

**REPORT OF THE
SPECIAL RECLAMATION FUND
ADVISORY COUNCIL**

January 26, 2021



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EXECUTIVE SUMMARY

The Special Reclamation Fund Advisory Council (the “SRFAC”) was established by the Legislature in 2001 in order to ensure the effective, efficient and financially stable operation of the Special Reclamation Fund (the Fund). (W.Va. Code § 22-1-17). According to W.Va. Code § 22-1-17 the SRFAC shall consist of eight members, including the Secretary of the West Virginia Department of Environmental Protection (WVDEP) or his or her designee, the Treasurer of the State of West Virginia or his or her designee, the Director of the National Mine Land Reclamation Center at West Virginia university and five members to be appointed by the governor with the advice and consent of the Senate.

The Fund is designated by the Legislature for the reclamation and rehabilitation of lands subject to permitted surface mining operations and abandoned after 1977, where the bond posted is insufficient to cover the cost of reclamation. The Fund is presently funded by a tax of 27.9 cents per ton of clean coal mined in West Virginia. From this revenue, funds based on a tax rate of 15 cents per ton are being paid into the Special Reclamation Water Trust Fund (SRWTF), while coal tax revenues based on 12.9 cents per ton are being paid into the Fund. According to W.Va. Code § 22-3-11, “Beginning with the tax period commencing on July 1, 2009, and every two years thereafter, the special reclamation tax shall be reviewed by the Legislature to determine whether the tax should be continued: *Provided*, That the tax may not be reduced until the Fund and SRWTF have sufficient moneys to meet the reclamation responsibilities of the state established in this section.”

The SRWTF was created “for the purpose of assuring a reliable source of capital to construct, operate, and maintain water treatment systems on forfeited sites.” (W.Va. Code § 22-3-11).

The Secretary of the WVDEP is required to conduct formal actuarial studies every two years and conduct informal reviews annually on the Fund and SRWTF. The SRFAC is also required to make a report to the Legislature every year on the financial condition of the Fund. (W.Va. Code § 22-1-17). The report is to include: “A recommendation as to whether or not any adjustments to the special reclamation tax should be made considering the cost, timeliness and adequacy of bond forfeiture reclamation, including water treatment [and] a discussion of the SRFAC 's required study issues.”

In accordance with the statutory requirements, the SRFAC submits the following:

1. Recommendation:

Based upon conclusions drawn from information included in this report, the SRFAC makes the following recommendations to the Legislature:

The SRFAC recommends that the present 12.9 cent per ton tax dedicated to the Fund remain in force and that the tax dedicated to the SRWTF remain at 15 cents per ton. It was previously established by the Council that the Fund would cover all costs for both land reclamation and water treatment through June 2018. Then starting in July 2018, the SRWTF would begin covering the cost for water treatment—both water capital costs and ongoing water treatment costs. Following reviews of the financial status and investment earnings of both funds it was the consensus of the Council to continue paying for all reclamation costs out of the Fund to allow the SRWTF to continue building assets while earning higher yields. It was also agreed that fund transfers from the SRWTF to the Fund would occur, as needed, to maintain a fund balance of \$10,000,000.

The SRFAC further recommends that the State Legislature form a panel to examine the elements of our State code that result in uncontrolled liabilities finally to propose a State legislative initiative to rationalize water quality regulation to meet the conditions of the Federal Clean Water Act while adding rationality and certainty to the process.

The SRFAC recommends that the Legislature continue to examine the implications of the recent court rulings and subsequent lawsuit settlements on the Special Reclamation Fund, Abandoned Mine Lands, and voluntary efforts by citizen-led watershed groups to address historic mining-reclamation related liabilities. The SRFAC further recommends that the Legislature examine the mine reclamation and bonding programs of other states and, as implemented in Tennessee, by the federal Office of Surface Mining in order to determine whether the statute and regulations creating the Fund and SRWTF in West Virginia have inappropriately interpreted SMCRA to require long-term CWA liabilities. The SRFAC further recommends the Legislature examine the separate and distinct authorities of the Clean Water Act (CWA) in assessing the eligibility of future forfeitures for transfer of liabilities to the SRWTF. The SRFAC is concerned about default transfer of water treatment liability to the SRWTF when opportunities exist to pursue responsible parties under the CWA per the requirements of an NPDES (CWA Section 402) permit.

2020 Study issues:

- Review of the current investment strategy
- Continue review of DMR database and improvement to functionality. A priority addition is to include a data field that indicates whether an active permit is treating AMD, or other water pollutants, as part of the effort to compile water management and treatment costs on active sites.
- Continue to improve upon the active mine polluttional inventory.

2020 Notable Projects:

- Rare Earth Elements
- Cost comparison of the watershed approach treatment vs at source treatment within Muddy Creek (results are not yet final)

Membership Status of the Special Reclamation Fund Advisory Council

Currently Mike Sheehan serves as the member representing the Cabinet Secretary of the WVDEP. From May 2019, Abigail Campbell served as the member representing the Treasurer of the State of West Virginia, until she was replaced with Lindsay Marchio in August 2020. Dr. Paul Ziemkiewicz serves as the member representing the Director of the National Mine Land Reclamation Center at West Virginia University. Christine Risch, Marshall University, Center for Business and Economic Research, serves as the Actuary/Economist member. Bill Raney serves as the member representing the interests of the coal industry. John Morgan serves as the member representing the interest of environmental protection organizations. Ronald Pauley serves as the member representing the interests of coal miners. Christopher Pence serves as the member representing the interests of the general public.

BACKGROUND ON THE SPECIAL RECLAMATION FUND

In 2001 the legislation establishing the SRFAC also increased the tax on clean coal mined in West Virginia, from three to seven cents per ton (the “Continuing Tax”), and levied an additional seven cents per ton (the “Temporary Tax”), to be deposited into the Fund. The revenues of the Fund were designated to pay for reclamation on post-1977 bond-forfeited sites.

The 2001 legislation provided for the Temporary Tax to be in effect for thirty-nine months. As a result of a 2005 actuarial report finding that the expiration of the Temporary Tax would result in nearly immediate

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insolvency of the Fund, the Temporary Tax was extended by the Legislature in 2005, for an additional eighteen months. A 2007 actuarial study commissioned by the SRFAC found that the failure to extend the Temporary Tax again would result in insolvency of the Fund. Accordingly, in 2008 the Legislature, through SB 751, created the SRWTF and enacted a temporary, twelve-month tax of 7.4 cents which was to be allocated between the Fund and a SRWTF. Twelve and nine-tenths cents was dedicated to the Fund and 1.5 cents was deposited into the SRWTF. An updated actuarial study in 2008 concluded that terminating the temporary tax would result in insolvency within a few years. In response, in the 2009 legislative session, the Legislature amended W.Va. Code § 22-3-11 to remove the expiration date for the Temporary Tax and provided instead for biennial review of the Tax by the Legislature. (Acts of the Legislature 2009, chapter 216).

Based upon projections under the 2011 Actuarial Analysis performed by Pinnacle Actuarial Resources, Inc. the Fund was found to be sufficiently funded under the existing 12.9 cent tax. However, the SRFAC was concerned that as the SRWTF began making payments for water capital and ongoing water treatment in Fiscal Year 2019, as projected, the SRWTF would fall into a deficit position in the second year of operation-2020. (2011 Actuarial Valuation, page 3). Declining coal production projected by the 2011 Consensus Coal Production Forecast and the significant increase in water treatment costs resulting from court rulings in two cases were contributing factors in the projected insolvency of the SRWTF. Accordingly, in 2012 the Legislature increased the special reclamation tax to 27.9 cents per ton, 15 cents of which was to be deposited into the SRWTF.

Based upon projections under the 2013 Actuarial Analysis performed by Pinnacle Actuarial Resources, Inc. the Fund was projected to be over 100 percent funded using a 20-year cash flow basis and 95.7 percent funded using a 35-year cash flow basis. The SRWTF was (and is today) accumulating 15 cents per ton coal tax revenue and interest and was projected by the 2013 Actuarial Valuation to be 150.4 percent funded using a 20-year cash flow basis and 89.9 percent funded using a 35-year cash flow basis.

Based on the 2015 Actuarial Analysis conducted by Taylor & Mulder, the Fund was projected to fall to a low of \$51.5 million in 2018. This was due to paying for all reclamation cost for both land and water as well as operation and maintenance cost associated with water treatment. The Fund was projected to then slowly recover to \$187.5 million by the end of the twenty-year study period, at which point an \$8.2 million liability would remain. The SRWTF was expected to accumulate approximately \$120 million by 2018 before beginning to support water reclamation costs in 2019 (*However, it should be noted that as of December 31, 2017 the balance in the SRWTF had only reached \$104 million*). Afterwards, the SRWTF was projected to show gains, reaching \$289.8 million

by the end of the twenty-year study period with a \$110.5 million liability remaining. Both funds combined were projected to total approximately \$477.3 million at the end of the twenty-year study period with a total remaining liability of \$118.7 million.

Based on the 2017 Actuarial Analysis conducted by Pinnacle Actuarial Resources, Inc, the results indicated that on a present value basis the Fund is 97.3% funded over a twenty-year projection and 93.6% funded over a thirty five-year projection period but indicated that the fund would go into a negative balance in 2021. The SRWTF is 162.6% funded over a twenty-year projection, 151.4% funded over a thirty five-year projection period and is fully funded throughout the entire projection period. Combined the two funds are 123.4% and 115.8% funded over twenty and thirty five-year projections respectively, and fully funded throughout the entire projection period. Pinnacle determined that a transfer of \$38 million in assets from the SRWTF to the Fund would keep the Fund in a positive balance position throughout the projection period without causing the SRWTF to move into a negative balance.



Taylor & Mulder
Engineering and Geotechnical Consulting Services

Taylor and Mulder's 2019 projections of revenues and expenses to the Funds imply that the Funds will be solvent on a cash basis through 2039.

The chart below shows a simplified cash flow projection for the SRF and WTF combined over the next 20 years.

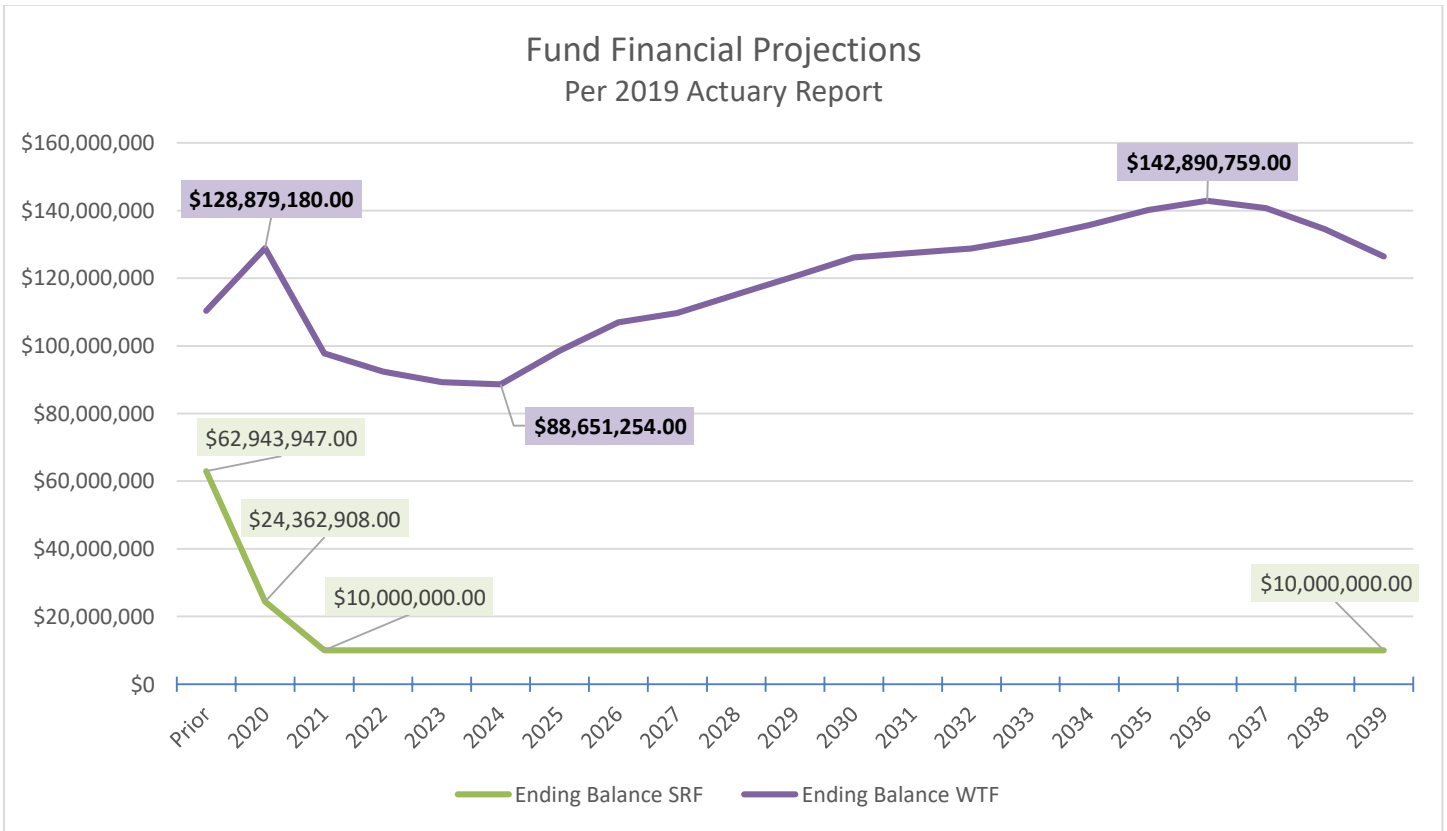


Figure 1

SRFAC Recommendation

The SRFAC recommends that the present 12.9 cent per ton tax dedicated to the Fund remain in force and that the tax dedicated to the SRWTF remain at 15 cents per ton. It was previously established by the Council that the Fund would cover all costs for both land reclamation and water treatment through June 2018. Then starting in July 2018, the SRWTF would begin covering the cost for water treatment—both water capital costs and ongoing water treatment costs. Following reviews of the financial status and investment earnings of both funds it was the consensus of the Council, this year, to continue paying for all reclamation costs out of the Fund to allow the SRWTF to continue building assets while earning higher yields. It was also agreed that fund transfers from the SRWTF to the Fund would occur, as needed, to maintain a fund balance of \$10,000,000.

FINANCES OF THE SPECIAL RECLAMATION FUND & THE SRWTF

This section of the Report to the Legislature outlines the financial status of the Fund and the SRWTF for calendar year 2020 and provides comments regarding the future financial position of both. The three key factors

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that have the most effect on the adequacy of the Fund are the coal production levels in West Virginia, the risk of future forfeitures, and the cost of reclaiming existing and future bond-forfeited sites.

The WVDEP acknowledges that future forfeitures and any water management costs associated with them could affect funding needs of the Fund and the SRWTF. WVDEP is currently working to compile water management and treatment costs on active (still permitted) sites in order to better inform the actuaries and policy makers in prediction of future water management and treatment costs associated with revoked sites. Additionally, the SRFAC is continuously looking for ways to improve upon the ability to project future forfeitures, which will continue to be a focal point of the SRFAC through 2021. The Office of Surface Mining Reclamation and Enforcement (OSMRE) supports WVDEP's efforts to improve the active mine polluttional inventory to ensure the accuracy of future forfeiture cost projections.

To summarize the data and analysis that follow, it should be noted that the Fund will continue to pay for all costs for both land reclamation and water treatment. Money transfers from the SRWTF to the Fund will occur as needed in order to maintain a fund balance of \$10,000,000.

As of December 31, 2020, the Fund has accumulated assets of \$38.8 million while the SRWTF has accumulated \$145 million in assets, a 17.72% increase over 2019 SRWTF values. Increased revenues for the SRWTF are attributed to the tax increase in 2012 as well as the improved investment strategy which was initiated in 2013 as described below.

In May of 2013, following numerous discussions between WVDEP personnel and members of the Investment Management Board and the Board of Treasury Investments, the SRFAC was updated on various investment options and made the following recommendations:

The first recommendation was in two parts:

1. That the current balance of the Water Quality (WQ) Trust Fund and all additional revenue of the WQ Trust Fund through Fiscal Year 2018 be invested in the Investment Management Board (IMB) Fixed Income Pool until FY 2019.
2. That WVDEP develops plans to maximize the return on investment for future WQ Trust revenue.

The second recommendation was also in two parts:

1. That the current balance of the Special Reclamation Fund be invested in the Board of Treasury Investments West Virginia Short Term Bond Pool with the exception of \$5 million, which should remain in the West Virginia Money Market Pool.

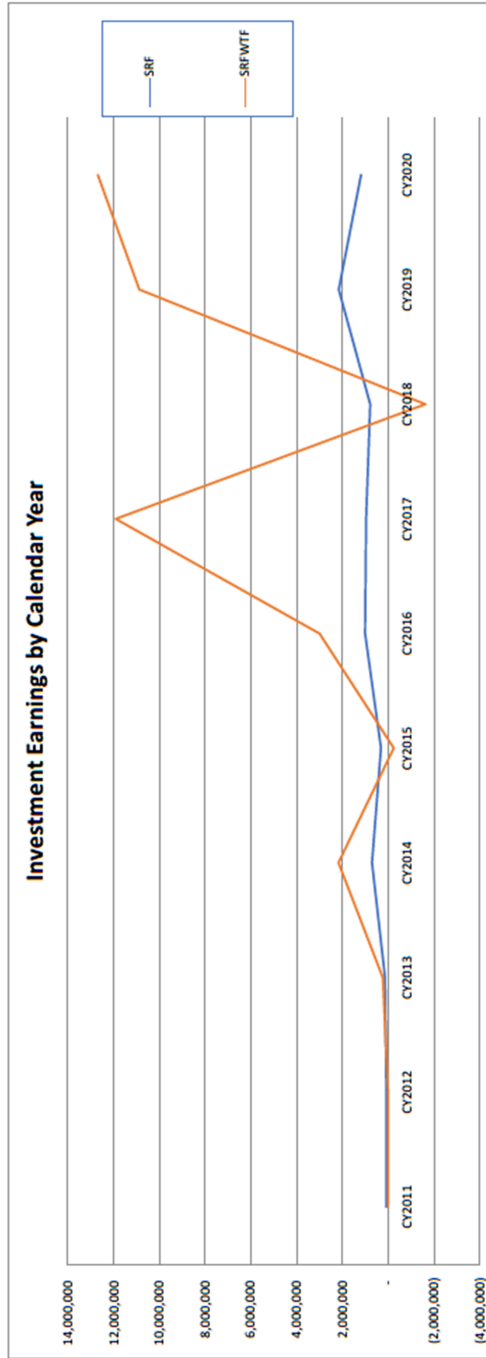
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2. That WVDEP develops plans to maximize the return on investment for future SR Fund revenue.

