Annual Report Certifying Work Performed at Alternative Bonding System (ABS) Legacy Sites

Pursuant to a settlement agreement in *Pennsylvania Federation of Sportsmen's Clubs, Inc. v. Quigley*, Civil No. 1:99-CV-1791, dated November 2, 2016, the Department of Environmental Protection (Department or DEP) submitted to the U.S. Office of Surface Mining Reclamation and Enforcement (OSMRE) a proposed amendment to the federally approved Pennsylvania surface coal mining regulatory program. The amendment, subsequently approved by OSMRE on July 10, 2017 (82 FR 31715), requires the Department to, *inter alia*, complete land reclamation and/or install or perform certain work on water treatment systems at several sites (included in Lists #3 and #4, attached below) permitted under the Commonwealth's now-defunct Alternative Bonding System (ABS).

The settlement agreement stipulates that by January 31 of each year, the Department will provide to OSMRE and make publicly available through its web site, a report certifying the progress made during the preceding calendar year toward satisfying those obligations. This annual certification will cease when the Department certifies that all such work at these sites is complete. The settlement agreement further stipulated that the Department will take all actions within its authority and control to ensure that the land reclamation and/or water treatment work at the listed sites is completed by December 31, 2018. This report characterizes all sites on Lists #3 and #4 not already certified as complete in the Department's 2016 and 2017 reports, including sites for which work was not completed by December 31, 2018. Due to site-specific complications, the Department was not able to complete the work at all sites by the deadline set forth in the 2017 program amendment. For sites at which work was not completed, the Department submitted to OSMRE, and OSMRE approved, an action plan to complete the work, requiring DEP to:

- 1. Identify remaining sites from attachment 3 needing reclamation; obstacles to achieving goals and reclamation schedule by September 30, 2019. This was completed and sent to OSMRE on August 28, 2019.
- 2. Develop landowner access, design and contracting packages for reclamation of Sites to be completed by October 1, 2020.
- 3. Submit progress reports to OSMRE during PADEP/OSMRE periodic program management meetings as scheduled; and
- 4. Complete land reclamation and treatment system work by December 31, 2020.

On December 4, 2020, the Department requested an extension under the action plan. On December 8, 2020, OSMRE approved the extension with a revised completion date of December 31, 2023.

In addition to certifying work the Department has performed at the ABS legacy sites identified as in need of work, the Department includes in this report steps it has taken to add or remove sites from its list of ABS legacy sites.

Under the settlement agreement and approved program amendment, in order to add sites to, or remove sites from, the list of ABS legacy sites on Lists #1 and #2, the Department must: (1) request concurrence from OSMRE consistent with OSMRE's oversight authority; and (2) publish in the Pennsylvania Bulletin a notice of the sites added or removed with a brief explanation of the basis for the change.

Removal from Lists #1 and #2 may occur if there is no longer a post-mining discharge requiring treatment, if the amount of bond posted becomes sufficient to guarantee adequate treatment of discharges, or if a fully funded trust fund is established that will guarantee discharge treatment in perpetuity. The Department includes a summary of those actions in this report only to provide a complete accounting of its progress under the settlement agreement and not to substitute those separate requirements.

The lists attached at the end of this report indicate the status of each of the sites identified in the settlement agreement, including sites that have been "removed" by prior reports due to certification of completed work or other reason.

I. ABS Legacy Sites (Program Amendment Attachment 1)

DEP has requested concurrence from the OSMRE to remove the following sites from the list of ABS Legacy Sites:

Sunbeam Coal Corp, Jacques (Permit No. 10830121). The Department has determined that the treatment of the discharge, D1, is unreasonable under the approved program (25 Pa. Code §86.190) based primarily on the fact that the treatment of the discharge would exacerbate existing site conditions and create adverse impacts to existing riparian wetlands. There is no longer a post-mining discharge requiring treatment under program amendment language approved by the OSMRE on July 10, 2017.

II. Potential ABS Legacy Sites (Program Amendment Attachment 2)

DEP requested concurrence from OSMRE to remove the following Trust Fund for potential ABS Legacy Sites on February 19, 2021:

The MB Energy Inc. Grabiak Strip (Permit No. 11830102), Dietrich Mine (Permit No. 32810135), CBC Strip (Permit No. 32820134), Campbell Skovira Mine (Permit No. 65810113) and Ridge Road Mine (Permit No. 65860105) were requested to be removed from the list because the Post-Mining Discharge Treatment Trust was executed on January 3, 2019 and fully funded as of January 4, 2019. OSMRE withheld concurrence of the above-mentioned permits due to issues identified with the treatment systems and annual operating costs that MB Energy reports to the Department. The Department is currently working toward a resolution.

