



Peabody Sage Creek Mining, LLC

Peabody Sage Creek Mine
PO Box 250
36600 Routt County Road 27
Hayden, CO. 81639

October 16th, 2021

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

RE: 3rd Quarter and Annual Pond Inspections – Sage Creek Mine (C 2009-087)

Ms. Lynch:

Enclosed are the 3rd quarter 2021 and Annual pond inspection reports for the Peabody Sage Creek Mine. I personally inspected each pond and have 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,

Miranda Kawcak
Environmental Manager
Peabody, Colorado Operations

Attachments:

Professional Engineer Certification (Miranda Lynn Kawcak, P.E.)
Inspection Reports

CERTIFICATION

I, Miranda Lynn Kawcak, a registered engineer in the State of Colorado do hereby certify that I have reviewed the attached Sage Creek Mine Sediment Pond Reports covering the third quarter of 2021, and that they are true and correct to the best of my knowledge and belief.



Miranda Lynn Kawcak
CO P.E. No. 59419

Date

PERIODIC INSPECTION FORM: Water, Sediment, or Slurry Impoundments				
INSPECTOR'S NAME: Miranda Kawcak		DATE: 9/23/2021		
NPDES I.D. NO.: CO-0048275 D.P. 002				
FACILITY CONFIGURATION: Incised Pond		DATE LAST INSPECTION: 6/15/2021		
SITE NAME: Wadge Impoundment #002		LOCATION: NW¼ NE¼, Sec. 2, T5N, R87W		
MINE NAME: Peabody Sage Creek Mine		LOCATION: 7.1 mi. SE of Hayden, CO		
MINE I.D. NO.: CMLRD Permit No. C-2009-087		OWNER'S REP.: Miranda Kawcak		
CIRCLE OR WRITE IN APPROPRIATE RESPONSE:		YES	NO	N/A
1	Foundation preparation (removal of vegetation, stumps, topsoil:			x
2	Lift thickness:			x
3	Compaction according to approved plan:			x
4	Burning (specify extent and location):			x
5	Angle of slope: _____ upstream, _____ downstream	Total = N/A		
6	*Seepage (specify location, color, and approximate volume)			
	From underdrain pipes			x
	At isolated points on embankment slopes			x
	At natural hillside:			x
	Over widespread areas:			x
	From downstream foundation area:			x
	"Boils" beneath stream or ponded water:		x	
7	Cracks or scarps on crest:			x
8	Cracks or scarps on slope:			x
9	Sloughing or bulging on slope:			x
10	*Major erosion problems:		x	
11	Surface movements in valley bottom or on hillside:		x	
12	*Erosion of toe:			x
13	*Water impounded against toe:			x
14	Existing embankment freeboard = 0 feet			
15	_____ Increase _____ Decrease in water level: <u>Same</u>			
16	Cracks, bulging, or erosion on upstream face:			x
17	Visible sumps or sinkholes in slurry surface:			x
18	*Clogging			
	Spillway channels and pipes:		x	
	Decant system:			x
	Diversion ditches:		x	
19	*Cracking or crushing of pipes			
	Spillway pipes:			x
	Decant system:			x
20	Trash racks clear and in place:			x
21	Discharge rate (gpm) = ~30			
<p>*Major adverse changes in these items could cause instability and should be reported to the Engineering Manager and Mine Superintendent for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) here: Flume needs sealed with bentonite to stop water from flowing under flume</p>				

