Exhibit 96.2

RIVER VIEW COMPLEX
SEC S-K 1300
TECHNICAL REPORT SUMMARY

PREPARED FOR

River View Coal, LLC
1146 Monarch Street
Suite 350
Lexington, Kentucky 40513

FEBRUARY 2024

RESPEC.COM

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SEC S-K 1300
TECHNICAL REPORT SUMMARY

PREPARED BY

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Project Number M0062.21001

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1.0 EXECUTIVE SUMMARY

1.1 PROPERTY DESCRIPTION

River View Coal, LLC (River View) owns and operates the River View Complex (RVC) consisting of the River View (Mine #1) and Henderson County (Mine #2) mines. Both mines will utilize the existing preparation plant, refuse disposal, and loadout facilities. River View is a wholly owned subsidiary of Alliance Coal, LLC (Alliance). RVC is an underground coal mining operation located in Union County, Kentucky and currently has access to approximately 93,200 permitted underground acres. The mine property is controlled through both fee ownership and leases of the coal. Surface facilities are controlled through ownership or lease.

1.2 GEOLOGY AND MINERALIZATION

The West Kentucky No. 9 seam (WKY9) and the West Kentucky No. 11 seam (WKY11) are mined through room and pillar methods. The WKY9 and WKY11 are located in the Illinois Basin, more specifically the southeastern flank of the Illinois Basin. The WKY9 correlates regionally to the Springfield No. 5 coal and the WKY11 to the Herrin No. 6 coal. The Illinois Basin is an interior cratonic basin that formed from numerous subsidence and uplift events. The Illinois Basin extends approximately 80,000 square miles, covering Illinois, southern Indiana, and western Kentucky. The primary coal-bearing strata is of Carboniferous age in the Pennsylvanian system.

1.3 STATUS OF EXPLORATION

River View has extensively explored both the WKY11 and WKY9 through drilling it has conducted and previous developers. Drilling records are the primary dataset used in the evaluation of the resource/reserve. Drill records have been compiled into a geologic database which includes location, elevation, lithologic information, and coal quality data.

1.4 MINERAL RESOURCE AND RESERVE ESTIMATES

This information is used to generate geologic models that identify potential adverse mining conditions, define areas of thinning or thickening coal and predict coal quality for marketing purposes. This information is used to create a resource model using Carlson Software's Geology module, part of an established software suite for the mining industry. In addition to coal thickness and quality data, seam recovery is modeled. Classification of the resources is based on distances from drill data. Carlson then estimates in-place tonnages, qualities, and average seam recovery within a set of polygons. These polygons are the result of the intersection of polygons outlining property boundaries, adverse mining conditions, mining method, mine plan boundaries, and resource/reserve classification boundaries. These results are exported to a database which then applies the appropriate percent ownership, mine recovery and seam recovery. Table 1-1 is a summary of the coal reserves and resources based on a 33-year life-of-reserve plan. All resources converted to reserves are removed from the resource estimate.

Table 1-1. Summary of Controlled Coal Reserves and Resources Estimates as of December 31, 2023

Seam	Reserves Controlled Recoverable (1,000 tons)	Resources Controlled Recoverable (1,000 tons)
WKY11	117,535	22
WKY9	192,892	244
Total	**310,427**	**266**

1.5 CAPITAL AND OPERATING COST ESTIMATES

RVC is an on-going operating coal mining operation; therefore, the capital and operating cost estimates were prepared with consideration of historical operating performance. The coal operation is not subject to federal and state income taxes as it is held by a partnership for tax purposes and not taxed as a corporation. Table 1-2 shows the estimated average capital and mining and processing costs for the life of reserve plan.

Table 1-2. Capital and Operating Costs

Category	Life of Reserve Estimate 2024-2056 Costs (US$ 000's)
Capital Costs	1,785,003
Mining and Processing Costs	13,266,499
TOTAL	**15,051,502**

1.6 PERMITTING REQUIREMENTS

Kentucky Department of Natural Resources (KYDNR), Division of Mine Permits (DMP) is responsible for review and issuance of all permits relative to coal mining and reclamation activities, and financial assurance of comprehensive environmental protection performance standards related to surface and underground coal mining operations. In addition to state mining and reclamation laws, operators must comply with various federal laws relevant to mining. All applicable permits for underground mining, coal preparation, related facilities, and other incidental activities have been obtained. They remain in good standing and will be expanded as needed.

1.7 QUALIFIED PERSON'S CONCLUSIONS AND RECOMMENDATIONS

It is the Qualified Person's (QP) opinion the operating risks of the mine are low. The mining operation, processing facilities, and the site infrastructure are in place for Mine #1 and development of Mine #2 from a combination of new and existing facilities is underway. Mining practices are well established. All required permits are issued and remain in good standing for current operations. Given River View's ability to obtain and retain permits, it is reasonably likely that future required permits will be acquired in a timely fashion to facilitate additional mining. Market risk is discussed in Section 16.1 and could materially impact resource and reserve estimates.

2.0 INTRODUCTION

2.1 ISSUER OF REPORT

River View has retained RESPEC Company, LLC (RESPEC) to prepare this Technical Report Summary (TRS). The RVC is operated by River View. River View is a wholly owned subsidiary of Alliance.

2.2 TERMS OF REFERENCE AND PURPOSE

The purpose of this TRS is to support the disclosure in the annual report on Form 10-K of Alliance Resource Partners, L.P. (ARLP 10-K) of Mineral Resource and Mineral Reserve estimates for the RVC as of 12/31/2023. This report is intended to fulfill 17 Code of Federal Regulations (CFR) §229, "*Standard Instructions for Filing Forms Under Securities Act of 1933, Securities Exchange Act of 1934 and Energy Policy and Conservation Act of 1975 – Regulation S-K*," subsection 1300, "Disclosure by Registrants Engaged in Mining Operations." The mineral resource and mineral reserve estimates presented herein are classified according to 17 CFR§229.133 – Item (1300) Definitions.

Unless otherwise stated, all measurements are reported in U.S. imperial units and currency in U.S. dollars ($).

This TRS for the River View Complex was prepared by RESPEC and updates the TRS for the River View Mine dated July 2022, which updated the TRS for the River View Mine dated February 2022.

2.3 SOURCES OF INFORMATION

During the preparation of the TRS, discussions were had with several Alliance personnel.

The following information was provided by River View and Alliance:

- Property History
- Property Data
- Laboratory Protocols
- Sampling Protocols
- Topographic Data
- Mining Methods
- Processing and Recovery Methods
- Site Infrastructure information
- Environmental permits and related data/information
- Historic and forecast capital and operating costs.

2.4 PERSONAL INSPECTION

A RESPEC QP and Alliance representative conducted a site visit on January 31, 2022. During the site visit, the RESPEC QP visited the preparation plant, the raw coal stockpile, the clean coal stockpile, barge loading facility, and the refuse impoundment.

The Mine #1 access slope is located approximately three miles southeast of the preparation plant. The RESPEC QP viewed the slope, the shaft, and a raw coal stockpile at this location.

Discussions were held with the mine engineer regarding several items including permitting issues and the expansion of the current refuse disposal capacity.

A subsequent site visit was conducted by a RESPEC QP and an Alliance representative on January 23, 2024. The mine infrastructure is actively being expanded to open Mine #2. The RESPEC QP visited the recently updated slope associated with Mine #2; the ongoing construction of the shaft for Mine #2 Portal 1; the refurbish of several miles of conveyor from the Mine #2 slope to the raw coal storage at the Mine #1 slope; and the preparation plant. The target completion date for the Mine #2 portal is mid-year of 2025. The conveyor from Mine #2 slope to the raw coal storage at the Mine #1 slope is expected to be operating in 1 to 2 weeks. These features are shown on the “General Location Map.”

3.0 PROPERTY DESCRIPTION

3.1 PROPERTY DESCRIPTION AND LOCATION

The RVC is in Union County, Kentucky (37°45’37” N, -87°56’42” W) and currently has access to approximately 93,200 permitted underground acres. Though there is geographic overlap with the Henderson Union resource area, the resources are associated with different seams (West Kentucky No. 7 and West Kentucky No. 6) or, if the same seam (which occurs in the WKY11), separated by old works and geologic features into distinct areas. The Henderson Union WKY9 seam resources have been moved to River View as part of the Mine #2 development. Development of the underground corridor from the UC Mining site using the existing slope to the proposed portal facilities commenced in 2023 and first production from the WKY9 is expected tobegin in 2024. There is no overlap in the resource / reserve estimation between River View and the Henderson Union properties.

Figure 3-1 shows the general location of the RVC.

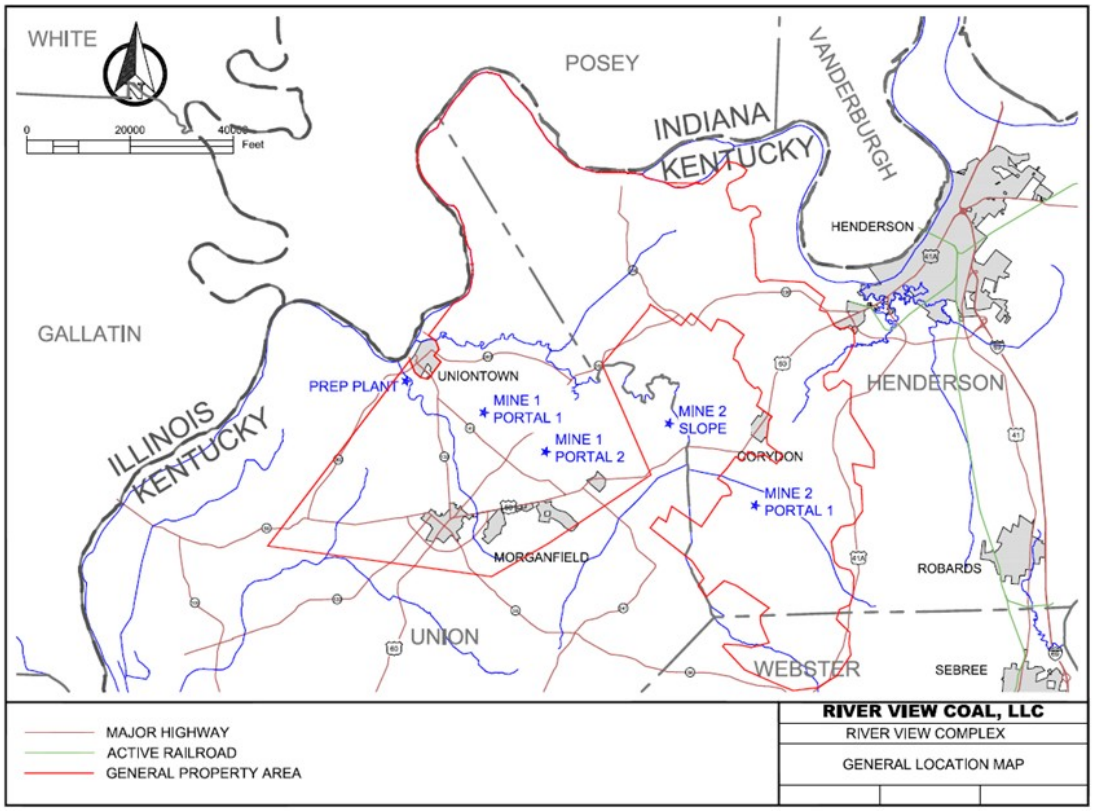


Figure 3-1. General Location Map

3.2 MINERAL RIGHTS

The coal reserves are leased or held for lease to River View by Alliance Resource Properties, LLC (ARP). River View has the right to extend the term of the lease through exhaustion of the reserves. The lease requires a production royalty to be paid to ARP for each ton of coal sold from the RVC, and River View is required to comply with all terms of the underlying base leases from third parties held by ARP and subleased to River View, including the payment of all rents and royalties.

For some tracts, River View has partial control of mineral rights. The estimated saleable tonnage for each tract is reduced appropriately where control is less than 100%.

The raw coal produced from the RVC is transported by overland belt to the coal processing and loading facilities which include a barge loading facility on the Ohio River.

3.3 SIGNIFICANT ENCUMBRANCES OR RISKS TO PERFORM WORK ON PERMITS

ARLP's revolving credit facility is secured by, among other things, liens against certain River View surface properties, coal leases and owned coal. Documentation of such liens is of record in the Office of Union County Clerk. Please refer to "Item [8.] Financial Statements and Supplementary Data—Note 8 – Long-term Debt" of the ARLP 10-K for more information on the revolving credit facility.

Accounts receivable generated from the sale of coal mined from this property are collateral for ARLP's accounts receivable securitization facility, evidenced by financing statement of record in the Office of Union County Clerk. Please refer to "Item [8.] Financial Statements and Supplementary Data—Note 8 – Long-term Debt" of the ARLP 10-K for more information on the accounts receivable securitization facility.

Kentucky Department of Natural Resources (KYDNR), Division of Mine Permits (DMP) is responsible for oversight of active coal mining and reclamation activities. In addition to state mining and reclamation laws, operators must comply with various federal laws relevant to mining. All applicable permits for underground mining, coal preparation, and related facilities and other incidental activities have been obtained and remain in good standing for current operations. Given River View's ability to obtain and retain permits, it is reasonably likely that future required permits will be acquired in a timely fashion to facilitate additional mining.

4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

4.1 TOPOGRAPHY AND VEGETATION

The RVC is located in the Green River – Southern Wabash Lowlands physiographic region of Kentucky per USEPA. This region is unglaciated, consisting of broad, nearly level bottomlands and low hills. It is drained by meandering, low gradient streams and rivers with wide floodplains. The surface facilities and mine access are located just to the south of Uniontown, KY, which sits on the banks of the Ohio River. The elevation ranges across the complex permit area between 340 and 450 feet above mean sea level. The vegetation across the mine permit area consists primarily of cropland, with some pastureland and woodland.

