

Teck

NI 43-101 Technical Report on
Elkview Coal Operation
British Columbia, Canada



Prepared for:

Teck Resources Limited.

Prepared by:

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Effective date:

December 31, 2022



CERTIFICATE OF QUALIFIED PERSON

I, Esaias Engelbertus (Bert) Schalekamp, P.Geo, am employed as a Senior Geologist, Supervisor with the Elkview Coal Operations of Teck Coal Limited (“Teck Coal”) with an office address of R.R. #1, Highway #3 Sparwood, BC Canada V0B 2G1.

This certificate applies to the technical report titled “NI 43-101 Technical Report on Elkview Coal Operation, British Columbia, Canada” that has an effective date of December 31, 2022 (the “technical report”).

I am a P. Geo. of the Engineers and Geoscientists of British Columbia (registration no. 40404). I have completed a Bachelor of Science degree at the University of Port Elizabeth (Nelson Mandela Metropolitan), Port Elizabeth, South Africa in 1990, Bachelor of Science Honours degree at the University of the Witwatersrand, Johannesburg, South Africa in 1994 and graduated with a Master of Science degree in Earth Science Practice and Management from the University of Pretoria, Pretoria, South Africa in 2007.

I have practiced my profession for 32 years. My relevant experience includes exploration, database and modelling and mine production geology, both on underground and opencast surface operations. I worked on colliery operations for Anglo American plc in South Africa from 1991 to 2007, including the Bank, Goedehoop, and Kleinkopje Collieries. I worked at Peace River Coal in Canada from 2007–2011. I joined Teck Coal at the Fording River Operation. My duties as Senior Geologist at Fording River was to supervise the production geology (coal quality) team, also working closely with Mine Operations, Coal Processing and Technical Marketing, Marketing and Sales groups. I was promoted to Senior Geologist Supervisor at Elkview Coal Operation in December 2013. At Elkview Coal Operation I am responsible for the geology team and the Elkview Coal Laboratory team.

I have experience supporting mine engineering, mine operations and coal processing plant with regards to long range and short mine planning and forecasting, coal recovery, coal quality and coal products. I am responsible for all project geology including exploration and production, databases, geological models as well as all other aspects of geological management of Teck’s Elkview mine site. I have been Senior Geologist, Supervisor at Elkview for the period of December 2013 to present.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (“NI 43–101”). I work on a daily basis at the Elkview Coal Operation, and this familiarity with the operations serves as my scope of personal inspection.

I am responsible or co-responsible for Sections 1.1, 1.2, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11, 1.12, 1.18, 1.23, 1.24, 1.26; Section 2; Section 3; Section 5; Section 6; Section 7; Section 8; Section 9; Section 10; Section 11; Section 12; Sections 13.1, 13.2, 13.3, 13.4, 13.5, 13.6, 13.7; Section 14; Section 16.8; Section 19; Section 23; Section 24; Section 25.1, 25.2, 25.3, 25.4, 25.5, 25.6, 25.12; 25.16; 25.17, Section 26, and Section 27 of the technical report.



I am not independent of Teck Coal as independence is described by Section 1.5 of NI 43–101.

I have been involved with the Elkview Coal Operation since December 2013.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated: 15 February 2023

“signed and sealed”

Esaias Engelbertus Schalekamp, P.Geo.



CERTIFICATE OF QUALIFIED PERSON

I, Adam Bondi, P.Eng, am employed as a Senior Engineering Supervisor, Mining with the Elkview Coal Operation of Teck Coal Limited (“Teck Coal”) with an office address of R.R. #1, Highway #3, Sparwood, BC, V0B 2G1.

This certificate applies to the technical report titled “NI 43-101 Technical Report on Elkview Coal Operation, British Columbia, Canada” that has an effective date of December 31, 2022 (the “technical report”).

I am a Professional Engineer (P.Eng.) of the Engineers and Geoscientists of British Columbia (membership #157629). I graduated with a Bachelor of Applied Science degree in Mining Engineering from Queen’s University, Kingston Ontario in 2008.

I have practiced my profession with Teck Coal for 14 years since graduating university. My relevant experience includes employment at Coal Mountain Operations from 2008 to 2011 and Elkview Operations from 2011 to present. Throughout my career, I have worked in both short- and long-range mine planning. This consists of drill and blast, pit and dump design, coal quality, access design, production scheduling, costing and economic analysis, and budgeting. I have also worked in mining operations as an operations supervisor. In my current position as the senior engineering supervisor of long range mine planning, I am responsible for overseeing the development of the yearly budget, mid-range plans, and long range mine plans at Elkview Operations.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (“NI 43–101”).

I work at Elkview Operations on a daily basis, and this familiarity with the operation serves as my scope of personal inspection.

I am responsible or co-responsible for Sections 1.1, 1.2, 1.3, 1.4, 1.17, 1.19.1, 1.19.4, 1.23, 1.24, 1.25, 1.26; Sections 2.1, 2.2, 2.3, 2.4, 2.6; Section 3; Section 4; Section 5; Sections 16.1, 16.2, 16.3, 16.7; Section 18; Sections 20.1, 20.2, 20.5; Sections 25.1, 25.2, 25.8, 25.10, 25.11, 25.16, 25.17, 25.18; Section 26; and Section 27 of the technical report.

I am not independent of Teck Coal as independence is described by Section 1.5 of NI 43–101.

I have been involved with the Elkview Operation since 2011.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.



As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated: 15 February 2023

“signed and sealed”

Adam Bondi, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

I, Fiona Francis, P.Eng., am employed as a Senior Mining Engineer with Teck Coal's Elkview Operation, with an office address at R.R. #1, Highway #3 Sparwood, BC Canada V0B 2G1.

This certificate applies to the technical report titled "NI 43-101 Technical Report on Elkview Coal Operation, British Columbia, Canada" that has an effective date of December 31, 2022 (the "technical report").

I am a Professional Engineer (P.Eng.) of the Engineers and Geoscientists of British Columbia (membership number 162468). I graduated from the University of Alberta in 2011.

I have practiced my profession for 12 years. I have been directly involved in the Life of Mine planning, Five Year planning, Coal Reserves and Coal Resources, and design work for Elkview Operations since January 2018.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("NI 43-101").

I work on a daily basis at the Elkview Coal Operation, and this familiarity with the operations serves as my scope of personal inspection.

I am responsible or co-responsible for Sections 1.1, 1.2, 1.13, 1.14, 1.15, 1.23, 1.24, 1.25, 1.26, 1.19.2, 1.19.3, 1.20, 1.21, 1.22, 1.23, 1.24, 1.25, 1.26; Sections 2.1, 2.2, 2.3, 2.4, 2.5, 2.6; Section 3; Section 15; Sections 16.4, 16.5, 16.6, 16.9; Sections 20.1, 20.3, 20.4; Section 21; Section 22; Sections 25.1, 25.7, 25.8, 25.11, 25.13, 25.14, 25.15, 25.16, 25.17, 25.18; Section 26 and Section 27 of the technical report.

I am not independent of Teck Coal as independence is described by Section 1.5 of NI 43-101.

I have been involved with Mine Planning at the Elkview Coal Operation since January 2018.

I have read NI 43-101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated: 15 February 2023

"Signed and sealed"

Fiona Francis, P.Eng.



CERTIFICATE OF QUALIFIED PERSON

I, Arran McAllister, P.Eng, am employed as a Senior Engineering Supervisor, Mining with the Elkview Coal Operation of Teck Coal Limited (“Teck Coal”) with an office address of R.R. #1, Highway #3, Sparwood, BC, V0B 2G1.

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I am a Professional Engineer (P.Eng.) of the Engineers and Geoscientists of British Columbia (membership #41632). I graduated with a Bachelor of Engineering in Chemical Engineering from the University of Strathclyde in Glasgow, Scotland in 2010.

I have practiced my profession with a series of companies over the last 13 years since graduating from university.

My relevant experience includes employment at Croda Chemicals from 2011–2013 and with Teck Coal at Elkview Operations from 2013 to present.

In my current position as the senior engineering supervisor of processing, I am responsible for overseeing the development of the yearly budget, all engineering deliverables and accounting and finance for inventory management for the Elkview Process Plant.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (“NI 43–101”).

I work at Elkview Operations on a daily basis, and this familiarity with the operation serves as my scope of personal inspection.

I am responsible or co-responsible for Sections 1.1, 1.2, 1.16, 1.23, 1.24, 1.26; Sections 2.1, 2.2, 2.3, 2.4, 2.6; Section 3; Section 17; Sections 25.1, 25.9, 25.16, 25.17; Section 26; and Section 27 of the technical report.

I am not independent of Teck Coal as independence is described by Section 1.5 of NI 43–101.

I have been involved with the Elkview Operation since 2013.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated: 15 February 2023

“signed and sealed”

Arran McAllister, P.Eng.

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1.0 SUMMARY

1.1 Introduction

Mr. Esaias (Bert) Schalekamp, P.Geo., Mr. Adam Bondi, P.Eng., Ms. Fiona Francis, P.Eng., and Mr. Arran McAllister, P.Eng. prepared this technical report (the Report) for Teck Resources Limited (Teck) on the Elkview Coal Operations (the Elkview Operations or the Project), located in British Columbia (BC), Canada.

The coal operations are 95% indirectly owned by Teck. The remaining interest is held by Nippon Steel Corporation (2.5%) and POSCO (2.5%). Together these three parties form the Elkview Mine Limited Partnership. The mine operations name is the Elkview Operations (EVO), and Teck Coal Limited (Teck Coal) is the operator.

The current mining operations commenced in 1993.

1.2 Terms of Reference

The Report provides updated information on the Elkview Operations, and Coal Resource and Coal Reserve estimates. The information will be used to support disclosures in Teck's 2022 Annual Information Form.

Currency is expressed in Canadian dollars (C\$) unless stated otherwise. Units presented are typically metric units, such as metric tonnes, unless otherwise noted. The Report uses Canadian English.

Coal Resource and Coal Reserves estimates are reported using the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves (the 2014 CIM Definition Standards). Coal Resources and Coal Reserves are presented on a 100% basis.

1.3 Project Setting

The Elkview Operations are located in the East Kootenay region of southeastern British Columbia, southwest of Calgary, Alberta and about 3 km east of the town of Sparwood, in the southeast corner of British Columbia.

The operations are accessed via Highway 3 through the town of Sparwood. Goods are delivered primarily by transport trucks and occasionally by rail. Coal from EVO is transported in unit trains from the site loadout facilities via rail lines operated by Canadian Pacific Railways (CPR) or Canadian National Railways (CNR). The final rail destination is typically either the Westshore Terminals, 1,150 km to the west in Delta, BC, or Neptune Bulk Terminals in North Vancouver, BC. CPR and CNR own their own lines and have line sharing agreements in place to expedite traffic in certain areas.

The Project area has long, cold winters and short, cool, dry summers. Operations are conducted year-round.

The operations are situated in the East Kootenay Region of the Northern Rocky Mountain physiographic province, within the Elk River valley. Elevations range from about 1,115 masl in the valley floor to about 2,085 masl at the upper extent of the mine. Vegetation varies with elevation. Valley bottoms are dominated by Rocky Mountain Douglas fir, lodgepole pine and trembling aspen. Mountain slopes typically host Engelmann spruce, lodgepole pine, western larch and trembling aspen. Higher elevations are treeless. The major river system in the Project area are the Elk River and Michel Creek.

1.4 Mineral Tenure, Surface Rights, Water Rights, Royalties and Agreements

Elkview Mine Limited Partnership owns the surface and subsurface rights in the Project area through its bare trustee and agent, 6069789 Canada Inc. The Project Area is located within Lot 1 of District Lot 4588 (Kootenay District Plan 9330) and Lot 1 of District Lot 4588 (Kootenay District Plan NEP23393). The total Project area is about 12,412 ha.

All EVO operations and associated infrastructure such as tails and waste storage are contained within lands on which the Elkview Mine Limited Partnership owns the surface rights in fee simple (freehold) to enter, occupy and use the surface area of the location to produce coal. This surface area is sufficient to contain mining and process plant waste and reject material projected in the current life-of-mine (LOM) plan.

Teck Coal has 26 authorized water licences that cover water diversion and usage. The water usage rights held are sufficient to support the LOM plan.

British Columbia levies mineral taxes. There is a two-tier tax system with a minimum rate of 2% on operating cash flow and a maximum rate of 13% on cash flow after taking available deductions for capital expenditures and other permitted deductions.

1.5 Geology and Mineralization

Coal deposits are characterized by the Geological Survey of Canada as being of four deposit types, based on differences in seam geometry as a result of sedimentary processes during coal deposition, and subsequent deformation. Under this classification system, the Elkview coal deposit is classified as both “moderate” and “complex”. The Geological Survey of Canada also classifies coal deposits on the basis of the probable extraction method that would be used to recover coal. The coal measures in the Elkview area are classified as “surface”.

The operations are located within the Crowsnest Coalfield. The coal measures are situated within the Upper Jurassic to Lower Cretaceous Kootenay Group sediments:

- Morrissey Formation: sandstones; subdivided into the Weary Ridge and Moose Mountain Members; 20–80 m in thickness;
- Mist Mountain Formation: interbedded sandstone, siltstone, mudstone, shale and thin to thick seams of bituminous to semi-anthracite coal; 450–550 m in thickness;

- Elk Formation: interbedded sandstone, siltstone, mudstone, shale and locally thick beds of chert-pebble conglomerate and thin seams of high volatile bituminous coal; 350–450 m in thickness.

The Mist Mountain Formation contains approximately 25 coal seams of potential economic interest, consisting of medium to high volatile bituminous coal. The Mist Mountain Formation depth of burial ranges from surface exposures to >750 m. The coal measures on the EVO contain bituminous grade coal seams with varying volatile matter contents, such that coal quality varies with depth of burial and location along the strike of the deposit. Seams may range in thickness from 1–15 m.

EVO produces the following coal products:

- Hard coking coal (HCC): coke strength after reaction (CSR) 64+;
- Semi-hard coking coal (SHCC): ≤ 55 CSR ≤ 63 .

1.6 History

Companies who undertook exploration, development and operations prior to Teck's project interest include Kaiser Steel Corp., Kaiser Resources Ltd., B.C. Resources Investment Corporation, Westar Group Limited, and Westar Mining Limited (Westar Mining). Work completed included geological mapping, trenching of coal showings, sampling of both coal outcrops and coal exposed in the trenches, rotary, reverse circulation (RC) and core drilling, excavation and bulk sampling of adits, coal resource and coal reserve estimation, and mining activities.

Work completed during Teck's Project interest has included additional RC and core drilling, in-pit geological mapping, petrographic analysis, metallurgical test work, Coal Resource and Coal Reserve estimation updates, mining studies, and open pit coal operations.

1.7 Drilling

As at December 31, 2022, the EVO database contained 7,144 drill holes (590,112 m), consisting of 2,723 RC drill holes (379,924 m), 81 core holes (22,401 m), four rotary boreholes (1,197 m), 2,323 holes (125,788 m) classified as "other" (e.g., unidentified type, sonic, auger, hammer), 25 drill holes classified as bulk samples (4,642 m), 32 bulk samples from test pits and adits and 1,988 doublepass production drill holes (i.e., production holes that intercept two mining benches and approximately 30 m deep; 56,160 m).

A subset of the EVO database, extracted as of December 13, 2021, was used to populate coal seam quality data for the 3D block model used in estimating Coal Resources and Coal Reserves for the EVO 2022 LOM model. This database subset includes 7,087 drill holes (572,423 m), consisting of 2,681 RC drill holes (365,865 m), four rotary drill holes (1,197 m), 2,323 holes (125,788 m) classified as 'other', 1,988 production holes (56,160 m), 17 LDC bulk samples (2,917 m), 27 bulk samples from test pits and adits and 74 core holes (20,496 m).

Geological logging is done on all core samples collected from the LDC (9-inch core) and HQ (6-inch core) diamond drilling. Information recorded includes lithology identification (coal and rock types) and characteristics; recovery estimates; seam quality sample collection; and structural identification.

All drill holes are geophysically logged, where possible, using a suite of geophysical logging tools. This includes downhole deviation, gamma-neutron through the drill pipe when the hole is unstable and there is a chance of caving, gamma-density and caliper. Other optional tools would be resistivity and dipmeter logs. Logging tools such as acoustic and optic televiewer are only performed if additional information is needed; typically, these are undertaken as required for geotechnical purposes. Geophysical log data, sample data and driller's seam picks are used to determine seam intercepts. If geophysical logs are not available, the driller's picks are used, but with a lower assigned level of confidence.

Collar surveys are performed using either an onboard drill global positioning system (GPS) instrument or a real time kinetic (RTK) GPS Rover.

Seam true thickness is calculated based on drilled thickness, deviation surveys and dip information. On average, the true seam thickness is less than the drilled seam thickness, depending on the local orientation of the coal seam orientation and the angle of the drill hole.

A total of 57 drill holes (17,689 m) were drilled since the database closeout date, including 42 RC drill holes (14,059 m), seven core holes (1,905 m) for geotechnical purposes, and eight LDC drill holes (1,725 m) for coking coal samples. The QP considers that this new drilling should have no material effect on the overall tonnage and coal quality estimates but, represents minor upside potential for Coal Resource estimation when incorporated into an updated model.

1.8 Sampling

RC samples are collected on a maximum 0.5 m sample interval. The samples are collected on a 325-mesh screen on a portable shaker table and bagged in plastic or cloth bags depending on dry or wet coal respectively.

Core samples are taken in 1 m increments for each coal seam, and placed into separate bags, which are stored in such a way as to minimize sample disturbance prior to shipment to the laboratory.

Bulk samples are required to obtain washability and carbonization data for coal seams from active and future mining areas to check and validate the coal quality database and reduce risk. Bulk samples can be collected via in-pit trench, stockpile, test pit, or adit sampling, or from LDC and large diameter reverse flood (LDRF) drilling. The current preferred methods are trenches, stockpiles and LDC drilling.

Samples, 1–5 kg in size, are taken of blasthole cuttings of waste rock stratigraphically below the basal seam to delineate areas containing potentially acid-generating (PAG) and non-acid generating (NAG) materials.

Density estimation and assignment to the model blocks from drill holes is completed using a specific gravity formula. This formula estimates the specific gravity (SG) value of coal based on the ash value results received from the laboratory. The formula has been verified for use at EVO through analysis of a number of samples that compared actual SG values determined in the laboratory against SG values determined using the SG formula.

The Elkview Central Laboratory has been used from 1996 onwards as the principal laboratory for coal analysis. The laboratory focuses on sample preparation and mini-wash analysis. It is not independent and follows ASTM practices. External independent laboratories such as Birtley and Gwil Industries (Gwil) and Pearson & Associates are primarily used for extended clean quality analysis such as mineral ash analysis and petrography, respectively. Gwil holds Vanguard Solutions Proficiency Testing Program accreditations. Date ranges when specific laboratories were used are not known for much of the EVO history. The independent Canadian Centre for Mineral and Energy Technology (Canmet) Energy Technology Centre and Hazen Research Inc. (Hazen) laboratories are primarily used to process LDC samples for coking analysis. Canmet is accredited to ISO17015 for selected analytical techniques; Hazen holds State and Environmental Protection Agency credentials.

PAG samples are split in three with a portion retained at the Elkview Central Laboratory, one third sent to Gwil for “fizz testing” and the remaining third sent to the independent laboratory Bureau Veritas for ABA testing. The quality assurance and quality control (QA/QC) on PAG samples is undertaken at Bureau Veritas. Bureau Veritas holds ISO17015 accreditations for selected analytical techniques.

EVO samples are analysed by the Elkview Central Laboratory. The samples are delivered to the laboratory by the drilling contractor. Sample intercepts or ply samples are recorded from the sample tag in each bag. Each increment is weighed and recorded. Samples are dried. About 500 g is pulverized and used for ash analyses and free swelling index (FSI) analyses.

Proximate analysis, rheological testing, and mineral ash analyses were conducted both at Teck Coal and third-party laboratories. The composite sample is analyzed for raw ash, volatile matter, inherent moisture, fixed carbon (by difference), FSI, sulphur and P₂O₅ on an air-dried basis.

A selection of raw composite samples is split (minimum of 5% or one-in-20) by the primary laboratory. The raw check samples are shipped to a secondary (umpire) laboratory to have raw proximate analysis performed. Check samples assayed as part of the QA/QC program are plotted against the regular samples. The minimum qualities compared include ash and volatile matter. Additional QA/QC checks include:

- The weight of ply samples, as reported from the laboratory, is uploaded into acQuire. The weight of each sample, in combination with the ash of each sample and the drill hole diameter, are used to calculate the theoretical recovery of each interval within acQuire;
- The ash content of intervals is assessed against the geophysical density logs of the RC drill hole. The “Depth Adjustment Tool” is used to view variable adjustment % and guide decisions on compositing. The ash content of raw composites is compared using calculated raw ash

content of the composite samples (average of ply samples) versus the laboratory-reported ash of the composite samples, checking for obvious errors.

Drill hole collar data, associated seam intercepts, seam quality and deviation survey data are stored in the acquire database. Data are loaded directly from logging software, survey companies, or using set importing templates that load the assay data directly from Excel worksheets sent by the laboratories. The database is regularly backed up, using Teck protocols. All original logs and laboratory reports are stored securely on the network.

Special security methods for the shipping and storage of coal samples are not commonly employed, as coal is a relatively low-value bulk commodity. Raw and clean coal samples are kept by the analytical laboratories for a minimum of one year.

1.9 Data Verification

Drill holes are subject to the following location checks: a check of the collar coordinates of each hole against the planned location; and a visual check of down-hole deviations against survey data from surrounding drill holes. Once the locations are verified by the geologist, the coal contacts are picked within the geophysical data, following set protocols. Analytical data from the laboratory are evaluated for anomalies and atypical results, generally using geostatistical software. Any data that appear erroneous are re-analyzed by the laboratory to check for accuracy.

Data reviews were completed by third party consultants Marston in 2008.

The QP leads and supervises the EVO geology team as the Senior Geologist Supervisor. The annual exploration work is usually managed by the Senior Geologist Supervisor or their delegate with support of other site geologists who conduct and monitor both the in-pit and ex-pit exploration programs. In that capacity the QP or their delegate inspect the field activities including drill pad and road construction, drilling operations including coal sampling. The geological team is responsible for sampling, data collection, QA/QC, geological interpretation and modeling. The QP or their delegate frequently have discussions with the geology team in relation to program execution and results. In the QP's capacity as performing Coal Reserves and Coal Resources oversight, the QP meets at least monthly or more frequently with the geology, mine and engineering staff to discuss the 2022 exploration results and the 2023 exploration program planning (in progress); the EVO modeling process including changes in modeling parameters; the status of the action items stemming from the internal and external audits; and the current year mine plan and life of mine plans. This is supported by regular site inspections of the mine operations. Additionally, the QP reviews, edits and approves the EVO five-year drilling plan, which was most recently undertaken for 2022. As a result of this data verification, the QP concludes that the Project data and database are acceptable for use in Coal Resource and Coal Reserve estimation, and can be used to support mine planning.

1.10 Metallurgical Testwork

The bituminous coal seams at EVO are blended to produce coal with consistent quality. Blending is accomplished at the hopper and breaker by combining coal from several stockpiles. Each stockpile contains coal from different seams with similar quality. Some of the oxidized coal from selected seams is stockpiled for potential use in pulverized coal injection, all other oxidized coal is treated as waste material.

Metallurgical testwork includes coal quality (raw coal analysis and washability), and carbonization testwork. Predicted yields are modeled using the plant feed ash (which is calculated from breaker delivered ash, breaker reject ash and breaker reject volume), plant reject ash and target clean ash.

Metallurgical testing frequency and type are representative of individual seams on the basis of rank, coking properties and volume, and are done over a range of locations for each seam to ensure that a sufficient sample mass is available for modeling purposes.

Volatile matter, rank, and ash contents are the main items monitored for blending purposes.

Trace elements that are evaluated for metallurgical coal samples include phosphorus, fluorine, sulphur and chlorine.

1.11 Coal Resource Estimation

Coal Resources were estimated for the Elkview Operations mine areas. Coal Resources were converted to Coal Reserves for the Elkview Operations mine areas.

The EVO Coal Resource estimates are based primarily on the results of RC drilling samples, and downhole geophysical gamma and density logs. Seam polygons are generated on 2D sections using seam dips and true thicknesses based on the drill hole data. These polygons are used to build the 3D block model.

The geological model was constructed using coal depth, thickness and quality data. EVO geologists evaluate gamma, density and caliper geophysical logs. The coal seam tops and bottoms are measured primarily from the gamma density log and secondarily from the gamma neutron logs. Gamma density log coal seam thicknesses generally closely represent the mineable coal seam thickness in the mine at the location of the drill hole. The geophysical log measurements of the coal depths are accepted as being correct, as is standard in the industry, and are used as the basis for the coal seam thickness in the geological model. Model items included topography, waste, and coal parameter data. Where quality information was not amenable to interpolation from drill composites, data were statistically infilled based on geographic location.

Computer model block-specific SG values were used for the conversion of volumes of in-place coal to tonnes.

The true thicknesses of the seams were calculated using the dip of the coal seams and the length of the coal composite. True thickness was interpolated into the 3D block model using an inverse distance

weighting (ID) to the second power (ID²) approach. Other interpolation parameters include a circular search method, and multiple stage search distances of 3,000 m, 900 m, 300 m and 75 m. The X and Y search distances for each quality criterion at 900 m, 300 m and 75 m, and the Z search distances are 300 m, 100 m and 75 m. The ID estimation method power for each search distance is 1.0, 1.5 and 3.5, respectively. A minimum of two composites and a maximum of 30 composites is required to interpolate a value to a block.

Blocks within the 3D block model were validated by an internal audit report that was generated after every model build. The audit examined the same block from every model build to verify consistency between models, verified that block calculations were successfully run, and compared model-generated values to manually-calculated values.

The process of classification is completed in the computer model. Model blocks that contain coal are initially assigned a classification below the level of Inferred. Ellipsoid search envelopes with the distance from the centroid along the three axes equal to the distances are used to determine if the block is to be classified as Measured, Indicated or Inferred. A minimum of three drill hole intercepts through an individual coal seam must fall within the associated ellipsoid to confidence-classify a block. The block was assigned the highest level of assurance that was supported by the data. Areas are classified as either 'moderate' or 'complex'. In areas classified as "complex", the distance from the centre of the block to locate three composites was reduced between sections, based on mining practice and reconciliation data.

To assess reasonable prospects of eventual economic extraction, a depth limit was based on a pit shell with an incremental strip ratio limit of 14:1 m³/t of raw coal. Input costs to the pit shell, and therefore the break-even stripping ratio cut-off calculation are provided in Table 1-1. Geotechnical assumptions use pit slope angles that range from 40–51° (overall highwall angles). For Coal Resource estimation, a generalized pit slope angle of 45° is used.

1.12 Coal Resource Statement

Coal Resources are reported using the 2014 CIM Definition Standards. The QP for the estimate is Mr. Esaias (Bert) Schalekamp, P.Geo., a Teck Coal employee. Coal Resources are tabulated in Table 1-2 and have an effective date of December 31, 2022. Coal Resources are reported insitu, exclusive of those Coal Resources that were converted to Coal Reserves. Coal Resources that are not Coal Reserves do not have demonstrated economic viability.

Table 1-1: Inputs to Break-Even Stripping Ratio Cut-off

Item	Unit	Values
Selling price	US\$/t	145
Waste mining costs	\$/bcm	4.06
Coal mining costs	\$/bcm	6.06
Processing cost	\$/t	12.44
General and administrative costs	\$/t	13.42
Other (includes operating leases, royalties, distribution, sustaining capital, reclamation)	\$/t	62.64
Recommended break-even stripping ratio	bcmw/mtrc	14.0

Notes: bcm = bank cubic metre; bcmw = bank cubic metre waste; mtrc = tonne raw coal.

Table 1-2: Coal Resource Statement

Coal Type	Measured (raw coal; t x 1,000)	Indicated (raw coal; t x 1,000)	Total Measured and Indicated (raw coal; t x 1,000)	Inferred (raw coal; t x 1,000)
Metallurgical	273,320	155,726	429,046	249,788
Total	273,320	155,726	429,046	249,788

Notes to Accompany Coal Resource Table:

1. The Qualified Person for the resource estimate is Mr. Esaias (Bert) Schalekamp, P. Geo., a Teck Coal employee.
2. Coal Resources have been classified using the 2014 CIM Definition Standards. Coal Resources are reported insitu, exclusive of those Coal Resources that have been modified to Coal Reserves. Coal Resources that are not Coal Reserves do not have demonstrated economic viability. The Coal Resources have an effective date of December 31, 2022.
3. The Coal Resources are reported on a 100% basis. Elkview Mine Limited Partnership has a 100% interest in the EVO Coal Reserves and Coal Resources. Teck indirectly has a 95% partnership interest in the Elkview Mine Limited Partnership. The remaining 5% is indirectly held equally by Nippon Steel Corporation and POSCO, each of which hold a 2.5% interest.
4. The Coal Resources are reported using the following assumptions: average selling price of US\$145/t, waste mining cost of \$4.06/bcm, coal mining cost of \$6.06/bcm; processing cost of \$12.44/t, general and administrative cost of \$13.42/t, other costs of \$62.64/t, and break-even strip ratio of 14 bcmw/mtrc. For Coal Resource estimation, a generalized pit slope angle of 45° is assumed.
5. All estimates have been rounded. Totals may not sum due to rounding.

Areas of uncertainty that may materially impact the Coal Resource estimates include:

- Changes to long-term coal price assumptions;
- Changes in geological interpretations including the size, shape and distribution of interpreted lithologies;
- Changes in local interpretations of seam geometry, fault geometry and seam continuity;

- Changes to coal recovery assumptions;
- Changes to the input assumptions used to derive the conceptual open pit outlines used to constrain the estimate;
- Variations in geotechnical, hydrogeological and mining assumptions;
- Changes to environmental, permitting and social license assumptions.

1.13 Coal Reserve Estimation

EVO currently mines from permitted pits on Baldy Ridge and Natal Ridge. The current permit allows EVO to mine the remainder of Baldy Ridge, the remainder of the current Natal Ridge phase, and the top portion of Adit Ridge.

Coal Reserves are based on pit designs and a long-range mine development plan prepared by EVO. Ultimate pit shells were created using long-term product coal pricing and US dollar to Canadian dollar exchange rate estimates. Waste haulage, waste storage and geotechnical issues were considered in the final pit design. If the ultimate pit shell contains Inferred Coal Resources, that coal is set to waste, and is not included in the Coal Reserves.

Coal Resources are converted to Coal Reserves using the following inputs:

- Topographic considerations;
- Mining factors such as loss and dilution. These factors are mostly derived from operating experience at EVO;
- SG values for coal, based on empirical formulas, validated over the history of mining at EVO;
- Detailed waste and coal haulage costs;
- Detailed yield assumptions;
- Geotechnical suitability of pits and dumps;
- Detailed site costs;
- Reasonable permissibility prospects;
- LOM plan.

