

April 6, 2020

Robin Reilley Colorado Division of Reclamation, Mining and Safety 1313 Sherman Street Denver, CO 80203

RE: Yoast Mine, Permit C-94-082, First Quarter 2020 IIR

Dear Robin:

In accordance with Rule 4.05.9(17), please find enclosed the Yoast Mine Impoundment Inspection Report (IIR) and Impoundment Inspection Log (IIL) for Ponds: Pond #010, Pond #011, Pond #011A, Pond #012, Pond #012A, Pond #013, Pond #014 and Stock Tank ST-1.

Please contact me with any comments and/or questions.

Sincerely,

Miranda Kawcak Environmental Manager

**Enclosure: Yoast IIR** 

Mining Area			onfiguration		Valley Pond				
Date Inspected	3/2/2020		st Inspected		23/2019	•			
Impoundment	Pond #010		Location		Sec. 8, T5N, R87W	Qua	rterly Impoundment Inspection Form		
NPDES ID No	CO-0000221 D.P. 010		Site Location		of Hayden, CO				
Owner's Rep	Miranda Kawcak	Ins	pector		n Herden				
			Mark o		Appropriate I	Response:			
	FEATURE				BLEM		COMMENTS		
			YES (At	ove)	NO (Belo	ow)			
GENERAL									
	below principal spillway)		X				water level 0.1 feet above spillway		
Existing Embankment	Freeboard (10.1 ft)		10.1	l					
Outflow (gpm)			X				2.3		
EROSION									
Rills & Gullies on Emb	oankment				X				
Wave Erosion					X				
Spillway Erosion					Х				
Burrows					Х				
Other					Х				
STRUCTURAL									
Differential Settling					X				
Cracks or Slides					X				
Seepage					Х				
Other					Х				
STRUCTURES									
Principal Spillway									
Clogged Orifice					X				
Clogged or Damage	ed Culvert		X				Outlet culvert starting to rust out but still functionable		
Damaged Headgate					NA				
Emergency Spillway									
Erosion					Х				
Riprap					Х				
Clogged or Damageo	Clogged or Damaged Culvert				Х				
Other					Х				
MAINTENACE									
Maintenance Required	Maintenance Required X					See comment above Snow covered			
Maintenance Performe	d				Х				
Additional Comments					X				

