

**SURFACE MINING CONSERVATION AND RECLAMATION ACT
2017
RECLAMATION AND REMINING INCENTIVES REPORT**



**Prepared for:
Senate Environmental Resources and Energy Committee
and
House Environmental Resources and Energy Committee**



**Prepared by:
Pennsylvania Department of Environmental Protection
Office of Active and Abandoned Mine Operations**

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Cover Photo:

The Marrett GFCC, Quality Aggregates, Inc. #10-06-02, was a 110-acre site located in Allegheny Township, Butler Co. There were 66 acres of abandoned mine land reclaimed, including 7,000 lineal feet of highwall, pit areas, poorly vegetated spoil piles, reconstruction of 4,300 feet of impacted stream channels, and construction of over 10 acres of wetland mitigation. Alkaline addition was required, with a combination of fly-ash and Rec-mix.

I. Executive Summary

In accordance with the requirements of Section 4.11(b) of the Commonwealth's Surface Mining Conservation and Reclamation Act (SMCRA) regarding the Department of Environmental Protection's (DEP) reclamation and remining programs, DEP submits this report to the Senate Environmental Resources and Energy Committee and to the House Environmental Resources and Energy Committee. This report provides the status of DEP's reclamation and remining programs authorized under the SMCRA Sections 4.8, 4.9, 4.10, 4.12, 4.13, and 18. Information is current to December 31, 2017.

Since its inception, Pennsylvania's reclamation and remining incentives programs have been very successful. Coal mine operators using these programs have reclaimed over 8,000 abandoned mine land (AML) acres equivalent to an estimated \$76 million in reclamation value. Current reclamation costs for grading and revegetation of abandoned mine sites average about \$9,500 per acre.

The Government-Financed Reclamation Construction Contracts (GFCC) program benefits the public and the mining operators by establishing contracts for mining companies to conduct operations that will reclaim AML sites at little or no cost to the public. Between January 1991 and December 31, 2017, there were 280 contracts issued, with an estimated total reclamation value of approximately \$30.1 million.

The Remining Operator Assistance Program (ROAP) created an incentive to remine and reclaim AML areas by providing financial assistance for most of the cost of permitting the remining area. Between August 1996 and December 31, 2017, there were 30 mine operators participating in this program on 60 remining sites. The total cost to the Commonwealth of these 60 remining ROAP projects was \$913,284. Through December 31, 2017, there were 45 projects with approved remining permits at a cost to the Commonwealth of \$800,971. Of these 45 ROAP permits, two became bond forfeitures and two projects had their ROAP funds reimbursed to DEP by the mine operator because of reimbursement liability regulations. The remaining 41 permits will eventually reclaim 1,923.4 acres of AML with an approximate reclamation value of \$18.3 million (the \$18.3 million figure includes estimated costs, which are \$9,500.00/acre). The ROAP figures provided here reflect revised ROAP status for several cases.

Under the Financial Guarantees program, DEP provides low cost bonding of remining areas. As of December 31, 2017, 153 coal mine operators used financial guarantees to bond 745 mining permit increments. When completed, those operations will have reclaimed 4,499.2 acres of AML, saving the Commonwealth an estimated \$42.7 million.

The Bond Credits program also provides an incentive for operators to reclaim an AML area by earning a "bond credit" under a Consent Order and Agreement with DEP. Five licensed mine operators have completed six bond credit projects. The six projects that have been completed under this program reclaimed 50.1 acres and represent a reclamation value of \$553,239. A Consent Order and Agreement for a seventh project was signed on August 21, 2013. The project plans to reclaim 50.6 acres and reconstruct over 3,600 feet of stream channel. Reclamation started in calendar year 2014 with a completion date of August 2015. An extension was recently approved requiring all major work to be completed by August of 2018 and final stabilization and reclamation completed by May 2019.

Because of implementation feasibility, DEP has not promulgated regulations nor established final criteria for the Designating Areas Suitable for Remining program, as explained on page 5 Individual Program Descriptions.

Summary of Reclamation and Remining Incentives Program
1996-2016

Program	Year	Number of Companies	Number of Projects	AML Acres Reclaimed as of 12/31/2016	Reclamation Value of Projects Completed by 12/31/2016
Government-Financed Rec. Contracts	91-16	116	279	3,139.3	\$29,823,350
ROAP	97-16*	30	41	341.1	\$3,240,450
Financial Guarantees	96-16	149	740	3,978.1	\$37,791,950
Bond Credits	96-16	6	7	50.1	\$475,950
Totals		301	1,067	7,508.6	\$71,331,700

*This program was ceased after 2014, reclamation does continue on the remaining sites.