4.2 ACCESSIBILITY AND LOCAL RESOURCES

The primary Mine #1 shaft access (Portal 1 -37°44’35” N, -87°53’19” W) to the RVC is located at 835 KY-1179, Waverly, KY 42462. It is accessible from Henderson, KY, via US-60 to KY-1180/KY-359 to KY-1179, or from Uniontown, KY, via KY-130 to KY-141 to KY-1179. The secondary Mine#1 shaft access (Portal 2 - 37°43’26” N, -87°51’04” W) to Mine #1 is located at the intersection of KY-359 and KY-1179, Waverly, KY 42462. Interstate 69 is a major transportation artery passing through Henderson, KY, about 20 miles due east of the primary Mine #1 access. The town of Uniontown, KY, lies about 3.2 miles to the northwest of Mine #1, the town of Morganfield, KY, lies about 4.4 miles to the southwest of Mine #1, and the town of Waverly, KY, lies about 4.7 miles to the southeast. The Ohio River lies about 3.8 miles to the northwest of the primary Mine #1 access location, passing by Henderson, KY, and Uniontown, KY. Coal is transported by belt from the underground mine to the surface at the Mine #1 slope access (37°44’43” N, -87°53’40” W) located just northwest of the primary Mine #1 shaft access. The coal is transported by belt from the Mine #1 slope access to the complex’s processing and coal loading facilities (37°45’37” N, -87°56’42” W) located about 3.0 miles northwest of the Mine #1 slope access. From the processing facilities, the processed coal is transported by belt about 0.6 miles to the mine’s barge loading facility (37°46’07” N, -87°56’54” W) on the Ohio River (mile marker 843). Coal will move from the Mine #2 slope (37°44’24” N, -87°46’09” W) on an overland conveyor that will tie into the raw coal storage at the Mine #1 slope for transport to the shared processing facilities. The Mine #2 portal (37°41’52” N, -87°42’30” W) will be connected to the Mine #2 slope through an underground corridor. The nearest FAA-designated commercial service airport is Evansville Regional Airport (EVV) located about 24 miles to the northeast of the mine across the Ohio River in Evansville, IN.

4.3 CLIMATE

The RVC and surrounding Henderson, KY, area has four distinct seasons with average annual precipitation of 44.8 inches according to U.S. Climate Data. The average annual high temperature is 67°F and the average annual low temperature is 47°F. The average annual snowfall is 13 inches. The climate of the area has little to no effect on underground and surface operations at the mine. The mine operates year-round with exceptions for holiday and vacation shutdowns.

4.4 INFRASTRUCTURE

The RVC gets its potable water from the Union County Water District and Henderson County Water District. Water used for underground operations is reclaimed and filtered from underground collection sources as well. Water used for coal processing is sourced directly from the Ohio River and nearby tributaries. Electricity is provided by Kentucky Utilities. Employment in the area is competitive. However, the complex has been able to attract a mixture of skilled and unskilled labor with its competitive pay package and benefits. Mine personnel primarily come from the surrounding Kentucky counties of Union, Henderson, and Webster and southern Illinois. The city of Henderson, KY, lies about 17.6 miles to the northeast of Mine #1. Its population is 27,981 according to the 2020 U.S. Census, making it the 10th most populous city in Kentucky. Henderson is the county seat of Henderson County, KY; it is part of the Evansville Metropolitan Area, and is considered the southernmost suburb of Evansville, IN. Most supplies are trucked to the mines from regional vendors.

5.0 HISTORY

5.1 PRIOR OWNERSHIP

Island Creek Coal Company (ICCC), currently a subsidiary of CONSOL Energy Inc. (CONSOL), operated mines in the area and controlled a portion of the property. Under a joint venture, Texas Gas Transmission controlled a large interest in the mineral rights. Peabody Energy Corporation (Peabody) and its successor, Patriot Coal Corporation, operated mines in the area and, in the past, controlled a portion of the reserves. ARP acquired control of the majority of the property through multiple transactions from 2005 to 2015. ICCC operated the Ohio #11 (WKY11) and Uniontown #9 (WKY9) mines to the west of the RVC. ICCC also operated the Hamilton #1 and Hamilton #2 mines in the WKY9 to the southwest. Peabody and Patriot Coal operated the Camp complex and Highland mines in the area, operating in both seams.

5.2 EXPLORATION HISTORY

Over 1100 holes penetrate the WKY9 and about 450 holes penetrate the WKY11within and adjacent to the RVC to assess thickness, quality, and mineability of the seams. In general, holes are cased through the alluvium, rotary drilled to an interval above the coal(s), and then cored to collect roof, coal, and floor samples. Most cores range from approximately 3 to 4 inches in diameter. Coal quality was analyzed on nearly 160 holes in the WKY11 and nearly 300 holes in the WKY9. Some later holes included geophysical logs to verify core thicknesses and strata in rotary intervals. ICCC, CONSOL, Peabody, and Patriot Coal are responsible for most of the historic drilling which accounts for over 1000 of the drillholes. River View has drilled over 80 holes (RV-series) on the property to supplement the historical data and collected over 50,000 in-mine coal thickness measurements. Further, over 500 oil/gas well geophysical logs drilled by various companies have been interpreted to supplement the exploration drilling. In general, all drilling has shown highly consistent coal seams of mineable thickness and quality for the thermal utility market.

See Appendix A for a map showing all drill hole locations.

6.0 GEOLOGICAL SETTING, MINERALIZATION AND DEPOSIT

6.1 REGIONAL GEOLOGY

The RVC extracts coal from both the WKY9 and the WKY11 located in the Illinois Basin, more specifically the southeastern flank of the Illinois Basin. The WKY9 correlates regionally to the Springfield No.5 coal and the WKY11 to the Herrin No. 6 coal. The Illinois Basin is an interior cratonic basin that formed from numerous subsidence and uplift events. The Illinois Basin extends approximately 80,000 square miles, covering Illinois, southern Indiana, and western Kentucky.

Primary coal-bearing strata, including the WKY9 and WKY11, are in formations of Pennsylvanian aged rocks, which were deposited about 325 to 290 million years ago. The Pennsylvanian System is characterized by many vertical changes in lithology. There are over five hundred distinct beds of shale, sandstone, sandy shale, limestone, and coal in the Pennsylvanian System. Many beds are laterally extensive and can be correlated across much of the Illinois Basin because of their position in relation to distinct marker beds, such as coals and limestones.

Pennsylvanian rocks in the region consist of shale, sandstone, siltstone, coal, and limestone and are largely alluvial or deltaic in origin. Sandstones and siltstones make up between 50 and 80 percent of the coal-bearing sequence, while shales make up between 20 and 40 percent.

The Carbondale Formation accounts for just a quarter of the rocks in the Pennsylvanian System in Kentucky. However, it contains more than two-thirds of the coal resources in the state. The WKY11 and WKY9 are within the Carbondale Formation.

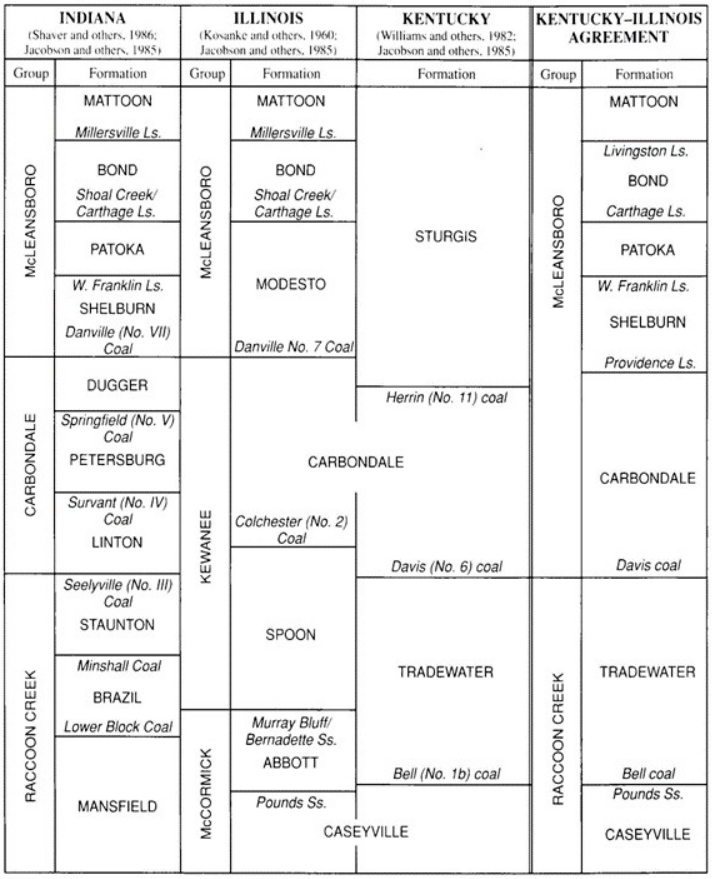


Figure 6-1. Generalized Stratigraphic Column of Pennsylvanian Rocks in Kentucky

6.2 LOCAL GEOLOGY

6.2.1 WEST KENTUCKY NO. 11 SEAM

The immediate roof over the WKY11 is a dark gray to black fossiliferous shale that averages about 0.5 feet thick, commonly call “gob”. Above this is the Providence Limestone. This limestone varies in

thickness from zero to as much as about seven feet; but is generally around 3 to 4 feet thick over much of the WKY11. Sporadically throughout the reserve, the very thin West Kentucky No. 12 seam occurs just above the Providence Limestone. This is overlain by a silty gray shale of variable thickness due to erosion from the overlying Anvil Rock sandstone (Anvil Rock). The Anvil Rock is the primary aquifer in the region. This sandstone is known to scour the immediate roof and, on some occasions, into the coal itself. When the sandstone comes into close proximity to the WKY11, there's an increased risk of water inflow into the mine due to the Anvil Rock being an aquifer. In general, areas where the Anvil Rock is within five feet of the WKY11 are avoided during mining. The floor of the WKY11 is predominately a fireclay grading down into a limey claystone.

6.2.2 WEST KENTUCKY NO. 9 SEAM

The immediate roof over a vast majority of the WKY9 is a black, fissile shale, often containing fossils. This black shale is generally from one to two feet thick. The black shale is overlain by dark gray shale. The lower ten to twelve feet of the gray shale is very dark and often contains siderite nodules and bands. Above the gray shale typically grades to a silty and eventually sandy shale. Above this is a water-bearing sandstone that varies in thickness and extent. This sandstone can encroach on the immediate and main roof. Under these conditions, ground control issues can occur and require additional support to maintain stability. The WKY9 is underlain by a soft underclay that grades to a limey claystone containing limestone nodules.

See Figure 6-1 for a stratigraphic column and Figures 6-2 and 6-3 for geologic cross sections representing the local geology. See Appendix A for a plan view showing the locations of the cross sections.

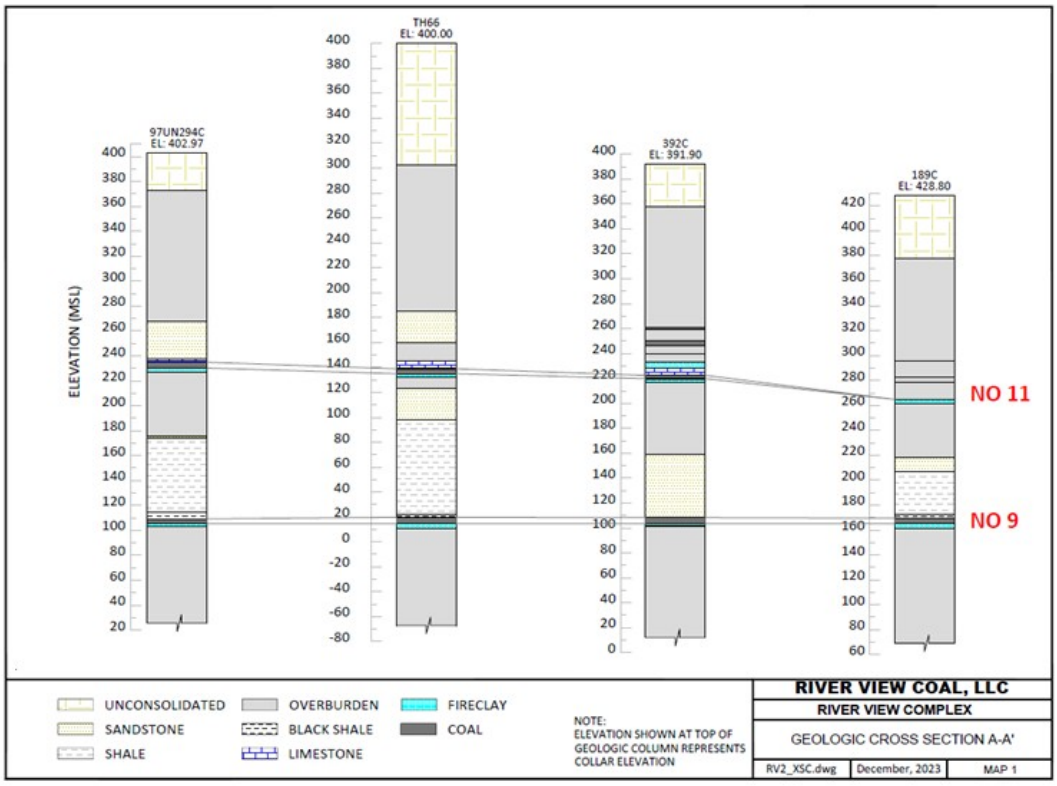


Figure 6-2. Geological Cross-Section A-A'

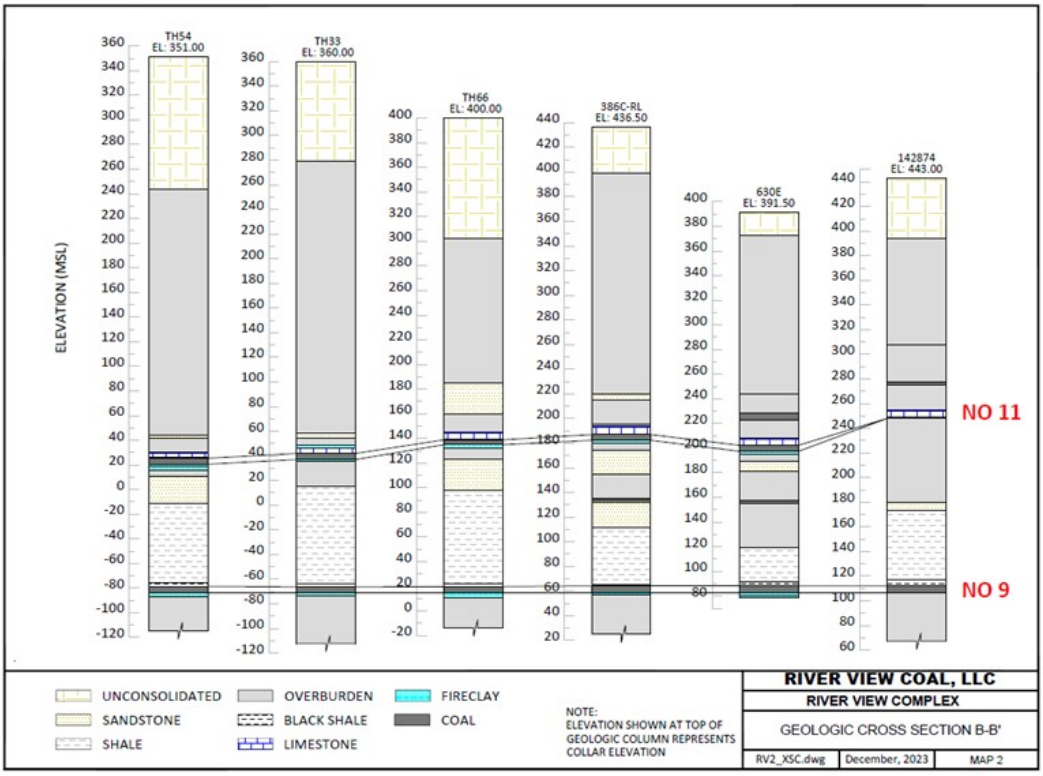


Figure 6-3. Geological Cross-Section B-B'

6.3 PROPERTY GEOLOGY AND MINERALIZATION

The RVC extracts coal from both the WKY9 and the WKY11. The WKY11 is about 200 to 400 feet deep and the WKY9 is about 200 to 500 feet deep. The resource area is bounded by the Ohio River, the Rough Creek-Shawneetown Fault System, previous mining, and influences associated with mineability discussed above. Strata dip gently to the north and east across the property.