Date Inspected Impoundment   Point double   Point	Mining Area	Yoast Mine(Seneca Coal Co)	Facility C	onfiguration	Cross	s-Vally Pond		
NPDESID No   CO-0000221 D-0.011   Site Location   Sam IsE of Hayden, CO   Jasson Herden   No (Michael Kawcak   Miranda Kawcak   No (Michael Kawcak   No (	Date Inspected	3/2/2020	Date Las	st Inspected	10	/24/2019		
NPDESID No   CO-0000221 D-0.011   Site Location   Sam IsE of Hayden, CO   Jasson Herden   No (Michael Kawcak   Miranda Kawcak   No (Michael Kawcak   No (	Impoundment	Pond #011	Pond	Location	NW¼ SW¼,	Sec. 16, T5N, R87W	Oua	rterly Impoundment Inspection Form
Mark or Write in Appropriate Response:	NPDES ID No	CO-0000221 D.P.011	Site I	Location	8.5 mi SE	of Hayden, CO		, i
FEATURE         FOOMMENTS           FEATURE         YES (Above)         NO (Below)           GENERAL           Water Level (above or below principal spillway)         8.5         X         Water level 3.5 feet below spillway           Existing Embankment Freeboard (5.1 ft)         8.5         X         Water level 3.5 feet below spillway           Existing Embankment Freeboard (5.1 ft)         8.5         X         Water level 3.5 feet below spillway           EXISTANCE OF COLSTANCE         X         Water level 3.5 feet below spillway           Bill & Gullies on Embankment         X         X           Burrows         X         X           Burrows         X         X           Burrows         X         X           Burrows         X         X           Differential Settling         X         X           Cloged or Damaged Culvert         X         X           Clogged or Damaged Culvert         X         X           Emergency Spillway         X         X           Emergency Spillway         X         X           Emergenc	Owner's Rep	Miranda Kawcak	Ins	pector	Jason Herden			
FEATURE         FOOMMENTS           FEATURE         YES (Above)         NO (Below)           GENERAL           Water Level (above or below principal spillway)         8.5         X         Water level 3.5 feet below spillway           Existing Embankment Freeboard (5.1 ft)         8.5         X         Water level 3.5 feet below spillway           Existing Embankment Freeboard (5.1 ft)         8.5         X         Water level 3.5 feet below spillway           EXISTANCE OF COLSTANCE         X         Water level 3.5 feet below spillway           Bill & Gullies on Embankment         X         X           Burrows         X         X           Burrows         X         X           Burrows         X         X           Burrows         X         X           Differential Settling         X         X           Cloged or Damaged Culvert         X         X           Clogged or Damaged Culvert         X         X           Emergency Spillway         X         X           Emergency Spillway         X         X           Emergenc				Mark	or Write in	n Appropriate R	Response:	
Water Level (above or below principal spillway)		FEATURE			PRC	BLEM		COMMENTS
Water Level (above or below principal spillway)         X         Water level 3.5 feet below spillway           Existing Embankment Freeboard (5.1 ft)         8.5         —           Current Section         X         —           Rills & Gullies on Embankment         X         —           Wave Erosion         X         —           Spillway Erosion         X         —           Burrows         X         —           Other         X         —           STRUCTURAL         —         —           Cracks or Slides         X         —           Scepage         X         —           Other         X         —           STRUCTURES           Principal Spillway         —         —           Clogged Orifice         X         —           Clogged Orifice         X         —           Clogged Or Damaged Culvert         X         —           Damaged Headgate         —         NA           Errosion         X         X           Riprap         —         X           Clogged or Damaged Culvert         —         X           Other         —         X           Clogged or				YES (At	ove)	NO (Belo	w)	
Existing Embankment Freeboard (5.1 ft)         8.5         X           Outflow (gpm)         X         X           EROSION         X         X           Wave Erosion         X         X           Spillway Erosion         X         X           Burrows         X         X           Other         X         X           Differential Settling         X         X           Cracks or Slides         X         X           Seepage         X         X           Other         X         X           STRUCTURES           STRUCTURES           STRUCTURES           Clogged orifice         X         X           Clogged orifice         X         X           Clogged or Damaged Culvert         X         X           Damaged Headgate         NA         X           Erosion         X         X           Riprap         X         X           Clogged or Damaged Culvert         X         X           Other         X         X           Maintenance Required         X         Snow covered								
Outflow (gpm)         X           EROSION         X           Wave Erosion         X           Spillway Erosion         X           Burrows         X           Other         X           STRUCTURAL           Differential Settling         X           Cracks or Slides         X           Seepage         X           Other         X           STRUCTURES           Principal Spillway           Clogged Orifice         X           Clogged Orifice         X           Clogged or Damaged Culvert         X           Damaged Headgate         NA           Emergency Spillway         X           Erosion         X           Riprap         X           Clogged or Damaged Culvert         X           Other         X           Maintenance Required         X         Snow covered						X		Water level 3.5 feet below spillway
Rills & Gullies on Embankment	_	Freeboard (5.1 ft)		8.5				
Rills & Gullies on Embankment         X           Wave Erosion         X           Spillway Erosion         X           Burrows         X           Other         X           TRUCTURAL         X           Differential Settling         X           Cracks or Slides         X           Seepage         X           Other         X           STRUCTURES           Principal Spillway         X           Clogged Orifice         X           Clogged or Damaged Culvert         X           Damaged Headgate         NA           Emergency Spillway         X           Erosion         X           Riprap         X           Clogged or Damaged Culvert         X           Other         X           Maintenance Required         X           Snow covered						Х		