Summary of Reclamation and Remining Incentives Programs
2017

Program	Year	Number of Companies	Number of New Projects	AML Acres Reclaimed During 2017	Reclamation Value of Projects Completed in 2017
Government-Financed Rec. Contracts	2017	1	1	42.5	\$403,750
ROAP	2017	Program Ceased	Program Ceased	67.5	\$641,250
Financial Guarantees	2017	4	5	521.1	\$4,950,450
Bond Credits	2017	0	0	0	0
Totals		5	6	631.1	\$5,995,450

II. Conclusions and Recommendations

DEP has developed four of the five reclamation and re-mining incentive programs authorized by the 1992 amendment to SMCRA. They are: Government Financed Reclamation and Construction Contracts, Re-mining Operator's Assistance Program, Re-mining Financial Guarantees to Insure Reclamation, and Reclamation Bond Credits. The fifth program - Designating Areas Suitable for Re-mining has not been implemented. Mine operators utilizing these four programs have reclaimed over 8,000 acres of AML. This equates to an approximate reclamation value of \$76 million (completed reclamation areas only). There are projects in progress with re-mining or reclamation yet to be completed.

III. Background

This report has been prepared in accordance with the requirements of Section 4.11(b) and (c) of SMCRA. Section 4.11(b) requires DEP to prepare a report regarding DEP's reclamation and re-mining programs to the Senate and House Environmental Resources and Energy Committees. Section 4.11(b) was added to SMCRA by passage of Act 173 on December 18, 1992. This report summarizes the status of DEP's reclamation and re-mining programs authorized under SMCRA Sections 4.8, 4.9, 4.10, 4.12, 4.13, and 18.

There are five primary reclamation and re-mining programs authorized by these sections of SMCRA:

- Section 4.8 – Government Financed Reclamation and Construction Contracts
- Section 4.9 – Designating Areas Suitable for Reclamation by Re-mining
- Section 4.10 – Re-mining Operator's Assistance Program (ROAP)
- Section 4.12 – Re-mining Financial Guarantees to Insure Reclamation
- Section 4.13 – Reclamation Bond Credits

Section 18 of SMCRA includes the creation of the Re-mining Environmental Enhancement Fund and the Re-mining Financial Assurance Fund. The status of both of these funds is included in Sections V and VI of this report, respectively.

In addition to the program descriptions contained in this report, appropriate tables for each program showing site/operator lists, project cost, reclamation dollar value and pertinent dates are included in the appendices to this report. Many of the re-mining incentive program descriptions refer to a "re-mined area." A "re-mined area," as defined in these descriptions, includes the AML area to be reclaimed and up to 300 feet of adjacent previously unmined area that is needed to complete the reclamation.

This report was submitted to the Mining and Reclamation Advisory Board (MRAB) as required by Section 4.11(c)(5) of SMCRA. The MRAB's comments are included as Appendix A.

IV. Individual Program Descriptions

A. SMCRA Section 4.8 - Government-Financed Reclamation and Construction Contracts

The GFCC program involves contracted operations that will reclaim AML sites at little or no cost to the public. This program was previously known as the No-Cost Government-Financed Reclamation Contracts Program. Regulations were deemed unnecessary for implementation of this program.

This program allows removal of incidental coal or coal refuse during the reclamation of an AML site. Occasionally, coal removal is necessary in order to effectively and efficiently reclaim an AML site. The value of the coal or coal refuse that must be removed to reclaim the site offsets the cost of the reclamation project.

Under the GFCC program, the mining industry has made progress in reclaiming coal refuse and other AML sites at no additional direct cost to the Commonwealth. Between January 1991 and December 31, 2017, there were 280 contracts issued reclaiming 3,193.3 acres for a total reclamation value of approximately \$30.1 million. The projects contracted during 2017 are listed in Appendix B.

Government-Financed Reclamation & Construction Contracts Overview:

	As of 12/31/16	As of 12/31/17
Number of surface acres completed	3,139.3	3,181.8
Number of underground acres completed	255.5	266.5
Number of companies	116	117
Number of projects	279	280

B. SMCRA Section 4.9 - Designating Areas Suitable for Reclamation by Remining

DEP has not promulgated regulations nor established a program for designating areas suitable for remining. DEP concluded it was not practical or feasible to implement this program.

