

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			
Permit Number	C/007/005	Report Date	April 13, 2016
Mine Name	Skyline Mine		
Company Name	Canyon Fuel Company		
Impoundment Identification	Impoundment Name	Mine Site Sediment Pond	
	Impoundment Number	001	
	UPDES Permit Number	UT0023540	
	MSHA ID Number	NA	
IMPOUNDMENT INSPECTION			
Inspection Date	March 28, 2016		
Inspected By	Gregg Galecki		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Quarterly		
<p><b>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</b></p> <p>No signs of instability were observed. No hazardous conditions were observed during the inspection of the pond. The pond was not discharging during the time of the inspection. The pond is incised, with all the banks appearing stable, with vegetation typically along a many of the banks. Particular attention was paid to the pond banks looking for signs of instability or structural weakness. The pond was snow-covered during the inspection.</p>			
<p><b>Required for an impoundment which functions as a SEDIMENTATION POND.</b></p>	<p><b>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</b></p> <p>Remaining Sediment Storage Capacity: 84,173 ft<sup>3</sup>  60% Elevation: 8571.75feet ASL  100% Elevation: 8573.75 feet ASL  Based on a survey of the pond using a total station after cleaning, approximately 84,173 cu-ft of sediment storage capacity remain in the pond after the 3<sup>rd</sup> quarter 2015 survey. Original sediment-loading calculations estimated a 3-year sediment load from the site at 74,490 cu-ft. The elevation of the bottom of the pond is 8566.2 with a 100% sediment capacity elevation of 8573.75.</p>		
	<p><b>3. Principle and emergency spillway elevations.</b></p> <p>Principal and Emergency Spillway Elevations: 8579.6 feet ASL (The outlet structure for Pond 001 serves as both the Principal and Emergency Spillways) Storage volumes listed below are based on the 3<sup>rd</sup> quarter 2015 survey.  Total volume of pond at Spillway: 269,553 ft<sup>3</sup>  Required runoff storage: 163,010 ft<sup>3</sup>  100% Sediment storage: 106,662 ft<sup>3</sup>  60% Sediment storage: 63,997 ft<sup>3</sup></p>		

**IMPOUNDMENT INSPECTION AND CERTIFIED REPORT**

**4. 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.

The water level in the pond was level with the discharge point. The sediment pond discharged periodically during the quarter. A sample of the mine discharge water, (normally) including this pond's discharge, is taken on weekly basis throughout the quarter as required by the Mine's UPDES permit. On a biweekly basis the water sample is analyzed for total iron. Weekly samples include oil and grease, total dissolved solids, total suspended solids, pH and conductivity. Flow is recorded by in-line flow meters.

Surface water is collected from the upper mine pad and discharged to the pond through a culvert located on the west end of the pond. The culvert is functioning as designed. The outlet structure was working as designed and appears to be in good working condition. The pond is an incised structure.

A series of turbidity curtains are installed in the pond to help reduce the suspended load within the pond. The turbidity curtains are functioning as designed with sediment being contained in the upper reaches of the pond. The spillway was clear of debris and was functioning as designed.

**5. Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations 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 overall geometry or footprint of the pond has not changed. Spill kits were labeled and full of supplies. A survey conducted after the pond was cleaned in 3<sup>rd</sup> quarter 2015 indicates approximately 84,173 cu-ft of sediment storage capacity is available in the pond (or approximately 21% of the sediment capacity used). Assuming an annual sediment accumulation of approximately 25,000 cu-ft of sediment (original calculations), the pond won't need cleaning until approximately 2018. The pond will be surveyed in 3<sup>rd</sup> Quarter 2016 to measure the remaining sediment capacity. A minor delta of sediment is beginning to form at the inlet of the pond.

**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 design and meet or exceed 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 conditions of the structure affecting stability.