The WKY9 and WKY11 are consistent in thickness over their respective resource boundaries with the seams averaging 4.62 feet (WKY9) and 4.64 feet WKY11 in thickness. On a 1.50 float, dry basis, the WKY9 averages about 8.9% ash, 3.2% sulfur, and 13,050 btu/lb. On a 1.50 float, dry basis, the WKY11 averages about 6.9% ash, 3.2% sulfur, and 13,360 btu/lb.

The mineral deposit type mined by the RVC is a high volatile bituminous coal. The primary coal-bearing strata is of Carboniferous age, in the Pennsylvanian system.

The geologic model developed to explore the resource and reserve is a bedded sedimentary deposit model. This is generally described as a continuous, non-complex, typical cyclothem sequence that follows a bedded sedimentary sequence. The geology continues to be verified by an extensive drilling program.

A stratigraphic column (Figure 6-1) and geologic cross sections (Figure 6-2 & Figure 6-3) representing the local geology, are included in this report.

6.4 STRATIGRAPHY

6.4.1 CARBONDALE FORMATION

The WKY11 and WKY9 are within the Carbondale Formation. The Carbondale Formation makes up about a quarter of the rocks in the Pennsylvanian System; but it contains two-thirds of the coal resources in Kentucky.

7.0 EXPLORATION

7.1 DRILLING EXPLORATION

The RVC has extensively explored both the WKY11 and the WKY9 through drilling it has conducted and through previous developers. Drilling records are the primary dataset used in the evaluation of the resource and reserve. Drill records have been compiled into a geologic database which includes location, elevation, detailed lithologic data, and coal quality. This information is used to generate geologic models that identify potential adverse mining conditions, define areas of thinning or thickening coal, and predict coal quality for marketing purposes. The drilling density on the controlled property is sufficient to identify and predict geological trends within the resource and reserve area.

The geologic database is also supplemented using oil and gas well data from the petroleum industry. Oil and gas well geophysical logs are acquired from the Kentucky Geological Survey. The most common geophysical log available is the induction log, which has the spontaneous potential curve and various resistivity and conductivity curves on it. These logs are beneficial in identifying sandstones, coals and shales. Though less common, geophysical logs that have natural gamma, density and resistivity curves are available. These logs are identified in the geologic database as a “high quality” well. These logs provide much greater detail and can better differentiate between the various lithology. Oil and gas well data are used to verify thickness, identify faulting, and delineate areas with adverse mining conditions.

Exploration also includes channel sampling, mine sections from underground surveys, and underground geologic mapping conducted by geologists. Channel samples are samples collected from the coal seam within the coal mine. Once a suitable location is found within the mine, equal, representative portions of the coal seam are extracted using hand tools from the top of the seam to the bottom. The sample is placed within a heavy-duty plastic bag which is securely sealed with tape. The sample is then transported from the mine to the laboratory where they are analyzed.

Channel sample data and mine surveys are useful for thickness data and identifying any partings or anomalies within the coal seam. Underground geologic mapping is beneficial for identifying facies changes, poor roof trends, and supplementing hazards maps generated from drilling data.

The RVC has adequate drilling to define geological trends within the resource and reserve area. Despite this, exploration continues to be added to the geologic database on an annual basis. This occurs when adverse or unexpected mining conditions arise or when it is necessary to better define other parameters of the resource and reserve.

Drilling on the property targets the WKY11 and the WKY9 and has been conducted using industry standard methods by a third-party contractor or a company owned drill rig using qualified personnel. A geologist or other company representative oversees all drilling conducted on the property. Drilling methods include continuous diamond coring, mud rotary, air rotary and spot coring. Spot coring is a method that uses either mud or air rotary drilling to reach a specific depth, usually twenty or thirty feet above the target seam. Once this depth is reached, the drill string is removed, and the rig sets up for core drilling. The core barrel is advanced to the bottom of the hole where coring commences. Core is

advanced to about ten feet below the target seam. Once drilling is completed on a hole, a suite of geophysical parameters is collected. Parameters such as naturally occurring gamma, resistivity, high resolution density, and caliper data are collected. This information is used to verify the driller's log, geologist's description, and verify the thickness of the coal and core recovery. Also, the geophysical log is helpful when only rotary drilling is conducted. The information from the geophysical log is used to determine coal thickness and identify critical strata in the boring.

Continuous coring on the property is generally limited to locations where shafts, slopes or other critical infrastructure will be located. All core is described by a geologist, photographed for future reference, and stored until it is no longer needed.

7.2 HYDROGEOLOGIC INVESTIGATIONS

Kentucky Department of Natural Resources (KDNR), Department of Mine Permits (DMP) requires a groundwater user survey to be conducted in and within 1,000 feet of the permitted boundary. Issuance of the permit needs DMP to write a Cumulative Hydrologic Impact Assessment (CHIA). Groundwater inflow associated with mining has historically not been a significant issue and is dealt with as it is encountered.

7.3 GEOTECHNICAL INFORMATION

The rock mechanics data for the RVC is collected from core drilling as needed. Geotechnical data is derived from core sampling. Once the core is described and photographed by a geologist, the samples are prepared by a geologist or engineer and either an employee of the RVC or a representative from the laboratory transports the sample to the geotechnical laboratory for analysis. The following parameters have been tested by a third-party laboratory:

- Uniaxial Compressive Strength using ASTM Standard D 7012 method
- Brazilian Indirect Tensile Strength using ASTM Standard D 4543 and D 3967 methods
- Point Load Index using ASTM Standard D 5731-05
- Moisture Content using ASTM Standard D2216-05 method
- Moisture Sensitivity, ASTM Standard not applicable
- Bulk Density, ASTM Standard not applicable
- Specific Gravity, ASTM Standard not applicable

Rock mechanics data have been analyzed by two laboratories throughout the years, Kot F. Unrug, Ph.D, D.Sc and Appalachian Mining Engineering/Geolab Materials Testing.

No significant disruptions, issues, or concerns have ever arisen as a result of sampling processing or laboratory error. Therefore, it's reasonable to conclude that the quality assurance actions employed by these laboratories are adequate to provide reliable results for the requested parameters.

The results from the geotechnical sampling program are adequate to provide guidance for the design of ground control and other engineering applications.

Please see Appendix A for a map depicting the location of all drill holes. Channel samples and mine sections are not shown on the map due to legibility concerns.

8.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

8.1 SAMPLE PREPARATION METHODS AND ANALYSIS

Company representatives prepare samples for transport to the laboratory for analyses. This includes a sample request form that has information such as sample ID, depths, and requested analyses that is placed securely inside the sample container. If the sample is a rock core, the core remains sealed in plastic bags and in the box provided by the drilling contractor. The box is secured using heavy duty packing tape. A channel sample is placed in a heavy-duty plastic bag. The bag is clearly labelled with the operation name, sample ID, and location where the sample was collected. Within the sample bag another, smaller plastic bag, contains a form that has the operation name, sample ID, date of sample collection, location where sample was collected and the requested analyses. Company representatives then arrange for sample pick up by a representative from the laboratory. Once the laboratory assumes possession of the sample, rigorous quality control and quality assurance standards are strictly adhered to.

The RVC has historically used two laboratories, Standard Laboratories and SGS, North America, Inc. Standard Laboratories has two facilities that analyze samples from the RVC. One laboratory is located in Evansville, Indiana and the other in Freeburg, Illinois. The laboratory in Freeburg, Illinois is an ISO/IEC 17025 accredited laboratory. The laboratory in Evansville, Indiana, while not accredited, according to a formal statement from its senior management “operates in compliance with International Standard ISO/IEC 17025 General Requirements for Competence and Testing and Calibration Laboratories.”

SGS North America, Inc. has an office in Henderson, Kentucky and is accredited by A2LA under ISO/IED 17025. Their certification number is 3482.03.

Both laboratories prepare, assay, and analyze samples in accordance with approved ASTM international standards. Previous drilling programs used Commercial Testing and Engineering, Dickinson Laboratories, and others for coal quality analyses.

Typical coal quality analyses include the following:

- Ultimate Analysis using ASTM Method D5373 for percent nitrogen, carbon and hydrogen and ASTM D3176 for the determination of percent oxygen.
- Mineral Analysis of Ash using ASTM Method D4326 or D6349 for measuring percent silicon dioxide, aluminum dioxide, ferric oxide, calcium oxide, magnesium oxide, potassium oxide, sodium oxide, titanium dioxide, phosphorus pentoxide, magnesium dioxide, barium oxide, strontium oxide, sulfur trioxide.
- Proximate Analysis using ASTM Method D5865 for the determination of thermal caloric value in BTU/LB. ASTM Method D3174/D7582 is used for the determination of percent ash. ASTM Method D4239 is used for measuring percent sulfur. Method D3175 is used to determine percent volatiles and ASTM D3172 is used to determine percentage of fixed carbon. Total Moisture is determined by ASTM Method D3302.

- Ash Fusion Temperatures are determined using ASTM Method D1857, Sulfur Forms are determined using ASTM Method D2492 and Water-Soluble Alkalis are determined using ASTM Method C114 Mod. The Free Swelling Index is determined using ASTM Method D720.
- The Hardgrove Grindability Index (HGI) is measured using ASTM Method D409 (M) and the percent Equilibrium Moisture is determined using ASTM Method D1412.
- Trace element analysis to include Antimony, Arsenic, Barium, Beryllium, Boron, Bromine, Cadmium, Chlorine, Chromium, Cobalt, Copper, Fluorine, Germanium, Iodine, Lead, Lithium, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Strontium, Thallium, Tin, Uranium, Vanadium, Zinc and Zirconium. ASTM Method D6357, D4208, D3761, D3684 or D6722 are typically used.

Other parameters include Silica Value, Base/Acid Ratio, T250 Temperature, Slagging/Fouling Index, and Alkalis as Sodium Oxide, Dry basis.

The RVC has sufficient drilling to identify general trends in coal quality. The majority of the data comes from samples collected from core drilling. Occasionally, it becomes necessary to collect channel samples to delineate local changes in coal quality. The procedure for collecting channel samples was described in a previous section.

8.2 QUALITY CONTROL/QUALITY ASSURANCE (QA/QC)

No significant disruptions, issues or concerns have ever arisen as a result of processing or laboratory error. Therefore, it's reasonable to conclude that the quality assurance actions employed by these laboratories are adequate to provide reliable results for the requested parameters.

8.3 OPINION OF THE QUALIFIED PERSON ON ADEQUACY OF SAMPLE PREPARATION

No significant disruptions, issues or concerns have ever arisen as a result of sample preparation and analysis. Therefore, it's reasonable to assume that sample preparation, security, and analytical procedures in place are adequate to provide a reliable sample from which requested parameters can be analyzed.

The qualified person is of the opinion that the sample preparation, security, and analytical procedures for the samples supporting the resource estimation work are adequate for the statement of mineral resources. Results from different laboratories show consistency and nothing in QA/QC demonstrates consistent bias in the results.

9.0 DATA VERIFICATION

9.1 SOURCE MATERIAL

The RVC maintains a detailed geologic database used to develop several types of maps used to predict the mineability and coal quality of both the WKY11 and the WKY9. Data verification of the accuracy of this database is conducted on a regular basis by company engineers and geologists. This includes a detailed review of seam correlation, coal quality data and lithologic information of all exploration drill holes to what is found in the database. The verification process also entails underground geologic mapping by a field geologist to verify the accuracy of compiled geologic models from drill hole data. Furthermore, maps generated from coal quality data are checked for accuracy against actual output from the preparation plant.

Alliance contracted Weir International (Weir) to conduct an audit of Alliance's reserve estimates prepared under Industry Guide 7. Weir submitted its findings in a report dated July 23, 2015. Weir's review included methodologies, accuracy of Carlson gridding, and drill hole data. A similar review was conducted by Weir in 2010. During the 2015 audit, 10% to 20% of the new drill hole data was reviewed and confirmed.

RESPEC was provided with information for all new holes or data acquired after 2015. RESPEC compared 20% of those e-logs to the Carlson database. RESPEC also verified the thickness and quality grids. As part of the verification process, a new thickness grid was created from the database, and that resultant grid compared to the RVC's model using Carlson grid file utilities.

9.2 OPINION OF THE QUALIFIED PERSON ON DATA ADEQUACY

Based on the verification of the RVC data by the QP and review of prior databases audits, the QP deems the adequacy of the RVC data to be reasonable for the purposes of developing a resource model and estimating resources and subsequent reserves.

