



**EarthFax**

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December 22, 2011

John Gefferth  
Environmental Engineer  
Consolidation Coal Company  
P.O. Box 566  
Sesser, IL 62884-0566

Subject: Emery Mine sedimentation pond annual inspection results

Dear Ian:

On December 21, 2011 I conducted an inspection of the sedimentation ponds at the Emery Mine for the purpose of the 2011 annual inspection. The results of those inspections are attached.

It is my opinion that the ponds adequately serve their intended purpose and may continue to be used for that purpose. However, two ponds require some attention:

- The inside embankment of Pond 8 was eroded in July 2011 when Quitchupah Creek overflowed its bank into the pond. Since the soil is now frozen, I recommend that this inside slope be re-dressed and compacted in the Spring of 2012 after the soil has thawed.
- A small pile of waste concrete block and a roll-off bin exist in the southeast area of Pond 9. These should be removed as soon as possible to ensure adequate storage space in the pond.

I emphasize that these ponds remain functional. Other than the above issues, I did not observe any conditions associated with the ponds that require attention.

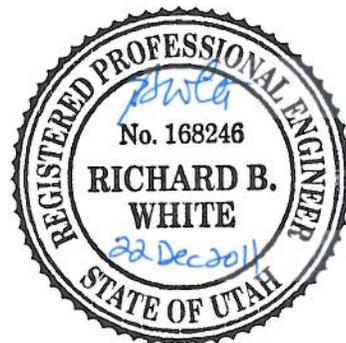
Please contact me if you have any questions.

Sincerely,

Richard B. White, P.E.  
President

Enclosure

Cc: Peter Behling (Emery Mine)



*To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.*

**GENERAL INFORMATION**

Report Date	<u>22 Dec 2011</u>
Permit Number	<u>ACT 015/015</u>
Mine Name	<u>Emery Mine</u>
Company Name	<u>Consolidated Coal Company</u>

**IMPOUNDMENT IDENTIFICATION**

Impoundment Name	<u>Pond 1</u>
Impoundment Number	<u>UPDES Outfall 001</u>
UPDES Permit Number	<u>UT0022616</u>
MSHA ID Number	<u>NA</u>

**IMPOUNDMENT INSPECTION**

Inspection Date	<u>21 Dec 2011</u>
Inspected by	<u>R.B. White</u>
Reason for Inspection	<u>Annual</u>

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

- Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

None

*Questions a and b are required for an impoundment, which functions as a Sedimentation pond.*

- a. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.

Design sediment storage volume = 10.3 AF  
 60% sediment cleanout volume = 6.2 AF  
 Sediment cleanout elevation = 5935.7 ft

Average elevation of sediment in pond bottom = 5933.5 ft (based on Aug 2010 survey)

- b. Principle and emergency spillway elevations.

Spillway elevation = 5939.3 ft  
 With stop logs in place, the spillway elevation can be raised a minimum of an additional 12 inches.

**2. Field Information**

*Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/ instrumentation information, inlet/ outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.*

The pond was empty at the time of the inspection. The inside embankment slopes, which were all exposed, showed no signs of structural weakness. No areas of sediment accumulation existed that were not accounted for in the August 2010 survey. The outslopes of the pond remain well vegetated. No areas of embankment erosion were noted.

**3. Field Evaluation.**

*Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period*

The pond appears to be in good condition and capable of properly serving its intended function. Plenty of sediment capacity remains in the pond. The pond is adequate for continued use.

**QUALIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Richard Fowler Date: 22 Dec 2011

**CERTIFIED REPORT**

**IMPOUNDMENT EVALUATION**

*If you answer NO to these questions, please explain under comments*

	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is impoundment free of instability, structural weakness, or any other hazardous conditions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**COMMENTS/ OTHER INFORMATION**

Consol operates this pond and Pond 6 for the settlement of sediment contained in water that is discharged from the underground mine. Occasional exceedances of the discharge standards have occurred with respect to total dissolved solids. Consol is negotiating with the Utah Division of Water Quality and is evaluating alternative uses for the mine water to ensure that effluent standards can be consistently met in the future.

**CERTIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering, Inc.

*Full Name and Title*

Signature: Richard B White Date 22 Dec 2011

P.E. Number & State 168246, UT

[ P.E. Cert. Stamp ]



To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.

**GENERAL INFORMATION**

Report Date	22 Dec 2011
Permit Number	ACT 015/015
Mine Name	Emery Mine
Company Name	Consolidated Coal Company

**IMPOUNDMENT IDENTIFICATION**

Impoundment Name	Pond 2
Impoundment Number	UPDES Outfall 002
UPDES Permit Number	UT0022616
MSHA ID Number	NA

**IMPOUNDMENT INSPECTION**

Inspection Date	21 Dec 2011
Inspected by	R.B. White
Reason for Inspection	Annual

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

- 1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

None

*Questions a and b are required for an impoundment, which functions as a Sedimentation pond.*

- a. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.

Design sediment storage volume = 0.83 AF  
 Design sediment storage elevation = 5905.3 ft  
 60% sediment cleanout volume = 0.50 AF  
 60% sediment cleanout elevation = 5903.0 ft  
  
 Approximate average current sediment storage elevation = 5900.2 ft

- b. Principle and emergency spillway elevations.

Spillway elevation = 5908.5 ft

**2. Field Information**

*Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/ instrumentation information, inlet/ outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.*

Water flows into this pond via a 12-inch diameter PVC pipe, which discharges onto riprap down the inside embankment. There was neither water nor a substantial amount of sediment in the pond at the time of the inspection. Large boulders have been placed downstream from the pond outlet. No signs of erosion were observed during the inspection. The dewatering culvert has been fitted with a skimmer. The pond appears to be in good, functional shape.

**3. Field Evaluation.**

*Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period*

No problems were observed.

**QUALIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Richard J. W. Co Date: 22 Dec 2011

**CERTIFIED REPORT**

**IMPOUNDMENT EVALUATION**

*If you answer NO to these questions, please explain under comments*

	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is impoundment free of instability, structural weakness, or any other hazardous conditions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**COMMENTS/ OTHER INFORMATION**

The pond appears to be functioning as designed and is adequate for continued use.

**CERTIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering, Inc.

*Full Name and Title*

Signature: Richard B. White Date 22 Dec 2011

P.E. Number & State 168246, UT

[ P.E. Cert. Stamp ]



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**GENERAL INFORMATION**

Report Date	<u>22 Dec 2011</u>
Permit Number	<u>ACT 015/015</u>
Mine Name	<u>Emery Mine</u>
Company Name	<u>Consolidated Coal Company</u>

**IMPOUNDMENT IDENTIFICATION**

Impoundment Name	<u>Pond 3</u>
Impoundment Number	<u>UPDES Outfall 005</u>
UPDES Permit Number	<u>UT0022616</u>
MSHA ID Number	<u>NA</u>

**IMPOUNDMENT INSPECTION**

Inspection Date	<u>21 Dec 2011</u>
Inspected by	<u>R.B. White</u>
Reason for Inspection	<u>Annual</u>

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

- Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

None

*Questions a and b are required for an impoundment, which functions as a Sedimentation pond.*

- a. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.

Design sediment storage volume = 1.14 AF  
 Design sediment storage elevation = 5906.5 ft  
 60% sediment cleanout volume = 0.68 AF  
 60% sediment cleanout elevation = 5905.0 ft  
 Approximate average current sediment storage elevation = 5902.1 ft

- b. Principle and emergency spillway elevations.