In October of 2013 the balance of \$28 million from the SRWTF was transferred to the Investment Management Board Fixed Income Pool.

In June of 2013, with the exception of \$5 million, the balance of the Fund was transferred to the West Virginia Short Term Bond Pool. The following chart depicts the investment earnings for the previous six years prior to the new investment strategies and results of the new strategy leading up to the current year.

Department of Environmental Protection
 Special Reclamation Fund and Special Reclamation Water Trust Fund
 Investment Earnings by Calendar Year
 For Ten Full Calendar Years 2011 - 2020



Since 2001, despite a very aggressive reclamation schedule, the Fund has been serving the people of West Virginia well through providing for the reclamation of bond-forfeited sites. At the time of the initial legislation in 2001, there were 392 forfeited permits requiring reclamation, including 122 requiring water treatment. Since passage of that legislation, an additional 244 permits have been forfeited as well, bringing the total to 636 permits requiring reclamation. Of those, work has been completed on 518 permits. With regard to water treatment, the Fund is treating water at 167 sites and has an additional 28 sites under review or construction. As of December 31, 2020, the Fund had accumulated cash and investments totaling \$38.8 million, while the SRWTF had accumulated \$145 million.

A complete inventory of all bond forfeiture sites can be found in Appendix C, along with bond forfeiture sites that have mine drainage related problems, and a prioritized order in which they will be addressed.

Graphic summaries of the status of the Funds are outlined in the following figures.

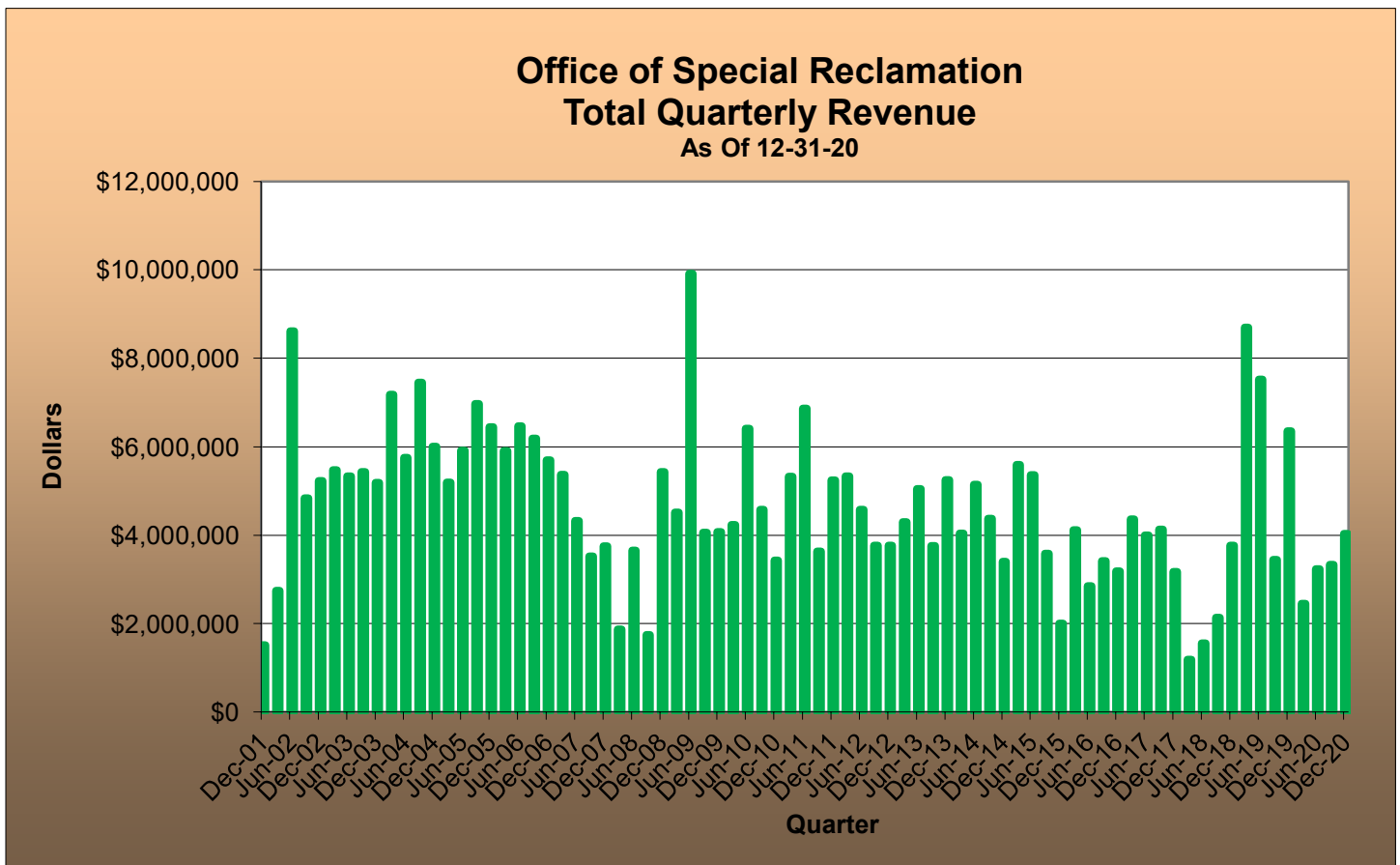


Figure 3

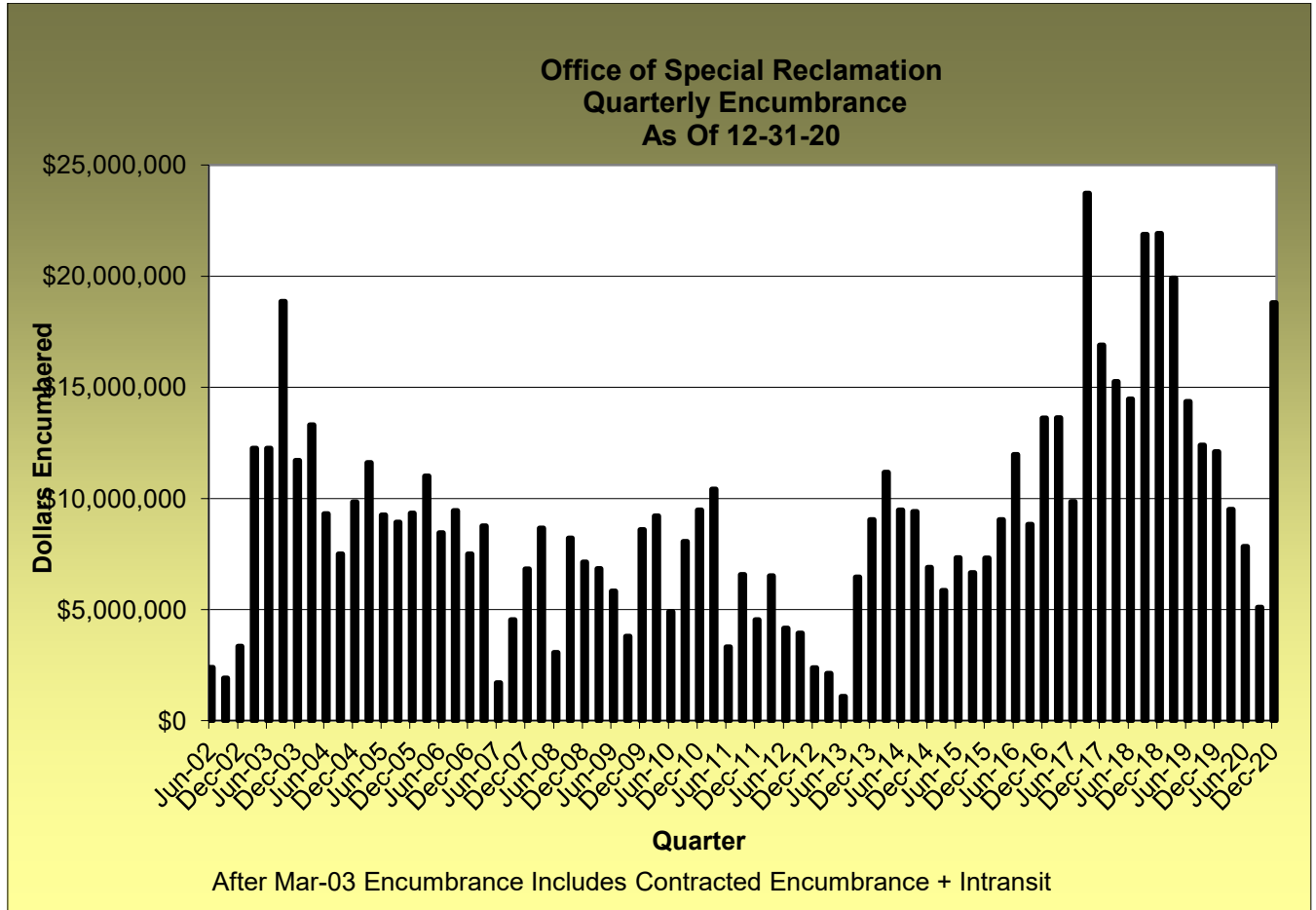


Figure 4

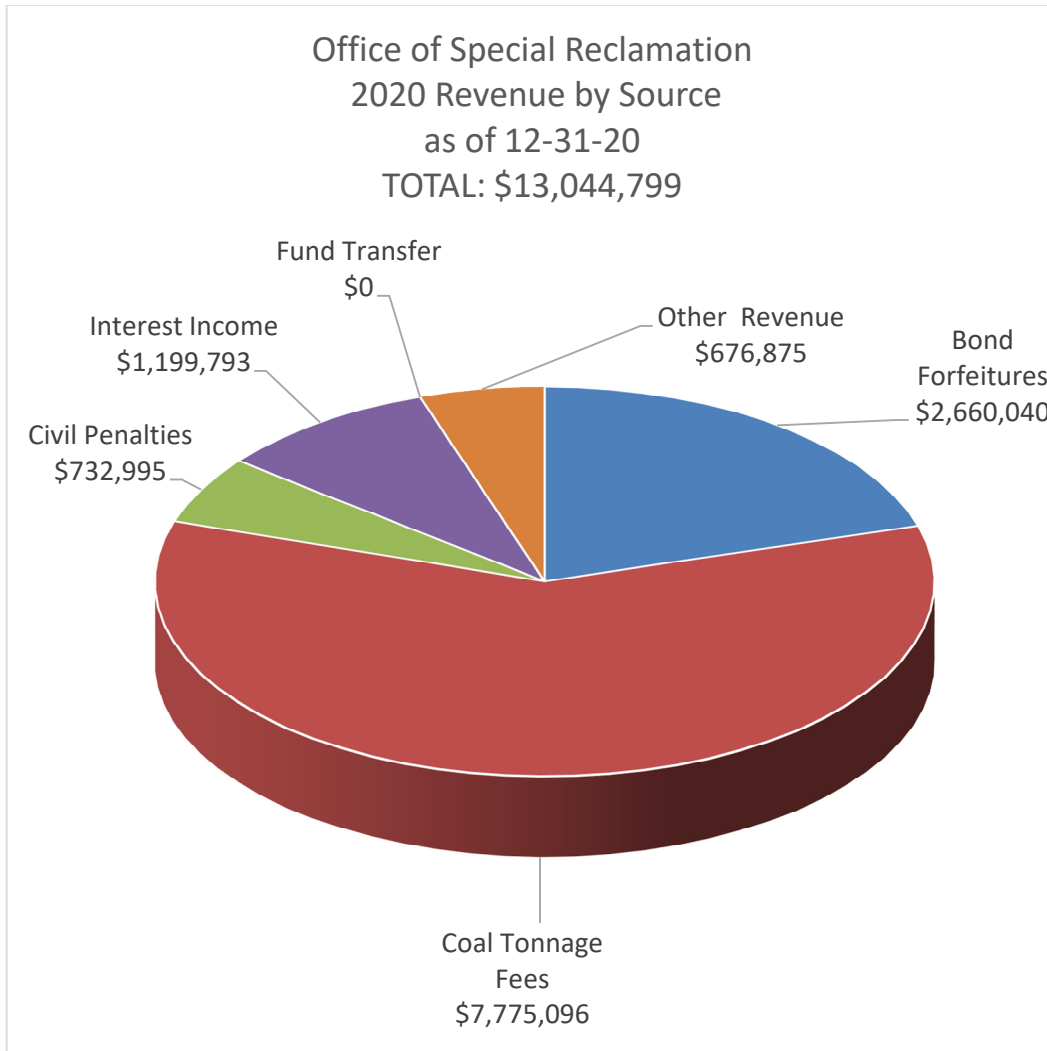


Figure 5

Water Treatment Funding

A complete inventory of bond forfeiture sites that are producing mine drainage that violate effluent limitations or applicable water quality standards for long-term treatment of these sites, can be found in Appendix C.

The current main funding mechanism for bond-forfeited sites is the 27.9 cent tax per ton of clean coal mined, of which fifteen cents is dedicated to the SRWTF.

In 2008, the Legislature authorized, but did not separately fund, the SRWTF. In reliance on the SRWTF statutory authorization, beginning in July 2008, coal tax revenues based on a tax rate of 1.5 cents per ton were

being paid into the SRWTF. In addition, coal tax revenues based on 12.9 cents per ton were being paid into the Fund. In 2012 the Legislature increased the amount dedicated to the SRWTF to 15 cents per ton; but based on the funded status of the Fund at the time the Fund remained at 12.9 cents per ton.

The average yearly revenue, fees and investment earnings for the past four years have exceeded eighteen million dollars (\$18 M/year). The current balance in the SRWTF is \$144,990,013 as of December 31, 2020. The SRFAC is continuing to look at alternatives for water treatment funding.

Increased water capital cost and water treatment cost are the result of two identical lawsuits filed against the WVDEP. In 2011 and 2012 the WVDEP entered into separate consent decrees with the northern and southern district courts respectively. As will be discussed later in this report, the WVDEP was required to apply for and obtain NPDES permits for all the sites included in Attachment A of the consent decrees plus an additional 21 sites which were included in an earlier lawsuit, for a total of 192 sites. The WVDEP estimated that it will cost approximately \$35.5 million to bring bond forfeiture sites into compliance with the more stringent water quality-based effluent limits. Additionally, WVDEP estimated that it will cost approximately \$6.7 million to operate and maintain these treatment systems on an annual basis.

WVDEP has fulfilled the requirements of the Consent Decree by obtaining all NPDES permits.

Additional Charges to the Fund Due to NPDES Requirements

Due to NPDES requirements, the WVDEP has been faced with charging more expenditures to the Fund. These include:

- Realty – Land and/or easement purchases have been necessary to expand existing or new water treatment sites outside permit boundaries. Surveying and appraisal costs are included in these purchases.

Increased staff – As a result of having to apply for and obtain NPDES permits at all bond forfeiture sites now and into the future, the WVDEP has found it necessary to incorporate an NPDES permitting section into the Office of Special Reclamation (OSR - The office responsible for reclamation of land and waters for bond forfeited sites). Five new staff members consisting of one (1) Program Manager and four (4) Environmental Resource Specialists have been added to fulfil

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the NPDES requirements for the WVDEP. Additionally, to reduce surveying costs associated with reality needs and design, a licensed surveyor was hired.

Also, two (2) land agents were hired in 2018 to address realty needs, although the responsibilities and salaries are split between OSR and the Office of Abandoned Mine Lands.

- NPDES permitting fees:
 - Application fees - \$1,000/application
 - Modification fees - \$500/mod.
 - Annual fees - \$1000/permit.
- Additional water sampling related to permit applications.
- The WVDEP entered into a grant agreement with the West Virginia Land Stewardship Corporation (WVLSC) to provide contractual services in the areas of design, construction, and project oversight. The purpose of the agreement was to enhance the capacity of WVDEP professional staff to meet reclamation deadlines. It is estimated that project costs increase by 10 to 15% for contractual services and another 1% for indirect cost associated with managing the grant.

The WVLSC was created by state legislation in 2013 to lessen the burdens of government when government identifies a need for WVLSC to assist with land stewardship and the remediation of properties with known environmental issues, including former mining sites.

A pilot grant agreement, known as the LaRosa Fuels site (Permit Number S-1051-86), was approved in 2016 to evaluate the efficiency and benefits of a work-sharing partnership.

WVDEP approved a grant amendment in 2017 and provided additional funds, as well as additional permits to be reclaimed. The grant was structured as an up-front payment to provide the WVLSC with the funds needed to cover the level of liability inherent in multiple reclamation projects, which requires engaging multiple engineering and construction firms simultaneously. Having the resources to cover at least the original liability estimates provided by WVDEP gave the WVLSC Board the level of certainty it needed to take on the project.

The WVLSC invested the grant funds so that they could earn interest that could be used on the project. In 2018, when it was identified that WVDEP investments were gaining a higher rate of return, the grant funds were returned to the WVDEP to maximize investment earnings. The

WVLSC invoices the WVDEP when expenditures regularly occur. WVLSC has one design project remaining to fulfill the grant agreement; therefore, completion is anticipated by or before June 30, 2021.

