

## **Seneca Coal Company**

July 23, 2019

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

RE: Seneca II W Mine, Permit C-82-057, 2Q19 IIR

Dear Robin:

In accordance with Rule 4.05.9(17), please find enclosed the Seneca II West Mine Impoundment Inspection Reports (IIR) and Impoundment Inspection Log (IIL) for Ponds:

• Pond #005, Pond #006, Pond #008, Pond #009, Pond #015, Pond #016, Pond #017

and Stock Tanks:

Stock Tank T-1, Stock Tank T-2, Stock Tank T-3, Stock Tank T-5, Stock Tank T-18, Stock Tank T-20, Stock Tank T-22, Stock Tank T-24, Stock Tank T-25, Stock Tank T-26 and Stock Tank T-27.

Maintenance is required at Pond #016 and Pond #017. Please contact me with any comments and/or questions.

Sincerely,

Miranda Kawcak Environmental Engineer

Enclosure: Seneca II W IIR

Mining Area	Seneca II West Mine		onfiguration	Cross	s-Vally Pond		
Date Inspected	6/10/2019	Date Las	st Inspected	3/	11/2019		
Impoundment	Pond #005	Pond	Location	ocation NW¼ SW¼, Sec.		Qua	rterly Impoundment Inspection Form
NPDES ID No	CMLRD Permit No. C-82-057	Site I	Location			_	
Owner's Rep	Miranda Kawcak	Ins	pector	Jaso	on Herden		
			:				
	FEATURE				BLEM		COMMENTS
			YES (At	ove)	NO (Belo	w)	
GENERAL							
· ·	below principal spillway)		X				Water level 0.05 feet above spillway
Existing Embankment	Freeboard (7.4 ft)		10.4	ļ			
Outflow (gpm)			X				78.8
EROSION		T			T		
Rills & Gullies on Em	bankment				X		
Wave Erosion					X		-
Spillway Erosion					X		-
Burrows					Х		-
Other STRUCTURAL					X		
Differential Settling		1			Х		
Cracks or Slides					X		-
Seepage					X		-
Other					X		1
STRUCTURES					X		
Principal Spillway							
Clogged Orifice					Х		
Clogged or Damage	ed Culvert				Х		1
Damaged Headgate		•			NA		
Emergency Spillway					•		
Erosion					Х		
Riprap					Х		]
Clogged or Damage	d Culvert				Х		]
Other					Х		
MAINTENACE							
Maintenance Required					Х		Spring below dam, no impact on pond, will continue to monitor
Maintenance Performe	ed				Х		_
Additional Comments			X				

Mining Area	Seneca II West Mine	Facility C	onfiguration	Cross	-Vally Pond								
Date Inspected	6/10/2019	Date Las	st Inspected	3/	11/2019								
Impoundment	Pond #006	Pond	Location	NW¼ NW¼, Sec. 22, T5N, R88W		Quai	rterly Impoundment Inspection Form						
NPDES ID No	CO-0000221 D.P. 006	Site I	Location	8 mi. S of Hayden, CO									
Owner's Rep	Miranda Kawcak	Ins	pector	Jaso	on Herden								
Mark or Write in Appropriate Response:													
	FEATURE				BLEM		COMMENTS						
			YES (Al	oove)	NO (Belo	w)							
GENERAL													
	r below principal spillw	ay)	Х				water level 0.1 feet above spillway						
Existing Embankment	Freeboard (7.5 ft)		7.5										
Outflow (gpm)			Х				190.5						
EROSION													
Rills & Gullies on Em	bankment				Х								
Wave Erosion					X								
Spillway Erosion					Х								
Burrows					Х								
Other			X										
STRUCTURAL													
Differential Settling					Х								
Cracks or Slides					Х								
Seepage					Х								
Other					Х								
STRUCTURES													
Principal Spillway					Т								
Clogged Orifice	101				Х								
Clogged or Damag					X								
Damaged Headgate	e				NA								
Emergency Spillway		1											
Erosion					X								
Riprap	1 C-1				X								
Clogged or Damage	ea Cuivert				X								
Other MAINTENACE					X								
	1				Х		Cluff on couth side above named on hill suggestion at affinition						
Maintenance Required Maintenance Perform							Sluff on south side above pond on hill, currently not affecting						
Additional Comments			V		X		pond. Will continue to monitor.						
Additional Comments			X										