Signature:  Date: April 13, 2016

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			
Permit Number	C/007/005	Report Date	April 13, 2016
Mine Name	Skyline Mines		
Company Name	Canyon Fuel Company		
Impoundment Identification	Impoundment Name	Rail Loadout Sediment Pond	
	Impoundment Number	002	
	UPDES Permit Number	UT0023540	
	MSHA ID Number	NA	
IMPOUNDMENT INSPECTION			
Inspection Date	March 28, 2016		
Inspected By	Gregg Galecki		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Quarterly		
<p><b>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</b></p> <p>No instability of the embankment or hazardous conditions was noted during the inspection.</p>			
<b>Required for an impoundment which functions as a SEDIMENTATION POND.</b>	<p><b>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</b></p> <p>Remaining Sediment Storage Capacity: 5,932 ft<sup>3</sup>  60% Elevation: 7915.21 feet ASL (above sea level)  100% Elevation: 7916.0 ASL</p> <p>The sediment level in the pond was measured using a Total Station survey of the entire pond during the 3<sup>rd</sup> Quarter 2015. After the 2015 survey, approximately 13,333 cu-ft of sediment storage remained in the pond. The original sediment-loading calculations estimate a 3-year sediment load from the site at 9,148 cu-ft. In the 2015 survey, the bottom of the pond was measured at 7914.62, with a 100% sediment capacity elevation of 7916.0.</p>		
	<p><b>3. Principle and emergency spillway elevations.</b></p> <p>Principle Spillway Elevation: 7919.7 feet ASL  Emergency Spillway Elevation: 7922 feet ASL  Total volume of pond at Spillway (based on 2014 survey): 52,537 ft<sup>3</sup>  Required runoff storage: 39,204 ft<sup>3</sup>  100% Sediment Storage: 12,450 ft<sup>3</sup>  60% Sediment Storage: 7,470 ft<sup>3</sup></p>		

**4. 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 water elevation was 0.35 feet below the spillway during the inspection. The pond did not discharge during the quarter. The pond embankment appears stable and without noticeable erosion. Both the inlet and outlet are functioning as designed. The footprint of the pond remains unchanged. A minor sediment delta is forming at the turbidity curtain located at the southeast corner of the pond.

A new sediment trap was constructed upstream of the main entrance to the pond during the 3rd quarter 2015. This sediment trap should significantly reduce the amount of sediment reporting to the pond.


Three (3) turbidity curtains contain a majority of material in the upper, southeast side and south sides (inlets) of the pond where sediment can be periodically removed. All three (3) turbidity curtains appeared to be functioning as designed (covered with snow and ice) during the inspection. The discharge pipe or outlet is in good condition and functioning as designed.

The pond is scheduled for cleaning in 2016.

**5. Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations 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 geometry of the pond remains consistent. The average depth of the water ranged from approximately 2.50 feet to 0.35 feet below the spillway during the quarter. Based on a total-station survey conducted after the pond was cleaned, approximately 5,932 cu-ft of sediment storage (or approximately 52% of capacity) is available in the pond. Assuming a 3-year sediment accumulation of approximately 9,148 cu-ft, the pond should be scheduled for cleaning in 2016.

The pond is routinely inspected on a weekly basis during weekly water monitoring.

<b>Qualification Statement</b>	<p>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 design and meet or exceed 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 conditions of the structure affecting stability.</p> <p>Signature: <u></u> Date: <u>April 13, 2016</u></p>
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IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			
Permit Number	C/007/005	Report Date	April 13, 2016
Mine Name	Skyline Mines		
Company Name	Canyon Fuel Company		
Impoundment Identification	Impoundment Name	Waste Rock Site Sediment Pond	
	Impoundment Number	003	
	UPDES Permit Number	UT0023540	
	MSHA ID Number	NA	
IMPOUNDMENT INSPECTION			
Inspection Date	March 24, 2016		
Inspected By	Gregg Galecki		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Quarterly		
<p><b>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</b></p> <p>No instability, structural weakness or other hazardous condition was noted at the site during the quarterly pond site inspection. The banks of the pond are normally well-vegetated – both on the inside and outside of the bank. The area was snow-covered during the inspection.</p>			
<p><b>Required for an impoundment which functions as a SEDIMENTATION POND.</b></p>	<p><b>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</b></p> <p>Sediment Storage Capacity: 10,330 ft<sup>3</sup> (calculated 1-yr sediment storage volume)  60% Elevation: 7857.2 feet ASL (above sea level)  100% Elevation: 7858.1 ASL  Current Sediment Level Elevation: The pond was cleaned in 3<sup>rd</sup> quarter 2014. A bedrock shelf exists in the bottom of the pond, enabling portions of the pond to be deeper in areas where the shelf does not exist. Based on a 3<sup>rd</sup> Quarter 2015 survey, the pond has a remaining sediment capacity of approximately 4,532 cu-ft. Based on a calculated sediment storage capacity of 10,330 cu-ft. the sediment in the pond is at approximately 56% of capacity.</p>		
	<p><b>3. Principle and emergency spillway elevations.</b></p> <p>Principal and Emergency Spillways Elevation: 7864.0 feet ASL (The outlet of Pond 003 serves as both the principal and emergency spillway). A manual decant pipe in the pond marks the sediment cleanout elevation of 7858.1 feet.  Total volume of pond at Spillway: 61,770 ft<sup>3</sup>  Required runoff storage: 35,036 ft<sup>3</sup>  100% Sediment storage: 10,330 ft<sup>3</sup>  60% Sediment storage: 6,198 ft<sup>3</sup></p>		

**4. Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inle/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 did not discharge during the 1<sup>st</sup> quarter 2016, therefore no water samples were obtained. The bottom of the pond was approximately two (2) feet below the decant pipe. The out slopes of the pond embankment do not appear to present any type of hazardous conditions. No instability was noted in the pond embankment. No appreciable sediment was added to the pond during the quarter.

