



COEUR MINING®

Wharf Operations South Dakota Technical Report Summary



Prepared for:

Coeur Mining, Inc.

Report current as at:

December 31, 2021

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APPENDICES

Appendix A: Detailed Mineral Tenure Tables and Figures

1.0 EXECUTIVE SUMMARY

1.1 Introduction

Mr. Christopher Pascoe, RM SME, Mr. Tony Auld, RM SME, Ms. Lindsay Chasten, RM SME, Mr. Kenan Sarratt, RM SME, and Mr. John Key, RM SME, prepared this technical report summary (the Report) for Coeur Mining, Inc. (Coeur), on the Wharf Gold Operations (the Wharf Operations or the Project), located in South Dakota.

Coeur acquired the Wharf Operations in February 2015 from Goldcorp Inc. (Goldcorp). The Wharf Operations are conducted by Coeur's wholly owned subsidiaries, Wharf Resources (USA) Ltd. (Wharf Resources) and Golden Reward Mining Limited Partnership (Golden Reward LP). For the purposes of this Report, Coeur is used interchangeably to refer to the parent and subsidiary companies.

1.2 Terms of Reference

The Report was prepared to be attached as an exhibit to support mineral property disclosure, including mineral resource and mineral reserve estimates, for the Wharf Operations in Coeur's Form 10-K for the year ended December 31, 2021.

Mineral resources and mineral reserves are reported for the Portland Ridge open pit, which is exploiting the Wharf deposit. Mining commenced in 1982, and mining operations were conducted at the American Eagle, Green Mountain, Golden Reward, and Portland Ridgeline pits. Currently, only the Portland Ridge open pit is active and is operated as a conventional truck and loader operation.

Unless otherwise indicated, all financial values are reported in United States (US) dollars (US\$). Unless otherwise indicated, the US customary unit system is used in this Report. The Report uses US English.

Mineral resources and mineral reserves are reported using the definitions in Item 1300 of Regulation S-K (17 CFR Part 229) (SK1300) of the United States Securities and Exchange Commission. Illustrations, where specified in SK1300, are provided in the relevant Chapters of report where that content is requested.

1.3 Property Setting

The Wharf Operations are in the northern Black Hills of western South Dakota, approximately nine miles south of Interstate 90 near Spearfish, South Dakota and approximately 3.5 miles south and west of the city of Lead, South Dakota.

Access to the Project from Lead is by Nevada Gulch Road, a paved road, which is followed for 4.6 miles to the Wharf Mine Road, an all-weather gravel road, which is followed for 2.1 miles to the mine office.

The climate in the Wharf Operations area is classified as cold and semi-arid. Mining operations are conducted year-round.

Elevations in the Project area range from approximately 5,800–6,700 ft above sea level. South of, and adjacent to, the mine is Terry Peak at 7,064 ft. A ski area on Terry Peak is operated during winters.

The area is primarily forested with ponderosa pine, and to a lesser extent, Black Hills spruce.

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

The Wharf Operations consist of two contiguous property groups:

- Wharf group: northern and western sectors of the Project area; 362 patented lode claims, 35 government lots, 133 subdivided lots, and 59 federal unpatented lode claims; and
- Golden Reward group: southern and eastern sectors of the Project area; 196 patented lode claims, 14 government lots, 19 subdivided lots, and 34 federal unpatented lode claims.

The patented lands are private land and not subject to federal claim maintenance requirements. However, as private land, they are subject to ad valorem property taxes assessed by Lawrence County, South Dakota. The federal unpatented lode claims are maintained by the timely annual payment of claim maintenance fees, which are presently \$165 per claim, payable to the United States Department of the Interior, Bureau of Land Management on or before September 1 each year. As at the Report date, all required payments had been made.

Surface rights are a combination of patented lode claims, federal unpatented lode claims, government lots and fee property. No additional rights are needed to support the life-of-mine (LOM) plan presented in this Report.

Coeur has agreements with the Black Hills Chair Lift Company. These agreements, as amended, generally provide that the Black Hills Chair Lift Company will support and assist Coeur in obtaining permits and authorizations for the expanded mine operations and will provide consent and access on lands it owns for Coeur's mining activities in exchange for financial support, conveyance of specified parcels, water use, and other considerations. A timber cutting agreement is in place with Neiman Timber Co., L.C.

Potable water is supplied to the Wharf Operations by wells. Coeur owns multiple groundwater and surface water rights sufficient to support ongoing operations. No additional water rights are anticipated to be required for LOM operations.

The mineral tenures are subject to several royalties, which range from sliding scale royalty payments on production to fixed production royalties to net smelter return royalties. The largest royalty is payable to Royal Gold, Inc. (Royal Gold).

The Wharf Property is secured pursuant Coeur's revolving credit facility.

1.5 Geology and Mineralization

The genesis of the Wharf deposit is considered controversial, and has been described as a hydrothermal replacement deposit, a Carlin-type deposit, and more recently as a low- to intermediate-sulfidation epithermal deposit. The gold mineralization is disseminated and structurally controlled.

The Black Hills of South Dakota are located at the junction of several major terranes that have been the locus of repeated rifting and collisional events. A complex deformational history is preserved in the Laramide age Black Hills uplift which exposes Archean through Oligocene rocks. Regional uplift, doming, and subsequent erosion have exposed older, underlying Precambrian rocks in "windows" through the younger, overlying Phanerozoic rocks. Contemporaneous Tertiary

alkalic magmatic intrusive centers occur along a west–northwest-trending belt across the northern Black Hills.

The Lead–Deadwood dome, a northwest-oriented structure about 5.5 miles long and 3.5 miles wide, exposes a Precambrian core of metasedimentary and metavolcanic rocks, flanked by numerous Tertiary porphyritic intrusions and intrusive breccias. The core is ringed outwards by sedimentary rocks including the Cambrian–Ordovician Deadwood Formation and Mississippian Pahasapa Limestone, which have both been mineralized at different locations. Intrusive rocks, primarily sills, inflate the sedimentary section, and dikes and stocks intrude the Precambrian rocks.

The Wharf deposit dimensions range from 8,000–9,000 ft long in the east–northeast direction, 2,100–5,000 ft wide, 150 ft thick in historically mined areas to 500 ft in active pits. Mineralization has been drill tested to varying depths to the Precambrian surface, which ranges from 5,400–6,200 ft in elevation across the deposit.

A trachyte sill is a main host for mineralization, with low-grade disseminated mineralization throughout the body. Igneous bodies within the Wharf deposit are predominantly sills. Dikes are less volumetrically important but occur in most mined areas. The best mineralized intrusion, the lower trachyte sill, is present within several of the open pits that are mining or have mined the Wharf deposit. This trachyte sill was intruded both beneath and above the lower contact Deadwood Formation.

Silicification in the area of the mine plan is common, can as zones or along horizons in the same lithology, and can occur in any lithology with any degree of gold mineralization. Carbonate replacement and veinlets can be present due to remobilization from the mineralized zone. Argillization is also present in porphyritic intrusive rocks.

Gold mineralization occurs as gold substitution in sulfides and as native gold with silver in the main stage of mineralization.

1.6 History and Exploration

Gold was first discovered in the Black Hills of South Dakota in 1874. Initial underground mining activity around the current Wharf Operations was conducted from 1901–1959.

The Wharf Operations area has been the subject of modern exploration and development activities since the mid-1970s, and a considerable database developed because of both exploration and mining activities. Prior to Coeur’s acquisition of the Project, work was conducted by several companies, including Homestake Mining Company, Taiga Gold Inc., Goldex Holdings, Inc., Wharf Resources, Dickenson Mines Limited (Dickenson), and Goldcorp Inc. (Goldcorp). Work completed included claims consolidation; geological mapping; total magnetics, apparent resistivity, and radiometric geophysical survey; reverse circulation (RC) and limited core drilling; mining studies; metallurgical testwork; environmental, social, and permitting activities; and active mining operations. Mining at the current location commenced in 1983.

Since Project acquisition in 2015, Coeur has completed drilling, mining studies; metallurgical testwork; environmental, social, and permitting activities; and active mining operations.

1.7 Drilling and Sampling

A total of 11,140 drill holes (2,700,999 ft) have been completed in the Project area, the majority of which were RC drill holes. RC and core drilling supports mineral resource estimation. Drilling

that supports the resource estimate consists of 7,666 drill holes (1,854,130 ft). Drill holes in the drill database that are flagged as being completed by a production rig, are considered to have generated unreliable samples, and are flagged such that they are not be exported from the acQuire database for resource modelling purposes.

RC chips were logged for lithology, alteration, and mineralization. Core holes were logged for lithology, rock type, mineralization, alteration, recovery, and rock quality designation (RQD).

Historically, the collar coordinates were written on paper logs and entered manually as actuals into a GEMS database. Currently a Trimble differential global positioning system (GPS) instrument is used to determine drill hole collar locations. Downhole surveys were not performed on RC drill holes prior to 2014. After 2015 downhole surveys were completed on all RC drilling regardless of depth. Drill holes are designed to intersect mineralization as perpendicular as possible. Mineralized zones in the Wharf Operations are generally horizontal to sub-horizontal and can be adequately drilled with vertical drill holes. A sufficient number of angled drill holes were completed at Wharf to test for vertical controls on the mineralization.

RC sampling was performed by drill contractors at the drill rig. Sampling practice from 2007–2021 was to sample 10 ft. intervals. Pre-2007 RC drilling at the Wharf Operations was sampled on 10-ft intervals and drilling at the Golden Reward area that is now part of the Wharf Operations was at 5-ft intervals. The entire drill hole was sampled. Sample runs of core holes averaged 4.5 ft at the Wharf Operation. Grade control samples are collected during blast hole drilling.

Historically, density was determined from laboratory testing. Documentation was not preserved. Verification of trachyte porphyry values was conducted by FMG Engineering, Inc., with four samples in 2010, 15 in 2013, and 40 in 2021, and of phonolite porphyry with 10 samples in 2013 and 30 in 2021. Density used in estimation is derived from density testing and ranges from 0.0714–0.0790 st/ft³ depending on lithology.

Independent primary and check laboratories used include Inspectorate America Corporation (Inspectorate, now Bureau Veritas) in Sparks, Nevada, ALS U.S.A. Inc. Minerals Division in Reno, Nevada (ALS Reno), and McClelland Laboratories, Inc, located in Sparks, Nevada (McClelland). These laboratories were ISO/IEC 17025:2005 accredited.

The mine assay laboratory, located on site in Lead, was the primary analytical facility from mine inception to 2015. The laboratory was not independent and was not accredited.

RC samples were dried, crushed to 80% passing ½ inch, and pulverized to 85% passing 200 mesh. At ALS Reno and Inspectorate/Bureau Veritas, samples were dried, crushed to >70% passing 2 mm, and pulverized to >85% passing 75 µm.

Gold analyses at the mine laboratory were completed with a cold cyanide shake with an atomic absorption (AA) finish. Over-limit analyses were completed on gold and silver by fire assay with a gravimetric finish. At ALS Reno, primary analyses for gold were completed by fire assay with AA finish, and for silver by four-acid digestion with AA finish. For check analyses, gold analyses were completed by fire assay with an AA finish. Over-limit analyses were completed by fire assay with a gravimetric finish. At Inspectorate, for checks of 2014 pulps, gold analyses were completed by cold cyanide shake with an AA finish. Gold fire analyses with an AA finish were completed and triggered by cold cyanide analyses ≥0.008 oz/st Au to match the original procedure used at the Wharf Operations. Gold analyses were completed at Bureau Veritas, with a fire assay with an AA finish, and results higher than the lower detection limit (>0.0001 oz/st) Au triggered a cold cyanide shake with AA finish. Silver was analyzed as part of a 30-element suite by aqua regia with an inductively coupled plasma (ICP) finish and results higher than the lower detection limit

triggered a silver cold cyanide shake with AA finish. Over-limit analyses were completed by fire assay with gravimetric finish when the initial fire assay results were >0.29 oz/st Au.

Prior to Coeur's Project acquisition, sample quality assurance and quality control (QA/QC) consisted of check analyses completed at a commercial laboratory as verification of the mine assay laboratory. There is no record of certified reference materials, standards, or blanks being inserted into the analytical batches. Quantile–quantile plots of the entire assay population for check assays completed at ALS Reno from 2009–2014 indicated no bias and good correlation between the two datasets. The resulting overall correlation and lack of bias in the population supported the data quality produced by the mine assay laboratory.

During Coeur's ownership, certified reference standards and certified blank samples were inserted at regular intervals to maintain a 5% insertion rate of primary samples. Sample-stage duplicates were collected at the drill rig to maintain a 2.5% insertion rate. Crush stage and pulp-stage duplicate samples were generated by the sample preparation laboratory at a 2.5% insertion rate. Additionally, 5–10% of primary sample pulps were sent to a secondary commercial laboratory for check analysis. Results were reviewed quarterly, and elements of the QA/QC program were adjusted as necessary. The reviews of the 2015–mid-year 2021 QA/QC data indicated no significant biases or contamination in the reviewed data.

Since 2015, assay data have been imported directly into the acQuire database and must pass internal database checks for referential integrity. Assays were reviewed for QA/QC of certified reference materials and duplicates. Assays were accepted or rejected in the database by the database manager based on QA/QC results. All assay data is retained, and assays passing QA/QC are available for export in acQuire to other software systems.

From 2015–2021, collar surveys, downhole surveys, geology logs, and QA/QC-passing assay data were exported from acQuire as csv files and imported into a GEMS database for each yearly and midyear model update. In 2021, the acQuire database was migrated to a Maptek Vulcan ISIS database.

1.8 Data Verification

Data verification included an RC-paired sampling study, review of data in the database for internal consistency corresponding to database rules such as no overlapping intervals and unique IDs and combining split intervals by reimporting the validated historic data into acQuire. Drill hole lockdown signoff reports were completed by the geologist and database manager. All were stored as digital copies on a network drive with restricted access and as paper copies.

The QP personally verified, amongst other checks, QA/QC of assay data from 2015–2021, logged all geologic data from 2015, 2017, and 2018, and conducted a 10–20% check of geologic logs from 2016 and 2021. The QP worked at the Wharf Operations from 2009–2021. The QP is of the opinion that the data verification programs for Project data adequately support the geological interpretations, the analytical and database quality, and therefore support the use of the data in mineral resource and mineral reserve estimation, and in mine planning.

1.9 Metallurgical Testwork

The process plant was built in 1983. Historical testwork on which the plant designs were based isn't available to Coeur. Changes made to the process plant were based on actual plant performance trends and testwork performed on-site and at independent facilities.

Independent metallurgical testwork facilities used over the Project life included Amtel and McClelland Laboratories. Testwork conducted included column leach test, bottle roll tests, and gold deportment studies.

The Wharf Operations have an on-site analytical laboratory that assays concentrates, in-process samples, and geological samples. The on-site metallurgical laboratory is used for testing flotation reagents, grind analysis, and characterizing the behavior of new ores. The laboratory is not independent.

There is no international standard of accreditation provided for metallurgical testing laboratories or metallurgical testing techniques.

Metallurgical performance using laboratory testing suggests that recovery of gold varies by lithology and sizing of placed material. Life-of-mine (LOM) forecast recoveries include:

- Intermediate: 80.0%;
- Lower Contact: 71.0%;
- Porphyry: 80.5%.

Based on extensive operating experience and testwork, there are no known processing factors of deleterious elements that could have a significant effect on the economic extraction of the mineral reserve estimates.