Mining Area	Seneca II Mine	Facility (	Configuration	Cross-	Vally Pond		
Date Inspected	6/12/2019	_	st Inspected				
Impoundment	Pond #008		Location	<u> </u>	3/11/2019 SE¼SW¼, Sec. 7, T5N, R86W		utauly Impaundment Inspection Foum
NPDES ID No		-	Location			Qua	rterly Impoundment Inspection Form
	CO-0000221 D.P.008	-			7.1 mi SE of Hayden, CO		
Owner's Rep	Miranda Kawcak	Ins	spector		n Herden	n n	
	FEATURE		Mark		in Appropriat	te Kespon:	comments
	FEATURE		YES (At		NO (Bel		COMMENTS
GENERAL			YES (At	oove)	NO (Be	low)	
	r below principal spillw	ov)	Х		l		Water Level 0.1 above spillway
Existing Embankment	1 1 1	ay)	4.7	,			water Level 0.1 above spillway
Outflow (gpm)	1 1 1 1 1 1 (4. / 11)		X				117
EROSION			^				
Rills & Gullies on Em	hankment				Х		
Wave Erosion	iounkinon:				X		
Spillway Erosion					X		
Burrows					Х		
Other					X		
STRUCTURAL					L		
Differential Settling					Х		
Cracks or Slides			X				
Seepage			X				
Other			X				
STRUCTURES							
Principal Spillway							
Clogged Orifice					Х		
Clogged or Damag	ed Culvert				Х		
Damaged Headgate	e			NA			
Emergency Spillway							
Erosion					X		
Riprap					X		
Clogged or Damaged Culvert					Х		
Other					Х		
MAINTENACE							
Maintenance Required					Х		
Maintenance Perform					Х		
Additional Comments			1		X		

Χ

NO LONGER REQUIRED DUE TO FINAL BOND RELEASE

Additional Comments

Mining Area	Seneca II West Mine	Facility (	Configuration	Cross	-Vally Pond						
Date Inspected	6/10/2019		st Inspected		11/2019						
Impoundment	Pond #009	-1	Location		SE¼ SW¼, Sec. 11, T5N, R88W		rterly Impoundment Inspection Form				
NPDES ID No	CO-0000221 D.P. 009		Location		8 mi. S of Hayden, CO		terry impoundment inspection form				
Owner's Rep	Miranda Kawcak		spector		Jason Herden						
Owner s Rep	Iviii ai ida kawcak	1113	1		in Appropriat	e Resnons	χρ•				
	COMMENTS										
	FEATURE		YES (Al		BLEM NO (Bel-	ow)	000				
GENERAL											
Water Level (above or	r below principal spillw	ay)			Х		Water level 2.0 feet below top of pipe				
Existing Embankment		• /	11.4	4							
Outflow (gpm)	, ,				Х						
EROSION			•								
Rills & Gullies on Em	bankment				Х						
Wave Erosion					Х						
Spillway Erosion					X						
Burrows					X						
Other					Х						
STRUCTURAL											
Differential Settling					X						
Cracks or Slides					X						
Seepage					X						
Other			X								
STRUCTURES											
Principal Spillway											
Clogged Orifice					Х						
Clogged or Damag					Х						
Damaged Headgate	e				NA						
Emergency Spillway			1		T						
Erosion					Х						
Riprap	1 1				Х						
Clogged or Damaged Culvert			X								
Other					Х						
MAINTENACE	,		1		T T						
Maintenance Required					X						
Maintenance Performe	ed				Х						

Additional Comments

Mining Area	Seneca II West Mine	Facility C	Configuration	Cross-	Vally Pond				
Date Inspected	6/10/2019	Date La	st Inspected	3/1	11/2019				
Impoundment	Pond #015	Pond	Location NE% SE%, Se		ec. 23, T5N, R88W	Oua	rterly Impoundment Inspection Form		
NPDES ID No	CO-0000221 D.P. 015	Site 1	Location	8 mi. S o	of Hayden, CO		J P		
Owner's Rep	Miranda Kawcak	Ins	pector		n Herden				
			Mark	or Write	in Appropriat	e Respons	se:		
	FEATURE			PRO	BLEM		COMMENTS		
			YES (Ab	oove)	NO (Belo	ow)			
GENERAL									
Water Level (above or	below principal spillwa	ay)	X				water level 0.01 feet above spillway		
Existing Embankment	Freeboard (4.0 ft)		4.8						
Outflow (gpm)			X				76.4		
EROSION									
Rills & Gullies on Em	bankment				X				
Wave Erosion					X				
Spillway Erosion					X				
Burrows					X				
Other					X				
STRUCTURAL									
Differential Settling					X				
Cracks or Slides					X				
Seepage					X				
Other					Х				
STRUCTURES									
Principal Spillway			T	1		-			
Clogged Orifice					Х				
Clogged or Damag					Х				
Damaged Headgate	2				NA				
Emergency Spillway			1						
Erosion					X				
Riprap					Х				
Clogged or Damage	ed Culvert				Х				
Other					Х				
MAINTENACE			ı						
Maintenance Required					X				
Maintenance Performe					X				
Additional Comments					Х				