The Cooney Brothers Coal Co. Trust which includes the following permits: Pot Ridge 2 Strip (Permit No. 11803038), Feller 2 Strip (Permit No. 11813039); Dunlo 1 Strip (Permit No. 11813040), Bethlehem Strip (Permit No. 11850104), and Pot Ridge Lasky Strip (Permit No. 56743138) were under the administration of the estate of the late Mr. Paul Cooney and the company continued to provide treatment at all the sites. On July 12, 2022, an amendment to the CO&A provided that operation and maintenance of the Cooney Brothers Postmining Treatment Trust be turned over to the Department and the Clean Streams Foundation. The trust remains underfunded and as a result remains on Attachment #2.

The Department will be requesting concurrence from OSMRE to remove the Cooney Bros. Coal Co. Caroff Strip (Permit No. 11773037) from Attachment #2 as the water quality standards are now being met. There is no longer a post-mining discharge requiring treatment under program amendment language approved by the OSMRE on July 10, 2017.

The Department will also be requesting concurrence from OSMRE to remove the MB Energy Inc. Brush Valley #1 (Permit No. 32880108), which consisted of two small discharges following reclamation in the early 1990's that subsequently improved on their own by 2012 and the Department released the remaining bonds, from Attachment #2. There is no longer a post-mining discharge requiring treatment under program amendment language approved by the OSMRE on July 10, 2017.

III. Land Reclamation (Program Amendment Attachment 3)

Under the program amendment, the Department provides a report certifying progress made during the previous year toward satisfying the obligation to complete the land reclamation for the ABS Land Reclamation sites. Brief descriptions follow for the sites where work has been completed, is nearing completion, or requires additional work:

Power Operating Co., Inc. (Vought), Permit Number 17820114

Starting in 2018 the Department began working with Junior Coal Contracting, Inc. (Junior) on revising SMP #17080107 (Vought), which encompasses the un-reclaimed pit, highwall, and spoil on the Vought ABS permit. Junior wanted to move from carrying out primarily a reclamation project to a focus on coal removal. After delays in the start of this project due to Junior's unwillingness to start mining because of the poor coal market, the Department extended the approved Growing Greener Remining Incentive Grant for \$500,000 in alkaline additions to the maximum possible term, to expire December 31, 2020. The 2010 Bond Credit Consent Order and Agreement (COA) detailing the use of the incentive grant and application of bond credits was updated and rewritten as COA 184019. All parties had agreed on the revised details of the COA which ties together the permit, bond credit, and grant, but signing was delayed as a MSHA Ground Control Plan was awaiting approval. COA 184019 was never signed by Junior, and on January 19, 2021 Junior requested that the Growing Greener Remining Incentive Grant be terminated. The Growing Greener Grant was canceled, and the funds have been released.

The Department decided to move forward with an Act 181 Sole Source Reclamation Project to complete the reclamation with Junior Coal as the reclamation contractor. Junior Coal was awarded the Act 181 Sole Source Reclamation Contract No. PBF 17820114.1 in the amount of \$1,438,362.00 on November 15, 2021. After review of the contract, Junior Coal decided not to enter into this contract on November 23, 2021 due to not wanting to pay bonding fees, insurance, or prevailing wages that are required for this contract. The award was cancelled on December 6, 2021.

The Department contacted Junior Coal about deleting the area from the permit so that an Act 181 Reclamation Contract could be put out for bid. Junior didn't delete the area from their permit and in February 2022, Junior Coal again expressed interest in mining coal from the Vought site. The Department gave Junior Coal until April 1, 2022 to make their decision about whether they would mine the site or delete it from the permit. Junior did not respond. Junior's Vought permit expires on September 10, 2023. If Junior decides not to mine and does not post bond and renew their permit by that date, the Act 181 Reclamation Contract will be put out for bid in Fall 2023.

The bond rate calculator for reclamation of the Vought site was updated using the 2022 bond rates. The estimated cost for reclamation is \$1,786,896. Junior is currently working on revisions to the overburden analysis and alkaline addition rates for the backfill. They will submit a new bond increment application.

Global Coal Recovery Inc. (Isabella Mine), Permit Number 26931601

During April 2020, the Freshwater Impoundment water level reached the point of overtopping and in April 2020, the Impoundment began discharging from the notch spillway causing severe erosion. The rise in the water level in less than a year was not anticipated by OSMRE or DEP. The syphon was re-started in April 2020 and broke suction sometime in July 2020 dropping the Freshwater Impoundment approx. 22 ft. Tetra Tech submitted the bid package for the drawdown in July 2020. Tetra Tech completed the grading plan and spillway construction plans and submitted to DEP and TC Energy in Feb. 2021. TC Energy approved the grading plan in July 2021. Line relocation will not be necessary. DEP received the bid documents from Tetra Tech for the grading plan in January 2022. Based on the calculations from the Engineering consultant, the cost to reclaim (Phase I through III) will be approximately 15 million dollars, which is exponentially more than anticipated. Due to the cost to reclaim, SMCRA funding is not an option and the project will need to be funded through the Capital Budget. The Capital Budget process timeline is three to four years. The Project will be completed in phases, listed below.