1.14 Coal Reserve Statement

Coal Reserves are an estimate of the saleable coal product. The reference point is the exit point of the coal product from the processing plant. Coal Reserves are reported using the 2014 CIM Definition Standards. The QP for the estimate is Mr. Adam Bondi, P.Eng., a Teck Coal employee. Coal Reserves are provided in Table 1-3 and have an effective date of December 31, 2022.

Areas of uncertainty that may materially impact the Coal Reserve estimates include:

- Changes to long-term coal price assumptions;
- Changes in geological interpretations including the size, shape and distribution of interpreted seams and waste;
- Changes in local interpretations of seam geometry, fault geometry and seam continuity;
- Changes to the input assumptions used to derive the open pit outlines used to constrain the estimate;
- Variations in geotechnical, hydrogeological and mining assumptions;
- Changes to environmental, permitting and social license assumptions.

1.15 Mine Plan

The mining operations use conventional truck-and-shovel methods. As a result of delivery requirements and varying coal seam qualities it is necessary to have multiple coal seams exposed at any time.

EVO currently produces coal from three active pit phases (Baldy Ridge BR6, Baldy Ridge BR2 and Natal Phase NP2) using open-pit coal mining methods, with primary waste stripping and coal mining completed by shovels and rear dump haul trucks. Additional permitted (Baldy Ridge BR3, Baldy Ridge BR4, Baldy Ridge BR5, Baldy Ridge BR7, Adit Ridge AR) and unpermitted (Adit Ridge, Natal Phase NP2, Natal Phase NP3) phases are planned.

Geotechnical exploration programs are conducted before development and during operation. These programs consist of oriented core drilling, to understand physical rock mass characteristics, together with both optical and acoustic televiewer studies to confirm structure orientations. Hydrogeological testing is also completed to estimate pore pressures within the rock mass and determine its effect on pit design stability. Each pit area has been assessed geotechnically and has specific set of standards that are followed based on multiple factors including bedding angle, rock type and faulting. Pit walls and spoils are monitored with a combination of prisms, GPS units, radar, wireline monitors, and piezometers.

Table 1-3: Coal Reserves Statement

Pit/Area	Coal Type	Proven (clean coal; t x 1,000)	Probable (clean coal; t x 1,000)	Total Reserve (clean coal; t x 1,000)
Baldy Ridge 2	Metallurgical	2,735	3,229	5,964
Baldy Ridge 3	Metallurgical	—	10,402	10,402
Baldy Ridge 4	Metallurgical	—	50,490	50,490
Baldy Ridge 6	Metallurgical	5,052	4,528	9,580
Baldy Ridge 7	Metallurgical	—	25,381	25,381
Natal Phase 2	Metallurgical	5,916	48,674	54,590
Natal Phase 3	Metallurgical	—	50,491	50,491
Adit Ridge 1	Metallurgical	—	49,987	49,987
Adit Ridge 2	Metallurgical	—	—	—
Raw Stockpile	Metallurgical	1,596	—	1,596
Total Reserves	Metallurgical	15,298	243,182	258,481

Notes to Accompany Coal Reserves Table:

1. The Qualified Person for the reserves estimate is Mr. Adam Bondi, P.Eng., a Teck Coal employee.
2. Coal Reserves have been classified using the 2014 CIM Definition Standards. The reference point is the exit point of the coal product from the processing plant. The Coal Reserves have an effective date of December 31, 2022.
3. The Coal Reserves are reported on a 100% basis. Elkview Mine Limited Partnership has a 100% interest in the EVO Coal Reserves and Coal Resources. Teck indirectly has a 95% partnership interest in the Elkview Mine Limited Partnership. The remaining 5% is indirectly held equally by Nippon Steel Corporation and POSCO, each of which hold a 2.5% interest.
4. The Coal Reserves are reported using the following assumptions: average selling price of US\$145/t, average mining and processing costs of \$98.01/t, average general and administrative cost of \$13.42/t, average other costs of \$5.27/t, break-even strip ratio of 14, minimum mineable seam thickness of 1.00 m; minimum removable parting thickness of 0.50 m; dilution thickness between 0.0 m and 0.2 m; coal loss thickness between 0.2 m and 0.5 m; rock dilution ash of 68%; rock dilution specific gravity of 2.22;. Geotechnical assumptions use pit slope angles that range from 38–52° (overall highwall angles). More complex criteria are used for footwall slopes that are structure specific. Yield is a function of feed ash and product and is therefore seam and product dependent.
5. All estimates have been rounded. Totals may not sum due to rounding.

Development of the mine plan generally results in pit formations which are lower than the surrounding topography, and thereby act as groundwater sinks. Estimates of anticipated pit water volumes to be managed are made with the site water balance model and other hydrogeological models. Teck has invested in a sustainable water supply strategy and constructed a network of water conveyance pipelines from various pits that supplies water to industrial processes on site which reduces clean ground water consumption and the quantity of mine contact water discharged off site.

Spoils can be placed either in a mined-out pit phase or placed on original ground. Suitable spoil areas are limited at EVO due to steep topography, natural watercourses on all sides of the mining area, and the proximity of Sparwood and the CPR and Highway 3 corridor on the western side of the property. Significant

effort was made to optimize spoil designs for the Project by maximizing in-pit spoiling. The spoil designs consider disturbance to natural topography and final reclamation requirements, as well as incorporating geotechnical and environmental aspects.

Drilling and blasting operations, and production monitoring are conventional to coal operations, as are the equipment types and usage.

The Coal Reserves support a mine life to 2061, including non-permitted areas of AR extension, NP2 West, and NP3.

1.16 Recovery Plan

The process plant uses conventional equipment and a conventional process. The flowsheet design was based on testwork results, study designs and industry-standard practices.

The basic operation of a coal processing plant is separation by gravity for the coarser particles. Based on the difference in specific gravity of coal and rock, the coal can be separated to a desired specification. The finest coal fractions are separated through surface properties (flotation). Size separation is accomplished through sieves, vibrating screens, and cyclones. Each technique contributes to the recovery of clean coal from the raw coal feed.

The plant power consumption averages 110,000,000 kWh/year.

Approximate freshwater usage for the plant is 3.5 Mm³ per year, which is drawn from the Elk River pumphouse. Water is recycled continually within the process, with the site consumption based on make-up water required for evaporation in the dryer, water in final product, water in plant refuse, and water pumped to the tailings pond. Water versus mine contact water usage varies by year.

1.17 Infrastructure

Surface infrastructure to support operations is in place, and includes:

- Open pit areas;
- Processing facilities: coal preparation plant including wash and drying facilities, together with management and engineering offices, change house, maintenance shops, warehouse, assay laboratory facilities;
- Mine facilities: management and engineering offices, change house, heavy and light vehicle workshops, wash bay, warehouse, explosives magazine, mine access gate house,
- Administration buildings: facilities for overall site management, safety inductions, training, and general and administrative functions;

- Raw coal stockpiles;
- Breaker;
- Waste dumps;
- Haul roads;
- Raw coal and clean coal conveyor system;
- Rail load-out facilities;
- Water management facilities: stormwater and sediment ponds, water storage tanks, water diversions, culverts, rock drains, the saturated rock fill water treatment facility, and various water transfer pump and pipeline systems;
- Tailings storage and coarse coal refuse storage facilities;
- Sewage treatment facility;
- Electrical power system;
- Fuel storage facilities;
- Explosive plant, raw product storage, and explosive bulk truck maintenance facility.

The existing Harmer Maintenance Complex (HMC) includes the following facilities and buildings: maintenance shops, warehouse, dry change, administration offices, and laydown areas for tires and other mining equipment. The HMC is located near the top of Baldy Ridge at the location of the proposed BR4 and BR7 pits. The HMC will need to be relocated in support of future mining at Baldy Ridge, and new maintenance shops, administration buildings, and other facilities, referred to as the Administration and Maintenance Complex are planned to be constructed in an area known as the Mannix Pad. Some new haul roads, spoil piles and environmental control systems will be required for future developments and are included in the mine planning and Project economics. These will require permitting.

Raw coal is stockpiled in several areas of the mine. The stockpiles are placed according to available space, with preferred locations near the breaker or active pits.

EVO currently manages five slurried tailings facilities and one mixed coarse coal refuse (CCR) facility. Lagoons A, B and C are currently considered inactive. The Westfork tailings facility is the primary storage facility, with Lagoon D available for storage during upset conditions. The Westfork tailings facility will not have sufficient capacity for the remaining tailings; Teck Coal will evaluate other tailings storage options and apply for relevant permits for the selected options prior to the final capacity of the Westfork tailings facility being reached. Teck Coal is planning to continue to raise the CCR to an elevation of 1,395 m and is developing the detailed plans to continue the facility up to the current permit elevation of 1,477 m. The

CCR facility will not have sufficient capacity for the remaining tailings; Teck Coal will evaluate other CCR storage options and apply for relevant permits for the selected options prior to the final capacity of the CCR facility being reached.

Water management at EVO is an essential component of operational planning which ensures availability of water, ample capacity and structural integrity within the water management infrastructure in order to handle anticipated flows and volumes. Drainage structures onsite are managed as per EVO's Mine Water Management Plan. The Mine Water Management Plan is part of Teck's Sustainability Goals and is intended to be an overarching document guiding water management at EVO. It involves a comprehensive approach to water management allowing information to be centralized and facilitating staff from various departments to collaborate in its implementation. EVO manages water effluent in accordance with the *Environmental Management Act* (EMA) Permit 425 (containing authorized works for water management), EMA Permit 107517 and the *Mines Act*. Water management structures include dam structures, catch basins, sediment and settling ponds, conveyance ditches, culverts, tailings storage facilities, flocculent addition systems, oil water separators, a sewage treatment system, the Saturated Rock Fill water treatment facility, and the sub-oxic zone spoil construction methodology trial. Dewatering of the active pits is required to maintain safe and productive mining, and pit dewatering will be required at various times throughout the remainder of the mine life.

Mining personnel are recruited from across Canada with most living in the Elk Valley, within the towns of Elkford, Sparwood or Fernie. There is no on-site accommodation, and personnel drive-in-drive-out to the operations.

Elkview Operations electric power is currently supplied via BC Hydro's Natal substation, which feeds EVO's main substation (EV1), and Panel 6 substation that feeds the lower Michel Valley.

1.18 Markets and Contracts

No market studies are relevant as the operations have sales contracts in place. All sales contracts are entered into by Teck Coal Limited, as nominee and agent for Elkview Mine Limited Partnership. Such contracts are typically one-year terms and renegotiated annually. Markets for the metallurgical coal products include Asia, Europe, North and South American customers. EVO produces metallurgical coal for the global steel industry.

Quarterly priced sales represent approximately 40% of sales, with the sales balance priced at levels reflecting market conditions when sales are concluded.

Major site contracts include fuel supply, explosives and accessories, and exploration drilling and maintenance support as needed. Westbound rail service at origin is currently provided by CPR. CPR transports a portion of these westbound shipments to Kamloops, B.C., and interchanges the trains with CNR for further transportation to the west coast. The remaining westbound shipments are transported by CPR from the mines to the terminals in Vancouver. CPR transport is under a tariff that expires in April 2023, and negotiations with CPR for a new westbound contract to replace the tariff are underway. A long-term

agreement, until December 2026, is in place with CNR for shipping steelmaking coal from our four B.C. operations via Kamloops to Neptune Bulk Terminals (Neptune) and other west coast ports, including Trigon Terminals (formerly Ridley Terminals Inc.), located in Prince Rupert. Contracts are also in place with all terminal facilities to offload, stockpile, blend EVO coal to Teck's product specifications and, load bulk cargo vessels. Teck holds a 46% interest in Neptune Bulk Terminals. Customers arrange for ocean-going bulk carriers to transport the coal from the terminals to their facilities for end use for approximately 60% of the total number of shipments. For the remaining 40% of shipments, Teck arranges for the ocean-going bulk carriers to transport the coal to customer facilities. Contracts are negotiated and renewed as needed. Contract terms are within industry norms, and typical of similar contracts in BC that Teck is familiar with.

1.19 Environmental, Permitting and Social Considerations

Baseline studies began in support of initial operations. Current mining operations commenced in 1993. Teck has continued with baseline studies in support of ongoing operations and in support of regulatory applications and approvals.

1.19.1 ENVIRONMENTAL CONSIDERATIONS

EVO has established, implemented and maintained an EMS that meets the requirements outlined in the International Standard 14001:2015 and supports implementation of Teck's Environmental Policy. The EMS reflects the commitments made by Teck and EVO to comply with applicable legal and regulatory requirements, prevent pollution, and to continually improve. EVO's EMS also provides the framework for identifying environmental aspects, environmental emergencies, measuring and monitoring requirements, opportunities for continual improvement, and environmental objectives and targets. Employees participate in the EMS by conforming to standard practices and procedures, which identify their roles and responsibilities when interacting with various environmental aspects.

In April 2013, the BC Minister of Environment issued Ministerial Order No. M113, which required Teck to prepare an area-based management plan for the Elk River watershed and the Canadian portion of the Kooacanusa Reservoir. From 2013 to 2014, Teck developed the area-based management plan, the Elk Valley Water Quality Plan. The Elk Valley Water Quality Plan included an Initial Implementation Plan that outlines the mitigation planned to achieve limits for the concentration of selenium, sulphate, nitrate, and cadmium in surface water at specific locations throughout the Elk Valley and in the Kooacanusa Reservoir. In November 2014, the BC Ministry of Environment issued Permit 107517 to Teck under the EMA. Many of the actions and commitments that Teck made in the Elk Valley Water Quality Plan Initial Implementation Plan were incorporated into the permit requirements. In July 2022, Teck submitted to regulators an Implementation Plan Adjustment in accordance with EMA Permit 107517 and Mines Act C-Permit requirements. The objective of this plan is to outline the timing and sizing of treatment and other water quality mitigations that support the objectives of the Elk Valley Water Quality Plan and to best meet EMA Permit 107517 commitments based on the latest understanding and progress.

Other areas of note related to environmental considerations around water, include:

- Since 2014, Teck has made significant progress on implementing water treatment in the Elk Valley with four water treatment facilities built and either fully operational or in commissioning;
- An applied research and development program is in place and is focusing on improving the effectiveness of water treatment technologies and investigating approaches to managing constituents at source;
- Fish census data obtained in late 2019 showed unexpected and substantial reductions in populations of Westslope Cutthroat trout in some mine-affected waters in the Elk Valley. Teck initiated an Evaluation of Cause process to investigate and report on the cause of the decline. Teck assembled a team of qualified scientists to develop recovery action plans.

All large water management facilities employ automated monitoring systems and a comprehensive inspection and maintenance program to ensure that sediment ponds are operating within capacity and expected performance to maintain effluent permit discharge limits. An assessment of all major water retention structures on site was started in 2020 and a comprehensive list of recommendations to improve structure performance and reduce risk associated with water quality and quantity is anticipated to be completed in 2022–2023.

Vegetation management is an integrated part of EVO's operation. This includes the planning for re-vegetation for reclamation activities, management of invasive plants, and rare plant surveys. A wildlife mitigation management plan is in place.

Design of layouts for waste rock spoils include considerations for spoil slope stability and selenium management strategies. Tailings facilities are developed to contain tailings within an enclosed area.

1.19.2 CLOSURE AND RECLAMATION PLANNING

The approach to reclamation design and implementation is directed by EVO's overarching end land use and biodiversity objectives:

- Long term safety and stability of drainages, landforms, and features;
- Water quality that meets acceptable quality guidelines for safe release to the surrounding environment and use by local flora and fauna;
- A net positive impact on biodiversity by maintaining or re-establishing self-sustaining landscapes and ecosystems that leads to agreed, viable, long term and diverse land use objectives in Teck's operating areas.

Provisional ongoing progressive reclamation and closure costs are considered in the economic analysis that supports the Coal Reserves. Due to the length of the mine life, the net present value of final closure

costs is considered negligible in the economic analysis. Due to the length of the mine life, final closure costs are updated every five years, or as required through major permit amendments, and submitted to the relevant regulatory authorities. Teck has a bonding schedule as part of the *Mines Act* permits, with the amount of the bond to be paid and the schedule set out in the permits.

1.19.3 PERMITTING CONSIDERATIONS

As of December 31, 2022, all necessary licences and permits and their subsequent amendments are in place for current operations at EVO.

Mining and reclamation operations are carried out under a C-2 Permit issued by the Ministry of Energy, Mines and Low Carbon Innovation (EMLI). For the Baldy Ridge Extension Project, environmental impacts were evaluated and approved by the Environmental Assessment Office under Project Approval Certificate #M96-02, and the Baldy Ridge Extension Environmental Assessment Certificate #M16-01.

Permits will be required for the NP3 (2041), NP2 West (2029), and expanded AR (2029) phases that are included in the LOM plan.

1.19.4 SOCIAL CONSIDERATIONS

Strengthening the relationship with the Ktunaxa Nation and the Ktunaxa Nation Council is an important objective for Teck. In November 2007, the two parties signed a joint Working Protocol Agreement and in 2010 a Consultation Agreement. In 2016, an Impact Management and Benefits Agreement was signed between Teck and the Ktunaxa Nation, which supersedes the previous two agreements.

The Impact Management and Benefits Agreement formalizes the long-standing relationship with the Ktunaxa Nation and creates a framework for greater cooperation and clarity on topics, including consultation and engagement, the environment and land stewardship, cultural resource management, and employment and business opportunities (including project-specific effects to Ktunaxa Nation interests). Consultation and engagement between Teck and the Ktunaxa Nation Council associated with reclamation and closure are, and will continue to be, undertaken through the processes established in the Impact Management and Benefits Agreement such as the Environmental Working Group, Procurement and Employment Operational Working Group, and the Cultural Working Group.

Teck also works with a number of local partners and organizations on economic, social and environmental initiatives.

1.20 Capital Cost Estimates

Capital and operating costs forecasts are prepared to meet a $\pm 25\%$ accuracy range.

Capital expenditures for development of new mining areas and equipment acquisitions and replacements are developed and a schedule of the spending is prepared. Costs are based on vendor quotes, and

forecasts based on past operating experience, depending on the level of detail required for the cost estimate, and the timing of the capital expenditure.

The LOM capital cost estimate for the period 2023–2061 is summarized in Table 1-4.

In this table:

- Mining equipment includes the capital costs required to purchase haul trucks, shovels, drills, loaders and support equipment;
- Plant and infrastructure include expenditures required to sustain plant operations and maintain the integrity of site utilities;
- Pit development includes exploration, permitting, access, pre-development work, and infrastructure costs;
- Sustainability includes the capital costs required for water treatment, reclamation, and infrastructure required to minimize environmental impact.

1.21 Operating Cost Estimates

Anticipated LOM operating costs for the period 2023–2061 are included in Table 1-5.

Operating costs include:

- Mining and processing costs include all labour, fuel, electrical power, consumables, repair parts and external services;
- Transportation costs include logistical costs related to the transport of clean coal products from site to customers;
- “Other” includes exploration and head office allocations and non-capitalized exploration and reclamation.

Table 1-4: LOM Capital Cost Estimate

Capital Expenditures	(C\$ M)
Mining equipment	1,850
Plant & infrastructure	270
Infrastructure	100
Pit development	836
Sustainability	538
Total capital	3,594

Note: numbers have been rounded.

Table 1-5: LOM Operating Cost Estimate

Operating Costs	(C\$/t clean coal)
Mining and processing	98.01
Transportation	40.01
Other	5.27
Total cash costs	143.29

1.22 Economic Analysis

Teck is using the provision for producing issuers, whereby producing issuers may exclude the information required under Item 22 for technical reports on properties currently in production and where no material production expansion is planned.

Coal reserve declaration is supported by overall site positive cash flows and net present value assessments.

1.23 Risks

The major risks facing the operations are water management and quality, and obtaining the required permits to allow the execution of the LOM plan as envisaged.

The risk analysis for the 2022 LOM plan also identified the following key risks that could affect the plan:

- If there are delays to full-scale implementation of the autonomous haulage fleet, or planned productivities are not realized, then additional truck purchases will be required;

- Decommissioning of the Harmer Maintenance Complex will be required to be complete by mid-year 2025 to ensure on-schedule mining of Baldy Ridge. The new Administrative Maintenance Complex (AMC) must be complete prior to demolition occurring;
- Permits will be required to allow the spoiling schedule in the 2022 LOM plan. If these are not granted, the operating cost estimates could be affected due to longer than envisaged haulage requirements;
- The Adit Ridge permit and the permit for the unpermitted portion of NP2 will both be required by 2029. NP3 requires permitting by 2041. Additional drilling is required in all areas to support permit application;
- The tailings and CCR facilities will not have sufficient capacity for the remaining tailings and CCR storage; Teck will need to evaluate other storage options and apply for relevant permits for the selected options prior to the final capacity of each facility being reached. If these facilities cannot be permitted, the assumed mine life will be affected;
- Future water treatment plans may need to take nickel treatment into consideration; costs associated with water treatment for nickel are still to be investigated;
- Annual waste spoiling has increased at EVO, and effects on the Elk Valley Water Quality Plan need to be closely monitored;
- Changing market conditions can have significant impacts on EVO product blends and mine sequencing. Changes to import regulations or customer specification requirements may change the demand for EVO products. A low coal price environment or increasing costs could render a portion of the mine plan uneconomic;
- Remaining in good standing on a social level with all stakeholders is critical to continued success at EVO. Dust management, water quality, blasting vibrations, blast fumes, and noise are of particular concern to nearby residents.

1.24 Opportunities

The risk analysis for the 2022 LOM plan identified the following key opportunities:

- Target drilling activities to upgrade Inferred Coal Resources to higher confidence categories;
- Reduce greenhouse gas emissions from mining operation activities;
- Continue optimization of the mine plan during each year of future mining operations.

1.25 Interpretation and Conclusions

Under the assumptions in this Report, the EVO coal reserve declaration is supported by overall site positive cash flows and net present value assessments, which supports Coal Reserves. The mine plan is achievable under the set of assumptions and parameters used in the Report.

1.26 Recommendations

As EVO is an operating mine, with no planned production rate expansions, the QPs have no meaningful recommendations to make.

2.0 INTRODUCTION

2.1 Introduction

Mr. Esaias (Bert) Schalekamp, P.Geol., Mr. Adam Bondi, P.Eng., Ms. Fiona Francis, P.Eng., and Mr. Arran McAllister, P.Eng. prepared this technical report (the Report) for Teck Resources Limited (Teck) on the Elkview Coal Operations (the Elkview Operations, or the Project), located in British Columbia (BC), Canada (Figure 2-1).

The coal operations are 95% indirectly owned by Teck. The remaining interest is held by Nippon Steel Corporation (2.5%) and POSCO (2.5%). Together these three parties form the Elkview Mine Limited Partnership. The mine operations name is the Elkview Operations (EVO), and Teck Coal Limited (Teck Coal), an indirect wholly owned subsidiary of Teck, is the operator.

The current mining commenced in 1993.

2.2 Terms of Reference

The Report provides updated information on the Elkview Operations, and Coal Resource and Coal Reserve estimates. The information will be used to support disclosures in Teck's 2022 Annual Information Form.

Currency is expressed in Canadian dollars (C\$) unless stated otherwise. Units presented are typically metric units, unless otherwise noted. The Report uses Canadian English.

Coal Resource and Coal Reserves estimates are reported using the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves (the 2014 CIM Definition Standards). Coal Resources and Coal Reserves are presented on a 100% basis.

The Coal Resource and Coal Reserve estimates make reference to metallurgical coal. Metallurgical coal is a grade of coal that can be used to produce coke. Coke is an essential fuel and reactant in the blast furnace process for primary steelmaking. Metallurgical coal is low in ash, moisture, sulphur and phosphorus content.

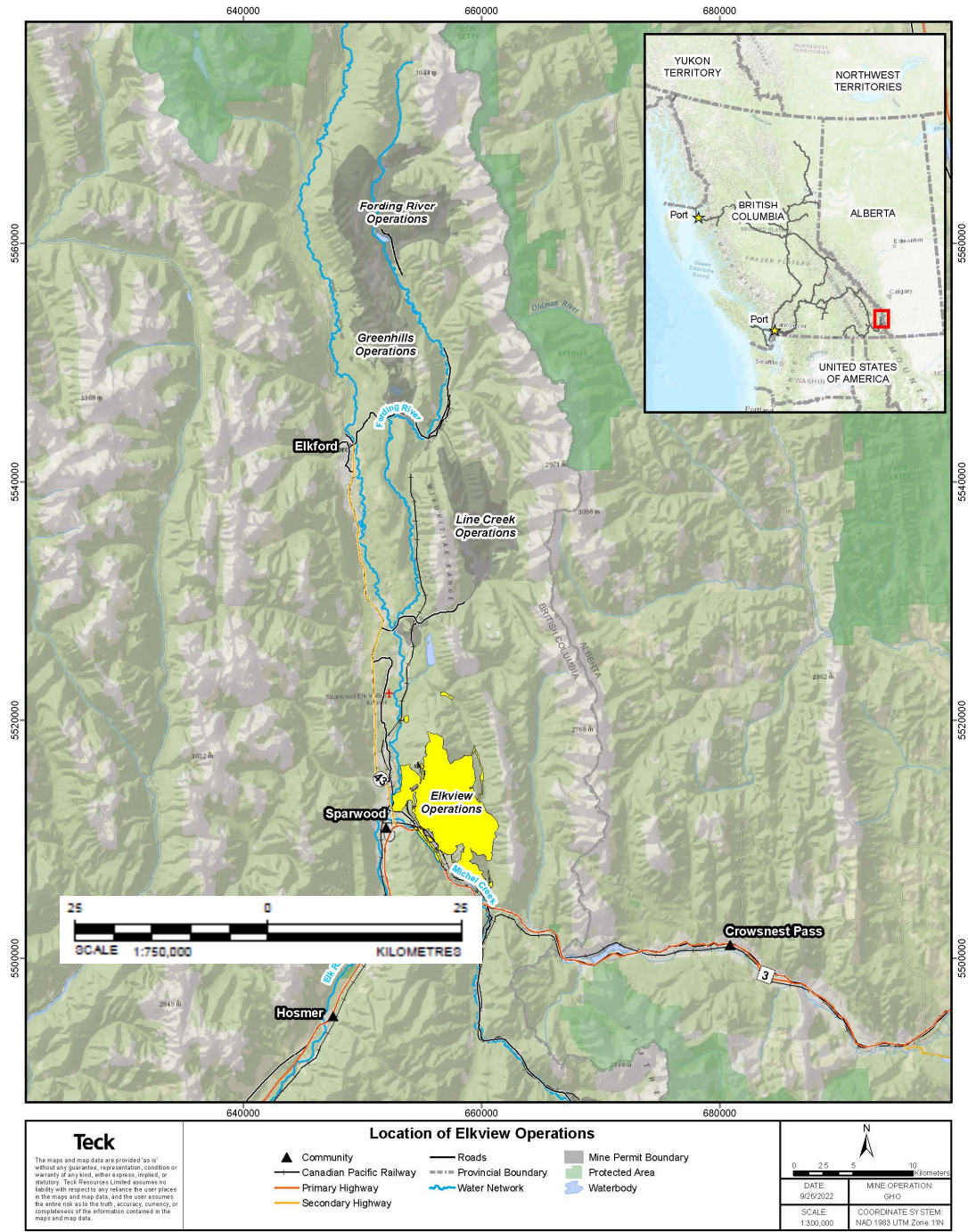


Figure 2-1: Project Location Plan

2.3 Qualified Persons

The following Teck Coal employees serve as the qualified persons for this Technical Report as defined in National Instrument 43-101, Standards of Disclosure for Mineral Projects, and in compliance with Form 43-101F1:

- Mr. Esaias (Bert) Schalekamp, P.Geo., Senior Geologist, Supervisor;
- Mr. Adam Bondi, P.Eng., Senior Engineering Supervisor;
- Ms. Fiona Francis, P.Eng., Senior Mining Engineer;
- Mr. Arran McAllister, P.Eng. Senior Engineer Supervisor, Processing.

2.4 Site Visits and Scope of Personal Inspection

Mr. Schalekamp, Mr. Bondi, Ms. Francis, and Mr. McAllister are all employed by Teck Coal at EVO and make daily to weekly site inspections.

Mr. Schalekamp has been the Senior Geologist, Supervisor at EVO since December 2013. He regularly reviews the modelling interpretation and reconciliation results and both the annual and five-year drilling plans. Mr. Schalekamp also directly participates in the daily or weekly mine production reviews, the active exploration drill programs, weekly marketing and coal quality meetings, and monitors the quality of products as they are being produced.

Mr. Bondi has worked at EVO since 2011 and has been a Senior Engineering Supervisor since 2019. He has worked in a variety of mine engineering roles including drill and blast, short-range, and long-range mine planning. He is directly involved with pit and spoil design, mine progression, access and haulage, forecasting, and budgeting.

Ms. Francis is a Senior Mining Engineer in Long Range Planning at EVO. She has been in the group since January 2018. She has led the life-of-mine and five-year planning cycles for the past four years. She is directly involved with pit and spoil design, mining progression, as well as haulage and accessing.

Mr. McAllister has been at the EVO processing plant since October 2013, and has been in the Senior Engineer Supervisor, Processing role since July 2019. He regularly reviews the process operating data, coal quality information to monitor process efficiency and product quality. He participates as plant representative for mine production forecasting and budgeting for monthly, annual, and five-year planning. He is responsible for plant reliability, process engineering, process control and automation, maintenance engineering and the plant capital planning and execution.

2.5 Effective Dates

The Report has a number of effective dates including:

- Date of closure of database used for resource estimation: December 13, 2021;
- Date of last drilling information included in the report: December 31, 2022;
- Date of Coal Resource estimate: December 31, 2022;
- Date of Coal Reserve estimate: December 31, 2022.

The overall effective date of the Report is the date of the Coal Reserve estimate and is December 31, 2022.

2.6 Information Sources and References

The reports and documents listed Section 2.7 and Section 27.0 of this Report were also used to support the preparation of the Report.

Additional information was sought from Teck and Teck Coal personnel where required.

2.7 Previous Technical Reports

Teck has previously filed a technical report on the Project:

- Minnes, E.H., 2008: Technical Report on Coal Resources and Reserves of the Elkview Property: report prepared by Marston Canada Ltd for Elk Valley Coal Corp., Fording Canadian Coal Trust and Teck Cominco Ltd., effective date February 29, 2008.

3.0 RELIANCE ON OTHER EXPERTS

This section is not relevant to this Report.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Introduction

The Elkview Operation is located in the East Kootenay region of southeastern British Columbia, southwest of Calgary, Alberta and about 3 km east of the town of Sparwood, in the southeast corner of British Columbia.

The Project mining centroid is approximately latitude 49° 47' 10"N and longitude 114° 49' 39" W. The plant site is situated at latitude 49°45'28.4" N and longitude 114°51'53.1" W.

4.2 Project Ownership

The coal operations are owned by Elkview Mine Limited Partnership which is 95% indirectly owned by Teck. The remaining interest is held by Nippon Steel Corporation (2.5%) and POSCO (2.5%).

The mine operations name is the Elkview Operations, and Teck Coal is the operator.