	_						
Mining Area	Seneca II West Mine			Cross-V	/ally Pond		
Date Inspected	6/10/2019	Date La	Date Last Inspected		3/11/2019		
Impoundment	Pond #016	Pond	Location	NE¼ SE¼, Sec	NE¼ SE¼, Sec. 27, T5N, R88W		rterly Impoundment Inspection Form
NPDES ID No	CO-0000221 D.P. 016	Site !	Location	8 mi. S of	Hayden, CO	-	
Owner's Rep	Miranda Kawcak	Ins	spector	Jason	Herden		
			Mark	or Write i	n Appropria	ite Respoi	nse:
	FEATURE			PROB			COMMENTS
			YES (Al	oove)	NO (B	elow)	
GENERAL							
	or below principal spillw	/ay)	X				water level 0.1 feet above spillway
Existing Embankmen	nt Freeboard (6.8 ft)		6.8	}			
Outflow (gpm)			X				154.3
EROSION							
Rills & Gullies on Er	nbankment				X X		
Wave Erosion							
Spillway Erosion					Х		
Burrows							
Other					X		
STRUCTURAL							
Differential Settling					Х		
Cracks or Slides					X		
Seepage					Х		
Other					Х		
STRUCTURES							
Principal Spillway					1		
Clogged Orifice					Х		
Clogged or Damag					Х		
Damaged Headga					N.A	١	
Emergency Spillway					1		
Erosion					Х		
Riprap					Х		

Χ

Χ

Small seep under flume

Χ

Clogged or Damaged Culvert

Other

MAINTENACE
Maintenance Required

Maintenance Performed Additional Comments

Mining Area	Seneca II West Mine	Facility C	Configuration	Cross	-Vally Pond									
Date Inspected	6/10/2019	Date La	st Inspected	3/:	11/2019									
Impoundment	Pond #017	Pond	Location	tion SW¼ NE¼, Sec. 34, T5N,		Quai	rterly Impoundment Inspection Form							
NPDES ID No	CO-0000221 D.P. 017	Site	Location	8 mi. S c	of Hayden, CO		• •							
Owner's Rep	Miranda Kawcak	Ins	pector	Jaso	n Herden									
	Mark or Write in Appropriate Response:  FEATURE PROBLEM COMMENTS													
	FEATURE						COMMENTS							
			YES (Ab	ove)	NO (Belo	ow)								
GENERAL														
`	r below principal spillw	ay)	X				water level 0.1 feet above spillway							
Existing Embankment	Freeboard (3.1 ft)		3.1											
Outflow (gpm)			Х				151.1							
EROSION						-								
Rills & Gullies on Em	bankment				Х									
Wave Erosion					X									
Spillway Erosion					Х									
Burrows				Х										
Other			X											
STRUCTURAL						ı								
Differential Settling					X									
Cracks or Slides					X									
Seepage					Х									
Other					X									
STRUCTURES														
Principal Spillway					•	1								
Clogged Orifice					Х									
Clogged or Damag					X									
Damaged Headgate	e				NA									
Emergency Spillway														
Erosion					Х									
Riprap					Х									
Clogged or Damage	ed Culvert				Х									
Other					X									
MAINTENACE						-								
Maintenance Required			X				All water running around and under flume, need to place							
Maintenance Performe					Х		bentonite around flume							
Additional Comments			Х											

Mining Area	Seneca II West Mine	Facility C	onfiguration	Sto	Stockpond		
Date Inspected	6/13/2019	Date Las	st Inspected	3/1	1/2019		
Impoundment	Stock Tank T-1	Pond	Location	SE¼SW¼, Se	SE¼SW¼, Sec 16, T5N, R88W		rterly Impoundment Inspection Form
NPDES ID No	N/A	Site 1	Location	8 mi S of Hayden, CO			J P
Owner's Rep	Miranda Kawcak	Ins	pector	Jason Herden			
			Mark	or Write	in Appropriat	te Respon	se:
	FEATURE			PROE	BLEM		COMMENTS
			YES (Al	oove)	NO (Bel	ow)	
GENERAL							
Water Level (above or	below principal spillw	ay)			X		Dry
EROSION							
Rills & Gullies on Em	bankment				Х		
Wave Erosion					Х		
Spillway Erosion					N/A		
Burrows					Х		
Other				X			
STRUCTURAL							
Differential Settling					Х		
Cracks or Slides					Х		
Seepage					Х		
Other					Х		
STRUCTURES							
Principal Spillway							
Clogged Orifice					N/A		
Clogged or Damage					N/A		
Damaged Headgate	<u> </u>				N/A		
Emergency Spillway							
Erosion					X		
Riprap	101				X		
Clogged or Damage	a Cuivert				N/A		
Other					Х		
MAINTENACE  Maintenance Required					V		DAM DEMOVED CODING 2042, DOCK IN CHANNEL NOW
Maintenance Required					Х		DAM REMOVED SPRING 2012, ROCK IN CHANNEL NOW.
Additional Comments			V		Х		
Additional Comments			Х				