PERIODIC INSPECTION FORM: Water, Sediment, or Slurry Impoundments				
INSPECTOR'S NAME: Miranda Kawcak		DATE: 9/23/2021		
NPDES I.D. NO.: CO-0048275 D.P. 003				
FACILITY CONFIGURATION: Diked Pond		DATE LAST INSPECTION: 6/15/2021		
SITE NAME: Wadge Impoundment #003		LOCATION: SE¼ SW¼, Sec. 27, T6N, R87W		
MINE NAME: Peabody Sage Creek Mine		LOCATION: 7.1 mi. SE of Hayden, CO		
MINE I.D. NO.: CMLRD Permit No. C-2009-087		OWNER'S REP.: Miranda Kawcak		
CIRCLE OR WRITE IN APPROPRIATE RESPONSE:		YES	NO	N/A
1	Foundation preparation (removal of vegetation, stumps, topsoil:	x		
2	Lift thickness = 12 inches			
3	Compaction according to approved plan:	x		
4	Burning (specify extent and location):		x	
5	Angle of slope: <u>2:1</u> upstream, <u>3:1</u> downstream	Total = 5:1		
6	*Seepage (specify location, color, and approximate volume)			
	From underdrain pipes			x
	At isolated points on embankment slopes		x	
	At natural hillside:		x	
	Over widespread areas:		x	
	From downstream foundation area:		x	
	"Boils" beneath stream or ponded water:		x	
7	Cracks or scarps on crest:		x	
8	Cracks or scarps on slope:		x	
9	Sloughing or bulging on slope:		x	
10	*Major erosion problems:		x	
11	Surface movements in valley bottom or on hillside:		x	
12	*Erosion of toe:		x	
13	*Water impounded against toe:		x	
14	Existing embankment freeboard (4.9' is normal) = 5.4'			
15	_____ Increase _____ Decrease in water level: <u>Same</u>			
16	Cracks, bulging, or erosion on upstream face:		x	
17	Visible sumps or sinkholes in slurry surface:			x
18	*Clogging			
	Spillway channels and pipes:		x	
	Decant system:			x
	Diversion ditches:		x	
19	*Cracking or crushing of pipes			
	Spillway pipes:			x
	Decant system:			x
20	Trash racks clear and in place:	x		
21	Discharge rate (gpm) = 0 gpm			
<p><i>*Major adverse changes in these items could cause instability and should be reported to the Engineering Manager and Mine Superintendent for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) here: Rodent burrows need to occasionally be filled in - ongoing maintenance. Weir needs replaced, still operable by hand but will ultimately need replaced.</i></p>				

PERIODIC INSPECTION FORM: Water, Sediment, or Slurry Impoundments				
INSPECTOR'S NAME:		DATE:		
NPDES I.D. NO.: CO-0048275 D.P. 003				
FACILITY CONFIGURATION: Diked Pond		DATE LAST INSPECTION:		
SITE NAME: South Section 12 Pond #004		LOCATION: SW¼ SE¼, Sec. 12, T5N, R87W		
MINE NAME: Peabody Sage Creek Mine		LOCATION: 7.1 mi. SE of Hayden, CO		
MINE I.D. NO.: CMLRD Permit No. C-2009-087		OWNER'S REP.: Miranda Kawcak		
CIRCLE OR WRITE IN APPROPRIATE RESPONSE:		YES	NO	N/A
1	Foundation preparation (removal of vegetation, stumps, topsoil:			
2	Lift thickness = 12 inches			
3	Compaction according to approved plan:			
4	Burning (specify extent and location):			
5	Angle of slope: <u>5:1</u> upstream, <u>2:1</u> downstream	Total = 7:1		
6	*Seepage (specify location, color, and approximate volume)			
	From underdrain pipes			
	At isolated points on embankment slopes			
	At natural hillside:			
	Over widespread areas:			
	From downstream foundation area:			
	"Boils" beneath stream or ponded water:			
7	Cracks or scarps on crest:			
8	Cracks or scarps on slope:			
9	Sloughing or bulging on slope:			
10	*Major erosion problems:			
11	Surface movements in valley bottom or on embankment:			
12	*Erosion of toe:			
13	*Water impounded against toe:			
14	Existing embankment freeboard (4.8' - 6.0') = 4.8'			
15	____ Increase ____ Decrease in water level:			
16	Cracks, bulging, or erosion on downstream face:			
17	Visible sumps or sinkholes in slurry surface:			
18	*Clogging			
	Spillway channels and pipes:			
	Decant system:			
	Diversion ditches:			
19	*Cracking or crushing of pipes			
	Spillway pipes:			
	Decant system:			
20	Trash racks clear and in place:			
21	Discharge rate (gpm) =			
<p>*Major adverse changes in these items could cause instability and should be reported to the Engineering Manager and Mine Superintendent for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) here: None</p>				