Wave Erosion         X           Spillway Erosion         X           Burrows         X           Other         X           STRUCTURAL           Usificential Settling         X           Cracks or Slides         X           Sepage         X           Other         X           STRUCTURES         X           STRUCTURES         Y           Principal Spillway         X           Clogged Orifice         X           Clogged or Damaged Culvert         X           Damaged Headgate         NA           Emergency Spillway         X           Erosion         X           Clogged or Damaged Culvert         X           Other         X           Maintenace Required         X           Snow covered								
Spillway Erosion         X           Burrows         X           Other         X           STRUCTURAL           Differential Settling         X           Cracks or Slides         X           Seepage         X           Other         X           STRUCTURES           STRUCTURES           Principal Spillway           Clogged Orifice         X           Clogged or Damaged Culvert         X           Damaged Headgate         NA           Emergency Spillway           Erosion         X           Riprap         X           Clogged or Damaged Culvert         X           Other         X           Many Tenace         X           Maintenance Required         X           Snow covered		oankment						
Name								
Other         X           STRUCTURAL           Differential Settling         X           Cracks or Slides         X           Seepage         X           Other         X           STRUCTURES           Principal Spillway           Clogged Orifice         X           Clogged or Damaged Culvert         X           Damaged Headgate         NA           Emergency Spillway           Erosion         X           Riprap         X           Clogged or Damaged Culvert         X           Other         X           MAINTENACE         X           Maintenance Required         X           Snow covered								
STRUCTURAL           Differential Settling         X           Cracks or Slides         X           Seepage         X           Other         X           STRUCTURES           Frincipal Spillway           Clogged Orifice         X           Clogged or Damaged Culvert         X           Damaged Headgate         NA           Emergency Spillway           Erosion         X           Riprap         X           Clogged or Damaged Culvert         X           Other         X           MAINTENACE           Maintenance Required         X           Snow covered								
						Х		
Cracks or Slides         X           Seepage         X           Other         X           STRUCTURES           Principal Spillway           Clogged Orifice         X           Clogged or Damaged Culvert         X           Damaged Headgate         NA           Emergency Spillway         X           Erosion         X           Riprap         X           Clogged or Damaged Culvert         X           Other         X           MAINTENACE           Maintenance Required         X           Snow covered								
Seepage         X           Other         X           STRUCTURES           Principal Spillway           Clogged Orifice         X           Clogged or Damaged Culvert         X           Damaged Headgate         NA           Emergency Spillway         X           Erosion         X           Riprap         X           Clogged or Damaged Culvert         X           Other         X           MAINTENACE           Maintenance Required         X         Snow covered								<u> </u>
Other         X           STRUCTURES           Principal Spillway         X           Clogged Orifice         X           Clogged or Damaged Culvert         X           Damaged Headgate         NA           Emergency Spillway         X           Erosion         X           Riprap         X           Clogged or Damaged Culvert         X           Other         X           MAINTENACE           Maintenance Required         X           Snow covered								1
STRUCTURES  Principal Spillway  Clogged Orifice Clogged or Damaged Culvert Damaged Headgate Emergency Spillway  Erosion Riprap Clogged or Damaged Culvert X Clogged or Damaged Culvert X Riprap Clogged or Damaged Culvert X Clogged or Damaged Culvert X Snow covered				<u> </u>				1
Principal Spillway						X		
Clogged Orifice X Clogged or Damaged Culvert X Damaged Headgate NA  Emergency Spillway  Erosion X Riprap X Clogged or Damaged Culvert X Other X  MAINTENACE  Maintenance Required X  Snow covered								
Clogged or Damaged Culvert Damaged Headgate         X           Emergency Spillway         X           Erosion Riprap Clogged or Damaged Culvert Other         X           Other         X           MAINTENACE         X           Maintenance Required         X           Snow covered						V		<u> </u>
Damaged Headgate         NA           Emergency Spillway         X           Erosion         X           Riprap         X           Clogged or Damaged Culvert         X           Other         X           MAINTENACE           Maintenance Required         X           Snow covered	00	. 1 Culour						1
Emergency Spillway         X           Erosion         X           Riprap         X           Clogged or Damaged Culvert         X           Other         X           MAINTENACE           Maintenance Required         X           Snow covered								1
Erosion         X           Riprap         X           Clogged or Damaged Culvert         X           Other         X           MAINTENACE           Maintenance Required         X           Snow covered						INA		
Riprap         X           Clogged or Damaged Culvert         X           Other         X           MAINTENACE           Maintenance Required         X         Snow covered								
X   Other							<del> </del>	
Other         X           MAINTENACE           Maintenance Required         X         Snow covered		d Culvert						<del> </del>
MAINTENACE Maintenance Required X Snow covered		66 6					†	
Maintenance Required X Snow covered								
						Х		Snow covered
	*							3 33
Additional Comments X				Х				