10.0 MINERAL PROCESSING AND METALLURGICAL TESTING

10.1 ANALYTICAL PROCEDURES

The RVC has sufficient drilling across the extent of the property to identify general trends in coal quality. The majority of the data comes from samples collected from core drilling. Occasionally, it becomes necessary to collect channel samples to delineate local changes in coal quality. The procedure for collecting channel samples was described in a previous section.

10.2 REPRESENTATIVE SAMPLES

The parameters that RVC analyses are adequate to define the characteristics necessary to support the marketability of the coal.

10.3 TESTING LABORATORIES

Previous drilling programs contracted with regional laboratories including Commercial Testing and Engineering or used in-house laboratory facilities (Island Creek Coal Western Kentucky Division).

Historically, the RVC has used two laboratories, Standard Laboratories and SGS, North America, Inc. Standard Laboratories has two facilities that analyze samples from the RVC. One laboratory is located in Evansville, Indiana and the other in Freeburg, Illinois. The laboratory in Freeburg, Illinois is an ISO/IEC 17025 accredited laboratory. The laboratory in Evansville, Indiana, while not accredited, according to a formal statement from its senior management “operates in compliance with International Standard ISO/IEC 17025 General Requirements for Competence and Testing and Calibration Laboratories.”

SGS North America, Inc. has an office in Henderson, Kentucky and is accredited by A2LA under ISO/IED 17025. Their certification number is 3482.03. Both laboratories provide unbiased, third-party results and operate on a contractual basis.

No significant disruptions, issues or concerns have ever arisen as a result of processing or laboratory error. Therefore, it’s reasonable to assume that using these laboratories should provide assurance that the data processing and reporting procedures are reliable.

10.4 RESULTS

The RVC performed a series of washability tests to develop washability curves. These curves predict coal qualities and recoveries at different specific gravities. The existing plant operates at a specific gravity of approximately 1.5 to 1.6. The results from the coal quality sampling program are adequate to determine the specification requirements for customers located in both the domestic and export markets.

10.5 OPINION OF QUALIFIED PERSON ON DATA ADEQUACY

It is the opinion of the QP that the coal processing data collected from these analyses is adequate for modeling the resources and reserves for marketing purposes. All analyses are derived using standard industry practices by laboratories that are leaders in their industry.

11.0 MINERAL RESOURCE ESTIMATES

11.1 DEFINITIONS

A mineral resource is an estimate of mineralization, considering relevant factors such as cut-off grade, likely mining dimensions, location, or continuity, that, with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable.

Mineral resources are categorized based on the level of confidence in the geologic evidence. According to 17 CFR § 229.1301 (2021), the following definitions of mineral resource categories are included for reference:

An inferred mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. An inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability. An inferred mineral resource, therefore, may not be converted to a mineral reserve.

An indicated mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. An indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource and may only be converted to a probable mineral reserve. As used in this subpart, the term adequate geological evidence means evidence that is sufficient to establish geological and grade or quality continuity with reasonable certainty.

A measured mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. As used in this subpart, the term conclusive geological evidence means evidence that is sufficient to test and confirm geological and grade or quality continuity.

11.2 LIMITING FACTORS IN RESOURCE DETERMINATION

Resources in the WKY9 and WKY11 are delineated based on the following limitations:

- Mineable thickness
- Marketable quality
- Structural limits, such as faults or sandstone channels, existing mining, and subsidence protection zones
- Government and social approval

11.2.1 MINEABLE THICKNESS

Thicknesses are extracted from the database to create a geologic model. Grids are created using an inverse distance algorithm using a weighting factor of three. The minimum WKY9 coal thickness in the database is 0 feet and the maximum thickness is 6.10 feet. The minimum WKY11 coal thickness in the

database is zero feet with a maximum thickness of 6.55 feet. In general, a minimum mineable thickness of four feet is used in defining the resources. Small areas of the seam may not be excluded from resources if the thickness is near four feet and improves the mine plan in the vicinity of those areas.

11.2.2 MARKETABLE QUALITY

The primary source quality data is from core holes drilled for the purpose of coal exploration. The qualities that are of primary interest are ash, sulfur, and BTU. These qualities have limitations which affect the value of the coal. The table below summarizes the values and ranges of each in the geologic database. The range of critical qualities in the database indicates that all the coal in the WKY9 and WKY11 seams is within marketable limits. The potential resource areas are considered to meet the quality standard and no further consideration or analyses of these parameters are made. All resource estimates include average anticipated values for ash, sulfur, and BTU.

Table 11-1. Qualities at 1.5 Specific Gravity – Dry Basis

Seam	Quality	Number of samples	Average	Minimum	Maximum	Standard Deviation
WKY11	Ash	163	6.78	5.39	9.85	0.85
WKY11	Sulfur	163	3.19	2.19	4.31	0.31
WKY11	BTU	147	13,381	12,746	13,728	173
WKY9	Ash	300	8.80	7.08	11.96	0.81
WKY9	Sulfur	300	3.14	2.37	4.61	0.33
WKY9	BTU	286	13,128	12,534	13,128	165

Values in Table 11-1 are dry basis qualities and do not represent marketable qualities with moisture and adjustments for plant variability. Typical as received quality specifications for the RVC product (depending on mixture of WKY11 and WKY9 are approximately:

- BTU – 11,350 to11,600
- Moisture – 11.0% to12.5%
- Ash – 8.0% to 9.5%
- Sulfur – 2.9% to 3.2%
- Volatile Matter – 35% to 37%

11.2.3 STRUCTURAL LIMITS

The resources of both seams are limited to the north and the west by the Ohio River. There is a significant set of faults that are oriented SW-NE and NW-SE. These faults create the limiting boundary of the resources along the southern and western edges. The eastern boundary is defined by thinning coal in the WKY11 and erosion of the WKY9 by the Henderson Paleochannel. The Anvil Rock sandstone unit is present in the roof of the WKY11 seam. The seam is excluded from the resource when this stratum is within 5 feet of the WKY11 seam due to water concerns. This sandstone is described in section 6.2.1 of this report.

An approximate 500’ buffer is maintained around existing underground mines in the WKY9 seam in the area: the Island Creek Coal Company’s Hamilton No. 2 and Uniontown No. 9 mines along with Peabody and Patriot Coal’s Camp and Highland mines.

An unmined block of both seams is left under a portion of the cities of Morganfield and Corydon.

11.2.4 GOVERNMENT AND SOCIAL APPROVAL

There are no signification limitations to RVC obtaining the permits required. RVC holds the necessary permits to mine, process, and transport coal from this area. Historically, the company has amended, or revised permits as needed. The public is notified of significant permitting actions and may participate in the permitting process.

11.3 CLASSIFICATION RESOURCES

11.3.1 CLASSIFICATION CRITERIA

The identified resources are divided into three categories of increasing confidence: inferred, indicated, and measured. The delineation of these categories is based on the distance from a known measurement point of coal. The distances used are presented in USGS Bulletin 1450-B, “Coal Resource Classification System of the U.S. Bureau of Mines and U.S. Geological Survey.” These distances are presented in Table 11-2.

Table 11-2. Coal Resource Classification System

Classification	Distance from measurement point
Measured	<1,320’
Indicated	1,320’ – 3,960’
Inferred	3,960’ – 15,840’

These distances for classification division are not mandatory. However, these values have been used since 1976, have proven reliable in the estimation of coal resources, and are considered reasonable by the QP.

11.3.2 USE OF SUPPLEMENTAL DATA

Due to the continuity of coal seams in the Illinois Basin, mineability limits are the most important factor in resource assessment. Information from oil and gas well e-logs in the vicinity are used as supplemental data to confirm thickness trends, identify structural limits, and characterize adverse geologic conditions. Coal thickness grids are generated from drill hole information, mine measurements, channel samples, and a subset of high-quality oil and gas well e-logs. These are data points in which the company has a high degree of confidence in thickness measurement. This is the data used by the company to generate the model for its internal planning. The combined information increases the overall reliability of the resource estimate, and all data points are included within the classification system.

11.4 ESTIMATION OF RESOURCES

Resource estimates are based on a database of geologic information gathered from various sources. The sources of this data are presented in Section 7 of this report. Thickness and quality data are extracted from the database to create a model using Carlson's Geology module. The model consists of a set of grids, generated using an inverse distance algorithm with a weighting factor of three. In addition to the thickness and quality data, seam recovery is modeled. Quality data and recovery rates are determined through a set of tests generating washability curves. The current operation washes the run-of-mine coal at a specific gravity of 1.5 to 1.6. The qualities and plant yield are based on this specific gravity.

Section 12 presents the modifying factors considered in determining whether resources qualify as reserves. Table 11.3 presents all resources. The tonnages are reported on a saleable basis and exclude resources that are converted to reserves.

Table 11-3. Summary of Resources as of December 31, 2023

Resource	WKY 11	WKY 9
Inferred	22	244
Total	**22**	**244**

The EIA reported the average weekly coal commodity spot price range in 2023 for Illinois Basin coal (the EIA price) of $44.25/ton to $140.00/ton (11,800 Btu, 5.0 lbs. SO_2 basis). The reference price used in the economic analysis is $58.80 which is based on the QP's review of historical pricing and third-party forecasts. The revenue projection in the economic analysis is based on this estimate of coal price and is assumed to be real 2023 US dollars.

Mining and processing costs excluding depreciation along with general and administrative costs were estimated. Table 11.4 shows the economic basis for the estimate of each seam in real 2023 U.S. dollars.

Table 11-4. Economic Basis for Estimates (US$/ton)

Seam	WKY 11	WKY 9
Revenues	$58.80	$58.80
Mining and Processing Costs	$38.40	$38.87
General & Administrative Costs	$0.62	$0.60

11.5 OPINION OF QUALIFIED PERSON

It is the QP's opinion that the risk of material impacts on the resource estimate is low. The mining operations, processing facility, and site infrastructure are in place for Mine #1 and development of Mine #2 from a combination of new and existing facilities is underway. Mining practices are well established. The operation has a good track record of HSE compliance.

Please refer to Item 1A of the ARLP 10-K regarding the significant risks involved in investment in Alliance's operations including RVC, and the coal industry in general. It is the QP's opinion that the following technical and economic factors have the most potential to influence the economic extraction of the resource:

- Skilled labor – This site is located near a populated area, which has a history of coal mining.
- Environmental Matters
- Greenhouse gas emission Federal or State regulations/legislation
- Regulatory changes related to the Waters of the US.
- Air quality standards
- Regional supply and demand – Although the US electric utility market has moved to natural gas and renewals to provide a higher percentage of electricity production, coal will continue to serve as baseload fuel source. US coal companies are also now more actively competing in the export market.

The potential for changes in the circumstances relating to these factors influencing the prospect of economic extraction exists and could materially adversely impact economic extraction of the resource.

12.0 MINERAL RESERVES ESTIMATES

12.1 DEFINITIONS

A mineral reserve is an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted. *Probable mineral reserves* comprise the economically mineable part of an indicated and, in some cases, a measured mineral resource. *Proven mineral reserves* represent the economically mineable part of a measured mineral resource and can only result from conversion of a measured mineral resource.

12.2 KEY ASSUMPTIONS, PARAMETERS AND METHODS

12.2.1 RESERVE CLASSIFICATION CRITERIA

The WKY9 and WKY11 seams have been successfully mined at this location and throughout the Illinois coal basin. Several other mines in the region are currently operating in these seams. Resources are identified as described in Section 11 of this report based on geologic conditions, mineability, and marketability of the coal seam. The two critical factors in converting indicated and measured mineral resources into the mineral reserves are inclusion in an economically feasible mine plan and government approval through the various environmental and operational permits.

Table 17-1 presents the various state and federal environmental permits currently held by the operation. These include the surface mining permit (required for surface operations), air quality permits, and water discharge permits. Approval has already been granted for the required surface disturbance, construction and operation of the preparation facilities, coal refuse disposal, and coal transport. It is noted that not all the anticipated underground mining areas are currently covered under the SMCRA permit. Shadow areas (underground only areas) are extended using permit revisions. This is a common practice for underground operations in the Illinois Basin. Given River View's ability to obtain and retain permits, it is reasonably likely that future required permits will be acquired in a timely fashion to facilitate additional mining.

12.2.2 NON-CONTIGUOUS PROPERTIES

The operation currently has mineral rights to approximately 2,160 properties, many containing both seams, yet to be mined. Some of these properties are non-contiguous. Securing additional mineral rights is a routine ongoing activity with an emphasis on obtaining rights to tracts to fill any gaps in the mine plan. Should the operation encounter a tract for which mineral rights cannot be obtained, modifications can be made to the mine plan to access controlled tracts. Due to the nature of the resource and the flexibility of the mining operation, isolated tracts are considered eligible for conversion to the Reserve Classification. It is also noted that due to the large number of tracts which define the reserve, should a controlled non-contiguous tract become isolated, it will not have a significant effect on the total reserve.

12.2.3 CUT-OFF GRADE

The coal bed consistently exhibits qualities that make the product marketable. No reduction is made to the resources or reserves due to quality.

12.2.4 MARKET PRICE

The EIA reported the average weekly coal commodity spot price range in 2023 for Illinois Basin coal (the EIA price) of $44.25/ton to $140.00/ton (11,800 Btu, 5.0 lbs. SO_2 basis). The reference price used in the economic analysis is $58.80/ton which is based on the QP's review of historical pricing and proprietary third-party coal price forecasts provided by Alliance. The revenue projection in the economic analysis is based on this estimate of coal price and is assumed to be real 2023 US dollars.

12.3 MINERAL RESERVES

12.3.1 ESTIMATE OF MINERAL RESERVES

The existing plant operates at a specific gravity of approximately 1.5–1.6. The qualities and recovery at a 1.5 specific gravity are added as attributes to the applicable drill holes from which samples were collected. Those values are then modeled using Carlson, gridding these attributes using the inverse distance algorithm with a weighting factor of three.

The operation uses a room and pillar layout. The approved ground control plan results in a 48% mining recovery of the in-place reserves. The mining recovery applied to the in-place coal estimates the raw coal.

The coal testing included density calculations. The operation uses an average in-situ density of 82.6 lbs/cubic foot. This value is within the expected range of coal density.