4.3 Mineral Tenure

The Elkview Mine Limited Partnership owns the surface and subsurface rights in the Project area through its bare trustee and agent, 6069789 Canada Inc. Coal measures on the Project are within Lot 1 of District Lot 4588 (Kootenay District Plan 9330) and Lot 1 of District Lot 4588 (Kootenay District Plan NEP23393). The total Project area is about 12,412 ha. The tenure holdings are shown in Figure 4-1.

4.4 Surface Rights

EVO controls the surface and subsurface coal rights to the properties that are in operation and those that are planned for development.

All EVO operations and associated infrastructure such as tails and waste storage are contained within lands on which the Elkview Mine Limited Partnership owns the surface rights in fee simple (freehold) to enter, occupy and use the surface area of the location to produce coal. This surface area is sufficient to contain mining and process plant waste and reject material projected in the current life-of-mine (LOM) plan.

4.5 Water Rights

Teck Coal has 26 authorized water licences that cover water diversion and usage. The water usage rights held are sufficient to support the LOM plan.

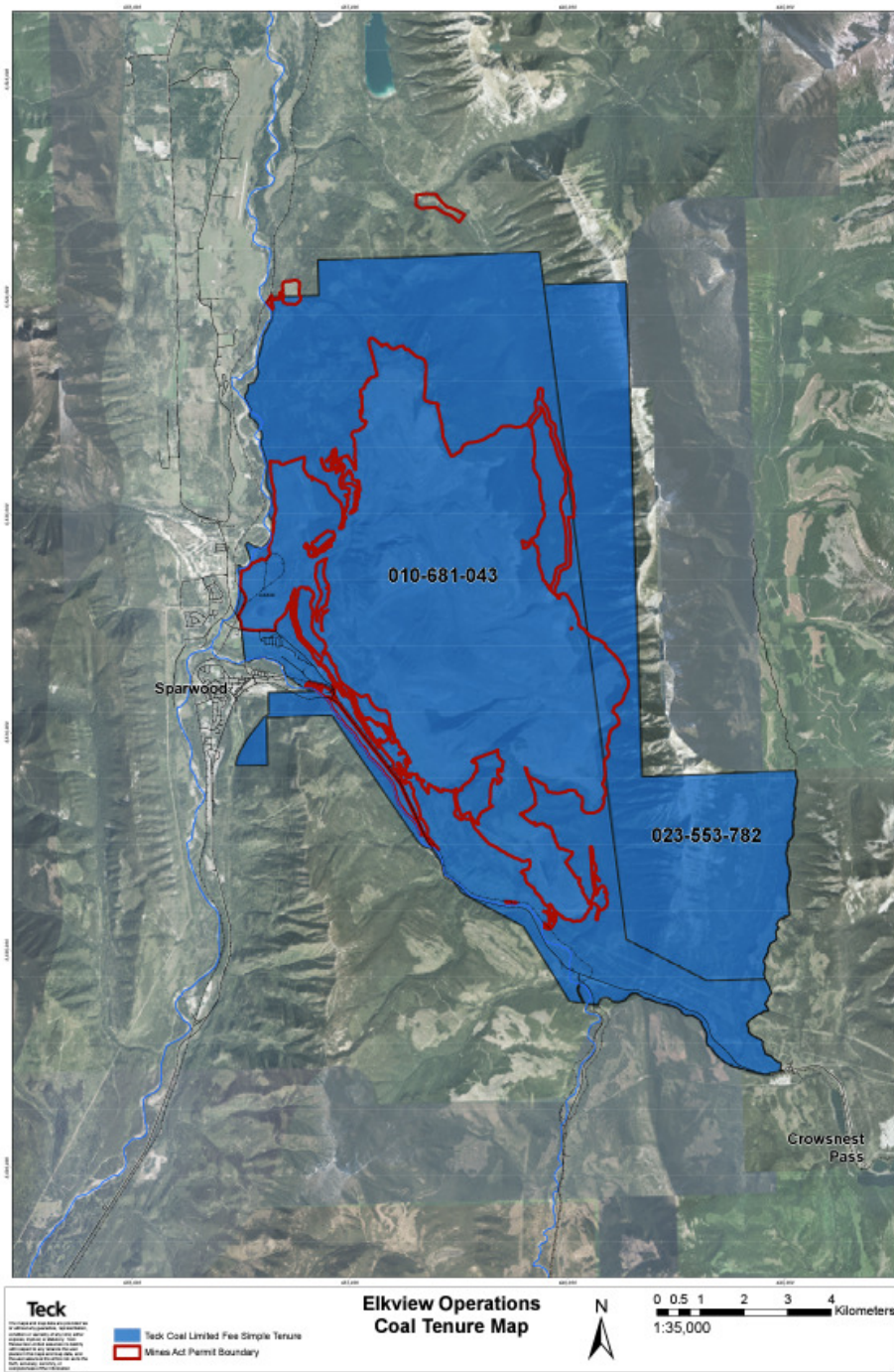


Figure 4-1: Mining Areas

Note: Figure prepared by Teck, 2022

Table 4-1: Mineral Tenure Holdings

Tenure ID	Parties	Type	Status	Grant Date	Expiry Date	Area (ha)
010-681-043	6069789 CANADA INC. (100%)	Fee Property	Active	1/1/1901	N/A	9,132
023-553-782	6069789 CANADA INC. (100%)	Fee Property	Active	1/1/1901	N/A	3,280
						12,412

Note: Date format is month, day, year.

4.6 Royalties and Encumbrances

Teck is not required to pay royalties on freehold land.

British Columbia levies mineral taxes. There is a two-tier tax system with a minimum rate of 2% on operating cash flow and a maximum rate of 13% on cash flow after taking available deductions for capital expenditures and other permitted deductions.

4.7 Permitting Considerations

Permitting is discussed in Section 20.

4.8 Environmental Considerations

Environmental considerations are discussed in Section 20.

Environmental liabilities for the operations are typical of those that would be expected to be associated with an operating coal mine, including roads, site infrastructure, open pits, and waste and tailings disposal facilities.

Teck, via the Elkview Mine Limited Partnership, is required to rehabilitate disturbed areas after the completion of mining activities. EVO has made provisions to limit environmental liability by reclaiming disturbed areas on an ongoing basis as they become available. Short- and long-term reclamation requirements are reassessed annually, and an annual reclamation report is submitted to the British Columbia government, and a reclamation plan every five years, as required as a condition of the mine permit (refer to Section 20).

4.9 Social License Considerations

Social licence considerations are discussed in Section 20.

4.10 Comments on Section 4

To the extent known to the QP, there are no other significant factors and risks known that may affect access, title, or the right or ability to perform work on the Project that are not discussed in this Report.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

5.1 Accessibility

The operations are accessed by driving east on Highway 3 (Crowsnest Pass Highway) from Sparwood, via Michel Creek Rd, then turning on to the Elkview Mine access road for a further 12 km.

Goods are delivered primarily by transport trucks and occasionally by rail.

Coal from EVO is transported in unit trains from the site loadout facilities via rail lines operated by Canadian Pacific Railways (CPR) or Canadian National Railways (CNR). The final rail destination is either the Westshore Terminals, 1,150 km to the west in Delta, BC, Neptune Bulk Terminals in North Vancouver, BC, or Trigon (formerly Ridley) Terminal at Prince Rupert BC. CPR and CNR own their own lines and have line sharing agreements in place to expedite traffic in certain areas.

5.2 Climate

The Project area has long, cold winters and short, cool, dry summers.

The climate results from a combination of the continental location, mountainous topography, and westerly maritime air masses that bring moisture-laden air to the area. Local convective storms during summer months can provide significant amounts of precipitation in relatively short periods of time. The area is often dominated by cold continental Arctic air masses and easterly-moving maritime Arctic air masses during the winter, resulting in snowfall. Monthly precipitation varies from a low of 34.9 mm to as much as 69.3 mm.

Temperatures range from an average maximum of 24°C to an average minimum of -11°C. Temperature and air inversions can occur in winter and fall, respectively.

Pacific frontal systems produce strong south to southwesterly upper-level winds, especially during winter months. Valley winds are governed by valley orientation while mountain top winds are more closely associated with geostrophic winds. In general, the higher the elevation the greater the precipitation values and mean wind speed, and the lower the mean temperature.

Operations are conducted year-round.

5.3 Local Resources and Infrastructure

Coal mining activity has been ongoing in the region for many years, and the infrastructure is well developed, including all-weather roads and railroads.

Mining personnel are recruited from across Canada, with most living in the Elk Valley, within the towns of Elkford, Sparwood or Fernie.

Additional information on Project infrastructure is included in Section 18.

5.4 Physiography

The operations are situated in the Kootenay Region of the Northern Rocky Mountain physiographic province, within the Elk River valley. Elevations range from about 1,115 masl in the valley floor to about 2,085 masl at the upper extent of the mine.

Vegetation varies with elevation; valley bottoms are dominated by Rocky Mountain Douglas fir, lodgepole pine and trembling aspen. Mountain slopes typically host Engelmann spruce, lodgepole pine, western larch and trembling aspen. Higher elevations are treeless.

The major river system in the Project area is the Elk River, which follows an irregular course with many side channels. The river occupies a broad floodplain that is approximately 1 km wide but constricted in places by alluvial fans.

The main area of the existing operation is about 13.5 km north-to-south and 4 km east-to-west. It is bounded by the Elk River to the west, Erickson and Harmer creeks to the east, and Michel Creek to the south. Highway 3 follows Michel Creek along the western and southern sides of the Project area.

5.5 Comments on Section 5

In the opinion of the QP:

- The existing local infrastructure, availability of staff, methods whereby goods are transported to and from the Project area are well-established and well understood by Teck, and can support the declaration of Coal Resources and Coal Reserves, and supports the mine plan;
- There are surface rights to support the mine plan (refer to discussion in Section 4.4);
- Within the mineral leases, there is sufficient area for the infrastructure that supports current operations, and infrastructure requirements that may be needed for future mining operations (refer to discussion in Section 18).

Operations are conducted year-round.

6.0 HISTORY

6.1 Exploration History

A summary of the exploration and ownership history is provided in Table 6-1.

6.2 Production

The production since mine start-up is provided in Table 6-2.

Table 6-1: Exploration History

Year(s)	Operator	Ownership Comments and Exploration and Development Work Undertaken
1886	Geological Survey of Canada	Identified the coal measures in the Elk Valley
1897–1966	Various	Underground mining operations commenced. Crow's Nest Pass Coal Company was established to mine coal in the East Kootenay. Coal and surface rights covering about 110,000 acres was granted to the Crow's Nest Pass Coal Company in 1898. No record of exploration activities prior to 1965. 1965 exploration activities on record consist of reverse circulation drilling and rotary drilling. Exploration focused on supporting underground mining. The Crow's Nest Pass Coal Company changed its name to Crowsnest Industries in 1965.
1967	Kaiser Steel Corp	Acquired the mining rights to a selected two-thirds of the Crowsnest Industries' land holding. Kaiser Steel Corp. was incorporated as a BC company in 1968, and in 1969, underwent a name change to Kaiser Resources Ltd. (Kaiser Resources). Completed rotary drilling.
1968–1979	Kaiser Resources	Developed a large strip mine on Harmer Ridge above Michel/Natal known as the Balmer area. Processing plant was commissioned in 1969 and theoretically had an estimated design capacity of over 8 Mt/a. Completed reverse circulation (RC) drilling, rotary drilling, diamond drilling and bulk sampling from various adits to support the development of Harmer Ridge as the Balmer Mine.
1980	B.C. Resources Investment Corporation	Kaiser Resources was purchased by B.C. Resources Investment Corporation, and the merged entity was renamed Westar Group Limited, with the coal division being assigned to a new company, Westar Mining Limited (Westar Mining).
1980–1992	Westar Mining	Mining continued until October 1992, when Westar Mining filed for court protection from its creditors under the Companies' Creditors Arrangement Act, a Canadian business reorganization law. Focused on mine support using RC, rotary and core drilling.
1983		Natal Ridge approved under Mines Act Permit C-2. Auger drilling conducted for bulk samples.
1984		First phase of Baldy Ridge approved
1988		Second phase of Baldy Ridge approved
1992	Teck Corporation/Teck Cominco/EVCC	On December 9, 1992, Teck acquired the assets of the Balmer property including all fixed infrastructure related to the Balmer Mine, mine equipment owned by Westar, and clear title to a portion of the original Kaiser Resources lands where coal mining rights had been acquired from Crowsnest Industries. Elkview Coal Corporation was formed to operate the newly renamed Elkview Mine as a wholly-owned subsidiary of Teck. All approvals previously issued to Westar Mining - Balmer Operations were considered to be in good standing.
1992–2007		Rotary drilling in support of operations.

Year(s)	Operator	Ownership Comments and Exploration and Development Work Undertaken
1993		Made an application to resume operations under Section 10(1) of the Coal Act on April 26, 1993. Goddard Creek Coarse Refuse Dump approved.
1995		Lindsay Creek Coarse Refuse Dump approved.
1996		Environmental Assessment Certificate (EAC) issued for the development of the Bodie Spoil.
2003		Five mines in the Elk Valley , as well as the Cardinal River Operations near Hinton, Alberta, were consolidated into one entity known as the Elk Valley Coal Partnership (Elk Valley Coal), and was a partnership between the Fording Canadian Coal Trust (65%) and Teck (35%).
2004		West Fork tailings storage facility approved under <i>Mines Act</i> Permit C-2
2005		Elk Valley Coal contributed the Elkview operations to the Elkview Mine Limited Partnership for a 95% partnership interest and subsidiaries of Nippon Steel & Sumitomo Metal Corporation and POSCO each acquired a 2.5% limited partnership interest.
2008		Teck purchased Fording Canadian Coal Trust and Elk Valley Coal became an indirect wholly owned subsidiary of Teck (later named Teck Coal Partnership). Commenced a mine permit application for the development of Baldy Ridge.
2008–2022	Elkview Mine Limited Partnership	RC drilling is the main type of drilling completed. Large diameter reverse flood trials were conducted in 2008 with limited success. Large diameter core (9 inch and 8 inch [22.9 and 20.3 cm]) was drilled from 2018–2022. Six inch (15.2 cm) large diameter core was trialed in 2019 but was unsuccessful.
2016		Baldy Ridge Extension (BRE) project Environmental Assessment (EA) was approved; construction on this project started in December 2016, with operations commenced in January 2017
2021		Cedar North in-pit backfill extension approved.

Table 6-2: Production History

Year(s)	Average Annual Product Coal (million tonnes)
1970–1974	3,901
1975–1979	5,377
1980–1984	5,597
1985–1989	5,310
1990–1994*	3,395
1995–1999	2,889
2000–2004	5,283
2005–2009	4,919
2010–2014	5,265
2015–2019	6,758
2020	6,289
2021	8,091
2022	5,215

Note: *Teck acquired ownership of Elkview Operations in 1992.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The southeastern portion of the Canadian Cordillera contains a complex history of plate tectonic processes and terrane accretion (Figure 7-1).

Foreland basin subsidence during the Mesozoic resulted in a coarsening-upwards sequence of deep-water basin to coastal plain sandstones, shales, and coals being deposited adjacent to the uprising Canadian Cordillera in the Jurassic to Early Cretaceous. The Fernie Formation and Kootenay Group represent the first of a series of coarsening-upwards clastic wedges that were deposited in the foreland basin. Thrust faulting resulted in the wedges propagating to the east, and structural repetition of the coal seams within the Mist Mountain Formation of the Kootenay Group (Katay, 2017). Coal forms between 8–12% of the total thickness of the Mist Mountain Formation at most locations.

The Kootenay Group sediments were affected by the late Cretaceous to early Tertiary Laramide Orogeny, which produced a number of north–south-trending thrust faults. Subsequent northerly-trending normal faults have also displaced and further divided the sedimentary units. On a local scale the geology varies from broad open synclines to tight folds complicated by thrusts that often repeat the coal section.

7.2 Project Geology

7.2.1 LITHOLOGIES

The Elkview mine is located within the Crowsnest Coalfield in the Elk Valley. The coal measures are situated within the Upper Jurassic to Lower Cretaceous Kootenay Group sediments.

From earliest to latest, the Kootenay Group includes:

- Morrissey Formation: sandstones; subdivided into the Weary Ridge and Moose Mountain Members; 20–80 m in thickness;
- Mist Mountain Formation: interbedded sandstone, siltstone, mudstone, shale and thin to thick seams of bituminous to semi-anthracite coal; 450–550 m in thickness;
- Elk Formation: interbedded sandstone, siltstone, mudstone, shale and locally thick beds of chert-pebble conglomerate and thin seams of high volatile bituminous coal; 350–450 m in thickness.

The stratigraphy within the Project area is summarized in Table 7-1 and shown in Figure 7-2. The geology within the Elkview Project area dips towards the west at approximately 20° and plunges gradually to the south at about 4–8°.

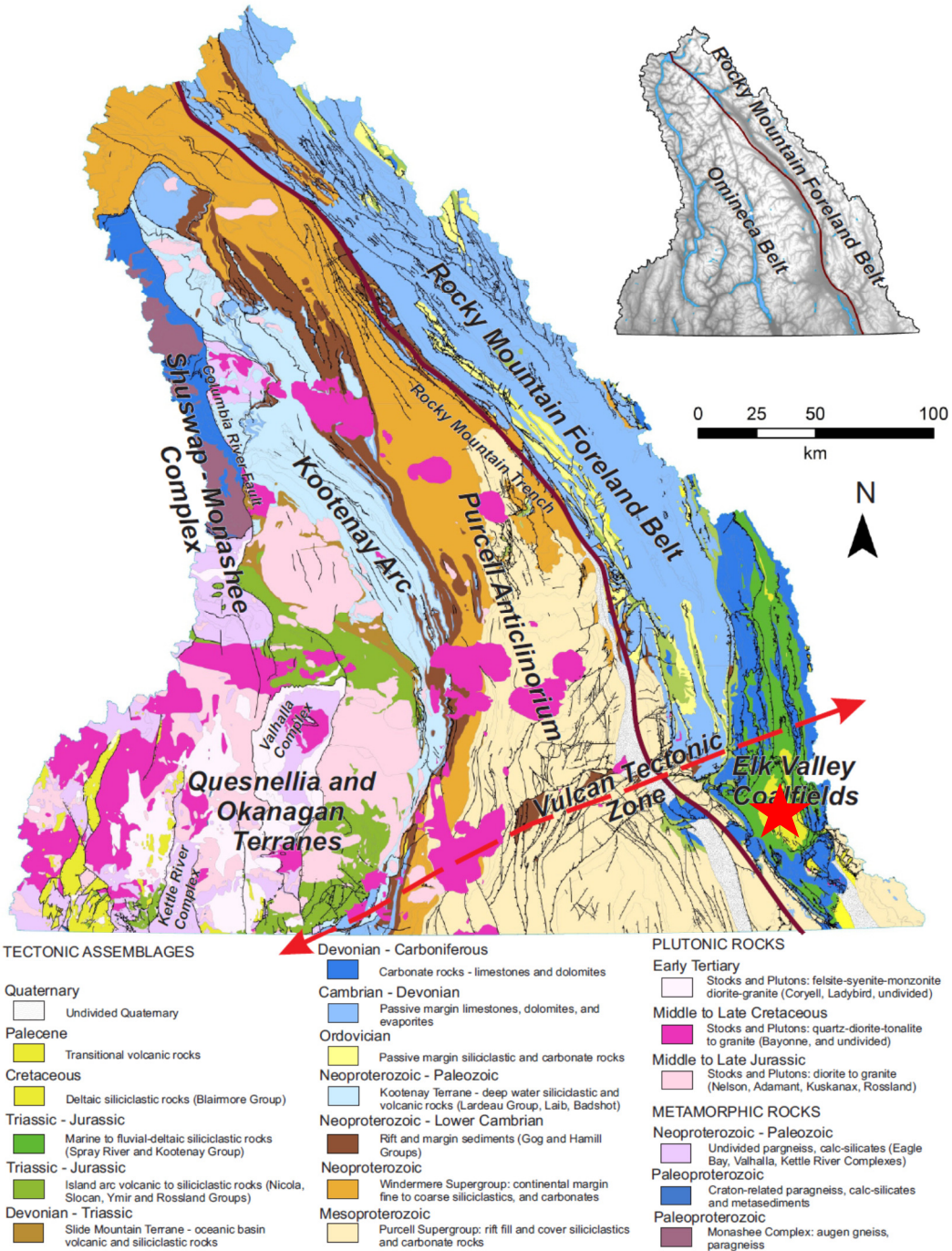


Figure 7-1: Regional Geology Plan

Note: Figure from Katay, 2017.

Table 7-1: Project Stratigraphy

Period	Litho-Stratigraphic Units		Principal Rock Types	
Recent			Colluvium	
Quaternary			Clay, silt, sand, gravel, cobbles	
Lower Cretaceous	Blairmore Group		Massive-bedded sandstones and conglomerates	
Lower Cretaceous to Upper Jurassic	Kootenay Group	Elk Formation	Sandstone, siltstone, shale, mudstone, chert pebbles	
		Mist Mountain Formation	Sandstone, siltstone, shale, mudstone, multiple coal seams	
		Morrissey Formation	Moose Mountain Member	Medium to coarse grained quartz–chert sandstone
			Weary Ridge Member	Fine to coarse grained, slightly ferruginous quartz–chert sandstone
Jurassic	Fernie Formation		Shale, siltstone, fine-grained sandstone	
Triassic	Spray River Formation		Sandy shale, shale, quartzite	
	Rocky Mountain Formation		Quartzites	
Mississippian	Rundle Group		Limestone	

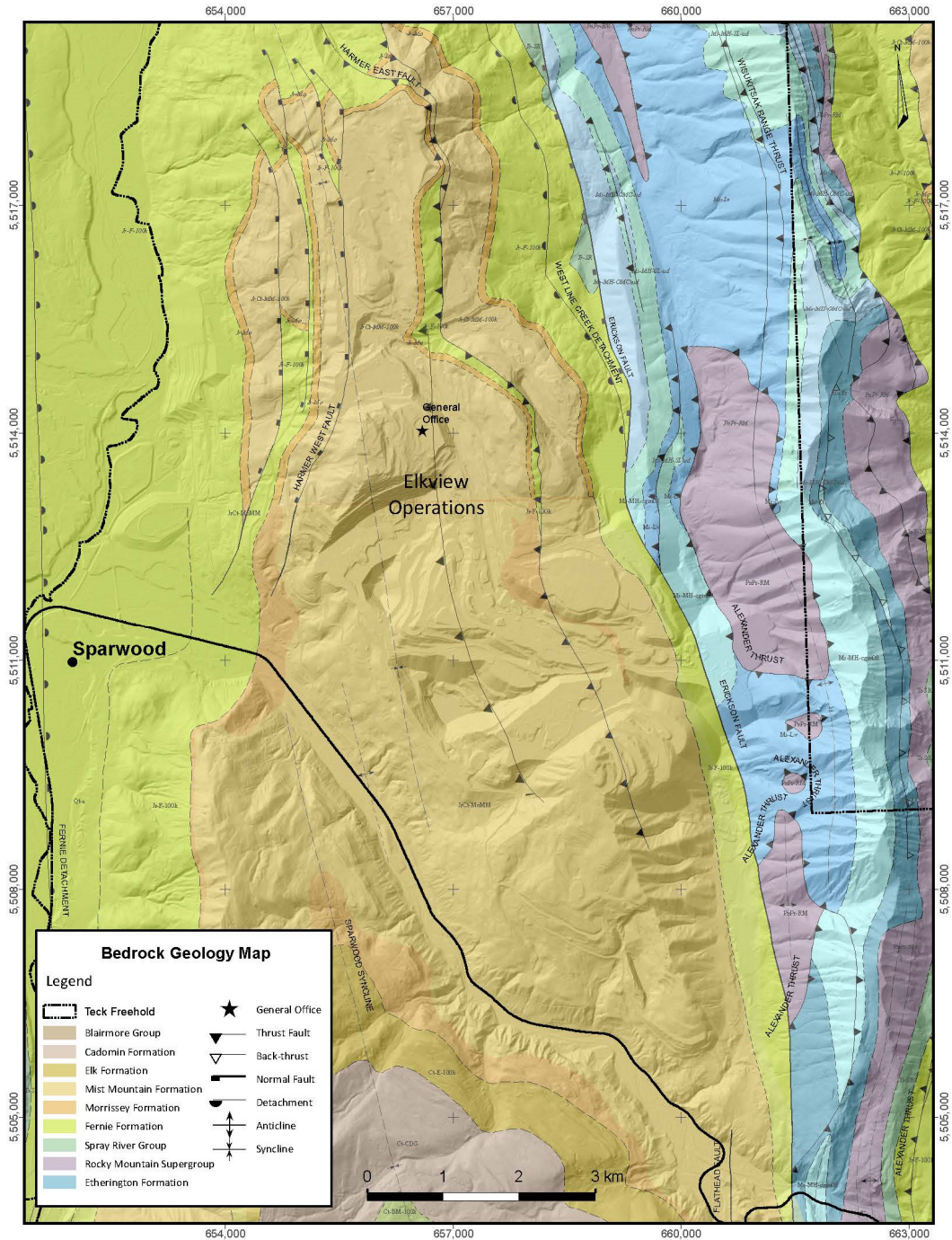


Figure 7-2: Project Geology Plan

Note: Figure prepared by Teck, 2022.

The Mist Mountain Formation contains approximately 25 coal seams of potential economic interest, consisting of medium to high volatile bituminous coal.

7.2.2 STRUCTURE

Within the coal measures, there are three structurally separated coalfields, the Elk Valley, Crowsnest, and Flathead coalfields. Elkview is situated on the northern end of the Crowsnest coalfield. The Crowsnest coalfield is bounded by the west-dipping Erickson normal fault on the east and the Bourgeau thrust fault on the west.

The major structure in the Project area is a southwest plunging syncline, the Sparwood (Michel) Syncline. Multiple thrust faults and normal faults occur throughout the Project area, mostly striking in a northwest to southeast orientation. The thrust faults generally dip west to southwest at inclinations of 20–50°. This has resulted in coal seam repeats and structural deformation and complexity along the thrust fault boundaries, by overlapping and drag folding.

The tectonic thickening of the basal 10-seam is an important factor in mine planning.

7.2.3 MINERALIZATION

The Mist Mountain Formation depth of burial ranges from surface exposures to >750 m. The coal measures on the EVO contain bituminous grade coal seams with varying volatile matter contents. The coal quality varies with depth of burial and location along the strike of the deposit. Seams may range in thickness from <1 m to >15 m.

Seams range in rank from high to low volatile bituminous and are numbered from 10 at the base, upwards to 1, with additional seams A through D at the top of the 600 m thick stratigraphic column. All mineable coal seams in Baldy, Adit and Natal Ridges are within the Mist Mountain Formation. A portion of the Fernie Formation occurs at the top of Adit Ridge.

Schematic illustrations of the coal seams in the Baldy Ridge, Adit Ridge and Natal Ridge areas are provided in Figure 7-4 and Figure 7-5. The locations of the cross-sections shown in those figures is provided in Figure 7-3.

The green lines in Figure 7-4 and Figure 7-5 are the various coal seams and the grey dotted lines that runs diagonally across and displace the coal seams are the main faults. Approximately 100 m on either side of the fault lines is the “complex” geology zone. These are the areas in which over thrust repeats of 10-seam may be found due to the thrust fault thickening, and as such, required an increased drilling density to maintain the geological assurance. Zones of complex geology pass through Baldy Ridge, Adit Ridge and Natal Ridge and are adjacent to the fault lines. About half of the deposit at EVO is classified as complex, with the remaining half classified as moderate.

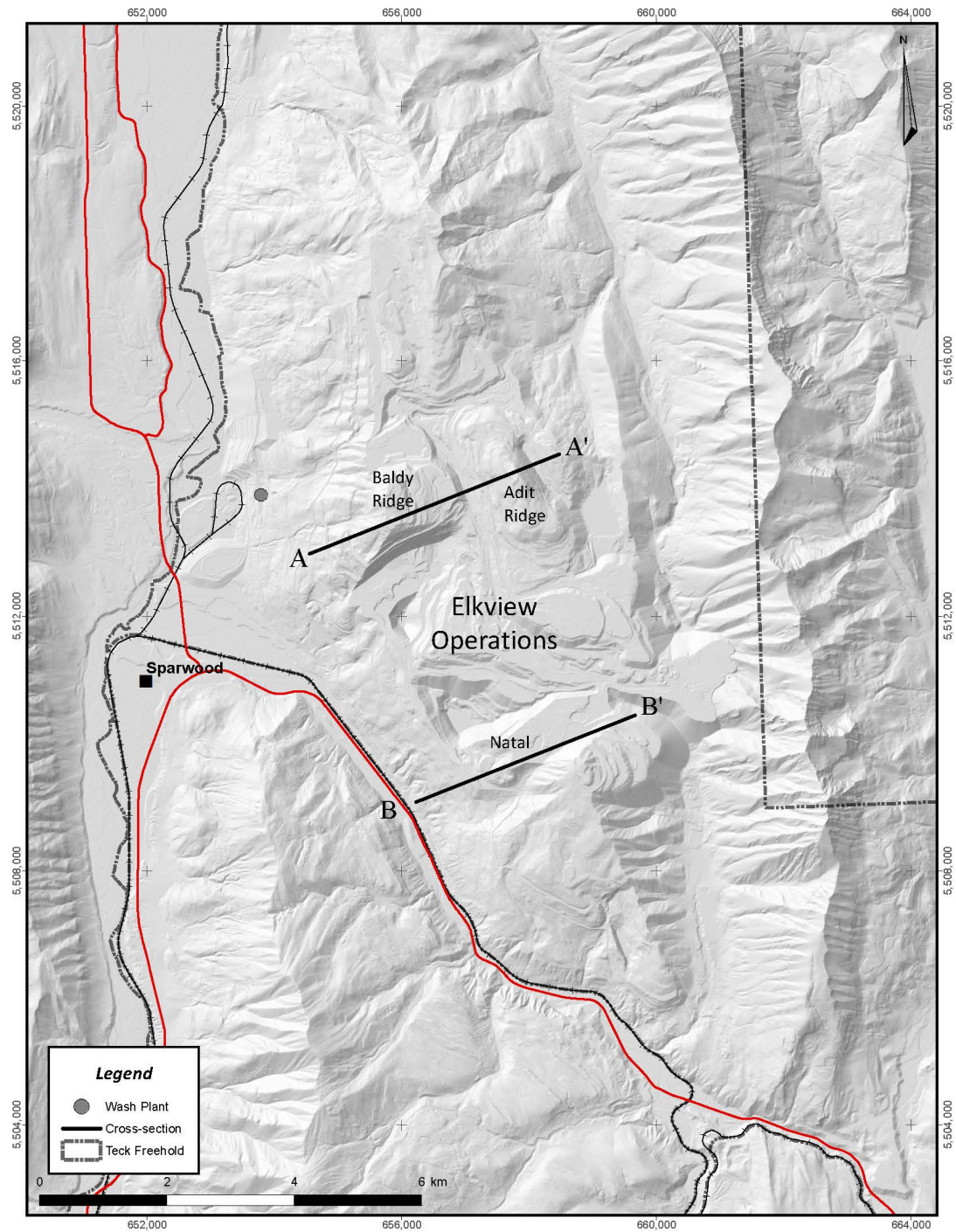


Figure 7-3: Cross Section Location Plan

Note: Figure prepared by Teck, 2022.