Mining Area	Yoast Mine(Seneca Coal Co)		nfiguration	Cross	-Vally Pond				
Date Inspected	3/2/2020	Date Last	Inspected	10,	/23/2019				
Impoundment	Pond #011A	Pond I	ocation	SW¼ NW¼,	Sec. 16, T5N, R87W	Qua	rterly Impoundment Inspection Form		
NPDES ID No	N/A	Site L	Location 8.5 mi SE of		of Hayden, CO	-			
Owner's Rep	Miranda Kawcak	Insp	ector		on Herden				
	Mark or Write in Appropriate Response:								
	FEATURE		PROBLEM				COMMENTS		
			YES (Ab	ove)	NO (Belo	w)			
GENERAL									
	below principal spillway)				Х				
Existing Embankment	Freeboard (4.6 ft)		6						
Outflow (gpm)					X				
EROSION	1								
Rills & Gullies on Emb Wave Erosion	ankment	_			X				
		_			X				
Spillway Erosion Burrows		-			X				
Other		-			X				
STRUCTURAL					^				
Differential Settling					Х				
Cracks or Slides		-			X				
Seepage		-	X						
Other			X						
STRUCTURES		L							
Principal Spillway									
Clogged Orifice					Х				
Clogged or Damage	d Culvert				Х				
Damaged Headgate					NA				
Emergency Spillway									
Erosion					Х				
Riprap	Riprap				Х				
Clogged or Damageo	d Culvert	vert			Х				
Other					Х				
MAINTENACE									
•	Maintenance Required				X		No access due to winter conditions		
Maintenance Performe	1	-	.,		X				
Additional Comments	to = 2.1 foot holow top of n		X						