All coal tonnages are reported as clean controlled coal. Carlson's Surface Mine Module is used to estimate in-place tonnages, qualities, and average seam recovery within a set of polygons. These polygons are the result of the intersection of polygons outlining property boundaries, adverse mining conditions, mining method, mine plan boundaries, and resource classification boundaries. The Carlson results are exported to a database, which then applies the appropriate percent ownership, mine recovery, and seam recovery. The basic calculation is:

Tons = Area * Thickness * Density * Mine Recovery * Seam Recovery * Percent Ownership

Table 12-1. Summary of Coal Reserves as of December 31, 2023

Reserve Category / Seam	Controlled Recoverable (1,000 tons)	Sulfur (%)	Ash (%)	BTU
WKY11 Seam				
Proven	67,150	3.22	6.80	13,376
Probable	50,385	3.19	6.94	13,337
WKY11 Total	**117,535**	**3.21**	**6.86**	**13,359**

WKY9 Seam				
Proven	101,959	3.18	8.93	13,069
Probable	90,933	3.18	8.98	13,032
WKY9 Total	**192,892**	**3.17**	**8.95**	**13,052**
Total Reserves	**310,427**			

Values in Table 12-1 are based on a washed, dry basis.

12.4 OPINION OF QUALIFIED PERSON

It is the QP's opinion that the risk of material impacts on the reserve estimate is low. The mining operations, processing facility, and site infrastructure are in place. Mining practices are well established. The operation has a good track record of HSE compliance.

Please refer to Item 1A of the ARLP 10-K regarding the significant risks involved in investment in Alliance's operations including RVC, and the coal industry in general. It is the QP's opinion that the following technical and economic factors have potential to influence the economic extraction of the resource:

- Extension of permitted area – Not all the reserves are currently permitted. Underground operations in Kentucky have traditionally been able to extend the permitted shadow areas as needed. No change is anticipated in the issuance of these permit modifications. It is expected that the shadow area of the permit will be expanded as needed.
- Skilled labor – This site is located near a populated area, which has a history of coal mining. Although there is competition from other underground operators for skilled labor, RVC has been successful in attracting and retaining skilled staff and has programs for training less experienced miners. Should RVC not be able to maintain as skilled a labor pool as anticipated, this could impact productivity. However, economic evaluation indicates RVC remains economic with modest downturns in productivity.
- Environmental Matters
  - Greenhouse gas emission Federal or State regulations/legislation may impact the domestic electric utility market which is a major customer for RVC coal. While many proposed changes have been suggested, the horizon for these changes severely impacting the market is anticipated to be beyond the current planning horizon supporting the reserve estimate.
  - Regulatory changes related to the Waters of the US (WOTUS). The interpretation of the regulation and enforcement of the Clean Water Act with respect to the jurisdictional waters of the US has been modified multiple times through regulatory actions and court decisions. It is likely that further reinterpretation will occur. This could affect future modifications such as new or expanded stockpile areas, transportation areas, and refuse disposal areas. The coal industry has become experienced in adapting to these regulatory changes.
  - Miscellaneous regulatory changes. The coal industry has been subjected to many changes in regulation and enforcement in the recent past. In addition to new

regulations related to greenhouse gas emissions and WOTUS, it is expected that further change will occur.

- Regional supply and demand – Although the US market has moved to natural gas and renewables to provide a higher percentage of electricity production, coal will continue to serve as baseload fuel source. US coal companies are also now more actively competing in the export market.

The potential for changes in the circumstances relating to these factors influencing the prospect of economic extraction exists and could materially adversely impact economic extraction of the reserve.

13.0 MINING METHODS

13.1 GEOTECHNICAL & HYDROLOGICAL MODELS

Geotechnical models of the RVC's coal seams have been compiled using Carlson Software. Geologic information from drillholes, underground channel samples, and past reserve studies is entered into the database and used to build stratigraphic grid models. Attributes including coal thickness, depth, recovery percentage, and quality are some of the parameters utilized to accurately model the RVC reserve.

Data collection to support the models is performed as needed to ensure proper characterization of future mining areas. Core drilling is typically performed as needed to provide necessary geotechnical information for future permitting and design requirements. Underground channel sampling is performed concurrently with access being provided from development mining units. Laboratory analyses of both drill core and channel samples are performed in conjunction with collection and used to periodically update the geotechnical models. Commonly analyzed quality specifications include moisture, ash, sulfur, BTU, or other extended parameters when required.

No hydrologic models beyond the restrictions associated with the Anvil Rock sandstone have been developed in association with the mine plan. Water inflow is managed as encountered and mining is avoided within five feet of the Anvil Rock.

13.2 PRODUCTION RATES & EXPECTED MINE LIFE

The RVC has the capability to mine from both the WKY9 and WKY11. This is accomplished using the room and pillar mining method. There are currently ten operating split air super sections. These units will be transitioned between the two mines as needed. The super section arrangement allows for the operation of two continuous miners simultaneously. Infrastructure within the mines includes conveyors, electrical equipment, ventilation, and equipment necessary for water distribution, and can support up to twelve super sections. Empirical data gathered from previous mining in the same coal seams while using similar equipment and mining practices is compiled and considered when forecasting production rates. Predictable adverse geologic conditions are also taken into account during production forecasting.

Planned production varies according to contracted sales volume and expectations of market conditions. Table 13.1 provides historic raw tons mined before processing, preparation plant recovery, and clean recoverable tons. The forecasted raw tons mined before processing, preparation plant recovery, and clean recoverable tons contained in the economic analysis are shown in Table 13.2.

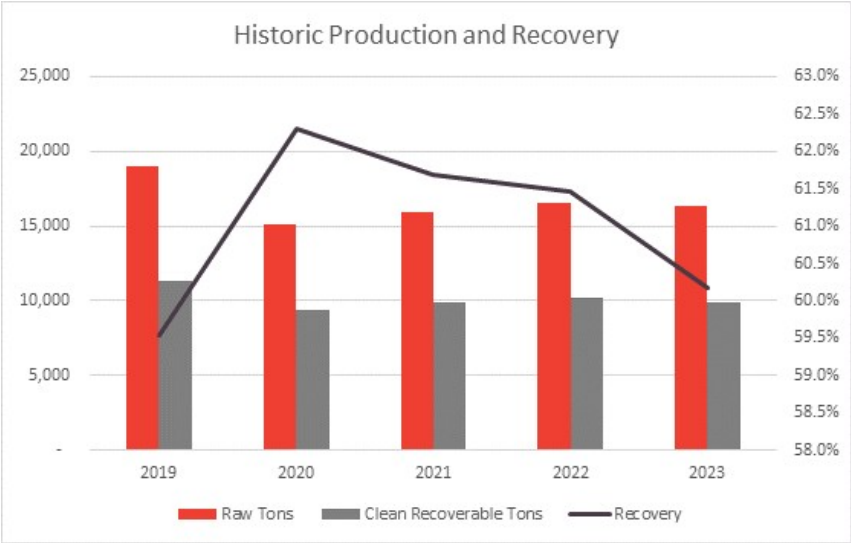


Figure 13-1. Historic Production and Recovery (tons 1,000's)

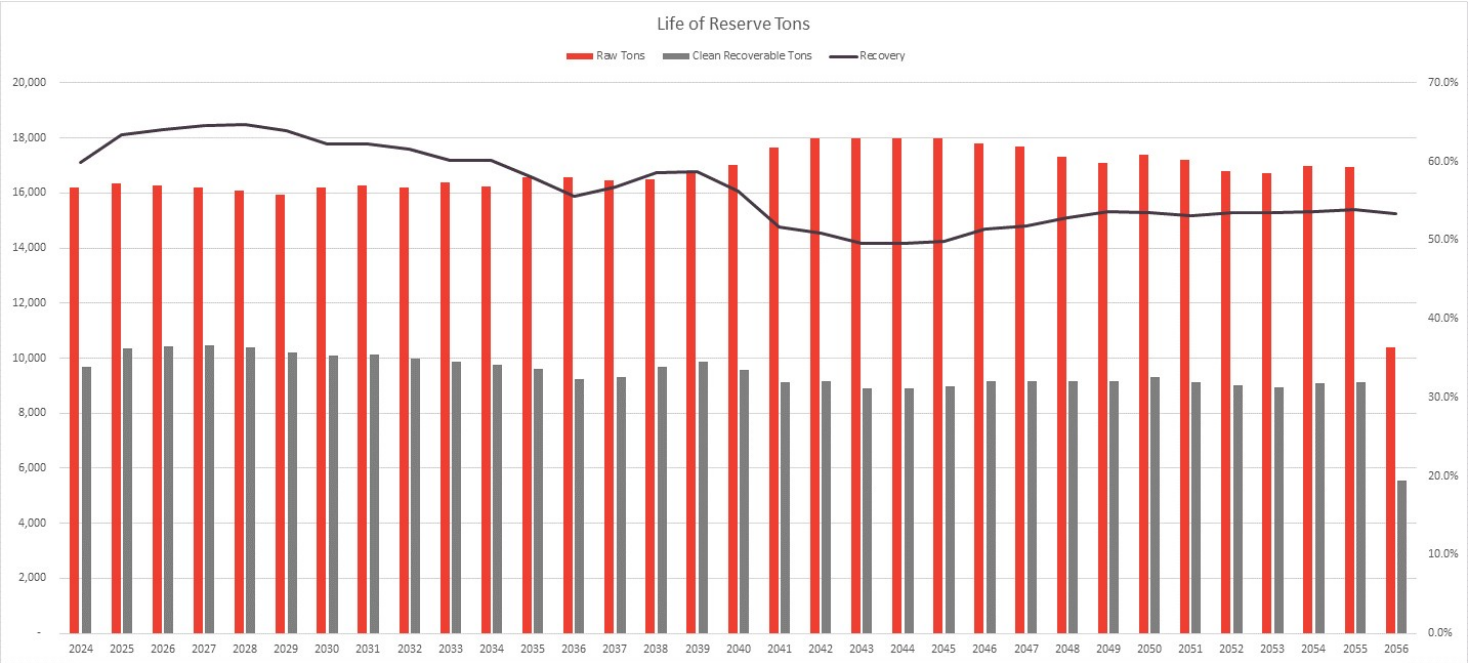


Figure 13-2. Life of Reserve Production Estimate (tons 1,000)

There are approximately 310.4M clean tons remaining in the RVC reserve to be mined within the controlled properties. The current life of reserve plan anticipates exhausting the reserve in 2056. The lifespan of the complex is dependent on many factors and may vary materially from current projections. Please refer to Item 1A of the ARLP 10-K regarding the significant risks involved in investment in Alliance's operations including RVC, and the coal industry in general.

13.3 UNDERGROUND DEVELOPMENT

The RVC currently operates within the specifications of the approved permits and certifications required by all local, state, and federal regulatory agencies. Some of these permits and certifications are as follows:

- Local: county road agreements, regulated drainage ditch permits
- State: Underground permit boundary, surface affects permit, wastewater treatment permits, air permits, nuclear material license
- Federal: ATF Explosives Permit, EPA injection permits, Army Corps of Engineers permits

In addition to the above-mentioned permits, all mining regulations found in Part 30 of the Code of Federal Regulations (CFR) must be followed. The Mine Safety and Health Administration (MSHA) is the federal regulatory agency who oversees compliance with the CFR. Also, plans uniquely specific to the RVC are required to be submitted, reviewed, and approved by MSHA prior to mining. Some of the approved MSHA required mine plans include:

- Roof Control Plan
- Ventilation Plan
- Emergency Response Plan
- Mine Emergency Evacuation and Fire Fighting Program Instruction Plan
- Oil Well Mine Through/Around Plan

13.4 EQUIPMENT FLEET, MACHINERY & PERSONNEL

Underground equipment required at the RVC includes, but is not limited to:

- Continuous miner
- Shuttle car
- Double boom roof bolter
- Truss bolter
- Battery scoop
- Fork trucks
- Personnel carrier (mantrip)
- Feeder breaker
- Road grader
- Belt conveyor

- Transformer/substation
- Refuge Alternative chamber
- Rock dusters
- Miscellaneous dewatering pumps

Surface equipment required at the RVC includes, but is not limited to:

- Dozers (various sizes)
- Miscellaneous preparation plant equipment
- End loader
- Man and material hoisting equipment
- Ventilation fan
- Substation
- Mobile crane
- Belt conveyor
- Tractor and dirt scraping pans
- Side by side personnel carriers
- Fresh water wells

Personnel required to operate and maintain the RVC is generally obtained through the hiring of both skilled and unskilled workers from the immediate area. Salaried positions at the RVC are made up of production managers, business managers, engineers, information technology, preparation plant operators, maintenance foreman, purchasing agents, and safety specialists. Hourly positions include equipment operators on the surface and underground, general laborers, dust sampling technicians, mechanics, examiners, warehouse clerks, etc. Total headcount numbers can vary depending on the market and demand for coal. Typical headcount ranges from between 750 to 1,000 workers, depending on the number of super sections operating.

13.5 MINE MAP

Please see Appendix A for a plan view of the mine map.

14.0 PROCESSING AND RECOVERY METHODS

14.1 PLANT PROCESS

The plant consists of three (3) 1,000 raw tons per hour (tph) units with a total plant capacity of 3000 tph raw. Each unit consists of three circuits, a heavy media cyclone circuit (3"X1mm), a water only cyclone / spiral circuit (1mm X 100 mesh), and a flotation circuit (100mesh X 325mesh).

The heavy media (HM) cyclone circuit includes a heavy media sump, which is fed sized coal (3" X 1mm). The heavy media pump moves media and sized raw coal to the 48" heavy media cyclone. Heavy media cyclones make a gravity separation at a specific gravity of approximately 1.5 -1.6 (specific gravity is adjusted to meet the coal quality specification as needed). The heavy media cyclone overflow (clean coal) discharges from the cyclone to the clean coal flume boxes, to the clean coal drain, and rinse screens. The clean coal screens separate the coal into two sizes (plus ½" and minus ½") and remove media from the clean coal before discharging. The plus ½" clean coal is drained, rinsed, and discharged as final product onto the clean coal collect conveyor. The minus ½" clean coal is discharged into clean coal centrifuges for additional dewatering. The dewatered coal is discharged onto the clean coal collect conveyor, and the effluent from the clean coal centrifuges is discharged to the dilute media sump. The heavy media cyclone underflow (refuse) discharges from the cyclone to the HM refuse flume boxes and to the refuse drain-and-rinse screens. The refuse drain-and-rinse screens remove the magnetite from the refuse prior to discharging directly to the refuse collecting conveyor. The media that is drained from the heavy media screens is piped back to the HM sump. Media that is rinsed at the drain and rinse screens is piped to a dilute sump and pumped to magnetic separators. The magnetic separators remove the magnetite and return it back to the heavy media sump. The effluent from the separators is reused in the plant as process water in the water only cyclone/spiral circuit. The specific gravity in the heavy media sump is regulated by a magnetite screw and magnetite bin or make-up water.