Sec 51550N A-A'

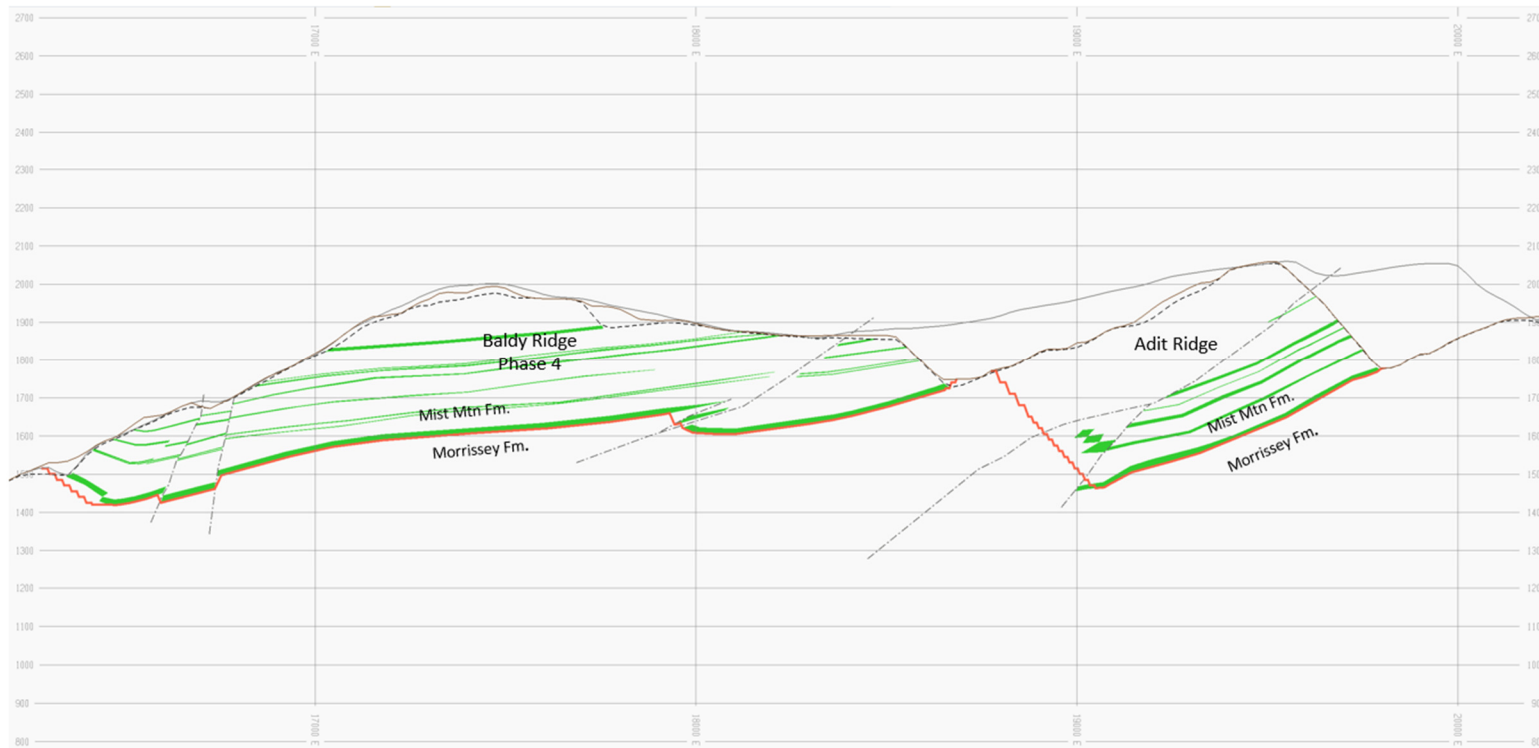


Figure 7-4: Schematic, Coal Seams, Baldy Ridge (51550N A-A')

Note: Figure prepared by Teck, 2022. Grid units are in metres. Solid grey marks major formation contacts, dotted lines show major faults, green is coal seams, brown is the current pit topography, solid black shows the original topography. Orange is the reserve pit shells, and dashed black line is the mined-out surface.

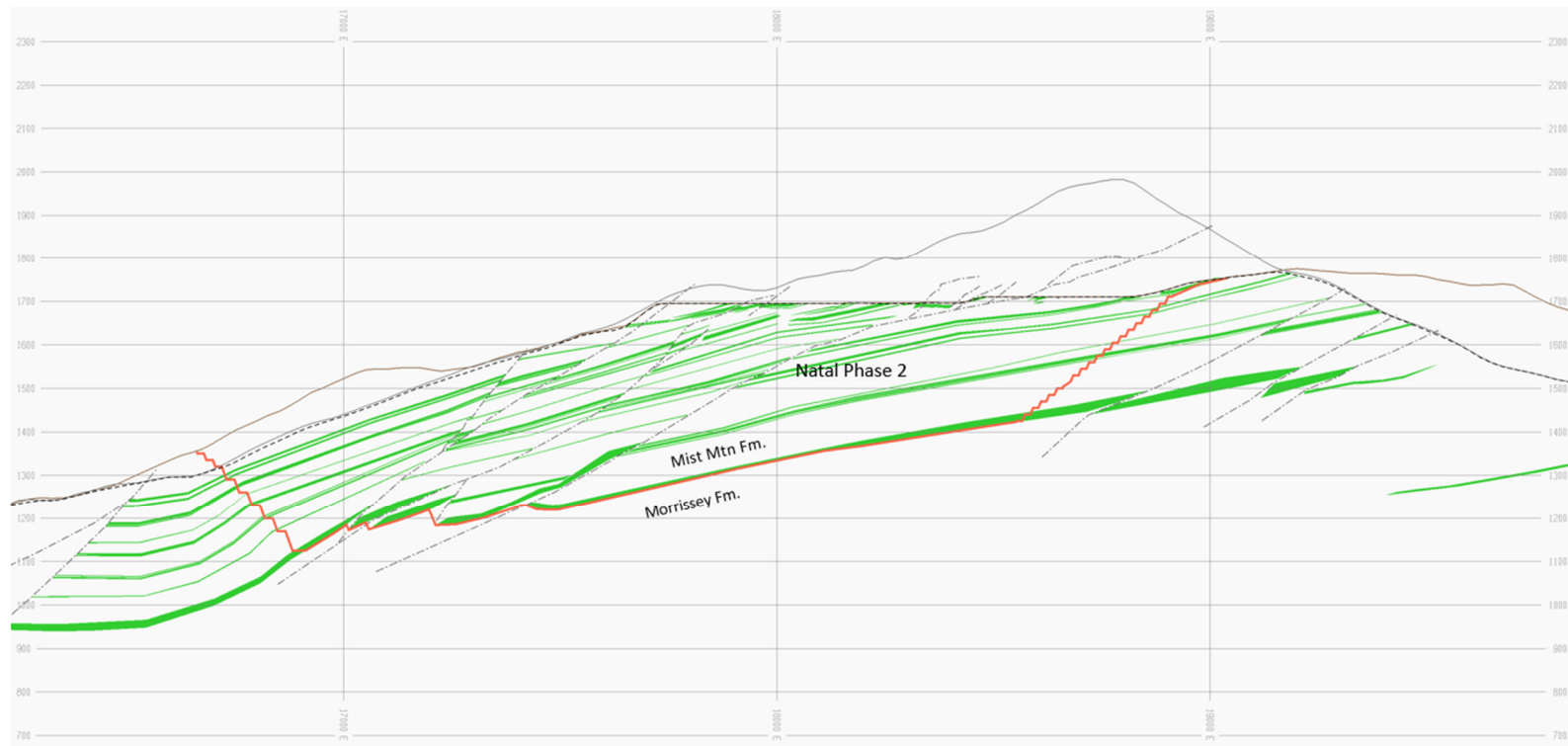
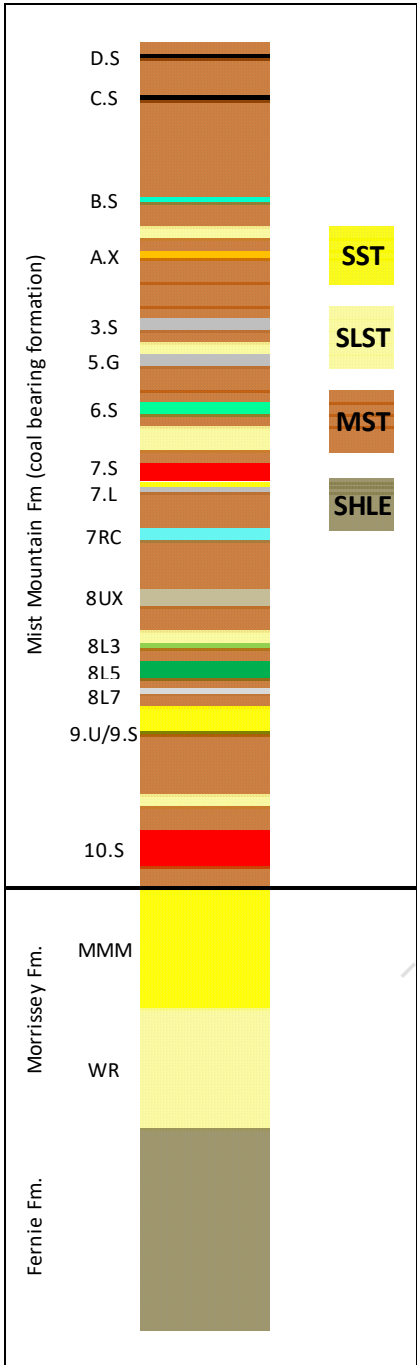


Figure 7-5: Schematic, Coal Seams, Natal (47300N B-B')

Note: Figure prepared by Teck, 2022. Grid units are in metres. Solid grey marks major formation contacts, dotted lines show major faults, green is coal seams, brown is the current pit topography, solid black shows the original topography. Orange is the reserve pit shell, and dashed black line is the mined-out surface.

Figure 7-6: Generalized Stratigraphic Column



Note: Figure prepared by Teck, 2022. Note: SST = sandstone; SLST = siltstone; MST = mudstone; SHLE = shale; MMM = Moose Mountain Member; WR = Weary Ridge Member.

EVO produces both hard coking coal and semi-hard coking coal products which are derived from the mineable coal seams:

- Hard coking coal (HCC): coke strength after reaction (CSR) 64+;
- Semi-hard coking coal (SHCC): ≤ 55 CSR ≤ 63 .

The specific quality characteristics of individual seams will determine into which of the products it will be placed. Figure 7-6 is a generalized stratigraphic column that illustrates the main sedimentary rock types and coal seams within the coal-bearing Mist Mountain Formation.

7.3 Prospects

Prospects and targets are discussed in Section 9.

7.4 Comments on Section 7

In the opinion of the QP, the understanding of the deposit setting, lithologies, and geological and structural controls on mineralization is sufficient to support estimation of Coal Resources and Coal Reserves.

8.0 DEPOSIT TYPES

8.1 Overview

Coal deposits originated as peat-forming materials that accumulated at or near their place of growth, within swamps and marshes occurring in deltaic, alluvial and lacustrine environments.

Coals that are suitable for the production of metallurgical coke are referred to as metallurgical coals. Coals that are used to fuel electric power generating plants are referred to as thermal coals. Most of Canada's metallurgical coal deposits, including EVO, are located in the Rocky Mountain Ranges of southeastern British Columbia and southwestern Alberta, and in the Inner Foothills Belt of northeastern British Columbia and west-central Alberta.

The ranks of coals, from those with the least carbon to those with the most carbon, are lignite, sub-bituminous, bituminous and anthracite. In addition to carbon, coals contain hydrogen, oxygen, nitrogen and varying amounts of sulphur. High-rank coals are high in carbon and therefore they have great heat value but are low in hydrogen and oxygen. Low-rank coals are low in carbon but high in hydrogen and oxygen content.

8.2 Deposit Type by Seam Geometry

Coal deposits are characterized by the Geological Survey of Canada as being of four deposit types, based on differences in seam geometry as a result of sedimentary processes during coal deposition, and subsequent deformation. The four types are low, moderate, complex and severe.

The coal measures in the EVO area are classified as "moderate" and "complex".

Moderate deposits have the following characteristics:

- Bedding Inclinations generally <30°;
- Characterized by broad open folds with wavelengths >1.5 km;
- Faulting is uncommon with displacements generally <10 m.

Complex deposits have the following characteristics:

- Have been subjected to relatively high levels of tectonic deformation;
- Tight folds, some with steeply inclined or overturned limbs, may be present, and offsets by faults are common;

- Individual fault-bounded plates generally retain normal stratigraphic sequences, and seam thicknesses have only rarely been substantially modified from their pre-deformational thickness.
- At Elkview the “complex” classification is used for a zone on either side of and including the main thrust faulted area. The areas outside of the faulted zone are usually less affected by structural deformation and are classified as “moderate”.

8.3 Deposit Type by Mining Method

The Geological Survey of Canada also classifies coal deposits on the basis of the probable extraction method that would be used to recover coal. Classifications include surface, underground, non-conventional, and sterilized. The coal measures in the Elkview area are classified as “surface”. Surface deposits are amenable to extraction by removal of overburden from the surface using truck/shovel, dragline or other surface mining techniques.

8.4 Comments on Section 8

The coal deposits of the EVO property are typical of those found within the Canadian Inner Foothills and Rocky Mountain areas and have been subjected to a relatively high tectonic deformation. Exploration programs that are used in this setting are considered applicable to the Project area.

9.0 EXPLORATION

9.1 Grids and Surveys

The original mining operations had a number of different survey systems, some of which were based on above ground operations, others based on underground mining operations. In recognition of the need to integrate all the systems into one grid system, the decision was made to develop a local mine grid system based on the geology of the area (orientation of the Sparwood Syncline and strike and dip of the coal to be mined). A conversion system was written to convert the mine system to UTM NAD 83 and was validated in 2012.

The topographic surface used to generate the 2022 year end Coal Reserve and Coal Resource estimate was built in MinePlan 3D software using aerial data collected from a drone flight of the Project area on November 29, 2021. The accuracy of these data is approximately ± 5 cm.

9.2 Geological Mapping

Outcrop mapping commenced in the mid-1970s by the B.C. Ministry of Energy, Mines and Petroleum. The following is a summary list of this work:

- Pearson, D.E. and Grieve, D.A., 1979: Elk Valley Coalfield (82J/2). Geological Fieldwork 1979, B.C. Ministry of Energy, Mines and Petroleum Resources, Paper 1980-1, pp. 91–96;
- Grieve, D.A. and Pearson, D.E., 1980: Geology and Rank Distribution of the Elk Valley Coalfield; in Geology in British Columbia 1977-1981, B.C. Ministry of Energy, Mines and Petroleum Resources, pp. 17–23;
- Grieve, D.A. and Price, R.A., 1987: Geological Setting of the South Half of the Elk Valley Coalfield; B.C. Ministry of Energy, Mines and Petroleum Resources, Preliminary Map 63.

Mapping completed at EVO by various previous owners since mining began in the early 1900s is no longer available due to water damage to the maps. In-pit mapping for mining, production geology is currently carried out on a daily basis by the Coal Quality Geologist, and hand-drawn and annotated onto pit and coal face photographs. Information collected includes:

- Seam thicknesses;
- Waste rock splits;
- Significant structures;
- Coal type; metallurgical vs oxidized;
- Raw ash of coal piles.

This information is used to minimize coal loss and dilution, such that no excess rock is added, and no economic coal is left behind.

9.3 Geochemical Sampling

Sampling by type and location is provided in Table 9-1.

Major seams were bulk-sampled using the adit method prior to commencement of mining. The adits were driven into the side of the mountain and intercepted the main economic coal seams to obtain samples for various analyses including quality parameters, carbonization and wash curve predictions for wash plant design.

Sampling for potentially acid generating (PAG) waste rock is collected from a representative portion of blasthole cuttings that are drilled below the basal M seam of the Mist Mountain Formation, targeting the top of the Moose Mountain Member where the PAG material is present. The analysis of PAG can be completed using a simple method called a “fizz test” using hydrochloric acid. At EVO samples are sent for more extensive analysis using the acid-base accounting (ABA) method. This analysis is completed at Bureau Veritas Laboratory in Vancouver , British Columbia.

9.4 Geophysics

The downhole geophysics performed during logging is described in Section 10.

9.5 Petrology, Mineralogy, and Research Studies

Petrographic analysis is carried out, on an as-required basis, by an independent laboratory, typically David E. Pearson & Associates Ltd., located in Victoria, British Columbia.

9.6 Comments on Section 9

In the QP’s opinion, the exploration programs completed to date are appropriate to the style of the deposit. Drill data supersedes the data collected during the surface sampling campaigns.

Table 9-1: Surface Sampling

Area	Adit	Trench	Outcrop	Total
Adit Ridge	12	0	0	12
Baldy Ridge	41	80	0	121
East Block	17	0	0	17
Natal	80	81	9	170
Total	150	161	9	320



10.0 DRILLING

10.1 Introduction

As at December 31, 2022, the EVO database contained 7,144 drill holes (590,112 m), consisting of 2,723 reverse circulation (RC) drill holes (379,924 m), 81 core holes (22,401 m), four rotary boreholes (1,197 m), 2,323 holes (125,788 m) classified as “other” (e.g., unidentified type, sonic, auger, hammer), 25 drill holes classified as bulk samples (4,642 m), 32 bulk samples from test pits and adits and 1,988 doublepass production drill holes (i.e., production holes that intercept two mining benches and approximately 30 m deep; 56,160 m).

Drill summary tables are provided as Table 10-1 (RC, core and rotary), Table 10-2 (other, bulk samples, and doublepass production) and Table 10-3 (drilling totals). Collar locations are shown in Figure 10-1.

A subset of the EVO database, extracted as of December 13, 2021 was used to populate coal seam quality data for the 3D block model used in estimating Coal Resources and Coal Reserves for the EVO 2022 LOM model. This database subset includes 7,087 drill holes (572,423 m), consisting of 2,681 RC drill holes (365,865 m), 74 core holes (20,496 m), four rotary drill holes (1,197 m), 2,323 holes (125,788 m) classified as ‘other’, 1,988 production holes (56,160 m), 17 LDC bulk samples (2,917 m), and 27 bulk samples from test pits and adits.

Drill holes in the 3D block model were filtered from the EVO database based on the following conditions:

- Model boundary limits;
- Data confidence;
- Drill holes without quality data (e.g., production holes).

There are known inconsistencies with the pre-2007 data totals, due to improper storage of historical records and subsequent loss of those records due to water damage in the late 1990s and loss of site-specific knowledge from that timeframe. Any historical data not currently available in the EVO database are not used to support resource classification or to support estimation.

Table 10-1: Drill Summary Table (RC, core, and rotary)

Year Range	Ownership	Area	RC		Core		Rotary	
			# Holes	Metres	# Holes	Metres	# Holes	Metres
1964–2008	Pre-Teck	Baldy	514	62,716	9	922	0	0
		Natal	510	67,745	23	10,745	2	423
		Adit	124	8,734	3	1,224	0	0
		Other	857	80,236	21	5,416	1	559
		<i>Subtotal</i>	2,005	219,431	56	18,307	3	982
2009 to December 13, 2021	Elkview Mine Limited Partnership	Baldy	312	53,849	17	2159	0	0
		Natal	301	67,836	0	0	1	215
		Adit	63	24,749	0	0	0	0
		Other	0	0	1	30	0	0
		<i>Subtotal</i>	676	146,434	18	2,189	1	215
Total Drilling used in Resource Estimation			2,681	365,865	74	20,496	4	1,197
December 14, 2021 to December 31, 2022	Elkview Mine Limited Partnership	Baldy	5	1,361	4	738	0	0
		Natal	12	2,304	3	1,167	0	0
		Adit	25	10,394	0	0	0	0
		Other	0	0	0	0	0	0
		<i>Subtotal</i>	42	14,059	7	1,905	0	0
All Drilling			2,723	379,924	81	22,401	4	1,197

Notes: "All areas" includes prospects. Rotary drilling includes rotary, singlewall rotary, and doublewall rotary types.

Table 10-2: Drill Summary Table (other, bulk sample and doublepass production)

Year Range	Ownership	Area	Other		Bulk Sample			Doublepass Production	
			# Holes	Metres	# Holes	Metres	# Bulk Samples	# Holes	Metres
1964–2008	Pre-Teck	Baldy	166	13,372	0	0	0	0	0
		Natal	647	34,893	0	0	0	0	0
		Adit	151	14,868	0	0	0	0	0
		<i>Other</i>	1,350	62,442	0	0	0	0	0
		<i>Subtotal</i>	2,314	125,575	0	0	0	0	0
2009 to December 13, 2021	Elkview Mine Limited Partnership	Baldy	0	0	2	266	2	904	25,634
		Natal	6	168	15	2,651	10	1,084	30,526
		Adit	3	45	0	0	0	0	0
		<i>Other</i>	0	0	0	0	15	0	0
		<i>Subtotal</i>	9	213	17	2,917	27	1,988	56,160
Total Drilling used in Resource Estimation			2,323	125,788	17	2,917	27	1,988	56,160
December 14, 2021 to December 31, 2022	Elkview Mine Limited Partnership	Baldy	0	0	0	0	0	0	0
		Natal	0	0	8	1,725	5	0	0
		Adit	0	0	0	0	0	0	0
		<i>Other</i>	0	0	0	0	0	0	0
		<i>Subtotal</i>	0	0	8	1,725	5	0	0
All Drilling			2,323	125,788	25	4,642	32	1,988	56,160

Notes: "All areas" includes prospects. "Other" includes unidentified type, sonic, auger, hammer. Bulk sampling includes all holes and meters associated with collecting bulk samples: LDC, LDRF, adit, bulk samples. Table excludes water wells (except if drilled through coal), trenches, saturated rock fill drilling, test pits, outcrop points, blastholes, production.

Table 10-3: Drill Summary Table (all drilling)

Year Range	Ownership	Area	Total Drilling Activity	
			# Holes	Metres
1964–2008	Pre-Teck	Baldy	689	77,010
		Natal	1,182	113,806
		Adit	278	24,826
		Other	2,229	148,653
		<i>Subtotal</i>	4,378	364,295
2009 to December 13, 2021	Elkview Mine Limited Partnership	Baldy	1,235	81,908
		Natal	1,407	101,396
		Adit	66	24,794
		Other	1	30
		<i>Subtotal</i>	2,709	208,128
<i>Total Drilling used in Resource Estimation</i>			7,087	572,423
December 14, 2021 to December 31, 2022	Elkview Mine Limited Partnership	Baldy	9	2,099
		Natal	23	5,196
		Adit	25	10,394
		Other	0	0
		<i>Subtotal</i>	57	17,689
All	<i>Pre-Teck and Teck Coal</i>		7,144	590,112

Notes: Database cut-off dates are site-specific. "All areas" includes prospects.

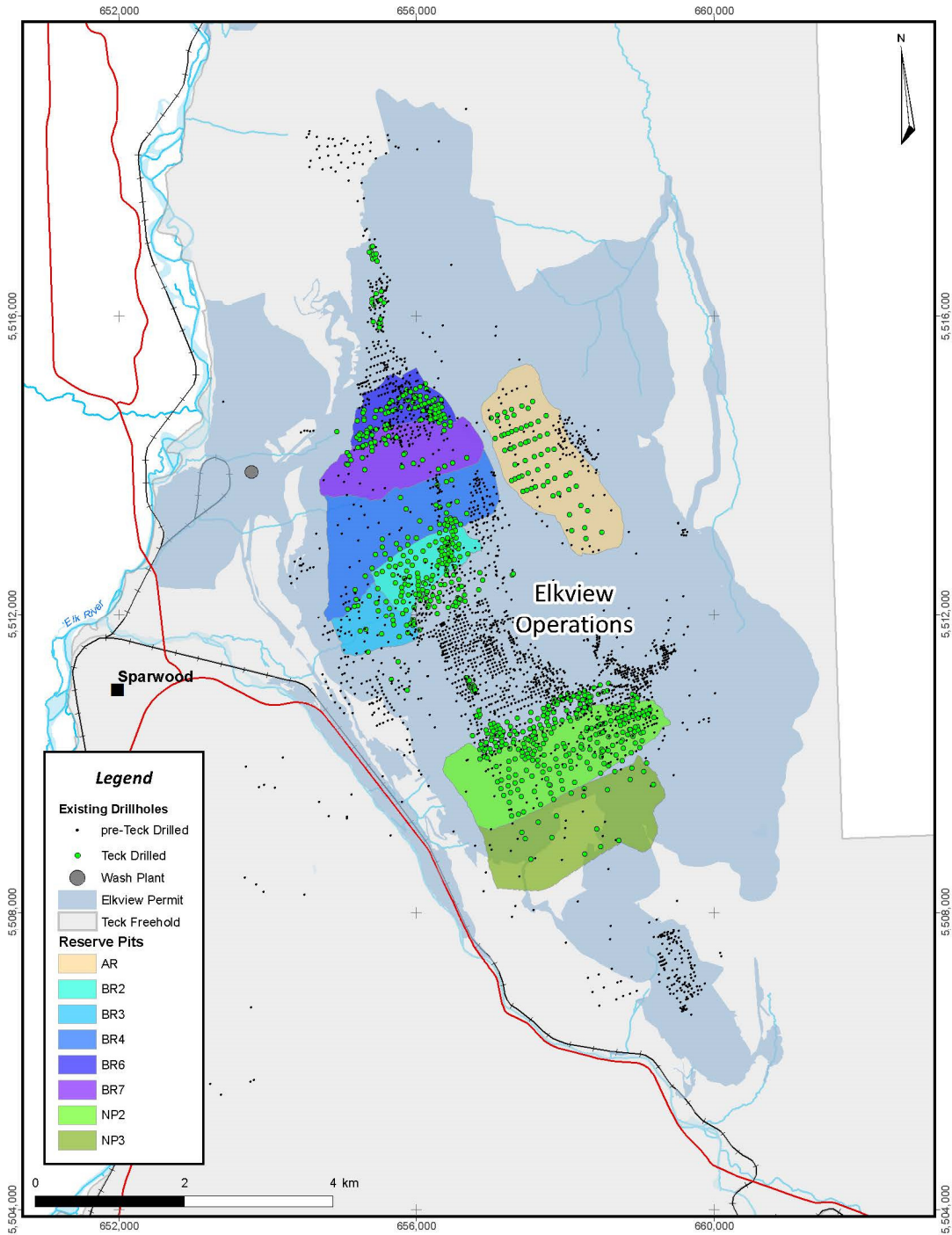


Figure 10-1: Drill Collar Location Plan

Note: Figure prepared by Teck, 2022.

10.2 Drill Methods

Exploration drilling is typically phased, as follows:

- Primary phase or step-out drilling is conducted in areas that are remote from current mining areas, on which none or limited exploration drilling activity has occurred;
- Follow-up drilling is used to assess the continuity of the coal seams, provide accurate correlations between the primary phase drill holes and supply additional coal quality information. This typically consists of RC holes spaced at 150–250 m intervals, depending on the anticipated structural complexity of the area;
- Infill drilling provides geological and insitu coal quality information at sufficient detail to allow completion of the final mine design. Infill drill holes are closely spaced, with distances at 50–100 m, depending on the structural complexity.

In-pit drilling is conducted to provide detailed and accurate coal seam structure, volume and insitu quality data for the next approximately 18–24 months of mining operations. The objective is to have drill holes intercepting the coal seam or seams along strike of the seam at an approximate 100 m spacing for areas classified as moderate and 50 m spacing for areas classified as complex.

Production drill holes are selected according to the same criteria as the in-fill exploration holes, but these drill holes are typically designed to intersect the coal seam at 25 m spacing along the seam strike.

Currently most of the exploration drilling is RC rotary drilling with centre-sample return. Some core drilling for calibration and control or geotechnical purposes is also conducted.

LDRF was historically used to collect bulk samples of seams for coking characteristic analysis. The core diameter of LDRF holes was approximately 0.5 m and required a RC pilot hole 5–6 inches in diameter. A hammer bit was used to ream the pilot hole to the top of the coal seam, at which point a Mill bit was used to retrieve the coal sample. The depth for sample collection was limited to approximately 100 m for this sample recovery method. The LDRF drilling method produced bulk samples of highly variable quality and is superseded by LDC. This method was tried at EVO in 2008 but was not found to be successful.

LDC drilling involves hammering with a 230 mm drill bit and casing, through the rock above the coal seam to be sampled. Once the coal is reached, the bit is changed, and the coal is cored and recovered intact. Core is placed in core boxes with depth marker blocks added. The core is photographed, logged and a subsample taken to have a secondary laboratory confirm proximate results. A 500 kg clean coal sample is needed for coke testing which is calculated by applying the expected seam yield to the planned total raw coal volume obtained at the drill site. To achieve the necessary clean coal mass, it can require multiple holes cored next to each other at the sample location. The cores are combined into one large sample at the Birtley Laboratory, prior to being dispatched to Hazen Research Inc. (Hazen) for washing, and then the

Canadian Centre for Mineral and Energy Technology (CANMET) Energy Technology Centre for coke testing.

10.3 Logging and Handling Procedures

10.3.1 GEOLOGICAL LOGGING

Geological logging is done on all core samples collected from the LDC (230 mm core) and HQ (152 mm core) diamond drilling. The information collected from the core logging includes:

- Lithology identification (coal and rock types) and characteristics;
- Recovery estimates;
- Seam quality sample collection;
- Structural identification.

The coal seam data are stored in an acQuire database, additional information is stored in an Excel spreadsheet.

An important goal of the drilling program is to identify the boundaries between physically oxidized coal (known as “bloom”) and chemically oxidized metallurgical coal (known as “oxide”) and unweathered coal or “met coal”. Teck determines the boundary between the grades of oxidized coal using several information sources, including historical adits, the alkali extraction tests on RC coal cuttings, in-pit drill/blast hole observations and in-pit mapping. Oxidized metallurgical coal is generally found within 16 m of the surface. Occasionally oxidized coal is found down dip of normal faults due to oxygenated water seeping along fault planes and oxidizing coal seams deeper down below the normal weathering depth.

10.3.2 GEOPHYSICAL LOGGING

EVO has a standardized practice for geophysical logging.

All drill holes are geophysically logged, where possible, using a suite of geophysical logging tools. This includes downhole deviation, gamma-neutron through the drill pipe when the hole is unstable and there is a chance of caving, gamma-density and caliper. Other optional tools would be resistivity and dipmeter logs. Logging tools such as acoustic and optic televiewer are only performed if additional information is needed; typically, these are undertaken as required for geotechnical purposes.

Geophysical log data, sample data and driller’s seam picks are used to determine seam intercepts. If geophysical logs are not available, the driller’s picks are used, but with a lower assigned level of confidence.

10.4 Recovery

Drilling contractors have been using a portable cyclone with a shaker table and 325-mesh screen to maximize recovery of coal samples.

Recoveries on RC samples are calculated in the acQuire database and are based on sample length, drill hole diameter and specific gravity of the sample. The historical average recovery for RC samples has been >85%.