WVDEP Policy Relevant to the Fund

Effective May 21, 2014 the WVDEP has implemented a new policy establishing a standard procedure the WVDEP will follow to terminate the State's jurisdiction over bond-forfeited former mining sites (Special Reclamation Sites). With a decision that the Special Reclamation Site has satisfied the applicable performance standards, WVDEP will terminate jurisdiction over the subject Special Reclamation Site. The policy limits the vulnerability of the State, and consequently the Fund, by reducing the possibility of lawsuits pertaining to damages unrelated to former mining practices or reclamation practices, i.e. due to recreation, timbering, oil & gas, etc., as well as any changes to environmental laws taking effect after reclamation of the subject Special Reclamation Site. The WVDEP will retain jurisdiction of Special Reclamation Sites, or portions thereof, that are necessary for the effective treatment of mine discharges emanating from the subject Site.

Litigation

1. The Fund through FY 2018 and the SRWTF starting in FY 2019 has acquired liability for additional water treatment as a result of lawsuits filed against the WVDEP, as described below.

Identical complaints were filed in the Northern and Southern District Courts, Civil Actions No. 07-cv-87 (the "Northern District Case") and No. 2:07-0410 (the "Southern District Case"), assigned to Judge Irene Keeley and Judge John T. Copenhaver, Jr., respectively. Both cases were styled *West Virginia Highland Conservancy and West Virginia Rivers Coalition v. Randy C. Huffman, Secretary, West Virginia*

Department of Environmental Protection.

The two suits alleged that the West Virginia Department of Environmental Protection (WVDEP) had violated, and continues to violate, the federal Clean Water Act (the Act) by failing to obtain West Virginia National Pollutant Discharge Elimination System (WV/NPDES) permits when the WVDEP reclaims and treats water at bond forfeited sites as directed by state law. The Northern District Case named 18 specific bond forfeited sites and the Southern District Case named 3 sites.

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On March 26, 2009, the Northern District Court entered summary judgment in favor of Plaintiffs in the Northern District Case and granted a permanent injunction. The injunction requires WVDEP to apply for, process, and issue WV/NPDES permits to itself for the discharge into waters and streams of pollutants from the eighteen bond-forfeited, coal mining sites at issue in the case, whose reclamation the agency is required to manage. WVDEP appealed this decision to the United States Court of Appeals for the Fourth Circuit (“Fourth Circuit Court of Appeals”). By order dated November 8, 2010, the Fourth Circuit Court of Appeals affirmed the Northern District Court’s ruling.

Similarly, a motion for summary judgment in the Southern District Case was granted by Order dated August 24, 2009. The Southern District Court found that the Secretary of the WVDEP was “in violation of the National Pollutant Discharge Elimination System permitting requirements of the Clean Water Act.” The Southern District Court ordered the Secretary to “apply for, and obtain, NPDES permits for all sites at issue in this action,” and the parties subsequently submitted a joint stipulation agreeing to the same injunctive relief and timeframes for compliance set forth in the Northern District litigation. The Southern District Court entered final judgment August 31, 2010.

On January 11, 2010, the same Plaintiffs (West Virginia Highlands Conservancy and West Virginia Rivers Coalition) and the Sierra Club submitted a letter giving WVDEP notice of their intent to sue WVDEP regarding discharges from 131 additional bond forfeited sites on the same legal basis as the previous suits. Based on the outcome of the previous litigation, WVDEP engaged in settlement negotiations with the Plaintiffs and reached agreement regarding the permitting of the 21 sites in the previous litigation and the additional 131 sites. In August 2011, the Plaintiffs filed two new suits regarding the additional sites, *West Virginia Rivers Coalition, et al v. Huffman*, Civil Action No. 1:11-cv-118 (N.D. W.Va.), and *West Virginia Rivers Coalition, et al v. Huffman*, Civil Action No. 2:11-cv-524 (S.D. W.Va.), and lodged a proposed Consent Decree with both courts. The Northern District Court entered the Consent Decree on October 12, 2011. The Southern District Court entered the Consent Decree February 10, 2012. A list of all bond forfeited sites at issue in all four suits is attached to the Consent Decree as Attachment A. As required by the Consent Decree on July 2, 2012 WVDEP submitted a Final Treatment Cost Report to Plaintiffs and SRFAC, in which WVDEP determined the capital cost and annual operating and maintenance costs for water discharges from each bond forfeiture site to meet applicable water quality-based effluent limitations. The WVDEP estimated that these costs will amount to \$35.5 million for one-time capital construction costs and over \$6 million in annual operations and maintenance costs.

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The Consent Decree resolves all four suits filed by the Plaintiffs regarding bond forfeited sites. The Consent Decree required WVDEP to obtain WV/NPDES permits for all 21 bond forfeiture sites cited in the initial litigation by September 1, 2011. Thereafter, WVDEP issued draft WV/NPDES permits for 50 additional sites by the end of each calendar year, beginning in 2012. By December 31, 2015 the Consent Decree required WVDEP to issue draft WV/NPDES permits for all bond forfeited sites listed in Attachment A of the Consent Decree and for sites that were in existence on the date the Decree was executed. Thereafter, the WVDEP shall exercise its best judgment on the timing of issuance of draft permits for sites forfeited after the execution of the consent decree.

Note: The final draft permit was issued December 10, 2015.

2. A third case presents potential for future litigation, should the legislature not adequately fund the Fund and SRWTF. *West Virginia Highlands Conservancy v. Secretary Salazar, DOI*, Civil Action No. 2:00-1062 (S.D. W.Va.). The West Virginia Highlands Conservancy (WVHC) had filed a motion with the U.S. District Court for the Southern District of West Virginia to reopen the case and schedule further proceedings on the grounds that the recommendations of the SRFAC were not being followed with regard to funding the Special Reclamation Fund. Based upon the Legislature's extension of funding through the Continuing and Temporary taxes, the case was placed on the court's inactive docket as of May 2008; however, the court allowed the possibility of a renewed motion if the Legislature does not continue to provide sufficient monies for the Fund to remain solvent.

In March 2011, the WVHC moved once again to have the litigation reopened alleging continuing problems with the Fund. A status conference was held on August 5, and the court ordered the filing of a joint status report. On August 25, 2011, the WVHC and the Defendants filed a joint status report with the court. The WVHC stated that the court should not delay reopening the case until the new actuarial report and SRFAC recommendations are issued, whereas the Defendants recommended that it was premature for the court to reopen this matter prior to the close of the 2012 legislative session.

On March 30, 2012, a status conference call was conducted by the Court. In light of the enactment of Senate Bill 579 that increased the special reclamation tax from 14.4 cents to 27.9 cents per ton of clean coal mined, the Plaintiff acknowledged that it would move to withdraw its Second Motion to reopen and refile it to address the changed circumstances that have occurred since the filing of its motion to reopen.

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On April 2, 2012, the WVHC filed its Motion to withdraw its Second Motion to reopen this case with the Court. On August 5, 2012, the Court issued an Order granting the Plaintiff's Motion to withdraw its Second Motion. In addition, the Court granted the WVHC leave to file an additional motion to explain deficiencies that remain, notwithstanding the recent revenue increase in the Special Reclamation Fund.

This case remains open, so the District Court can address any issue that may arise regarding the State's ABS (alternative bonding system).

3. On or about April 20, 2016, the West Virginia Highlands Conservancy, West Virginia Rivers Coalition, and Sierra Club sued the West Virginia Department of Environmental Protection's (WVDEP) Special Reclamation Program alleging it was in violation of seven West Virginia National Pollution Discharge Elimination System (WVNPDES) permits issued for sites controlled by the Special Reclamation Program, four in the United States District Court for the Northern District of West Virginia¹ and three in the Southern District². The lawsuits allege that the WVDEP had discharged and continued to discharge quantities of aluminum, iron, nitrogen ammonia, and suspended solids in excess of the effluent limitations in those permits. The lawsuits further allege discharges of effluent with pH outside of the permit range. On December 12, 2016, the parties met at WVDEP's headquarters in Charleston. The WVDEP explained to the Plaintiffs that a timetable for achieving compliance had already been established and were included in a corrective action plan required under the enforcement actions being carried out by the WVDEP's Division of Mining and Reclamation. On July 10, 2017, the parties filed a consent decree in the Northern District action. On April 25, 2018, the parties filed a consent decree in the Southern District. The compliance requirements found in these consent decrees are based on the schedule that the WVDEP had prepared for inclusion in the corrective action plan; no new or different requirements were added as a result of the litigation.

1. *West Virginia Highlands Conservancy, et al. v. Austin Caperton, Secretary, West Virginia Department of Environmental Protection*,

United States District Court for the Northern District of West Virginia, Civil Action No. 1:16-cv-70

2. *West Virginia Highlands Conservancy, et al. v. Austin Caperton, Secretary, West Virginia Department of Environmental Protection*,

United States District Court for the Southern District of West Virginia, Civil Action No. 2:16-cv-03769

2021 SRFAC Study Issues

- Review of the current investment strategy

Continue review of DMR database and improvement to functionality. A priority addition is to include a data field that indicates whether an active permit is treating AMD, or other water pollutants, as part of the effort to compile water management and treatment costs on active sites.

- Integrate more detailed inspection data with the DMR permit data used by the SRF. Currently, the database only specifies a broad inspection status on the date of last inspection. Information about permit violations, including number, date, and types of violations, is needed to evaluate risk of forfeiture. DMR is working to connect two databases to make this happen.
- Continue to improve upon the active mine pollutional inventory.
- Determination of controlling entities
- Consensus Coal Forecast
- Actuarial Study

The SRFAC is continuously looking for ways to improve the ability to project future forfeitures. Although limited in its current form the DMR database of open permits is the primary source of information used for the biennial actuarial analysis of the SRF and SRWTF. The analysis also relies heavily on information obtained from forfeited permits and applied to current permits to project future forfeitures.

The SRFAC would like to explore options to increase the linkages of data from past forfeitures to open permits, to improve the predictive power of historical data. Some pieces of data that may be available in the permit databases that have not been previously utilized include:

- length of time a permit had a particular status
- number of times a permit changed status
- groupings with other permits (proximity or use), including Parent Company level of existing permits
- annual coal production associated with a permit or group of permits

The SRFAC recognizes that not all these pieces of data are available, even in open permits, and may no longer be available for permits that forfeited many years ago, but would like to explore the ability to enhance the

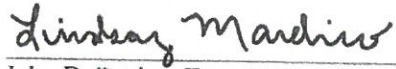
2020 SRF Advisory Council Annual Report

information available that can help quantify risk. The database will need to be cleaned and augmented prior to future in depth study.

Special Reclamation Fund Advisory Council
Annual Report to the Legislature
January 15, 2021



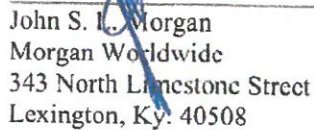
Austin Caperton, Secretary WVDEP
Ex Officio
Designee: Michael Sheehan
WVDEP Deputy Director, Div. of Land Restoration
601 57th Street
Charleston, WV 25304



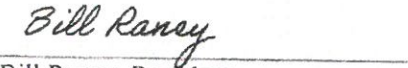
John D. Perdue, Treasurer
Designee: Lindsay Marchio
Associate General Counsel
WV State Treasurer's Office
1900 Kanawha Blvd
Capital Complex Bld 1, Room E-145
Charleston, WV 25305



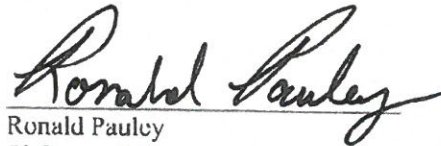
Paul Ziemkiewicz, PhD, Director
National Mine Land Reclamation Center
WVU - NRCCE Building
P.O. Box 6064
Morgantown, WV 26506



John S. L. Morgan
Morgan Worldwide
343 North Limestone Street
Lexington, Ky. 40508



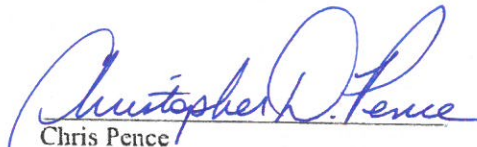
Bill Rancy, President
West Virginia Coal Association
Northgate Business Park
P.O. Box 3923
Charleston, WV 25339



Ronald Pauley
50 Sunset Drive
Sumarco, WV 25567



Christine M. Risch
Director of Resource & Energy Economics
Marshall University
Center for Business & Economic Research
One John Marshall Drive
Huntington, WV 25755-0003



Chris Pence
10 Hale Street 4th Floor
Charleston, WV 25301

Appendices for 2020 SRFAC Annual Report
(All Appendices as of 12-31-20)

A. WVDEP Graphs:

Land and Water Permits Scheduled by Quarter and Projects Completed

Land Permits To Be Contracted

Land Liabilities To Be Contracted

Permits Forfeited Since 6-30-01

Reclamation Projects Started Since 6-30-01

Contract Dollars Encumbered

Cash Balance

Total Revenue

Revenue Collected by Source: Bonds, Civil Penalties, Tax

B. Rare Earth Elements

C. Bond Forfeiture Inventories

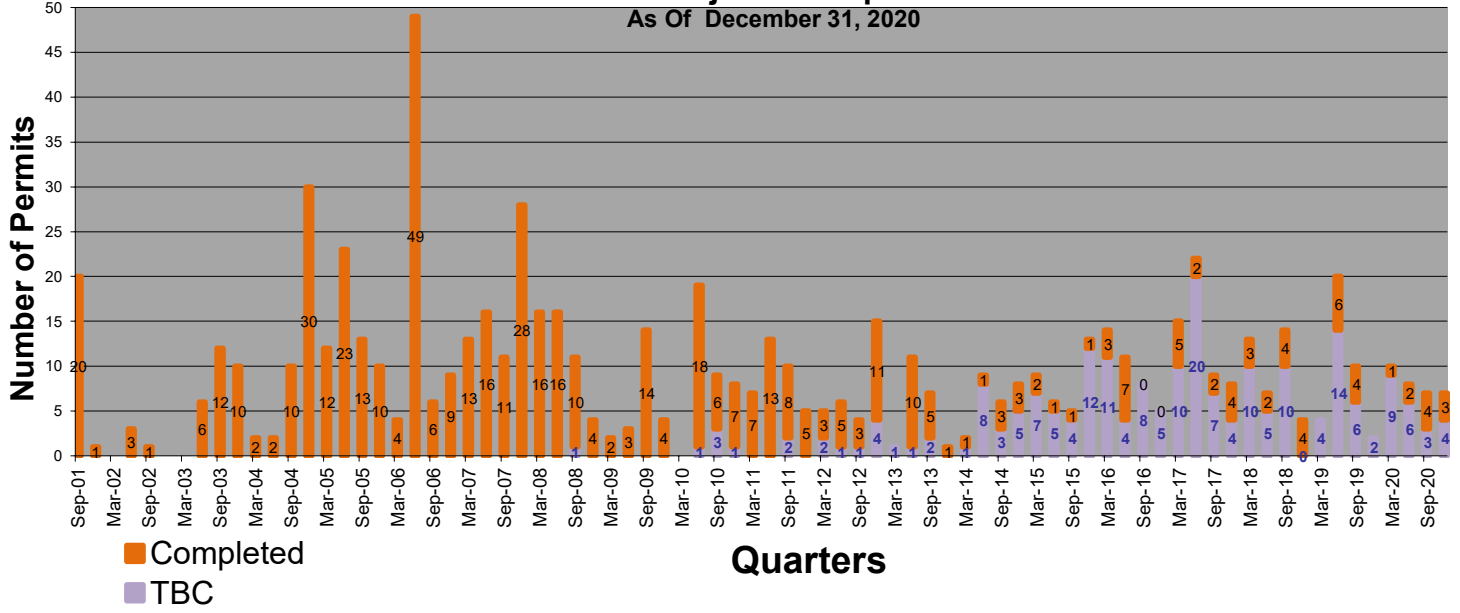
a. **Total Forfeiture Inventory**

b. **Acid Mine Drainage Inventory**

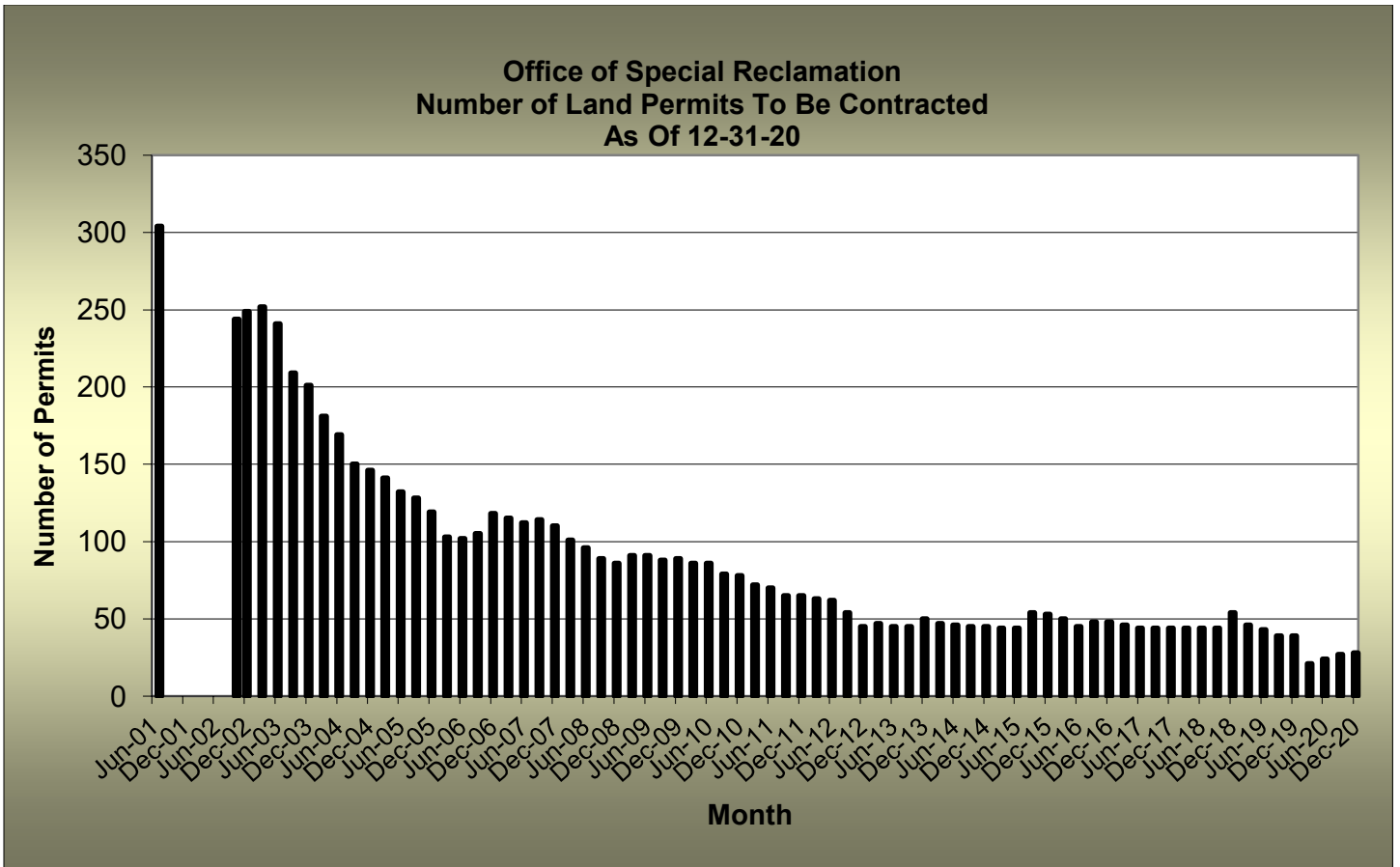
c. **Mine Drainage Treatment Prioritization**