PERIODIC INSPECTION FORM: Water, Sediment, or Slurry Impoundments					
INSPECTOR'S NAME: Miranda Kawcak			DATE: 9/23/2021		
NPDES I.D. NO.: N/A					
FACILITY CONFIGURATION: Incised Pond			DATE LAST INSPECTION: 6/17/2021		
SITE NAME: Spill Control Pond #2			LOCATION: NW¼ NE¼, Sec. 34, T6N, R87W		
MINE NAME: Peabody Sage Creek Mine			LOCATION: 7.1 mi. SE of Hayden, CO		
MINE I.D. NO.: CMLRD Permit No. C-2009-087			OWNER'S REP.: Miranda Kawcak		
CIRCLE OR WRITE IN APPROPRIATE RESPONSE:			YES	NO	N/A
1	Foundation preparation (removal of vegetation, stumps, topsoil:		x		
2	Lift thickness = N/A				
3	Compaction according to approved plan:				x
4	Burning (specify extent and location):				x
5	Angle of slope: ___upstream, ___downstream		N/A		
6	*Seepage (specify location, color, and approximate volume)				
	From underdrain pipes				x
	At isolated points on embankment slopes			x	
	At natural hillside:			x	
	Over widespread areas:			x	
	From downstream foundation area:			x	
	"Boils" beneath stream or ponded water:			x	
7	Cracks or scarps on crest:			x	
8	Cracks or scarps on slope:			x	
9	Sloughing or bulging on slope:			x	
10	*Major erosion problems:			x	
11	Surface movements in valley bottom or on hillside:			x	
12	*Erosion of toe:			x	
13	*Water impounded against toe:			x	
14	Existing embankment freeboard (7.0' is normal) = 7.0'				
15	___ Increase ___ Decrease in water level:				
16	Cracks, bulging, or erosion on upstream face:			x	
17	Visible sumps or sinkholes in slurry surface:				x
18	*Clogging				
	Spillway channels and pipes:			x	
	Decant system:				x
	Diversion ditches:				x
19	*Cracking or crushing of pipes				
	Spillway pipes:				x
	Decant system:				x
20	Trash racks clear and in place:				x
21	Discharge rate (gpm) = 0				
<p>*Major adverse changes in these items could cause instability and should be reported to the Engineering Manager and Mine Superintendent for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) here: None</p>					

PERIODIC INSPECTION FORM: Water, Sediment, or Slurry Impoundments					
INSPECTOR'S NAME: Miranda Kawcak			DATE: 9/23/2021		
NPDES I.D. NO.: N/A					
FACILITY CONFIGURATION: Final Pit Impoundment			DATE LAST INSPECTION: 6/17/2021		
SITE NAME: Pecoco Reservoir			LOCATION: SW¼ NW¼, Sec. 2, T5N, R87W		
MINE NAME: Peabody Sage Creek Mine			LOCATION: 7.1 mi. SE of Hayden, CO		
MINE I.D. NO.: CMLRD Permit No. C-2009-087			OWNER'S REP.: Miranda Kawcak		
CIRCLE OR WRITE IN APPROPRIATE RESPONSE:			YES	NO	N/A
1	Foundation preparation (removal of vegetation, stumps, topsoil:		x		
2	Lift thickness = None - Pit Impoundment				
3	Compaction according to approved plan:		x		x
4	Burning (specify extent and location):			x	
5	Angle of slope: <u>5:1</u> upstream, <u>2:1</u> downstream		Total = 7:1		
6	*Seepage (specify location, color, and approximate volume)				
	From underdrain pipes				x
	At isolated points on embankment slopes			x	
	At natural hillside:			x	
	Over widespread areas:			x	
	From downstream foundation area:			x	
	"Boils" beneath stream or ponded water:			x	
7	Cracks or scarps on crest:			x	
8	Cracks or scarps on slope:			x	
9	Sloughing or bulging on slope:			x	
10	*Major erosion problems:			x	
11	Surface movements in valley bottom or on hillside:			x	
12	*Erosion of toe:			x	
13	*Water impounded against toe:			x	
14	Existing embankment freeboard (6.1' is normal) = 6.1'				
15	_____ Increase _____ Decrease in water level: No Change				
16	Cracks, bulging, or erosion on upstream face:			x	
17	Visible sumps or sinkholes in slurry surface:				x
18	*Clogging				
	Spillway channels and pipes:			x	
	Decant system:				x
	Diversion ditches:				x
19	*Cracking or crushing of pipes				
	Spillway pipes:			x	
	Decant system:				x
20	Trash racks clear and in place:				x
21	Discharge rate (gpm) = ~40 GPM				
<p>*Major adverse changes in these items could cause instability and should be reported to the Engineering Manager and Mine Superintendent for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) here: None</p>					