Top of Sediment Storage = 2.1 feet below top of pipe

Mining Area	Yoast Mine(Seneca Coal Co)	Facility Co	onfiguration	Cross	s-Vally Pond				
Date Inspected	3/2/2020	Date Las	t Inspected	10	/23/2019				
Impoundment	Pond #012	Pond I	Location	NE¼ NW¼,	Sec. 19, T5N, R87W	Qua	rterly Impoundment Inspection Form		
NPDES ID No	CO-0000221 D.P. 012	Site L	Location 8.5 mi		of Hayden, CO	•			
Owner's Rep	Miranda Kawcak	Insp	pector	Jason Herden					
			Mark	or Write i	n Appropriate I	Response:			
	FEATURE			PRO	DBLEM		COMMENTS		
			YES (At	oove)	NO (Belo	w)			
GENERAL									
Water Level (above or	below principal spillway)		X				Water level 0.1 feet above spillway		
Existing Embankment	Freeboard (9.0 ft)		9						
Outflow (gpm)			X				53.8		
EROSION									
Rills & Gullies on Emb	oankment				X				
Wave Erosion					X				
Spillway Erosion					X				
Burrows				Х					
Other					X				
STRUCTURAL									
Differential Settling					X				
Cracks or Slides				X					
Seepage				X					
Other				X					
STRUCTURES									
Principal Spillway									
Clogged Orifice					X				
Clogged or Damage					X				
Damaged Headgate					NA				
Emergency Spillway							<del>,</del>		
Erosion		Ĺ			Х				
Riprap		Ĺ			Х				
Clogged or Damageo	d Culvert	ļ			Х				
Other					Х				
MAINTENACE									
Maintenance Required		ļ			Х		Snow covered		
Maintenance Performe	d	ļ			Х				
Additional Comments			X						