10.5 Collar Surveys

Collar surveys are performed as follows:

- Production drill holes: All collar locations are surveyed with the onboard drill global positioning system (GPS) instrument, or less frequently collected with a real time kinetic (RTK) GPS Rover. Locations are automatically entered into the acQuire drill hole database;
- Exploration drill holes: All collar locations are surveyed in EVO Mine Grid with an RTK GPS, and locations are entered into the acQuire drill hole database.

10.6 Down Hole Surveys

All exploration drill holes are surveyed down hole as part of the standard suite of geophysical tools used. This is completed by a third-party contractor.

10.7 Drilling Since Database Close-Out Date

The close-out date for coal resource estimation was December 13, 2021. A total of 57 drill holes (17,689 m) were drilled since the database closeout date, including:

- 42 RC drill holes (14,059 m);
- Seven core holes (1,905 m) for geotechnical purposes;
- Eight LDC drill holes (1,725 m) for coking coal samples;

No doublepass production drill holes have been entered since 2021.

The QP considers that this new drilling should have no material effect on the overall tonnage and coal quality estimates, but represents minor upside potential for Coal Resource estimation when incorporated into an updated model.

10.8 Sample Length/True Thickness

Seam true thickness is calculated based on drilled thickness, deviation surveys and dip information. On average, the true seam thickness is less than the drilled seam thickness, depending on the local orientation of the coal seam orientation and the angle of the drill hole.

10.9 Comments on Section 10

In the QP's opinion, the quantity and quality of the lithological, geotechnical, geophysical, collar and downhole survey data collected in the exploration, infill and production drill programs completed are sufficient to support Coal Resource and Coal Reserve estimation.

There are no material drilling, sampling or recovery factors known to the QP that could materially impact the accuracy and reliability of the results, and therefore impact the Coal Resource and Coal Reserve estimation.

11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 Sampling Methods

11.1.1 RC DRILL HOLES

The RC sampling protocol consists of the following:

- The drill supervisor is supplied with a cross section illustrating the drill hole profile including expected coal seams, depths, potential faults, seam repeats and the final estimated drill hole depth
- When the coal seam is reached, down feed must be stopped immediately, and the depth recorded to the nearest 0.1 m. This depth is the start point for the first 0.5 m sample;
- Drilling of the coal seam and sampling every 0.5 m interval will take place. All material collected on the screen from the 0.5 m interval is bagged, and the sample tagged;
- When the bottom of the coal seam is reached, a final 0.5 m interval below the bottom of the coal seam is drilled. The material is bagged regardless of its composition (i.e., shale, siltstone, and sandstone).
- Sample bags are transported by the drilling contractor to a designated storage area at the EVO laboratory and placed into a sample bin which is labelled with the drill hole number.

The 0.5 m interval is the maximum sample interval. The standard protocol is that if, within the 0.5 m interval the sample changes from coal to rock, or vice versa, the rock and coal must be bagged separately. The samples are collected on a 325-mesh screen on a portable shaker table and bagged in plastic or cloth bags depending on dry or wet coal respectively.

11.1.2 CORE HOLES

Core is downloaded from the core tube into a core tray lined with plastic. No in-field washing is conducted. Core depth markers are placed in the core box, at the end of each cored interval. Core boxes are lidded, then transferred to the logging and sampling facility.

During the logging process, care is taken in handling the core, in particular when washing the drill mud from the core so as to keep disturbance to a minimum. Samples are taken in 0.5 m increments for each coal seam, and placed into separate bags, which are stored in such a way as to minimize sample disturbance prior to shipment to the laboratory.

11.1.3 BULK SAMPLES

Bulk samples are required to obtain washability and carbonization data for coal seams from active and future mining areas to check and validate the coal quality database and reduce risk.

Bulk samples can be collected via in-pit trench, stockpile, test pit, or adit sampling, or from LDC and LDRF drilling. The current preferred methods are trenches, stockpiles and LDC drilling. The objective is to obtain an unoxidized, representative sample of the coal seam in a manner that best reflects the method by which the seam will be mined; i.e., if the seam is to be mined by open pit truck and shovel, all rock partings of ≤ 0.5 m vertical thickness are included in the sample. It is also dependent on the coal seam thicknesses above and below the parting. Thicker partings are generally excluded. A minimum sample size of 1–5 t is required for pilot plant washability.

11.1.4 POTENTIALLY ACID GENERATING MATERIAL SAMPLING

Samples are taken from blasthole cuttings of waste rock stratigraphically below the M seam, which is the basal seam in the Mist Mountain Formation, to delineate areas containing PAG and non-acid generating (NAG) materials. Samples are typically 1–5 kg in size. The samples are split in three with a reserve retained at the EVO laboratory, one third sent to GWIL in Calgary for “fizz testing” and the remaining third sent to Bureau Veritas for ABA testing. EVO and Teck Coal are currently investigating and trialing the option of replacing the “fizz test” with portable X-ray fluorescence analyses.

11.2 Density Determinations

Density estimation and assignment to the model blocks from drill holes is completed using a specific gravity formula. This formula estimates the specific gravity (SG) value of coal based on the ash value results received from the laboratory. Laboratory determinations use ASTM D167 “Standard Test Method for Apparent and True Specific Gravity and Porosity of Lump Coal”.

The formula has been verified for use at EVO through analysis of a number of samples that compared actual SG values determined in the laboratory against SG values determined using the SG formula.

SGs are calculated on a block-by-block basis using interpolated and calculated ash values. The calculation is:

- $SG = 102 \div (80 - (0.5 * ash))$.

11.3 Analytical and Test Laboratories

Laboratory information, where known, is summarized in Table 11-1.

Table 11-1: Sample Preparation and Analytical Laboratories

Laboratory	Purpose	Independent	Accreditations
BC Coal Laboratories (unknown location)	Coal sample preparation, coal analysis	Unknown	Unknown
EVO Central Laboratory, Elk Valley Coal Corporation (EVCC) Central Laboratory (Sparwood, BC)	Coal sample preparation, coal analysis	No	No. Follow ASTM procedures for coal analysis.
ALS Global (Calgary, AB)	Coal sample preparation, coal analysis	Yes	Not recorded.
Birtley and Gwil Industries (Gwil) (Calgary, AB)	Coal sample preparation, coal analysis	Yes	Vanguard Solutions Proficiency Testing Program
Bureau Veritas (Burnaby, BC)	Metals leaching and acid rock drainage sample preparation and analysis	Yes	ISO 17025:2005
Canadian Centre for Mineral and Energy Technology (Canmet) (Ottawa, ON)	Coal sample preparation, coke analysis	Yes	ISO 17025:2005 application in progress.
Hazen Research Inc. (Hazen) (Golden, CO)	Coal sample preparation, coal analysis, pilot plant bulk analysis	Yes	State and Environmental Protection Agency credentials.
Pearson & Associates Ltd. (Victoria, BC)	Coal sample preparation, coal analysis, petrography	Yes	Petrographers accredited by International Committee for Coal and Organic Petrology

The Elkview Central Laboratory was used as the principal laboratory for coal analysis from 1996 onward. The laboratory focuses on sample preparation and mini-wash analysis. External laboratories such as Birtley and Gwil Industries (Gwil) and Pearson & Associates are primarily used for extended clean quality analysis such as mineral ash analysis and petrography, respectively. Date ranges when specific laboratories were used are not known for much of the EVO history. The Hazen Research Inc. (Hazen) and Canadian Centre for Mineral and Energy Technology (Canmet) Energy Technology Centre laboratories are primarily used to process LDC samples for coking analysis.

11.4 Sample Preparation and Analysis

Collection of samples is carried out by the drill contractor and samples are delivered directly to the secure sample storage area adjacent the Elkview Central Laboratory. Samples are securely stored until either the analyses performed by the Elkview Central Laboratory are complete, or the samples have been shipped to an external laboratory.

All sample collection and processing are regularly evaluated by Teck Coal geologists.

11.4.1 SAMPLE PREPARATION

EVO samples are analysed by the Elkview Central Laboratory. The samples are delivered to the laboratory by the drilling contractor. Sample intercepts or ply samples are recorded from the sample tag in each bag. Each increment is weighed and recorded. Samples are dried. Approximately 500 g is pulverized and used for ash analyses and free swelling index (FSI) analyses.

11.4.2 ANALYSIS

Proximate analysis and rheological testing are completed at the Elkview Central Laboratory. Petrography and mineral ash analyses are conducted by third-party laboratories.

Ply Sample Ash Content

Results of ply sample ash analyses are sent to an EVO geologist for review. The geologist usually selects contiguous samples within the coal seam sequence which contain raw ash of 50% on an air-dried basis (adb) or less and requests a composite analysis of these intervals which are then defined as “coal”.

Raw Composite Sample Analysis

The raw composite sample is analyzed for ash, volatile matter, inherent moisture, fixed carbon (by difference), FSI and sulphur on an air-dried basis.

Clean Composite Sample Analysis

The clean composite sample is created from a mini-wash test at 1.35 SG and 1.55 SG and analyzed for ash, volatile matter, inherent moisture, fixed carbon (by difference), FSI, sulphur and P₂O₅ on an air-dried basis.

11.5 Quality Assurance and Quality Control

The Elkview Central Laboratory sets out the methods to be used when preparing and analyzing samples in the laboratory following ASTM standards.

RC sample collection is audited when appropriate during active RC drilling programs, using a pre-set checklist. A digital record of the audit is retained as part of the quality assurance and quality control (QA/QC) documentation.

A selection of raw composite samples is split (minimum of 5% or 1:20) by the primary laboratory. The originals are assayed as per site requirements. The raw check samples are shipped to a secondary (umpire) laboratory to have raw proximate analysis performed. The primary laboratory that performs the SG mini-wash and analysis on the clean product will ship a selection of split clean coal samples (minimum of 5% or 1:20) to the secondary laboratory to have clean proximate analysis performed. Check samples assayed as part of the QA/QC program are plotted against the regular samples. The minimum qualities compared include ash and volatile matter. As required, Teck Coal geologists, will meet with the primary laboratory upon completion of the check samples and assessment of the QA/QC results, to review the results of the QA/QC program for exploration coal samples. Corrective actions and any process improvement ideas will be documented and implemented for future drilling programs.

Additional QA/QC checks include:

- The weight of ply samples, as reported from the laboratory, is uploaded into acQuire. The weight of each sample, in combination with the ash of each sample and the drill hole diameter, are used to calculate the theoretical recovery of each interval within acQuire;
- The ash content of intervals is assessed against the geophysical density logs of the RC drill hole. The “Depth Adjustment Tool” is used to view variable adjustment % and guide decisions on compositing. The ash content of raw composites is compared using calculated raw ash content of the composite samples (average of ply samples) versus the laboratory-reported ash of the composite samples, checking for obvious errors.

11.6 Databases

Drill hole collar data, associated seam intercepts, seam quality and deviation survey data are stored in the acQuire database.

Data are loaded directly from logging software, survey companies, or using set importing templates that load the assay data directly from MS Excel worksheets sent by the laboratories. This minimizes any transcription errors.

As data returns from the laboratory, before it is loaded to acQuire, a visual check is done of the qualities to ensure no obvious outliers are present. If there is something unusual, a request is sent to the laboratory for reanalysis. Random visual checks are then completed on screen comparing the laboratory data to the data imported into acQuire. The same steps to select composite samples and laboratory tests are also followed with each drill hole.

The database is regularly backed up, using Teck protocols. All original logs and laboratory reports are stored securely on the network. Historical data were digitally scanned and are also stored on the secure network.

11.7 Sample Security

Special security methods for the shipping and storage of coal samples are not commonly employed, as coal is a relatively low-value bulk commodity.

11.8 Sample Storage

Raw and clean seam composite coal samples are kept by the analytical laboratories for a minimum of one year.

11.9 Comments on Section 11

There are no material issues with the sample preparation, security, and analytical procedures known to the QP that could materially impact the accuracy and reliability of the results, and therefore impact the Coal Resource and Coal Reserve estimation.

12.0 DATA VERIFICATION

12.1 Internal Data Verification

The process used to ensure accurate geological data is covered in several training documents at EVO to ensure repeatability between the different geologists compiling the data. The data verification begins with a check of the collar coordinates of each hole against the planned location. Both the planned and actual locations are laid out and recorded with high precision GPS equipment in the field. Any deviation on holes is recorded on tools provided by Century Wireline Geophysical, the contract company generally used to produce the geophysical logs. Deviations are checked visually against surrounding holes later in the process, once the data are in the acQuire database.

Once the locations are verified by the geologist, the logs are picked following set protocols. The rules regarding how a gamma-density log has the seam contacts picked are governed by documentation and training to ensure that all geologists are picking logs in the same manner. Once the coal contacts are picked on each geophysical log, the contacts and collar data are entered into the acQuire® database by the geologist running the exploration program.

The Senior Geologist Supervisor or their delegate reviews the coal contact picks for accuracy in the database. The interpretation of any new drill holes entered into the existing model is also double-verified.

Analytical data from the laboratory are evaluated for anomalies and atypical results, generally using geostatistical software. Any data that appear erroneous are reanalyzed by the laboratory to check for accuracy.

An important step in data accuracy and repeatability is that the laboratories and the geologists use the same procedures for each exploration drill hole. There is also a document that sets out all of the steps required to build a geological model, to ensure separate model builds are accurate and comparable.

Once per year, as a minimum, Teck Coal geologists visit the primary laboratory and witness aspects of sample handling and sample analysis.

12.2 External Data Verification

Marston Canada Ltd (Marston) performed data verification in support of a technical report on the Project in 2008. Marston noted no significant issues with the data available for estimation support.

12.3 Verification Performed by Qualified Person

The QP performed the following data verification checks:

- The QP leads and supervises the EVO geology team as the Senior Geologist Supervisor. The annual exploration work is usually managed by the Senior Geologist Supervisor or their

delegate with support of other site geologists who conduct and monitor both the in-pit and ex-pit exploration programs. In that capacity the QP or their delegate inspect the field activities including drill pad and road construction, drilling operations including coal sampling. The geological team is responsible for sampling, data collection, QA/QC, geological interpretation and modeling. The QP or their delegate frequently have discussions with the geology team in relation to program execution and results.

In the QP's capacity as performing Coal Reserves and Coal Resources oversight, the QP meets at least monthly, or more frequently, with the geology, mine and engineering staff to discuss the following:

- the 2022 exploration results and the 2023 exploration program (planning in progress);
- the EVO modeling process including changes in modeling parameters;
- the status of the action items stemming from the internal and external audits;
- current year mine plan and life of mine plans. This is supported by regular site inspections of the mine operations.

Additionally, the QP reviews, edits and approves the EVO five-year drilling plan, which was most recently undertaken for 2022.

The QP has performed site visits, as outlined in Section 2.4.

12.4 Comments on Section 12

The checks performed by Teck Coal and EVO geologists, including the continuous QA/QC checks conducted by the database administrator and EVO geologists on the assay data and geological data are in line with or above industry standards for data verification. These checks have identified no material issues with the data or the EVO database.

The QP has performed site visits, as outlined in Section 2.4.

As a result of the data verification, the QP concludes that the EVO data and database are acceptable for use in Coal Resource and Coal Reserve estimation and can be used to support mine planning.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

The bituminous coal seams at EVO are blended to produce coal with consistent quality. Blending is accomplished at the hopper and breaker by combining coal from several stockpiles. Each stockpile contains coal from different seams with similar quality. Only 10 seam and 7 seam oxidized coal is stockpiled for potential use in pulverized coal injection, all other oxidized coal is treated as waste material. The LOM plan includes the use of coal of selected quality by block as it is released during the production schedule. This determines the overall quality of the products, and to account for changing quality of the coal as the mine advances. Items covered in the LOM include:

- Annual metallurgical coal release by seam;
- Annual coal release by pit;
- Metallurgical coal produced by product
- Plant yield;
- Product qualities
- Release and resulting blended component qualities.

13.2 Metallurgical Testwork

In addition to coal quality data collected from the RC samples as discussed in Section 11 additional drilling of LDC holes supplements quality information collected for future pits. The coal seam samples obtained from this drilling are used to do coke testing for product development to support economic extraction planning.

13.2.1 BULK SAMPLES

Bulk samples are required to obtain washability and carbonization data for coal seams from new mining areas to confirm projections. LDC drilling methods are generally used to obtain bulk coal samples. The objective, for this method, is to obtain an unoxidized, representative sample of the coal seam in a manner that best reflects the method by which the seam will be mined; i.e., if the seam is to be mined by open pit truck/shovel methods, all rock partings of 0.5 m vertical thickness or thinner are included in the sample. Thicker partings are excluded. A minimum sample size of approximately 1,000 kg raw coal is required for pilot plant washability evaluations.

13.2.2 BULK SAMPLE WASHABILITY TESTS

The collected bulk samples are sent to Gwil for raw coal analysis and washability by the float sink method, which is used to define the setpoints for the pilot plant. The raw coal samples are then sent to Hazen for pilot plant washing. The pilot plant circuits are set up based on the Gwil washability results and to simulate the circuitry used in the EVO process plant. Results from the pilot plant washability can therefore be used to anticipate how the coal seam will be cleaned by the EVO plant.

Other tests generally associated with the pilot plant washability tests include:

- Screen analysis;
- Float sink analysis;
- Froth flotation test;
- Australian wet attrition test;
- Proximate analysis;
- Ultimate analysis;
- Mineral analysis of ash.

13.2.3 CARBONIZATION TESTS

A representative sample (approximately 500 kg) of clean coal from pilot scale washing is sent to a suitable coal carbonization facility (CANMET) for moveable wall coke oven and other related tests. Results from the carbonization tests are used primarily for marketing purposes.

Other tests generally associated with the moveable wall coke oven test include:

- Proximate analysis of feed coal and resultant coke;
- Gieseler fluidity;
- Dilatation and contraction;
- Ash fusion temperature;
- Gross calorific value;
- Coal pulverization sieve analysis;
- Grindability;
- Petrographic analysis;

- Screen analysis of coke;
- ASTM coke tumbler test;
- JIS coke tumbler test;
- Apparent specific gravity of coke;
- Coke reactivity index (CRI);
- Coke strength after reaction (CSR).

13.3 Recovery Estimates

Predicted yields are modeled using the plant feed ash (which is calculated from breaker delivered ash, breaker reject ash and breaker reject volume), plant reject ash and target clean ash using the following formula:

- Plant yield %= $(\text{plant reject ash} - \text{plant feed ash}) / (\text{plant reject ash} - \text{plant target clean ash})$.

This relationship between plant reject ash, plant feed ash and target clean ash is continuously evaluated to ensure a close match to actual plant performance.

Thin seams generally have lower yields than thick seams due to higher amounts of dilution (more dilution mean a higher breaker delivered ash), which gets added through the mining process.

Figure 13-1 shows the projected plant yield over the LOM, and Figure 13-2 shows the clean coal production forecast.

13.4 Blending Considerations

Volatile matter, phosphorous and sulphur percentage, coal rank and product ash contents are the main items monitored in support of blending.

13.5 Metallurgical Variability

Metallurgical testing frequency and type are representative of individual seams on the basis of rank, coking properties and volume, and are done over a range of locations for each seam to ensure that sufficient sample variability is captured and is available for modeling purposes.

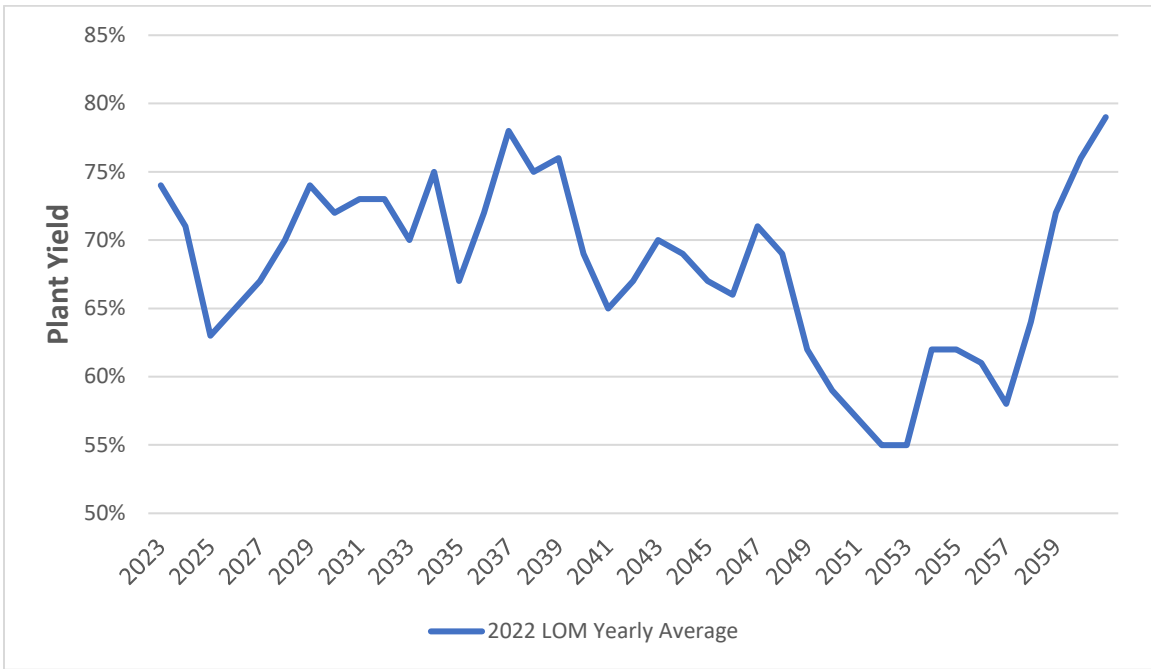


Figure 13-1: LOM Plant Yield Forecast

Note: Figure prepared by Teck, 2023

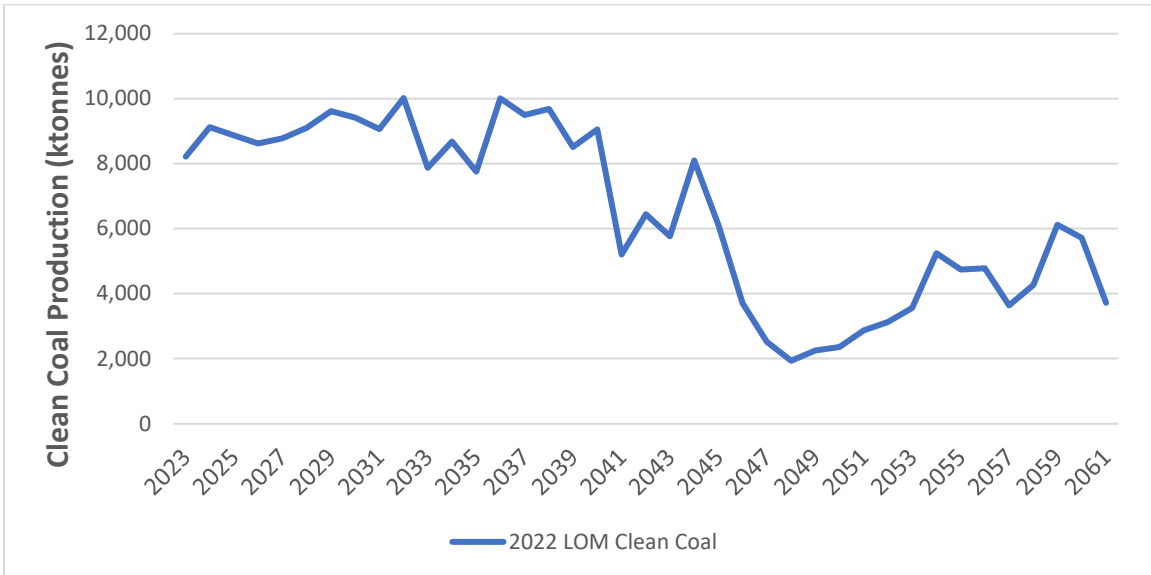


Figure 13-2 Clean Coal Production Forecast

Note: Figure prepared by Teck, 2023

13.6 Deleterious Elements

Trace elements that are evaluated for metallurgical coal samples include phosphorus, fluorine, sulphur and chlorine.

13.7 Comments on Section 13

EVO performs a reconciliation of the modeled coal volume, ash content delivered to the wash plant and predicted yield based on an ash balance formula. Reconciliations are performed on a quarterly basis and accumulated on an annual basis.

In the QP's opinion, EVO has taken adequate measures to account for predicted coal recovery in the geological models and in the estimates of Coal Resources and Coal Reserves.

EVO will continue to pay close attention to reconciliation of actual versus forecast coal tonnages and quality, to ensure that potential coal recovery issues are accounted for in the geological models and Coal Resource and Coal Reserve estimates.

14.0 MINERAL RESOURCE ESTIMATES

14.1 Introduction

Coal Resources were estimated for the Elkview Operations mine areas. Coal Resources were converted to Mineral Reserves for the Elkview Operations mine areas. Coal Resources reported in this section are exclusive of those Coal Resources converted to Coal Reserves.

Modelling is conducted using the commercially available MinePlan 3D software. The acQuire database close-out date is December 13, 2021. Estimation is supported by 7,087 drill holes totalling 572,423 m.

The EVO Coal Resource estimates are based primarily on the results of RC drilling samples, and downhole geophysical gamma and density logs. The 3D model is built using the drill intervals of complete seams from the acQuire database. The seam dips and true thicknesses are calculated based on the drill hole data, and the seam polygons are subsequently generated.

14.2 Geological Models

The geological model was constructed using coal depth, thickness and quality data.

14.2.1 THICKNESS

Thickness geological models were prepared for all seams in each estimation area where appropriate.

The resource estimate was based on a minimum true thickness of 1.0 m for a coal composite. This estimate was used to define potentially surface-mineable coal in the individual seams.

EVO geologists evaluate gamma, density and caliper geophysical logs. The coal seam tops and bottoms are measured primarily from the gamma density log and secondarily from the gamma neutron logs. Gamma density log coal seam thicknesses generally closely represent the mineable coal seam thickness in the mine at the location of the drill hole. The geophysical log measurements of the coal depths are accepted as being correct, as is standard in the industry, and are used as the basis for the coal seam thickness in the geological model.

14.2.2 ASH CONTENT

Composite quality results are entered into the acQuire database to provide an indicative value of the in-situ ash content of the coal, as defined by the geophysical logs. The composite sample raw quality results are matched to the geophysical log and corrected to true seam thickness (depth adjusted) in the acQuire database to be interpolated in the 3D block model.

14.2.3 TOPOGRAPHY, WASTE AND SEAM MODELS

The 3D block models are based on volumes; the “Topo%” model item stores the volume percentage of the model block existing below current topography.

Separate model items list up to two coal seams per block, as either metallurgical (met) or oxidized or weathered metallurgical coal (oxide). These items are stored as volumetric proportions of each block.

Additional volumetric items that account for up to three waste types above or in front of a coal seam and rehandle material may also be included; as a quality assurance check, the sum of all the volumetric items in a block must never exceed the “Topo%” item.

Additional model items for each coal parameter are:

- Seam name;
- Raw ash;
- Raw SG;
- Clean volatile matter;
- Clean RoMax (where RoMax = the mean maximum reflectance of vitrinite in oil);
- Run-of-mine (ROM) ash;
- ROM SG;
- Plant yield;
- FSI;
- Clean sulphur;
- Clean phosphorus.

Where quality information is not amenable to interpolation from drill composites, data are filled in statistically based on geographic location.

14.3 Density Assignment

Computer model block-specific SG values were used for the conversion of volumes of in-place coal to tonnes using the EVO laboratory-validated specific gravity formula (refer to Section 11.2).

14.4 Estimation/Interpolation Methods

The true thicknesses of the seams are calculated using the dip of the coal seams and the length of the coal composite. True thickness is interpolated into the 3D block model using an inverse distance weighting (ID) to the second power (ID²) approach. Other interpolation parameters include a circular search method, and multiple stage search distances of 3,000 m, 900 m, 300 m and 75 m.

Coal quality data are interpolated into the 3D block model using an inverse distance weighing method. The X and Y search distances for each quality criterion at 900 m, 300 m and 75 m, and the Z search distances are 300 m, 100 m and 75 m. The relevant ID estimation method power for each search distance is 1.0, 1.5 and 3.5, respectively. A minimum of two composites and a maximum of 30 composites is required to interpolate a value to a block.

14.5 Block Model Validation

Blocks within the 3D block model are validated by an internal audit report that is generated after every model build. The audit examines the same block from every model build to verify consistency between models, verifies that block calculations are being ran successfully, and compares model-generated values to manually-calculated values.

The 3D block model is also peer reviewed by the Senior Geology Supervisor or their delegate prior to releasing the model for mine planning purposes.

14.6 Classification of Coal Resources

The process of classification is completed in the computer model. Model blocks that contain coal are initially assigned a classification below the level of Inferred. Ellipsoid search envelopes with the distance from the centroid along the three axes equal to the distances are used to determine if the block is to be classified as Measured, Indicated or Inferred.

A minimum of three drill hole intercepts through an individual coal seam must fall within the associated ellipsoid to classify the block. The block is assigned the highest level of assurance that is supported by the data.

Areas are classified as either 'moderate' or 'complex'. In areas classified as "complex", the distance from the center of the block to locate three composites was reduced between sections, based on mining practice and reconciliation data. The complex area is defined as a 100 m lateral zone bordering major faults in the primary pits, such as Faults 60 and 70 in Baldy and Natal (and identified major faults in Adit).

Criteria are as summarized in Table 14-1.

Table 14-1: Confidence Classification Criteria

Typical Deposit at Elkview				
Resource Category	Search Distance (m)			Minimum # of data points
	Model - X	Model- Y	Model - Z	
Measured	200	150	200	3
Indicated	400	300	400	3
Inferred	800	600	800	3
Complex Deposit at Elkview				
Resource Category	Search Distance (m)			Minimum # of data points
	Model - X	Model- Y	Model - Z	
Measured	200	75	75	3
Indicated	400	150	150	3
Inferred	800	300	300	3

14.7 Reasonable Prospects of Eventual Economic Extraction

The depth limit was based on a pit shell with an incremental strip ratio limit of 14:1 m³/t of raw coal. Input costs to the pit shell, and therefore the break-even stripping ratio cut-off calculation are provided in Table 14-2.

Geotechnical assumptions use pit slope angles that range from 40–51° (overall highwall angles). For Coal Resource estimation, a generalized pit slope angle of 45° is used.

14.8 Coal Resource Statement

Coal Resources are reported using the 2014 CIM Definition Standards and are reported insitu, exclusive of Coal Reserves. Coal Resources that are not Coal Reserves do not have demonstrated economic viability.

The QP for the estimate is Mr. Esaias (Bert) Schalekamp, P. Geo., a Teck Coal employee. Coal Resources are tabulated in Table 14-3 and have an effective date of December 31, 2022.

Table 14-2: Inputs to Break-Even Stripping Ratio Cut-off

Item	Unit	Values
Selling price	US\$/t	145
Waste mining costs	\$/bcm	4.06
Coal mining costs	\$/bcm	6.06
Processing cost	\$/t	12.44
General and administrative costs	\$/t	13.42
Other (includes operating leases, royalties, distribution, sustaining capital, reclamation)	\$/t	62.64
Recommended BESR	bcmw/mtrc	14.0

Notes: bcm = bank cubic metre; bcmw = bank cubic metre waste; mtrc = tonne raw coal.