Phase IA – Fresh Water Impoundment (Drawdown, Pumping Plan, etc.) – Anticipated to begin Summer 2025

Phase IB – Fresh Water Impoundment – (Construction of Spillway, etc.) – Anticipated to begin Summer 2025

Phase II – Land Reclamation – Reclamation of the Pile I and Pile II Pre-Act Areas - Anticipated Summer 2025

Phase III - Treatment System Construction - Anticipated completion date - Fall 2026

Grandstone Coal Co. (Grandstone Site), Permit Number 26840202

Due to complications in the Act 181 landowner process it has been determined that Act 181 is no longer a viable option. Therefore, the Grandstone project will now be completed through a Sole Source Contract. The landowner is a licensed mine operator and the project now is in the negotiation phase between the DMO and the landowner. The landowner's consultant submitted their proposal in December 2021. The DMO has reviewed and approved the proposal, but the project is currently on hold until supplemental funding is available. The original timeline was summer 2022, but based on funding availability, the current timeline is now estimated to be 12/31/2024. DMO will continue to work with BMP regarding funding sources to move up the timeline if possible.

Aspenenergy Inc. (Wilpen Operation), Permit Number 65860201

During 2018, the Department explored options for funding this project under Title IV of the federal Surface Mining Control and Reclamation Act of 1977. This site is Title IV eligible per OSMRE and the Department's Bureau of Abandoned Mine Reclamation (BAMR) field reviewed the site to evaluate options to get the site reclaimed in early 2021. The landowner prefers to repermit the site and declined BAMR's and DMO's offer to reclaim the site. There was a Notice of Intent to Explore waiver submitted by a licensed mine operator in November 2021. Exploration activities were completed at the end of December 2022. The licensed mine operator was not interested in remining the site after reviewing the data from the exploration project. There are no known offsite impacts or AMD discharges emanating from this site. Landowner is currently uncooperative, but DMO will contact the landowner by spring 2023 to gauge interest, since there are currently no parties interested in refuse piles or in re-mining. If the landowner changed their mind, and is willing to allow access for reclamation, DMO will reach out to BAMR to discuss options. If the landowner does not allow reclamation, then an internal discussion will need to be scheduled to discuss on how to proceed.

Ebony Coal Co. (Claridge Sub F Refuse Pile), Permit Number 65920201

From 2019 through present, the Department has attempted to coordinate access to perform the reclamation work and landowner has been unresponsive. The site is stable and well vegetated and based on the upstream and downstream sample data, the stream is not impacted and is of good quality. DEP spoke with the landowner and they do not want the pile removed, as they believe the pre-act piles are still marketable and when the time is right, they will submit a permit application. An unnecessary to reclaim report was recommended since the site is stable, well vegetated, and there are no impacts to the Waters of the Commonwealth.

Inspections were conducted in Fall 2021 to confirm site conditions and the unnecessary to reclaim draft report was submitted up the chain in December 2021 for review and comment.

IV. <u>ABS Legacy Sites That Need Treatment System Work (Program Amendment Attachment 4)</u>

Under the program amendment, the Department provides a report certifying progress made during the previous year toward satisfying the obligation to complete the initial treatment system construction for the ABS Legacy Sites. Brief descriptions follow for the sites where work has been completed, is nearing completion, or requires additional work:

Sunbeam Coal Corp. (Jacques), Permit Number 10830121

A Hydrologic Investigation was conducted by a Licensed Professional Geologist and summarized in the report dated November 2, 2015. The conclusion was that the discharge did not impact the receiving stream Big Run. Another hydrologic investigation dated August 2, 2018, was conducted to evaluate the updated information collected since November 2, 2015. The additional data collected supports the previous conclusion that the water quality of discharge D1 often does not meet effluent limits; however, it does not have a detrimental impact on the receiving stream.

The receiving stream, Big Run, is listed as impaired. There is no Total Maximum Daily Load assigned to the stream.

Big Run is classified as a Cold-Water Fishery (CWF) according to 25 Pa Code §93.9w. The specific water quality criteria according to 25 Pa Code §93.7 for CWF streams are:

Alkalinity – Minimum 20 mg/l

Iron - 30-day average 1.5 mg/l as total recoverable

pH - 6.0 to 9.0

The Department sampled the receiving stream 100 feet upstream (BRU) and 100 feet downstream (BRD) of the discharge monthly from August 2016 to July 2018. None of the samples were outside the specific water quality criteria. The range in water quality of these samples is:

Point	<u>pH</u>	Alkalinity mg/l	Iron mg/l
BRU	6.9 - 7.5	22 - 57	0.4 - 1.2
BRD	7.0 - 7.4	22 - 56	< 0.3 – 1.4

The pH, Alkalinity, and Iron concentrations in the upstream and downstream sample points are well within the Chapter 93 specific water quality criteria. All parameters evaluated remain essentially unchanged between the sampling points 100 feet upstream and 100 feet downstream of the discharge entering the stream. Therefore, the Department believes the segment of Big Run between BRU and BRD is meeting its designated use and is not impaired by the discharge D1.