Mining Area	Seneca II West Mine	Facility C	Configuration	Sto	ockpond								
Date Inspected	6/13/2019	Date La	st Inspected	3/1	3/11/2019								
Impoundment	Stock Tank T-2		Location		NW¼SW¼, Sec 22, T5N, R88W		rterly Impoundment Inspection Form						
NPDES ID No	N/A	Site 1	Location		f Hayden, CO	Zum	recity impoundment inspection 1 or in						
Owner's Rep	Miranda Kawcak	Ins	spector		n Herden								
	l .	se:											
	FEATURE PROBLEM COMMENTS												
			YES (Ab	oove)	NO (Belo	ow)							
GENERAL													
Water Level (above or	below principal spillw	ay)			Х		Water level 2.5 feet below spillway						
EROSION													
Rills & Gullies on Em	bankment				X								
Wave Erosion					X								
Spillway Erosion					X								
Burrows					X								
Other					Х								
STRUCTURAL			ı										
Differential Settling					X								
Cracks or Slides			X										
Seepage			X										
Other			X										
STRUCTURES													
Principal Spillway Clogged Orifice			1		NA								
Clogged or Damage	ad Culvert				NA NA		-						
Damaged Headgate					NA NA								
Emergency Spillway	,				INA								
Erosion					Х								
Riprap					X		1						
Clogged or Damaged Culvert					NA NA		1						
Other					X		1						
MAINTENACE							1						
Maintenance Required	[				Х								
	Maintenance Performed				Х		1						
Additional Comments					Х		]						

Mining Area	Seneca II West Mine	Facility C	Configuration	Sto	ckpond							
Date Inspected	6/13/2019		st Inspected	3/1	1/2019							
Impoundment	Stock Tank T-3	Pond	Location	NW¼SE¼, Se	NW¼SE¼, Sec 22, T5N, R88W		rterly Impoundment Inspection Form					
NPDES ID No	N/A		Location		Hayden, CO	Quu.	i torry impoundment inspection i orm					
Owner's Rep	Miranda Kawcak	Ins	pector	Jasoi	n Herden							
	l .			or Write	in Appropriat	e Respons	e:					
	FEATURE				BLEM		COMMENTS					
			YES (Ab	ove)	NO (Bel	ow)						
GENERAL												
Water Level (above or	below principal spillwa	ay)			Х		Water level 3.0 feet below spillway					
EROSION												
Rills & Gullies on Em	bankment				Х							
Wave Erosion					Х							
Spillway Erosion					Х							
Burrows					X							
Other					X							
STRUCTURAL												
Differential Settling					Х							
Cracks or Slides				X								
Seepage			X									
Other				X								
STRUCTURES												
Principal Spillway			Г									
Clogged Orifice	101				NA							
Clogged or Damag					NA NA							
Damaged Headgate	<u> </u>				NA							
Emergency Spillway Erosion					V							
Riprap				X								
* *	ed or Damaged Culvert			NA								
Other	a Cuiveit				X							
MAINTENACE												
Maintenance Required					Х							
Maintenance Performe			X									
Additional Comments					X							
raditional Comments					Λ							

Mining Area	Seneca II West Mine	Facility C	onfiguration	Stocl	kpond		
Date Inspected	6/13/2019	Date Las	st Inspected	3/11	/2019		
Impoundment	Stock Tank T-5	Pond	Location	NE¼ Sec 22	2, T5N, R88W	Quai	rterly Impoundment Inspection Form
NPDES ID No	N/A		Location 8 mi S		of Hayden, CO		
Owner's Rep	Miranda Kawcak	Ins	pector	Jason	Jason Herden		
			Mark o		n Appropri	ate Respo	nse:
	FEATURE			PROB			COMMENTS
			YES (At	oove)	NO (B	elow)	
GENERAL							
Water Level (above or	r below principal spillw	ay)			Х		Water level 2.5 feet below spillway
EROSION							
Rills & Gullies on Em	bankment				Х		
Wave Erosion					Х		
Spillway Erosion					Х		
Burrows					Х		
Other					Х		
STRUCTURAL							
Differential Settling					Х		
Cracks or Slides					Х		
Seepage					Х		
Other					Х		
STRUCTURES							
Principal Spillway		1	Ī	1		,	
Clogged Orifice					N/		
Clogged or Damag					N/		
Damaged Headgate	e				N/	١	
Emergency Spillway							
Erosion					Х		
Riprap					Х		
Clogged or Damage	ed Culvert				N/		
Other					Х		
MAINTENACE							
Maintenance Required					Х		
Maintenance Performe					Х		
Additional Comments					Х		