Mining Area	Yoast Mine(Seneca Coal Co)	acility Con	nfiguratio	Cross-	-Vally Pond				
Date Inspected	3/2/2020	Date Last	Inspected	10/	23/2019				
Impoundment	Pond #012A	Pond L	ocation	NE¼ NW¼,S	ec. 19, T5N, R87W	Oua	rterly Impoundment Inspection Form		
NPDES ID No	N/A	Site Lo	cation	ation 8.5 mi SE of Hayden, CO		•	, i		
Owner's Rep	Miranda Kawcak	Inspe	ector	Jaso	n Herden				
			Mark	or Write	in Appropriat	e Response	e:		
	FEATURE			PR	OBLEM		COMMENTS		
			YES (	Above)	NO (Bel	ow)			
GENERAL									
Water Level (above or	below principal spillway)				Х		Water level 1.5 feet below spillway		
Existing Embankment	Freeboard (4.6 ft)		6	.6					
Outflow (gpm)					Х				
EROSION									
Rills & Gullies on Em	bankment				Х				
Wave Erosion					Х				
Spillway Erosion					Х				
Burrows					Х				
Other					Х				
STRUCTURAL					T				
Differential Settling		-			Х				
Cracks or Slides		-	X						
Seepage			X						
Other					Х				
STRUCTURES									
Principal Spillway					T				
Clogged Orifice		-			Х				
Clogged or Damage		-			X				
Damaged Headgate	;				NA				
Emergency Spillway					· ·	1			
Erosion					X				
Riprap	1.0-1				X				
Clogged or Damage	a Cuivert				X				
Other X									
MAINTENACE					l v		Carry Carry d		
Maintenance Required		-			X		Snow Covered		
Maintenance Performe				·	Х				

Χ

Additional Comments

Mining Area			Configuration		-Vally Pond		
Date Inspected	3/2/2020		st Inspected		/23/2019	•	4 1 7 4 7 4 7
Impoundment	Pond #013		Location		Sec. 19, T5N, R87W	Qua	rterly Impoundment Inspection Form
NPDES ID No	CO-0000221 D.P. 013		Site Location		8.5 mi SE of Hayden, CO		
Owner's Rep	Miranda Kawcak	Ins	pector		on Herden		
			Mark o		n Appropriate l	Response:	
	FEATURE			PROBLEM			COMMENTS
			YES (At	oove)	NO (Belo	ow)	
GENERAL							
	below principal spillway)				X		water level 1.0 feet below outlet
Existing Embankment	Freeboard (4.0 ft)		5.5				
Outflow (gpm)					X		
EROSION							
Rills & Gullies on Eml	oankment				Х		
Wave Erosion					X		
Spillway Erosion					Х		
Burrows					Х		
Other					X		
STRUCTURAL							
Differential Settling					X		Seep below toe of dam on south side is from a native spring.
Cracks or Slides					Х		Not affecting dam embankment
Seepage					X		
Other			X				
STRUCTURES							
Principal Spillway			T				
Clogged Orifice					Х		
Clogged or Damage					X		
Damaged Headgate					NA		
Emergency Spillway			ı		T		
Erosion					X		
Riprap	* *			Х			
	Clogged or Damaged Culvert			X			
Other					Х		
MAINTENACE			1				
Maintenance Required	*			X		Snow Covered	
Maintenance Performe	d				Х		
Additional Comments			X				

Mining Area	Yoast Mine(Seneca Coal Co)	Facility C	onfiguration	Cross-	Vally Pond			
Date Inspected	3/2/2020	Date Las	t Inspected	10/2	23/2019			
Impoundment	Pond #014	Pond	Location	Location NE% SW%, Sec. 19, T5N,		Qua	rterly Impoundment Inspection Form	
NPDES ID No	CO-0000221 D.P. 014	Site I	Location	ocation 8.5 mi SE of Hayden, CO		•		
Owner's Rep	Miranda Kawcak	Ins	pector	Jasor	n Herden			
			Mark o	r Write in	Appropriate F	Response:		
	FEATURE			PROF			COMMENTS	
			YES (At	oove)	NO (Bel	ow)		
GENERAL								
1	below principal spillway)				Х		water level 1.8 feet below spillway	
Existing Embankment	Freeboard (6.8 ft)		8					
Outflow (gpm)					Х		0	
EROSION		ı						
Rills & Gullies on Emb	ankment				Х			
Wave Erosion		-			Х			
Spillway Erosion		-			X			
Burrows		-			X			
Other					Х			
STRUCTURAL								
Differential Settling Cracks or Slides		-			X X			
Seepage			X					
Other		-	x					
STRUCTURES					Λ			
Principal Spillway								
Clogged Orifice					Х			
Clogged or Damage	d Culvert	-			X			
Damaged Headgate		-			NA			
Emergency Spillway								
Erosion					Х			
Riprap	Riprap				Х			
Clogged or Damaged Culvert					Х		1	
Other					Х		<u> </u>	
MAINTENACE	MAINTENACE							
Maintenance Required					Х		Snow Covered	
Maintenance Performe	d		<u> </u>		Х			
Additional Comments			X					