1.10 Mineral Resource Estimation

1.10.1 Estimation Methodology

The database closeout date for the estimate was July 23, 2021. All deposits were subject to exploratory data analysis methods, which could include histograms, cumulative probability plots, box and whisker plots, and contact analysis.

Domains were created based on lithology and changing trends in strike and dip of the major mineralized structures and underground workings that cross cut lithological units. A total of three main structural domains were modeled resulting in 16 separate estimation domains. Density values were assigned to each block based on the major rock type within the block. Underground workings were assigned an adjusted density values determined by the percentage of the block intersected by workings. Capping was applied to raw assays prior to compositing, with values to be capped assessed from probability plots. Grade caps ranged from 0.08–0.6 oz/st Au, with 147 samples capped. Compositing was done on 10 ft intervals to ensure sufficient samples were available in the vertical direction for estimation and to avoid over-smoothing prior to variography. Back-transformed, normal scores (gaussian) variography was completed on all 16 domains. For eight of the domains, an indicator estimation technique was used. For these domains, variograms were created for the high-grade portion of the data and for the low-grade portion.

Ordinary kriging (OK) interpolation was chosen to estimate all lithology units. Iterations were performed with a single pass OK estimate, adjusting the search parameters, minimum and maximum samples, and maximum number of drill holes. The resulting basic statistics were then compared to those of the composites, nearest neighbor (NN) estimate, and an inverse distance squared (ID2) estimate.

The block models were validated using some or all of the following methods: visually by stepping through sections and comparing the raw drill data and composite data with the block values;

comparison of model statistics to drill data; swath plots; mill to model reconciliation; and general visual inspection of shape and spread of the estimate with regards to production experience.

The confidence classifications on average used:

- Measured: 30–55 ft from nearest drill hole; maximum of six composites, maximum of three composites from a single drill hole;
- Indicated: 80–140 ft from nearest drill hole; maximum of four composites, maximum of two composites from a single drill hole;
- Inferred: 155–410 ft from nearest drill hole; maximum of two composites, maximum of two composites from a single drill hole.

For each resource estimate, an initial assessment was undertaken that evaluated likely infrastructure, mining, and process plant requirements; mining methods; process recoveries and throughputs; environmental, permitting, and social considerations relating to the proposed mining and processing methods, and proposed waste disposal, and technical and economic considerations in support of an assessment of reasonable prospects of economic extraction. Mineral resources are confined within conceptual pit shells.

The gold price used in resource estimation is based on analysis of three-year rolling averages, long-term consensus pricing, and benchmarks to pricing used by industry peers over the past year. The gold price forecast for the mineral resource estimate is US\$1,700/oz. The QP considers this price to be reasonable.

A breakeven cut-off grade of 0.12 oz/st Au was used for conceptual pit designs. Within that design, an incremental cut-off grade of 0.10 oz/st Au was used as the determination of whether material is sent to the leach pad or to the WRSF. The mineral resources are reported using a cut-off of 0.010 oz/st Au.

1.10.2 Mineral Resource Statement

Mineral resources are reported using the mineral resource definitions set out in SK1300 and are reported exclusive of those mineral resources converted to mineral reserves. Estimates are current as at December 31, 2021. The reference point for the estimate is in situ.

Measured and indicated mineral resources are summarized in Table 1-1 and inferred mineral resources in Table 1-2 and are reported on a 100% ownership basis.

The Qualified Person for the estimate is Mr. Kenan Sarratt, RM SME, a Wharf Resources employee.

1.10.3 Factors That May Affect the Mineral Resource Estimate

Factors that may affect the mineral resource estimates include: metal price and exchange rate assumptions; changes to the assumptions used to generate the gold cut-off grade; changes in local interpretations of mineralization geometry and continuity of mineralized zones; changes to geological and mineralization shape and geological and grade continuity assumptions; density and domain assignments; changes to geotechnical, mining and metallurgical recovery assumptions; changes to the input and design parameter assumptions that pertain to the conceptual pit shell constraining the estimates; and assumptions as to the continued ability to

access the site, retain mineral and surface rights titles, maintain environment and other regulatory permits, and maintain the social license to operate.

Table 1-1: Summary of Gold Measured and Indicated Mineral Resources at December 31, 2021 (based on US\$1,700/oz gold price)

Confidence Category	Tons (st x 1,000)	Gold Grade (oz/st)	Contained Gold Ounces (oz x 1,000)	Gold Cut-off Grades (oz/st)	Metallurgical Recovery (%)
Measured	13,947	0.02	273	0.010	80
Indicated	6,379	0.022	140	0.010	80
Total Measured and Indicated	20,326	0.020	413	0.010	80

Table 1-2: Summary of Gold Inferred Mineral Resources at December 31, 2021 (based on US\$1,700/oz gold price)

Confidence Category	Tons (st x 1,000)	Gold Grade (oz/st)	Contained Gold Ounces (oz x 1,000)	Gold Cut-off Grades (oz/st)	Metallurgical Recovery (%)
Inferred	3,724	0.024	90	0.010	80

Notes to accompany mineral resource tables:

1. The mineral resource estimates are current as at December 31, 2021, and are reported using the definitions in Item 1300 of Regulation S-K (17 CFR Part 229) (SK1300).
2. The reference point for the mineral resource estimate is in situ. The Qualified Person for the estimate is Mr. Kenan Sarratt, RM SME, a Wharf Resources employee.
3. Mineral resources are reported exclusive of the mineral resources converted to mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
4. The estimate uses the following key input parameters: assumption of conventional open pit mining; gold price of US\$1,700/oz; reported above a gold cut-off grade of 0.010 oz/st Au; metallurgical recovery assumption of 78.7%; royalty burden of US\$68/oz Au; pit slope angles that vary from 34–50°; mining costs of \$2.15/st mined, rehandle costs of US\$1.65/st rehandled, process costs of US\$10.34/st processed (includes general and administrative costs).
5. Rounding of short tons, grades, and troy ounces, as required by reporting guidelines, may result in apparent differences between tons, grades, and contained metal contents.

1.11 Mineral Reserve Estimation

1.11.1 Estimation Methodology

Mineral reserves were converted from measured and indicated mineral resources using a detailed pit design and block model from a physical survey of the topography as of December 31, 2021. The mine plan assumes open pit mining, and a conventional truck and loader fleet. Mining rates are primarily dictated by the crusher throughput. Average annual throughput of 4.6 Mst from the crusher is expected. Throughput rates were established and proven over the more than 30 years of operational history at the site.

The mining area consists of the Portland Ridgeline pit. Different nomenclatures used for mining areas refer to the same deposit but represent distinct mining phases.

The site was evaluated using economic pit shells generated using Whittle software. Appropriate cost and mining schedules were applied using cost estimates forecast for the LOM. A gold price of \$1,400 was used for the economic shells.

Pit optimizations were completed using the Lerchs–Grossmann algorithm using Whittle software. Individual pits were phased by the Wharf Operations engineering staff using a design cut-off grade of 0.012 oz/st and consideration was given to mining the highest-grade areas first, while maintaining adequate space for waste advancement in the mined-out portions of the pit. Pits were designed from bottom up in 20 ft increments, designing in the toe, crest, catch benches at specified intervals for the appropriate rock types.

The gold price used in reserve estimation is based on analysis of three-year rolling averages long-term consensus pricing, and benchmarks of what other peer companies used for pricing over the past year. The price used is US\$1,400/oz for gold for the mineral reserve estimate. The QP considers this price to be reasonable.

An operational cut-off grade of 0.10 oz/st Au was used to determine the material that is economically viable to mine. Economic and sustaining capital considerations were factors in using an operational cut-off grade above the break-even cut-off.

The topography used for reserve estimation was an updated 2021 August month-end surface. Mineral reserve estimates assume 100% mining recovery and no dilution was applied.

1.11.2 Mineral Reserve Statement

Mineral reserves were classified using the mineral reserve definitions set out in SK1300. The reference point for the mineral reserve estimate is the point of delivery to the heap leach facility. Mineral reserves are current as at December 31, 2021.

Mineral reserves are reported in Table 1-3. The Qualified Person for the estimate is Mr. Tony Auld, RM SME, a Wharf Resources employee. Estimates are reported on a 100% ownership bases.

1.11.3 Factors That May Affect the Mineral Reserve Estimate

Factors that may affect the mineral reserve estimates include variations to the following assumptions: the commodity price; metallurgical recoveries; operating cost estimates, including assumptions as to equipment leasing agreements; geotechnical conditions; hydrogeological conditions; geological and structural interpretations; and the inability to maintain, renew, or obtain environmental and other regulatory permits, to retain mineral and surface right titles, to maintain site access, and to maintain the social license to operate. A portion of the estimated mineral reserves are not currently permitted. The application process for acquiring new permits and permit amendments has been initiated with both the State and Lawrence County. If the permits are not granted, a portion of the estimated mineral reserves will not be available to mine.

Table 1-3: Summary of Gold Proven and Probable Mineral Reserves at December 31, 2021 (based on US\$1,400/oz gold price)

Confidence Category	Tons (st x 1,000)	Gold Grade (oz/st)	Contained Gold Ounces (oz x 1,000)	Gold Cut-off Grades (oz/st)	Metallurgical Recovery (%)
Proven	27,976	0.022	620	0.010	80
Probable	8,306	0.028	231	0.010	80
Total proven and probable	36,282	0.023	851	0.010	80

Notes to accompany mineral reserve table:

1. The Mineral Reserve estimates are current as at December 31, 2021, and are reported using the definitions in Item 1300 of Regulation S-K (17 CFR Part 229) (SK1300).
2. The reference point for the mineral reserve estimate is delivery to the heap leach facility. The Qualified Person for the estimate is Mr. Tony Auld, RM SME, a Wharf Resources employee.
3. The estimate uses the following key input parameters: assumption of conventional open pit mining; gold price of US\$1,400/oz; reported above a gold cut-off grade of 0.010 oz/st Au; metallurgical recovery assumption of 78.7% across all rock types; royalty burden of US\$56/oz Au; pit slope angles that vary from 34–50°; mining costs of \$2.15/st mined, rehandle costs of US\$1.65/st rehandled, process costs of US\$10.34/st processed (includes general and administrative costs).
4. Rounding of short tons, grades, and troy ounces, as required by reporting guidelines, may result in apparent differences between tons, grades, and contained metal contents.

1.12 Mining Methods

The last geotechnical study was completed in 2021 by personnel from third-party consultants, Respec. The current pit slope design configurations were concluded to be appropriate, but there was an opportunity to design the ultimate pit with steeper slopes.

Water infiltration near the 5,960 ft elevation has made drill and blast activities below this horizon challenging. Previous mining advanced benches to the 5,920 ft bench. Current mineral reserve estimates include material down to the 5,900 ft elevation.

In-situ ore and waste must be blasted prior to removal. Several historic pits that were partially backfilled are being mined again and the backfilled material is considered re-handle and does not require blasting. Waste material removed for access to the ore is taken to one of the waste rock storage facilities (WRSF) sites. The WRSF sites are all designed to fill existing pits and are reclaimed as soon as possible after placement. Mined ore is either placed in a stockpile or placed directly into the primary crusher ore hopper. Crushed ore is then conveyed to a final product stockpile. Crushed ore is picked up by loaders and placed in trucks to be dumped in 20 ft lifts on one of the five heap leach pads.

Once ore is leached and neutralized, it is considered spent ore and upon approval from the South Dakota Department of Agriculture and Natural Resources (DANR), can be unloaded from the pad, and the pad can be reused for fresh ore loading. The spent ore is used to backfill pits within defined perimeter of pollution zones. These are zones in which the DANR allows a variance to groundwater standards. Within each perimeter of pollution zone, nitrates in the spent ore in

specific quantities can be placed. The current active perimeters of pollution zones have physical capacities to contain the estimated mineral reserves.

The production plan assumes an eight-year mine life to 2029.

Equipment is leased, and conventional to open pit operations. The fleet includes drills, dozers, wheel and motor loaders, haul trucks, back- and track-hoes, water, oil, sand trucks and snowplows.

The mine operations personnel requirement for the remaining LOM averages 255.

1.13 Recovery Methods

The process plant design is conventional to the gold industry and has no novel parameters. Debottlenecking and optimization activities since Coeur acquired the operations have increased capacities and efficiencies.

Ore is trucked to the crusher located at the east end of the plant/pad area to be crushed to a nominal size of 83% minus ½ inch. The crushing plant can process between 4.2–4.6 Mst/a of ore, depending on ore hardness. Lime is added to the crushed ore. Once crushed, the ore is trucked to leach pads to be stacked in 20 ft high lifts to a maximum height of 150 ft above liner.

Stacked ore is then leached with dilute sodium cyanide solution. Gold and silver in the pregnant (metal-bearing) leach solution are recovered by adsorption on activated carbon and the barren (non-metal bearing) leach solution is recycled to the heap leach pad. Spent ore is rinsed, neutralized, and denitrified and then removed from the leach pad to be placed on a designated spent ore storage area.

Gold and silver are recovered from loaded carbon using a modified pressure Zadra method. The rich electrolyte from elution is processed by electrowinning, depositing the metals into an electrolytic sludge composed of 90–98% gold and silver.

Precious metals in the electrolytic sludge are purified by smelting at a commercial refinery.

Silver to gold ratios in the process feed have historically varied from near 1:1 to >40:1. These variations in the ore delivered to the pad have resulted in wide swings in the product composition produced by the plant. Plant gold efficiency during the low silver periods reaches the industry norm of +95% for this type of plant. During periods when the silver concentration begins to climb, silver preferentially loading on the carbon reduces both the plant gold and silver efficiencies. Changes in the plant stripping circuit have improved the ability for the plant to compensate for the additional silver content.

The plant has sufficient electrowinning capacity and can adjust strip cycles to increase the carbon volume processed. During periods of extremely high silver grades, the retort is used at maximum capacity. Consumption of reagents also increases with additional silver content. Greater amounts of cyanide are consumed by increased silver in leach solutions. Changes in the plant stripping schedule also affect sodium hydroxide and carbon consumption rates.

Processing power requirements are approximately 13,700 MWh per year, and this power requirement is consistent through the LOM plan. Water, where needed, is from well sources. Consumables used in processing include activated carbon, cyanide, nitric acid, caustic, anti-scalant, hydrogen peroxide, and lime.

The personnel requirements in the heap leach and process area for the LOM total 67.

1.14 Infrastructure

All infrastructure required to support operations is constructed and operational. On-site infrastructure includes production and monitoring water wells, offices, maintenance, warehouse and various ancillary facilities, open-pit mining areas, WRSFs, crushing and conveying facilities, five lined heap leach pads, two water treatment plants and a process facility. There is an onsite assay laboratory as well as a metallurgical laboratory. There is no onsite accommodation. Employees reside in adjacent communities.

There are currently five on/off heap leach pads used for the leaching cycle. Each pad is loaded in 20 ft lifts to a maximum of 150 ft above the liner. Each lift is wetted with a dilute sodium cyanide solution. In the final stages of precious metal recovery from the heap leach, sodium cyanide addition ceases for the rinsing stage. The rinsing stage of leaching recovers the final gold and silver ounces prior to spent ore treatment. Once all expected gold is recovered, the pad enters the neutralization/denitrification stage. Denitrification continues until the spent ore meets the criteria for off-loading. When the spent ore is approved for removal from the pad, the spent ore is trucked to a spent ore storage area.