Mining Area	Seneca II West Mine	Facility (	Configuration	Sto	ckpond							
Date Inspected	6/13/2019	-	st Inspected		.1/2019							
Impoundment	Stock Tank T-18		Location	-	ec 15, T5N, R88W	Onar	rterly Impoundment Inspection Form					
NPDES ID No	N/A	Site	Location		Hayden, CO	Z uu	terry impoundment inspection form					
Owner's Rep	Miranda Kawcak	Ins	spector		n Herden							
	e:											
Mark or Write in Appropriate Response:  FEATURE PROBLEM COMMENTS												
			YES (At	oove)	NO (Bel	ow)						
GENERAL												
Water Level (above or	below principal spillwa	ay)			Х		Water level 1.0 feet below spillway					
EROSION												
Rills & Gullies on Em	bankment				Х							
Wave Erosion					Х							
Spillway Erosion					X							
Burrows					Х							
Other					Х							
STRUCTURAL												
Differential Settling					Х							
Cracks or Slides					Х							
Seepage			X									
Other					Х							
STRUCTURES												
Principal Spillway												
Clogged Orifice					NA							
Clogged or Damage				NA								
Damaged Headgate	;		1		NA							
Emergency Spillway						T						
Erosion					X							
Riprap	Clogged or Damaged Culvert				X							
Other				NA NA								
Other X MAINTENACE												
MAINTENACE Maintenance Required			1		V	1						
Maintenance Required  Maintenance Performed				X								
Additional Comments	su .				X							
Additional Comments					X							

Mining Area	Seneca II West Mine	Facility C	Configuration	Sto	ckpond		
Date Inspected	6/13/2019		st Inspected	3/11/2019			
Impoundment	Stock Tank T-20		Location	NW¼NE¼, Sec 15, T5N, R88W		Onai	rterly Impoundment Inspection Form
NPDES ID No	N/A		Location		f Hayden, CO	Qua	terry impoundment inspection form
Owner's Rep	Miranda Kawcak	Ins	pector		n Herden		
o wher steep	Timuraa nawaa	1110	•		in Appropriat	e Respons	se:
	FEATURE				BLEM	e respon	COMMENTS
			YES (Al	oove)	NO (Bel	ow)	
GENERAL			,	,	,		
Water Level (above or	below principal spillw	ay)			Х		Water level 3.0 feet below spillway
EROSION		•					·
Rills & Gullies on Em	bankment				Х		
Wave Erosion					Х		
Spillway Erosion					Х		
Burrows					Х		
Other					Х		
STRUCTURAL							
Differential Settling				X			
Cracks or Slides				X			
Seepage				Х			
Other					Х		
STRUCTURES							
Principal Spillway			1				
Clogged Orifice					NA		
Clogged or Damage					NA		
Damaged Headgate	;				NA		
Emergency Spillway			1				
Erosion					X		
Riprap Clogged or Damage	d Culment				X NA		
Other	u Cuiveri			X			
MAINTENACE							
Maintenance Required			1		Х		
Maintenance Performe				X			
Additional Comments	A.				X		
<sup>2</sup> Idditional Comments			<u> </u>		^		

Mining Area	Seneca II West Mine	Facility C	Configuration	Sto	ckpond		
Date Inspected	6/13/2019	Date La	st Inspected	3/1	1/2019		
Impoundment	Stock Tank T-22	Pond	Location	SE¼SW¼, Sec 10, T5N, R88W		Qua	rterly Impoundment Inspection Form
NPDES ID No	N/A	Site 1	Location	8 mi S of Hayden, CO			
Owner's Rep	Miranda Kawcak	Ins	pector	Jasor	n Herden		
			Mark	or Write	in Appropriat	te Respons	se:
	FEATURE			PROE	BLEM		COMMENTS
			YES (Ab	oove)	NO (Bel	ow)	
GENERAL							
Water Level (above or	below principal spillw	ay)	Х				Water level0.2 feet above spillway 12.7gpm
EROSION							
Rills & Gullies on Em	bankment				X		
Wave Erosion					X		
Spillway Erosion					X		
Burrows					X		
Other					X		
STRUCTURAL							
Differential Settling			Х				
Cracks or Slides				X			
Seepage				Х			
Other					Х		
STRUCTURES							
Principal Spillway			T	1			
Clogged Orifice				NA			
Clogged or Damage						NA	
Damaged Headgate	;				NA		
Emergency Spillway			1				
Erosion					X		
Riprap					X		
Clogged or Damage	d Culvert			NA			
Other					X		
MAINTENACE			ı	1			
1	Maintenance Required		X				
Maintenance Performe	ed				X		
Additional Comments					X		