C. SMCRA Section 4.10 - Remining Operator's Assistance Program (ROAP)

The regulations for the ROAP program were promulgated as 25 Pa. Code §§ 86.261-86.270 and became effective on August 24, 1996. The ROAP program provided an incentive to an operator to remine and reclaim an AML area that the operator would not otherwise reclaim. This incentive was in the form of DEP financial assistance towards the cost of obtaining a permit for the remining area. The ROAP program paid qualified consultants to collect and analyze permit-specific hydrogeological data and prepare reports used in the mine permit application.

Between August 1997 and April 2003, 30 operators applied to this program for 60 remining ROAP projects. As of December 31, 2016, 41 ROAP projects became mining permits. When completed, these 41 operations will have provided 1,923.4 acres of surface AML reclamation and almost 1,000 acres of AML underground reclamation. The cost to DEP in ROAP assistance for these 41 permits was \$800,971. DEP or the applicant cancelled 19 of the 60 projects. DEP's cost for these 19 projects totaled \$145,763. Of the 41 ROAP

applications that became mining permits, six of these permits are actively mining, while six are in various stages of reclamation and 29 have fully completed reclamation activities. No additional applications have been taken into the program since 2003 because funding for the program has ceased.

The complete ROAP program projects are listed in Appendix C.

Remining Operator's Assistance Program (ROAP) Overview:

ROAP AML acres reclaimed between January 1, 2017 and December 31, 2017 are 67.5 AML surface acres. Total ROAP AML acres reclaimed as of December 31, 2017, are 408.6 AML surface acres.

Total ROAP AML acres reclaimed upon completion of all ROAP Projects are estimated at 1,923.4 at a cost of \$800,971, with an estimated total reclamation value over \$18.3 million.

D. SMCRA Section 4.12 – Remining Financial Guarantees to Insure Reclamation

The Remining Financial Guarantees to Insure Reclamation Program regulations were promulgated as 25 Pa. Code §§ 86.281-86.284 and became effective on August 24, 1996. Under this program, DEP provides low-cost bonds to guarantee reclamation of the remining area of a surface mine permit.

Each operator and each permit must meet the regulatory criteria to participate in this program. An operator is limited to a maximum financial guarantee value of 30 percent of the amount allocated in the Financial Guarantee Special Account within the Remining Financial Assurance Fund (RFAF). Each permit is limited to a maximum financial guarantee value of 10 percent of the amount allocated in the Financial Guarantee Special Account within the RFAF. During 2006, with the support of the MRAB, DEP increased the amount allocated from \$800,000 to \$1,000,000. This allowed DEP to raise the maximum amount of remining financial guarantees that an operator may use at any one time from \$240,000 to \$300,000 and the maximum permit limit from \$80,000 to \$100,000. During 2010 (again with the approval of the MRAB) DEP used part of the fees paid by operators to increase the amount of funding allocated to the Remining Financial Guarantee Program to \$1,200,000. This allowed DEP to again raise the maximum amount of remining financial guarantees that an operator may use at any one time to a maximum permit limit of \$120,000 and a maximum operator limit of \$360,000. This amount may be adjusted periodically by DEP based on premium payments made by the operators as well as bond forfeitures.

Act 157 of October 24, 2012 authorized the transfer of up to \$500,000 to the RFAF for use in supporting remining financial guarantees issued by DEP. The additional \$500,000 was transferred to the RFAF in March 2013. By allocating an additional \$500,000 the maximum limits for the Remining Financial Guarantee Program increased to \$510,000 per operator and \$170,000 per permit.

An operator is not required to pay the per acre reclamation fee on any area bonded with financial guarantees. Bond release is the same as for any other bond; however, financial guarantees are the first bond released on a surface mining permit.

The operator pays an annual fee for financial guarantees of one percent per year. The fee is paid in advance and is not refundable. The one percent fee goes into the RFAF. This is the only source of income to the fund.

As of December 31, 2017, a total of 153 coal mine operators had used financial guarantees 745 times. Those operators have reclaimed 4,499.2 acres of AML. This has saved the Commonwealth an estimated \$42.7 million in reclamation costs. There are eleven permits that are at the \$170,000 per permit limit and two operators are near or at their \$510,000 per operator limit.

Appendix D lists the individual projects that were issued in 2017.