Spent ore backfill on unlined facilities is permitted by way of a groundwater discharge permit. Currently Coeur has both un-lined and lined spent ore facilities. DANR has approved a Perimeter of Operational Pollution zone for each permit and allows for a variance to select groundwater standards within the Perimeter of Operational Pollution zones.

Waste rock is disposed of in designated waste rock storage facility (WRSF) areas, and is currently typically used to backfill existing pits. All WRSFs are located within the permitted disturbance boundary. There is sufficient space in the WRSFs for the LOM plan waste storage requirements.

The water management system consists of five major sections: five leach pad cells, five process ponds (pregnant, barren, overflow, contingency, and neutralization), three water treatment plants, treated water discharge/spray system, and a lead detection/recapture system.

Electrical power is supplied by Black Hills Power via a 12.47kV transmission line that runs up Nevada Gulch. This transmission line is shared by Terry Peak Ski Area, Spearfish Canyon, and residential customers. There are two onsite generators to support operations in case of a power failure.

1.15 Markets and Contracts

1.15.1 Market Studies

Coeur has established contracts and buyers for the gold concentrate product from the Wharf Operations and has an internal marketing group that monitors markets for all of Coeur's key products. Together with public documents and analyst forecasts, these data support that there is a reasonable basis to assume that for the LOM plan, that Coeur's key products will be saleable at the assumed commodity pricing.

1.15.2 Commodity Pricing

Coeur uses a combination of analysis of three-year rolling averages, long-term consensus pricing, and benchmarks to pricing used by industry peers over the past year, when considering long-term commodity price forecasts.

Higher metal prices are used for the mineral resource estimates to ensure the mineral reserves are a sub-set of, and not constrained by, the mineral resources, in accordance with industry-accepted practice.

The long-term gold price forecasts are:

- Mineral reserves:
 - US\$1,400/oz Au;
- Mineral resources:
 - US\$1,700/oz Au.

The economic analysis uses a reverting price curve, which results in a forecast range of US\$1,750 for 2022 to US\$1,600 for the last year of operations in 2029, and for the closure costs consolidated into 2030.

The QP considers the price forecasts to be reasonable.

1.15.3 Contracts

There are numerous contracts in place at the Project to support mine development or processing. Currently there are contracts in place to provide supply for all major commodities used in mining and processing, such as equipment vendors, power, explosives, cyanide, tire suppliers, raise boring, ground support suppliers, and drilling contractors. The terms and rates for these contracts are within industry norms. The contracts are periodically put up for bid or re-negotiated as required.

1.16 Environmental, Permitting and Social Considerations

1.16.1 Environmental Studies and Monitoring

Baseline studies and monitoring were required for permitting. Hydrogeological fate and transport modeling and baseline monitoring were also required for each groundwater discharge plan. Statement of basis analyses were also required during each renewal of National Pollution Discharge Elimination System (NPDES) surface water discharge permits.

The Wharf Operations are materially in compliance with all current permit conditions and requirements and there are no outstanding material environmental issues.

1.16.2 Closure and Reclamation Considerations

Financial surety sufficient to reclaim the Wharf Operations mine and processing facilities is up to date and held by the state of South Dakota. The closure bond plan associated with reclamation and post closure surety was updated in 2020. The estimated asset retirement obligation for the project is approximately \$47.6 M.

Financial surety for the Golden Reward area, sufficient to conduct monitoring and maintenance during a 30-year post closure period, is up to date and held by the state of South Dakota. The estimated asset retirement obligation for the project is approximately \$0.61 M.

1.16.3 Permitting

The Wharf Operations commenced in 1983 and have obtained all necessary environmental permits and licenses from the appropriate county, state and federal agencies for the open pit mines, heap leach pads, and all necessary support facilities. Operational standards and management best practices were established to maintain compliance with applicable state and federal regulatory standards and permits.

1.16.4 Social Considerations, Plans, Negotiations and Agreements

Coeur currently enjoys a positive relationship with local communities. The entire workforce is local to the area and mining is a historically important activity in Lawrence County. The Wharf Operations continue to support local businesses and Coeur considers it reasonable to expect local community support during permit actions or other activities involving the public.

1.17 Capital Cost Estimates

Capital project cost estimates in the budget year are at a minimum at a pre-feasibility level of confidence, having an accuracy level of $\pm 25\%$ and a contingency range not exceeding 15%.

Costs remaining for the LOM are sustaining capital costs, and include technology-related purchases, support equipment, light vehicles, other general or administrative expenditure, and mine plan required short-range infill drilling.

Sustaining capital costs total approximately US\$16.4 M, capitalized drilling costs are US\$5.3 M, for an overall capital cost estimate for the LOM of approximately US\$21.7 M (Table 1-4).

1.18 Operating Cost Estimates

Operating cost estimates are at a minimum at a pre-feasibility level of confidence, having an accuracy level of $\pm 25\%$ and a contingency range not exceeding 15%.

Operating costs include allocations for:

- Mine: material movement, property access, hauling, loading, dozing, drilling, blasting, roads and yards, and general operating costs (maintenance group and operations salary supervision staff);
- Process: pad load, pad unload, crushing, leaching, process operating, denitrification, water treatment, neutralization and metallurgical administration;
- General and administrative: laboratory, exploration, warehouse, safety, engineering, environmental, human resources, information technology, land, senior management overhead costs, salaries, travel, training, insurance, production tax and general costs.

The total LOM operating cost estimate is US\$664 M (Table 1-5). The LOM mining cost is forecast at US\$2.23/st mined, the process cost estimate is US\$7.39/st crushed and the general and administrative (G&A) cost estimate is US\$2.89/st crushed.

Table 1-4: LOM Sustaining Capital Cost Estimate

Description	2022	2023	2024	2025	2026	2027	2028	2029	Total
Sustaining capital	1,392	3,000	3,000	3,000	3,000	3,000	—	—	16,392
Capitalized drilling	1,610	2,103	1,550	—	—	—	—	—	5,263
Total Capital	3,002	5,103	4,550	3,000	3,000	3,000	—	—	21,655

Note: Numbers have been rounded.

Table 1-5: LOM Total Operating Cost Estimate

	LOM Totals (US\$ x 1,000)	US\$/st	Units
Mining	293,752	2.23	US \$/st mined
Pad loading	34,426	0.96	US \$/st crushed
Pad unloading	48,477	1.35	US \$/st crushed
Crushing	83,849	2.33	US \$/st crushed
Plant	99,538	2.76	US \$/st crushed
Services	104,164	2.89	US \$/st crushed
LOM Total	664,207		
Mining cost		2.23	US \$/st mined
Process cost		10.29	US \$/st crushed

Note: Numbers have been rounded.

1.19 Economic Analysis

1.19.1 Forward-Looking Information

Results of the economic analysis represent forward- looking information that is subject to several known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those presented here.

Other forward-looking statements in this Report include, but are not limited to: statements with respect to future metal prices and concentrate sales contracts; the estimation of mineral reserves and mineral resources; the realization of mineral reserve estimates; the timing and amount of estimated future production; costs of production; capital expenditures; costs and timing of the development of new ore zones; permitting time lines; requirements for additional capital; government regulation of mining operations; environmental risks; unanticipated reclamation expenses; title disputes or claims; and, limitations on insurance coverage.

Factors that may cause actual results to differ from forward-looking statements include: actual results of current reclamation activities; results of economic evaluations; changes in Project parameters as mine and process plans continue to be refined, possible variations in mineral reserves, grade or recovery rates; geotechnical considerations during mining; failure of plant,

equipment or processes to operate as anticipated; shipping delays and regulations; accidents, labor disputes and other risks of the mining industry; and, delays in obtaining governmental approvals

1.19.2 Methodology and Assumptions

Coeur records its financial costs on an accrual basis and adheres to U.S. Generally Accepted Accounting Principles (GAAP).

The financial costs used for this analysis are based on the 2022 LOM budget model. The economic analysis is based on 100% equity financing and is reported on a 100% project ownership basis. The economic analysis assumes constant prices with no inflationary adjustments.

The mineral reserves support a mine life of eight years, with mining complete in 2029 and processing and gold production continuing to 2030. Smelting and refining costs are defined by contract with Coeur's primary refiner and customer. Royalties included in the cashflow analysis are based on gold ounces mined or produced depending upon the agreement. Net profits severance tax rates are 10%, royalty tax rates are 8%, and production taxes are US\$8/oz Au sold. Closure costs are estimated at US\$47.6 M (Wharf Operations) and US\$0.61 M (Golden Reward). While the active mining operation ceases in 2029, closure costs are estimated to 2083. For the purposes of the financial model, all costs incurred beyond 2030 are included in the cash flow as occurring in 2030.

1.19.3 Economic Analysis

The Project's NPV at 5% is US\$274.2 M. As the cashflow is based on existing operations, considerations of payback and internal rate of return are not relevant. A summary of the financial results is provided in Table 1-6.

1.19.4 Sensitivity Analysis

The sensitivity of the Project to changes in metal prices, grade, sustaining capital costs and operating cost assumptions was tested using a range of 30% above and below the base case values. The NPV sensitivity to these parameters is illustrated in Table 1-7, with the base case bolded. Recovery is not shown as the sensitivity to recovery mirrors the sensitivity to metal price.

The Project is most sensitive to gold price, less sensitive to operating cost increases, and least sensitive to capital expenditure changes. The primary sensitivity is to macroeconomic and other factors impacting gold pricing. Coeur typically ensures that production from the Wharf Operations is sold in the year that the doré is produced.

Table 1-6: Cashflow Summary Table

Item	Units	Value
Revenue	kUS\$	1,145,120
Production costs	kUS\$	738,310
Write downs	kUS\$	3,471
Total costs and expenses	kUS\$	741,782
EBITDA	kUS\$	403,339
Amortization	kUS\$	(60,130)
Accretion of liability	kUS\$	(10,962)
Interest income	kUS\$	(0)
Interest expense	kUS\$	(1,031)
Income before taxes	kUS\$	331,216
Income tax expense (benefit)	kUS\$	36,827
Net income	kUS\$	294,389
Add back amortization	kUS\$	60,130
Add back accretion	kUS\$	10,962
Operating cash flow before working capital changes	kUS\$	365,481
Receivables trade	kUS\$	(2)
Inventory variation	kUS\$	19,961
Inventory - other	kUS\$	(2,232)
Other current assets	kUS\$	2,763
Tax payable	kUS\$	163
Other liability items	kUS\$	(13,548)
Operating cash flow	kUS\$	372,587
Payments on capital leases	kUS\$	(1,089)
AFE capital	kUS\$	(18,947)
Total cash flow	kUS\$	352,552
NPV @ 5%	kUS\$	274,222

Note: Numbers have been rounded.

Table 1-7: Sensitivity Table (US\$ x 1,000)

Parameters	-30%	-20%	-10%	-5%	0%	5%	10%	20%	30%
Metal price	(2,155)	89,971	182,097	228,159	274,222	320,285	366,348	458,473	550,599
Operating costs	454,282	394,262	334,242	304,232	274,222	244,212	214,202	154,182	94,163
Capital costs	278,963	277,383	275,802	275,012	274,222	273,432	272,642	271,061	269,482
Grade	(2,155)	89,971	182,097	228,159	274,222	320,285	366,348	458,473	550,599

Note: Numbers have been rounded.

1.20 Risks and Opportunities

1.20.1 Risks

Factors that may affect the mineral resource and mineral reserve estimates are identified in Chapter 1.10 and Chapter 1.11.3 respectively and discussed in more detail in Chapter 11 and Chapter 12.

Other risks noted include:

- Geotechnical and hydrological assumptions used in mine planning are based on historical performance, and to date historical performance has been a reasonable predictor of current conditions. Any changes to the geotechnical and hydrological assumptions could affect mine planning, affect capital cost estimates if any major rehabilitation is required due to a geotechnical or hydrological event, affect operating costs due to mitigation measures that may need to be imposed, and impact the economic analysis that supports the mineral reserve estimates;
 - Unforeseen geotechnical issues could lead to additional dilution, difficulty accessing portions of the ore body, or sterilization of broken or in situ ore. There are sufficient management controls in place to effectively mitigate geotechnical risks. Designed pit slopes have been evaluated for stability in several geotechnical studies and are regularly evaluated by the engineering group at the mine. The QP considers that sufficient controls are in place at the Wharf Operations to effectively manage geotechnical risk, and the risk of significant impact on the mineral reserve estimate is low;
 - Water infiltration near the 5,960 ft elevation has made drill and blast activities below this horizon challenging, and may affect the portion of the mine plan that is expected to reach the 5,900 ft elevation;
- Coeur leases the majority of the earth-moving equipment used at the mine. Relationships with local dealers average 15 years. Current truck and loader fleet lease rates are under contract through 2024 with an option for a two-year extension. A major change in pricing would affect operating cost and have an impact on the mineral reserve estimates and the economic analysis that supports the mineral reserve estimates;

- The mineral reserve estimates are most sensitive to metal prices. Coeur's current strategy is to sell most of the metal production at spot prices, exposing the company to both positive and negative changes in the market, both of which are outside of the company's control;
- Assumptions that the long-term reclamation and mitigation of the Wharf Operations can be appropriately managed within the estimated closure timeframes and closure cost estimates.

1.20.2 Opportunities

Opportunities include:

- Conversion of some or all the measured and indicated mineral resources currently reported exclusive of mineral reserves to mineral reserves, with appropriate supporting studies;
- Upgrade of some or all the inferred mineral resources to higher-confidence categories, such that such better-confidence material could be used in mineral reserve estimation;
- Evaluation by third-party consultants suggested that the pit walls in the last stage of the pit could be steepened, potentially resulting in minor operating cost estimate savings.

1.21 Conclusions

Under the assumptions in this Report, the operations evaluated show a positive cash flow over the remaining LOM. The mine plan is achievable under the set of assumptions and parameters used.

1.22 Recommendations

As the Wharf Operations is an operating mine, the QPs have no material recommendations to make.

2.0 INTRODUCTION

2.1 Registrant

Mr. Christopher Pascoe, RM SME, Mr. Tony Auld, RM SME, Ms. Lindsay Chasten, RM SME, Mr. Kenan Sarratt, RM SME, and Mr. John Key, RM SME, prepared this technical report summary (the Report) for Coeur Mining, Inc. (Coeur), on the Wharf Gold Operations (the Wharf Operations or the Project), located in South Dakota, as shown in Figure 2-1.

Coeur acquired the Wharf Operations in February 2015 from Goldcorp Inc. (Goldcorp). The Wharf Operations are conducted by Coeur's wholly owned subsidiaries, Wharf Resources (USA) Ltd. (Wharf Resources) and Golden Reward Mining Limited Partnership (Golden Reward LP).

2.2 Terms of Reference

2.2.1 Report Purpose

The Report was prepared to be attached as an exhibit to support mineral property disclosure, including mineral resource estimates, for the Wharf Operations in Coeur's Form 10-K for the year ended December 31, 2021.

Mineral resources and mineral reserves are reported for the Portland Ridge open pit, which is exploiting the Wharf deposit.

2.2.2 Terms of Reference

The Wharf Operations consist of two contiguous property groups:

- Wharf group: northern and western sectors of the Project area;
- Golden Reward group: southern and eastern sectors of the Project area.