Spillway elevation = 5907.8 ft

**2. Field Information**

*Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/ instrumentation information, inlet/ outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on out slopes of embankments, etc.*

There was neither water nor a substantial amount of sediment in the pond at the time of the inspection. The overflow consists of a 42-inch diameter riser with two 6-inch diameter side inlets (one with its invert located 15.5 inches below the top of the riser and the other with its invert 58 inches below the top of the riser). The riser outlet invert is located 69 inches below the top of the riser. There were no signs of recent water on the inside of the riser, indicating that the pond has not recently filled to this elevation. No signs of instability were observed, including on the steep, natural out slope on the north embankment.

**3. Field Evaluation.**

*Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period*

The pond appears to be functioning as designed.

**QUALIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Richard Towler Date: 22 Dec 2011

**CERTIFIED REPORT**

**IMPOUNDMENT EVALUATION**

*If you answer NO to these questions, please explain under comments*

	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is impoundment free of instability, structural weakness, or any other hazardous conditions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**COMMENTS/ OTHER INFORMATION**

The pond appears to be functioning as designed and is adequate for continued use.

**CERTIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering, Inc.

*Full Name and Title*

Signature: Richard B. White Date 22 Dec 2011

P.E. Number & State 168246, UT

[ P.E. Cert. Stamp ]



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**GENERAL INFORMATION**

Report Date	<u>22 Dec 2011</u>
Permit Number	<u>ACT 015/015</u>
Mine Name	<u>Emery Mine</u>
Company Name	<u>Consolidated Coal Company</u>

**IMPOUNDMENT IDENTIFICATION**

Impoundment Name	<u>Pond 5</u>
Impoundment Number	<u>UPDES Outfall 007</u>
UPDES Permit Number	<u>UT0022616</u>
MSHA ID Number	<u>NA</u>

**IMPOUNDMENT INSPECTION**

Inspection Date	<u>21 Dec 2011</u>
Inspected by	<u>R.B. White</u>
Reason for Inspection	<u>Annual</u>

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

**1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

The HDPE inlet culverts have been cut where they protrude from the interior pond slope to avoid future degradation of the material. Riprap and other structural improvements have been placed down the pond slope from the culvert outlet to the pond bottom to prevent future erosion of the slope.

*Questions a and b are required for an impoundment, which functions as a Sedimentation pond.*

- a. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.

Design sediment storage volume = 1.13 AF  
 Design sediment storage elevation = 5944.6 ft  
 60% sediment cleanout volume = 0.68 AF  
 60% sediment cleanout elevation = 5943.8 ft  
 Approximate average current sediment storage elevation = 5943.0 ft

- b. Principle and emergency spillway elevations.

Spillway elevation = 5949.2 ft

**2. Field Information**

*Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/ instrumentation information, inlet/ outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on out slopes of embankments, etc.*

This pond has four 24-inch diameter inlet culverts (one CMP and three HDPE). As described above, these inlets have been repaired. A small amount of ice (less than 4 inches) was in the bottom of the pond at the time of the inspection. No substantial amount of sediment has accumulated in the pond. The open-channel outlet spillway shows no sign of erosion. No signs of erosion were observed around the dewatering device (6-inch diameter PVC).

**3. Field Evaluation.**

*Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period*

The repairs to the pond inlets appear to be functioning properly, thereby precluding erosion of the pond in-slope. No stability or operational concerns were noted during the inspection.

**QUALIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Richard J. Weger Date: 22 Dec 2011

**CERTIFIED REPORT**

**IMPOUNDMENT EVALUATION**

*If you answer NO to these questions, please explain under comments*

	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is impoundment free of instability, structural weakness, or any other hazardous conditions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**COMMENTS/ OTHER INFORMATION**

The pond appears to be functioning as designed.

**CERTIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering, Inc.

*Full Name and Title*

Signature: *Richard B White* Date *22 Dec 2011*

P.E. Number & State 168246, UT

[ P.E. Cert. Stamp ]



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**GENERAL INFORMATION**

Report Date	<u>22 Dec 2011</u>
Permit Number	<u>ACT 015/015</u>
Mine Name	<u>Emery Mine</u>
Company Name	<u>Consolidated Coal Company</u>

**IMPOUNDMENT IDENTIFICATION**

Impoundment Name	<u>Pond 6</u>
Impoundment Number	<u>UPDES Outfall 003</u>
UPDES Permit Number	<u>UT0022616</u>
MSHA ID Number	<u>NA</u>

**IMPOUNDMENT INSPECTION**

Inspection Date	<u>21 Dec 2011</u>
Inspected by	<u>R.B. White</u>
Reason for Inspection	<u>Annual</u>

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

**1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

A small amount of water (<<1 gpm) is seeping from the toe of the west embankment. It does not appear that this is affecting the structural stability of the embankment or the ability of the pond to operate as designed.

*Questions a and b are required for an impoundment, which functions as a Sedimentation pond.*

- a. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.

Design sediment storage volume = 7.5 AF  
 60% sediment cleanout volume = 4.5 AF  
 Sediment cleanout elevation = 6012.5 ft

Average elevation of sediment in pond bottom = 6010.3 (based on August 2010 survey)

- b. Principle and emergency spillway elevations.

Spillway elevation = 6016.0 ft

**2. Field Information**

*Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/ instrumentation information, inlet/ outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.*

At the time of the inspection, the flow depth in the 6-inch Parshall flume at the pond outlet was 1.30 ft, representing a discharge of 3.12 cfs. The pond elevation was approximately 6 inches above the spillway invert at the time of the inspection.

**3. Field Evaluation.**

*Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period*

The pond appears to be operating as designed.

**QUALIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Richard J. W. Let Date: 22 Dec 2011

**CERTIFIED REPORT**

**IMPOUNDMENT EVALUATION**

*If you answer NO to these questions, please explain under comments*

	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is impoundment free of instability, structural weakness, or any other hazardous conditions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**COMMENTS/ OTHER INFORMATION**

Consol operates this pond and the other mine-water discharge pond (Pond 1) in concert. Occasional exceedances of discharge standards have occurred with respect to total dissolved solids. Consol is negotiating with the Utah Division of Water Quality and is evaluating alternative uses for the mine water to ensure that effluent standards can be consistently met in the future.

**CERTIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering, Inc.

*Full Name and Title*

Signature: Richard B. White Date 22 Dec 2011

P.E. Number & State 168246, UT

[ P.E. Cert. Stamp ]



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**GENERAL INFORMATION**

Report Date	22 Dec 2011
Permit Number	ACT 015/015
Mine Name	Emery Mine
Company Name	Consolidated Coal Company

**IMPOUNDMENT IDENTIFICATION**

Impoundment Name	Pond 8
Impoundment Number	UPDES Outfall 006
UPDES Permit Number	UT0022616
MSHA ID Number	NA

**IMPOUNDMENT INSPECTION**

Inspection Date	21 Dec 2011
Inspected by	R.B. White
Reason for Inspection	Annual

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

**1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

In July 2011, Quitchupah Creek overflowed its bank and flowed over the south embankment of Pond 8 and into the pond. This caused erosion of the top and interior slope of the embankment near the southwest corner of the pond. Consol has repaired the top of the embankment, but the erosion on the interior slope still needs to be repaired. Since the embankment appeared to be structurally sound at the time of the inspection, it is recommended that this repair work not proceed until Spring 2012 when the soils are no longer frozen.

*Questions a and b are required for an impoundment, which functions as a Sedimentation pond.*

- a. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.

Design sediment storage volume = 2.00 AF  
Design sediment storage elevation = 5910.0 ft  
60% sediment cleanout volume = 1.35 AF  
60% sediment cleanout elevation = 5909.0 ft  
Approximate average current sediment storage elevation = 5907.0 ft

- b. Principle and emergency spillway elevations.