Remining Financial Guarantees to Ensure Reclamation Program Overview:

	As of 12/31/16	As of 12/31/17
Reclamation value of abandoned mine projects	\$37,791,950	\$42,742,400
Number of acres of surface AML completed	3,978.1	4,499.2
Number of operators participating	149	153
Number of financial guarantees issued	740	745

E. SMCRA Section 4.13 - Reclamation Bond Credits Program

The Bond Credits program regulations were promulgated as 25 Pa. Code, §§ 86.291-86.295, and took effect on August 24, 1996.

The Bond Credits program provides an incentive to an operator to voluntarily reclaim an abandoned mine area that the industry would not ordinarily reclaim. An operator may earn a “bond credit” under a Consent Order and Agreement with DEP by reclaiming an AML area. The area does not have to be associated with a mining permit. The value of the bond credit is equal to the lesser of either DEP’s cost or the operator’s cost to reclaim the stipulated area. Once earned, the operator may use the bond credit instead of normal bonding on future mining permits. The reclamation values for the bond credit reclamation projects are based on DEP’s calculated costs for reclamation of the sites.

Each bond credit may be used twice by the operator in lieu of a normal bond on a mining permit. The bond credit may be transferred to another operator.

Five licensed mine operators have completed six bond credit projects. The earned “bond credits” are being used. Approximately \$57,000 has been released from its second use and is available for use on new projects. The special account established to financially assure bonding obligations under this program was increased from \$500,000 to \$1,100,000 in July 2014. This increase was supported by funds held in the Remining Financial Assurance Fund.

A Consent Order and Agreement for a seventh project of \$562,305, was signed on August 21, 2013. The project will reclaim 50.6 acres of AML and reconstruct 3,648 feet of stream channel. Reclamation started in calendar year 2014 with a completion date of August 2015. An extension was recently approved requiring all major work to be completed by August of 2018 and final stabilization and reclamation completed by May 2019.

Reclamation Bond Credits Overview:

	As of 12/31/16	As of 12/31/17
Reclamation value for completed projects	\$553,239	\$553,239
Number of acres reclaimed	50.1	50.1
Number of projects completed	6	6
Number of projects in process	1	1

V. Remining Environmental Enhancement Fund (REEF)

This fund is now depleted. The money remaining in the Surface Mining Conservation Fund, the Coal Refuse Disposal Control Fund, and the Bituminous Mine Subsidence and Land Conservation Fund is obligated to complete reclamation of forfeited sites.

VI. Remining Financial Assurance Fund (RFAF)

The Pennsylvania Legislature also authorized the establishment of the RFAF in the 1992 amendments to SMCRA. This fund is used to provide the reserve for the Remining Financial Guarantees to Insure Reclamation and Reclamation Bond Credit Programs. These amendments authorized DEP to transfer up to \$5 million from the Land and Water Development Fund to the RFAF. In 1996 \$1 million was transferred into the RFAF. A second \$1 million was transferred into the RFAF in 1997. Act 157 of October 24, 2012 authorized the transfer of up to \$500,000 to the RFAF for use in supporting remining financial guarantees issued by DEP.

The money in this fund is used as a reserve to guarantee the bonds written in the Reclamation Bond Credit and Financial Guarantee programs. The bond credit program is required to have funds in the RFAF at least equal to funds issued as bond credits. The Financial Guarantee program is authorized to use an actuarial formula (mine permit forfeiture rate + a safety factor) to leverage the amount of money in the reserve to write more financial guarantees than are actually allocated in the fund, based on the historical rate of bond forfeitures. Currently, \$1.7 million is allocated for financial guarantees, allowing DEP to write \$22.6 million in financial guarantees. As of December 31, 2017, \$8,530,261.00 was designated to financially assure reclamation obligations on mining permits with approved remining areas.

There have been 21 permits forfeited with a total of 28 financial guarantees since the program was established. Reclamation has been completed on 12 of the permits using other options without spending any money from the RFAF and one permit has a project pending. Six permits still require the reclamation to be completed with a total of \$514,547.60 obligated in financial guarantees to assure the reclamation of these permits.

The only other source of funding for the Financial Guarantee and Bond Credit Programs stems from the one percent annual fee that the permittees pay for the use of the financial guarantees. Since the Financial Guarantee program became available in January 1997, participating coal mine operators have paid \$2,358,731 in annual fees. The amount paid into the fund in 2017 was \$97,215.66. The annual fees must be held in reserve until the fund for Financial Guarantees is considered actuarially sound. The fund is actuarially sound when there is a sufficient amount of money in reserve to cover any expected losses.