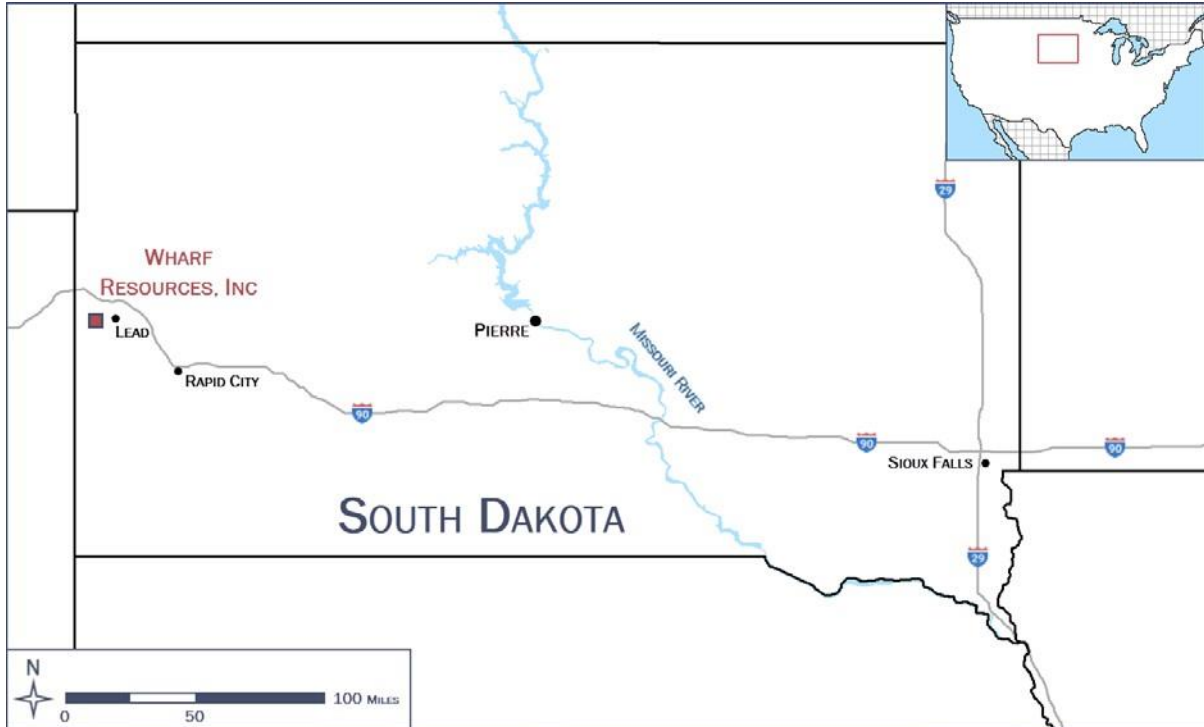
Mining commenced in 1982, and mining operations were conducted at the American Eagle, Green Mountain, Golden Reward, and Portland Ridgeline pits. Currently, only the Portland Ridge open pit is active and is operated as a conventional truck and loader operation.

Unless otherwise indicated, all financial values are reported in United States (US) currency (US\$) including all operating costs, capital costs, cash flows, taxes, revenues, expenses, and overhead distributions.

Unless otherwise indicated, the US customary unit system is used in this report for mineral resources and mineral reserves and associated financials.

Mineral resources and mineral reserves are reported using the definitions in Item 1300 of Regulation S-K (17 CFR Part 229) (SK1300) of the United States Securities and Exchange Commission. Illustrations, where specified in SK1300, are provided in the relevant Chapters of report where that content is requested.

The Report uses US English.

Figure 2-1: Project Location Plan

Note: Figure prepared by Coeur, 2018.

2.3 Qualified Persons

The following Coeur or Wharf Resources employees serve as the Qualified Persons (QPs) for the Report:

- Mr. Christopher Pascoe, RM SME, Senior Director, Technical Services; Coeur
- Mr. Tony Auld, RM SME, Operations Manager; Wharf Resources
- Ms. Lindsay Chasten, RM SME, Senior Geologist; Wharf Resources
- Mr. Kenan Sarratt, RM SME, Chief Geologist; Wharf Resources
- Mr. John Key, RM SME, Process Operations Manager; Wharf Resources

The QPs are responsible for, or co-responsible for, the Report Chapters set out in Table 2-1.

Table 2-1: QP Chapter Responsibilities

QP Name	Chapter Responsibility
Mr. Chris Pascoe	1.1, 1.2, 1.3, 1.4, 1.15, 1.16, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22; 2; 3; 4; 16; 17; 18; 19; 20; 21; 22.1, 22.2, 22.12, 22.13, 22.14, 22.15, 22.16, 22.17, 22.18; 23; 24; 25.
Mr. Tony Auld	1.1, 1.2, 1.3, 1.11, 1.12, 1.14, 1.15, 1.16, 1.17, 1.18, 1.20, 1.22; 4; 7.3, 7.4; 12; 13; 15; 16; 17; 18; 22.1, 22.22.8, 22.9, 22.11, 22.12, 22.13, 22.14, 22.15, 22.17; 23; 24; 25
Ms. Lindsay Chasten	1.1, 1.2, 1.5, 1.6, 1.7, 1.8, 1.20, 1.22; 2; 5; 6; 7.1, 7.2; 8; 9; 22.1, 22.3, 22.4, 22.5, 22.17; 23; 24; 25
Mr. Kenan Sarratt	1.1, 1.2, 1.10, 1.20, 1.22; 2; 11; 22.1, 22.7, 22.17; 23; 24; 25
Mr. John Key	1.1, 1.2, 1.9, 1.13, 1.17, 1.18, 1.20, 1.22; 2; 10; 14; 18.1, 18.2, 18.3.3, 18.3.7; 22.1, 22.6, 22.10, 22.14, 22.15, 22.17; 23, 24, 25

2.4 Site Visits and Scope of Personal Inspection

Mr. Pascoe's most recent site visit was December 6, 2021. He had previously visited the site on several occasions from 2015 to 2021. During the site visits he reviewed mine planning and the overall operations.

Mr. Auld has been employed at the Wharf Operations since 2001, and this onsite experience serves as his scope of personal inspection. During his time at Wharf, Tony has been involved in operations in the capacities of short/long-range planner, Chief Engineer, and Mine Manager. In his current role he is responsible for the operations department and technical services.

Ms. Chasten has been employed at the Wharf Operations since 2010, and this onsite experience serves as her scope of personal inspection. Lindsay is responsible for and familiar with, the reverse circulation (RC) drilling and sampling that supports the resource estimate, database management and quality assurance and quality control (QA/QC), site geology, and construction of the deposit geologic model.

Mr. Sarratt has been employed at the Wharf Operations since 2006, and this onsite experience serves as his scope of personal inspection. Kenan is familiar with and has inspected site geology, exploration activities, drilling activities, and supervised the geological model and resource estimate.

Mr. Key has been employed at the Wharf Operations since 2015, and this onsite experience serves as his scope of personal inspection. During his time at Wharf, John has been involved in operations in his role as Process Operations Manager. In this role he is responsible for assay laboratory, metallurgical laboratory, crushing, leaching and adsorption, desorption and recovery (ADR) plant operations, as well as metals accounting and reporting.

2.5 Report Date

Information in the Report is current as at December 31, 2021.

2.6 Information Sources and References

The reports and documents listed in Chapter 24 and Chapter 25 of this Report were used to support Report preparation.

2.7 Previous Technical Report Summaries

Coeur has not previously filed a technical report summary on the Project.

3.0 PROPERTY DESCRIPTION

3.1 Property Location

The Wharf Operations are in the northern Black Hills of western South Dakota, approximately 9 miles south of Interstate 90 near Spearfish, South Dakota and approximately 3.5 miles south and west of the city of Lead, South Dakota.

The centroid for the Project is 44°20'03"N Latitude, 103°50'06"W Longitude.

The Wharf property group centroid is 44°20'39"N Latitude, 103°51'02"W Longitude.

The Golden Reward property group centroid is 44°19'51"N Latitude, 103°48'46"W Longitude.

3.2 Ownership

Coeur wholly owns the Wharf Operations.

3.3 Mineral Title

3.3.1 Tenure Holdings

The Wharf Operations are situated within the following sections of land, located within the Black Hills Meridian, Lawrence County, South Dakota:

- Township 04 North, Range 02 East: Sections 01, 02, 03, 04, 10, 11, 12, 13, and 24;
- Township 04 North, Range 03 East: Sections 06, 07, 08, 17, 18, 19, and 20;
- Township 05 North, Range 02 East: Sections 16, 21, 22, 25, 26, 27, 28, 29, 32, 33, 34, 35, and 36;
- Township 05 North, Range 03 East: 17, 18, 19, 20, 29, 30, 32.

The Wharf property group consists of 362 patented lode claims, 35 government lots, 133 subdivided lots, and 59 federal unpatented lode claims (Table 3-1). The Golden Reward property group encompasses 196 patented lode claims, 14 government lots, 19 subdivided lots, and 34 federal unpatented lode claims (Table 3-2). An overall tenure location plan is included as Figure 3-1.

Claim details are provided in Appendix A.

3.3.2 Tenure Maintenance Requirements

The patented lands are private land and not subject to federal claim maintenance requirements. However, as private land, they are subject to ad valorem property taxes assessed by Lawrence County, South Dakota, which may be paid semi-annually by April 30 and October 3 each year.

Table 3-1: Title Summary Table, Wharf Group

Title	Title Type	Area and Comment
Patented lands	Surface estate	Approximately 3,599 net acres
	Mineral estate *	Approximately 652 net mineral acres
	Non-Precambrian mineral estate #	Approximately 3,243 net mineral acres
	Precambrian mineral estate	Approximately 1,603 net mineral acres
Federal unpatented lands	Federal unpatented lode claims	Approximately 287 net acres of federal public land appropriated

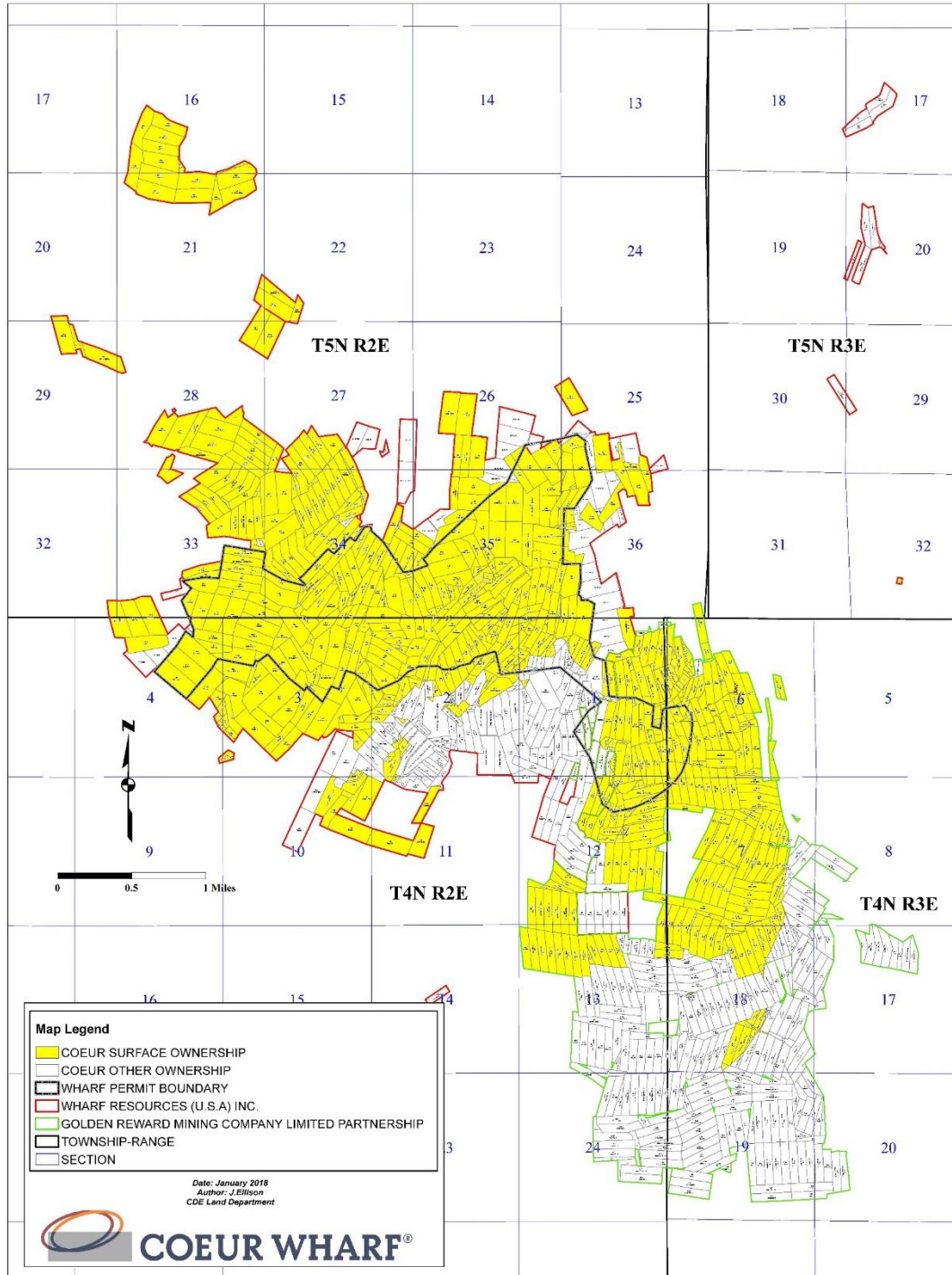
Notes: * Includes only lands where both the Precambrian and younger formations are owned or controlled. # Less and except all the Precambrian formation. The Precambrian mineral estate is defined in Chapter 3.7.2.

Table 3-2: Title Summary Table, Golden Reward Group

Title	Title Type	Area and Comment
Patented lands	Surface estate	Approximately 1,355 net acres
	Mineral estate *	Approximately 2,987 net mineral acres
	Non-Precambrian mineral estate #	Approximately 357 net mineral acres
	Precambrian mineral estate	Approximately 153 net mineral acres
Federal unpatented lands	Federal unpatented lode claims	Appropriating approximately 25 net acres of federal public land

Notes: * Includes only lands where both the Precambrian and younger formations are owned or controlled. # Less and except all the Precambrian formation. The Precambrian mineral estate is defined in Chapter 3.7.2.

Figure 3-1: Mineral Tenure Location Plan



Ad valorem taxes are paid in arrears in South Dakota. As at the Report date, all required payments had been made.

The federal unpatented lode claims are maintained by the timely annual payment of claim maintenance fees, which are presently \$165 per claim, payable to the United States Department of the Interior, Bureau of Land Management on or before September 1 each year. Should the annual claim maintenance fee not be paid by or before then, the unpatented lode claim(s) are, by operation of law, rendered forfeited. As at the Report date, all required payments had been made.

3.4 Property Agreements

3.4.1 Black Hills Chair Lift Company 2010 Agreement

The locations of the properties subject to agreements with Black Hills Chair Lift Company are shown in Figure 3-2.