It was suggested that the Department look for an offset site within the watershed. Big Run drains to Muddy Creek which flows into Moraine State Park. The Department searched known records and conducted a field investigation to identify potential offset sites. The Department concluded that there are no offset sites within the watershed.

The Department has determined that the treatment of the discharge D1 is unreasonable under the approved program (25 Pa. Code §86.190) based primarily on the fact that the treatment of the discharge would exacerbate existing site conditions and create adverse impacts to existing riparian wetlands. There is no discharge that must be treated under program amendment language approved by the OSMRE on July 10, 2017.

R.S. Carlin (Mine #26), Permit Number 14663010

The unreasonable to treat report was sent to OSMRE on July 15, 2020. From 2018 to 2019, the Department conducted water monitoring and flow measurements of discharge TSNO and the next three levels of receiving stream to complete mass balance calculations. These calculations were used to assess what impact constructing a treatment system might have in these severely impacted waters. Geochemist Workbench software was used to run mass balance calculations. The unreasonable to treat report recommends reconsideration of treating the TSNO discharge until other pressing issues in this watershed are addressed. TSNO is located within a 486 acre subwatershed that has multiple water quality impacts. A cooperative project should be implemented between the Bureau of Abandoned Mine Reclamation, District Mining Operations, and perhaps others to achieve a positive improvement. In addition to treatment of the 60 gpm TSNO discharge the following should be addressed:

- Treatment of 800 gpm of deep mine discharges from abandoned mines located upstream of TSNO that flow to a tributary of Sandy Creek;
- Reclaim an adjacent 77 acres of abandoned surface mine that includes approximately 1,500 feet of highwall and a 700 foot long water filled pit;
- Address the upstream pollution in the small unnamed tributary that TSNO discharges into.

Discharging treated water from TSNO into the contaminated tributary would have no environmental benefit until these other larger environmental impacts are addressed. The District Mining Office alerted the Department's Bureau of Abandoned Mine Reclamation (BAMR) about the existence of the 77-acre abandoned and un-reclaimed surface mine, which was absent from BAMR's abandoned mine inventory. BAMR has since conducted investigations and added the 77-acre site to the abandoned mine inventory. BAMR plans to reclaim this abandoned mine land in the future.

The bond money from the R.S. Carlin Mine #26 forfeiture was used to complete a reclamation project on Pennsylvania State Game Lands 100 in the Contrary Run watershed in place of treatment of the TSNO discharge. A Consent Order and Agreement (CO&A) was entered into between the Pennsylvania Department of Environmental Protection (Department) and Travelers Casualty and Surety Company to use surety bond money from R.S. Carlin Mine #26 for the Contrary Run Watershed Restoration Surety Reclamation Project: Pennsylvania State Game Lands 100. This CO&A is dated November 21, 2007. Travelers posted reclamation surety bonds for the R.S. Carlin #26 Mine in the amounts of \$24,500; \$58,100; and \$18,000. These surety bonds were used for restoration projects on Contrary Run.

One of the projects involved the removal of coal refuse deposited adjacent to and in Contrary Run and the replacement of a stream crossing over Contrary Run that had been washed out. Replacement of the stream crossing restored access to certain areas of State Game Lands 100 (SGL 100) for future reclamation and mine drainage treatment projects. Travelers also reclaimed a 2.4 acre area of abandoned mine lands on SGL 100 to be used as a wildlife food and cover plot and dewatered an acid mine drainage filled impoundment. Travelers completed this off-site reclamation in lieu of collection by the Department of the the forfeited reclamation bonds on the R.S. Carlin #26 Mine.

Removal of the coal refuse from the streambed improved the water quality in Contrary Run. Reclamation of the abandoned mine lands on SGL 100 improved public lands in the Sandy Run Watershed and improved wildlife habitat.

These reclamation and improvement projects are of much greater benfit to the Commonwealth than what would be accomplished by collection of the forfeited reclamation bonds and using that money to treat the TSNO discharge. The off-site reclamation projects on Contrary Run are located in the same watershed as TSNO on a nearby reach of the same receiving stream.

Benjamin Coal (Little Beaver #1), Permit Number 17820132

During 2018, the Department worked with the Clearfield County Conservation District (CCCD) to compile data and secure landowner approvals. The CCCD worked with consultant Hedin Environmental and were awarded a SMCRA Grant in November 2018 for the design and construction of a passive treatment system for the RLB2 discharge. Hedin Environmental collected additional water samples and did surveying at the site in 2019 and 2020 and completed the treatment system design in early 2021. A pre-bid meeting was held in June 2021 with five contractors in attendance. No contractors submitted a bid by the deadline. The deadline was extended another month and no contractors submitted a bid a second time. A pre-bid meeting was held in April 2022 with five contractors in attendance. A winning bidder was selected. Construction of the new passive treatment system for the RLB2 discharge started in late September 2022 and was completed in mid-November 2022. The passive treatment system is treating the RLB2 discharge.