Date Inspected   Impoundment   Stock Tank T-24   NNA   NNA   NNA   NN   NNA   NNA	Mining Area	Seneca II West Mine	Facility (	Configuration	Sto	ckpond		
	Date Inspected							
NPDES ID No Owner's Rep							Onar	terly Impoundment Inspection Form
Owner's Rep         Miranda Kawcak         Inspector         Jason Herden           FEATURE         FEATURE         FEATURE         PROBLEM         COMMENTS           GENERAL.           Water Level (above or below principal spillway)         X         Dry           EROSION           Rill & Guillies on Embankment         X         X           Wave Erosion         X         X           Burrows         X         X           Other         X         X           STRUCTURAL           Differential Settling         X         X           Cracks or Slides         X         X           SCRUCTURES           Principal Spillway           Clogged Orifice         NA           Clogged Orifice         NA         NA           Clogged or Damaged Headgate         NA         NA           Emergency Spillway         X         X           Emergency Spillway         X         X           Emergency Spillway         X         X           Emergency Spillway         X         X           Emergency Spillway			Site	Location			Quui	terry impoundment inspection form
FEATURE		•						
PROBLEM   VES (Above)   NO (Below)	о			•			e Respons	e:
Water Level (above or below principal spillway)   X		FEATURE		1				
Water Level (above or below principal spillway)				YES (Ab	ove)	NO (Bel	low)	
Rills & Gullies on Embankment	GENERAL						<u> </u>	
Rills & Gullies on Embankment         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           Emergency Spillway         X           Erosion         X           Riprap         X           Clogged or Damaged Culvert         NA           Other         X           Many         X           Riprap         X           Clogged or Damaged Culvert         NA           Other         X           Many         X           Maintenance Required         X           Maintenance Performed         X	Water Level (above or	below principal spillw	ay)			Х		Dry
X	EROSION		•					·
Spillway Erosion         X           Burrows         X           Other         X           STRUCTURAL         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         NA           Maintenance Required         X           Maintenance Performed         X	Rills & Gullies on Em	bankment				Х		
Na	Wave Erosion					X		
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           Maintenance Performed         X	Spillway Erosion					X		
STRUCTURAL	Burrows					Х		
X						Х		
Cracks or Slides         X           Seepage         X           Other         X           STRUCTURES           Principal Spillway           Clogged Orifice           Clogged or Damaged Culvert         NA           Damaged Headgate         NA           Emergency Spillway         X           Erosion         X           Riprap         X           Clogged or Damaged Culvert         NA           Other         X           MAINTENACE         X           Maintenance Required         X           Maintenance Performed         X								
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           Maintenance Performed         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           Maintenance Performed         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								
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						X		
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								
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				1			1	
Damaged Headgate         NA           Emergency Spillway         X           Erosion         X           Riprap         X           Clogged or Damaged Culvert         NA           Other         X           MAINTENACE           Maintenance Required         X           Maintenance Performed         X		101						
Emergency Spillway           Erosion         X           Riprap         X           Clogged or Damaged Culvert         NA           Other         X           MAINTENACE           Maintenance Required         X           Maintenance Performed         X								
Erosion         X           Riprap         X           Clogged or Damaged Culvert         NA           Other         X           MAINTENACE           Maintenance Required         X           Maintenance Performed         X		;				NA		
Riprap				1		V	I	
Clogged or Damaged Culvert								
Other X  MAINTENACE  Maintenance Required X  Maintenance Performed X		d Culvert						
MAINTENACE  Maintenance Required  Maintenance Performed  X  X		a Curvert						
Maintenance Required X Maintenance Performed X						^		
Maintenance Performed X				1		X		
	Additional Comments					X		