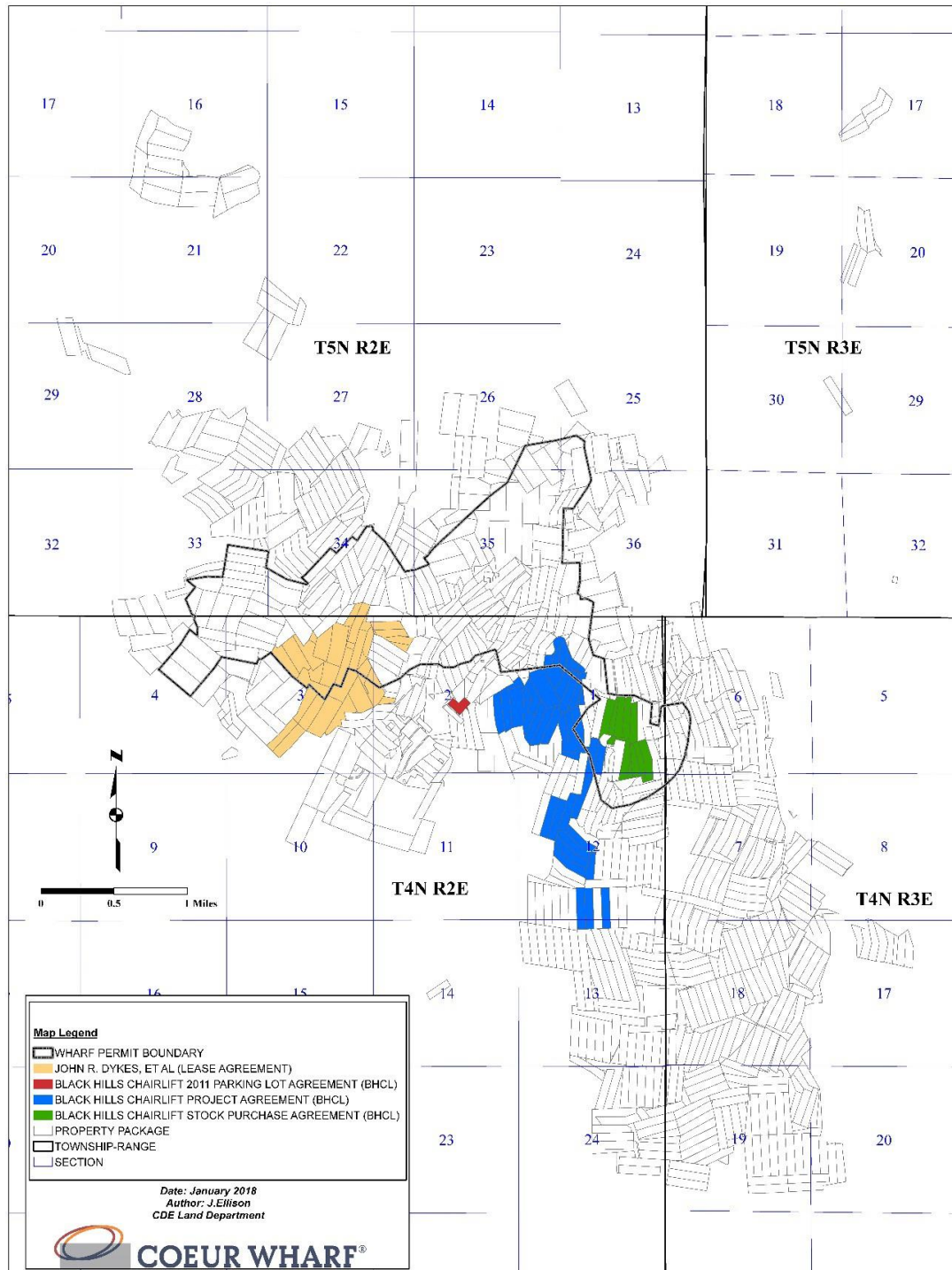
Effective December 1, 2010, Wharf Resources entered into an agreement with Black Hills Chair Lift Company, as amended, concerning mutual obligations to benefit expansion of the Wharf and Golden Reward mine operations into a new permit area and operation of the Terry Peak Ski Area (2010 Agreement).

Under the terms of the 2010 Agreement, Wharf Resources agreed to cooperate “to minimize interference with the Terry Peak Ski Area ski season by only conducting mining activities between April 15 and Thanksgiving of each calendar year, unless other dates are agreed upon by the parties.”

The 2010 Agreement generally provides that the Black Hills Chair Lift Company will support and assist Wharf Resources in obtaining permits and authorizations for the expanded mine operations and will provide consent and access on lands it owns for Wharf Operations mining activities in exchange for financial support, conveyance of specified parcels, water use, and other consideration, which are set forth under five distinct phases. Two are complete, and the three that are not complete are described below.

The 2010 Agreement Phase 1 envisaged that mining at Golden Reward would be completed and the site reclaimed between 2017 and 2019. Reclamation has since been completed at Golden Reward.

Figure 3-2: Property Agreements Location Plan



The remaining 2010 Agreement phases include:

- 2010 Agreement Phase 4: After the completion of mining and reclamation in the Golden Reward Mine expansion area, Wharf Resources is required to pay the Black Hills Chair Lift Company a total of \$2,250,000, which will cover a chair lift run extension, conveyance of a parking lot, gravelling a new carpark, and conveyance of 100 acres for new ski trails, extended ski runs, and a new lift area. This obligation is not expected to be incurred until reclamation at the Golden Reward mining area is completed, which is currently projected at 2024.
- 2010 Agreement Phase 5: Wharf Resources is to pay the Black Hills Chair Lift Company \$1,000,000 after completion of mining in the "new permit area," which may only be applied towards construction costs of a new ski lodge, provided that Wharf Resources is not required to make this payment *"if mining ceases in the new permit area due to lack of profitability, resulting in the execution of less than 90% of the original mine plan in the new permit area. This lack of profitability could be caused by low gold prices, high operating costs, incorrect geological models, or any combination of all three factors."* The Phase 5 obligation is not expected to be fulfilled until 2024, and upon the condition that 90% of the mineral reserves have been mined.

3.4.2 Black Hills Chair Lift Company 2011 Agreement

Under the 2010 Agreement, Wharf Resources and the Black Hills Chair Lift Company entered into a Lease Agreement dated effective November 1, 2011, concerning Lots 6, 7, and 8 in Block 2, Lost Camp Tract B (the Lease), replacing a prior ground lease between Golden Reward, as landlord, and Terry Peak Snowmaking Co. LLC, as tenant.

There is no rent due to Wharf Resources under the terms of the Lease. The Lease commenced on November 1, 2011 with a termination date set for April 15, 2012; however, the Lease further provides that it *"shall automatically renew for the same term on November 1 of each year, unless either gives to the other party thirty 30 days' written notice of non-renewal."*

The Black Hills Chair Lift Company is required to indemnify and hold Wharf Resources harmless from all penalties, claims, demands, liabilities, expenses, and losses of whatever nature, arising from the Black Hills Chair Lift Company's use of the properties, including reasonable attorneys' fees incurred by Wharf Resources for any litigation, or threatened litigation, which arises out of the Black Hills Chair Lift Company's use of the properties.

3.4.3 Black Hills Chair Lift Company Stock Purchase Agreement and Option

On September 9, 1987, Golden Reward purchased 800 shares of common stock in the Black Hills Chair Lift Company.

Section 4.7 grants Black Hills Chairlift Company the option to purchase lands within a 500-yard radius of the lower terminus of the Red Chair Lift when mining and reclamation of the lands have been completed. This includes 12 patented lode claims and one government lot.

3.4.4 Timber Cutting Agreements

In November 2013, both Wharf Resources and Golden Reward entered into Timber Cutting Agreements with Neiman Timber Co., L.C. encumbering many patented claims and subdivided lots located outside of the mine corridor.

The Timber Cutting Agreements provide a revenue source, reduce the real property taxes, and ensure sustainable timber management. The term of both Timber Cutting Agreements was 10 years to 2023. The agreements are renewable by mutual agreement of the parties.

3.5 Surface Rights

Surface rights are a combination of patented lode claims, federal unpatented lode claims, government lots and fee property.

No additional rights are needed to support the life-of-mine (LOM) plan presented in this Report.

3.6 Water Rights

Potable water is supplied to the Wharf Operations by wells. Coeur owns multiple groundwater and surface water rights sufficient to support ongoing operations.

No additional water rights are anticipated to be required for LOM operations.

3.7 Royalties

A location map showing the locations of claims subject to royalties is provided in Figure 3-3.

3.7.1 Dykes, Jumper and Handley Mineral Lease and Royalty

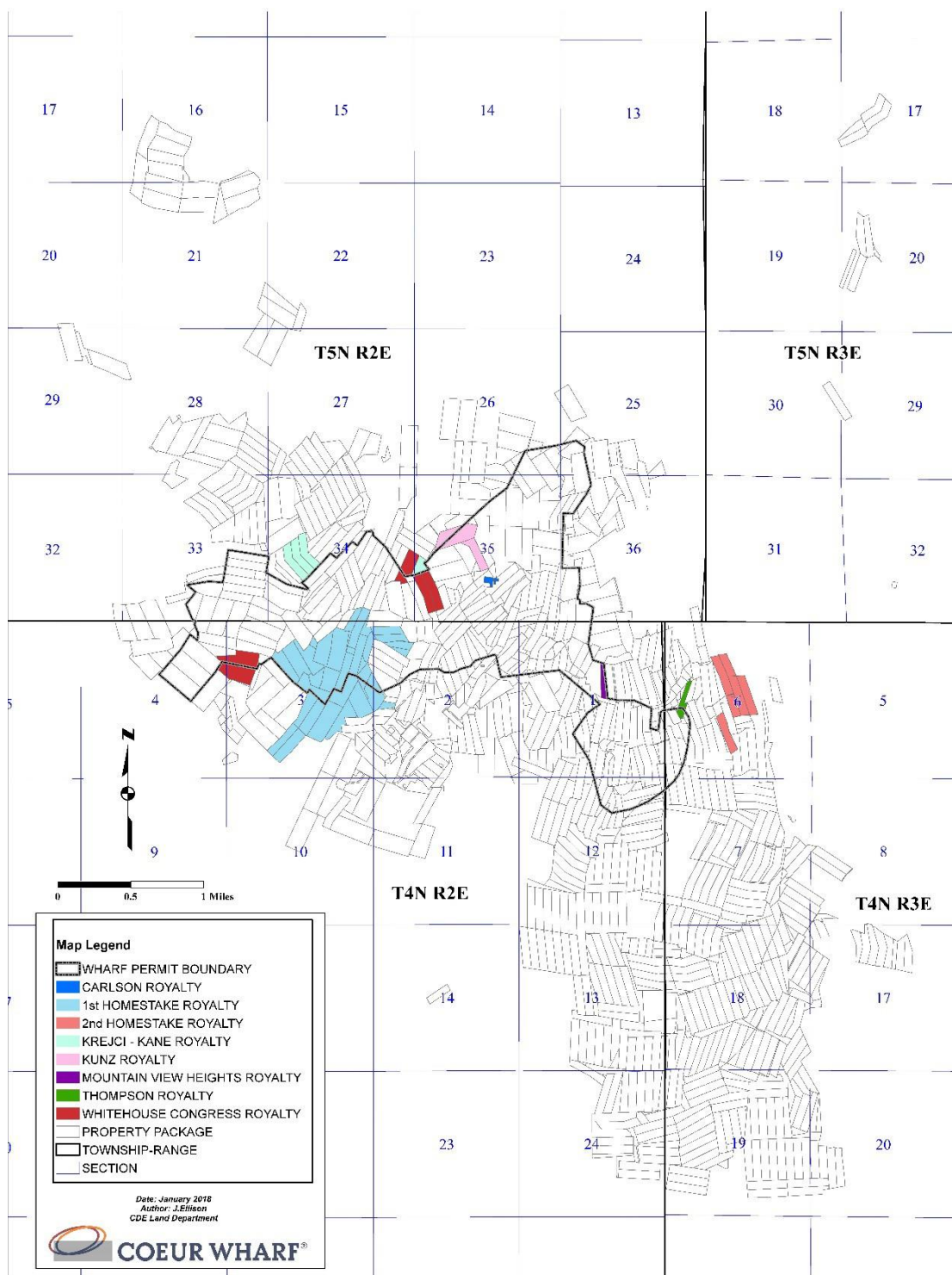
A Mineral Lease, as amended, covering the mineral estate of 34 patented lode claims, comprising approximately 291.1 acres, is leased from John R. Dykes, Arlen Jumper, and the estate of Thomas Handley (SunTrust Bank, Trustee). The location of the properties under this agreement are shown in Figure 3-2.

The corresponding surface estate of these patented lode claims is owned by Wharf Resources.

The term of the Mineral Lease was 10 years from July 18, 1979, but the term was automatically continued for so long thereafter as the Wharf Resources was actively engaged in exploring, developing or mining the leased premises or was in the actual process of developing a producing mine.

During the term of the Mineral Lease, the lessors were also entitled to a royalty on production, if any, of 3% of the net smelter returns (NSR) of all silver and gold ores, together with other ores and minerals. In addition, there is an advance minimum royalty due the lessors of \$5,000 per year unless and until Wharf Resources identifies and publishes a reserve encompassing the leased premises, at which point the advance minimum royalty increases to \$25,000 per year.

Figure 3-3: Claims Subject To Royalties



3.7.2 Carlson Royalty

Under a June 8, 1999 Minerals Royalty Deed, Wharf Resources conveyed to Alvin R. Carlson a non-participating production royalty of 2% on gold produced from ores mined and delivered to the heap leach pads, from an undivided $\frac{1}{8}$ interest in the minerals, including the Precambrian Mineral Estate (see below for definition), within and beneath the following parcels: Lots 1, 2 and 4, Block 5 of Plat #2 Bald Mountain Mining Company, Town of Trojan, forming portions of USMS #1226 and USMS #2027, and comprising 2.4 acres.

The Precambrian Mineral Estate includes the area beneath the "Precambrian Surface" which is defined as the Precambrian Surface at any point in the Properties means: (i) where the Cambrian formations overlie the Precambrian formations, that the point of separation marked by the erosional disconformity between early Proterozoic metasediments and the younger overlying sedimentary rocks of Cambrian or younger age and (ii) where Cambrian or younger formations do not overlie Precambrian formations, the surface of the ground."

3.7.3 Homestake Mining Company of California Royalty

Under an April 18, 1986 Quitclaim Deed from Wharf Resources to Homestake Mining Company of California (Homestake), Wharf Resources granted Homestake a sliding scale production royalty (Table 3-3) on the gross value of all gold in saleable form on the mineral estate, including the Precambrian Mineral Estate, of those certain lands owned by Dykes, Jumper and Handley, and leased to Wharf Resources, together with 11 unpatented lode claims.

The severance tax paid to the State of South Dakota on the gross value of production is the only allowable deduction to this royalty.

Under a March 15, 1988 Deed, as amended, from Homestake to Golden Reward, Homestake reserved a 5% NSR royalty on production from materials younger than the Precambrian age within the Bonanza (USMS #516), Plutus (USMS #517A), Buxton (USMS #518), Cheetor (USMS #519), Clarinda (USMS #520), and Clarinda Extension (USMS #1097) patented lode claims, which comprise 50.3 acres, and are located within the Golden Reward Group.