Benjamin Coal (Marshall), Permit Number 17860105

The unreasonable to treat report was sent to OSMRE on December 10, 2020. The unreasonable to treat report urges reconsideration of requiring treatment at this site due to the technical difficulty of building here and that treatment of the MP4 discharge would provide little benefit to the receiving stream and watershed. Construction of a treatment system could result in exacerbation of existing site conditions, such as causing new or expanded mining-related discharges. The Department conducted water monitoring of discharge MP4 and the next three levels of receiving stream for making mass balance calculations using Geochemist Workbench software. The Department is searching for a discharge in the East Branch Mahoning Creek watershed that would be a suitable treatment offset for MP4. A suitable discharge for a treatment offset has not been identified at this time.

Purco Coal Inc. (Watkiss Mine), Permit Number 26753065

During 2018, Stream Restoration, Inc., the recipient of a Growing Greener grant to construct a water treatment system at this site, requested an extension through December 31, 2019 due to difficulties coordinating access to the site. During 2019, Stream Restoration, Inc., requested another extension. Because there had been no progress between extension requests, the Department made the decision to deny the extension request and terminate the Grant Agreement. The Western PA Conservancy (WPC) submitted a new SMCRA grant application and the WPC was awarded a SMCRA grant to complete reclamation in January 2021. The project is currently in the design phase. In November 2021, a new access road was roughed-in and will be made permanent when the new treatment system is constructed. Treatment system construction is anticipated to begin Summer/Fall 2023.

Arthur Brooks Coal Co. (Honsaker Site), Permit Number 26830108

There are many challenges with this project. Title V mine drainage is discharging off permit near virgin cropland. The landowner will not provide Right of Entry (ROE) to construct a treatment system on their cropland, off permit. In response, DEP DMO requested a new preliminary design to construct a treatment system on Fayette County Park Property and capture both Title IV (~300 ft North of the Title V discharge) and the Title V discharges in 2019. Fayette County Commissioners approved the resolution on 12/17/20 and DEP DMO is now approved to access the Fayette County park property for the design and study of the proposed treatment system. Design is anticipated to be completed by Summer 2022. Fayette County will then review and make the decision to sign and execute an ROE for construction, operation and maintenance of the treatment system. Growing Greener Grant application was submitted by Stream Restoration for construction in June 2022. Award Letter is anticipated to be sent out in the first quarter 2023. Treatment system construction is anticipated in Fall 2023.

James Rumble and Wm. Bane (Luzerne Twp. Mine), Permit Number 26840110

During 2019, the Department executed a Task Agreement with a design consultant. Collection system installed in Summer 2020. Design plans and bid documents received in October 2021. Advertising for bids for the construction of Treatment System is anticipated in the first quarter of 2022 and anticipating a contract in place by Summer 2022. Mandatory bid site meeting and winning bidder was chosen in July 2022. Act 181 requires a contractor to have and active or obtain a mining license. Due to the delay of the mining license process, the notice to proceed would have been in late October/early November 2022. Since the landowner restricts land access during hunting season, the decision was made to postpone the project. Treatment system construction is now anticipated in Spring 2023.

Global Coal Recovery Inc. (Isabella Mine), Permit Number 26931601

This is a three Phase project. Phase III is the design and construction of a treatment system. Based on the current data, NSDMO and OSMRE theorize that the Fresh Water Impoundment is hydrologically tied to the AMD discharges and by reducing the size of the Fresh Water Impoundment, the flow of the AMD discharges will also reduce. OSMRE and NSDMO installed a total of five (5) Flumes in 2019. OSMRE installed data loggers in the Flumes to collect flow data from 2019 through October 2020. Samples were also collected during this time. OSMRE removed the data loggers in October 2020 and will reinstall when the Freshwater Impoundment drawdown work is completed. After data collection phase (1 year from the completion of Phase I and II 2025), designs will be updated, and treatment system construction is anticipated to begin in fall 2026.

Pengrove Coal Co. (Martin Mine), Permit Number 61820105

From 2018 to the present, the Department has continued to try to coordinate access for construction of the treatment facility and its long-term operation and maintenance. The Department remains in the process of negotiating the necessary right-of-entry and easement. In November 2022, the Department completed the property survey for the easement to construct and maintain the designed treatment system. In December 2022, American Rescue Plan Act (ARPA) funds were secured for construction. Treatment system construction is anticipated in Fall 2023.