Appendix A

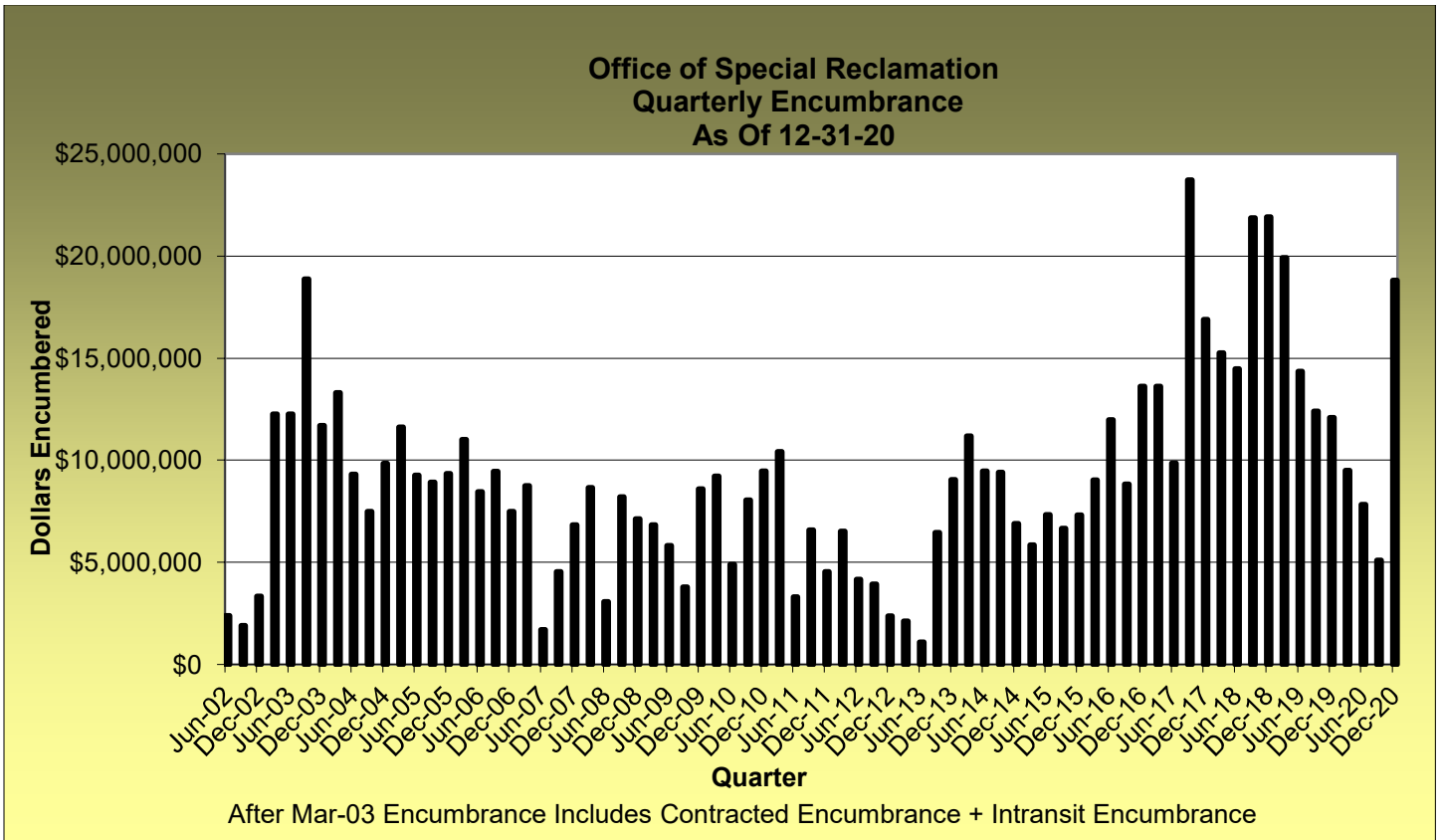
**Land and Water Permits
TBC -Scheduled by Quarter
and Projects Completed**
As Of December 31, 2020

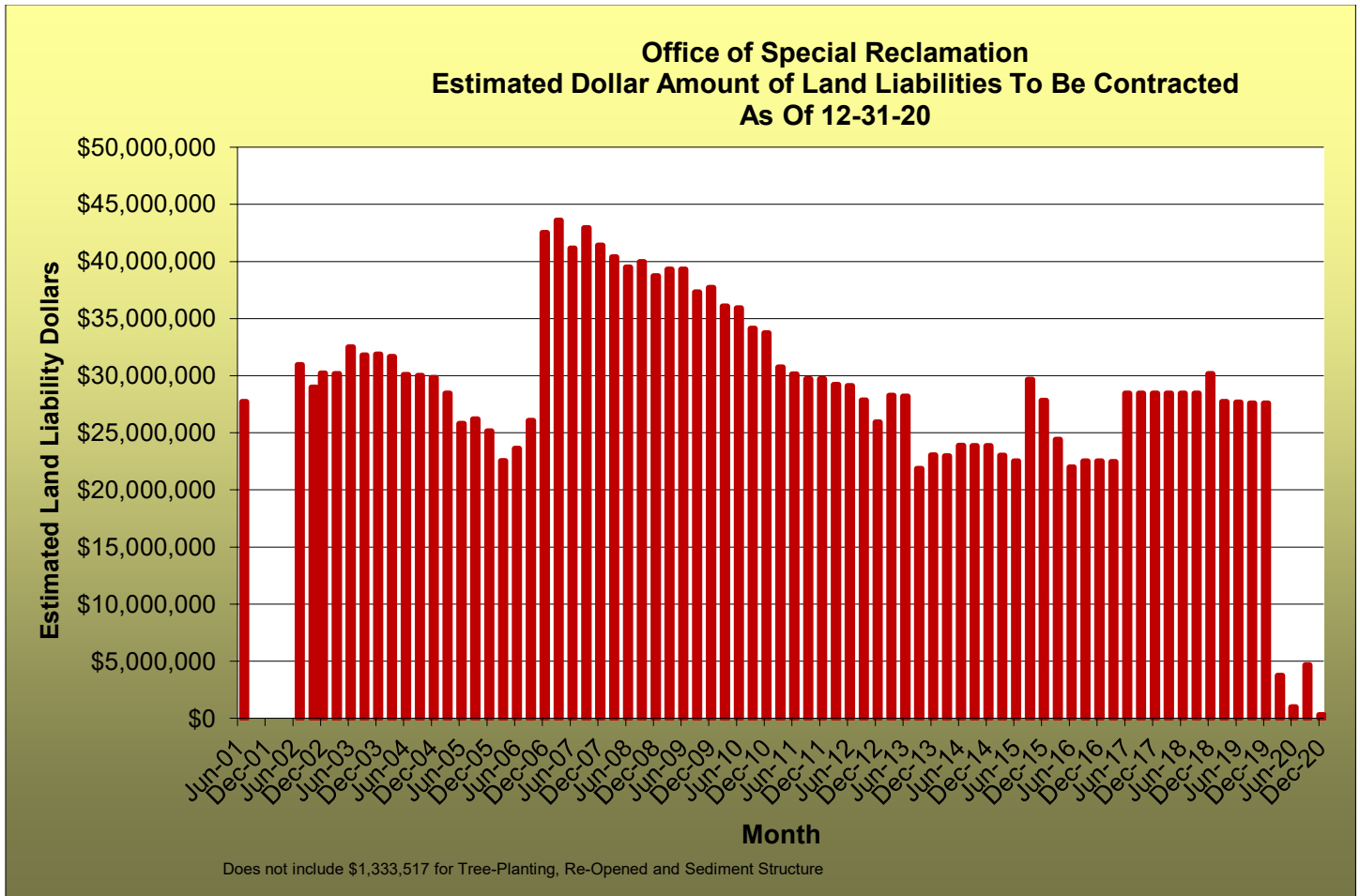


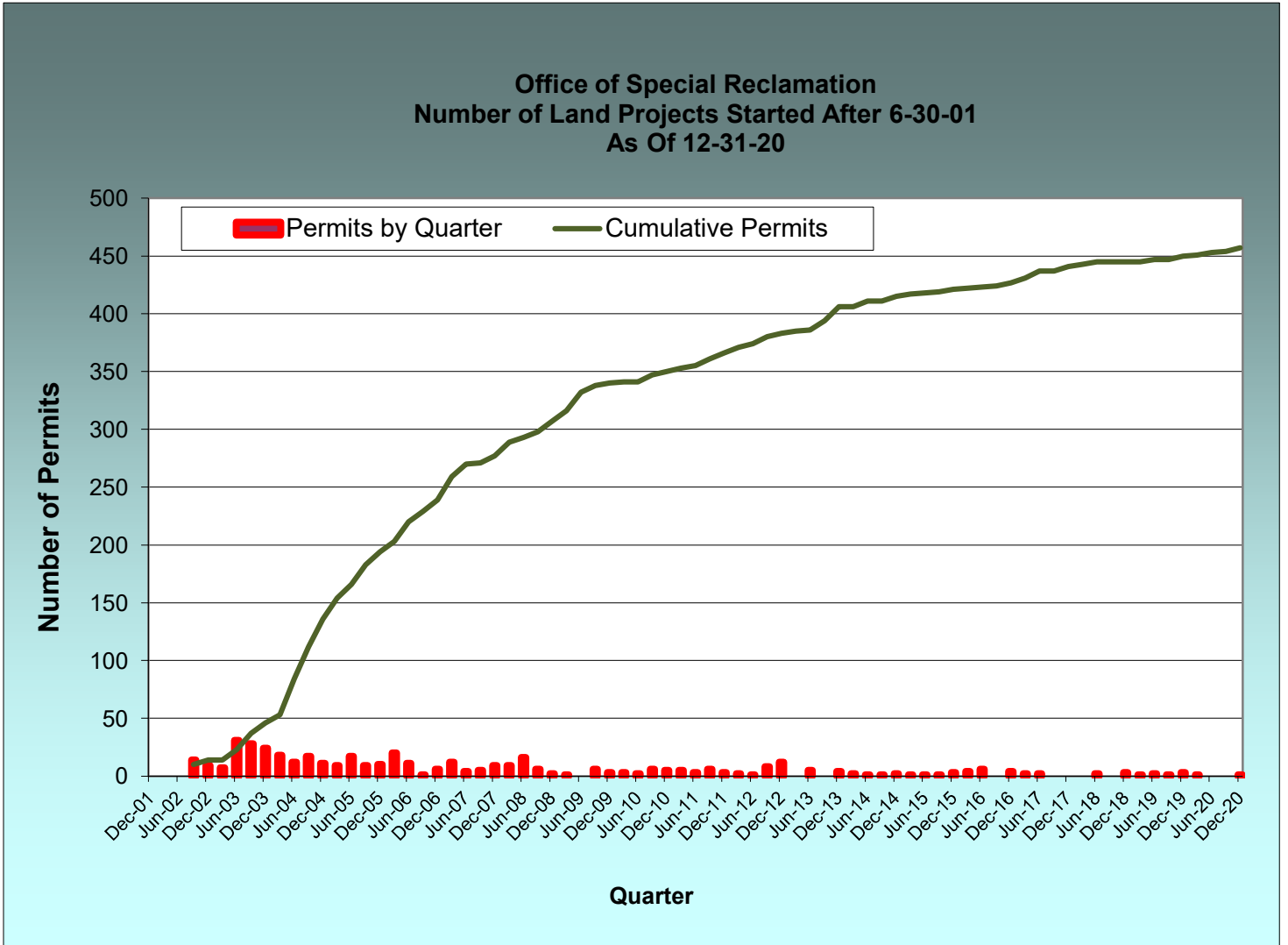
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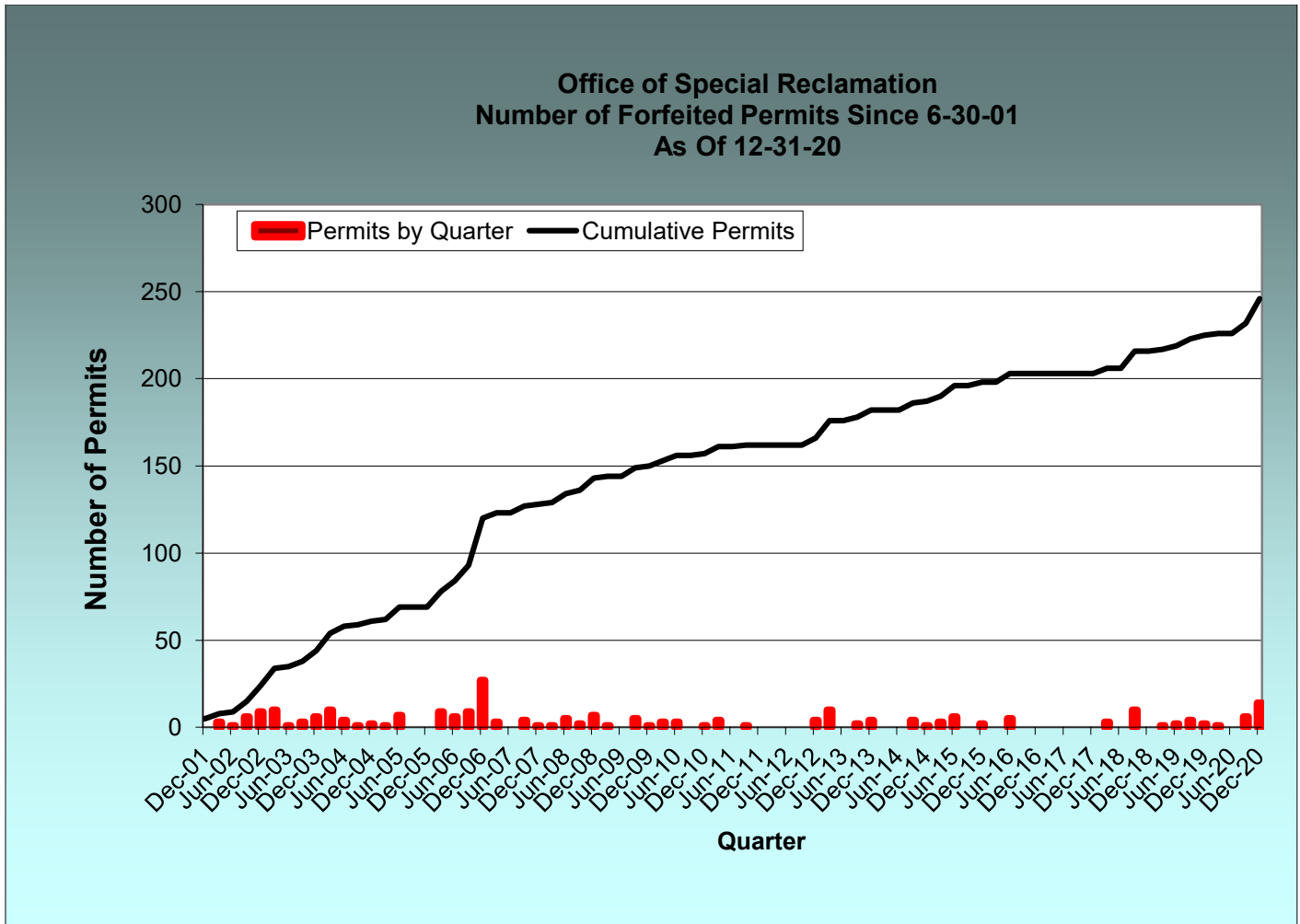