Mining Area	Seneca II West Mine	Facility C	Configuration	Sto	ckpond		
Date Inspected	6/10/2019	Date Las	st Inspected	3/1	.1/2019		
Impoundment	Stock Tank T-25	Pond	Location	SW¼NE¼, Se	ec 34, T5N, R88W	Qua	rterly Impoundment Inspection Form
NPDES ID No	N/A	Site 1	Location	8 mi S of	Hayden, CO	_	<b>J</b> 1
Owner's Rep	Miranda Kawcak	Ins	pector	Jasor	n Herden		
			Mark	or Write	in Appropriat	e Respons	se:
	FEATURE			PROF	BLEM		COMMENTS
			YES (Ab	ove)	NO (Bel	ow)	
GENERAL							
Water Level (above or	below principal spillw	ay)			N/A		Dry
EROSION							
Rills & Gullies on Em	bankment				N/A		
Wave Erosion					N/A		
Spillway Erosion					N/A		
Burrows					N/A		
Other					N/A		
STRUCTURAL				,			
Differential Settling				N/A			
Cracks or Slides			N/A				
Seepage			N/A				
Other					N/A		
STRUCTURES							
Principal Spillway					N/A		
Clogged Orifice							
Clogged or Damage					N/A		
Damaged Headgate	•			ļ	N/A		
Emergency Spillway		1					T
Erosion					N/A		
Riprap	101				N/A		
Clogged or Damage	ea Cuivert				N/A		
Other				N/A			
MAINTENACE					V		DAM DEMOVED FALL 2011 DEDUILT IN 2012 AC A BURNOSS
Maintenance Required Maintenance Performe	Maintenance Required			X			DAM REMOVED FALL 2011, REBUILT IN 2012 AS A RUNOFF
Additional Comments			Х		Х		CONTROL STURCURE (PM1-A3)
Additional Comments			X				

Mining Area	Seneca II West Mine	Facility C	Configuration	on Stockpond			
Date Inspected	6/13/2019	Date La	st Inspected	3/1	1/2019		
Impoundment	Stock Tank T-26	Pond	Location	NE¼NW¼, Sec 35, T5N, R88W		Qua	rterly Impoundment Inspection Form
NPDES ID No	N/A	Site l	Location	8 mi S of Hayden, CO			J 1
Owner's Rep	Miranda Kawcak	Ins	pector	Jasoi	n Herden		
			Mark	or Write	in Appropriat	e Respons	se:
	FEATURE			PRO	BLEM		COMMENTS
			YES (At	ove)	NO (Bel	ow)	
GENERAL							
Water Level (above or	below principal spillwa	ay)			Х		Water level 1.5 feet below spillway
EROSION							
Rills & Gullies on Em	bankment				X		
Wave Erosion					X		
Spillway Erosion					X		
Burrows					X		
Other					X		
STRUCTURAL							
Differential Settling			X				
Cracks or Slides			X				
Seepage			X				
Other					Х		
STRUCTURES							
Principal Spillway							
Clogged Orifice			NA				
Clogged or Damage							
Damaged Headgate	;				NA		
Emergency Spillway			ı				
Erosion					X		
Riprap					Х		
Clogged or Damage	d Culvert				NA		
Other					Х		
MAINTENACE			ı				
Maintenance Required			Х				
Maintenance Performe					X		
Additional Comments					Х		

Mining Area	Seneca II West Mine	Facility C	Facility Configuration		Stockpond		
Date Inspected	6/13/2019	Date La	Date Last Inspected		11/2019		
Impoundment	Stock Tank T-27	Pond	Location NW1/4NW1/4,		W¼NW¼, Sec 35, T5N, R88W		rterly Impoundment Inspection Form
NPDES ID No	N/A	Site	Location	8 mi S o	8 mi S of Hayden, CO		
Owner's Rep	Miranda Kawcak	Ins	pector	Jaso	n Herden		
			Marl		in Appropriat	e Respons	se:
	FEATURE				BLEM		COMMENTS
			YES (At	ove)	NO (Belo	ow)	
GENERAL							
	r below principal spillw	ay)			N/A		Water Level 1.5 feet below spillway
EROSION							
Rills & Gullies on Em	ıbankment				N/A		
Wave Erosion					N/A		
Spillway Erosion					N/A		
Burrows					N/A		
Other					N/A		
STRUCTURAL			T				
Differential Settling					N/A		
Cracks or Slides					N/A		
Seepage					N/A		
Other					N/A		
STRUCTURES							
Principal Spillway			Г		21/2		T
Clogged Orifice	- 1 C-1				N/A		
Clogged or Damag Damaged Headgate					N/A		
Emergency Spillway	e				N/A		
Erosion			I		NI/A		
Riprap					N/A		
Clogged or Damage	magad Culvart		N/A				
Other	eu Cuiveit				N/A N/A		
MAINTENACE					IN/A		
Maintenance Required	1				Х		REBUILT IN 2012 AS A RUNOFF CONTROL STRUCTURE. No access
Maintenance Perform					X		due to winter conditions
Additional Comments			Х		Λ		due to willter conditions
- Idanional Comments	•		<u> </u>				