Date Lass Inspected Impoundment   Stock Tank ST-1   N/A   N/A   Owner's Rep   Mark or Write in Appropriate Response:	Mining Area	Yoast Mine(Seneca Coal Co)	Facility (	Configuration	Sto	Stockpond			
NPDES ID No Owner's Rep	Date Inspected	3/2/2020	Date La	st Inspected	10/	/23/2019			
NPDES ID No Owner's Rep		Stock Tank ST-1	Pond	Location	SW¼ Sec.	. 20, T5N, R87W	Quai	rterly Impoundment Inspection Form	
FEATURE	NPDES ID No	N/A	Site	Location	8.5 mi SE of Hayden, CO		•		
PROBLEM   YES (Above)   NO (Below)	Owner's Rep	Miranda Kawcak	Ins	spector	Jaso	on Herden			
YES (Above) NO (Below)   Selection   NO (Below)   Selection   NO (Below)   Selection   NO (Below)   NO (Below)   Selection   NO (Below)   NO (Below)   Selection   NO (Below)   NO (Below				Mark or			Response:		
Water Level (above or below principal spillway)   X   EROSION		FEATURE						COMMENTS	
Water Level (above or below principal spillway)   X   EROSION				YES (Ab	ove)	NO (Belo	ow)		
Rills & Gullies on Embankment									
Rills & Gullies on Embankment		below principal spillway)				X			
Wave Erosion         X           Spillway Erosion         X           Burrows         X           Other         X           STRUCTURAL           Differential Settling         X           Cracks or Slides         X           Seepage         X           Other         X           STRUCTURES           Principal Spillway           Clogged orifice         NA           Clogged or Damaged Culvert         NA           Damaged Headgate         NA           Errosion         X           Riprap         X           Clogged or Damaged Culvert         NA           Other         X           Maintenance Required         X           Maintenance Performed         X				1		T			
Spillway Erosion         X           Burrows         X           Other         X           STRUCTURAL           Differential Settling         X           Cracks or Slides         X           Seepage         X           Other         X           STRUCTURES           Principal Spillway           Clogged orifice         NA           Clogged or Damaged Culvert         NA           Damaged Headgate         NA           Emergency Spillway           Erosion         X           Riprap         X           Clogged or Damaged Culvert         NA           Other         X           Maintenance Required         X           Maintenance Required         X           Maintenance Performed         X		bankment							
Na									
Other         X           STRUCTURAL           Differential Settling         X           Cracks or Slides         X           Seepage         X           Other         X           STRUCTURES           Principal Spillway         NA           Clogged Orifice         NA           Clogged or Damaged Culvert         NA           Damaged Headgate         NA           Emergency Spillway         X           Erosion         X           Riprap         X           Clogged or Damaged Culvert         NA           Other         X           MAINTENACE           Maintenance Required         X         No access due to winter conditions           Maintenance Performed         X         No access due to winter conditions									
STRUCTURAL  Differential Settling Cracks or Slides Seepage X Other X  STRUCTURES  Principal Spillway  Clogged Orifice Clogged or Damaged Culvert Damaged Headgate Erosion Riprap Clogged or Damaged Culvert NA Clogged or Damaged Culvert NA Riprap Clogged or Damaged Culvert NA Riprap Clogged or Damaged Culvert NA Riprap Clogged or Damaged Culvert NA No access due to winter conditions Maintenance Required NA No access due to winter conditions									
Differential Settling X Cracks or Slides X Seepage X Other X  STRUCTURES  Principal Spillway  Clogged Orifice NA Clogged or Damaged Culvert NA Damaged Headgate NA Emergency Spillway  Erosion X Riprap X Clogged or Damaged Culvert NA Maintenance Required X Maintenance Required X Maintenance Performed X  No access due to winter conditions						X			
Cracks or Slides X Seepage X Other X STRUCTURES Principal Spillway Clogged Orifice NA Clogged or Damaged Culvert NA Damaged Headgate NA Emergency Spillway Erosion X Riprap X Clogged or Damaged Culvert NA Other X MAINTENACE Maintenance Required X Maintenance Performed X No access due to winter conditions				T		T			
Seepage         X           Other         X           STRUCTURES           Principal Spillway         NA           Clogged Orifice         NA           Clogged or Damaged Culvert         NA           Damaged Headgate         NA           Emergency Spillway           Erosion         X           Riprap         X           Clogged or Damaged Culvert         NA           Other         X           MAINTENACE           Maintenance Required         X         No access due to winter conditions           Maintenance Performed         X         No access due to winter conditions									
Other         X           STRUCTURES           Principal Spillway         NA           Clogged Orifice         NA           Clogged or Damaged Culvert         NA           Damaged Headgate         NA           Emergency Spillway         X           Erosion         X           Riprap         X           Clogged or Damaged Culvert         NA           Other         X           MAINTENACE           Maintenance Required         X           Maintenance Performed         X									
STRUCTURES Principal Spillway  Clogged Orifice NA Clogged or Damaged Culvert NA Damaged Headgate NA  Emergency Spillway  Erosion X Riprap X Clogged or Damaged Culvert NA Other X  MAINTENACE  Maintenance Required X Maintenance Performed  Pincipal X No access due to winter conditions Maintenance Performed					<u> </u>				
Principal Spillway  Clogged Orifice						X			
Clogged Orifice Clogged or Damaged Culvert Damaged Headgate NA  Emergency Spillway Erosion Riprap Clogged or Damaged Culvert NA  Other X  MAINTENACE  Maintenance Required Maintenance Performed  NA  NA  NA  No access due to winter conditions  NA  No access due to winter conditions									
Clogged or Damaged Culvert Damaged Headgate NA  Emergency Spillway  Erosion Riprap Clogged or Damaged Culvert NA Other X  MAINTENACE  Maintenance Required Maintenance Performed NA NA No access due to winter conditions NA No access due to winter conditions				1		l NA			
Damaged Headgate         NA           Emergency Spillway         X           Erosion         X           Riprap         X           Clogged or Damaged Culvert         NA           Other         X           MAINTENACE           Maintenance Required         X           Maintenance Performed         X   No access due to winter conditions		od Culscont							
Emergency Spillway									
Erosion         X           Riprap         X           Clogged or Damaged Culvert         NA           Other         X           MAINTENACE         X           Maintenance Required         X         No access due to winter conditions           Maintenance Performed         X         No access due to winter conditions		•		l		INA			
Riprap Clogged or Damaged Culvert NA Other X  MAINTENACE  Maintenance Required Maintenance Performed X No access due to winter conditions X				1		l v			
Clogged or Damaged Culvert  Other  X  MAINTENACE  Maintenance Required  Maintenance Performed  X  No access due to winter conditions  X									
Other X  MAINTENACE  Maintenance Required X No access due to winter conditions  Maintenance Performed X	* *	* *							
MAINTENACE       Maintenance Required     X     No access due to winter conditions       Maintenance Performed     X									
Maintenance Required     X     No access due to winter conditions       Maintenance Performed     X									
Maintenance Performed X				1		x		No access due to winter conditions	
								000000 000 00 11110010010	
(Additional Comments X	Additional Comments			Х					