PERIODIC INSPECTION FORM: Water, Sediment, or Slurry Impoundments				
INSPECTOR'S NAME: Miranda Kawcak		DATE: 9/23/2021		
NPDES I.D. NO.: N/A				
FACILITY CONFIGURATION: Diked Pond		DATE LAST INSPECTION: 6/17/2021		
SITE NAME: Lower Sump		LOCATION: SE¼, Sec. 34, T6N, R87W		
MINE NAME: Peabody Sage Creek Mine		LOCATION: 7.1 mi. SE of Hayden, CO		
MINE I.D. NO.: CMLRD Permit No. C-2009-087		OWNER'S REP.: Miranda Kawcak		
CIRCLE OR WRITE IN APPROPRIATE RESPONSE:		YES	NO	N/A
1	Foundation preparation (removal of vegetation, stumps, topsoil:	x		
2	Lift thickness =			
3	Compaction according to approved plan:	x		
4	Burning (specify extent and location):		x	
5	Angle of slope: ___upstream, ___downstream	N/A		
6	*Seepage (specify location, color, and approximate volume)			
	From underdrain pipes			x
	At isolated points on embankment slopes		x	
	At natural hillside:		x	
	Over widespread areas:		x	
	From downstream foundation area:		x	
	"Boils" beneath stream or ponded water:		x	
7	Cracks or scarps on crest:		x	
8	Cracks or scarps on slope:		x	
9	Sloughing or bulging on slope:		x	
10	*Major erosion problems:		x	
11	Surface movements in valley bottom or on hillside:		x	
12	*Erosion of toe:		x	
13	*Water impounded against toe:		x	
14	Existing embankment freeboard =			
15	___ Increase ___ Decrease in water level: NO Change			
16	Cracks, bulging, or erosion on upstream face:		x	
17	Visible sumps or sinkholes in slurry surface:			x
18	*Clogging			
	Spillway channels and pipes:		x	
	Decant system:			x
	Diversion ditches:		x	
19	*Cracking or crushing of pipes			
	Spillway pipes:			x
	Decant system:			x
20	Trash racks clear and in place:	x		
21	Discharge rate (gpm) = ~30 gpm			
<p>*Major adverse changes in these items could cause instability and should be reported to the Engineering Manager and Mine Superintendent for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) here: None</p>				