DEP has allocated \$1.7 million to the Financial Guarantee Special Account to act as the reserve for the Financial Guarantee Program. DEP had allocated \$500,000 to the Bond Credit Account to act as the reserve for the Bond Credit Program. In July 2014, DEP allocated an additional \$600,000 within the RFAF to the Bond Credit Account bringing the total amount in the account to \$1,100,000.

Appendix A
Mining and Reclamation Advisory Board Comments

A copy of the draft report was presented for review and comment to the MRAB during their April 19, 2018 meeting. There were no comments from the board.

Appendix B
New Government-Financed Reclamation and Construction Contracts Project List for 2017

2017 GFCCs Issued

Year	County	Company	Contract	Contract Date	No. Acres Proposed	Bond
2017	Cambria	Ridge Energy Co.	11-16-01	08/04/17	17.3	\$224,457.00

Appendix C
Remining Operator's Assistance Program Project List for 2017
Total ROAP Inventory

ROAP #	SMP #	SMP ISSD	Operator	District	Status
1	17990101	2/7/2001	Sky Haven Coal Co.	Moshannon	Reclamation Continues
2	17980101	2/9/2000	Ed Hanslovan Coal Co.	Moshannon	Bond Forfeiture
3	32980109	7/28/1999	Amerikohl Mining Co.	Cambria	Reclamation Completed
4	32980105	5/11/1999	Amerikohl Mining Co.	Cambria	Reclamation Completed
5			Hepburnia Coal Co.	Moshannon	Cancelled
6	32980108	1/27/1999	Amerikohl Mining Co.	Cambria	Reclamation Completed
7			Amerikohl Mining Co.	Cambria	Cancelled
8	17990107	7/5/2001	River Hill Coal Company	Moshannon	Reclamation Continues
9	54980103	2/4/1999	Gale Coal Co.	Pottsville	Active
10	54980201	12/4/1999	A C Fuels Co.	Pottsville	Reclamation Continues
11	26980102	9/11/1998	Patterson Coal Co.	New Stanton	Reclamation Completed
12	11980202	10/2/1998	Smith Energy	Cambria	Reclamation Completed
13	56980110	5/3/1999	Fritz Coal Co.	Cambria	Reclamation Completed
14			Reichard Contracting	New Stanton	Cancelled
15	56990101	12/22/1999	Hoffman Mining Inc.	Cambria	Reclamation Completed
16	03990103	12/3/1999	Amerikohl Mining Co.	New Stanton	Reclamation Completed
17	32990103	3/8/2001	T L H Coal Co.	Cambria	Reclamation Completed
18	63990102	PBNM	Robinson Coal Co.	New Stanton	Cancelled
19	17980124	10/18/1999	River Hill Coal Company	Moshannon	Reclamation Completed
20	03990102	11/13/2000	Thomas J. Smith Inc.	New Stanton	Reclamation Completed

Total ROAP Inventory

ROAP #	SMP #	SMP ISSD	Operator	District	Status
21	32000108	12/23/2004	River Hill Coal Company	Cambria	Reclamation Continues
22	26990101	PBNM	PBS Coal Inc.	New Stanton	Cancelled
23	17000101	9/13/2001	River Hill Coal Company	Moshannon	Reclamation Completed
24	33990101	7/19/1999	Amerikohl Mining Co.	Knox	Reclamation Completed
25	17990102	9/13/2001	River Hill Coal Company	Moshannon	Active
26			Marquise Mining Corp.	New Stanton	Cancelled
27	17990103	8/4/2002	River Hill Coal Company	Moshannon	Active
28			Energy Resource Inc.	Moshannon	Cancelled
29			Hepburnia Coal Co.	Cambria	Cancelled
30	11990102	7/16/2003	AMFIRE Mining Co.	Cambria	Reclamation Completed
31	40990101	9/15/2000	Hazleton Shaft Corp.	Pottsville	Active
32	03000101	10/10/2000	Amerikohl Mining Co.	New Stanton	Reclamation Completed
33			Larson Enterprises Inc.	Moshannon	Cancelled
34	65990106	5/11/2000	Ralph Smith & Son	New Stanton	Bond Forfeiture
35			Cooney Bros. Coal Co.	Cambria	Cancelled
36	17000105	2/15/2001	Hilltop Coal Co.	Moshannon	Reclamation Completed
37	32010105	9/4/2003	Amerikohl Mining Co.	Cambria	Reclamation Completed
38	56000103	11/6/2000	Hoffman Mining Inc.	Cambria	Reclamation Completed
39	56000105	3/8/2001	Hoffman Mining Inc.	Cambria	Reclamation Completed
40	33010101	8/21/2001	Sky Haven Coal Co.	Knox	Reclamation Completed
41	17010110	8/15/2002	River Hill Coal Company	Moshannon	Active
42			Energy Resource Inc.	Knox	Cancelled
43	24010101	10/4/2001	Energy Resource Inc.	Knox	Reclamation Continues
44	11000104	6/8/2001	Hoffman Mining Inc.	Cambria	Bond Forfeiture/Recl. Complete