Table 14-3: Coal Resource Statement

	Coal Type	Measured (raw coal; t x 1,000)	Indicated (raw coal; t x 1,000)	Total Measured and Indicated (raw coal; t x 1,000)	Inferred (raw coal; t x 1,000)
	Metallurgical	273,320	155,726	429,046	249,788
Total	Metallurgical	273,320	155,726	429,046	249,788

Notes to Accompany Coal Resource Table:

1. The Qualified Person for the resource estimate is Mr. Esaias (Bert) Schalekamp, P. Geo., a Teck Coal employee.
2. Coal Resources have been classified using the 2014 CIM Definition Standards. Coal Resources are reported insitu, exclusive of those Coal Resources that have been modified to Coal Reserves. Coal Resources that are not Coal Reserves do not have demonstrated economic viability. The Coal Resources have an effective date of December 31, 2022.
3. The Coal Resources are reported on a 100% basis. Elkview Mine Limited Partnership has a 100% interest in the EVO Coal Reserves and Coal Resources. Teck has an indirect 95% partnership interest in the Elkview Mine Limited Partnership. The remaining 5% is indirectly held equally by Nippon Steel Corporation and POSCO, each of which hold a 2.5% interest.
4. The Coal Resources are reported using the following assumptions: average selling price of US\$145/t, waste mining cost of \$4.06/bcm, coal mining cost of 6.06/bcm; processing cost of \$12.44/t, general and administrative cost of \$13.42/t, other costs of \$62.64/t, and break-even strip ratio of 14 bcmw/mtrc. For Coal Resource estimation, a generalized pit slope angle of 45° is assumed. bcm = bank cubic metre; mtrc = tonne raw coal.
5. All estimates have been rounded. Totals may not sum due to rounding.

14.9 Factors That May Affect the Coal Resource Estimate

Areas of uncertainty that may materially impact the Coal Resource estimates include:

- Changes to long-term coal price assumptions;
- Changes in geological interpretations including the size, shape and distribution of interpreted seams and waste;

- Changes in local interpretations of seam geometry, fault geometry and seam continuity;
- Changes to the input assumptions used to derive the open pit outlines used to constrain the estimate;
- Variations in geotechnical, hydrogeological and mining assumptions;
- Changes to environmental, permitting and social license assumptions.

14.10 Comments on Section 14

The QP is of the opinion that Coal Resources were estimated using industry-accepted practices and conform to the 2014 CIM Definition Standards. Coal Resources are based on open pit mining assumptions.

The Coal Resources are forward-looking information and actual results may vary.

There are no other environmental, legal, title, taxation, socio economic, marketing, political or other relevant factors known to the QP that would materially affect the estimation of Coal Resources that are not discussed in this Report.

There is upside potential for the Project if some or all of the Measured and Indicated Coal Resources can be converted to Coal Reserves, and if some or all of the Inferred Coal Resources can be converted to higher-confidence categories and subsequently to Coal Reserves.

15.0 MINERAL RESERVE ESTIMATES

15.1 Introduction

Elkview Operations currently mines from two areas: permitted pits on Baldy Ridge and Natal Ridge. The current permit allows EVO to mine the remainder of Baldy Ridge, the remainder of the current Natal Ridge phase, and the top portion of Adit Ridge. The development of Baldy Ridge will be accomplished through a series of pushbacks (i.e., the removal of material to proceed from one pit to the next nested pit) which optimize waste haulage by backfilling mined out areas.

Coal Reserves are based on pit designs and a long-range mine development plan prepared by EVO. Ultimate pit shells were created using long-term product coal pricing and US dollar to Canadian dollar exchange rate estimates. The pits are designed using the same break-even stripping ratio as discussed in Section 14.7.

Waste haulage, waste storage and geotechnical issues were considered in the final pit design. Any Inferred Coal Resources in the pit shell are treated as waste and are not included in the Coal Reserves.

Three non-coal surfaces are incorporated into the model:

- Current topography;
- Mined-out surface;
- Original ground.

These surfaces are used to ensure that previously-mined areas of coal and overburden are properly accounted for. All material between the topography and the mined-out surface is coded as rehandle and reported with a swell factor of 30%. Data for these surfaces come from monthly surveys and periodic flyovers.

Coal Resources are converted to Coal Reserves using the assumptions discussed in the following sub-sections, and the mining methods outlined in Section 16.

15.2 Topography

The current topographic surface is used during the block model generation to identify valid blocks, assigned to existing blocks as Topo%, representing the total volume percentage of any given block remaining. The coal blocks are then rationalized so that the total volume is equal to Topo% times the block volume to ensure no block contains more coal than volumetrically allowed. If there is a discrepancy once waste is added into the block, the waste volume is adjusted until the total material volume matches Topo%. Coal volume is not adjusted.

15.3 Mining Parameters

Coal volumes used for reserves reporting are adjusted for mining factors such as loss and dilution as well as additional losses due to mining in highly faulted zones. These factors are mostly derived from operating experience at EVO.

Loss and dilution parameters are assigned based on true thickness averages for seams. Loss and dilution factors are calculated by seam and incorporate coal quality variances between zones. The EVO parameters for loss and dilution are directly correlated with seam thickness and are specific by seam and by pit. Loss associated with a seam recovery is a function of the impact of structural complexity, seam thickness, blast influence and mining practices.

Mining parameters for Coal Reserve estimation are as follows:

- Minimum mineable seam thickness: 1.00 m;
- Dilution thickness: 0.0 m to 0.2 m;
- Coal loss thickness: 0.2 m to 0.5 m;
- Rock dilution ash: 68%;
- Rock dilution SG: 2.5.

Additional seam discounting can be applied around faults or certain thin seams.

SG values for coal are based on empirical formulas, validated over the history of mining at EVO. SG converts modelled coal volumes to weight. To estimate the weight for reference point reporting of reserves, clean coal product, a plant yield factor is used, whereby the yield is a ratio of the weight of coal product exiting the process plant over the weight of coal to enter (or delivered to) the process plant. Yield is based on a delivered ash relationship which is derived from historical plant performance and is calculated using feed ash, clean ash and reject ash values as described in Section 13.3. Clean coal quality information interpolated is as follows:

- Clean volatile matter [CVM];
- Clean sulphur [CSUL];
- Clean FSI [CFSI];
- Clean phosphorus [CP];
- Clean FSI;
- Clean RoMax;

With the exception of the clean (product) coal tonnes, the coal tonnage figures, and ash content are estimated in the model on an air-dried moisture content basis. They are not converted to an as-received moisture content basis during the modelling process used to determine in-situ and run-of-mine (ROM or delivered) coal.

With a clean strip ratio for the Coal Reserve of 10.2 bcm waste/clean tonne coal, 2.7 billion bcm of waste must be mined.

Pits are typically designed with the following design factors, unless specific geotechnical criteria are required:

- Wall face angle: 60–72°;
- Overall angle: 38.9–52.6°
- Catch bench width: 8–14 m;
- Waste dump angle: 37°;
- Haul road width: minimum 36 m;
- Bench height: 15 m;
- Haul road grade: 8% overall, with a maximum of 10%.

15.4 Coal Reserve Statement

Coal Reserves are an estimate of the saleable coal product. The reference point is the exit point of the coal product from the processing plant. Coal Reserves are reported using the 2014 CIM Definition Standards.

The QP for the estimate is Mr. Adam Bondi, P.Eng., a Teck Coal employee. Coal Reserves are tabulated in Table 15-1 and have an effective date of December 31, 2022.

Table 15-1: Coal Reserves Statement

Pit/Area	Coal Type	Proven (clean coal; t x 1,000)	Probable (clean coal; t x 1,000)	Total Reserve (clean coal; t x 1,000)
Baldy Ridge 2	Metallurgical	2,735	3,229	5,964
Baldy Ridge 3	Metallurgical	—	10,402	10,402
Baldy Ridge 4	Metallurgical	—	50,490	50,490
Baldy Ridge 6	Metallurgical	5,052	4,528	9,580
Baldy Ridge 7	Metallurgical	—	25,381	25,381
Natal Phase 2	Metallurgical	5,916	48,674	54,590
Natal Phase 3	Metallurgical	—	50,491	50,491
Adit Ridge 1	Metallurgical	—	49,987	49,987
Adit Ridge 2	Metallurgical	—	—	—
Raw Stockpile	Metallurgical	1,596	—	1,596
Total Reserves	Metallurgical	15,298	243,182	258,481

Notes to Accompany Coal Reserves Table:

1. The Qualified Person for the reserves estimate is Mr. Adam Bondi, P.Eng., a Teck Coal employee.
2. Coal Reserves have been classified using the 2014 CIM Definition Standards. The reference point is the exit point of the coal product from the processing plant. The Coal Reserves have an effective date of December 31, 2022.
3. The Coal Resources are reported on a 100% basis. Elkview Mine Limited Partnership has a 100% interest in the EVO Coal Reserves and Coal Resources. Teck has an indirect 95% partnership interest in the Elkview Mine Limited Partnership. The remaining 5% is indirectly held equally by Nippon Steel Corporation and POSCO, each of which hold a 2.5% interest.
4. The Coal Reserves are reported using the following assumptions: average selling price of US\$145/t, average mining and processing costs of \$98.01/t, average general and administrative cost of \$13.42/t, average other costs of \$5.27/t, break-even strip ratio of 14, minimum mineable seam thickness of 1.00 m; minimum removable parting thickness of 0.50 m; dilution thickness between 0.0 m and 0.2 m; coal loss thickness between 0.2 m and 0.5 m; rock dilution ash of 68%; rock dilution specific gravity of 2.22;. Geotechnical assumptions use pit slope angles that range from 38–52° (overall highwall angles). More complex criteria are used for footwall slopes that are structure specific. Yield is a function of feed ash and product ash and is therefore seam and product dependent.
5. All estimates have been rounded. Totals may not sum due to rounding.

15.5 Factors That May Affect the Coal Reserve Estimate

Areas of uncertainty that may materially impact the Coal Reserve estimates include:

- Changes to long-term coal price assumptions;
- Changes in geological interpretations including the size, shape and distribution of interpreted seams and waste;
- Changes in local interpretations of seam geometry, fault geometry and seam continuity;

- Changes to the input assumptions used to derive the open pit outlines used to constrain the estimate;
- Variations in geotechnical, hydrogeological and mining assumptions;
- Changes to environmental, permitting and social license assumptions.

15.6 Comments on Section 15

The QP is of the opinion that Coal Reserves were estimated using industry-accepted practices and conform to the 2014 CIM Definition Standards. Coal Reserves are based on open pit mining.

The Coal Reserves are forward-looking information and actual results may vary.

There are no other environmental, legal, title, taxation, socioeconomic, marketing, political or other relevant factors known to the QP that would materially affect the estimation of Coal Reserves that are not discussed in this Report.

16.0 MINING METHODS

16.1 Introduction

The mining operations use conventional truck-and-shovel methods. As a result of delivery requirements and varying coal seam qualities it is necessary to have multiple coal seams exposed at any time.

EVO currently produces coal from three active pit phases (Baldy Ridge BR6, Baldy Ridge BR2 and Natal Phase NP2) using open-pit coal mining methods, with primary waste stripping and coal mining completed by shovels and rear dump haul trucks. Additional permitted (Baldy Ridge BR3, Baldy Ridge BR4, Baldy Ridge BR5, Baldy Ridge BR7, Adit Ridge AR) and unpermitted (Adit Ridge, Natal Phase NP2, Natal Phase NP3) phases are planned. The planned pit phases are shown in Figure 16-1.

16.2 Geotechnical Considerations

Geotechnical exploration programs are conducted before development and during operation. These programs consist of oriented core drilling, to understand physical rock mass characteristics, together with both optical and acoustic televiewer studies to confirm structure orientations. Hydrogeological testing is also completed to estimate pore pressures within the rock mass and determine its effect on pit design stability.

EVO conducts geotechnical investigations throughout all project stages to inform the geotechnical model and design reports for pits and spoils. An investigation often precedes the initial design report, but as gaps are identified throughout execution supplementary investigations can be helpful to update the geotechnical model. Examples of geotechnical investigations at EVO include:

- Oriented core drilling and logging;
- Geophysical wireline logging including acoustic and optical televiewer, flowmeter, and full waveform sonic;
- Installation of vibrating wire piezometers;
- Hydrogeological testing;
- Test pitting;
- Laboratory testing of rock and soil samples.

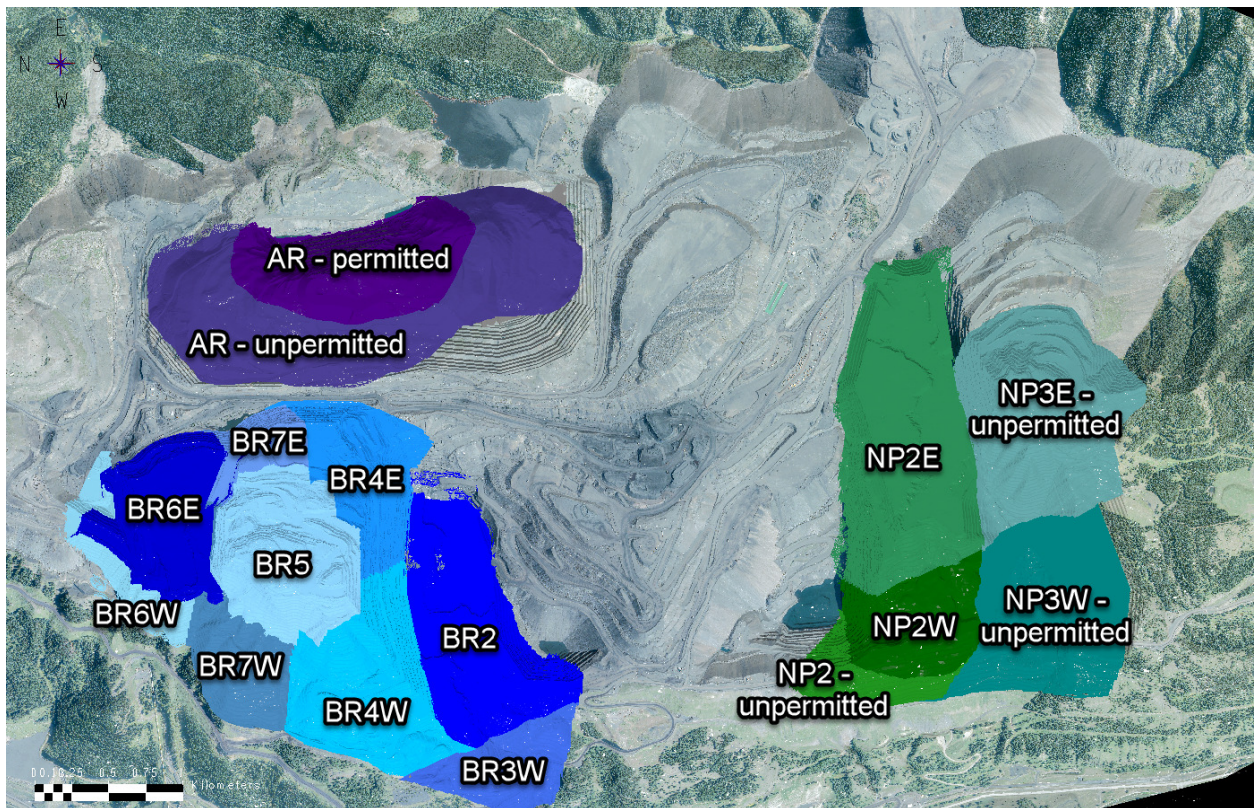


Figure 16-1: Elkview Pit Phases

Note: Figure prepared by Teck, 2022.

EVO is currently mining in three active pits: Baldy Ridge 2 (BR2), Baldy Ridge 6 (BR6), and Natal Phase 2 (NP2); refer to Figure 16-1. The pit designs employ a combination of highwall and re-handle slopes, with a shallow dipping footwall at pit bottom. The design bench face angle is 70°. Highwall slopes are single (15 m) or double-benched (30 m) with inter-ramp angles (IRA) ranging from 34° to 52°. A specific inter-ramp angle IRA is recommended for each wall based on a geotechnical assessment of its credible failure mechanism. Rehandle slopes are single benched (15 m) with a design IRA of 34°. Footwall slopes are typically around 15° and left un-benched.

Waste dumps are built in bottom-up and top-down configurations. The overall slope varies between 26° and 37° (angle of repose) depending on the area of the mine and its reclamation requirements; for example, in-pit backfills versus ex-pit.

Pit slope and waste dumps are monitored with a combination of:

- Prisms;

- GPS;
- Wireline extensometers;
- Radar;
- Vibrating wire piezometers;
- Routine visual inspection.

The instrumentation reports in real time to a data collect and analysis software. Specific units are assigned alarm thresholds and defined actions in the event of the threshold being exceeded.

16.3 Hydrological and Hydrogeological Considerations

Development of the mine plan generally results in pit formations which are lower than the surrounding topography, and thereby act as groundwater sinks. Estimates of anticipated pit water volumes to be managed are made with the site water balance model and other hydrogeological models. EVO manages water which accumulates within the active mining pits with pump and pipe infrastructure to transfer water to other various water management infrastructure, such as the Saturated Rock Fill water treatment facility.

Teck has invested in a sustainable water supply strategy and constructed a network of water conveyance pipelines from various pits that supplies water to industrial processes on site which reduces clean ground water consumption and the quantity of mine contact water discharged off site. The operations' priority is to look for opportunities to recycle mine impacted water within the operation, to reduce the volume of excess water discharging to the receiving environment. Dust suppression activities within the mining areas at EVO exclusively uses mine-impacted water.

When pit dewatering is required to discharge water to the receiving environment, a Pit Dewatering Plan outlines how dewatering activities are managed to mitigate impacts to water quality and aquatic health in the receiving environment and maintaining safe operating conditions within the pits and other associated water infrastructure.

The pump and pipeline infrastructure installations are often temporary and are relocated depending on the pit sequence configuration necessary to execute the mine plan. For this reason, water sources are typically referred to as entire pits, rather than point sources.

16.4 Mine Design and Mining Sequence

The Lerchs–Grossmann (LG) analysis of the block model provides a starting point for the pit design process. Using this method, a series of pit shells are produced, and an optimal pit shell is determined for the ultimate pit design that forms the basis of the LOM plan. Areas where the pit design differs from the initial shell can be due to geotechnical constraints or where mining outside the pit shell limits is required to provide access to the pits. Any additional waste is included in the overall strip ratio and economics. The

review of the design indicates that the phased pit designs align well to the optimum shell generated, and neither the updates to the geology or economics significantly alter the design.

The dimensions for the ultimate pit limits in each ridge are as follows:

- Baldy Ridge: 3,500 m long by 2,300 m wide;
- Adit Ridge: 1,700 m long by 700 m wide;
- Natal Ridge: 2,700 m long by 1,400 m wide.

The BR2 pit is currently being mined and is already permitted. The BR3 pit is an 800 m pushback west from BR2 and the east side will be mined in conjunction with BR2. The west side of BR3 will be delayed approximately 10 years to maximize haulage considerations and leave a buffer between the mine site and the town of Sparwood to the west. The BR6 pit is currently being mined on the north end of Baldy Ridge. The BR5 pit consists of pre-stripping above the BR7 and BR4 pits. The BR7 pit will be a 650 m pushback south from BR6. The BR4 pit is the final phase of Baldy Ridge mining and is overlain by BR2, BR3, and BR7.

Adit Ridge was rephased and expanded in 2021. The rephasing also means that the unpermitted portion of Adit Ridge will require permitting before mining can commence. NP2 is currently being mined. The western unpermitted portion of NP2 will require a permit. NP3 is phased south of NP2 and will require a permit before mining can commence.

Elkview Operations currently sends raw coal to the hopper and the breaker. Raw coal from the hopper is transported to the breaker area via conveyor and then all coal is transported via conveyor through a tunnel in Baldy Ridge to the raw coal silos at the process plant. The tunnel also transports tailings via twin GEHO (manufacturer of hydraulic piston pumps) pipelines, which are pumped to the West Fork Tailings Facility as well as carrying all of the Harmer Maintenance Complex utilities (e.g., portable water pipeline, natural gas pipeline).

The completed pits and spoils are reclaimed in a manner that fulfills requirements set out in the granted mining permits. EVO is continually re-evaluating spoil designs from a closure lens to align with Teck's sustainability goals.

16.5 Spoils

Teck uses the following terminology for spoils:

- In-pit spoils is where waste rock is placed in a mined-out pit. They are also referred to as "backfill" because the waste rock is used to fill in the previously mined-out area;
- Ex-pit spoils are spoils where waste rock is placed on original ground, outside of the pit mining.

In-pit spoils are designed at 37°, leaving approximately 10 m of catchment every 30 m when above roads.

Ex-pit spoils are typically constructed at 37°, and designed for reclamation at an overall slope angle of 24°–26°. The locations of the current ex-pit spoils are included in Section 18.4.

Suitable spoil areas are limited at EVO due to steep topography, natural watercourses on all sides of the mining area, and the proximity of Sparwood and the CPR and Highway 3 corridor on the western side of the property. Significant effort was made to optimize spoil designs for the Project by maximizing in-pit spoiling.

The spoil designs consider disturbance to natural topography and final reclamation requirements, as well as incorporating geotechnical and environmental aspects. Environmental considerations make allowances for re-sloping, buffer zones offset from watercourses, wildlife corridors, and drainage patterns to minimize leaching of elements of concern. Where feasible, water diversions are incorporated into spoil designs to divert clean water around the spoils.

16.6 Production Plan

The Coal Reserves support a mine life to 2061, including non-permitted areas of AR extension, the NP2 West unpermitted section, and NP3.

16.7 Blasting and Explosives

Drilling is currently done with electric drills that use 311 mm and 270 mm diameter bits. These holes are drilled vertically. The site is also drilling with a 140 mm down-the-hole hammer diesel drill. This drill can drill both angled and vertical holes. Normally, drilling is designed to blast one bench (15 m) at a time.

Drilling is completed with offset patterns from bench to bench so that there is no potential to drill into previous bench bootlegs that may exist. Coal seam locations are determined as the machine drills each hole. This information is used to design explosive charges for each hole.

Hole spacing and burden dimensions are designed to provide the necessary explosive energy to break the rock sufficiently so that it can be dug productively and at the same time minimize coal seam disturbance.

A pattern consists of a block of multiple holes. Once a pattern is drilled and the holes have been primed and loaded with explosive it is tied in and shot. The tie-in incorporates delays that provide progressive relief for the rock to break into as the rows of holes detonate. This provides better fragmentation, waste pile looseness, reduced coal seam disturbance and reduced fly rock.

Explosives are ammonium-nitrate based. ANFO products are used in dry holes and an ANFO-based bulk Emulsion blend product that is loaded where water resistance is needed.

Blasting operations are carefully planned to provide blasted waste for the mining fleet in a timely fashion.

16.8 Production Monitoring

The four main methods for sampling coal seams and stockpiles in pit and stockpile areas include:

- Stockpile grab sampling: conducted every two days (or as required) for monitoring of quality and consistent feed to the processing plant. Shovel scoops are taken across the face of a stockpile and placed in a sample bag to get a representative sample of the entire stockpile. If a stockpile face is vertical or above a safe working height, the sampler must get a loader to pull buckets out from across the stockpile face to be sampled;
- In-pit push sample (single seam): sampled in pit to determine qualities of a single seam before sending to a stockpile. Like the stockpile grab sampling procedure, shovel scoops are taken across the face of the pushed pile and placed in a sample bag;
- Trench sampling: necessary to get a representative sample of a coal seam with minimal dilution. A dozer or excavator cleans off the top of the seam to locate the hanging wall and footwall contact. A trench is excavated perpendicular to strike along the whole length of the seam from hanging wall to footwall. The trench is divided into equal size units and an equivalent amount of coal is sampled from each section. The bench elevation and location of sample are recorded and entered into the geological database;
- Blasthole sampling: necessary for seam information such as met/ox boundaries or PAG material:
 - Met/ox samples are taken on drill patterns that are near the crest of the original ground surface. The sampler will dig into the cuttings pile until only the coal is exposed. A sample is taken of the entire vertical section of the exposed coal, making sure the sample is not contaminated with dirt, rocks or other debris from the cuttings pile;
 - PAG sampling occurs on drill patterns where drilling and blasting the Moose Mountain Member occurs. A section is cut through each quarter of the cuttings pile to see a profile of the cuttings. The Moose Mountain Member sandstone is located in the cuttings and sampled in every quarter.

16.9 Mining Equipment

The current equipment fleet at EVO consists of eight P&H4100 shovels, and 45 Komatsu 930Es. The total truck fleet maximum will be reduced from 71 to 55 trucks in the mid-2040s, increasing back up to 69 trucks in the mid-2050s. The drill fleet consists of six CATMD6640 rigs.

An equipment list is provided in Table 16-1.

Table 16-1: Current Equipment Fleet

Equipment Type	Units
930E haul truck	45
830E haul truck	5
P&H 4100 XPC shovel	4
P&H 4100 XPB shovel	2
P&H 4100 shovel	1
24M grader	7
16M grader	3
Production loader	2
Dozer	16
Drill	6
Backhoe	5

17.0 RECOVERY METHODS

17.1 Introduction

The process plant uses conventional equipment and a conventional process. The flowsheet design was based on test work results, study designs and industry standard practices.

The basic operation of a coal processing plant is separation by gravity for the coarser particles. Based on the difference in specific gravity of coal and rock, the coal can be separated to a desired specification.

Examples of Elkview wash plant equipment include heavy media cyclones, water-only cyclones, froth flotation and a thermal dryer. The coal is processed depending on the particle size. The coarse size fraction (+ 0.8 mm) is processed by heavy media cyclones. The intermediate size fraction (0.8–0.3 mm) is processed by a combination of water-only cyclones and reflux classifiers. The fines fraction (<0.3 mm) is processed by froth flotation. Following mechanical dewatering via centrifuges and vacuum disc filters, produced clean coal is further thermally dried in a natural-gas fired fluidized bed thermal dryer.

17.2 Plant Flowsheet

The plant flowsheet is provided in Figure 17-1.

17.3 Plant Design

Plant specifications and the plant equipment list are provided in Table 17-1.

17.3.1 BREAKER

Raw coal is fed to the breaker where feed is tumbled in the breaker drum. Rock that is >2" is separated from the softer coal which is broken to <2" and passed through perforated breaker plates. This material is fed to the raw coal silos. Reject material (rock) from the breaker is stockpiled and subsequently hauled to the waste spoils using loaders and trucks.

17.3.2 WASH PLANT

EVO has four raw coal silos which can hold up to 1800 metric tons each. The silos are used to store the raw coal before it is processed in the plant.

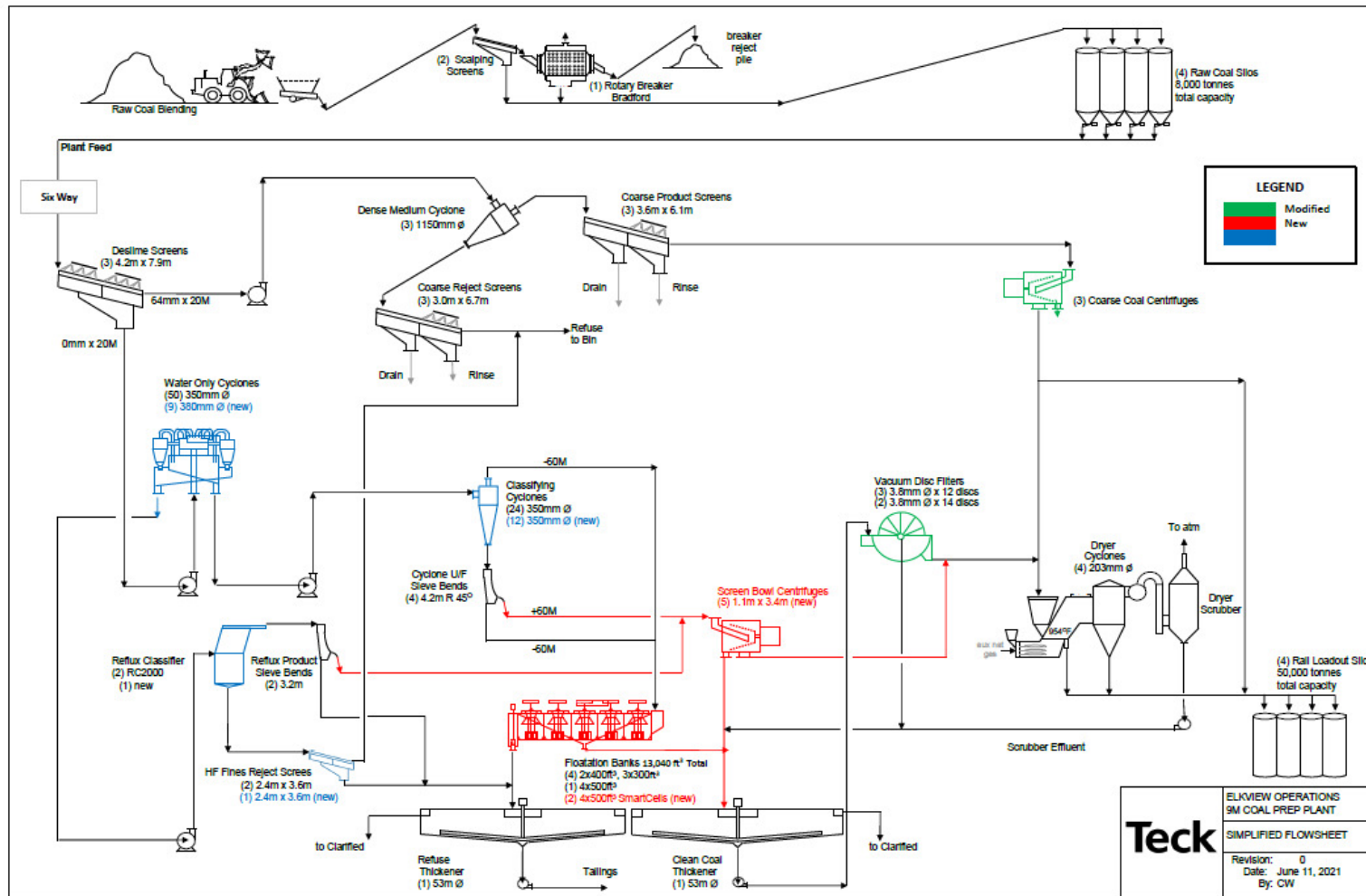


Figure 17-1: EVO Process Flowsheet

Table 17-1: Plant Equipment List

Component	Design Max Capacity	EVO Feed (avg)
Deslime screens	1,361 t/h oversize	1,073 t/h oversize
Heavy media cyclones	1,450 t/h raw	1,073 t/h raw
	4,500 m ³ /h	4500 m ³ /hr
Clean coal screens	724 t/h oversize	713 t/h oversize
Magnetic separators	1,963 m ³ /h	2,077 m ³ /h
Centrifuges	1140 t/h	696 t/h
Refuse screens	855 t/h oversize	335 t/h oversize
WOC tonnage	1,300 t/h	694 t/h
Reflux classifier	220 t/h	170 t/h
High frequency screen	73 t/h	48 t/h
Tailings thickener	8,313 m ³ /h	3,990 m ³ /h
Fine coal product sieves	1,031 m ³ /h	670 m ³ /h
Flotation	435 t/h	244 t/h
Clean coal thickener	4,663 m ³ /h	2,938 m ³ /h
Tailings Thickener	8,313 m ³ /h	3,990 m ³ /h
Decanters	350 t/h	277 t/h
Disc filters (Peterson)	509 t/h	239 t/h
Reagent distribution kerosene	8 L/min	2,100 mL/min
Reagent distribution MIBC	5 L/min	500 mL/min
Flocculant	24 L/min	20 L/min

Note: GPM = gallons per minute; t/h = tonnes per hour; L/min = litres per minute; h = hour; WOC = water-only cyclones; MIBC = methyl isobutyl carbinol.