PERIODIC INSPECTION FORM: Water, Sediment, or Slurry Impoundments				
INSPECTOR'S NAME: Miranda Kawcak		DATE: 9/23/2021		
NPDES I.D. NO.: N/A				
FACILITY CONFIGURATION: Incised Pond		DATE LAST INSPECTION: 6/017/2021		
SITE NAME: Truck Wash Settling Pond		LOCATION: NW¼ NE¼, Sec. 34, T6N, R87W		
MINE NAME: Peabody Sage Creek Mine		LOCATION: 7.1 mi. SE of Hayden, CO		
MINE I.D. NO.: CMLRD Permit No. C-2009-087		OWNER'S REP.: Miranda Kawcak		
CIRCLE OR WRITE IN APPROPRIATE RESPONSE:		YES	NO	N/A
1	Foundation preparation (removal of vegetation, stumps, topsoil:	x		
2	Lift thickness = N/A			
3	Compaction according to approved plan:			x
4	Burning (specify extent and location):			x
5	Angle of slope: ___upstream, ___downstream	N/A		
6	*Seepage (specify location, color, and approximate volume)			
	From underdrain pipes			x
	At isolated points on embankment slopes			x
	At natural hillside:			x
	Over widespread areas:			x
	From downstream foundation area:			x
	"Boils" beneath stream or ponded water:		x	
7	Cracks or scarps on crest:			x
8	Cracks or scarps on slope:			x
9	Sloughing or bulging on slope:			x
10	*Major erosion problems:		x	
11	Surface movements in valley bottom or on hillside:			x
12	*Erosion of toe:			x
13	*Water impounded against toe:			x
14	Existing embankment freeboard (5.0' is normal) = Dry			
15	___ Increase ___ Decrease in water level: No Change			
16	Cracks, bulging, or erosion on upstream face:			x
17	Visible sumps or sinkholes in slurry surface:			x
18	*Clogging			
	Spillway channels and pipes:		x	
	Decant system:			x
	Diversion ditches:			x
19	*Cracking or crushing of pipes			
	Spillway pipes:		x	
	Decant system:			x
20	Trash racks clear and in place:	x		
21	Discharge rate (gpm) = 0			
<p>*Major adverse changes in these items could cause instability and should be reported to the Engineering Manager and Mine Superintendent for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) here: None</p>				

PERIODIC INSPECTION FORM: Water, Sediment, or Slurry Impoundments				
INSPECTOR'S NAME: Miranda Kawcak		DATE: 9/23/2021		
NPDES I.D. NO.: N/A				
FACILITY CONFIGURATION: Diked Pond		DATE LAST INSPECTION: 6/17/2021		
SITE NAME: Upper Sump		LOCATION: NW¼, Sec. 3, T5N, R87W7W		
MINE NAME: Peabody Sage Creek Mine		LOCATION: 7.1 mi. SE of Hayden, CO		
MINE I.D. NO.: CMLRD Permit No. C-2009-087		OWNER'S REP.: Miranda Kawcak		
CIRCLE OR WRITE IN APPROPRIATE RESPONSE:		YES	NO	N/A
1	Foundation preparation (removal of vegetation, stumps, topsoil:	x		
2	Lift thickness =			
3	Compaction according to approved plan:	x		
4	Burning (specify extent and location):		x	
5	Angle of slope: ___upstream, ___downstream	N/A		
6	*Seepage (specify location, color, and approximate volume)			
	From underdrain pipes			x
	At isolated points on embankment slopes		x	
	At natural hillside:		x	
	Over widespread areas:		x	
	From downstream foundation area:	x		
	"Boils" beneath stream or ponded water:		x	
7	Cracks or scarps on crest:		x	
8	Cracks or scarps on slope:		x	
9	Sloughing or bulging on slope:		x	
10	*Major erosion problems:		x	
11	Surface movements in valley bottom or on hillside:		x	
12	*Erosion of toe:		x	
13	*Water impounded against toe:		x	
14	Existing embankment freeboard =			
15	___Increase ___Decrease in water level: No Change			
16	Cracks, bulging, or erosion on upstream face:		x	
17	Visible sumps or sinkholes in slurry surface:			x
18	*Clogging			
	Spillway channels and pipes:		x	
	Decant system:			x
	Diversion ditches:			x
19	*Cracking or crushing of pipes			
	Spillway pipes:		x	
	Decant system:			x
20	Trash racks clear and in place:	x		
21	Discharge rate (gpm) = ~40 GPM			
<p>*Major adverse changes in these items could cause instability and should be reported to the Engineering Manager and Mine Superintendent for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) here: None</p>				