Total ROAP Inventory

ROAP #	SMP #	SMP ISSD	Operator	District	Status
45	33010103	7/10/2002	Sky Haven Coal Co.	Knox	Reclamation Completed
46	17030102	12/13/2006	River Hill Coal Company	Moshannon	Reimbursed
47	03010108	PBNM	T D K Coal Sales	New Stanton	Cancelled
48			T D K Coal Sales	Knox	Reimbursed
49	14040103	11/13/2007	River Hill Coal Company	Moshannon	Reclamation Continues
50	02020102	2/20/2004	Amerikohl Mining Co.	New Stanton	Reclamation Completed
51	14040101	8/30/2007	River Hill Coal Company	Moshannon	Reimbursed
52	32000101	12/1/2000	Amerikohl Mining Co.	Cambria	Reclamation Completed
53			RSK Mines	Pottsville	Cancelled
54	56030103	8/4/2003	Hoffman Mining Inc.	Cambria	Reclamation Completed
55	56030102	4/8/2004	Mountaineer Mining Corp.	Cambria	Reclamation Completed
56	54030201	8/10/2003	Devil's Hole, Inc.	Pottsville	Reclamation Completed
57	26040102	2/3/2006	Amerikohl Mining Co.	New Stanton	Reclamation Completed
58			Cooney Bros. Coal Co.	Cambria	Cancelled
59	54030103	4/21/2004	Jett Contracting Inc.	Pottsville	Active
60	56040105	10/19/2005	Berwind Coal Sales Co.	Cambria	Reclamation Completed

*** The status of the Hoffman Mining site remains “reclamation continues,” although the bond was forfeited.**

Appendix D
New Remining Financial Guarantees to Ensure Reclamation Project List for 2017

Year	County	Company	Permit No.	FG Number	Issuance Date	Original Amount
2017	Bedford	J & J SVONAVEC EXCAV INC	05160101	5340203FG	01/17/2017	\$39,284.00
2017	Fulton	J & J SVONAVEC EXCAV INC	29160101	5340202FG	01/17/2017	\$69,316.00
2017	Northumberland	D MOLESEVICH & SONS CONST CO INC	49851602	4810130FG	01/24/2017	\$40,035.00
2017	Northumberland	KEYSTONE ANTHRACITE CO INC	49080105	4810131FG	05/10/2017	\$49,118.64
2017	Schuylkill	PARK MINE COAL CO LLC	54683043	4810132FG	01/05/2017	\$100,774.00

Appendix E
Reclamation Bond Credit Project List
Years 1997 – 2017

County	Fiscal Year	Company Name	Original Issuance Date	Remine Acres Agreed to Reclaim	Value of Bond Credit	AML Acres Reclaimed	Value of Reclamation
Armstrong	1998	Amerikohl Mining, Inc.	7/16/1998	7.3	\$41,747	7.3	\$43,800
Clarion	1998	MSM Coal Company Inc.	10/22/1999	3.9	\$20,645	3.9	\$23,400
Clearfield	1999	Larson Enterprises, Inc.	10/20/1999	19.4	\$43,150	19.4	\$82,500
Northumberland	1999	Blaschak Coal	10/13/2000	2.6	\$28,832	3	\$28,832
Columbia	2001	Blaschak Coal	10/4/2001	1.8	\$34,466	1.8	\$38,739
Clearfield	2006	Res Coal	07/2006	14.7	\$335,968	14.7	\$335,968
Schuylkill	2013	BET Associates IV, LLC	8/21/2013	50.6	\$562,305	On going	
		Totals		100.3	\$1,067,113	50.1	\$553,239