Deslime vibrating screens are used to split the coal feed into different sizes. Material >0.8 mm reports to the coarse circuit. Material <0.8 mm reports to the fines circuit.

Heavy media cyclones are used to separate coarse rock from coarse coal. Coarse coal goes out the top, while coarse rock goes out of the underflow. Vibrating screens used for cleaning and dewatering and vibrating exciters are used to “throw” the material along the deck surface (0.8 mm openings).

Magnetite is used to control separating fluid density. Magnetite has a solid density of 5.1 but the process mixes it with water to an SG range of 1.30–1.55. The higher density water/magnetite slurry helps more material “float”, meaning more ash (more rock), but also more coal, will be recovered in the product. Magnetite is recovered through rinsing at the reject and clean coal screens, and then recovered at wet drum magnetic separators.

Flotation cells are used to separate the fine coal based on surface property differences versus rock particles. Fine material from the water-only cyclone circuit (water-only cyclone overflow material less than 0.3 mm in size) is sent to flotation cells. Jet-fuel (kerosene) selectively coats the coal particles and methyl isobutyl carbinol (MIBC) stabilizes small bubbles formed through agitation. Jet-fuel coated coal particles will preferentially stick to the air-bubbles and float to the top as a froth layer to be recovered (flotation concentrate). Uncoated rock particles will sink and report to underflow (flotation tailings). Flotation concentrate reports to the clean coal thickener, and flotation tailings report to the tailings thickener.

Thickened flotation concentrate from the clean coal thickener then reports to the vacuum disc filters, which use vacuum pressure to extract the water out of the coal, making a filter cake.

17.3.3 DRYER

Discharge from vacuum disc filters (filter cake), fine coal centrifuges (decanters) and vibratory basket centrifuges are combined to feed the thermal dryer. The thermal dryer is fueled with natural gas and the heat produced evaporates the surface moisture from the coal. Dryer feed moisture is about 15% moisture and dried product is about 8% moisture.

17.3.4 STORAGE AND RAIL LOADOUT

EVO has four clean coal silos which can hold up to 12,500 t each and are used to store the clean coal before it is railed. EVO loads unit trains, which take up to 16,000 t per train. The trains, operated by CP-Rail, are loaded from chutes at the bottom of the clean coal silos. During loading the cars are sprayed with a dilute flocculant spray to prevent dusting during transportation.

17.4 Yields

Yield forecasts were included in Section 13.3.

17.5 Energy, Water, and Process Materials Requirements

17.5.1 POWER

The plant power consumption averages 110,000,000 kWh/year.

17.5.2 WATER

Approximate freshwater usage for the plant is 3.5 Mm³ per year, which is drawn from the Elk River pumphouse. Water is recycled continually within the process, with the site consumption based on make-up water required for evaporation in the dryer, water in final product, water in plant refuse, and water pumped to the tailings pond. Water versus mine contact water usage varies by year.

17.5.3 REAGENTS

The main reagents used in the plant include jet-fuel, MIBC, and flocculant.

18.0 PROJECT INFRASTRUCTURE

18.1 Introduction

Surface infrastructure to support operations is in place, and includes:

- Open pit areas;
- Processing facilities: coal preparation plant including wash and drying facilities, together with management and engineering offices, change house, maintenance shops, warehouse, assay laboratory facilities;
- Mine facilities: management and engineering offices, change house, heavy and light vehicle workshops, wash bay, warehouse, explosives magazine, mine access gate house,
- Administration buildings: facilities for overall site management, safety inductions, training, and general and administrative functions;
- Raw coal stockpiles;
- Breaker;
- Waste dumps;
- Haul roads;
- Raw coal and clean coal conveyor system;
- Rail load-out facilities;
- Water management facilities: stormwater and sediment ponds, water storage tanks, water diversions, culverts, rock drains, the saturated rock fill water treatment facility, and various water transfer pump and pipeline systems;
- Tailings storage and coarse coal refuse storage facilities;
- Sewage treatment facility;
- Electrical power system;
- Fuel storage facilities;
- Explosive plant, raw product storage, and explosive bulk truck maintenance facility.

A layout plan showing the facilities constructed to support mining operations is provided in

Figure 18-1.

The existing Harmer Maintenance Complex (HMC) includes the following facilities and buildings: maintenance shops, warehouse, dry change, administration offices, and laydown areas for tires and other mining equipment. The HMC is located near the top of Baldy Ridge at the location of the proposed BR4 and BR7 pits. The HMC will need to be relocated in support of future mining at Baldy Ridge, and new maintenance shops, administration buildings, and other facilities, referred to as the Administration and Maintenance Complex are planned to be constructed in an area known as the Mannix Pad. The proposed facilities are shown on Figure 18-2.

Some new haul roads, spoil piles and environmental control systems will be required for future developments and are included in the mine planning and Project economics. These will require permitting.

18.2 Road and Logistics

18.2.1 ROAD

The mining operations are accessed via an all-weather highway, Highway 3, near the town of Sparwood, British Columbia.

Goods are delivered primarily by transport trucks and occasionally by rail.

With the relocation of the HMC, new access roads (replacing or rerouting of the existing 10 Mile Road) will be required to access these locations. Any rerouting will be on previously disturbed areas, or will be on areas that are already permitted or will be permitted as part of the Project. The existing lower mine access road (6 Mile Road) will not be changed as a result of the Project.

18.2.2 RAIL

Coal is transported in unit trains from the site loadout facilities by either CPR or CNR to terminals in Vancouver or Prince Rupert. The CPR and CNR own their own lines and have line sharing agreements in place to expedite traffic in certain areas.

Additional information on the load-out is provided in Section 17.4.3.

18.3 Stockpiles

Raw coal is stockpiled in several areas of the mine. The stockpiles are placed according to available space, with preferred locations near the hopper and breaker or active pits.

Clean coal is stockpiled near the plant drier, and the rail.

Elkview also has four major salvaged soil stockpiles on site for future reclamation purposes.

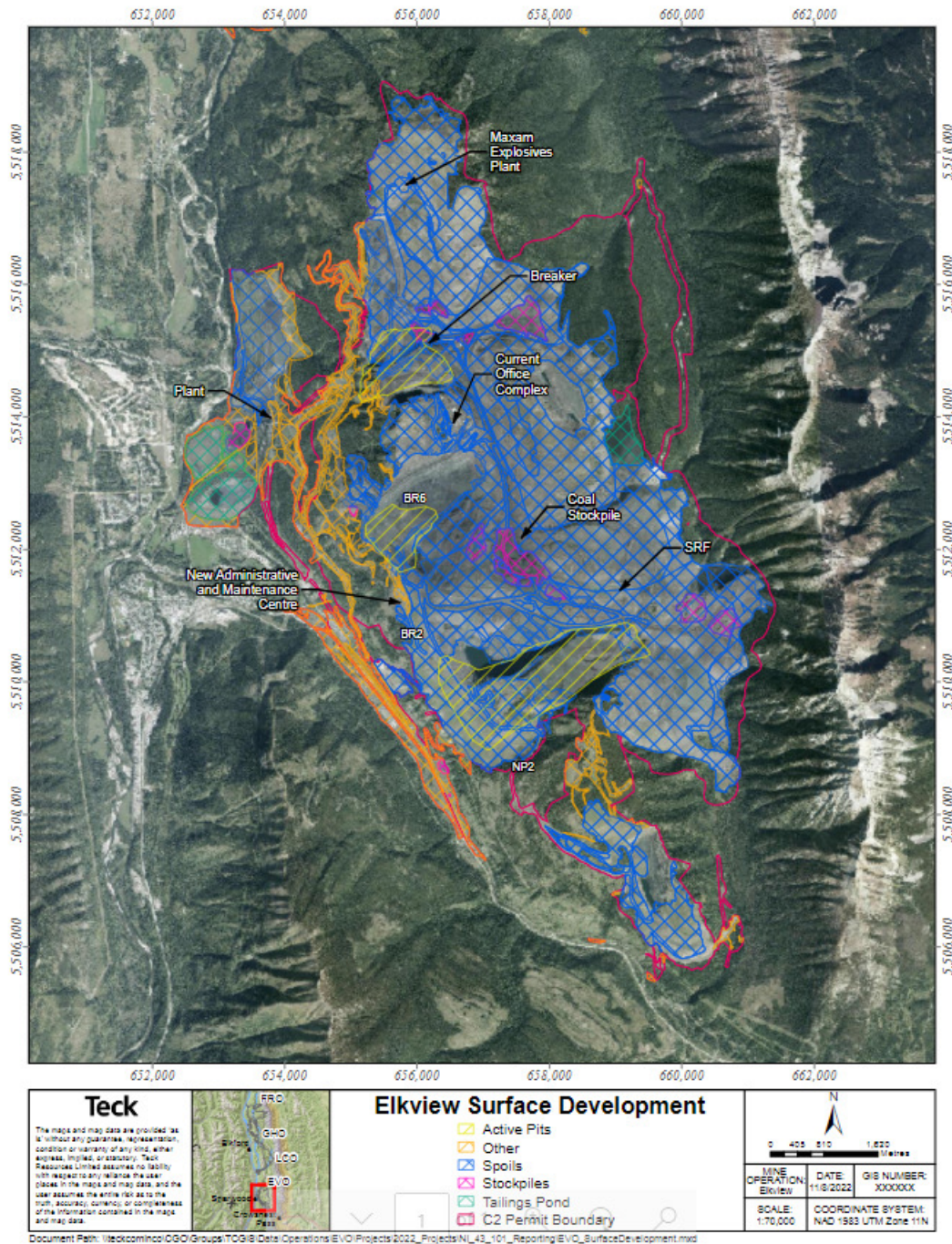


Figure 18-1: Infrastructure Layout Plan

Note: Figure prepared by Teck, 2022.

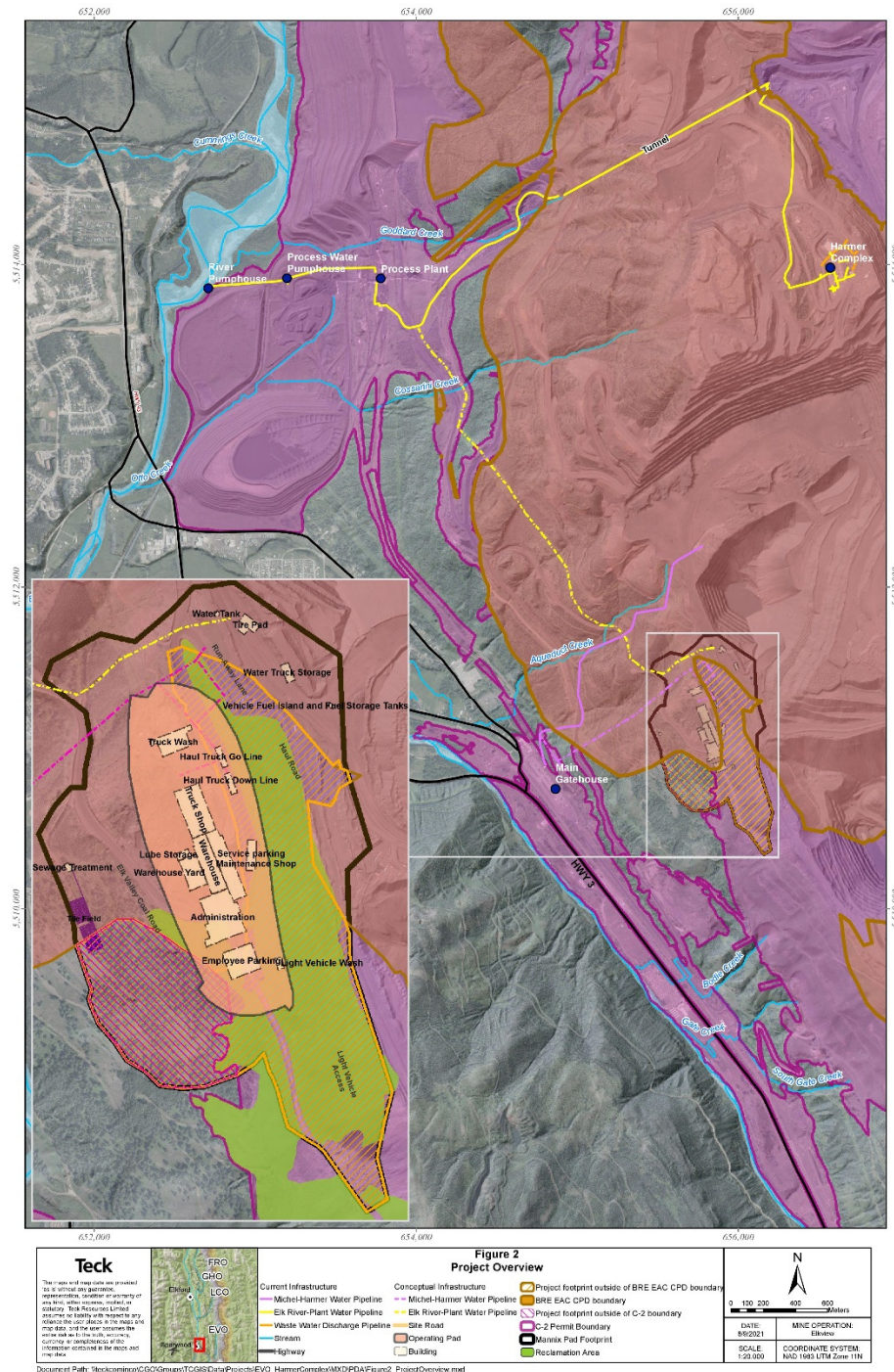


Figure 18-2: Proposed Facilities

18.4 Spoil Piles

Historically, waste rock at the EVO site has been deposited in spoil piles in the Erickson Valley, as well as backfilled in previously-mined areas.

The spoil pile design assumptions are provided in Section 16.5.

18.5 Tailings Storage Facility

The EVO currently manages five slurried tailings facilities and one mixed coarse coal refuse (CCR) facility. Lagoons A, B and C are currently considered inactive. The Westfork tailings facility is the primary storage facility, with Lagoon D available for storage during upset conditions.

Lagoons A and D incorporated adjacent hillsides into their design while Lagoons B and C are paddock-type facilities. The Westfork tailings facility was developed in the natural valley abutting the massive competent limestone of Cowboy Ridge. It is further confined to the south by the West Fork and Cowboy spoils, that eventually merged into the Cowboy/West Fork dump, and on the west side by the Adit dump.

The tailings facilities (excluding CCR) are designed for the following storm events:

- Lagoon A: 200-year annual exceedance probability;
- Lagoon B: 100-Year annual exceedance probability;
- Lagoon C: $\frac{1}{3}$ between the one in 1,000 annual exceedance probability and probable maximum flood events;
- Lagoon D: 72-hour probable maximum flood event;
- Westfork tailings facility: 72-hour, $\frac{1}{3}$ between the one in 1,000 annual exceedance probability and probable maximum flood events.

There are currently no plans to raise any of the lagoons beyond their current configurations. A dam raise to 1,690 m for the Westfork tailings facility was completed in 2022, which provides storage for an estimated 3.9 Mm³ of storage. Teck is currently evaluating plans to raise the Westfork tailings facility to its permitted elevation of 1710 m. The Westfork tailings facility will not have sufficient capacity for the remaining tailings; Teck will evaluate other tailings storage options and apply for relevant permits for the selected options prior to the final capacity of the Westfork tailings facility being reached.

18.6 Coarse Coal Refuse

The CCR is considered a tailings stream in British Columbia and is classified as a tailings storage facility. However, the CCR facility is not a dam and does not retain water or tailings slurry. Every 10 lifts (15 m

vertical) a 6 m wide bench is left on the exterior face, resulting in a 2.5H:1V. Topsoil is then used to cap the outer face of each bench. Teck is planning to continue to raise the CCR to an elevation of 1,395 m and is developing the detailed plans to continue the facility up to the current permit elevation of 1,477 m.

The CCR facility will not have sufficient capacity for the remaining CCR, and Teck will evaluate other CCR storage options and apply for relevant permits for the selected options prior to the final capacity of the CCR facility being reached.

18.7 Water Management

Any water on or near the mine site is categorized using three definitions based on water-land contact scenarios:

- Non-contact water: runoff and groundwater from land not impacted by mining activities, typically up gradient of mining activities;
- Mine-influenced water: contact surface or ground water from disturbed mine property flowing as surface water runoff or emanating from rock spoils;
- Pit water: surface and groundwater contained within open and saturated back-filled pits.

Teck's approach to managing water includes:

- Capturing and diverting mine contact water to authorized discharges and drainages, while controlling erosion;
- Prioritizing the use of mine contact water for industrial purposes on site;
- Keeping non-contact water away from mine-influenced water.

Water management at EVO is an essential component of operational planning which ensures availability of water, ample capacity and structural integrity within the water management infrastructure in order to handle anticipated flows and volumes. Drainage structures onsite are managed as per EVO's Mine Water Management Plan. The Mine Water Management Plan is part of Teck's Sustainability Goals and is intended to be an overarching document guiding water management at EVO. It involves a comprehensive approach to water management allowing information to be centralized and facilitating staff from various departments to collaborate in its implementation.

The preferred water strategy for operations is summarized in Table 18-1.

Table 18-1: Water Management Strategy

Land Use Type	Water Type Classification	Preferred Water Management Strategy for Operations
Land not affected by mining activities	Non-contact water	Divert runoff around active mining areas to watercourses via channels, pipes and/or non-contact water sediment ponds Continue monitoring
Cleared land, light-duty roads	Mine-influenced water	Capture and convey runoff to drainages associated water management infrastructures such as, sediment ponds or promote infiltration with sumps and ditches via overland flow routes
Haul roads and operational areas	Mine-influenced water	Capture and convey runoff to: Drainages associated with sediment ponds Promote infiltration with sumps and ditches via overland flow routes. Active or dormant pits for dewatering or subsequent use if authorized
Pits	Pit water	Pump water to: Sediment ponds prior to discharge to the receiving environment Site process tanks for industrial use if authorized Dust suppression equipment if authorized Saturated Rock Fill water treatment facility
Spoil tops	Mine-influenced water	Avoid runoff flowing down spoil faces. Capture and convey runoff to: Drainages associated with sediment ponds Promote infiltration with sumps and ditches Active or dormant pits for dewatering or subsequent use if authorized
Water retention structures	Mine-influenced water	Managed for geotechnical stability, freeboard maintenance, operational water requirements and water quality by channels, pumping, piping, etc.

Water management structures include dam structures, catch basins, sediment and settling ponds, conveyance ditches, culverts, tailings storage facilities, flocculent addition systems, oil water separators, a sewage treatment system, the Saturated Rock Fill water treatment facility, and the sub-oxic zone spoil construction methodology trial. The catch basins, ponds, and ditches are used to control the effects of sediment-laden water prior to discharge catchments that report to the Elk River and Michel Creek.

EVO manages water effluent in accordance with the *Environmental Management Act* (EMA) Permit 425 (containing authorized works for water management), EMA Permit 107517 and the *Mines Act*. In general, the water management network at EVO intercepts and conveys contact water via ditches or pipes to sumps or sediment ponds. Solids are settled in the ponds and the water is then discharged to the receiving environment. EVO currently operates eleven sediment pond systems which are intended to mitigate suspended sediment from being transported off-site with runoff and entering natural watercourses.

Dewatering of the active pits is required to maintain safe and productive mining, and pit dewatering will be required at various times throughout the remainder of the mine life. Pit water is generally managed through pumping based on an approved Pit Dewatering Plan, as required under Section 1.21 of EMA Permit 425.

Teck has a number of management plans in place in support of water management, such as those that address erosion and sediment control, nitrates, metals leaching, acid rock drainage, freshet preparedness, and emergency response plans, amongst others.

Teck is evaluating or implementing a number of knowledge-building projects including monitoring programs to build long-term records of system behavior, investigations on geochemical control mechanisms such as gypsum sequestration of selenium, geochemical monitoring, and the use of anti-scalant technology for calcite management. Concurrently, EVO operates the Saturated Rock Fill water treatment facility which is successful in reducing selenium and nitrogen compound concentrations in mine-impacted water, prior to being released to the environment. The Saturated Rock Fill water treatment facility has a treatment capacity of about 20,000 m³/day, with plans to expand the treatment capacity in the future as specified in the Implementation Plan Adjustment.

18.8 Camps and Accommodation

Mining personnel are recruited from across Canada with most living in the Elk Valley, within the towns of Elkford, Sparwood, or Fernie. There is no on-site accommodation, and personnel drive-in-drive-out to the operations. There is a 480-bed lodging facility in Elkford that can be allocated by Teck to meet contractor or employee housing needs that Teck may have in the Elk Valley. The conditions of use are subject to negotiations with the District of Elkford.

18.9 Power and Electrical

Elkview Operations electric power is currently supplied via BC Hydro's Natal substation, which feeds EVO's main substation (EV1), and Panel 6 substation that feeds the lower Michel Valley. The EV1 substation distributes 69 kV of power to several mobile substations located around the site which supply power to the equipment and buildings.

The major power consumer is the process plant, which averages 110,000,000 kWh/year.

18.10 Water Supply

Water usage is licenced through under the *Water Sustainability Act*, and no changes can occur without considering the existing authorizations.

EVO currently holds 26 authorized short-term water use approvals and water licences for water use (consumptive) or water diversion (non-consumptive):

- Water for consumptive use (e.g., coal washing, vehicle washing, dust suppression, and fire suppression) is supplied to site by either a network of interconnected groundwater wells, surface water diversions or pit water;
- Non-consumptive water licenses cover ponds that divert the total flow of a creek for the purpose of solids settling and for pit dewatering. For example, all surface water in the Otto Creek catchment is directed through a series of sedimentation ponds in accordance with a conditional water license.

Domestic water is supplied to EVO from the Elk River (via surface water diversion and pipeline) and from well water (drawn from groundwater in the Michel Creek valley).

19.0 MARKET STUDIES AND CONTRACTS

19.1 Market Studies

No market studies are relevant as the operations have sales contracts in place. All sales contracts are entered into by Teck Coal, as nominee and agent for the Elkview Mine Limited Partnership.

Markets for the metallurgical coal products include Asia, Europe, North and South American customers.

EVO produces metallurgical coal for the global steel industry. These are classified as either HCC or SHCC (refer to Section 7.2.3).

19.2 Commodity Price Projections

EVO production can sometimes be blended with the products produced from other Teck operations which is then sold by Teck.

Quarterly-priced sales represent approximately 40% of coal sales, with the sales balance priced at levels reflecting market conditions when sales are concluded. Approximately 90% of coal sales are committed under long-term or annual contracts while the remaining 10% is sold on a spot basis.

Sales distributions of EVO product reflects the overall geographic reach of Teck's diversified steel-making coal customers.

19.3 Contracts

Major site contracts include fuel supply, explosives and accessories, and exploration drilling and maintenance support as needed. Westbound rail service at origin is currently provided by CPR. CPR transports a portion of these westbound shipments to Kamloops, B.C., and interchanges the trains with CNR for further transportation to the west coast. The remaining westbound shipments are transported by CPR from the mines to the terminals in Vancouver. CPR transport is under a tariff that expires in April 2023, and negotiations with CPR for a new westbound contract to replace the tariff are underway. A long-term agreement, until December 2026, is in place with CNR for shipping steelmaking coal from our four B.C. operations via Kamloops to Neptune Bulk Terminals (Neptune) and other west coast ports, including Trigon Terminals (formerly Ridley Terminals Inc.), located in Prince Rupert. Contracts are also in place with all terminal facilities to offload, stockpile, blend EVO coal to Teck's product specifications and, load bulk cargo vessels. Teck holds a 46% interest in Neptune Bulk Terminals. Customers arrange for ocean-going bulk carriers to transport the coal from the terminals to their facilities for end use for approximately 60% of the total number of shipments. For the remaining 40% of shipments, Teck arranges for the ocean-going bulk carriers to transport the coal to customer facilities.

Contracts are negotiated and renewed as needed. Contract terms are within industry norms, and typical of similar contracts in BC that Teck is familiar with.

19.4 Comment on Section 19

The QP has reviewed commodity pricing assumptions, marketing assumptions and the current major contract areas, and considers the information acceptable for use in estimating Coal Reserves and in the economic analysis that supports the Coal Reserves.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

20.1 Introduction

Baseline studies began in support of initial operations. Current mining operations commenced in 1993. Teck has continued with baseline studies in support of ongoing operations and in support of regulatory applications and approvals.

The environmental context at EVO is important to describe because it factors into many of the reclamation and closure activities.

20.2 Environmental Considerations

At Teck, the pursuit of sustainability guides the company's approach to business. In support of this approach, Teck developed an Environmental Policy for Teck's coal operations in 2019. Through the Environmental Policy, Teck commits to the following:

- Complying with applicable legal, regulatory and other requirements, which relate to Teck's operations' identified environmental aspects;
- Ensuring effective implementation, maintenance and documentation of each environmental management system (EMS);
- Setting environmental objectives and targets which measure progress towards continual improvement, utilizing accepted assessment processes;
- Preventing pollution;
- Minimizing environmental impacts of activities and services related to mining operations;
- Making this policy available to our employees, persons working on Teck's behalf and the public; and,
- Raising the environmental awareness of our employees and those working on Teck's behalf.

EVO has established, implemented and maintained an EMS that meets the requirements outlined in the International Standard 14001:2015 and supports implementation of Teck's Environmental Policy. The EMS reflects the commitments made by Teck and EVO to comply with applicable legal and regulatory requirements, prevent pollution, and to continually improve. EVO's EMS also provides the framework for identifying environmental aspects, environmental emergencies, measuring and monitoring requirements, opportunities for continual improvement, and environmental objectives and targets. Employees participate

in the EMS by conforming to standard practices and procedures, which identify their roles and responsibilities when interacting with various environmental aspects.

EVO undergoes annual internal and external International Organization for Standardization (ISO) 14001:2015 standard surveillance and re-certification audits. Results from external ISO audits are summarized annually in the Annual Reclamation Report, provided to Ministry of Energy, Mines and Low Carbon Innovation and other regulatory agencies, and COI.

Management plans currently in place at EVO that interact with the EMS are listed in Table 20-1.

20.2.1 ELK VALLEY WATER QUALITY PLAN

The Elk Valley water quality plan covers the entirety of the Elk Valley area, and is not restricted solely to the EVO.

In April 2013, the BC Minister of Environment issued Ministerial Order No. M113 (Order), which required Teck to prepare an area-based management plan for the Elk River watershed and the Canadian portion of the Koochanusa Reservoir. In this plan, Teck was required to identify the actions Teck would take to manage water quality downstream of Teck's steelmaking coal mines in the Elk River watershed and the Canadian portion of the Koochanusa Reservoir.

From 2013 to 2014, Teck developed the area-based management plan, the Elk Valley Water Quality Plan. Teck had input from the public, Indigenous Nations, provincial and federal governments, technical experts, and other Communities of Interest. Teck submitted the Elk Valley Water Quality Plan to the Minister in July 2014, and it was approved in November that same year. The Elk Valley Water Quality Plan included an Initial Implementation Plan that outlines the mitigation planned to achieve limits for the concentration of selenium, sulphate, nitrate, and cadmium in surface water at specific locations throughout the Elk Valley and in the Koochanusa Reservoir. These limits, both short-term and long-term, are meant to stabilize and reverse increasing concentrations of the four constituents named in the Order.

In November 2014, the BC Ministry of Environment issued Permit 107517 to Teck under the EMA. Many of the actions and commitments that Teck made in the Elk Valley Water Quality Plan Initial Implementation Plan were incorporated into the permit requirements. To comply, Teck must meet the requirements in the EMA Permit 107517, including the construction and operation of treatment facilities on the timelines specified and achievement of water quality limits. At the same time, site-specific Mines Act C-Permits were amended to include a condition for an Implementation Plan Adjustment to be submitted to the Chief Inspector on a three-year cycle. Additionally, Site Performance Objectives were set at Order stations to achieve and maintain area-based protection of aquatic ecosystem health, whereas compliance limits were set at or near the downstream boundary of each operation to measure regulatory compliance at specified compliance point locations.

Table 20-1: Environmental Management Plans

Subject	Title	Regional or Site Specific
Air	Fugitive Dust Management Plan (formerly referred to as the Air Quality and Dust Control Management Plan)	Site-specific
	Regional Air Quality Monitoring Program	Regional
Water	Mine Water Management Plan	Site-specific
	Flocculant Management Plan	Site-specific
	Elk Valley Water Quality Plan	Regional
	Nitrogen Source Control Plan	Site-specific
	Regional Seep Monitoring Plan	Regional
	Freshet and Flood Preparedness Management Plan	Regional
	Regional Surface Flow Monitoring Plan	Regional
	Metal Leaching/Acid Rock Drainage Management Plan	Site-specific
	Well #3 Replacement Management Plan	Site-specific
Wildlife, Ecosystems, Vegetation, and Habitat	Wildlife Mitigation Management Plan	Site-specific
	Fish and Fish Habitat Management Plan	Regional
	Grizzly Bear Denning Management Plan	Regional
	Species Management Plan – American Badger	Regional
	Species Management Plan – Gillette’s Checkerspot	Regional
	Species Management Plan – Compact Grimmia	Regional
	Species Management Plan – Barn Swallow Nesting	Regional
	Species Management Plan – Common Nighthawk	Regional
	Species Management Plan – Little Brown Myotis	Regional
	Species Management Plan – Montana Wildrye	Regional
	Species Management Plan – Olive-Sided Flycatcher	Regional
	Teck Bird Guideline (formerly referred to as the Bird Guidance Document)	Regional
	Teck Fish and Herptile Salvage Operations Guidance Document	Regional
	Invasive Plant Management Plan	Regional
	Biodiversity Management Plan	Site-specific
	Ecosystem Management Plan – High Elevation Grasslands	Regional
Species Management Plan – Whitebark Pine	Regional	
Reclamation	Soil Salvage Management Plan	Regional
	EVO Soil Salvage Plan	Site-specific
	Project-specific Soil Salvage Plans	Site-specific
Waste	Soil Treatment Facility Operating Procedure	Site specific

Subject	Title	Regional or Site Specific
	Sediment Management Plan	Site-specific
	Waste and Materials Management Plan	Site-specific
	Soil Treatment Facility Design and Operations Plan	Site-specific
	Landfill Design and Operations Plan	Site-specific
	Wash Bay and Sump Residuals Management Plan	Site-specific
	Storage Tank Management Plan	Site-specific
	Spill Response Standard Practices and Procedures	Regional
Communities	Archaeological Resources and Paleontological (Fossil) Chance Find Management Procedure	Regional
	Noise Management Plan	Site-specific
	Socio-Community and Economic Effects Management Plan	Site-specific
	Visual Quality Management Plan	Site-specific
Engineering and Construction	Blasting and Vibration Management Plan	Site-specific
	Construction Environmental Management Plan	Site-specific

In July 2022, Teck submitted to regulators an Implementation Plan Adjustment in accordance with EMA Permit 107517 and Mines Act C-Permit requirements. The objective of this plan is to outline the timing and sizing of treatment and other water quality mitigations that support the objectives of the Elk Valley Water Quality Plan and to best meet EMA Permit 107517 commitments based on the latest understanding and progress. Water quality constituents included in the 2022 Implementation Plan Adjustment are nitrate, selenium and sulphate. Cadmium treatment is not required to meet permit limits. The Implementation Plan Adjustment defines treatment facilities from current to past 2100 that will expand selenium and nitrate treatment capacity up to 206,500 m³/day. The plan includes 38,000 m³/day of sulphate treatment.