Sites listed in the Settlement Agreement

Attachment #1 ABS LEGACY SITES

PERMIT	DEDMIT ADS LEGACY SITES				
NUMBER	MINE OPERATOR	MINE SITE	CHANGES		
03840112	Darmac Coal Inc.	Darmac #14			
03890108	Darmac Coal Inc.	Silver Rock			
05830101	L&B Coal Co.	No.5	Facility completed prior to program amendment; certified and removed from List #4 in 2016 Report; Remains on ABS List #1		
10820121	Pengrove Coal Co.	Ruth			
10830121	Sunbeam Coal Corp.	Jacques	Seeking concurrence from OSMRE to remove. Remains on ABS List #1		
10860118	C&K Coal Co.	Snyder Sertik			
10940105	Doverspike Bros. Coal Co.	Emerick	Gas well was plugged in August 2019 which improved water quality of the discharge, certified and removed from List #4 in 2019 Report. Remains on ABS List #1		
11693000	K&J Coal Co.	Westover	Fully-funded Post-Mining Discharge Treatment Trust. See 48 Pa.B. 5655 (September 8, 2018); Removed from ABS List #1		
11783035	C&K Coal Co.	Bell Woodcock			
11813019	PA Energy Corp.	Horse Hill Strip			
11823002	C&K Coal Co.	Stroud			
11850106	C&K Coal Co.	Cambria 51			
11950102	Laurel Land Dev., Inc.	McDermott	Facility completed prior to program amendment; certified and removed from List #4 in 2016 Report; Remains on ABS List #1		
14663003	Power Operating	Dugan 2			
14663004	Power Operating	Dugan 4			
14663010	R.S. Carlin	Mine #26			
14803008	Avery Coal	Pine Glen	Facility completed prior to program amendment; certified and removed from List #4 in 2016 Report;		

			Remains on ABS List #1
16713004	C&K Coal Co.	Hill Estate	The state of the s
16803011	Glacial Minerals Inc.	Vosburg	
16803030	C&K Coal Co.	Smith Heasley	
16820107	REM Coal Co. Inc.	Truittsburg	
16830114	C&K Coal Co.	Tremba Horner	Discharge meets effluent limits
10030114	Car coar co.	Tremoa fromer	and does not violate water
			quality standards. See 48 Pa.B.
			5655 (September 8, 2018);
			Removed from ABS List #1
16840103	C&K Coal Co.	Kriebel	Temoved II om 1125 225 H
16850101	Glacial Minerals Inc.	Blair Mine	
17723164	Al Hamilton Contr. Co.	Little Beth	
17753159	Al Hamilton Contr. Co.	Miller Stein	
17803054	Thompson Bros.	Alder Run	
17803176	Al Hamilton Contr. Co.	Sandturn	
17810104	Thompson Bros.	Morris #2	
17810154	Thompson Bros.	001 Strip	
17813143	Chews Contracting	Little D	
17820106	Al Hamilton Contr. Co.	Pearce	
17820114	Power Operating	Vought	
17820132	Benjamin Coal	Little Beaver #1	
17820143	Avery Coal Co.	Victoria	
17820166	Al Hamilton Contr. Co.	Carnwath	Facility completed prior to
			program amendment; certified
			and removed from List #4 in
			2016 Report;
			Remains on ABS List #1
17850109	Al Hamilton Contr. Co.	Ralston	Facility completed prior to
			program amendment; certified
			and removed from List #4 in
			2016 Report;
			Remains on ABS List #1
17860105	Benjamin Coal	Marshall	
17870114	M&M Const. Co. Inc.	Latherow Mine	
17880129	K&J Coal Co.	Gaber/Brown	Fully-funded Post-Mining
			Discharge Treatment Trust. See
			48 Pa.B. 5655 (September 8,
			2018);
			Removed from ABS List #1
17890115	Al Hamilton Contr. Co.	Kaufman	
17921605	Thomas Coal Sales	Greenwood	
4=2=2::=		Tipple	
17970107	Al Hamilton Contr. Co.	Kaufman North	
18860101	Lobb Inc.	Narco	

26752065	D C 11	337 41 ' 34'	
26753065	Purco Coal Inc.	Watkiss Mine	
26830108	Arthur Brooks Coal	Honsacker Site	
	Co.		
26840110	James Rumble & Wm.	Luzerne Twp.	
	Bane	Mine	
26931601	Global Coal Recovery	Isabella Mine	
	Inc.		
30840102	Greene County Coal	McNatt Strip	Facility completed prior to
			program amendment; certified
			and removed from List #4 in
			2016 Report;
			Remains on ABS List #1
32823035	Acme Drilling	Broom Strip	
33743044	REM Coal Co.	Smail	
33803040	REM Coal Co.	Orcutt	
33830117	Gurosik Coal co. Inc.	King	
33840111	Doverspike Bros. Coal	Mowery Mine	
	Co.		
56763022	Delta Mining Inc.	Maust Mine	
56773084	D&E Const. Co.	Moore Strip	
56773136	Bituminous Coals Inc.	Addison Strip	
56783046	H&H Coal Co.	James E. Long	
56793053	Delta Mining Inc.	Hay 2	
56793078	Windber High Std.	Brant Strip	
	Coal		
56803014	Delta Mining Inc.	Bashore Mine	
56813054	L&L Mining Inc.	Berkey	Facility completed prior to
			program amendment; certified
			and removed from List #4 in
			2016 Report;
			Remains on ABS List #1
56823108	C&O Coal Co.	Burkholder Strip	
56840103	Metco Mining &	Ankey Mine	
	Minerals Inc.		
56840112	Amer. Dev. Co.	Job 33	Facility completed prior to
			program amendment; certified
			and removed from List #4 in
			2016 Report;
			Remains on ABS List #1
56960111	Big J Mining Inc.	Sorber Mine	
57830101	Bernice Mining	Lewis Mine	
61783001	C&K Coal Co.	Racic	
61820102	H&D Coal	Merola	
61820105	Pengrove Coal Co.	Martin Mine	