The water only/spiral circuit includes a raw coal sump, which is fed sized coal (1mm X 0). The raw coal pump moves water and raw coal to the water-only cyclones. The overflow from the water-only cyclones is clean coal and is piped to a clean coal classifying sump. The underflow is reprocessed using spiral concentrators. The spiral concentrators make three products, refuse, middlings, and clean coal. The clean coal is piped to the clean coal classifying sump. The middlings are piped back to the raw coal sump for reprocessing, and the refuse is piped to a high-frequency refuse screen for dewatering and discharged to the refuse collect conveyor. The clean coal collected in the clean coal classifying sump is pumped to 15" clean coal classifying cyclones. The clean coal classifying cyclones make a size separation of approximately 100 mesh. The underflow of the clean coal classifying cyclone is plus 100 mesh and is piped to clean coal sieves for dewatering. The dewatered coal is discharged to screenbowl centrifuges for further dewatering. The screenbowl centrate is recycled back to the clean coal sump and the main effluent is piped to the thickener. The overflow of the clean coal classifying cyclones and the water from the clean coal sieves is piped to an ultrafine sump.

The flotation circuit includes the ultrafine sump, which is fed sized coal (100 mesh X 0). The ultrafine sump will pump water and the 100 mesh X 0 material to the 6" deslime cyclones and will make a nominal separation at approximately 325 mesh. The plus 325 mesh (underflow) will discharge and feed flotation columns. The minus 325 mesh (reject) will discharge and be piped to the thickener. Chemical and air is

added to the columns, and clean coal will exit the top of the columns and be piped to the screenbowl centrifuges. The refuse from the columns exits the columns and is piped to the thickener.

The thickener feed is mixed with anionic and/or cationic chemicals that aid in the settling of the solids. The settled solids are concentrated and fed to the thickener underflow pumps. The thickener underflow pumps, pump the concentrated refuse away to a slurry disposal site. The clarified water that overflows from the thickener is collected and transferred to a clarified water sump for reuse as process water throughout the plant.

14.2 ENERGY, WATER, PROCESS MATERIALS & PERSONNEL

The RVC processing plant uses electrical energy from Kentucky Utilities, make-up water from the Ohio River and its nearby tributaries, magnetite, anionic and cationic chemicals, and frother for coal flotation. Potable water is provided by the Union County Water District. Labor consists of approximately 90 people hired from the local area.

15.0 INFRASTRUCTURE

Mine #1 has two existing portals where men and materials are transported underground. All necessary utilities are in place and working. Electricity is sourced from a 69 KV line to multiple substations ranging in size from 10-14 MVA located at the prep plant and the Mine #1 portal facilities. Similar support facilities are in place at the Mine #2 slope and will be constructed at the Mine #2 portal. Water is provided by a combination of the Ohio River, underground sources, the Union County Water District, and the Henderson County Water District.

Coal is transported from the processing plant via conveyor belt to River View's barge load out. The facility is capable of loading 30 barges a day for a total of 55,000 tons per day.

A fine refuse impoundment is located on the mine's property. Once construction is completed, the embankment style impoundment will cover approximately 500 acres. The impoundment embankment is constructed of coarse refuse, creating storage space for fine refuse within the impoundment.

Figures 15-1, 5-2, 15-3, 15-4, and 15-5 show the layout of RVC surface facilities.

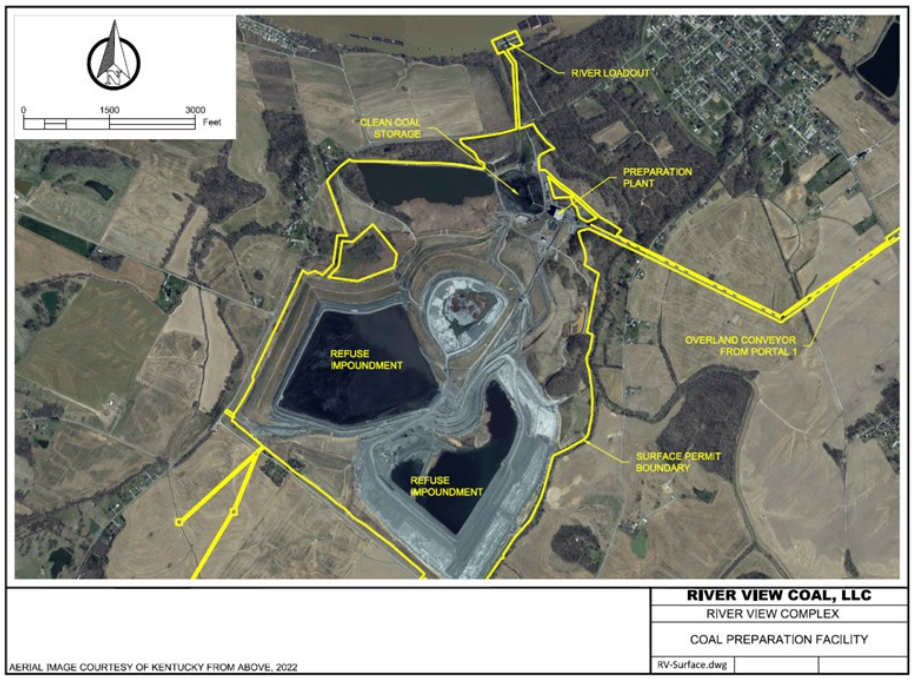


Figure 15-1. Infrastructure Layout: Prep Plant

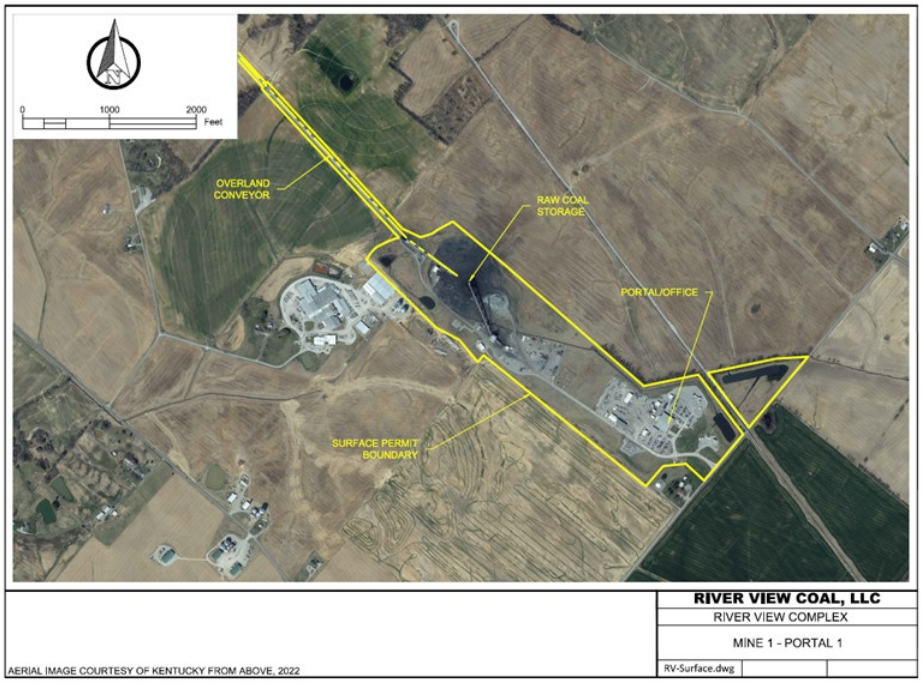


Figure 15-2. Location Map – Portal 1

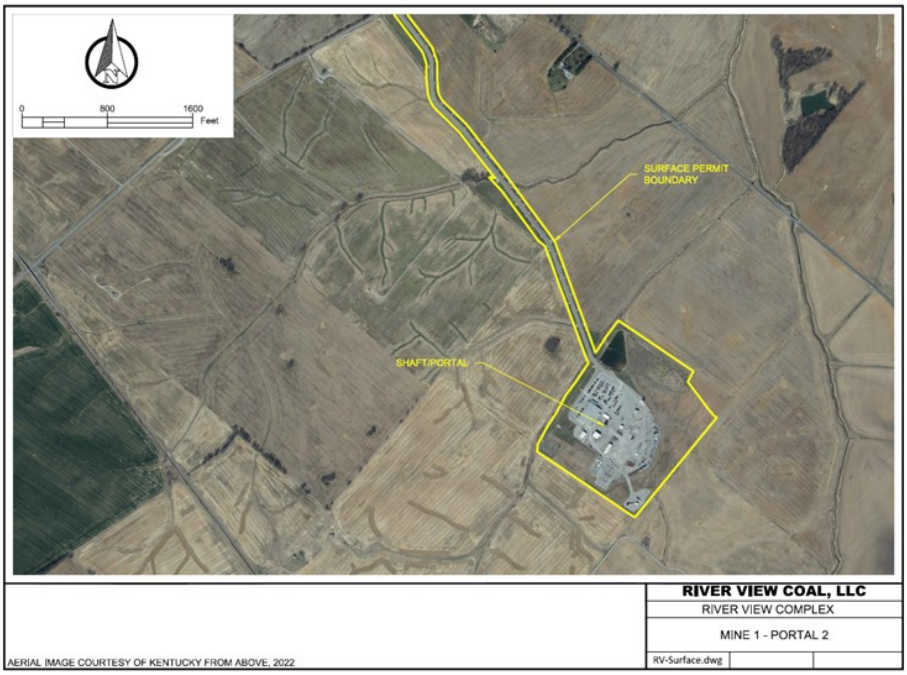


Figure 15-3. Location Map - Portal 2

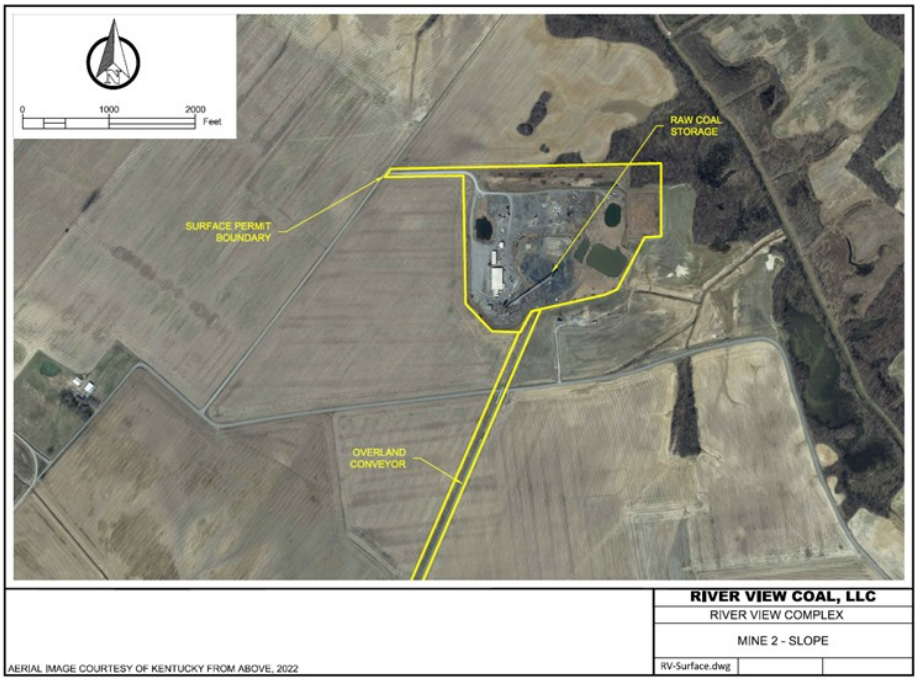


Figure 15-4. Location Map – Mine Access Slope

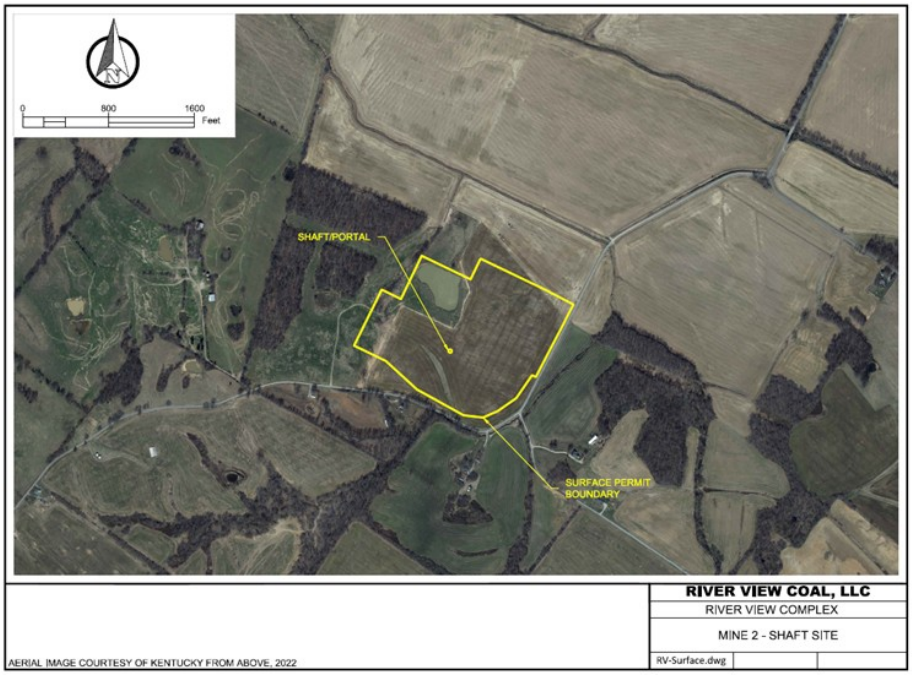


Figure 15-5. Location Map – Proposed Shaft Site

16.0 MARKET STUDIES

16.1 MARKETS

The RVC produces a high sulfur coal that is sold to the domestic and international thermal coal markets. Production from the RVC is shipped by barge via the Ohio River directly to customers or to various transloading facilities.