The current sediment storage capacity is based on the 2015 survey. The perimeter footprint of the pond did not change during the cleaning project, only the depth of the pond was modified.

The pond is routinely inspected during weekly water monitoring.

**5. Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations 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 changes or modifications have been noted in the geometry of the pond since the last inspection. The pond was snow-covered and no signs of added deposition were apparent. The pond retained water periodically during the 1<sup>st</sup> quarter. The bottom of the pond was approximately 2.0 feet below the discharge pipe based on the survey. Based on the current sediment level measured during the 2015 total-station survey, the accumulated sediment is approximately 56 percent of the 10,330 cu-ft sediment capacity. Since the pond collects water only periodically, and a rock outcrop exists in the middle of the pond, sediment does not fill the pond uniformly and typically tends to accumulate at the inlet. Minor run off was encountered during the quarter, with the pond functioning as designed. Removal of sediment will be scheduled in 2016.

**Qualification Statement**

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Signature:  Date: April 13, 2016

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			
Permit Number	C/007/005	Report Date	April 14, 2016
Mine Name	Skyline Mines		
Company Name	Canyon Fuel Company		
Impoundment Identification	Impoundment Name	Winter Quarters Ventilation Facility Sediment Pond	
	Impoundment Number	004	
	UPDES Permit Number	UT0023540	
	MSHA ID Number	NA	
IMPOUNDMENT INSPECTION			
Inspection Date	March 31, 2016		
Inspected By	Gregg Galecki		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Quarterly		
<p>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</p> <p>No instability, structural weakness or other hazardous condition was noted at the site during the quarterly pond site inspection.</p>			
Required for an impoundment which functions as a SEDIMENTATION POND.	<p>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <p>Sediment Storage Capacity: 740 ft<sup>3</sup>  60% Elevation: 8072.15 feet ASL (above sea level) per as-built survey  100% Elevation: 8072.6 ASL per as-built survey  Current Sediment Level Elevation: Only minimal delta of sediment was apparently forming at the inlet (covered in snow). The pond was surveyed in 3<sup>rd</sup>quarter 2015.</p>		
	<p>3. Principle and emergency spillway elevations.</p> <p>Principal Spillways Elevation: 8076.32 feet ASL (per C. Ware survey)  Emergency Spillway Elevation: 8076.73 feet ASL (per C. Ware survey)  Total Volume of pond at Spillway: 4914 cu-ft (per C. Ware survey)  Required runoff storage: 4,182 cu-ft  100% Sediment Storage: 740 cu-ft  60% Sediment Storage: 444 cu-ft</p>		

**4. 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 did not discharge during the 1<sup>st</sup> quarter of 2016, therefore no water samples were obtained. The pond did receive some runoff/snow-melt during the quarter, with the ditches functioning as designed. The out slopes of the pond embankment do not appear to present any type of hazardous conditions. Both the inlet and outlet are clear and appear to be ready to function as designed. No instability was noted in the pond embankment (the entire area was covered with significant snow). Weed management will continue on the out-slopes of the pond next year.

The as-built survey determined the sediment storage for the pond is 740 cu-ft.

The pond is routinely inspected during weekly water monitoring.

**5. Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations 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 was constructed during the 1<sup>st</sup> Qtr 2011. No changes or modifications have been noted in the geometry or perimeter footprint of the pond since construction. The pond was functioning, and received minor water periodically during the 1<sup>st</sup> quarter 2016. The pond was snow-covered during the inspection. The total station survey of the sediment in the pond indicated approximately 412 cu-ft or 55 percent of the 740 cu-ft capacity sediment capacity has been used. Plans will be made to clean the pond of sediment in 2016. Minimal run off was encountered during the quarter, with the pond functioning as designed.

<b>Qualification Statement</b>	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 design and meet or exceed 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 conditions of the structure affecting stability.  Signature: <u></u> Date: <u>April 14, 2016</u>
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