## **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	IA			1	ř –		1	
SITE ID	COMPANY	MINE	DATE	TIME	WATER LEVEL (FT)	OUTFLOW (GPM)	OBSERVATIONS	MAINTENANCE (Y/N)
002	Sage Creek	Sage Creek	6-11-19	14:45	0.43	207.3		N
003	Sage Creek	Sage Creek	6-11-19	14:15	0.10	२५.छ	Culvertflume broken	Y
004	Sage Creek	Sage Creek	6-11-19	16:15	0.15	191,3		N
Lower Sump	Sage Creek	Sage Creek	6-13-19	56:20	0.08	108.7		N
PECOCO	Sage Creek	Sage Creek	6-12-19	11:30	0.1	139		N
Portal Sump 1	Sage Creek	Sage Creek	6-13-19	00:00	0.1	3		N
Portal Sump 2	Sage Creek	Sage Creek	6-13-19	07:15	_	1	NOT Pumpins	N
Spill Control 2	Sage Creek	Sage Creek	6-13-19	06:40			Pry	N
Truck Wash	Sage Creek	Sage Creek	6-12-19	06:05			Dry	N
Upper Sump	Sage Creek	Sage Creek	6-13-19	07:46	0.1	147	=	N
001	Seneca	Hayden Gulch	6-13-17	09:40	-2.0		No Fbu	N
002	Seneca	Hayden Gulch	4-13-9	07:50	-25		NOTION	N
005	Seneca	Seneca II West	6-6-19	11:00	0.05	78.8	Spring @ dam no impact	N
006	Seneca	Seneca II West	6-10-19	08:50	0.1	190,5	big sluftons side no impact	N
009	Seneca	Seneca II West	6-10-19	(11:35	-2.0	_	No Flow	N
015	Seneca	Seneca II West	6-6-19	11:50	0.10	76.4		N
016	Seneca	Seneca II West	6-10-19	09:05	0.1	154.3	Small seep under flume	Ϋ́
017	Seneca	Seneca II West	6-10-19	10:00	0.1	151.1	allumber running asmulflump	У
T-1	Seneca	Seneca II West	6-13-19	09:40			015	N
T-18	Seneca	Seneca II West	6-13-19	12:45	-1.0	_	NO Flow	
T-2	Seneca	Seneca II West	6-13-19	10:30	-75	_	NO Flow	N
T-20	Seneca	Seneca II West	6-13-19	13:10	-3		No Flow	N
T-22	Seneca	Seneca II West	6-13-19	13:30	0.1	12.7		N
T-24	Seneca	Seneca II West	6-13-19	14:10	=	_	Dia	N
T-25	Seneca	Seneca II West	6-6-19	10:10			Dis	N
T-26	Seneca	Seneca II West			-1.5	_	No flow	N

008

6-12-19 13:00 0:1 1

117 outletpipe has risen Y
Cleantologinte + patweights on
WWCENGINEERING
IMPOUNDMENT INSPECTION LOG

SITE ID	COMPANY	MINE	DATE	TIME	WATER LEVEL (FT)	OUTFLOW (GPM)	OBSERVATIONS	MAINTENANCE (Y/N)
T-27	Seneca	Seneca II West	6-13-19	11:30	-1,3		NOFION	N
T-3	Seneca	Seneca II West	6-13-19	DS:35	-3a	_	NO Flow	N
T-5	Seneca	Seneca II West	6-13-19	10'.50	- 2.5	_	NoFlow	N
010	Seneca	Yoast	6-11-19	12:45	0.1	186.3	ontlet pipe justed through	У
011	Seneca	Yoast	6-11-19	07:10	0.1	45.4		N
011A	Seneca	Yoast	6-11-19	18:30	4		NO Flow	N
012	Seneca	Yoast	6-10-19	12:20	0.08	204,3	NO Flow	N
012A	Seneca	Yoast		06:40	1	~	No Flow	N
013	Seneca	Yoast	6-14-19	06:30	1	_	NGFlow	N
014	Seneca	Yoast		07:15	-,1	_	NO Flow	N
ST-1	Seneca	Yoast	4-17-19	15:15	-1.0		NO Flow	N

CLIMATIC CONDITIONS:	
FIELD PERSONNEL: JH	FIELD PERSONNEL SIGNATURE:
NOTES	
NOTES	