Table 3-3: Homestake Royalty

Percentage of Gross Value (%)	Monthly Average London PM Gold Fix (\$ per ounce)
0	<350
0.5	350–399
1.0	400–499
2.0	>500

3.7.4 Krejci and Kane Royalty

Under a February 18, 1986 Offer and Agreement to Purchase, Wharf Resources, as buyer, agreed to pay Frank Krejci, Rosina G. Krejci, and Rita J. Kane, as sellers, a contractual, non-participating production royalty of 4%, on any and all minerals, including those from the Precambrian Mineral Estate, from the following undivided interests, in the following four patented lode claims: 100% for the Paddy Ford (USMS #1581), 50% for the Hidden Ore (USMS #1229), and 16.67% for the Saxon and Delancy (USMS #1229). These patented lode claims comprise 33.29 acres. Under the terms of the Offer and Agreement to Purchase, this non-participating production royalty is capped at, and therefore limited to, \$100,000.

3.7.5 Kunz Royalty

Under a December 31, 1990 Contract for Deed, James A. Kunz and Marjorie L. Kunz reserved a 5% production royalty on all gold recovered from two patented lode claims, the Wm. B. Allison and Summit Flat (USMS #1516), which encompass 28.07 acres. This production royalty also encumbers the Precambrian Mineral Estate.

3.7.6 Mountain View Heights, Inc. Royalty

Under a January 19, 2011 Warranty Deed, Mountain View Heights, Inc. retained a production royalty of 1.5% on gold produced from the 5.46-acre Dark Horse (USMS #866) patented lode claim. This production royalty also encumbers the Precambrian Mineral Estate.

3.7.7 Royal Gold, Inc. Royalty

Under five December 21, 1988 Quitclaim Deeds, one February 1, 1989 Quitclaim Deed, and two agreements dated November 1, 1994 and September 1, 1996, Royal Gold, Inc., the successor in interest to Homestake, holds a sliding scale production royalty on the gross value of all gold in

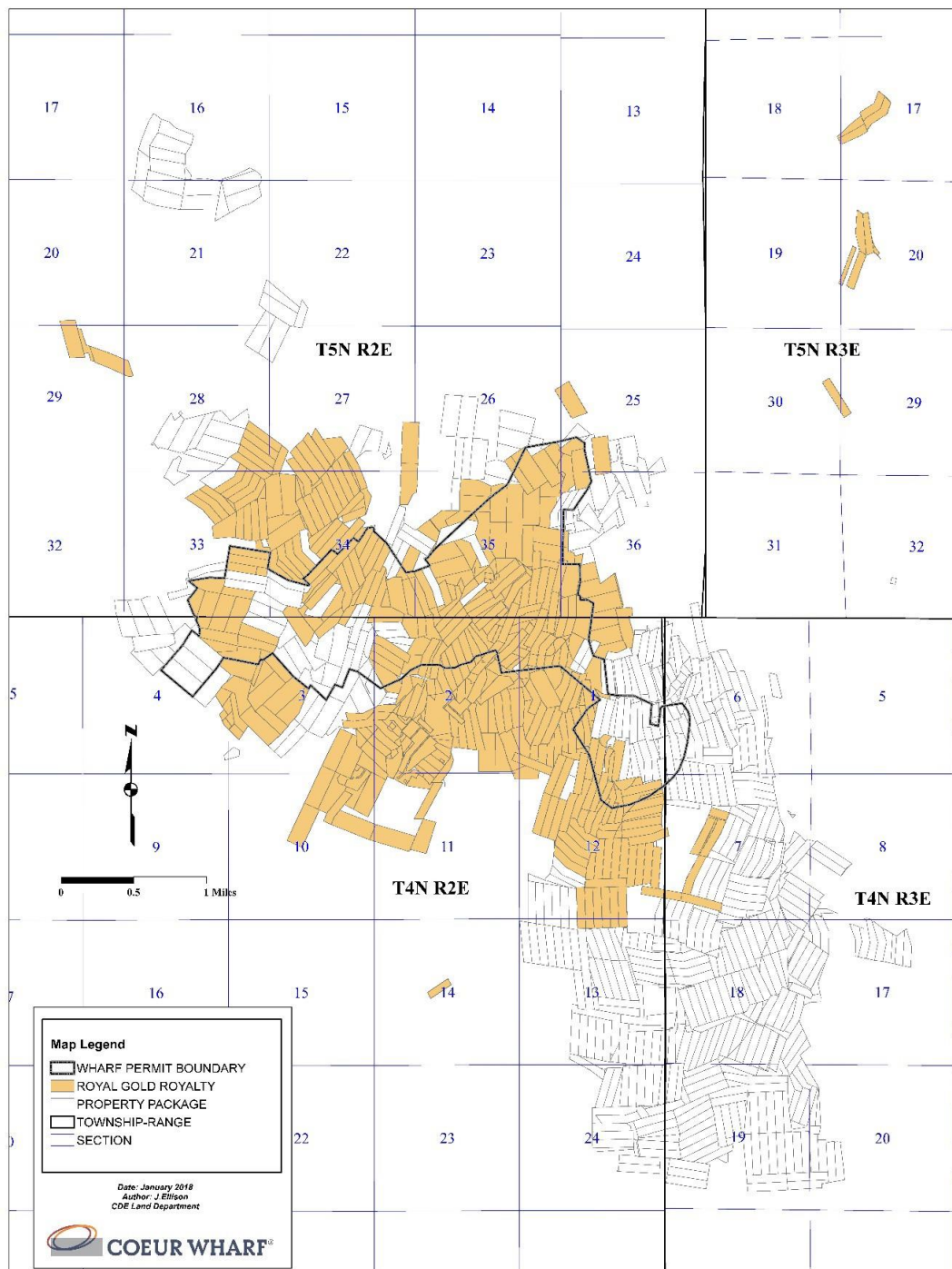
saleable form (Table 3-4). This royalty encumbers most of the lands comprising the Wharf Group, together with a small portion of the lands encompassing the Golden Reward Group, and wholly excludes the Precambrian Mineral Estate (Figure 3-4).

The severance tax paid to the State of South Dakota on the gross value of production is the only allowable deduction to this royalty.

Table 3-4: Royal Gold Royalty

Percentage of Gross Value (%)	Monthly Average London PM Gold Fix (\$ per ounce)
0	<350
0.5	350–399
1.0	400–499
2.0	>500

Figure 3-4: Claims Subject to Royal Gold Royalty



3.7.8 Thompson Revocable Trust Royalty

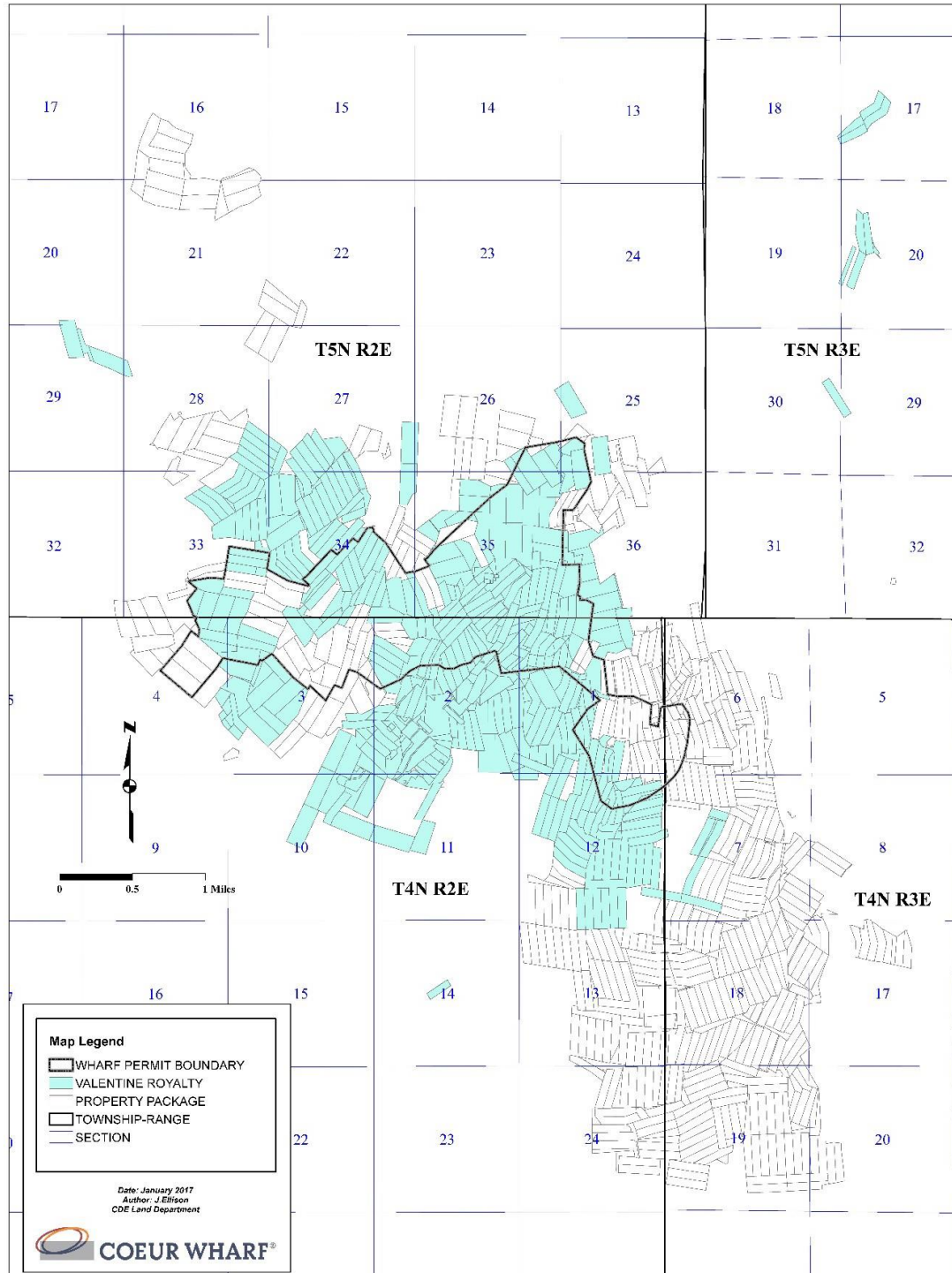
Under a February 9, 1982 Deed, the predecessors in interests to the Thomas F. Thompson and Charlotte J. Thompson Revocable Trust, dated September 18, 2001 reserved a perpetual, non-participating 3% NSR royalty from all ores and minerals produce, sold, and saved from the 6.1 acre Clinton (USMS #956) patented lode claim.

3.7.9 Valentine Royalty

Under two September 27, 1974 Minerals Royalty Deeds, as amended, Wharf Resources' predecessor in interest, Bald Mountain Mining Company, conveyed to Donald D. Valentine, et al. a 3% nonparticipating royalty on gold that is produced from ores mined and delivered to heap leach pads or recovered from tailings. This royalty encumbers the mineral estate, including the Precambrian Mineral Estate, of much of the lands comprising the Wharf Group (Figure 3-5).

Wharf Resources holds a right of first refusal to purchase this royalty, a portion of which was repurchased in 2020.

Figure 3-5: Claims Subject to Valentine Royalty



3.7.10 White House Congress, Inc. Royalty

Under two June 1, 1976 conveyances from White House Congress, Inc. (White House) to Wharf Resources' predecessor in interest, Homestake Mining Company, White House reserved a 5% gross production royalty of the recovered value of any metals or minerals produced from the ores extracted from 27 patented lode mining claims, which comprise 318.3 acres. Proceeds from this gross production royalty, pursuant to the conveyances' reservations, are capped at \$200.00 per acre.

3.8 Encumbrances

3.8.1 Credit Agreement

Under a September 29, 2017 Credit Agreement by and between Coeur Mining, Inc., certain subsidiaries of Coeur Mining, Inc. (including Wharf Resources), and Bank of America, N.A., as administrative agent (as amended, the Credit Agreement), a Mortgage, Assignment of Production, Assignment of Leases and Rents, Security Agreement, Financing Statement, and Fixture Filing (the Instrument), was executed by Wharf Resources, Wharf Rewards Mines Inc., Wharf Gold Mines Inc., Golden Reward, and Wharf Resources Management Inc., as mortgagors and Bank of America, N.A., as beneficiary and mortgagee. Under the terms of the Instrument, a lien was placed upon the legal and beneficial title in and to the lands comprising the Wharf Property, securing a loan under the Credit Agreement, in an aggregate principal amount of up to \$300,000,000. The Credit Agreement matures in March 2025.

3.8.2 Permitting Requirements

The Wharf Operations are fully permitted (see also discussion in Chapter 17.4).

3.8.3 Permitting Timelines

There are no relevant permitting timelines that apply to the Wharf Operations; the operations as envisaged in the LOM plan are fully permitted.

3.8.4 Violations and Fines

There are no major violations or fines as understood in the United States mining regulatory context that have been reported for the Wharf Operations.

3.9 Significant Factors and Risks That May Affect Access, Title or Work Programs

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

4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

4.1 Physiography

The Wharf Operations are in the Black Hills, a small mountain range that is predominantly located in western South Dakota and extends westward into Wyoming. The Black Hills uplift is the easternmost part of the Rocky Mountains, and as an isolated range, is surrounded by the northern Great Plains. Elevations above sea level range from approximately 3,500–7,242 ft, with the highest elevation at Black Elk Peak. South of, and adjacent to, the mine is Terry Peak at 7,064 ft. The Terry Peak Ski Area is on Terry Peak and used during winters.

Within the existing mine permit boundary, the highest elevation is 6,630 ft at Foley Ridge; the lowest is 5,630 ft in the northernmost drainage. The Wharf Operations lie in an area of moderately steep terrain.

The area is primarily forested with ponderosa pine, and to a lesser extent, Black Hills spruce.

The general area is cut by two principal drainages, Cleopatra Creek, which drains to the north, and Annie Creek, which drains to the southwest. However, there are no live streams in any of the permit areas.

4.2 Accessibility

The town of Lead, South Dakota, is approximately 61 miles from Rapid City, South Dakota, the second-largest city in the state. Access between Rapid city and Lead is by way of a major Interstate highway (I-90) and local rural highways. Rapid City is serviced by an all-weather airport.

Access to the operations from Lead is by Nevada Gulch Road, a paved road, which is followed for 4.6 miles to the Wharf Mine Road, an all-weather gravel road, which is followed for 2.1 miles to the mine office.

4.3 Climate

The climate in the Wharf Operations area is classified as cold and semi-arid.

Average annual precipitation at the Wharf Operations is 30.5 inches, and the average annual snowfall is 199 inches. Between 1990–2014, annual precipitation at the mine ranged from 14.64–41.29 inches.

Average temperatures range from a high of 71°F to a low of 16°F.

Mining operations are conducted year-round.

4.4 Infrastructure

The town of Lead provides most of the services required to support the Wharf Operations.

The Wharf Operations have a well-developed mine infrastructure and a local workforce with extensive experience in mining operations.

Electrical power is supplied by Black Hills Power via a 12.47kV transmission line that runs on rights-of-way granted to Black Hills Power. Three diesel generators provide backup power sufficient to supply all plant, process, and administrative operations in the event of a grid power failure. Montana Dakota Utilities provides natural gas to the site via buried pipelines.

Water is sourced from four small production wells located onsite; however, much of the makeup water required for processing and plant operations is garnered from meteoric water captured within the lined pad/pond system.

The Wharf Operations currently have all infrastructure in place to support mining and processing activities (see also discussions in Chapter 13, Chapter 14, and Chapter 15 of this Report). These Report Chapters also discuss water sources, electricity, personnel, and supplies.