65703058	Frank Kowalski	Kowalski No.1	No ABS-related post-mining
		Strip	discharge. See 48 Pa.B. 5655
			(September 8, 2018);
			Removed from ABS List #1
65830202	Delta Penn Corp.	Hostetter Mine	
65940108	Bulldog Excav.	Andrews Strip	Facility completed prior to program amendment; certified and removed from List #4 in 2016 Report; Remains on ABS List #1

ATTACHMENT #2 Potential ABS Legacy Sites

Permit Number	Mine Operator	Mine Site	Changes
11773037	Cooney Bros. Coal Co.	Caroff Strip	Discharge meets effluent limits and does not violate water quality standards. To Be Removed from ABS List #2 upon concurrence by OSMRE and publication in <i>Pennsylvania Bulletin</i>
11803038	Cooney Bros. Coal Co.	Pot Ridge 2 Strip	
11813039	Cooney Bros. Coal Co.	Feller 2 Strip	
11813040	Cooney Bros. Coal Co.	Dunlo 1 Strip	
11830102	MB Energy Inc.	Grabiak Strip	Post-Mining Discharge Treatment Trust fully funded; To Be Removed from ABS List #2 upon concurrence by OSMRE and publication in Pennsylvania Bulletin
11860104	Cooney Bros. Coal Co.	Bethlehem Strip	
17970102	Enercorp Inc.	Forcey Mine	Post-Mining Discharge Treatment Trust fully funded; To Be Removed from ABS List #2 upon concurrence by OSMRE and

			publication in <i>Pennsylvania Bulletin</i>
32810135	MB Energy Inc.	Dietrich Mine	Post-Mining Discharge Treatment Trust fully funded; To Be Removed from ABS List #2 upon concurrence by OSMRE and publication in Pennsylvania Bulletin
32820134	MB Energy Inc.	CBC Strip	Post-Mining Discharge Treatment Trust fully funded; To Be Removed from ABS List #2 upon concurrence by OSMRE and publication in Pennsylvania Bulletin
32823005	Blairsville Assoc.	Eagle Strip & Auger	Post-Mining Discharge Treatment Trust fully funded; To Be Removed from ABS List #2 upon request for concurrence by OSMRE and publication in Pennsylvania Bulletin
32841601	Robindale Energy Servs., Inc.	Dilltown Prep Plant	
32880108	MB Energy Inc.	Brush Valley 1 Mine	ABS discharges improved on their own by 2012 and DEP released remaining bonds; To Be Removed from ABS List #2 upon concurrence by OSMRE and publication in the Pennsylvania Bulletin
32950104	Big Mack Leasing Co., Inc.	Iselin 18 mine	Post-Mining Discharge Treatment Trust fully funded; To Be Removed from ABS List #2 upon request for concurrence by OSMRE and publication in the Pennsylvania Bulletin
54733020	BET Assoc. IV LLC	LCN Mine	

56663098	PBS Coals Inc.	Jolin Strip/Job 12	Post-Mining Discharge Treatment Trust fully funded; To Be Removed from ABS List #2 upon request for concurrence by OSMRE and publication in the Pennsylvania Bulletin
56663135	PBS Coals Inc.	Walker Mine	Post-Mining Discharge Treatment Trust fully funded; To Be Removed from ABS List #2 upon request for concurrence by OSMRE and publication in the Pennsylvania Bulletin
56743138	Cooney Bros. Coal Co.	Pot Ridge Lasky Strip	
56813050	Shade Mining Co.	Shade 3 Mine	Post-Mining Discharge Treatment Trust fully funded. See 48 Pa.B. 5655 (September 8, 2018); To Be Removed from ABS List #2
56813104	PBS Coals Inc.	Roberts Mine	Post-Mining Discharge Treatment Trust fully funded; To Be Removed from ABS List #2 upon request for concurrence by OSMRE and publication in the Pennsylvania Bulletin.
56841605	Croner, Inc.	Goodtown Prep Plant	Post-Mining Discharge Treatment Trust fully funded; To Be Removed from ABS List #2 upon request for concurrence by OSMRE and publication in the Pennsylvania Bulletin.
56860104	Rosebud Mining Co.	Schrock Strip	Post-Mining Discharge Treatment Trust fully funded. See 48 Pa.B. 5655 (September 8, 2018); To Be Removed from ABS List #2