Water Operations and Existing Treatment

Since 2014, Teck has made significant progress on implementing water treatment in the Elk Valley with four water treatment facilities built and either fully operational or in commissioning. These treatment facilities include the West Line Creek active water treatment facility (AWTF), EVO saturated rock fill (SRF) Phase 1, FRO AWTF-S and the FRO-N1 SRF Phase 1. Two clean water diversions are in place, the FRO Kilmarnock Creek diversion and the EVO South Gate Creek diversion.

Research and Technology Development Program

The current Applied Research and Technology Development Program at Teck was initiated approximately in 2011 and since then Teck has performed over a decade of research and development in the Elk Valley

with the program focusing on improving the effectiveness of water treatment technologies and investigating approaches to managing constituents at source.

Adaptive Management Plan

The Adaptive Management Plan guides the process for updating the Implementation Plan Adjustment. The adaptive management cycle comprises six steps: assess, design, implement, monitor, evaluate and adjust.

Calcite Management Plan

This is a regional plan developed to identify management solutions to the issues of calcite precipitation in receiving environment waters as set through the Elk Valley Water Quality Plan. Treatment plans for calcite management are prevention via anti-scalant addition systems and calcite remediation via physical excavation and stream bed restoration.

Upper Fording River and Harmer Grave West Cutthroat Trout Recovery Projects

Fish census data obtained in late 2019 showed unexpected and substantial reductions in populations of Westslope Cutthroat trout in some mine-affected waters in the Elk Valley.

In response to a decline in the abundance of Westslope Cutthroat Trout in the upper Fording River, Teck initiated an Evaluation of Cause process to investigate and report on the cause of the decline between 2017 and 2019. An Evaluation of Cause was also initiated for the Harmer-Grave Watershed upstream of the Harmer Sediment Pond to investigate and report on the cause of the decline between 2016 and 2019.

Based on Evaluation of Cause findings for the upper Fording River, Teck assembled a team of qualified scientists to develop a recovery action plan for the upper Fording River Westslope Cutthroat Trout. Teck is planning to provide updates on this plan when data are available.

The Harmer-Grave Evaluation of Cause preliminary findings indicate that the population decline was primarily associated with a loss of juveniles due to failed, or poor, recruitment during this period. The Harmer-Grave Watershed Westslope Cutthroat Trout Recovery Project has been developed to address the population decline by supporting the Westslope Cutthroat Trout population recovery while building long-term population resilience. Teck has assembled a team of qualified scientists to develop a recovery action plan for the Harmer-Grave Watershed. Teck is planning to provide updates on this plan when data are available.

Until additional results are available, and mitigations are demonstrated to be successful, Teck may face delays in permitting or restrictions on mining activities in their Elk Valley.

Environment and Climate Change Canada 2020 Direction

On October 29, 2020, Environment and Climate Change Canada (ECCC) issued a Direction under the Fisheries Act to Teck Coal, requiring measures to be taken to reduce selenium in the Elk Valley in waters

affected by Teck's Fording River and Greenhill Operations. The Direction includes 11 measures, of which five were completed at the Report effective date.

Proposed Coal Mining Effluent Regulation

In February 2018, the government of Canada proposed new regulations under the Fisheries Act related to coal mining effluent. While these regulations are still in development, they could impose significant costs and operating limitations on Teck's steelmaking coal operations. In the absence of these new regulations, coal mining activities cannot be conducted in compliance with the Fisheries Act and Teck may face significant liability as a result. Federal regulatory issues may create additional difficulties in obtaining permits for the Elk Valley operations, whether or not charges are eventually laid, or Teck is successful in defending any charges.

20.2.2 WATER MANAGEMENT INFRASTRUCTURE

The water management infrastructure is discussed in Section 18.7.

20.2.3 VEGETATION AND WILDLIFE MANAGEMENT

Elkview Operations has a long history of invasive plant control and continues to employ management practices following the guidance outlined in Teck's regional Invasive Plant Management Plan (Teck Coal, 2022).

The Invasive Plant Management Plan's objectives are to minimize the loss or degradation of mining areas, reclaimed land, productive ecosystems and ecosystem services, wildlife habitat and associated biodiversity by using an integrated management approach. The elements of this approach include:

- Preventing establishment of new invasive species and infestations by implementing operational strategies to reduce the introduction or spread of invasive plants, such as cleaning equipment, minimizing access, reducing disturbance and revegetating exposed ground in a timely manner;
- Identifying all invasive species and sites by conducting comprehensive inventory surveys;
- Classifying priority sites and species, and identifying the action thresholds for these sites;
- Implementing the safest, most effective treatment plan to best manage priority infestations;
- Implementing a comprehensive monitoring program to guide management decisions; and
- Continuing to evaluate the program by analyzing key indicators to determine if objectives are being achieved.

Vegetation monitoring is ongoing to evaluate revegetation success at reclaimed sites. Monitoring is also undertaken in undisturbed sites.

Teck maintains active and comprehensive wildlife monitoring programs and has developed and implemented wildlife habitat models that are used to mitigate impacts to wildlife. Routine efforts include wildlife surveys, records of wildlife observations and human–wildlife interactions, use of motion sensor cameras to monitor wildlife habitat use and occupancy, and relocation and salvage of herptile and fish species where needed.

20.2.4 SPOIL PILES

Design of layouts for waste rock spoils include considerations for spoil slope stability and selenium management strategies.

Selenium management strategies follow guidelines contained in the report issued by the Strategic Advisory Panel on Selenium Management (SAPSM) (Swanson, 2010).

The geotechnical assessment of spoils considers the requirements in the Guidelines for Mine Waste Dump and Stockpile Design (Hawley and Cuning, 2017) and also cross references with British Columbia Mine Waste Rock Pile Research Committee (BCMWRPRC) Guidelines on investigation and design (Piteau Associates Engineering Ltd., 1991), operation and monitoring (Klohn Leonoff Ltd., 1991), review and evaluation of failure (Broughton, 1992), and rock drain research program (Piteau Engineering Ltd., 1997).

20.2.5 TAILINGS DISPOSAL

Tailings facilities are operated and managed through best applicable practices and consider guidance from Teck’s policies and procedures, the Global Industry Standard for Tailings Management (GISTM), Mining Association of Canada (MAC), Canadian Dam Association (CDA) and relevant government agencies. Designs for these facilities are established considering consequences on human life, the environment, and the economy.

20.3 Closure Considerations

The approach to reclamation design and implementation is directed by EVO’s overarching end land use and biodiversity objectives:

- Long term safety and stability of drainages, landforms, and features;
- Water quality that meets acceptable quality guidelines for safe release to the surrounding environment and use by local flora and fauna;
- A net positive impact on biodiversity by maintaining or re-establishing self-sustaining landscapes and ecosystems that leads to agreed, viable, long term and diverse land use objectives in Teck’s operating areas.

Teck is committed to successfully returning areas disturbed by mining activities to a self-sustaining state by re-vegetating using native plant species and, if required, other mitigation options in the mitigation

hierarchy. This involves identifying potential impacts, finding ways to avoid or minimize those impacts, and subsequently achieving gains through rehabilitation, offsets, and other conservation actions. Teck first tries to reduce impacts on biodiversity by avoiding areas of high biodiversity value (e.g., redesigning waste rock piles using a bottom-up design to minimize the footprint and avoid future instabilities and additional disturbance). Following those mitigation efforts, attempts are made to minimize disturbance and reclaim disturbed areas as soon as feasible after mine activities are complete (i.e., progressive reclamation as facilities are no longer required for operations). In cases where impacts remain on the landscape after avoidance, minimization, and rehabilitation, restoration and/or averted loss, offsets would be designed and implemented to support Teck's net positive impact goal.

Reclamation practices and prescriptions are based on established and innovative reclamation techniques, and on the history of successful reclamation conducted at Teck mines to date. The anticipated outcome of this approach is the re-instatement of vegetation dynamics and successional trajectories such that, over time, the landscape is capable of providing ecosystems similar to those that existed prior to mine disturbance.

The reclamation plan is based on the current approved permits and is considered a high-level conceptual plan that will change throughout the active mining period.

Provisional ongoing progressive reclamation and closure costs are considered in the economic analysis that supports the Coal Reserves. Due to the length of the mine life, the net present value of final closure costs is considered negligible in the economic analysis. Due to the length of the mine life, final closure costs are updated every five years, or as required through major permit amendments, and submitted to the relevant regulatory authorities.

Teck has a bonding schedule as part of the *Mines Act* permits, with the amount of the bond to be paid and the schedule set out in the permits.

In December 2021, Teck adopted a closure standard that conforms with the International Council on Mining and Metals' and the Mining Association of Canada's "Towards Sustainable Mining" initiative guidance on closure. Teck's objective is to be compliant with the new standard by 2024.

20.4 Permitting

As of December 31, 2022, all necessary licences and permits and their subsequent amendments are in place for current operations at EVO.

Mining and reclamation operations are carried out in under a C-2 Permit issued by the Ministry of Energy, Mines and Low Carbon Innovation. Environmental impacts were evaluated and approved by the Environmental Assessment Office for the Baldy Ridge Extension Project under Project Approval Certificate #M96-02, and the Baldy Ridge Extension Environmental Assessment Certificate #M16-01.

Permits will be required for the NP3 (2041), NP2 West (2029), and expanded AR (2029) phases that are included in the LOM plan.

20.5 Social Considerations

The Project area lies within ʔamakʔis Ktunaxa, the territory of the Ktunaxa Nation and within the Ktunaxa district of Qukin ʔamakʔis or Raven's Land. Qukin ʔamakʔis extends from the headwaters of the Elk River downstream to near the town of Elko, an area of more than 3,500 km².

Strengthening the relationship with the Ktunaxa Nation and the Ktunaxa Nation Council is an important objective for Teck. In November 2007, the two parties signed a joint Working Protocol Agreement, and in 2010, a Consultation Agreement. In 2016, an Impact Management and Benefits Agreement was signed between Teck and the Ktunaxa Nation Council, which supersedes the previous two agreements.

Upon signing in 2016, the Impact Management and Benefits Agreement superseded the Working Protocol and Consultation Agreements and clearly outlines specific obligations and commitments for Teck and the Ktunaxa Nation Council with respect to all future projects in the Elk Valley.

The Impact Management and Benefits Agreement formalizes the long-standing relationship with the Ktunaxa Nation Council and creates a framework for greater cooperation and clarity on topics, including consultation and engagement, the environment and land stewardship, cultural resource management, and employment and business opportunities (including project-specific effects to Ktunaxa Nation interests). The Impact Management and Benefits Agreement also includes dispute resolution processes and guidance on how both parties will proceed should a dispute arise. Consultation and engagement between Teck and Ktunaxa Nation Council associated with development, operations, reclamation and closure are, and will continue to be, undertaken through the processes established in the Impact Management and Benefits Agreement such as the Environmental Working Group, Procurement and Employment Operational Working Group, and the Cultural Working Group.

Teck also works with a number of local partners and organizations on economic, social and environmental initiatives including:

- The Elk Valley/Crowsnest Pass Communities of Interest Advisory Initiative (COIAI) is an advisory initiative created to foster dialogue and communications about Teck's operations and their areas of influence within these communities. This initiative corresponds with one of Teck's community sustainability goals: to put processes in place to maximize community benefits and collaboration. The initiative is one way industry, groups and individuals can work together to tackle issues and challenges in the community. It is also a vehicle to share information about Teck's operations and activities with the community and to gain feedback from them;
- The Elk Valley Economic Initiative (EVEI) is a partnership between Teck, the local Elk Valley communities of Elkford, Fernie and Sparwood, and local First Nations groups to attract, expand and diversify business opportunities in the region;

- Environmental Assessment Certificate (EAC) #M16-01 was issued by the Province of BC to Teck's Elkview Operations (EVO) Baldy Ridge Extension Project under the Provincial Environmental Assessment Act on September 19, 2016. Under Condition 21 of this permit, Teck was required to prepare the Socio-Community and Economic Effects Management Plan (SCEEMP). The SCEEMP contains the framework for Teck's participation in the Socio-Community and Economic Effects Advisory Committee (SCEEAC), which is a Select Committee of the District of Sparwood Council. The Committee performs an advisory role, focused on making recommendations to Council and Teck for consideration with respect to the Baldy Ridge Expansion. The SCEEAC reviews and comments on the management plans as outlined in the SCEEMP. The Terms of Reference outlines the mandate and guiding principles for this Committee and meetings are open to the public;
- The Elk River Alliance (ERA) is an organization that brings together individual citizens, local governments, companies, and community groups, with the shared purpose of keeping the Elk River watershed healthy;
- Teck participates in regular and Committee of the Whole Council meetings with local governments in the District of Elkford, the District of Sparwood, the City of Fernie, the Regional District of East Kootenay Area "A", and the Municipality of the Crowsnest Pass. Topics of interest include updates on upcoming regulatory and project work as well as economic contributions.

Additional collaboration and engagement occur through annual open houses held to share information on topics of importance to residents and local land users (including recreationalists involved in hunting, fishing, trapping, biking, snowmobiling, and all-terrain vehicle use) such as water, land access and reclamation. Teck supports the broader community through the work of a dedicated Community Liaison and a Community Investment program. In addition, Teck operates a feedback mechanism accessible via phone and email and offering the possibility of reporting feedback of any kind either anonymously or by leaving contact information for a timely response.

21.0 CAPITAL AND OPERATING COSTS

21.1 Introduction

EVO is an on-going operation with significant operating history. Annual budget plans, as well as long-range plans are developed on a regular basis. The plans forecast mine waste volumes, coal tonnage, and operating and capital mine expenditures on an annual basis. The plans are based on historical and projected equipment operating productivities and costs and are reviewed to ensure that the projected equipment and labour operating hours and associated costs are valid.

All aspects of the mining process are included in the operating plans, including waste mining, coal mining and processing, and logistical and reclamation activities. Indirect costs such as taxes, royalties, administration and overhead are also detailed on an annual basis. Included in the planning process is an estimate of the future expected price of EVO coal, which is jointly provided by Teck's marketing and finance departments.

As part of the long-range planning process, sensitivity analyses are carried out to evaluate changes in operating and capital expenditures as well as variations in coal pricing and exchange rates.

Capital and operating costs forecasts are prepared to meet a $\pm 25\%$ accuracy range.

21.2 Capital Cost Estimates

Capital expenditures for development of new mining areas and equipment acquisitions and replacements are developed based on requirements to support the mine plan and a schedule of the spending is prepared. Costs are based on vendor quotes, and forecasts based on past operating experience, depending on the level of detail required for the cost estimate, and the timing of the capital expenditure.

Large equipment replacements (shovels, loaders, trucks, drills) are calculated based on the mine schedule and the equipment's standard life expectancy. Other costs are based on a five-year estimation window, in which detailed estimates are provided for specific capital spend by each department. Costs for the remaining mine life after the five-year window are based on average expenditure, and pro-rated based on material movement each year.

LOM capital cost forecasts are summarized in Table 21-1 for the period 2023–2061.

Table 21-1: LOM Capital Cost Estimate

Capital Expenditures	(C\$ M)
Mining equipment	1,850
Plant & infrastructure	270
Infrastructure	100
Pit development	836
Sustainability	538
Total capital	3,594

Note: numbers have been rounded.

In this table:

- Mining equipment includes the capital costs required to purchase haul trucks, shovels, drills, loaders and support equipment;
- Plant and infrastructure include expenditures required to sustain plant operations and maintain the integrity of site utilities;
- Pit development includes permitting, access, pre-development work, and infrastructure costs;
- Sustainability includes the capital costs required for water treatment, reclamation, and infrastructure required to minimize environmental impact.

21.3 Operating Cost Estimates

Anticipated LOM operating costs are included in Table 21-2 for the period 2023–2061. In this table:

- Mining and processing costs include all labour, fuel, electrical power, consumables, repair parts and external services;
- Transportation costs include logistical costs related to the transport of clean coal products from site to customers;
- “Other” includes exploration and head office allocations and non-capitalized exploration and reclamation.

Table 21-2: LOM Operating Cost Estimate

Operating Costs	(C\$/t clean coal)
Mining and processing	98.01
Transportation	40.01
Other	5.27
Total cash costs	143.29

22.0 ECONOMIC ANALYSIS

Teck is using the provision for producing issuers, whereby producing issuers may exclude the information required under Item 22 for technical reports on properties currently in production and where no material production expansion is planned.

Coal reserve declaration is supported by overall site positive cash flows and net present value assessments.

23.0 ADJACENT PROPERTIES

This section is not relevant to this Report.

24.0 OTHER RELEVANT DATA AND INFORMATION

This section is not relevant to this Report.

25.0 INTERPRETATION AND CONCLUSIONS

25.1 Introduction

The QP notes the following interpretations and conclusions, based on the review of data available for this Report.

25.2 Mineral Tenure, Surface Rights, Water Rights, Royalties and Agreements

Information from legal experts and Teck's in-house experts support that the mining tenure held is valid and sufficient to support a declaration of Coal Resources and Coal Reserves.

Teck holds sufficient surface rights to allow mining activities.

Royalties are payable to the Province of British Columbia.

25.3 Geology and Mineralization

The Project "geology type" is classified by the Geological Survey of Canada as "moderate" and "complex".

The "deposit type" is classified as a "surface mining" type, also based on Geological Survey of Canada criteria.

The quality of the coal in the Mist Mountain Formation seams varies with depth of burial and location along the strike of the deposit. Most coal products produced by EVO require a blend of coal mined from two or more seams, and possibly coal from different mining areas.

The geological understanding of the settings, lithologies, and structural controls on the coal seams is sufficient to support estimation of Coal Resources and Coal Reserves. The geological knowledge of the area is also considered sufficient to reliably inform mine planning.

25.4 Exploration, Drilling and Analytical Data Collection in Support of Mineral Resource Estimation

The exploration programs completed to date are appropriate for the "moderate" and "complex" style.

Sampling methods are acceptable for Coal Resource and Coal Reserve estimation.

Sample preparation, analysis and security are generally performed in accordance with coal industry accepted practices and standards.

The quantity and quality of the lithological, geotechnical, collar and down-hole survey data collected during the exploration and delineation drilling programs are sufficient to support Coal Resource and Coal Reserve estimation. The collected sample data adequately reflect seam dimensions, seam true widths of

mineralization, and the “moderate” and “complex” seam style. Sampling is representative of the coal quality.

The data verification programs concluded that the data collected from the Project adequately support the geological interpretations and constitute a database of sufficient quality to support the use of the data in Coal Resource and Coal Reserve estimation.

25.5 Metallurgical Testwork

Metallurgical test work and associated analytical procedures were appropriate to the mineralization type, appropriate to establish the optimal processing routes, and were performed using samples that are typical of the coal seams found within the Project area.

Samples selected for testing were representative of the various seam types. Samples were selected from a range of depths within the EVO area. Sufficient samples were taken so that tests were performed on sufficient sample mass.

The bituminous coal seams at EVO are blended to produce coal with consistent quality for either HCC or SHCC products.

Predicted yields are continuously evaluated to more closely match the actual plant performance.

25.6 Coal Resource Estimates

The Coal Resource estimation for the Project conforms to industry best practices and is reported using the 2014 CIM Definition Standards.

The Coal Resources are forward-looking information and actual results may vary.

Factors that may affect the Coal Resource estimate include: changes to long-term coal price assumptions; changes in geological interpretations including the size, shape and distribution of interpreted lithologies; changes in local interpretations of seam geometry, fault geometry and seam continuity; changes to coal recovery assumptions; changes to the input assumptions used to derive the conceptual open pit outlines used to constrain the estimate; variations in geotechnical, hydrogeological and mining assumptions; and changes to environmental, permitting and social license assumptions.

There is upside potential for the Project if some or all of the Measured and Indicated Coal Resources can be converted to Coal Reserves, and if some or all of the Inferred Coal Resources can be converted to higher-confidence categories and subsequently to Coal Reserves.

25.7 Coal Reserve Estimates

The Coal Reserve estimation for the Project incorporates industry-accepted practices and meets the requirements of the 2014 CIM Definition Standards.

The Coal Reserves are forward-looking information and actual results may vary.

Coal Resources were converted to Coal Reserves using a detailed mine plan, an engineering analysis, and consideration of appropriate modifying factors.

Areas of uncertainty that may materially impact the Coal Reserve estimates include: changes to long-term coal price assumptions; changes in geological interpretations including the size, shape and distribution of interpreted seams and waste; changes in local interpretations of seam geometry, fault geometry and seam continuity; changes to the input assumptions used to derive the open pit outlines used to constrain the estimate; variations in geotechnical, hydrogeological and mining assumptions; changes to environmental, permitting and social license assumptions.

25.8 Mine Plan

Mining operations are conducted year-round.

The open pit mine plans are appropriately developed to maximize mining efficiencies, based on the current knowledge of geotechnical, hydrological, mining and processing information on the Project.

The mining operations use conventional truck-and-shovel methods. As a result of delivery requirements and varying coal seam qualities it is necessary to have multiple coal seams exposed at any time.

EVO currently produces coal from three active pit phases (Baldy Ridge BR6, Baldy Ridge BR2 and Natal Phase NP2) using open-pit coal mining methods, with primary waste stripping and coal mining completed by shovels and rear dump haul trucks. Additional permitted (Baldy Ridge BR3, Baldy Ridge BR4, Baldy Ridge BR5, Baldy Ridge BR7, Adit Ridge AR) and unpermitted (Adit Ridge, Natal Phase NP2 West, Natal Phase NP3) phases are planned.

The Coal Reserves support a mine life to 2061, including non-permitted areas of AR extension, NP2W, and NP3.

As part of day-to-day operations, Teck will continue to perform reviews of the mine plan and consider alternatives to, and variations within, the plan. Alternative scenarios and reviews may be based on ongoing or future mining considerations, evaluation of different potential input factors and assumptions, and corporate directives.

25.9 Recovery Plan

The process methods in use are conventional to the industry. The processes are widely used in the coal industry with no significant elements of technological innovation.

25.10 Infrastructure

All key infrastructure is built, and the mine is operating. The Harmer Maintenance complex is planned to be relocated by mid 2025 to enable mining to continue. Some new haul roads, spoil piles and environmental

control systems will be required for future developments and are included in the mine planning and Project economics.

The Westfork tailings facility will not have sufficient capacity for the remaining tailings; Teck will evaluate other tailings storage options and apply for relevant permits for the selected options prior to the final capacity of the Westfork tailings facility being reached.

The CCR facility will not have sufficient capacity for the remaining CCR; Teck will evaluate other CCR storage options and apply for relevant permits for the selected options prior to the final capacity of the CCR facility being reached.

The existing infrastructure, staff availability, existing power, water, and communications facilities, and the methods whereby goods are transported to the mine are all in place and well-established, and can support the estimation of Coal Resources and Coal Reserves.

25.11 Environmental, Permitting and Social

Environmental and social management plans were developed in support of operations.

Teck continues to implement the Elk Valley Water Quality Plan to address increasing selenium, nitrate and sulphate water concentrations, assess and track levels of cadmium, while at the same time allowing for continued sustainable mining within the watershed. The Elk Valley Water Quality Plan also lays out a strategy to address calcite formation associated with historical and current mining activities.

Vegetation management is an integrated part of EVO's operation. This includes the planning for re-vegetation for reclamation activities, management of invasive plants, and rare plant surveys. A Wildlife Mitigation Management Plan is in place.

Historically, waste rock at the EVO site has been deposited in spoil piles in the Erickson Valley, as well as backfilled in previously-mined areas. Suitable spoil areas are limited at EVO due to steep topography, natural watercourses on all sides of the mining area, and the proximity of Sparwood and the CPR and Highway 3 corridor on the western side of the property. Significant effort was made to optimize spoil designs for the Project by maximizing in-pit spoiling.

The EVO currently manages five slurried tailings facilities and one mixed CCR facility. There are currently no plans to raise any of the lagoons beyond their current configurations. Teck is currently evaluating plans to raise the Westfork tailings facility to its permitted elevation of 1,710 m.

Provisional ongoing progressive reclamation and closure costs are considered in the economic analysis that supports the Coal Reserves. Due to the length of the mine life, the net present value of final closure costs is considered negligible in the economic analysis.

Due to the length of the mine life, final closure costs are updated every five years, or as required through major permit amendments, and submitted to the relevant regulatory authorities. Teck has a bonding

schedule as part of the *Mines Act* permits, with the amount of the bond to be paid and the schedule set out in the permits.

As of December 31, 2022, all necessary licences and permits and their subsequent amendments are in place for current operations at EVO. Permits will be required for the NP2 West (2029), NP3 (2041) and expanded AR (2029) phases that are included in the LOM plan.

An Impact Management and Benefits Agreement is in place with the Ktunaxa Nation Council.

Teck also works with a number of local partners and organizations on economic, social and environmental initiatives.

25.12 Markets and Contracts

Markets for the metallurgical coal products include Asia, Europe, North and South American customers.

EVO production is blended with the products produced from other Teck operations, then sold by Teck Coal.

Quarterly-priced sales represent approximately 40% of coal sales, with the sales balance priced at levels reflecting market conditions when sales are concluded.

Major site contracts include fuel supply, explosives and accessories, and exploration drilling and maintenance support as needed. Westbound rail service at origin is currently provided by CPR. CPR transports a portion of these westbound shipments to Kamloops, B.C., and interchanges the trains with CNR for further transportation to the west coast. The remaining westbound shipments are transported by CPR from the mines to the terminals in Vancouver. CPR transport is under a tariff that expires in April 2023, and negotiations with CPR for a new westbound contract to replace the tariff are underway. A long-term agreement, until December 2026, is in place with CNR for shipping steelmaking coal from our four B.C. operations via Kamloops to Neptune and other west coast ports, including Trigon Terminals, located in Prince Rupert. Contracts are also in place with all terminal facilities to offload, stockpile, blend EVO coal to Teck's product specifications and, load bulk cargo vessels. Teck holds a 46% interest in Neptune Bulk Terminals. Customers arrange for ocean going bulk carriers to transport the coal from the terminals to their facilities for end use.

The QP has reviewed commodity pricing assumptions, marketing assumptions and the current major contract areas, and considers the information acceptable for use in estimating Coal Reserves and in the economic analysis that supports the Coal Reserves.

25.13 Capital Cost Estimates

The capital cost estimates are prepared at a $\pm 25\%$ accuracy.

The LOM capital cost estimate for the period 2023–2061 is C\$3,594 million. Included in that estimate are:

- Mining equipment includes the capital costs required to purchase haul trucks, shovels, drills, loaders and support equipment;
- Plant and infrastructure include expenditures required to sustain plant operations and maintain the integrity of site utilities;
- Pit development includes exploration, permitting, access, pre-development work, and infrastructure costs;
- Sustainability includes the capital costs required for water treatment, reclamation, and infrastructure required to minimize environmental impact.

25.14 Operating Cost Estimates

The operating cost estimates are prepared at a $\pm 25\%$ accuracy.

The LOM average cash cost estimate for the period 2023–2061 is C\$143.29/t clean coal.

Included in that estimate are:

- Mining and processing costs include all labour, fuel, electrical power, consumables, repair parts and external services;
- Transportation costs include logistical costs related to the transport of clean coal products from site to customers;
- “Other” includes exploration and head office allocations and non-capitalized exploration and reclamation.

25.15 Economic Analysis

Teck is using the provision for producing issuers, whereby producing issuers may exclude the information required under Item 22 for technical reports on properties currently in production and where no material production expansion is planned.

Coal reserve declaration is supported by overall site positive cash flows and net present value assessments.

25.16 Risks

The major risks facing the operations are water management and quality, and obtaining the required permits to allow the execution of the LOM plan as envisaged.

The risk analysis for the 2022 LOM plan also identified the following key risks that could affect the plan:

- If there are delays to full-scale implementation of the autonomous haulage fleet, or planned productivities are not realized, then additional truck purchases will be required; Decommissioning of the Harmer Maintenance Complex (HMC) will be required to be complete by mid-year 2025 to ensure on-schedule mining of Baldy Ridge. The new Administrative Maintenance Complex (AMC) must be complete prior to demolition occurring;
- Permits will be required to allow the spoiling schedule in the 2022 LOM plan to continue past 2030. If these are not granted, the operating cost estimates could be affected due to longer than envisaged haulage requirements;
- The Adit Ridge permit and the permit for the unpermitted portion of NP2 will both be required by 2029. NP3 requires permitting by 2041. Additional drilling is required in all areas to support permit application;
- The tailings and CCR facilities will not have sufficient capacity for the remaining tailings and CCR storage; Teck will need to evaluate other storage options and apply for relevant permits for the selected options prior to the capacity of each facility being reached. If these facilities cannot be permitted, the assumed mine life will be affected;
- Annual waste spoiling has increased at EVO, and effects on the Elk Valley Water Quality Plan need to be closely monitored;
- Changing market conditions can have significant impacts on EVO product blends and mine sequencing. Changes to import regulations or customer specification requirements may change the demand for EVO products. A low coal price environment or increasing costs could render a portion of the mine plan uneconomic;
- Remaining in good standing on a social level with all stakeholders is critical to continued success at EVO. Dust management, water quality, blasting vibrations, blast fumes, and noise are of particular concern to nearby residents.

25.17 Opportunities

The risk analysis for the 2022 LOM plan identified the following key opportunities:

- Target drilling activities to upgrade Inferred Coal Resources to higher confidence categories;
- Reduce greenhouse gas emissions from mining operation activities;
- Continue optimization of the mine plan during each year of future mining operations.

25.18 Conclusions

Under the assumptions in this Report, the EVO Coal Reserve declaration is supported by overall site positive cash flows and net present value assessments.

The mine plan is achievable under the set of assumptions and parameters used in the Report.

26.0 RECOMMENDATIONS

As EVO is an operating mine, with no planned expansions, the QPs have no meaningful recommendations to make.

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