The RVC participates in the Illinois Basin coal market, selling coal to a diverse customer base of various domestic utilities, industrial facilities, and Gulf Coast exporters. While coal demand in the US is expected to decline over the coming years, the Eastern US thermal coal demand in 2022 was over 180 million tons. With its low-cost position, exceptional location, and core domestic customer base, it is the QP's opinion that the RVC should continue to have adequate market opportunities for its product.

Table 16-1. Economic Analysis Coal Price

Operation		5-Year Average 2019-2023	Combined Historical and Forecasted Pricing[1] Minimum	Maximum	Economic Analysis Coal Price[2]	Reserve Tons
RVC	Tons Sold[3]	10,076	---	---	---	310,427
	Price per ton[2]	---	$36.00	$103.18	$58.80[4]	---

1. Combined published EIA historical pricing and proprietary third-party pricing forecast adjusted to 11,500 BTU, 5.0 lbs. SO2 quality in real 2023 dollars on an annualized basis.
2. Price per ton is real 2023 dollars for the life of reserve economic analysis.
3. Tons reported in thousands.
4. The economic analysis coal price is based on the QP's review of -historical pricing as reported by EIA and proprietary third-party coal price forecasts provided by Alliance.

The demand for the RVC coal is closely linked to the demand for electricity, and any changes in coal consumption by United States or international electric power generators would likely impact the RVC demand. The domestic electric utility industry accounts for over 90% of domestic coal consumption. The amount of coal consumed by the domestic electric utility industry is affected primarily by the overall demand for electricity, environmental and other governmental regulations, and the price and availability of competing fuels for power plants such as nuclear, natural gas, and fuel oil as well as alternative sources of energy.

Future environmental regulation of GHG emissions could also accelerate the use by utilities of fuels other than coal. In addition, federal and state mandates for increased use of electricity derived from renewable energy sources could affect demand for coal. Such mandates, combined with other incentives to use renewable energy sources such as tax credits, could make alternative fuel sources more competitive with coal. A decrease in coal consumption by the domestic electric utility industry could adversely affect the price of coal.

17.0 ENVIRONMENTAL

17.1 ENVIRONMENTAL STUDIES

No standalone environmental studies have been conducted for the properties. However, as part of the state and federal permitting process, various environmental assessments have been conducted throughout the permitting process. As disturbances are proposed for the operation, all relevant local, state, and federal agencies are contacted to review the proposed project. Each agency reviews the project for impacts to lands, water, and ecology. All potential impacts have either been mitigated or avoided.

17.2 WASTE DISPOSAL & WATER MANAGEMENT

Waste from the coal preparation process generates a fine refuse waste stream and a coarse refuse waste stream. Coarse and fine refuse is disposed of within the refuse impoundments located near the preparation facilities. There are two active impoundments at the site (RV West and RV South), with another impoundment in abandonment status (RV East). Conceptual designs have been completed for a fourth impoundment and the permitting / approval process is ongoing.

In addition to the refuse impoundments at the RVC facility, RVC is approved to dispose of fine refuse at the nearby Hamilton 1 impoundments. The Hamilton 1 site is idled except for fine refuse disposal from RVC into the existing impoundments.

At current production, the existing refuse impoundments are expected to provide coarse and fine refuse disposal for approximately ten years. The French Farm impoundment, once approved, will provide refuse storage for an additional eighteen years. Beyond the twenty-eight years of approved and pending refuse disposal areas, additional design and permitting will be required.

All runoff from the site is managed by sediment control structures including diversions, sumps, and sediment basins. Prior to discharge from the permitted areas, water must meet compliance standards as defined in the NPDES permits. Water samples at discharge locations are collected in accordance with the approved permit and analyzed by an independent laboratory. Any water that is substandard will either be recycled through the site or will be treated prior to discharge.

Water sampling timeframes and constituents are dictated by the approved NPDES permit and will continue through final bond release.

17.3 PERMITTING REQUIREMENTS

KYDNR, DMP is responsible for oversight of active coal mining and reclamation activities, and financial assurance of comprehensive environmental protection performance standards related to surface and underground coal mining operations. The Division of Mine Reclamation and Enforcement (DMRE) is responsible for compliance verification and enforcement.

In addition to the state mining and reclamation laws, operators must comply with various other federal laws relevant to mining. The federal laws include:

- Clean Air Act
- Clean Water Act
- Surface Mining Control and Reclamation Act
- Federal Coal Mine Safety and Health Act
- Endangered Species Act
- Fish and Wildlife Coordination Act
- National Historic Preservation Act
- Archaeological and Historic Preservation Act

In conjunction with the KYDNR coal mining permit, the Clean Air Act and Clean Water Act laws and regulations are administered by the Kentucky Department of Environmental Protection (KYDEP). KYDEP is responsible for permit issuance and compliance monitoring for all activities which have the potential to impact air or water quality.

All applicable permits for underground mining, coal preparation and related facilities, and other incidental activities have been obtained and remain in good standing. A listing of all current state mining permits is provided in Table 17-1. Permits generally require that the permittee post a performance bond in an amount established by the agency to provide assurance that any disturbance or liability created by the mining operations is properly restored to an approved post-mining land use and that all regulations and requirements of the permit are satisfied before the bond is returned to the permittee.

Table 17-1. Current State Permits

Regulatory Agency	Permit No.	Permitted Surface Area (Acres)	Permitted Underground Area (Acres)	Bond
KYDNR	913-0014	90.84	----	YES
KYDNR	913-5015	317.37	54,524.70	YES
KYDNR	913-5029	59.07	615.00	YES
KYDNR	851-5012	9.30	38,027.10	YES
KYDNR	913-9003	1,169.90	----	YES
KYDNR	913-0015	968.00	----	YES
KYDNR	851-0059	43.10	----	YES
KYDEP	NPDES: KYGW40081	----	----	----
KYDEP	NPDES: KYGW40002	----	----	----
KYDEP	NPDES: KYGW40005	----	----	----
KYDEP	NPDES: KYGW40067	----	----	----
KYDEP	Air: V-17-024	----	----	----
KYDEP	NPDES: KYGW40070	----	----	----
KYDEP	NPDES: KYGW40038	----	----	----
KYDEP	Air: S-23-052	----	----	----

17.4 PLANS, NEGOTIATIONS OR AGREEMENTS

New permits and certain permit amendments/revisions require public notification. The public is made aware of pending permits by an advertisement in the local newspaper. A 30-day comment period follows the last advertisement date to allow the public to submit comments to the regulatory authority.

In certain instances, additional opportunities are provided to the public for comment. These instances include operations within 100 feet of a public road, operations within 300 feet of a dwelling, and operations within 300 feet of a public building, school, church, or community building. In all instances, approval must be granted by the regulatory authority as well as individuals or groups who own or provide oversight for a particular facility.

17.5 MINE CLOSURE

A detailed plan for reclamation activities upon completion of mining required at the properties has been prepared. Reclamation costs have been estimated based on internal project costs and publicly available heavy construction databases. Estimated River View reclamation costs at the end of the year 2023 totaled approximately $18.3 million.

17.6 LOCAL PROCUREMENT & HIRING

There are no commitments for local procurement or hiring. However, efforts are made to source supplies and materials from regional vendors. The workforce is likewise located in the regional area.

17.7 OPINION OF THE QUALIFIED PERSON ON DATA ADEQUACY

The approved permits and certifications are adequate for continued operation of the facility. Waste disposal facilities are in place for current mining operations, with plans to expand them to provide life of reserve storage. Water control structures are in place and function as required by regulatory agencies. In the QP's opinion, the estimated reclamation liability is adequate to estimate mine closure and reclamation costs at the property.

18.0 CAPITAL AND OPERATING COSTS

RESPEC reviewed capital and operating costs required for the coal mining operations at the RVC. Historic capital and operating expenditures were supplied to RESPEC by River View. The site is an operating coal mine; therefore, the capital and operating cost estimates were prepared with consideration of recent operating performance. The cost estimates are accurate to within +/-25%. RESPEC considers these cost estimates to be reasonable. All costs in this section are expressed in US dollars.

18.1 CAPITAL COSTS

Capital costs were estimated with the costs classified as routine operating necessity (sustaining capital), capital required for major infrastructure additions or replacement. As discussed in Item 12.3, the reserve for RVC is 310.4M tons. The current production schedule estimates approximately 310.4M tons will be mined by 2056. The estimated capital costs for the reserve tons are provided in Table 18-1.

18.2 OPERATING COSTS

Operating cost inputs for the life of reserve economic analysis such as labor, benefits, consumables, maintenance, royalties, taxes, transportation, and general and administrative expenses were based on recent operating data. A summary of the estimated operating costs, including depreciation expense (the Mining and Processing Cost) for the life of the reserve are provided in Table 18-2.

Table 18-1. Capital Cost Estimate (US$, 000's)

Category	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Routine Operating Necessity	94,944	48,221	48,985	54,124	71,293	69,408	66,491	46,537	52,675	68,249	66,254	48,652	54,926	50,010	70,306	77,009
Major Infrastructure Investment	27,454	—	575	—	—	—	3,875	—	5,000	—	—	—	—	—	—	—

Category	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
Routine Operating Necessity	42,991	42,593	60,774	67,081	65,205	52,006	42,344	45,527	62,655	51,274	37,805	33,811	38,616	34,666	27,897	16,381	2,390
Major Infrastructure Investment	15,000	15,000	—	—	—	—	—	—	6,000	—	—	—	—	—	—	—	—

Table 18-2. Operating Cost Estimate (US$, 000's)

Category	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Cash Operating Costs	348,821	343,938	341,475	339,180	339,572	333,927	335,380	335,988	335,187	345,613	343,948	345,637	344,595	343,514	346,058	349,903
Royalties	32,162	33,956	34,355	34,397	34,199	33,320	32,863	32,975	32,625	32,194	31,859	31,294	30,053	30,398	31,502	32,140
Depreciation	58,163	55,444	32,642	27,733	22,436	14,869	20,834	23,160	39,230	51,542	46,480	36,502	27,126	38,276	52,333	46,203
Mining and Processing Costs	439,147	433,338	408,473	401,310	396,208	382,116	389,077	392,123	407,042	429,349	422,287	413,433	401,774	412,188	429,893	428,246

Category	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
Cash Operating Costs	350,929	353,771	357,454	355,537	356,331	354,281	351,796	344,493	343,151	339,393	342,836	340,586	336,303	334,976	337,864	340,460	223,054
Royalties	31,193	29,741	29,820	29,051	29,063	29,239	29,820	29,820	29,820	29,900	30,295	29,765	29,317	29,170	29,642	29,727	18,050
Depreciation	34,650	29,400	31,951	46,121	43,376	24,628	26,508	44,448	44,506	37,617	21,454	11,694	9,027	6,483	4,845	4,409	2,730
Mining and Processing Costs	416,772	412,912	419,225	430,708	428,771	408,148	408,124	418,761	417,477	406,910	394,585	382,045	374,646	370,629	372,352	374,596	243,834

19.0 ECONOMIC ANALYSIS

RESPEC completed an economic analysis based on the cash flow developed from the production plan and capital and operating costs previously discussed. The average per ton sold revenue estimate used for the life of reserve economic evaluation was $58.80.

19.1 KEY PARAMETERS AND ASSUMPTIONS

The economic analysis has been based on production, revenue, capital, and operating costs estimates. The coal operation is not subject to federal and state income taxes as it is held by a partnership for tax purposes and not taxed as a corporation. Table 19-1 provides the annual cash flow of the life of reserve economic analysis for RVC.

Table 19-1. Cash Flow Summary (US$, 000's)

Category	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Revenues	584,703	609,217	613,809	614,254	611,906	599,005	592,873	595,858	586,239	580,722	574,694	564,493	542,132	548,346	568,249	579,754
Cash Operating Costs	(348,821)	(343,938)	(341,475)	(339,180)	(339,572)	(333,927)	(335,380)	(335,988)	(335,187)	(345,613)	(343,948)	(345,637)	(344,595)	(343,514)	(346,058)	(349,903)
Royalties	(32,162)	(33,956)	(34,355)	(34,397)	(34,199)	(33,320)	(32,863)	(32,975)	(32,625)	(32,194)	(31,859)	(31,294)	(30,053)	(30,398)	(31,502)	(32,140)
Capital Expenditures	(122,397)	(48,221)	(49,560)	(54,124)	(71,293)	(69,408)	(70,366)	(46,537)	(57,675)	(68,249)	(66,254)	(48,652)	(54,926)	(50,010)	(70,306)	(77,009)
Working Capital Changes	(5,003)	9,378	(5,809)	170	1,314	(291)	(553)	(1,775)	1,462	1,158	1,566	923	3,655	(29)	174	374
Cash Flow	76,319	192,480	182,610	186,723	168,156	162,059	153,712	178,582	162,213	135,824	134,198	139,834	116,213	124,395	120,557	121,077

Category	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
Revenues	562,680	536,498	537,931	524,056	524,277	527,445	537,931	537,931	537,931	539,363	546,491	536,930	528,853	526,202	534,720	536,252	325,727
Cash Operating Costs	(350,929)	(353,771)	(357,454)	(355,537)	(356,331)	(354,281)	(351,796)	(344,493)	(343,151)	(339,393)	(342,836)	(340,586)	(336,303)	(334,976)	(337,864)	(340,460)	(223,054)
Royalties	(31,193)	(29,741)	(29,820)	(29,051)	(29,063)	(29,239)	(29,820)	(29,820)	(29,820)	(29,900)	(30,295)	(29,765)	(29,317)	(29,170)	(29,642)	(29,727)	(18,050)
Capital Expenditures	(57,991)	(57,593)	(60,774)	(67,081)	(65,205)	(52,006)	(42,344)	(45,527)	(68,655)	(51,274)	(37,805)	(33,811)	(38,616)	(34,666)	(27,897)	(16,381)	(2,390)
Working Capital Changes	1,500	(3,724)	(455)	2,023	144	(965)	(2,569)	(2,687)	(1,266)	(2,358)	(1,849)	24	846	(241)	(998)	(389)	(1,014)
Cash Flow	124,067	91,669	89,428	74,410	73,822	90,954	111,401	115,403	95,039	116,439	133,707	132,793	125,463	127,150	138,319	149,295	81,219

19.2 ECONOMIC VIABILITY

The economic viability of the operation is reliable based on various factors. This is an on-going operation and has already established the economic benefits outweigh the economic costs. The economic analysis utilized the same parameters and assumptions used in past financial models. Therefore, it is reasonable to expect similar benefits and costs. Since this is an on-going operation with no major up front capital expenditures, there is no calculation of NPV, internal rate of return or payback period of capital.