PERIODIC INSPECTION FORM: Water, Sediment, or Slurry Impoundments				
INSPECTOR'S NAME: Miranda Kawcak		DATE: 9/23/2021		
NPDES I.D. NO.: N/A				
FACILITY CONFIGURATION: Diked Pond		DATE LAST INSPECTION: 6/17/2021		
SITE NAME: Portal Sump #1 (upper north)		LOCATION: NW¼, Sec. 3, T5N, R87W		
MINE NAME: Peabody Sage Creek Mine		LOCATION: 7.1 mi. SE of Hayden, CO		
MINE I.D. NO.: CMLRD Permit No. C-2009-087		OWNER'S REP.: Miranda Kawcak		
CIRCLE OR WRITE IN APPROPRIATE RESPONSE:		YES	NO	N/A
1	Foundation preparation (removal of vegetation, stumps, topsoil:	x		
2	Lift thickness = 12"			
3	Compaction according to approved plan:	x		
4	Burning (specify extent and location):		x	
5	Angle of slope: ___upstream, ___downstream	N/A		
6	*Seepage (specify location, color, and approximate volume)			
	From underdrain pipes			x
	At isolated points on embankment slopes			x
	At natural hillside:			x
	Over widespread areas:			x
	From downstream foundation area:			x
	"Boils" beneath stream or ponded water:		x	
7	Cracks or scarps on crest:			x
8	Cracks or scarps on slope:			x
9	Sloughing or bulging on slope:			x
10	*Major erosion problems:		x	
11	Surface movements in valley bottom or on hillside:		x	
12	*Erosion of toe:			x
13	*Water impounded against toe:			x
14	Existing embankment freeboard = No Change			
15	___ Increase ___ Decrease in water level:			
16	Cracks, bulging, or erosion on upstream face:			x
17	Visible sumps or sinkholes in slurry surface:			x
18	*Clogging			
	Spillway channels and pipes:		x	
	Decant system:			x
	Diversion ditches:			x
19	*Cracking or crushing of pipes			
	Spillway pipes:		x	
	Decant system:			x
20	Trash racks clear and in place:			x
21	Discharge rate (gpm) = ~5GPM			
<p>*Major adverse changes in these items could cause instability and should be reported to the Engineering Manager and Mine Superintendent for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) here: None</p>				

PERIODIC INSPECTION FORM: Water, Sediment, or Slurry Impoundments				
INSPECTOR'S NAME: Miranda Kawcak		DATE: 9/23/2021		
NPDES I.D. NO.: N/A				
FACILITY CONFIGURATION: Diked Pond		DATE LAST INSPECTION: 6/17/2021		
SITE NAME: Portal Sump #2 (Lower South)		LOCATION: NW¼, Sec. 3, T5N, R87W		
MINE NAME: Peabody Sage Creek Mine		LOCATION: 7.1 mi. SE of Hayden, CO		
MINE I.D. NO.: CMLRD Permit No. C-2009-087		OWNER'S REP.: Miranda Kawcak		
CIRCLE OR WRITE IN APPROPRIATE RESPONSE:		YES	NO	N/A
1	Foundation preparation (removal of vegetation, stumps, topsoil:	x		
2	Lift thickness = 12"			
3	Compaction according to approved plan:	x		
4	Burning (specify extent and location):		x	
5	Angle of slope: ___upstream, ___downstream	N/A		
6	*Seepage (specify location, color, and approximate volume)			
	From underdrain pipes			x
	At isolated points on embankment slopes			x
	At natural hillside:			x
	Over widespread areas:			x
	From downstream foundation area:			x
	"Boils" beneath stream or ponded water:		x	
7	Cracks or scarps on crest:			x
8	Cracks or scarps on slope:			x
9	Sloughing or bulging on slope:			x
10	*Major erosion problems:		x	
11	Surface movements in valley bottom or on hillside:		x	
12	*Erosion of toe:			x
13	*Water impounded against toe:			x
14	Existing embankment freeboard = No Change			
15	___ Increase ___ X Decrease in water level:			
16	Cracks, bulging, or erosion on upstream face:			x
17	Visible sumps or sinkholes in slurry surface:			x
18	*Clogging			
	Spillway channels and pipes:		x	
	Decant system:			x
	Diversion ditches:			x
19	*Cracking or crushing of pipes			
	Spillway pipes:		x	
	Decant system:			x
20	Trash racks clear and in place:			x
21	Discharge rate (gpm) = 0			
<p>*Major adverse changes in these items could cause instability and should be reported to the Engineering Manager and Mine Superintendent for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) here: Not Pumping</p>				