5.0 HISTORY

5.1 Wharf

Gold was discovered in the Black Hills during the 1874 reconnaissance by the Custer expedition. The first lode claims, on what became the Homestake property, were located in 1875, and fossil placer deposits in basal conglomerate of the Deadwood Formation were found at about the same time (Luoma and Lowe, 2010). The original discovery at Bald Mountain was by A.J. Smith in 1877. In 1877, following discoveries of alluvial gold in the Black Hills, the first claims were staked over the Wharf Mine. Underground production was recorded along high-angle structures between 1901 and 1959.

Between 1911 and 1928, claims were consolidated under the Bald Mountain Mining Company and the Golden Reward Consolidated Mining and Milling Company.

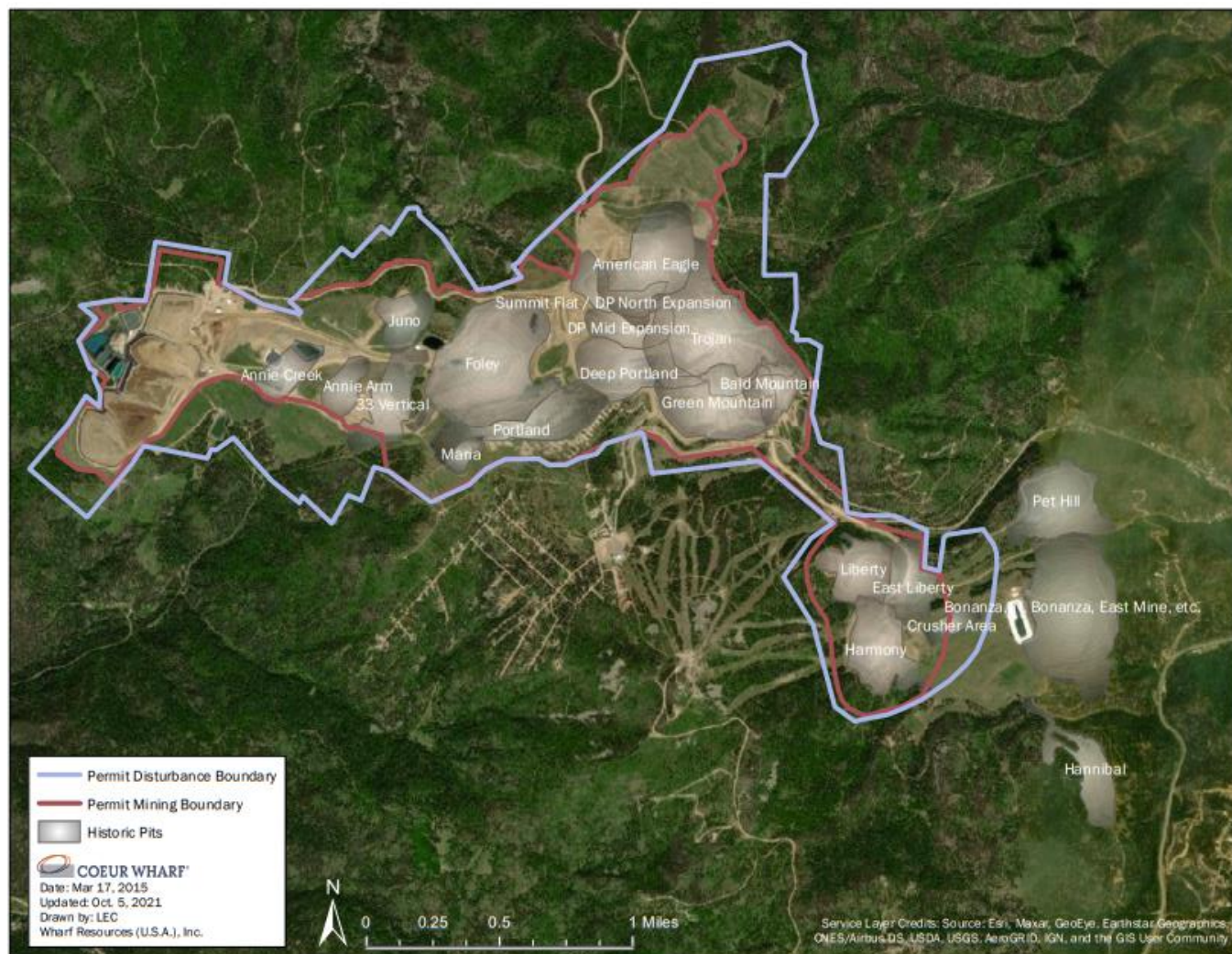
From April 1974 onward, exploration companies began to consolidate the Annie Creek district. On October 31, 1974, the Bald Mountain 50/50 Partnership was formed between Homestake Mining Company (Homestake as manager) and Taiga Gold Inc. (Taiga Gold).

Wharf Ltd. drilled 91 holes in 1979 and 1980; permitted the Annie Creek mine for production in 1982; and began construction with first production in 1983, when another 32 holes were drilled. Full-scale production was achieved by May 1984 at Annie Creek. The Wharf Resources Partnership was formed in 1984 through the merger of Wharf Ltd and Wharf USA Inc.

Mining at the current location commenced in 1983 and surface mine operations included (Figure 5-1):

- Twelve open pits: Annie Creek, Juno, Foley, Portland, West Portland, Deep Portland, Trojan, Green Mountain, Bald Mountain, Flossie and American Eagle;
- An ore processing area: a crusher, five heap leach pads, a leachate processing plant, three water treatment facilities, seven lined process ponds and associated piping, and lined ditches;
- Three spent ore depositories: Ross Valley, American Eagle, and Juno/Foley, which includes the lined 33-Vertical, North Foley, and Polo depositories;
- Three waste rock storage facilities (WRSFs): Reliance, Trojan, and Cleopatra Creek;
- Access and haul roads;
- Historical (relic) mine tailings.

Figure 5-1: Location Plan, Historical Open Pits



5.2 Golden Reward

The Golden Reward Mining and Milling Company was formed in 1897 by the consolidation of the Golden Reward Gold Mining Company and the Deadwood and Delaware Smelting Company. Operation of the mine and mill ceased in 1918 with little exploration activity (Naething 1938).

The Anaconda Company purchased the holdings of the Golden Reward Mining and Milling Company in 1940 and held them until 1985. After many mergers, MinVen purchased a 100% interest and promptly sold a 60% interest to Wharf Resources. The Golden Reward Mining Limited Partnership was formed in 1992, consisting of subsidiaries of both MinVen and Wharf Resources. Wharf Resources assumed management responsibility of the limited partnership in 1992.

The Golden Reward mining area was closed in 2009 and placed into Post Closure Status with the state of South Dakota. Closure monitoring and maintenance are conducted in accordance with the Golden Reward Post Closure Plan and Financial Assurance document. A portion of the West side of Golden Reward was re-opened in 2012 with State Permit #476. Coeur subsequently mined the Golden Reward area from July 2014 through October 2017. Zones exploited included the Harmony and Liberty orebodies.

A summary of the recent exploration and development activities for Wharf and Golden Reward is provided in Table 5-1.

Table 5-1: Exploration and Development History Summary Table

Year	Operator	Comment
1974	Taiga Gold	Property acquisition
	Taiga Gold and Homestake	Joint venture formed
	Taiga Gold	Granted options to purchase Homestake's 50% interest in its remaining Bald Mountain properties. Taiga Gold purchased Homestake's interest in the joint venture to add the Foley Ridge and adjacent deposits
1977	Goldex Holdings, Inc.	Company formed, subsequently renamed to Wharf Resources
1982	Wharf Resources	Acquired Taiga Gold Awarded mining permit for Annie Creek open pit
1985		Foley Ridge and Annie Arm mining permits were approved, which extended the original Annie Creek pit
1987	Dickenson Mines Limited (Dickenson)	Acquired the majority shareholding in Wharf Resources
1994	Goldcorp Inc. (Goldcorp)	Became the continuing corporation following the amalgamation of Goldcorp, Dickenson Goldquest Exploration Inc. and CSA Management Limited. Geophysical survey was flown covering both the Wharf and Golden Reward properties.
1996		Announced a takeover bid for the 49.7% stake in Wharf Resources that it did not already own; Wharf Resources becomes a Goldcorp subsidiary
1998		Clinton mining permit was approved
2012		Mining permit approved to expand mining into Green Mountain
2015	Coeur Mining, Inc.	Acquires Wharf Resources from Goldcorp.
2015–2021		Annual expansion and infill drilling. Updated Mineral Resource and Mineral Reserve estimates.

6.0 GEOLOGICAL SETTING, MINERALIZATION, AND DEPOSIT

6.1 Deposit Type

The deposits in the Wharf Operations area are considered to be examples of structurally controlled and disseminated gold mineralization. The Wharf deposit has been described as a hydrothermal replacement deposit, (Lessard and Loomis, 1990) a Carlin-type deposit (Paterson, 1990), and more recently as a low- to intermediate-sulfidation epithermal deposit. (Pedraza Rojas, 2017).

Host rocks to epithermal deposits are dominantly silty carbonates, but mineralization can also be present in siliceous and silicified rocks as well as intrusive rocks. Low- to intermediate-sulfidation epithermal deposits commonly exhibit significant structural (faults) and stratigraphic (composition/permeability) controls. Mineralization often consists of extremely fine-grained disseminated gold, hosted primarily by arsenian pyrite.

Wharf differs from this standard model in that host rocks are dominantly sandstone with varying carbonate content and trachytic porphyry, and mineralization consists of native gold and electrum and remobilized gold in addition to early-stage gold-bearing sulfides.

6.2 Regional Geology

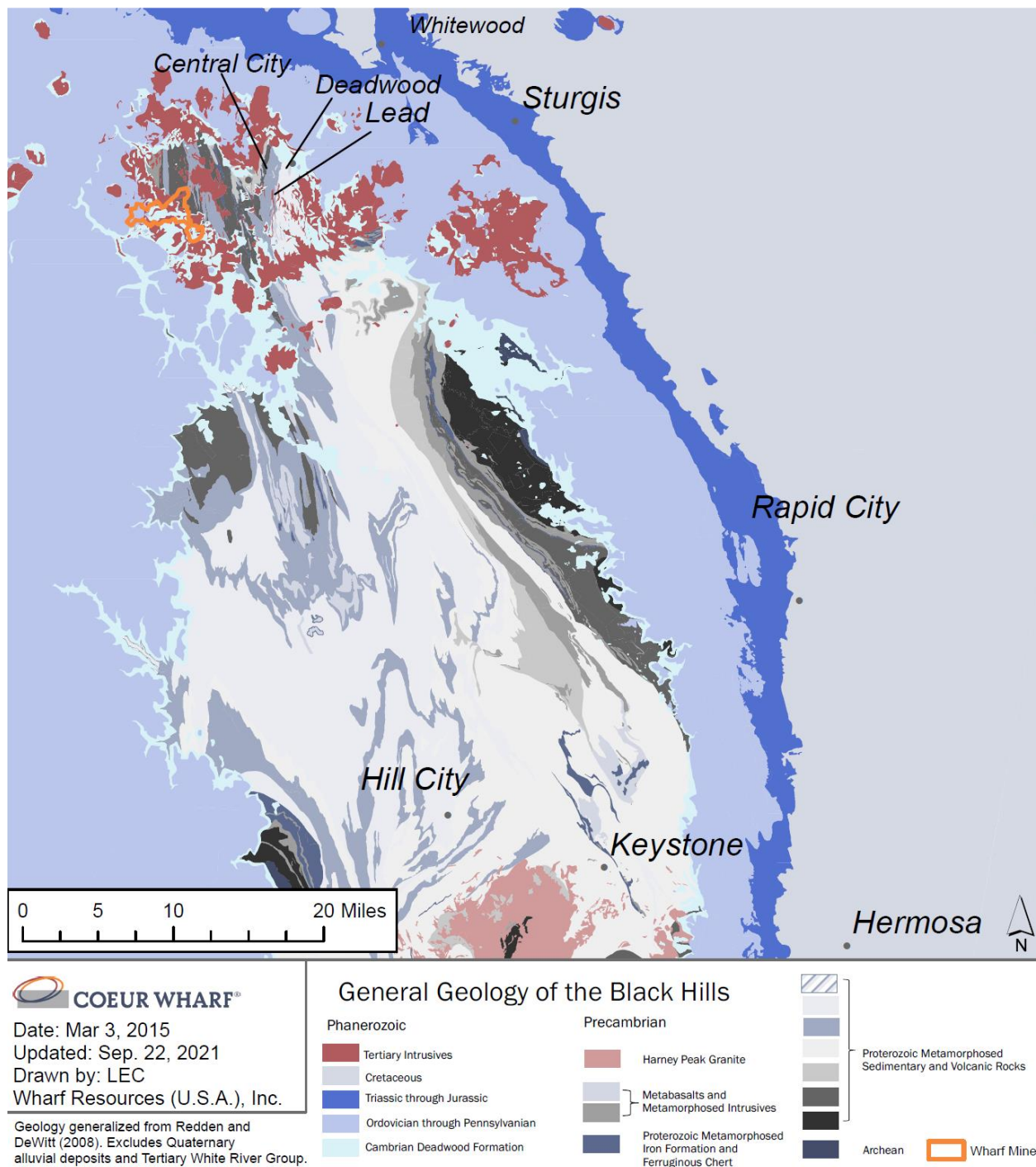
The Black Hills are located at the junction of several major terranes that have been the locus of repeated rifting and collisional events (Redden et al., 1990; Dahl et al., 2005; Dahl et al., 2006). The Black Hills are in the Wyoming boundary zone, on the eastern edge of the Wyoming craton (McCormick, 2008). A complex deformational history is preserved in the Laramide age Black Hills uplift which exposes Archean through Oligocene rocks (Figure 6-1).

Laramide-age uplift of the Black Hills was accommodated along north and northwest-trending monoclines over deeper thrust faults (Lisenbee and DeWitt, 1993), forming an asymmetrical dome that is exposed over an area 120 miles in length and 60 miles in width. Regional uplift, doming, and subsequent erosion exposed older, underlying Precambrian rocks in “windows” through the younger, overlying Phanerozoic rocks.

Contemporaneous Tertiary alkalic magmatic intrusive centers occur along a west–northwest-trending belt across the northern Black Hills (Harris and Paterson, 1996), possibly controlled by a deep crustal structure. The extension of this trend to the west–northwest also parallels several major faults and lineaments (Duke, 2005).

Igneous intrusions are exposed from Devil’s Tower and the Missouri Buttes in Wyoming, through the Wharf mine area to Bear Butte near Sturgis, South Dakota, almost 70 miles along strike. Intrusive rocks in the belt are primarily alkalic in composition. Magmatic centers include a cluster around the Lead–Deadwood dome and the Cutting Stock (Lisenbee, 1981); this cluster has also been described as one major center and the entire intrusive dome as an associated zone of Tertiary-age mineralization (Shapiro and Gries, 1970).

Figure 6-1: Regional Geology Map



Compositions of igneous bodies in the dome area include rhyolite, alkali rhyolite, trachyte, quartz trachyte, and phonolite, as well as intrusive breccias.

6.3 Local Geology

6.3.1 Lithologies

The Lead–Deadwood dome, a northwest-oriented structure about 5.5 miles long and 3.5 miles wide, exposes a Precambrian core of metasedimentary and metavolcanic rocks, flanked by numerous Tertiary porphyritic intrusions and intrusive breccias. The core is ringed outwards by sedimentary rocks including the Cambrian–Ordovician Deadwood Formation and Mississippian Pahasapa Limestone, which have both been mineralized at different locations. Intrusive rocks, primarily sills, inflate the sedimentary section, and dikes and stocks intrude the Precambrian rocks.