We have tested the economic viability of the life of reserve economic analysis by conducting sensitivity analysis with respect to the revenue and operating and capital cost. In the independent sensitivity analysis, the revenue was reduced by 15% and the operating and capital cost was increased by 20%. The summary of the sensitivity analysis is shown in Table 19.2.

Table 19-2. Sensitivity Analysis

Life of Reserve Estimate 2024-2056 (US$ 000's)				
Category	**Annual Minimum**	**Annual Maximum**	**Annual Average**	**Total**
Revenue Reduced 15% - Cash Flow	(6,562)	106,191	49,620	1,637,465
Operating & Capital Costs increased 20% - Cash Flow	(17,924)	114,048	49,131	1,621,336

20.0 ADJACENT PROPERTIES

The WKY11 mining is bounded to the west by old works of the Ohio #11 mine. Per the Kentucky Department of Mines and Minerals (KDMM), Ohio #11 produced from WKY11 from 1972 until 1996. The mine map shows very successful room and pillar extraction with a maximum annual production of just over 1.5 million tons in 1987. Per KDMM, The Highland 11 and Camp 11 mines were operated by Peabody Coal. Highland 11 operated for only two years and mined less than a million tons. Camp 11 operated in the WKY11 until 1990 and then transitioned to the WKY9 seam. At peak production in the WKY11, it mined about 2.4 million tons in 1984. The mine maps show successful room and pillar extraction though influenced by faulting and some adverse conditions. Other small mines in the area operated in the early to middle of the 20th century with little known data beyond workings. Conditions at all mines in the area look to be good with some roof problems associated with roof water from the overlying sandstone as the mine moved to the east. Some faulting was encountered.

The WKY9 mining is bounded to the west by old works of the Uniontown mine of Island Creek. The mine was officially closed in 1971. KDMM records are unclear, but production may have peaked in 1967 at about 1.5 million tons. The Hamilton #2 mine lies to the southwest and produced from 1970 until 1992. Maximum production occurred from the WKY9 seam in 1990 at about 1.34 million tons. The Highland #9/Camp complex mines operated from about 1971 until 2014. Production peaked in about 2007 at 3.9 million tons. All mines show very successful room and pillar mining with only minor issues associated with faulting and roof conditions related to water from an overlying sandstone.

21.0 OTHER RELEVANT DATA AND INFORMATION

All data relevant to the supporting studies and estimates of mineral resources and reserves have been included in the sections of this TRS. No additional information or explanation is necessary to make this TRS understandable and not misleading.

22.0 INTERPRETATION AND CONCLUSIONS

22.1 INTERPRETATIONS AND CONCLUSION

The QP has reached a conclusion concerning the RVC operation based on data and analysis summarized in this TRS that the operation is currently viable based on the reserves that remain, the economic benefits for River View and the market needs of this product. RVC contains an estimated 310.4 million clean tons of reserves.

22.2 RISKS AND UNCERTAINTIES

It is the QP's opinion the mine operating risks are low. This is an on-going operation that has proven to be a viable and profitable business. The analyses of the reserves and resources used the same methodology the operation has used in the past. Given the reliability of past mining plans, it is a reasonable conclusion that future mining plans would continue to be reliable. However, market uncertainty associated with government regulations could result in earlier retirements of coal-fired electric generating units. This could negatively affect the demand and pricing for the RVC product. Please refer to Alliance Resource Partners, L.P. Form 10-K 1A, for a complete listing of risk factors that may affect this operation.

23.0 RECOMMENDATIONS

The recommendations for RVC are as follows:

- Continue acquiring mining rights in the extended mine plan to support future production.
- Continued research into a new impoundment location and commence negotiations with landowners as required.
- Continue current exploration plan.

24.0 REFERENCES

Greb, Stephen F; Williams, David A; and Williamson, Allen D. (1992)” Geology and Stratigraphy of the Western Kentucky Coal Field”. Kentucky Geological Survey Bulletin. 3
https://uknowledge.uky.edu/kgs_b/3

U.S. Energy Information Administration (EIA). (2023). Coal Markets. Accessed throughout 2023. Retrieved from https://www.eia.gov/coal/markets/

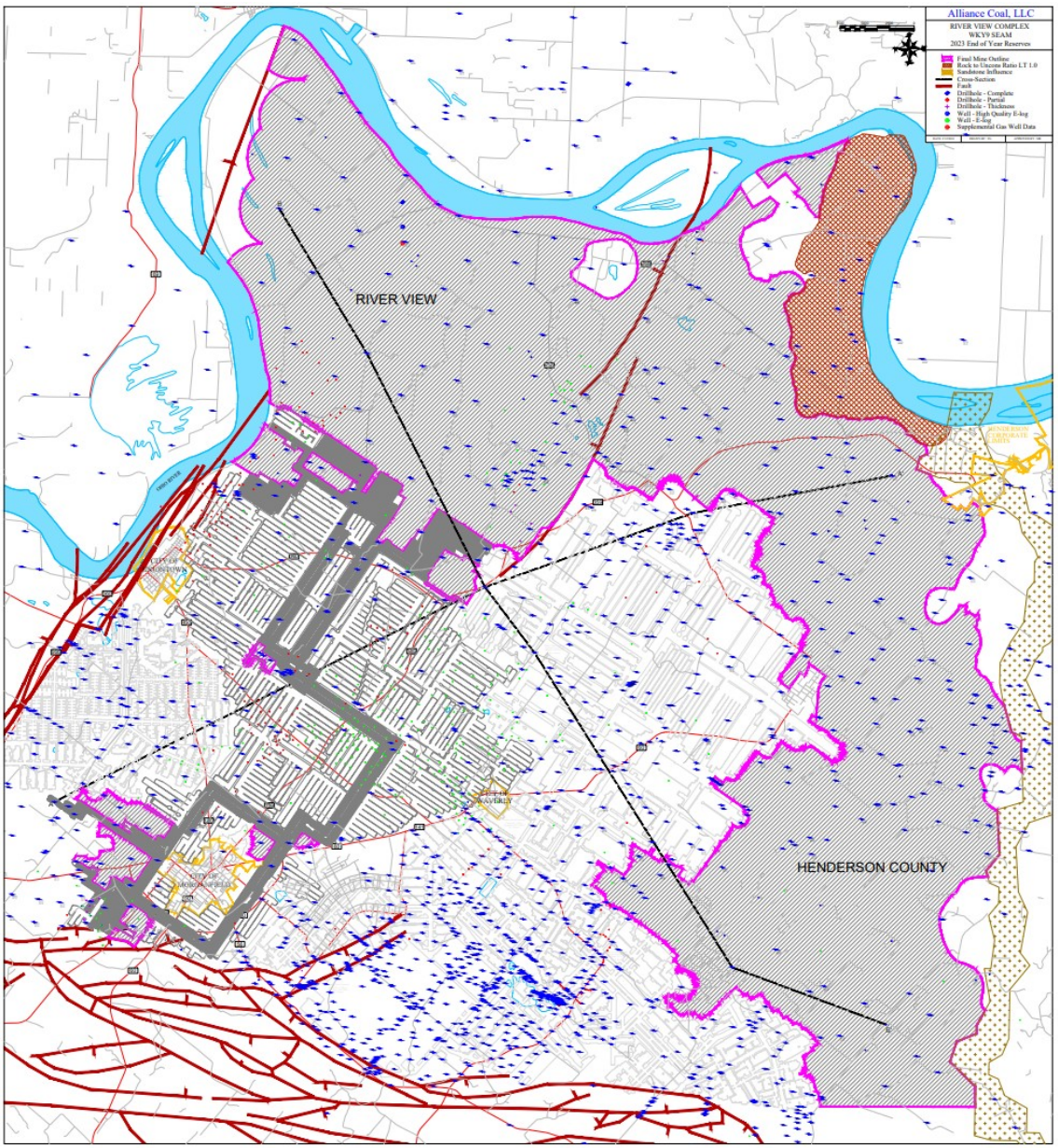
25.0 RELIANCE ON INFORMATION PROVIDED BY THE REGISTRANT

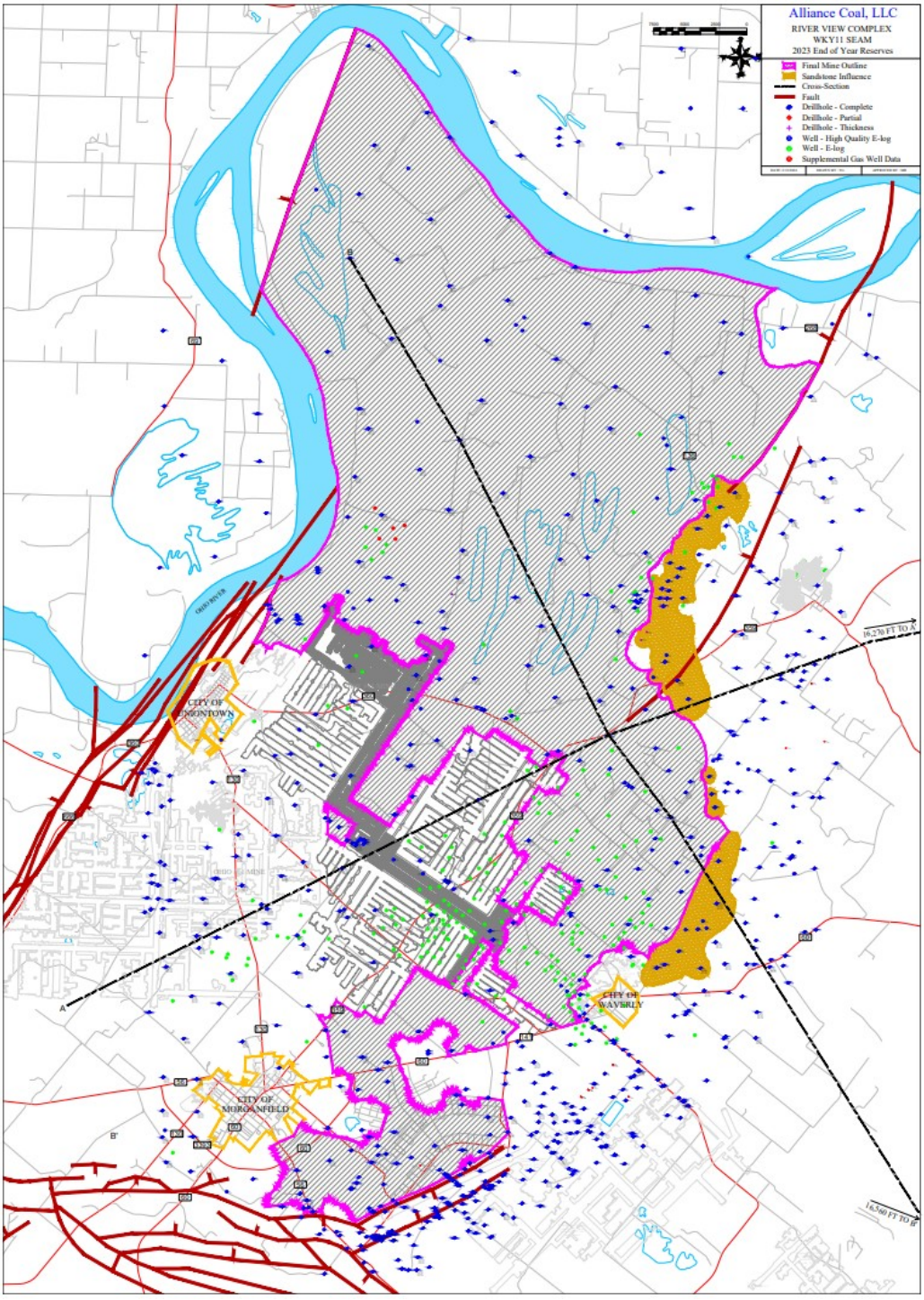
Table 25-1 summarizes the information provided by the registrant for matters discussed in this report, as permitted under §229.1302(f) of the SEC S-K 1300 Final Rule.

Table 25-1. Summary of Information Provided by Registrant

Category	Report Item/ Portion	Disclose why the Qualified Person considers it reasonable to rely upon the registrant
Macroeconomic trends	Section 19	N/A
Marketing information	Section 16	The market trends were provided by River View personnel. The QP's experience evaluating similar projects leads them to opine that the market trends are representative of the expected trends of an on-going coal mining operation in the United States
Legal matters	Section 17	The legal matters involving statutory and regulatory interpretations affecting the mine plan were provided by River View personnel. The QP's experience with statutory and regulatory issues leads them to opine the mining plan meets all statutory and regulatory requirements of an on-going coal mining operation in the United States
Environmental matters	Section 17	The environmental permits and matters were provided by River View permitting group. The QP's experience with permitting and environmental issues leads them to opine the information provided is representative of what is required of an on-going coal mining operation in the United States
Local area commitments	Section 17	N/A
Governmental factors	N/A	N/A

APPENDIX A
MINE MAP


Alliance Coal, LLC
RIVER VIEW COMPLEX
WKYP SEAM
2023 End of Year Reserves
Final Mine Outline
Rock to Uncorrs Ratio LT 1.0
Sandstone Influence
Cross-Section
Fault
Drillhole - Complete
Drillhole - Partial
Drillhole - Thickness
Well - High Quality E-log
Well - E-log
Supplemental Gas Well Data
RIVER VIEW
HENDERSON COUNTY


Alliance Coal, LLC
RIVER VIEW COMPLEX
WKY11 SEAM
2023 End of Year Reserves
Final Mine Outline
Sandstone Influence
Cross-Section
Fault
Drillhole - Complete
Drillhole - Partial
Drillhole - Thickness
Well - High Quality E-log
Well - E-log
Supplemental Gas Well Data
OHIO RIVER
CITY OF
LONGTOWN
CITY OF
WAVERLY
CITY OF
MORGANFIELD
A
A'
B
B'
16,270 FT TO A'
16,760 FT TO B'