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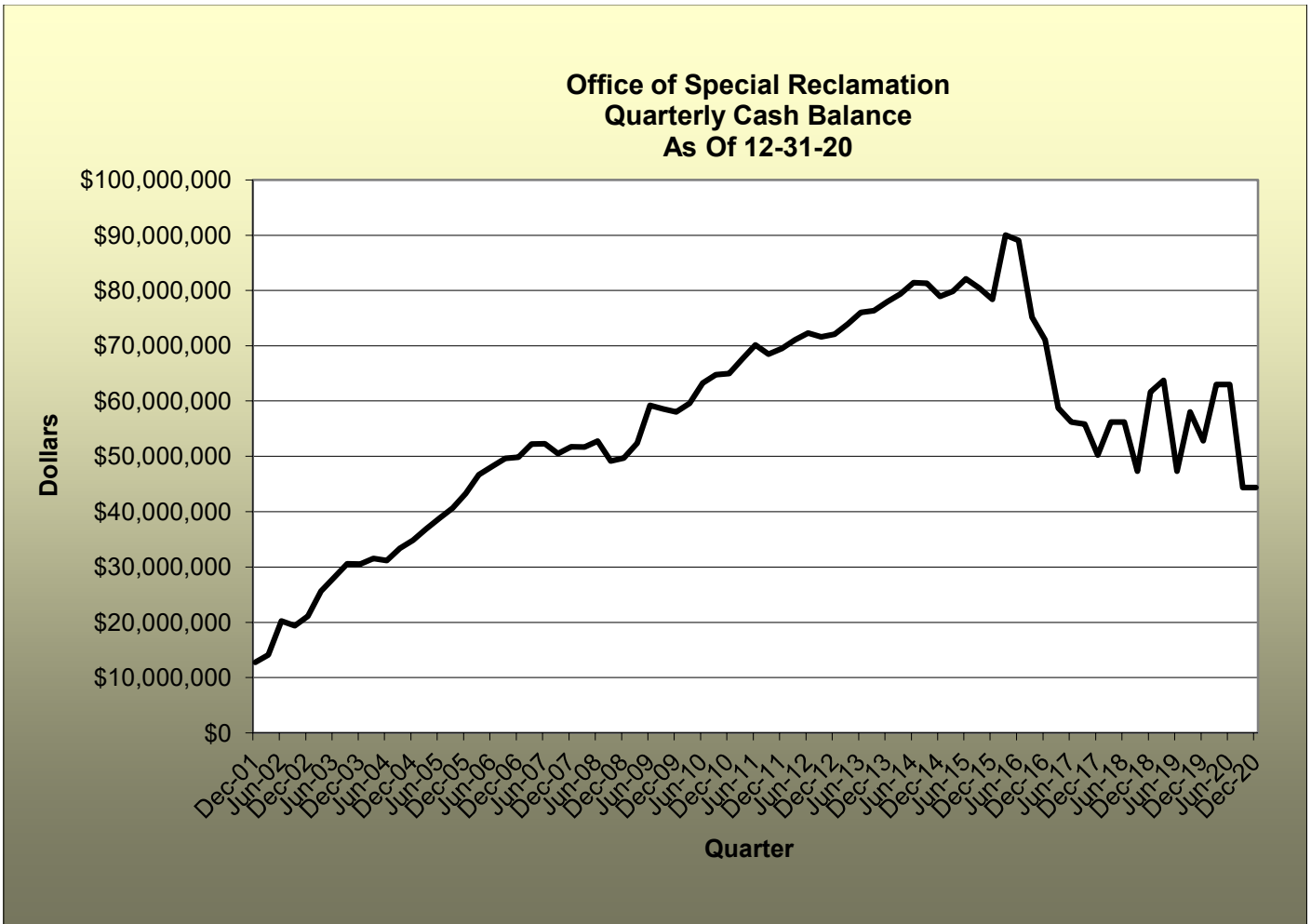


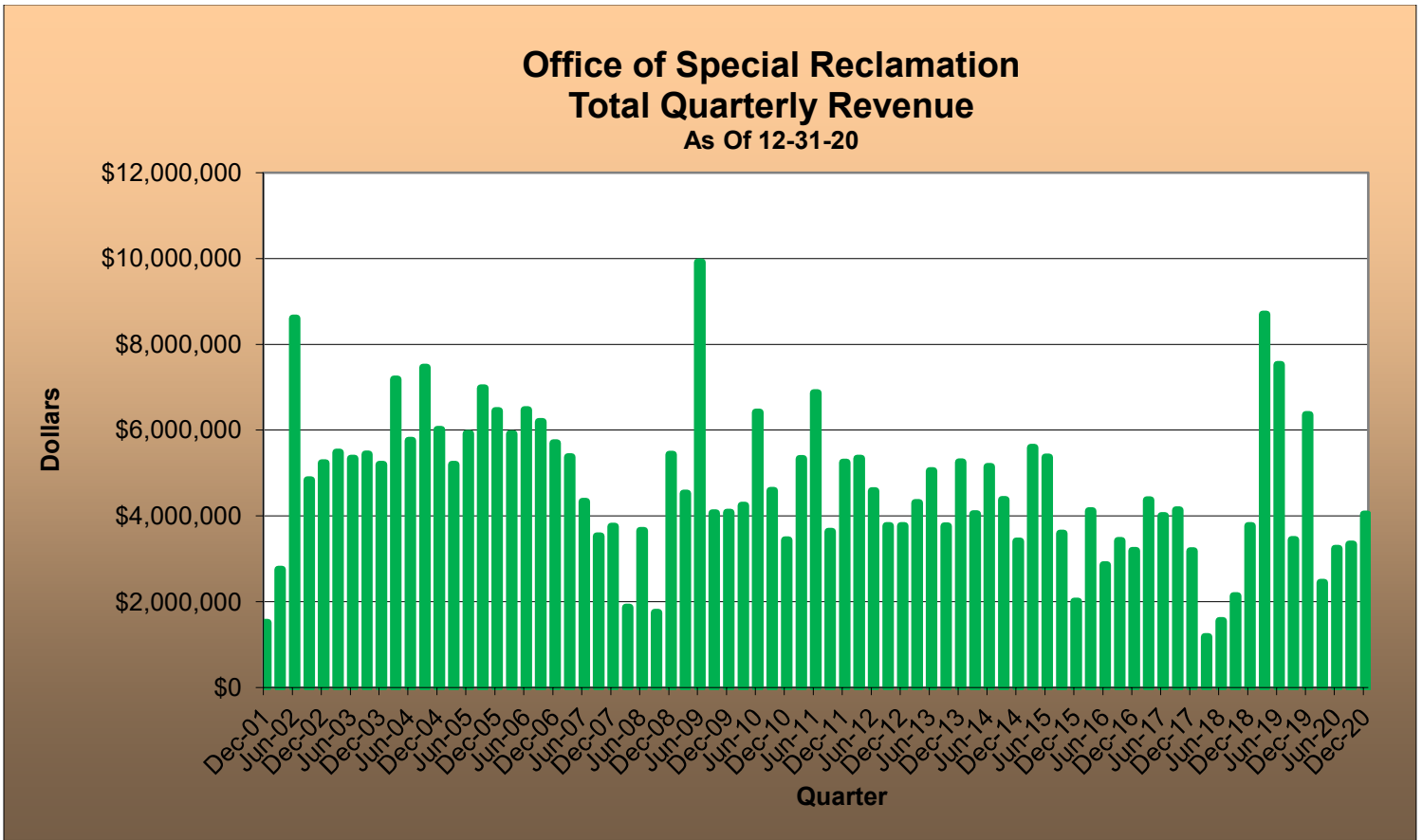




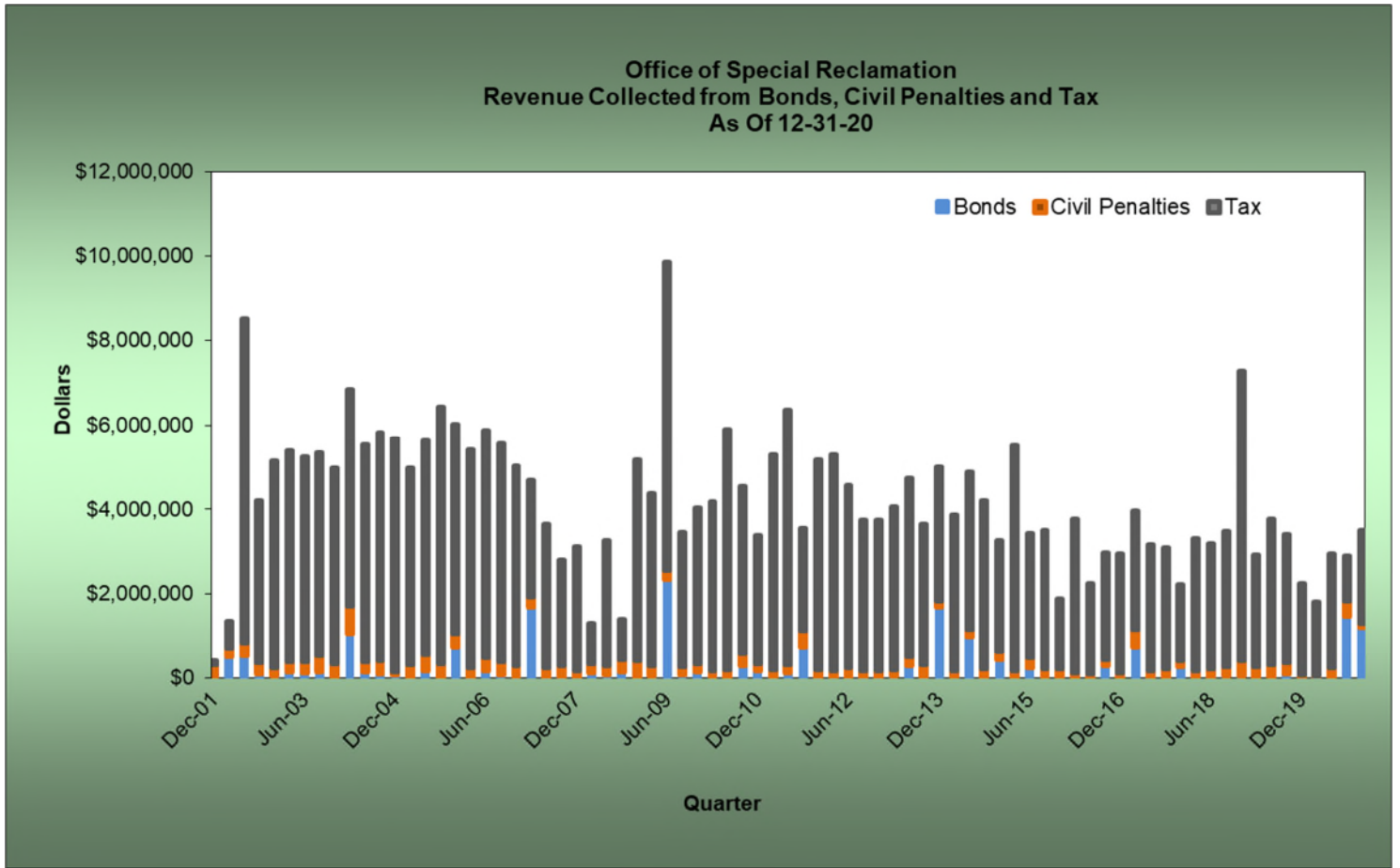


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Appendix B

Project Summary

Applicant: West Virginia University
Principle Investigator: Paul F. Ziemkiewicz, PhD
Project Title: At-source Recovery of Rare Earth and Critical Minerals from Acid Coal Mine Drainage ETD67
Project Objective: Develop and test a continuous process for efficiently producing an enriched rare earth element/critical mineral (RECM) concentrate from acid mine drainage (AMD) at the site of production, upstream of conventional AMD treatment.

- Sub-objective 1. Evaluate a process for purifying that concentrate at a central acid leaching/solvent extraction (ALSX) facility.
- Sub-objective 2. Achieve a target RECM oxide purity in excess of 90%.
- Sub-objective 3. Demonstrate that the final process will achieve its purity goal at commercially attractive efficiencies.

Project Description: RECM can be extracted from many waste products and ores. However, few such sources are economically attractive. We have identified that AMD is an attractive source since it relies on natural processes to create a concentrated, easily extracted source of RECM (REE+Co). Further, we have demonstrated that this process is environmentally beneficial since it would incentivize treatment of AMD and produces insignificant NORM or other noxious wastes.

Across the northern and central Appalachian Coal Basins, water pollution caused by acid mine drainage (AMD) is the single greatest cause of stream impairment. Our recent research has shown that AMD is enriched in rare earth elements (REE) and the critical mineral cobalt. AMD has an average total REE concentration of about 287 µg/L (0.287 ppm), ranging from negligible to 2,000 µg/L. Five of those REEs are classified as CM: Y, Nd, Eu, Tb, Dy while the critical mineral cobalt (Co) alone is present at about 75% of the TREE concentration in a given sample. Operators of AMD producing coal mines and tailings facilities are obliged to treat AMD to neutralize acidity and remove regulated metals (e.g., iron (Fe), aluminum (Al), and manganese (Mn)) prior to discharge. These metals precipitate as hydroxides during AMD treatment, leaving a solid residue that contains the RECMs.

We have created a concentrate of 80% REE derived from AMD treatment precipitates (DE FE 0026927). Ongoing research (DE FE 0031524) indicates that significant gains in efficiency can be made by semi-selective precipitation of RECM upstream of compliance AMD treatment when most of the gangue metals are still in solution. The strategy of using raw AMD as the feedstock to our acid leaching/solvent extraction (ALSX) refining process was recently demonstrated at the bench scale and also in the field where a mobile field unit was deployed at a conventional AMD treatment plant operated by WVDEP. Early work has produced solid feedstock with RECM ranging from 3.6% in the laboratory to 0.2% in an initial, continuous, field extraction trial. Of that amount, 0.14% are mixed REE oxides (MREO), including the five REEs that are also CM (0.07%) and the Critical Mineral cobalt (0.06%).

By focusing on raw AMD The proposed strategy 1) creates an enriched, homogenized REE feedstock, 2) reduces transportation costs to a REE refinery, 3) reduces acid consumption in the acid leaching step, and 4) reduces the volume of waste produced during REE refining. All of these factors would significantly reduce the capital and operating costs of an RECM extraction enterprise. For example, we have already identified transportation, waste handling and acid consumption during the leaching stage as major opX cost centers. Cost reductions resulting from at-source production of a RECM concentrate are obvious. Perhaps as important, extraction of a concentrate prior to AMD treatment dramatically reduces the mass of unreacted lime, an artifact of conventional AMD treatment, in the solid phase that would consume acid during the ALSX stage.

Major Participants: Virginia Tech University-ALSX technical support, TEA. West Virginia Department of Environmental Protection-will collaborate by jointly constructing and operating a field scale coupled

AMD treatment/RECM extraction plant. Rockwell Automation, Inc., will provide system controls, sensors and automation. InnoH2O, Inc., will provide their proprietary treatment system for recycling raffinate during ALSX.

Appendix C

Bond Forfeiture Inventory

COMPANY	PERMIT	COUNTY
3-D COAL CO.	52-72	Mingo
SLAB FORK COAL CO.	U-10-83	Raleigh
SLAB FORK COAL COMPANY	UO-556	Raleigh
LOW ASH COAL CO.	UO-389	Wyoming
LOBO CAPITOL, INC.	UO-204	Preston
DLM COAL CO.	138-74	Upshur
DLM COAL CO.	2-80	Upshur
DLM COAL CO.	I-239	Upshur
DLM COAL CO.	P-426	Upshur
DLM COAL CO.	I-739	Upshur
DLM COAL CO.	187-77	Upshur
DLM COAL CO.	164-77	Upshur
DLM COAL CO.	UO-231	Upshur
DLM COAL CO.	135-78	Upshur
DLM COAL CO.	R-423	Upshur
DLM COAL CO.	1-78	Upshur
DLM COAL CO.	12-78	Upshur
DLM COAL CO.	58-77	Upshur
DLM COAL CO.	H-232	Upshur
DLM COAL CO.	23-76	Upshur
DLM COAL CO.	71-75	Upshur
RALEIGH COMMERCIAL DEVEVELOPMENT	S-23-77	Fayette
RALEIGH COMMERCIAL DEVEVELOPMENT	187-74	Fayette
RALEIGH COMMERCIAL DEVEVELOPMENT	149-79	Fayette
RALEIGH COMMERCIAL DEVEVELOPMENT	P-61-83	Fayette
PRINCESS CINDY MINING, INC.	30-79	Fayette
STAR INDUSTRIES, INC.	R-3-81	Raleigh
DUSTY COALS, INC.	S-119-85	Nicholas
SAN SUE COAL CO.	19-75	Nicholas
GREENDALE COALS, INC.	U-63-84	Clay
BLACK DIAMOND MINING CO.	13-79	Nicholas
X W CORP.	S-6013-87	Clay
F.G.M. ENERGY, INC.	S-5023-88	Logan
MCALPIN PROCESSING, INC.	S-3013-89	Raleigh
MCALPIN PROCESSING, INC.	R-3050-87	Raleigh
CATHERINE ENTERPRISES, INC.	I-544	Nicholas
AMERICAN MINERALS CORP.	S-6005-87	Kanawha
ROYAL COAL CO.	P-688	Fayette
BENHAM GROUP, LTD.	120-79	Boone
DAUGHERTY COAL COMPANY, INC.	40-73	Preston
E. J. & L. CO., INC.	P-3051-88	Raleigh
EAGLE ENERGY, INC.	U-200-83	Mingo
E. J. & L. CO., INC.	S-3041-87	Raleigh
METCO MINING CO.	P-730	Logan

