arises. Under the current mine-plan (July, 2010) the down-dip longwall panels area within the mine are scheduled to be completed by May, 2012. After that time the mine water can be allowed to impound in the lower area of the mine and there will no longer be any need to pump any water out to the surface. In other words, in less than two years there may no longer be any future need for the cleanup catchments, and final reclamation can then be performed. Therefore, the interim "non-functional" period would be relatively short. During this interim period the catchments will not be maintained against natural flood events and normal siltation, since their only function is to serve as part of another possible active cleanup process in the future. However, during this interim period, the disturbed areas of the sites will be roughened and re-vegetated with the approved seed mix in order to provide interim erosional control. If the catchments are needed in the future they will then be returned to functionality according to this plan.

Final reclamation of the sites will be conducted after the Division determines they are no longer required. Reclamation will proceed as described in the narrative above, Item 4. It should be noted that, after the initial cleanup, catchments C and E were fully reclaimed in the fall of 2009, including re-seeding in November, 2009. In July, 2010, officials from BLM inspected the sites and were satisfied that all components of reclamation had been adequately met according to the terms of the right-of-way grant, including channel restoration, stabilization, and re-vegetation. Based on the success of the previous reclamation of these sites, the company would propose to reclaim the sites in a similar manner, under the terms outlined above, upon final reclamation. The same seed mix would be used (see Attachment 8). Photos of the sites during operation and after reclamation are included as part of this attachment. It should be noted that during final reclamation of these sites, large boulders will be placed in the bottom of basin areas during

backfilling operations. This will be done to insure long-term stability of the reclaimed channel against potential erosional effects of normal flash-flooding events in the future.

Since the time of the first construction/reclamation additional information has been obtained regarding the soils of the sites. A sampling program was agreed upon in consultation with Division specialist. Composite samples (taken from six individual locations, and then mixed together) were taken from the bottom of the excavated settling basins to approximate the soil characteristic of the disturbed areas. Also, soil samples were taken in undisturbed areas at the perimeter of the sites to better approximate the undisturbed soil characteristics at the site. The undisturbed samples were taken from 0"-7" depth, and from 7"-24" depth. Locations of the sample test pits and lab analysis results are presented in Attachment 13. This soils information will help provide additional guidance for future reclamation efforts if needed.

Upon final reclamation, the reclaimed surface soils in the vicinity of the former catchments will be tested for pH, EC and SAR to allow for the evaluation of the salinity and the need for a revision or addition to the final seed mix to enhance germination and establishment.

5a) Bonding:

As detailed in the above narrative, the bonding costs for the catchments is determined to be \$31,628 for each site, which includes demolition, earthwork, re-vegetation and indirect costs. This bonding cost has been approved previously by the Division. Therefore, the additional bonding cost associated with reclaiming Catchments C and E would be \$63,256. The present West Ridge Mine reclamation cost is \$1,998,000 (as of July 27, 2010) and the bond is posted in the amount of \$2,184,000. In other words, there is presently \$218,000 excess bonding currently in place. Therefore the existing bond should be adequate to include the reclamation of Catchment sites C and E.

6a) Mapping Designations:

The location of Catchment Structures C and E are shown on Map 1-0/1-1. These catchments are located beyond the general area of resource mapping used for the permitting of the primary mining operation. Therefore, pertinent resource mapping information for the catchments is given on the As-Constructed drawings appearing in Attachment 11, and provided herein as well. This information corresponds to the mapping designations for the primary permitting area, as follows:

<u>Map Number</u>	<u>Resource</u>	<u>Designation</u>
Map 2-1	Soils	Catchment C: Soil Unit 36 Catchment E: Soil Unit 49
Map 3-4B	Wildlife-Deer	Catchment C: Winter Range Catchment E: Unclassified

Map 3-4C	Wildlife-Elk	Catchment C: Winter Range Catchment E: Winter Range
Map 3-4D	Wildlife-Antelope	Catchment C: Unclassified Catchment E: Year-long Range
Map 3-1	General Vegetation	Catchment C: Pinyon/Juniper Catchment E: Sagebrush
Map 4-1	Land Use	Catchment C: Mud Springs Allotment Catchment E: Mud Springs Allotment
Map 5-2	Surface Ownership	Catchment C: U.S.A. (BLM) Catchment E: U.S.A. (BLM)
Map 5-3	Sub-Surface Ownership	Catchment C: U.S.A. (BLM) Catchment E: U.S.A. (BLM)
Map 6-1	Regional Geology	Catchment C: Qsw-Slope wash deposits-Quaternary Catchment E: Qsw-Slope wash deposits-Quaternary
Map 7-3	Water Rights	Catchment C: None Catchment E: None
Map 7-5	Seep and Spring Survey	Catchment C: None Catchment E: None