56880103	Rosebud Mining Co.	Jopa 1	Full cost bonded. See 48 Pa.B. 5655 (September 8, 2018); To Be Removed from ABS List #2
56890102	Svonavec Inc.	Ohler Strip	Post-Mining Discharge Treatment Trust fully funded. See 48 Pa.B. 5655 (September 8, 2018); To Be Removed from ABS List #2
56950101	Rosebud Mining Co.	Poorbaugh Strip	Post-Mining Discharge Treatment Trust fully funded. See 48 Pa.B. 5655 (September 8, 2018); To Be Removed from ABS List #2
56950105	Marquise Mining Corp.	MF Land Operation	Post-Mining Discharge Treatment Trust fully funded. See 48 Pa.B. 5655 (September 8, 2018); To Be Removed from ABS List #2
56960106	Rosebud Mining Co.	Horner	Full cost bonded. See 48 Pa.B. 5655 (September 8, 2018); To Be Removed from ABS List #2
56960107	PBS Coals Inc.	Acosta	Post-Mining Discharge Treatment Trust fully funded; To Be Removed from ABS List #2 upon request for concurrence by OSMRE and publication in the Pennsylvania Bulletin.
65810113	MB Energy Inc.	Campbell Skovira Mine	Post-Mining Discharge Treatment Trust fully funded; To Be Removed from ABS List #2 upon concurrence by OSMRE and publication in Pennsylvania Bulletin

65860105	MB Energy Inc.	Ridge Road Mine	Post-Mining Discharge
			Treatment Trust fully
			funded;
			To Be Removed from ABS
			List #2 upon concurrence
			by OSMRE and
			publication in <i>Pennsylvania</i>
			Bulletin

ATTACHMENT #3 ABS Bond Forfeiture Sites That Need Land Reclamation Work

Permit Number	Mine Operator	Mine Site	Changes
14663004	Power Operating Co. Inc.	Dugan 4	Certified complete (full-cost bonded) in 2018 Report
17820114	Power Operating Co. Inc.	Vought	
17841605	Benjamin Coal Co.	3 Prep Plant	Certified complete in 2020 Report
26931601	Global Coal Recovery Inc.	Isabella Mine	
26840202	Grandstone Coal Co.	Grandstone Site	
40920101	Laurel Run Corp.	Laurel Run Mine	Certified complete in 2017 Report
49851605	Twin Creek Coal Co.	Swift Breaker Mine	Certified complete in 2016 Report
54813225	Shamrock Coal Co. Inc.	Reber 4 Mine	Certified complete in 2017 Report
54830110	J&W Coal Co.	Lake Run 1 Mine	Certified complete in 2017 Report
65860201	Aspenenergy Inc.	Wilpen Operation	
65920108	Bituminous Proc. Co. Inc.	Wyano Mine	Certified complete in 2016 Report
65920201	Ebony Coal Co.	Claridge Sub F Refuse Pile	

ATTACHMENT #4 ABS Legacy Sites That Need Treatment System Work

Permit Number	Mine Operator	Mine Site	Changes
05830101	L&B Coal Co.	No. 5	Certified complete in 2016 Report
10820121	Pengrove Coal Co.	Ruth	Certified complete in 2019 Report
10830121	Sunbeam Coal Corp.	Jacques	
10940105	Doverspike Bros. Coal Co.	Emrick	Certified complete (alternative project) in 2019 Report
11950102	Laurel Land Dev., Inc.	McDermott	Certified complete in 2016 Report
14663010	R.S. Carlin	Mine #26	
14803008	Avery Coal	Pine Glen	Certified complete in 2016 Report
17723164	Al Hamilton Contr. Co.	Little Beth	Certified complete in 2018 Report
17803054	Thompson Bros.	Alder Run	Certified complete in 2018 Report
17810104	Thompson Bros.	Morris #2	Certified complete in 2018 Report
17820132	Benjamin Coal	Little Beaver #1	
17830143	Avery Coal Co.	Victoria	Certified complete in 2017 Report
17820166	Al Hamilton Contr. Co.	Carnwath	Certified complete in 2017 Report
17850109	Al Hamilton Contr. Co.	Ralston	Certified complete in 2017 Report
17860105	Benjamin Coal	Marshall	
17890115	Al Hamilton Contr. Co.	Kaufman (camp hope)	Certified complete in 2018 Report
17970107	Al Hamilton Contr. Co.	Kaufman North	Certified complete in 2019 Report
26753065	Purco Coal Inc.	Watkiss Mine	_
26830108	Arthur Brooks Coal Co.	Honsacker Site	
26840110	James Rumble & Wm. Bane	Luzerne Twp. Mine	
26931601	Global Coal Recovery Inc.	Isabella Mine	
56813054	L&L Mining Inc.	Berkey	Certified complete in 2016 Report
56840112	Amer. Dev. Co.	Job 33	Certified complete in 2016 Report

61820105	Pengrove Coal Co.	Martin Mine	
65703058	Frank Kowalski	Kowalski No. 1 Strip	Certified complete
			(no ABS discharge)
			in 2018 Report
65830202	Delta Penn Corp.	Hostetter Mine	Certified complete
			in 2019 Report
65940108	Bulldog Excav.	Andrews Strip	Certified complete
		1	in 2016 Report