METCO MINING CO.	UO-581	Logan
METCO MINING CO.	UO-463	Logan
LILLYBROOK COAL CO.	S-86-85	Raleigh
CANION COAL CO.	U-2-85	Clay
CAPPELLARI, INC.	S-78-78	Nicholas
ERLON COAL CO.	D-5-82	Fayette
JERICOH CONSTR. AUGERING	S-4026-88	McDowell
GREAT MTN. COAL CO.	160-77	Fayette
GREAT MTN. COAL CO.	114-79	Fayette
JOHN GALT	O-40-82	Logan
JOHN GALT	O-45-82	Logan
JOHN GALT	D-76-82	Logan
KESSLER COALS, INC.	S-131-82	Boone
HARVEY ENERGY CORP.	S-3025-88	Fayette
HARVEY ENERGY CORP.	S-33-81	Fayette
HARVEY ENERGY CORP.	S-35-81	Fayette
HARVEY ENERGY CORP.	S-3030-89	Fayette
HARVEY ENERGY CORP.	S-3081-87	Fayette
HARVEY ENERGY CORP.	S-54-84	Fayette
ARARAT COAL CO.	U-4005-90	McDowell
G & L COAL CO.	S-86-83	Raleigh
C & D TRUCKING CO.	U-4017-89	McDowell
KESSLER COALS, INC.	U-36-85	Boone
KAYDEE CONSTRUCTION CO.	S-3019-87	Fayette
ZY COAL CO.	70-79	Clay
ZY COAL CO.	91-79	Clay
ZY COAL CO.	S-30-80	Clay
CRANE COAL CO., INC.	S-27-83	Preston
KESS COALS, INC.	O-39-85	Boone
MERIDAN OF VIRGINIA, INC.	S-4034-89	McDowell
MERIDAN OF VIRGINIA, INC.	S-4002-90	McDowell
MERIDAN OF VIRGINIA, INC.	S-4015-89	McDowell
NELLIS CORP.	U-5008-90	Boone
NELLIS CORP.	U-5009-90	Boone
F & M COAL CO.	S-1026-87	Preston
DAUGHERTY COAL COMPANY, INC.	188-75	Preston
KODIAK LAND CO., INC.	S-3052-87	Fayette
K-STEELE CORP.	S-6-83	Fayette
BULL RUN MINING COMPANY, INC.	EM-66	Preston
AMANDA NICOLE FUELS, INC.	S-1018-88	Preston
VALLEY MINING CO., INC.	S-64-83	Monongalia
INTERLAND RESOURCES, INC.	S-4009-91	McDowell
LAWSON ENTERPRISES	U-4011-90	McDowell
FIRST BIG MTN. MINING CO.	U-6017-88	Kanawha
K-STEELE CORP.	S-121-82	Fayette
MERIDAN OF VIRGINIA, INC.	S-4005-89	McDowell
MERIDAN OF VIRGINIA, INC.	S-4010-88	McDowell

HARVEY ENERGY CORP.	S-3070-86	Fayette
F & M COAL CO.	46-79	Preston
F & M COAL CO.	S-1006-88	Preston
CRADDOCK & SON COAL CO.	S-68-83	Nicholas
USE COAL, INC.	S-2016-86	Lewis
KELLEY COAL CO.	S-68-82	Harrison
INTERLAND RESOURCES, INC.	S-4016-90	McDowell
BEECH GROVE COAL CO.	U-85-83	McDowell
BEECH GROVE COAL CO.	UO-439	McDowell
ED-E DEVELOPMENT CO., INC.	S-10-81	Monongalia
ED-E DEVELOPMENT CO., INC.	S-1032-86	Preston
H & D COAL CO.	S-3033-87	Greenbrier
PROSPERITY ENERGY, INC.	S-6001-88	Clay
TERRA CONTRACTORS	P-1022-88	Marion
CRADDOCK & SON COAL CO.	S-3020-88	Fayette
GRINDSTONE MINING CORP.	U-3078-87	Fayette
51 SYSTEMS	O-22-83	Marion
H & D COAL COMPANY	U-69-85	Greenbrier
EASTERN ENERGY INVEST.	U-6030-86	Kanawha
BARRENSHE COAL CO.	UO-694	McDowell
LOGAN COAL & EXP.	D-122-82	Kanawha
ALGOMA A & S, INC.	S-4015-90	McDowell
CAPITOL FUELS, INC.	O-122-83	Kanawha
K & B COAL CO.	U-3054-86	Nicholas
HAWKS NEST MINING CO.	O-1-81	Kanawha
PRINCESS SUSAN COAL CO.	S-6-85	Kanawha
WINCHESTER COALS, INC.	O-52-83	Logan
WINCHESTER COALS, INC.	O-10-81	Lincoln
WINCHESTER COALS, INC.	D-23-81	Logan
PRINCESS SUSAN COAL CO.	S-32-83	Kanawha
PRINCESS SUSAN COAL CO.	S-6002-87	Kanawha
PRINCESS SUSAN COAL CO.	S-6033-86	Kanawha
CENTURY ENTERPRISES	S-58-82	Preston
ROCKVILLE MINING CO.	S-65-82	Preston
ROCKVILLE MINING CO.	65-78	Preston
MOUNTAIN LAUREL RES.	R-734	Summers
WILLIAMS CONSTRUCTION CO.	S-3079-86	Fayette
HARVEY ENERGY CORP.	P-3029-89	Fayette
HARVEY ENERGY CORP.	P-3053-88	Fayette
K-STEELE CORP.	P-47-83	Fayette
EASTERN ENERGY INVEST.	U-6012-88	Boone
M & T MINING CO.	S-3026-89	Nicholas
PRESTON ENERGY, INC.	UO-235	Preston
VMS, LTD.	S-1045-87	Monongalia
EASTERN ENERGY INVEST.	S-6029-86	Kanawha
PRESTON ENERGY, INC.	UO-429	Preston
VALLEY CARBON, INC.	S-3030-90	Kanawha

DVR MINING INC.	U-4009-88	McDowell
ROCKVILLE MINING CO.	S-105-82	Preston
PRESTON ENERGY, INC.	O-86-82	Preston
KEENCO COAL CO.	U-106-83	Mingo
REGENCY FINANCIAL SERVICES	P-723	McDowell
DREAMLAND LTD.	I-650	Fayette
MARTIN SALES & PROCESSING	U-5024-90	Mingo
ELK RIVER SEWELL COAL CO.	S-1021-90	Webster
DOUBLE N MINING CO.	S-3055-88	Greenbrier
OAK HILL EXCAVATING	S-3059-88	Nicholas
OAK HILL EXCAVATING	S-3011-87	Nicholas
ELK RIVER SEWELL COAL CO.	O-127-83	Webster
L & R EQUIPMENT CO.	S-3058-86	Nicholas
BRADY CLINE COAL CO.	EM-97	Nicholas
GAULEY COAL SALES CO.	O-43-84	Nicholas
WILLIAMS CONSTRUCTION CO.	P-3015-91	Fayette
GARY COAL SALES, INC.	U-58-84	McDowell
GARY COAL SALES, INC.	S-4030-89	McDowell
MOUNTAIN LAUREL RES.	P-751	Summers
PINNACLE MINING COMPANY OF NORTHERN WV	S-62-85	Monongalia
PINNACLE MINING COMPANY OF NORTHERN WV	S-1028-86	Monongalia
PRESTON ENERGY, INC.	U-103-83	Preston
PRESTON ENERGY, INC.	U-43-84	Preston
PRINCESS SUSAN COAL CO.	S-76-82	Kanawha
OMEGA MINING CO. INC.	D-79-82	Monongalia
SUMMERSVILLE FIVE BLOCK	S-3051-88	Nicholas
SUMMERSVILLE FIVE BLOCK	O-100-83	Clay
REGENCY FINANCIAL SERVICES	U-93-84	Wyoming
MOUNTAIN LAUREL RES.	D-60-82	Fayette
MOUNTAIN LAUREL RESOURCES	D-54-82	Fayette
PINNACLE CREEK MINING CORP.	69-81	Wyoming
PINNACLE CREEK MINING CORP.	R-721	Wyoming
KMADER ENTERPRISES, INC.	U-3020-90	Clay
VICKIE ENERGY, INC.	U-53-85	Pocahontas
VICKIE ENERGY, INC.	S-3038-86	Nicholas
R & C LEASING, INC.	U-59-84	McDowell
SUMMERSVILLE FIVE BLOCK	O-66-82	Clay
B & S CONTRACTING, INC.	S-3031-87	Raleigh
COMFORT RUN COAL CO.	S-3028-89	Fayette
CUB BRANCH DEVELOPMENT	U-5035-87	Mingo
E & A COAL CO.	D-10-81	Raleigh
B & S CONTRACTING, INC.	O-3086-87	Nicholas
B & S CONTRACTING, INC.	U-3055-87	Nicholas
B & S CONTRACTING, INC.	P-645	Nicholas
B & S CONTRACTING, INC.	U-3016-86	Nicholas
VIRGIN COAL SALES, INC.	U-4028-92	McDowell
PHOENIX RESOURCES, INC.	S-462	Randolph

WILLIAMS CONSTRUCTION CO.	S-3028-90	Nicholas
WILLIAMS CONSTRUCTION CO.	S-3003-92	Nicholas
CHAFIN COAL CO.	U-70-85	Logan
CHAFIN COAL CO.	UO-21	Logan
CHAFIN COAL CO.	U-140-82	Logan
CHAFIN COAL CO.	D-13-82	Logan
CHAFIN COAL CO.	O-69-82	Logan
CHAFIN COAL CO.	D-18-82	Logan
CHAFIN COAL CO.	U-5027-86	Logan
B & S CONTRACTING, INC.	R-668	Nicholas
M & H COAL CO.	UO-406	Logan
M & H COAL CO.	U-144-83	Logan
POWELLTON CO.	P-5005-88	Mingo
RIDGEWAY DEV.	U-3037-89	Raleigh
WEST VIRGINIA ENERGY, INC.	O-32-83	Brooke
WEST VIRGINIA ENERGY, INC.	S-41-84	Brooke
T & T FUELS, INC.	EM-113	Preston
T & T FUELS, INC.	U-125-83	Preston
M & T MINING CO.	P-3032-90	Nicholas
JIM DANDY COALS INC.	U-77-85	Lewis
COAL ENTERPRISES, INC.	D-108-82	McDowell
IAEGER ENERGY CORP.	UO-155	McDowell
BARRETT FUEL CORP.	EM-133	Raleigh
BARRETT FUEL CORP.	P-731	Raleigh
BARRETT FUEL CORP.	R-737	Raleigh
RALPH KNICELEY CONSTRUCTION	S-2006-93	Randolph
RESOURCES DEVELOPMENT CORPORATION	R-4030-86	McDowell
SLATE CREEK ENERGY, INC.	U-4018-86	McDowell
G & L COAL CO.	S-3035-87	Fayette
G & L COAL CO.	U-3036-87	Fayette
MOUNTAIN TOP FUEL CO., INC.	Z-87-81	Lewis
COAL STRIPPING, INC.	S-1034-90	Monongalia
PAULEY LEASING CO., INC.	U-4029-89	McDowell
FITZPATRICK INDUSTRIES	S-3018-89	Fayette
GREEN MOUNTAIN ENERGY	O-3032-91	Raleigh
STONE COAL COMPANY	D-109-82	Wyoming
STONE COAL COMPANY	U-3024-88	Wyoming
STONE COAL COMPANY	U-3028-86	Raleigh
MERIT COAL COMPANY	U-4008-94	Mingo
AMIGO SMOKELESS COAL CO.	UO-623	Raleigh
AMIGO SMOKELESS COAL CO.	EM-71	Raleigh
WEST VIRGINIA ENERGY, INC.	S-20-83	Ohio
WEST VIRGINIA ENERGY, INC.	S-69-82	Ohio
SOUTHEAST LEASING, INC.	U-3003-89	Raleigh
SOUTHEAST LEASING, INC.	U-3023-87	Raleigh
SOUTHEAST LEASING, INC.	S-3024-87	Raleigh
ENERGY LEASING, INC.	I-750	Fayette

GREEN MOUNTAIN ENERGY	U-154-83	Raleigh
STONE COAL COMPANY	U-42-85	Raleigh
STONE COAL COMPANY	R-3025-87	Raleigh
GREEN MOUNTAIN ENERGY	U-4012-90	Wyoming
GREEN MOUNTAIN ENERGY, INC.	U-4007-91	Wyoming
WEST VIRGINIA ENERGY, INC.	S-1012-87	Ohio
KIDD'S ENERGY SALES	UO-383	McDowell
MOUNTAIN CARBON, INC.	O-137-83	Fayette
GREEN MOUNTAIN ENERGY	U-3053-88	Raleigh
MABEN ENERGY CORPORATION	UO-727	Wyoming
STONE COAL COMPANY	UO-252	Wyoming
ATLAS COAL LEASING, INC.	S-3021-89	Wyoming
WEST VIRGINIA ENERGY, INC.	S-29-80	Ohio
WEST VIRGINIA ENERGY, INC.	S-1071-86	Brooke
WEST VIRGINIA ENERGY, INC.	S-72-84	Ohio
WEST VIRGINIA ENERGY, INC.	S-55-85	Brooke
IAEGER ENERGY CORP.	U-231-83	McDowell
BICKFORD MINING INC.	U-44-83	Raleigh
MOUNTAIN MINERALS, INC.	U-225-83	Fayette
MOUNTAIN MINERALS, INC.	O-169-83	Fayette
BICKFORD MINING	U-78-85	Raleigh
J & D COAL CO.	S-44-84	Monongalia
J.A.L. COAL CO., INC.	S-23-82	Monongalia
GREEN MOUNTAIN ENERGY	U-4013-91	Wyoming
BARRETT FUEL CORPORATION	U-82-84	Boone
BARRETT FUEL CORPORATION	U-1-85	Boone
CUB BRANCH DEVELOPMENT	S-5034-87	Mingo
SPRING RIDGE COAL CO.	U-138-83	Webster
SPRING RIDGE COAL CO.	O-68-82	Webster
SPRING RIDGE COAL CO.	R-722	Webster
SPRING RIDGE COAL CO.	S-2034-88	Webster
SPRING RIDGE COAL COMPANY	U-2016-88	Webster
JO-LEE COAL COMPANY	UO-380	Harrison
HILO ENERGY CORP.	U-4019-92	McDowell
SHELL ENERGY COMPANY, INC.	U-1007-90	Harrison
MOUNTAINEER FUELS, INC.	U-3083-87	Nicholas
KEYSTONE COAL, INC.	U-5058-87	Mingo
KEYSTONE COAL, INC.	S-101-85	Mingo
KEYSTONE COAL, INC.	S-84-83	Mingo
KEYSTONE COAL, INC.	U-5045-87	Mingo
KEYSTONE COAL, INC.	U-5057-87	Mingo
KEYSTONE COAL, INC.	U-186-83	Mingo
KEYSTONE COAL, INC.	S-5059-87	Mingo
KEYSTONE COAL, INC.	O-56-85	Mingo
WESTSIDE RIVER TERMINAL, INC.	O-46-85	Monongalia
OKEMO CORP.	U-5016-87	Logan
OKEMO CORP.	U-5078-86	Logan

OKEMO CORP.	O-16-85	Logan
OKEMO CORP.	O-16-82	Logan
OKEMO CORP.	D-20-82	Logan
G.L.X. DEVELOPMENT CORP.	UO-675	Kanawha
WILLIAMS CONSTRUCTION	S-3061-88	Nicholas
WAR EAGLE CONSTRUCTION CO.	S-5046-88	Logan
KEYSTONE COAL, INC.	U-5044-87	Mingo
KIDD'S ENERGY SALES, INC.	U-4011-88	McDowell
UPCO COAL, INC.	S-1059-91	Upshur
TRIPLE A COALS, INC.	S-96-85	Nicholas
TRIPLE A COALS, INC.	U-3046-87	Nicholas
TRIPLE A COALS, INC.	S-3028-87	Nicholas
LOGAN COALS, INC.	UO-353	Logan
ILLUSION COAL COMPANY	U-61-83	Wyoming
WHITE HORSE MINING INC.	U-4020-87	Wyoming
COAL VALLEY MINING, INC.	O-3062-89	Raleigh
COAL VALLEY MINING, INC.	S-3047-91	Raleigh
COAL VALLEY MINING, INC.	UO-342	Raleigh
COAL VALLEY MINING, INC.	U-26-83	Raleigh
ROYAL SCOT MINERALS, INC.	31-72	Greenbrier
BLONDY MINING, INC.	EM-118	Barbour
LITWAR ENERGY, INC.	U-4002-94	McDowell
WESTSIDE RIVER TERMINAL, INC.	O-46-84	Monongalia
ACME LEASING, INC.	U-4013-88	McDowell
MARSON COAL COMPANY, INC.	S-2052-86	Randolph
MARSON COAL COMPANY, INC.	U-2005-88	Randolph
MARSON COAL COMPANY, INC.	U-2029-87	Webster
MARK A. SOUTHERN GENERAL CONTRACTOR	S-1006-92	Harrison
MORGANTOWN ENERGY EXPORT COMPANY	S-8-84	Monongalia
SANDRIDGE COAL CO.	S-1084-86	Monongalia
PUPS CREEK COALS, INC.	S-3006-94	Raleigh
QUINTAIN DEVELOPMENT, LLC	S-5033-96	Mingo
TRIPLE A COALS, INC.	U-22-85	Nicholas
EASTERN LEASING & EQUIPMENT COMPANY	U-2037-86	Webster
BOLINGREEN MINING COMPANY	S-1024-88	Preston
JINKS MINING COMPANY	S-113-85	Nicholas
JINKS MINING COMPANY	U-3031-93	Nicholas
TRIPLE A COALS, INC.	U-3006-87	Nicholas
TRIPLE A COALS, INC.	O-3077-87	Nicholas
K. C. & M. COAL COMPANY, INC.	S-1023-88	Preston
FLAGGY MEADOW COAL COMPANY	U-1012-93	Monongalia
MARSON COAL COMPANY, INC.	O-2044-88	Randolph
STARCO ENERGY, INC.	R-7-81	McDowell
STARCO ENERGY, INC.	O-36-84	McDowell
ROYAL SCOT MINERALS, INC.	S-3050-86	Greenbrier
ROYAL SCOT MINERALS, INC.	S-3076-86	Greenbrier
ROYAL SCOT MINERALS, INC.	S-65-85	Greenbrier