This impoundment is designed as a total containment pond without a spillway. The pond can contain the total design sediment volume plus the runoff from the 100-yr, 6-hr storm and still have a freeboard of 3.4 feet. The invert elevation on the dewatering pipe is set at 5910.0 ft.

## 2. Field Information

*Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/ instrumentation information, inlet/ outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.*

The pond inlets appear to be adequate. No water was in the pond at the time of the inspection. No substantial amount of sediment has accumulated in the pond.

**3. Field Evaluation.**

*Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period*

The pond appears to be operating as designed. However, the south embankment should be repaired in the Spring, after the soil is no longer frozen. This repair should include re-dressing and compacting the soil in areas where erosion occurred from overtopping of Quitchupah Creek.

**QUALIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Richard B. White Date: 22 Dec 2011

**CERTIFIED REPORT**

**IMPOUNDMENT EVALUATION**

*If you answer NO to these questions, please explain under comments*

	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is impoundment free of instability, structural weakness, or any other hazardous conditions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**COMMENTS/ OTHER INFORMATION**

The pond appears to be functioning as designed and is adequate for continued use. Repair work should proceed on the south embankment once the soil is no longer frozen.

**CERTIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering, Inc.

*Full Name and Title*

Signature: *Richard B. White* Date *22 Dec 2011*

P.E. Number & State 168246, UT

[ P.E. Cert. Stamp ]



*To enter text, click in the box and type your response. If a box already contains an entry select the entry and type the replacement. You can use the **tab** key to move from one field to the next. To select a check box, click in the box or type an x.*

**GENERAL INFORMATION**

Report Date 22 Dec 2011  
Permit Number ACT 015/015  
Mine Name Emery Mine  
Company Name Consolidated Coal Company

**IMPOUNDMENT IDENTIFICATION**

Impoundment Name Pond 9  
Impoundment Number UPDES Outfall 009  
UPDES Permit Number UT0022616  
MSHA ID Number NA

**IMPOUNDMENT INSPECTION**

Inspection Date 21 Dec 2011  
Inspected by R.B. White  
Reason for Inspection Annual

(Annual, quarterly or other periodic inspections, critical installation , or completion of construction.)

- 1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

None

*Questions a and b are required for an impoundment, which functions as a Sedimentation pond.*

- a. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.

Design sediment storage volume = 0.32 AF  
 Design sediment storage elevation = 6052.5 ft  
 60% sediment cleanout volume = 0.18 AF  
 60% sediment cleanout elevation = 6051.7 ft  
 Approximate average current sediment storage elevation = 6050.4 ft

- b. Principle and emergency spillway elevations.

Spillway elevation = 6054.6 ft

**2. Field Information**

*Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/ instrumentation information, inlet/ outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.*

A small amount of sediment has accumulated since the pond was last cleaned out. At the time of the inspection, a small pile of waste concrete block and a roll-off bin were located in the southwest portion of the pond. These should be removed as soon as possible to ensure that adequate storage volume remains in the pond. No signs of erosion were noted at the pond outlet or the spillway. No signs of instability were observed.

**3. Field Evaluation.**

*Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period*

No stability or operational concerns were noted.

**QUALIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous condition of the structure affecting stability.

Signature: Richard Fowler Date: 22 Dec 2011

**CERTIFIED REPORT**

**IMPOUNDMENT EVALUATION**

*If you answer NO to these questions, please explain under comments*

	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is impoundment free of instability, structural weakness, or any other hazardous conditions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**COMMENTS/ OTHER INFORMATION**

The pond appears to be functioning as designed and is adequate for continued use. The waste concrete block and roll-off bin should be removed as soon as possible from the southeast area of the pond to ensure adequate storage volume.

**CERTIFICATION STATEMENT:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: Richard B. White, P.E. - President, EarthFax Engineering, Inc.

*Full Name and Title*

Signature: Richard B White Date 22 Dec 2011

P.E. Number & State 168246, UT

[ P.E. Cert. Stamp ]

