



Moffat County Mining, LLC
29515 RCR 27
Oak Creek, CO 80467

October 23, 2018

Robin Reilley
Colorado Division of Reclamation, Mining and Safety
1313 Sherman St., Room 215
Denver, CO 80203

RE: 3rd Quarter and Annual Pond Inspections – Williams Fork Mine (C 1981-044)

Ms. Reilley:

Enclosed are the 3rd quarter 2018 and Annual pond inspection reports for the Williams Fork Mine. Nicholas Aromando (P.E.) accompanied on the inspection and has provided a Professional Engineer's Statement on the following page of this letter to accompany the inspection reports. Please contact me if there are any questions or if you need any additional information.

Best Regards,

A handwritten signature in black ink that reads "Miranda Kawcak".

Miranda Kawcak
Environmental Engineer
Peabody, Colorado Operations

Attachments:

Professional Engineer Certification (Nicholas Aromando, P.E.)
Inspection Reports

CERTIFICATION

I, Nicholas V. Aromando, a registered engineer in the State of Colorado do hereby certify that I have reviewed the attached Williams Fork Mine Sediment Pond Reports covering the third quarter of 2018, and that they are true and correct to the best of my knowledge and belief.



Nicholas Vincent Aromando
CO P.E. No. 48238





Date

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/20/2018

POND INSPECTION	1	2	3	4
	Spill Springs			
	✓			

CDFS OUTFALL # 022 Site 1SP

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level: DRY

Sediment level (% total storage): 25%

Outflow (cfs): 0

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways	✓		
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other		✓	

ADDITIONAL COMMENTS:
Weir is showing rusted areas that have allowed water to seep when flowing

MAINTENANCE REQUIRED:

NAME OF INSPECTOR: Nick Aramando

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/20/18

POND INSPECTION

	1	2	3	4	
5-P1	✓	5-P2	✓	5-P3	✓
SED. POND		SED. TRAP		SED. TRAP	

CDFS OUTFALL #

007

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

DRY

Sediment level (% total storage):

25%

Outflow (cfs):

0

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other		✓	
ADDITIONAL COMMENTS:			
MAINTENANCE REQUIRED: <u>None</u>			

NAME OF INSPECTOR: Nick Aromando

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/20/18

POND INSPECTION	1	2	3	4
	5-P5 ✓	5-P6 ✓	5-P7 ✓	
SED. POND	SED. POND	SED. POND		
	003	003	003	

CDFS OUTFALL #

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level: Dry

Sediment level (% total storage): 45%

Outflow (cfs): 0

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other		✓	

ADDITIONAL COMMENTS: Scheduled for reclamation 4th Qtr 2018

MAINTENANCE REQUIRED:

NAME OF INSPECTOR: Nick Armande

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/20/18

POND INSPECTION

	1	2	3	4
9A-P1	✓	✓	✓	✓
SED. POND				
	018	019	020	021

CDFS OUTFALL #

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

Sediment level (% total storage):

Outflow (cfs):

DRY

25%

0

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other		✓	

ADDITIONAL COMMENTS: Minor Burrows in the dams

MAINTENANCE REQUIRED:

NAME OF INSPECTOR: Nick Armardo

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/20/18

POND INSPECTION	1	2	3	4
	9-P1	9-P2	9-P3	9-P4
	SED. POND	SED. POND	SED. POND	SED. POND

CDFS OUTFALL # 024 014

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level: DRY

Sediment level (% total storage): <5%

Outflow (cfs): 0

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment	✓	✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other		✓	
ADDITIONAL COMMENTS: <u>monitoring rill @ 9-P1 inlet</u>			
MAINTENANCE REQUIRED: <u>None for 9-P2, P3, P4</u>			

NAME OF INSPECTOR: Nick Aromando

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/20/2018

POND INSPECTION	1	2	3	4
	9-P5 ✓	9-P6 ✓	9-P7 ✓	9-P8 ✓
	SED. POND	SED. POND	SED. POND	SED. POND
CDFS OUTFALL #	017	015	013	016

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level: DRY

Sediment level (% total storage): 25%

Outflow (cfs): 0

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other		✓	
ADDITIONAL COMMENTS:			
MAINTENANCE REQUIRED: <u>None</u>			

NAME OF INSPECTOR: Nick Aramando

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: _____

POND INSPECTION

	1	2	3	4
HR-P1A	✓	HR-P1B		
SED. POND		SED. POND		

CDFS OUTFALL #

004

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

DRY

Sediment level (% total storage):

25%

Outflow (cfs):

0

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other		✓	
ADDITIONAL COMMENTS:			
MAINTENANCE REQUIRED: <u>None</u>			

NAME OF INSPECTOR: Nick Aronardo

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/20/18

POND INSPECTION

	1	2	3	4
SH-P1	✓	✓		
SH-P2				
SED. POND				
SED. POND				

CDFS OUTFALL #

011 012

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

DRY

Sediment level (% total storage):

< 5%

Outflow (cfs):

0

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other		✓	
ADDITIONAL COMMENTS:			
MAINTENANCE REQUIRED: <u>None</u>			

NAME OF INSPECTOR: Nick Armando

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/20/2018

POND INSPECTION	1	2	3	4
	5A-P1 ✓			
SED. POND				

CDFS OUTFALL # 009

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level: DRY

Sediment level (% total storage): 25%

Outflow (cfs): 0

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other		✓	
ADDITIONAL COMMENTS:			
MAINTENANCE REQUIRED: <u>None</u>			

NAME OF INSPECTOR: Nick Aromando

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/20/2018

POND INSPECTION	1	2	3	4
	WASTEWATER			
	TREATMENT			

CDFS OUTFALL # 023

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level: _____

Sediment level (% total storage): _____

Outflow (cfs): _____

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL Rills & Gullies on Embankment Inadequate Vegetation Outlet Channel Erosion Burrows Other		N/A	
STRUCTURAL Differential Setting Cracks or slides Seepage Other			
APPURTENANT STRUCTURES Defective Spillways Dewatering Device Clogged Faulty Gates, Baffles, Pump Other			
ADDITIONAL COMMENTS:			
MAINTENANCE REQUIRED: Site In process of Being Reclaimed + Re-graded			

NAME OF INSPECTOR: Nick Armando