ROYAL SCOT MINERALS, INC.	S-682	Greenbrier
ROYAL SCOT MINERALS, INC.	U-3017-87	Greenbrier
ROYAL SCOT MINERALS, INC.	U-3046-88	Greenbrier
ROYAL SCOT MINERALS, INC.	D-125-82	Greenbrier
ROYAL SCOT MINERALS, INC.	O-103-83	Greenbrier
ROYAL SCOT MINERALS, INC.	O-104-83	Greenbrier
ROYAL SCOT MINERALS, INC.	56-81	Greenbrier
ROYAL SCOT MINERALS, INC.	U-40-85	Greenbrier
ROYAL SCOT MINERALS, INC.	D-32-81	Greenbrier
ROYAL SCOT MINERALS, INC.	U-3074-87	Greenbrier
ROYAL SCOT MINERALS, INC.	32-81	Greenbrier
ROYAL SCOT MINERALS, INC.	U-107-83	Greenbrier
ROYAL SCOT MINERALS, INC.	U-3062-87	Greenbrier
ROYAL SCOT MINERALS, INC.	U-3020-86	Greenbrier
ROYAL SCOT MINERALS, INC.	S-90-82	Greenbrier
ROYAL SCOT MINERALS, INC.	S-99-83	Greenbrier
ROYAL SCOT MINERALS, INC.	O-1-82	Greenbrier
ROYAL SCOT MINERALS, INC.	U-3066-88	Greenbrier
ROYAL SCOT MINERALS, INC.	O-71-83	Greenbrier
ROYAL SCOT MINERALS, INC.	S-176-75	Greenbrier
ROYAL SCOT MINERALS, INC.	S-3012-93	Greenbrier
ROYAL SCOT MINERALS, INC.	O-67-82	Greenbrier
ROYAL SCOT MINERALS, INC.	S-3070-88	Greenbrier
ROYAL SCOT MINERALS, INC.	S-3011-88	Greenbrier
ROYAL SCOT MINERALS, INC.	S-47-83	Greenbrier
ROYAL SCOT MINERALS, INC.	S-3009-89	Greenbrier
ROYAL SCOT MINERALS, INC.	UO-571	Greenbrier
ROYAL SCOT MINERALS, INC.	R-3078-86	Greenbrier
ROYAL SCOT MINERALS, INC.	S-65-76	Greenbrier
ROYAL SCOT MINERALS, INC.	S-60-83	Greenbrier
PUPS CREEK COALS, INC.	S-3002-92	Raleigh
BELVA COAL COMPANY	S-5029-93	Logan
MARSON COAL COMPANY, INC.	S-2021-87	Randolph
EPLING COAL ENTERPRISES, INC.	S-67-85	Nicholas
C. C. CONLEY & SONS, INC.	S-3046-91	Nicholas
MID-ATLANTIC RESOURCE CORPORATION	U-3040-87	Raleigh
MID-ATLANTIC RESOURCE CORPORATION	U-3044-91	Raleigh
MID-ATLANTIC RESOURCE CORPORATION	U-3045-86	Raleigh
MID-ATLANTIC RESOURCE CORPORATION	U-3067-86	Raleigh
MID-ATLANTIC RESOURCE CORPORATION	D-73-82	Raleigh
MID-ATLANTIC RESOURCE CORPORATION	O-23-85	Raleigh
ELMINA COAL COMPANY	U-4012-86	McDowell
VIKING COAL COMPANY	UO-519	Preston
BELVA COAL COMPANY	P-654	Logan
BELVA COAL COMPANY	R-591	Logan
BELVA COAL COMPANY	S-41-80	Logan
BELVA COAL COMPANY	S-94-82	Logan

DELTA TERMINALS, INC.	S-42-80	Boone
DELTA TERMINALS, INC.	Z-54-81	Boone
LANDMARK CORPORATION	S-5047-89	Boone
LANDMARK CORPORATION	S-34-82	Boone
LANDMARK CORPORATION	S-5069-88	Boone
MARSON COAL COMPANY, INC.	EM-44	Webster
MARSON COAL COMPANY, INC.	EM-91	Randolph
MARSON COAL COMPANY, INC.	I-608	Randolph
MARSON COAL COMPANY, INC.	U-90-84	Webster
RHINO COAL, LLC	U-4027-88	McDowell
RALEIGH APPALACHIAN REMINING, INC.	P-3038-97	Raleigh
TYPICAL ENTERPRISES	U-5006-95	Lincoln
UPCO COAL, INC.	S-197-75	Upshur
UPCO COAL, INC.	S-2009-89	Upshur
UPCO COAL, INC.	S-2010-87	Upshur
MID-ATLANTIC RESOURCE CORPORATION	U-3036-92	Raleigh
DEAN FUELS, INC.	S-24-83	Monongalia
J & N PROCESSING COMPANY, LLC	O-58-83	Raleigh
J & B Contractors	Q-1-85	Nicholas
MATE CREEK LOADING, INC.	O-5059-86	Mingo
BYRON CONSTRUCTION COMPANY	Q-1009-92	Harrison
C. & W. COAL COMPANY	Q-2009-92	Barbour
DEAN FUELS, INC.	U-160-82	Monongalia
BALDWIN MINING COMPANY	D-75-82	Gilmer
C. C. CONLEY & SONS, INC.	S-2002-92	Webster
C. C. CONLEY & SONS, INC.	U-1041-91	Webster
ALAN BLOSSER	S-1010-87	Monongalia
D & A RESOURCES, INC.	U-3042-89	Fayette
ATWELL HOLDING, INC.	U-4019-88	McDowell
J & J GUZZI ENTERPRISES, INC.	Q-1005-91	Harrison
COUGAR COAL CO.	P-1029-97	Taylor
RITCHIE STONE, INC.	Q-1001-98	Ritchie
A & B THOMAS, INC.	U-50-85	Nicholas
A & B THOMAS, INC.	U-171-83	Nicholas
LO-MING COAL CORPORATION	U-5036-88	Logan
LO-MING COAL CORPORATION	O-5092-87	Logan
LO-MING COAL CORPORATION	U-5049-87	Logan
LO-MING COAL CORPORATION	O-5035-88	Logan
AUTHOR ENTERPRISES, INC.	U-4012-94	McDowell
BELL HOLDING, INC.	EM-116	McDowell
AUTHOR ENTERPRISES, INC.	U-4017-91	McDowell
BELL HOLDING, INC.	H-290	McDowell
GOLDEN FALCON RESOURCES, INC.	U-61-84	McDowell
BARBOUR ENTERPRISES, INC.	S-2003-97	Lewis
PREMIUM ROCK COAL COMPANY, INC.	P-3027-99	Raleigh
INDUSTRIAL ENERGY, INC.	U-101-83	Nicholas
J. C. B. MINING, INC.	U-2006-88	Lewis

A & B THOMAS, INC.	UO-131	Nicholas
LO-MING COAL CORPORATION	U-5018-98	Logan
LO-MING COAL CORPORATION	U-5023-97	Logan
LO-MING COAL CORPORATION	U-5084-88	Logan
LO-MING COAL CORPORATION	U-5085-88	Logan
CHICOPEE COAL COMPANY, INC.	O-6013-88	Clay
CHICOPEE COAL COMPANY, INC.	O-6021-89	Clay
CHICOPEE COAL COMPANY, INC.	S-73-85	Clay
CHICOPEE COAL COMPANY, INC.	U-6018-86	Clay
ANTAEUS GARY PROJECT, INC.	O-20-84	McDowell
LINN MINING COMPANY	U-1008-92	Harrison
FREEPORT MINING CORPORATION	S-1005-95	Preston
FREEPORT MINING CORPORATION	S-1004-88	Preston
FREEPORT MINING CORPORATION	S-1019-87	Preston
QUINTAIN DEVELOPMENT, INC.	P-5013-96	Wayne
QUINTAIN DEVELOPMENT, INC.	P-5036-98	Wayne
QUINTAIN DEVELOPMENT, INC.	P-5007-98	Wayne
QUINTAIN DEVELOPMENT, INC.	P-5038-97	Wayne
PLUM TREE MINERALS LLC.	S-3010-98	Raleigh
THE MASTELLER COAL COMPANY	S-10-85	Mineral
LODESTAR ENERGY, INC.	S-3016-92	Raleigh
LODESTAR ENERGY, INC.	S-3006-89	Nicholas
LODESTAR ENERGY, INC.	S-3083-86	Nicholas
LODESTAR ENERGY, INC.	S-19-85	Nicholas
PEACHTREE RIDGE MINING, INC.	U-18-83	Raleigh
PLUM TREE MINERALS LLC.	P-3035-01	Raleigh
LODESTAR ENERGY, INC.	O-172-83	Fayette
GRACE ENTERPRISES, INC.	S-2007-01	Harrison
GRACE ENTERPRISES, INC.	S-1008-97	Marion
ANDERSON COAL COMPANY	U-3049-86	Nicholas
THE MASTELLER COAL COMPANY	S-125-82	Mineral
LODESTAR ENERGY, INC.	R-5-84	Wyoming
GLADY FORK MINING, INC.	D-35-82	Upshur
THE MASTELLER COAL COMPANY	P-741	Mineral
REGENCY LAND COMPANY	U-5069-87	Logan
MAURICE JENNINGS	S-61-83	Preston
MAURICE JENNINGS	53-78	Preston
HEVENER CONSTRUCTION COMPANY	Q-2021-88	Pocahontas
FLEX DEVELOPMENT CORPORATION	S-1013-91	Harrison
FALCON LAND COMPANY, INC.	P-656	Nicholas
C & M COAL CONTRACTING, INC.	S-1001-99	Harrison
FALCON LAND COMPANY, INC.	P-664	Nicholas
GLADY FORK MINING, INC.	U-60-83	Upshur
GLADY FORK MINING, INC.	U-2001-01	Upshur
GLADY FORK MINING, INC.	O-4-84-1	Upshur
GLADY FORK MINING, INC.	P-2012-00	Upshur
PINE CREEK MINING INC	U-51-84	Logan

PINE CREEK MINING INC	U-5056-88	Logan
LITTLE HOPE MINING INC.	U-63-85	Mingo
CHICOPEE COAL COMPANY, INC.	U-3010-87	Nicholas
CHICOPEE COAL COMPANY, INC.	UO-223	Nicholas
CHICOPEE COAL COMPANY, INC.	U-3003-86	Nicholas
CHICOPEE COAL COMPANY, INC.	U-55-85	Nicholas
CHICOPEE COAL COMPANY, INC.	S-3036-86	Nicholas
CHICOPEE COAL COMPANY, INC.	S-3006-99	Nicholas
MARK POWELL CONSTRUCTION COMPANY	P-1018-00	Monongalia
MARK POWELL CONSTRUCTION COMPANY	P-1013-00	Monongalia
CHICOPEE COAL COMPANY, INC.	U-10-85	Nicholas
LOYAL G. FORMAN & SON	S-2009-01	Preston
CHICOPEE COAL COMPANY, INC.	S-3002-98	Nicholas
LOYAL G. FORMAN & SON	S-1002-99	Preston
LAYLAND COAL COMPANY	O-20-85	Fayette
BUFFALO COAL COMPANY, INC.	S-53-80	Grant
BUFFALO COAL COMPANY, INC.	S-52-80	Grant
BUFFALO COAL COMPANY, INC.	S-122-80	Tucker
BUFFALO COAL COMPANY, INC.	O-96-83	Grant
BUFFALO COAL COMPANY, INC.	O-97-83	Tucker
BUFFALO COAL COMPANY, INC.	S-2001-86	Grant
BUFFALO COAL COMPANY, INC.	O-40-84	Grant
BUFFALO COAL COMPANY, INC.	H-499	Grant
BUFFALO COAL COMPANY, INC.	U-2001-02	Grant
BUFFALO COAL COMPANY, INC.	S-2005-95	Tucker
BUFFALO COAL COMPANY, INC.	U-38-85	Tucker
BUFFALO COAL COMPANY, INC.	U-2013-00	Grant
LEVEL LAND MINING CORPORATION	S-3031-90	Fayette
LID ENTERPRISES, INC.	P-4008-04	McDowell
LAKE ENERGY, INC	U-133-83	Logan
TYGART VALLEY MINING, INC.	U-2002-95	Barbour
FOSSIL FUELS, INC.	P-3020-02	Nicholas
LEVEL LAND CONSTRUCTION COMPANY, INC.	S-3026-88	Nicholas
LEVEL LAND CONSTRUCTION COMPANY, INC.	S-3007-89	Nicholas
LEVEL LAND CONSTRUCTION COMPANY, INC.	S-3027-90	Nicholas
POCAHONTAS RESOURCES, INC.	S-3012-92	Nicholas
ALTEC ENERGY, INC	P-3010-99	Kanawha
MANGUS COAL, INC.	S-1036-91	Preston
TYPICAL ENTERPRISES	P-5009-91	Lincoln
TYPICAL ENTERPRISES	P-5013-91	Lincoln
CLEARWATER CONSTRUCTION	S-3016-99	Fayette
POLARIS COAL JOINT VENTURE	P-2007-00	Clay
BLACKHEART MINING INC	P-5034-90	Boone
SANDRIDGE COAL, LLC	UO-401	Barbour
BUFFALO COAL COMPANY, INC.	146-77	Tucker
BUFFALO COAL COMPANY, INC.	S-1048-91	Grant
BUFFALO COAL COMPANY, INC.	S-74-76	Tucker

BUFFALO COAL CO., INC.	U-2004-03	Grant
BUFFALO COAL COMPANY, INC.	S-100-84	Grant
BUFFALO COAL COMPANY, INC.	S-32-84	Grant
BUFFALO COAL COMPANY, INC.	S-2023-92	Tucker
BUFFALO COAL COMPANY, INC.	S-7-80	Tucker
BUFFALO COAL COMPANY, INC.	S-61-85	Tucker
BUFFALO COAL COMPANY, INC.	S-2003-03	Grant
BUFFALO COAL COMPANY, INC.	S-2018-88	Tucker
BUFFALO COAL COMPANY, INC.	S-2008-02	Grant
BUFFALO COAL COMPANY, INC.	S-2007-96	Tucker
BUFFALO COAL COMPANY, INC.	S-2018-00	Grant
BUFFALO COAL COMPANY, INC.	S-2011-92	Preston
BUFFALO COAL COMPANY, INC.	O-2006-95	Tucker
BUFFALO COAL COMPANY, INC.	S-2004-02	Grant
BUFFALO COAL COMPANY, INC.	S-2006-86	Grant
BUFFALO COAL COMPANY, INC.	S-2011-87	Grant
BUFFALO COAL COMPANY, INC.	S-2011-95	Grant
BUFFALO COAL COMPANY, INC.	S-2003-88	Tucker
BUFFALO COAL COMPANY, INC.	U-2010-94	Grant
GRACE ENTERPRISES, INC.	P-2016-02	Harrison
BURN COAL, INC.	U-2005-97	Upshur
LAROSA FUEL CO., INC.	S-39-84	Upshur
DECONDOR COAL CO.	U-1080-86	Preston
DECONDOR COAL CO.	U-147-82	Preston
RODNEY RIDDLE	P-3041-05	Nicholas
BUFFALO COAL COMPANY, INC.	I-542	Grant
RIFFE ENTERPRISES, INC.	O-3012-07	Raleigh
FALCON LAND COMPANY, INC.	P-5023-01	Logan
CHEYENNE SALES COMPANY, INC.	O-11-83	Upshur
LAROSA FUEL CO., INC.	S-1051-86	Marion
CHEYENNE SALES CO., INC.	S-2009-96	Upshur
CHEYENNE SALES CO., INC.	O-2025-86	Upshur
ROBLEE COAL COMPANY	O-1009-93	Upshur
ROBLEE COAL COMPANY	U-1001-91	Upshur
ROBLEE COAL COMPANY	U-2026-87	Barbour
ROBLEE COAL COMPANY	D-49-82	Barbour
ROBLEE COAL COMPANY	U-2001-00	Upshur
ENERGY MARKETING COMPANY INC	U-24-84	Barbour
ENERGY MARKETING COMPANY INC	O-44-83	Barbour
CARSON ONE MINING, LLC	O-4-84	Upshur
BOOMERANG COAL, INC.	S-2015-06	Randolph
PRIMROSE COAL, INC.	7-81	Preston
SHARON COAL CO.	S-1028-87	Preston
HAROLD KITZMILLER	O-2008-07	Grant
APPALACHIAN FUELS, LLC	S-3041-88	Clay
APPALACHIAN FUELS, LLC.	P-3055-06	Fayette
APPALACHIAN FUELS, LLC.	P-3019-08	Fayette

APPALACHIAN FUELS, LLC.	P-3005-09	Fayette
BRADFORD STONE, INC.	Q-178-78	Wyoming
KANAWHA DEVELOPMENT CORPORATION	H-631	Fayette
KANAWHA DEVELOPMENT CORPORATION	O-14-81	Fayette
KANAWHA DEVELOPMENT CORPORATION	O-38-84	Fayette
MARY RUTH CORPORATION	S-1015-88	Preston
CHICOPEE COAL COMPANY, INC.	P-3015-99	Nicholas
ENERGY MARKETING CO. INC.	UO-885	Barbour
ENERGY MARKETING CO. INC.	UO-520	Barbour
ENERGY MARKETING CO., INC.	U-16-83	Barbour
ENERGY MARKETING CO. INC.	U-72-83	Barbour
ENERGY MARKETING CO. INC	O-26-84	Barbour
ENERGY MARKETING CO. INC.	U-74-83	Barbour
ROARING RIVER HOLDING COMPANY	P-3006-07	Fayette
HIDDEN VALLEY ESTATES GOLF COURSE, INC.	S-1003-98	Marion
DOUBLE H MINING CO. INC.	U-1004-94	Preston
MARROWBONE DEVELOPMENT CO.	P-5035-99	Mingo
ASSET MINING, LLC.	S-5030-95	Boone
ASSET MINING, LLC.	S-5024-96	Boone
RAVEN HOCKING COAL CORP	O-6003-87	Mason
UNITED COALS, INC.	U-2015-87	Barbour
UNITED COALS, INC.	S-2008-00	Barbour
GOLD RESOURCES, LLC	S-1003-97	Harrison
HAROLD KITZMILLER	P-2031-08	Grant
ENVIROSERVE, INC. dba BETCON, INC.	P-4001-02	Mercer
SHAFER BROTHER CONSTRUCTION, INC.	S-2002-12	Monongalia
SHAFER BROTHER CONSTRUCTION, INC.	S-2006-02	Monongalia
SHAFER BROTHER CONSTRUCTION, INC,	S-2008-09	Monongalia
SHAFER BROTHER CONSTRUCTION, INC.	S-2011-10	Monongalia
SHAFER BROTHER CONSTRUCTION, INC.	S-2004-04	Monongalia
SHAFER BROTHER CONSTRUCTION, INC.	S-2012-06	Monongalia
DEEPGREEN WV, INC.	O-164-83	McDowell
EAGLE RIDGE DEVELOPMENT GROUP, LLC	S-3018-93	Fayette
EAGLE RIDGE DEVELOPMENT GROUP, LLC	S-3027-05	Fayette
EAGLE RIDGE DEVELOPMENT GROUP, LLC	S-3003-06	Fayette
EAGLE RIDGE DEVELOPMENT GROUP, LLC	S-3016-08	Fayette
EAGLE RIDGE DEVELOPMENT GROUP, LLC	S-3035-07	Nicholas
OMEGA MINING COMPANY	S-15-84	Monongalia
CHICOPEE COAL CO. INC.	P-3021-01	Nicholas
APPALACHIAN FUELS, INC.	P-3026-08	Nicholas
MAPLE COAL COMPANY LLC	P-3016-12	Fayette
THE NEW RIVER MINING COMPANY, INC.	P-3011-03	Greenbrier
MAPLE COAL COMPANY LLC	P-3012-11	Fayette
APPALACHIAN FUELS LLC	P-5020-07	Logan
MAPLE COAL COMPANY LLC	P-3031-11	Fayette
MAPLE COAL COMPANY LLC	P-3025-14	Fayette
EAGLE RIDGE DEVELOPMENT GROUP, LLC	P-3031-09	Nicholas