## **IMPOUNDMENT INSPECTION LOG**

## **JOB DATA**

JOB NAME: PEC Hydrologic Support Services	CLIENT: Peabody	LOCATION: Routt County, CO				
JOB(s): 2018-005 T1-SCC, 2018-006 T1-PSCM						

## **FLOW DATA**

FLOW DA	TA			1				
SITE ID	COMPANY	MINE	DATE	TIME	WATER LEVEL (FT)	OUTFLOW (GPM)	OBSERVATIONS	MAINTENANCE (Y/N)
002	Sage Creek	Sage Creek	3-23-2	08:10	0.47	77.6	Snow Covered, Flune laking	У
003	Sage Creek	Sage Creek	3-23-20	07:45	0.42	3.7		N
004	Sage Creek	Sage Creek	3-23-20	9:00	0.08	31.7	Snow Covered	N
Lower Sump	Sage Creek	Sage Creek	3-23-20	08:45	0.2	167	Show covered	N
PECOCO	Sage Creek	Sage Creek	3.23-20	10:40	0,3	126	Snow Covered	N
Portal Sump 1	Sage Creek	Sage Creek	3-23-20	07:45	_		Frozen	N
Portal Sump 2	Sage Creek	Sage Creek	3.23.20	101,00	-	)	Floren	N
Spill Control 2	Sage Creek	Sage Creek	3.23-2	09:30	~		Snow Covered	N
Truck Wash	Sage Creek	Sage Creek	3 -23-20	08:33	_		Dry	N
Upper Sump	Sage Creek	Sage Creek	3-23-20	10'20	0.2	91	Snow Covered	N
001	Seneca	Hayden Gulch	3-2-20	12:00	_	_	snow covered	N
002	Seneca	Hayden Gulch	3.2.20	(2:10)	_	_	Snow Covered	N
005	Seneca	Seneca II West	3.2-8	11:46	5	~	SNOW COURTED	N
006	Seneca	Seneca II West	3-2-80	09:50	0.1	48.6	Snow Coveral	N
009	Seneca	Seneca II West	3-2-8	13:20	-3.5	~	Snow Covered	N
015	Seneca	Seneca II West	3-2-2	10:00	004	3.4	snow (overed	N
016	Seneca	Seneca II West	3-2-20	09!30	0.04	53.6	Snow Careled	N
017	Seneca	Seneca II West	3-2-20	09:10	0.03	3,7	snowcovered	N
T-1	Seneca	Seneca II West	_	_	~	_	winter	_
T-18	Seneca	Seneca II West	1	_	~		winter	-
T-2	Seneca	Seneca II West	_	_		-	winter	V
Т-20	Seneca	Seneca II West		_		)	winter	~
Т-22	Seneca	Seneca II West		_	_	_	winter	_
T-24	Seneca	Seneca II West	_	~	_		Winter	-
Г-25	Seneca	Seneca II West	_	_	_	_	winter	_
T-26	Seneca	Seneca II West			_	_	Winter	_



SITE ID	COMPANY	MINE	DATE	ТІМЕ	WATER LEVEL (FT)	OUTFLOW (GPM)	OBSERVATIONS	MAINTENANCE (Y/N)
T-27	Seneca	Seneca II West	-	U	_	J	winter	
T-3	Seneca	Seneca II West	_	<u>_</u>	_	_	winter	Ŭ
T-5	Seneca	Seneca II West	_	_	)		winter	ı
010	Seneca	Yoast	3-5-30	10:25	0.1	7,3	Snowcarried, p.pe Insted	У
011	Seneca	Yoast	3-2-20	13:40	-3.5	_	snow covered	N
011A	Seneca	Yoast	~	~	_	~	winter	1
012	Seneca	Yoast	3-2-80	10:40	0.1	53.8	Snowcered	N
012A	Seneca	Yoast	3-2-20	10:00	-1.5	~	snow covered	N
013	Seneca	Yoast	2-8-80	11:00	-1.0	_	Snow Covered	N
014	Seneca	Yoast	3-2-8	11:20	-18		Sua Coveled	N
ST-1	Seneca	Yoast	~	~	~	`	winter	

CLIMATIC CONDITIONS:	
FIELD PERSONNEL: TH	FIELD PERSONNEL SIGNATURE: And has
NOTES	0