APPALACHIA COAL CORPORATION	P-2056-08	Preston
APPALACHIAN FUELS LLC	P-5041-07	Logan
BUCKEYE COAL COMPANY INC.	U-4007-90	McDowell
FIRST BIG MOUNTAIN MINING CO. INC.	P-22-83	Kanawha
COMBUSTION COAL CO. INC	P-36-81	Kanawha
MARTIN COUNTY LAND CO., LLC	P-3030-10	Kanawha
COVINGTON COAL COMPANY, LLC	S-5017-02	Kanawha
ERP ENVIRONMENTAL FUND, INC.	R-747	Marion
ERP ENVIRONMENTAL FUND, INC.	O-1001-87	Marion
ERP ENVIRONMENTAL FUND, INC.	EM-125	Marion
ERP ENVIRONMENTAL FUND, INC.	R-746	Marion
FRASURE CREEK MINING, LLC	U-5017-06	Mingo
DFM COAL, LLC	S-4004-01	Mingo
REVELATION ENERGY, LLC	S-3004-04	Kanawha
REVELATION ENERGY, LLC	S-3009-05	Kanawha
REVELATION ENERGY, LLC	S-3004-99	Kanawha
FRASURE CREEK MINING, LLC	S-3003-11	Fayette
FRASURE CREEK MINING, LLC	S-5010-06	Fayette
FRASURE CREEK MINING, LLC	O-5015-02	Fayette
FRASURE CREEK MINING, LLC	S-5022-01	Fayette
FRASURE CREEK MINING, LLC	U-3008-01	Fayette
FRASURE CREEK MINING, LLC	U-3012-10	Fayette
FRASURE CREEK MINING, LLC	O-5001-06	Fayette
FRASURE CREEK MINING, LLC	U-3006-06	Fayette
FRASURE CREEK MINING, LLC	S-3013-09	Fayette
FRASURE CREEK MINING, LLC	S-3016-01	Fayette
FRASURE CREEK MINING, LLC	S-3017-05	Fayette

Acid Mine Drainage Inventory

COMPANY	PERMIT	WATER STATUS**	COUNTY
ALPHAINE CORP.	S-6032-86	P	Clay
AMANDA NICOLE FUELS, INC.	S-1018-88	ACT	Preston
B & S CONTRACTING, INC.	R-668	P	Nicholas
B & S CONTRACTING, INC.	U-3055-87	TBRT	Nicholas
BARRENSHE COAL CO.	UO-694	P	McDowell
BARRETT FUEL CORP.	R-737	P2	Raleigh
BELLE CONTRACTING, INC.	S-6020-87	P	Putnam
BENHAM GROUP, LTD.	120-79	ACT	Boone
BJORKMAN MINING CO.	S-37-81	P	Preston
BLACK DIAMOND MINING CO.	13-79	P	Nicholas
BOLINGREEN MINING COMPANY	S-1024-88	ACT	Preston
BOOMERANG COAL, INC.	S-2015-06	P	Randolph
BORGMAN COAL CO.	EM-32	RT	Preston
BRADY CLINE COAL CO.	EM-97	TBRT	Nicholas
BUFFALO COAL COMPANY, INC.	S-2003-88	RT	Tucker
BUFFALO COAL COMPANY, INC.	S-122-80	TBRT	Tucker
BUFFALO COAL COMPANY, INC.	S-2006-86	P	Grant
BUFFALO COAL COMPANY, INC.	S-52-80	TBRT	Grant
C. C. CONLEY & SONS, INC.	S-3046-91	P	Nicholas
CHAFIN COAL CO.	O-69-82	P	Logan
CHESTNUT RIDGE COAL CORP.	S-28-83	TBRT	Mineral
CHEYENNE SALES COMPANY, INC.	O-11-83	P	Upshur
CHICOPEE COAL COMPANY, INC.	O-6013-88	P	Clay
CHICOPEE COAL COMPANY, INC.	S-3002-98	P	Nicholas
CHICOPEE COAL COMPANY, INC.	S-3006-99	P	Nicholas
COAL X, INC.	UO-396	ACT	Logan
COWACO, INC.	R-3022-87	P	Clay
CRADDOCK & SON COAL CO.	S-68-83	P	Nicholas
CRANE COAL CO., INC.	S-27-83	P	Preston
DAUGHERTY COAL COMPANY, INC.	192-77	ACT	Preston
DAUGHERTY COAL COMPANY, INC.	S-1009-86	ACT	Preston
DAUGHERTY COAL COMPANY, INC.	65-77	TBRT	Preston
DECONDOR COAL CO.	U-147-82	TBRT	Preston
DELTA MINING, INC.	U-2024-87	ACT	Upshur
DLM COAL CO.	P-426	TBRT	Upshur
DLM COAL CO.	58-77	TBRT	Upshur
DLM COAL CO.	12-78	TBRT	Upshur
DLM COAL CO.	164-77	RT	Upshur
DLM COAL CO.	23-76	TBRT	Upshur
DLM COAL CO.	2-80	ACT	Upshur
DLM COAL CO.	R-423	ACT	Upshur
DLM COAL CO.	71-75	TBRT	Upshur
DLM COAL CO.	1-78	TBRT	Upshur

DLM COAL CO.	138-74	TBRT	Upshur
DLM COAL CO.	135-78	TBRT	Upshur
DUSTY COALS, INC.	S-119-85	TBRT	Nicholas
E. J. & L. CO., INC.	S-3041-87	P	Raleigh
EASTERN ENERGY INVEST.	S-6029-86	ACT	Kanawha
EASTERN ENERGY INVEST.	U-6012-88	P	Boone
ED-E DEVELOPMENT CO., INC.	S-10-81	ACT	Monongalia
ED-E DEVELOPMENT CO., INC.	S-1032-86	ACT	Preston
EDWARD E. THOMPSON	S-1041-89	RT	Monongalia
ENERGY MARKETING CO. INC.	U-72-83	P	Barbour
F & M COAL CO.	S-1044-87	RT	Preston
F & M COAL CO.	S-57-84	RT	Preston
F & M COAL CO.	46-79	P	Preston
F & M COAL CO.	S-1026-87	P	Preston
FALCON LAND COMPANY, INC.	P-656	RT	Nicholas
FARKAS COAL CO.	34-81	TBRT	Monongalia
FREEMPORT MINING CORPORATION	S-1005-95	ACT	Preston
FRUSH ENTERPRISES, INC.	S-1008-89	ACT2	Harrison
GAULEY COAL SALES CO.	O-43-84	P	Nicholas
GLADE RUN IN STREAM DOSER PROJECT	GR-DOS-17	ACT	Preston
GLADE RUN MINING CO.	3-72	P	Grant
GLADY FORK MINING, INC.	D-35-82	ACT	Upshur
GLORY COAL CO., INC.	UO-744	P	Harrison
GOLDEN PRODUCTS CO.	S-1009-88	P	Monongalia
GREEN MOUNTAIN ENERGY	U-4013-91	P	Wyoming
GREENDALE COALS, INC.	S-75-83	ACT	Clay
HALLELUJAH MINING	40-81	ACT	Preston
HARVEY ENERGY CORP.	S-11-82	TBRT	Fayette
HARVEY ENERGY CORP.	S-3030-89	P	Fayette
HARVEY ENERGY CORP.	S-35-81	TBRT	Fayette
HAWKS NEST MINING CO.	O-1-81	ACT	Kanawha
HIDDEN VALLEY COAL CO.	S-60-84	ACT	Preston
HUNT COAL, INC.	U-5071-86	ACT	Logan
INTER-STATE LUMBER COMPANY, INC.	176-77	ACT	Preston
INTER-STATE LUMBER COMPANY, INC.	S-52-83	ACT	Preston
INTER-STATE LUMBER COMPANY, INC.	S-112-80	P	Preston
INTER-STATE LUMBER COMPANY, INC.	S-96-82	P	Preston
J & N PROCESSING COMPANY, LLC	O-58-83	P	Raleigh
J. E. B., INC.	S-1063-86	ACT	Preston
J. E. B., INC.	S-61-82	ACT	Preston
J.A.L. COAL CO., INC.	S-23-82	P	Monongalia
JINKS MINING COMPANY	U-3031-93	P	Nicholas
JOHN GALT	D-76-82	P	Logan
JONES COAL INC	S-1030-86	P	Preston
JONES COAL INC	S-9-83	P	Preston
KEISTER COAL COMPANY, INC.	184-77	ACT	Barbour
KODIAK LAND CO., INC.	S-3052-87	P	Fayette

LAKEVIEW COAL COMPANY	S-55-84	P	Monongalia
LANDMARK CORPORATION	S-34-82	P	Boone
LANDMARK CORPORATION	S-5069-88	P	Boone
LAROSA FUEL CO., INC.	S-1051-86	ACT	Marion
LEFT FORK LITTLE SANDY IN STREAM DOSER PROJECT	LF-DOS-18	ACT	Preston
LEVEL LAND MINING CORPORATION	S-3031-90	P	Fayette
LILLYBROOK COAL CO.	S-86-85	TBRT	Raleigh
LODESTAR ENERGY, INC.	R-5-84	TBRT	Wyoming
LODESTAR ENERGY, INC.	S-19-85	P	Nicholas
LO-MING COAL CORPORATION	U-5049-87	P	Logan
LOW ASH COAL CO.	UO-389	TBRT	Wyoming
M & T MINING CO.	S-3026-89	P	Nicholas
MAPLE RUN IN STREAM DOSER PROJECT	MR-DOS-18	ACT	Preston
MOHIGAN MINING CO.	U-109-83	P	Monongalia
MORGANTOWN ENERGY EXPORT COMPANY	U-8-83	P	Monongalia
MOUNTAINEER FUELS, INC.	U-3083-87	P	Nicholas
MUDDY CREEK RESTORATION PROJECT 1	SWN1-2017	ACT	Preston
MUDDY CREEK RESTORATION PROJECT 2	SWN2-2017	ACT	Preston
MUDDY CREEK RESTORATION PROJECT 3	SWN3-2017	ACT	Preston
MUDDY CREEK RESTORATION PROJECT 4	SWN4-2017	ACT	Preston
NATIONAL CONSTRUCTION COMPANY, INC.	S-2004-86	P	Barbour
OMEGA MINING CO. INC.	D-79-82	RT	Monongalia
PIERCE COAL & CONSTRUCTION, INC.	71-80	ACT	Upshur
PINNACLE CREEK MINING CORP.	R-721	TBRT	Wyoming
PRESTON ENERGY, INC.	O-1035-87	ACT	Preston
PRESTON ENERGY, INC.	O-86-82	ACT	Preston
PRESTON ENERGY, INC.	O-43-85	ACT	Preston
PRIMROSE COAL, INC.	7-81	TBRT	Preston
PRINCESS CINDY MINING, INC.	30-79	P2	Fayette
PRINCESS SUSAN COAL CO.	S-6-85	P	Kanawha
PRINCESS SUSAN COAL CO.	S-6033-86	P	Kanawha
PRINCESS SUSAN COAL CO.	S-76-82	P	Kanawha
PUPS CREEK COALS, INC.	S-3006-94	P	Raleigh
RALEIGH COMMERCIAL DEVELOPMENT	149-79	P	Fayette
ROBLEE COAL COMPANY	O-1009-93	P	Upshur
ROBLEE COAL COMPANY	U-2001-00	P	Upshur
ROBLEE COAL COMPANY	U-2026-87	P	Barbour
ROBLEE COAL COMPANY	U-1001-91	P	Upshur
ROCKVILLE MINING CO.	237-76	ACT	Preston
ROCKVILLE MINING CO.	S-65-82	ACT	Preston
ROCKVILLE MINING CO.	65-78	ACT	Preston
ROCKVILLE MINING CO.	S-1035-86	ACT	Preston
ROYAL SCOT MINERALS, INC.	D-32-81	TBRT	Greenbrier
ROYAL SCOT MINERALS, INC.	S-99-83	TBRT	Greenbrier
ROYAL SCOT MINERALS, INC.	56-81	TBRT	Greenbrier
ROYAL SCOT MINERALS, INC.	U-40-85	P	Greenbrier
ROYAL SCOT MINERALS, INC.	31-72	TBRT	Greenbrier

ROYAL SCOT MINERALS, INC.	S-90-82	P2	Greenbrier
ROYAL SCOT MINERALS, INC.	R-3078-86	P	Greenbrier
S. KELLY INDUSTRIES	51-78	TBRT	Monongalia
SALYERS LEASING CORP.	U-5066-87	P	Mingo
SAN SUE COAL CO.	19-75	P	Nicholas
SHARON COAL CO.	S-1028-87	P	Preston
SOLITAIRE COAL CORPORATION, INC.	S-87-85	P	Webster
SOUTHERN EAGLE MINING CORPORATION	U-32-84	P	Randolph
STAR INDUSTRIES, INC.	R-3-81	ACT	Raleigh
STEWARTOWN COAL CORP.	67-78	ACT	Monongalia
T & J COAL, INC.	P-177-85	ACT	Preston
T & T FUELS, INC.	EM-113	ACT	Preston
T & T FUELS, INC.	U-125-83	ACT	Preston
TEMPLEMAN CONST. CO., INC.	151-75	P	Kanawha
THE MASTELLER COAL COMPANY	S-125-82	ACT	Mineral
THE MASTELLER COAL COMPANY	S-10-85	P	Mineral
TRIPLE A COALS, INC.	U-3046-87	TBRT	Nicholas
TRIPLE A COALS, INC.	S-3028-87	P2	Nicholas
TRIPLE A COALS, INC.	S-96-85	P	Nicholas
VALLEY MINING CO., INC.	S-64-83	RT	Monongalia
VALLEY MINING CO., INC.	S-17-82	ACT	Monongalia
VICKIE ENERGY, INC.	U-53-85	TBRT	Pocahontas
VMS, LTD.	S-1045-87	TBRT	Monongalia
W & E LOGGING & COAL	S-20-82	P	Nicholas
WERNER MINING CO., INC.	S-2003-86	P	Barbour
WETER CO.	S-71-79	P	Preston
WINCHESTER COALS, INC.	O-52-83	P	Logan
WOCAP ENERGY RESOURCES, INC.	S-26-85	RT	Preston
X W CORP.	S-6013-87	P	Clay
Z & F DEVELOPMENT CO.	S-21-84	TBRT	Monongalia
ZINN COAL CO.	60-79	P	Preston
ZY COAL CO	S-6028-88	P	Clay
ZY COAL CO.	91-79	P	Clay
ZY COAL CO.	S-30-80	P	Clay

** Status code definition.

P= Passive, AMD present but not chemically treated

ACT=Active, AMD present and chemical treatment

P2 and ACT2 are sites that were upgraded and returned to treatment.

RT= Site identified for retrofit, under construction

TBRT=Site has been identified for retrofit, under review/design

Mine Drainage Treatment Prioritization

COMPANY	PERMIT	Acid Loading TPY
ASSET MINING, LLC.	S-5030-95	44.11
ROYAL COAL CO.	P-688	32.035
KEYSTONE COAL, INC.	U-186-83	21.98
CARSON ONE MINING, LLC	O-4-84	17.53
INTER-STATE LUMBER COMPANY, INC.	S-39-82	17.3
SMITH & STOVER	EM-29	11.44
BUFFALO COAL COMPANY, INC.	S-53-80	8.47
LODESTAR ENERGY, INC.	S-3006-89	6.21
BUFFALO COAL COMPANY, INC.	S-2001-86	4.96
BALDWIN MINING COMPANY	D-75-82	4.824
APPALACHIAN FUELS, LLC	S-3041-88	4.31
SUMMERSVILLE FIVE BLOCK	S-3051-88	3.81
SHAFER BROTHER CONSTRUCTION, INC.	S-2002-12	2.97
ROYAL SCOT MINERALS, INC.	U-3046-88	2.63
A S & K, INC.	S-1011-89	2.36
LODESTAR ENERGY, INC.	S-3083-86	1.73
ALAN BLOSSER	S-1010-87	1.64
BUFFALO COAL COMPANY, INC.	S-2003-03	1.34
J. C. B. MINING, INC.	U-2006-88	0.7527
BUFFALO COAL COMPANY, INC.	S-2011-92	0.6
MERIDAN OF VIRGINIA, INC.	S-4005-89	0.284
CLASSIC RES., INC.	S-55-81	0.1836
EAGLE RIDGE DEVELOPMENT GROUP, LLC	S-3016-08	0.155
KEYSTONE COAL, INC.	S-84-83	0.08
ROYAL COAL CO.	R-676	0.0189
ROYAL SCOT MINERALS, INC.	S-65-76	0.0022
KANAWHA DEVELOPMENT CORPORATION	O-38-84	0