A Project geology map is provided in Figure 6-2. Table 6-1 is a summary of the sedimentary geology in the Project area and Figure 6-3 is a stratigraphic column showing the sedimentary succession. Table 6-2 summarizes the intrusive lithologies.

6.3.2 Structure

The Precambrian basement fabric is oriented dominantly north–south in the local area, with the orientation shifting to the north–northwest to the east of the mine area. Multiple Paleoproterozoic deformation and metamorphic events from the complex tectonic history of the Black Hills are recorded in the tightly to isoclinally folded and sheared Precambrian rocks.

The dominant forms of igneous intrusion are sills and laccoliths that commonly intrude at the level of the Deadwood Formation (Lisenbee, 1981). The Cutting Stock, consisting of intrusions with various compositions, is exposed near the center of the Lead–Deadwood dome. The Cutting Stock displays an uneven contact, due to numerous dikes intruding along north to northwest-striking foliation planes in the Precambrian rock (Lisenbee et al., 1981). Intrusions can locally change geometry, an example being a dike swarm within the nearby Homestake open pit, where dikes intruded between Precambrian foliation planes form sills within the lower Deadwood Formation.

6.3.3 Alteration

The local area exhibits widespread regional potassic alteration. Altered and mineralized rocks at Foley were relatively enriched in silica and potassium and contained lower sodium than their unaltered quartz alkali trachyte counterparts, and some phenocrysts were altered to sericite and clay (Harris and Paterson, 1996).

Argillization and subsequent brecciation along strongly mineralized fractures were observed (Loomis and Alexander, 1990). Within intrusive rocks, alkali rhyolite alteration with clay or zeolite replacement of alkali feldspars were observed (Harris and Paterson, 1996), following oxidation of disseminated pyrite within porphyry (Emanuel and Walsh, 1987).

Figure 6-2: Project Geology Plan

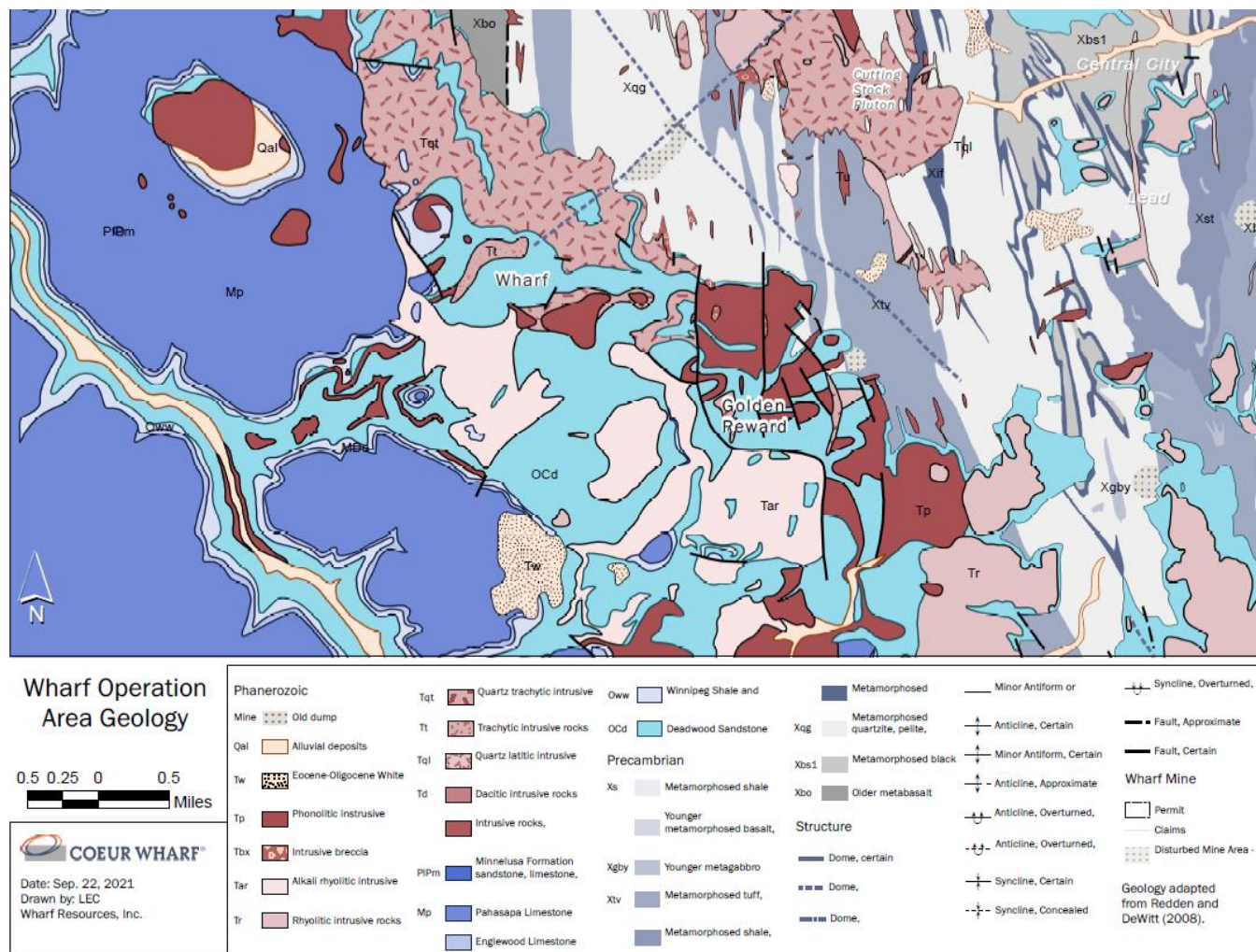


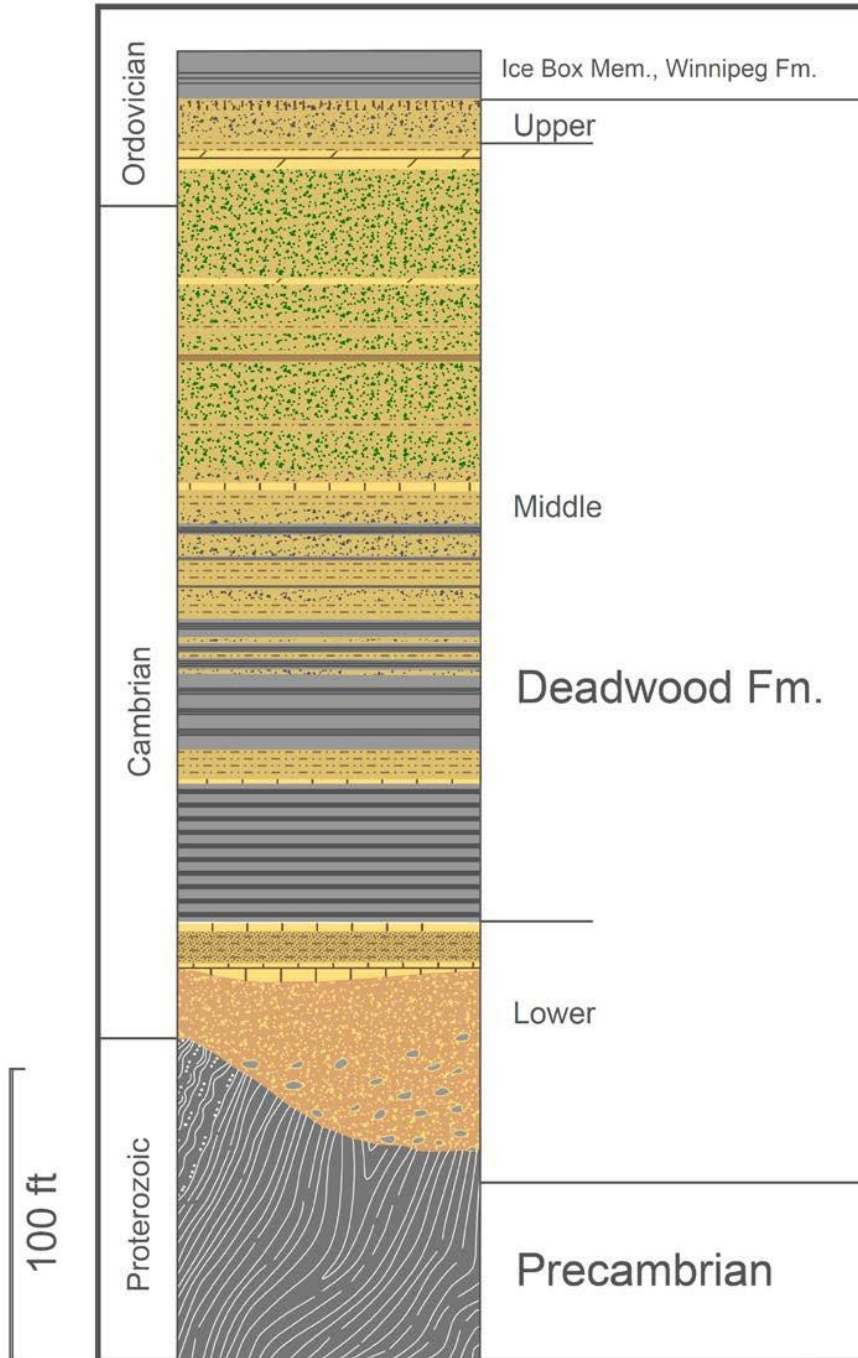
Table 6-1: Stratigraphic Table, Sedimentary Lithologies

Age	Unit	Comment	
Mississippian	Pahasapa Limestone	Limestone and dolostone	
Devonian	Englewood Formation	Argillaceous limestone	
Ordovician	Whitewood Formation	Dolomite and sandy dolomite	
	Winnipeg Formation	Icebox Shale, a gray to green or red shale	
Cambrian–Ordovician	Deadwood Formation	Near-shore sequence of sandstones, siltstones, intraformational conglomerate, and shales with varying carbonate content. Shale units within the Deadwood Formation are mostly unmineralized, with sandier units acting as the main mineralization host.	Upper unit: sandstone, glauconitic sandstone, interbedded sandstone/siltstone/shale/limestone
			Calcareous gray shale, interbedded sandstone/siltstone/shale/limestone
			Sandstone, interbedded sandstone/siltstone/shale/limestone
Precambrian	Flag Rock and Ellison Formations	Quartzite, biotite/muscovite phyllite and schist, graphitic phyllite, iron formation, meta-tuffs, and other metavolcanic rocks	

Table 6-2: Intrusive Lithologies

Intrusive Type	Description	Observation
Phonolite	Green-gray porphyritic rock with few phenocrysts of sanidine and pyroxene	Post-mineralization. Forms a sill on top of Green Mountain, and forms multiple narrow, clay-altered dikes in the Wharf pits
Alkali rhyolite	Typically altered and partially mineralized granular potassium feldspar and quartz with trace aegirine needles	Occurs as a sill in the former Foley pit, as dikes and thin sills in the overlying Winnipeg Formation, more volumetrically significant south of the mine
Quartz alkali trachyte	Phenocrysts are sanidine and albite, with rare pyroxene, and some replacement of phenocrysts by Fe oxides or carbonate; quartz is present as a minor phenocryst phase	Most common rock type at Annie Creek
Trachyte	Potassium feldspar is typically the only phenocryst visible in hand samples of the currently mined sills. Trachyte at Annie Creek contains anorthoclase, aegirine/augite, hauyne, plagioclase, apatite, titanite, and calcite. Biotite phenocrysts are observed in rock chips in small (10–20 ft) intervals of trachyte in drill holes at Wharf.	Most mineralized and volumetrically significant igneous rock type in the present Wharf Operation
Breccia	Heterolithic clast-supported to crackle breccia, intrusive igneous breccia to hydrothermal breccia, matrix composed of variable proportions of silica, rock flour, iron oxides, and fluorite.	Mineralized to unmineralized

Figure 6-3: Stratigraphic Column



Note: Figure prepared by Coeur (2015) and modified after Loomis and Alexander (1990).

At the Annie Creek portion of the mine, weak propylitic alteration was suggested by the presence of secondary chlorite (Giebink and Paterson, 1986b). Chlorite and epidote were observed as veins in trachyte, and sericite and chlorite formed replacements in rhyolite (Emanuel et al. 1990). Limited early propylitic alteration was interpreted from epidote and chlorite replacement of feldspar within porphyry, and replacement of carbonate within calcareous sedimentary rocks (Emanuel et al., 1987). Propylitic alteration predated silicification and was cross-cut by pyrite and fluorite veinlets.

A study of the eastern side of the deposit in the Bald Mountain and Golden Reward areas (Pedraza Rojas, 2017) identified stages of mineralization and alteration:

- Fenitization of intrusion;
- Hydrothermal replacement of orthoclase with albite, adularia, and quartz, and calcite precipitation along fractures and minor sulfide mineralization with some possible tellurides and electrum, coincident with shallower phyllic alteration;
- Argillic alteration, acid leaching, and breccia formation;
- Carbonate alteration, fluorite, pyrite, and base metal sulfide mineralization, and ore deposits of Au, tellurides, and electrum;
- Supergene alteration with some gold remobilization.

6.3.4 Mineralization

Mineralization was strongly structurally controlled, and high-angle structures fed mineralized zones. Mineralization at the Foley Ridge portion of the mine occurred in zones up to 100 ft from structures, or in manto-like deposits where structures were pervasive (Paterson and Giebink, 1989; Loomis and Alexander, 1990). Manto-like replacement mineralization was noted in some of the sandstone units of the Deadwood Formation intersected by multiple silicified structures (Emanuel and Walsh, 1987). Mineralization within the trachyte sill at Foley Ridge occurred in areas of fracturing, and was especially strong where fracturing was intense, particularly around structural highs and dikes (Loomis and Alexander, 1990).

The main host rock for high-grade mineralization is the sandstone and dolomitic zones of the lower member of the Deadwood Formation. High-grade mineralization and extensive manto-like mineralization formed in this horizon where the Deadwood Formation was highly permeable, had a high carbonate component or cement, or was nearest to the fractures carrying mineralizing fluids from the less-permeable Precambrian units (Paterson and Giebink, 1989).

In the upper Deadwood Formation, rocks with original high carbonate and low quartz content are better mineralized (Giebink and Paterson, 1986a). Although impermeable horizons such as thick sills and Deadwood Formation shales typically formed barriers to fluid and thus are generally not mineralized, in some areas they were exposed to early silicification and subsequent fracturing. With sufficient ground preparation, sills and shales were mineralized (Emanuel and Walsh, 1987).

Igneous bodies make up the bulk of the mineralized material at Wharf. Historically mined sills of quartz alkali trachyte were well mineralized at Foley (e.g., Harris, 1991; Harris and Paterson, 1996). Zones of pervasive mineralization occur in trachytic porphyry present in active pits.

Smaller intrusive bodies of different compositions are locally mineralized. Mineralization occurs near dikes, sills, and in fracture and breccia zones (Emanuel and Walsh, 1987). Narrow biotite-bearing porphyritic dikes and sills are also mineralized. However, the late phonolite is not known to be mineralized.

Gangue minerals associated with mineralization included quartz, fluorite, sericite, calcite/dolomite, barite, and clays (Emanuel and Walsh, 1987; Emanuel et al., 1990). Hydrothermal quartz found with mineralization at Foley Ridge formed small veinlets to large, up to 1 ft wide, drusy quartz-lined open fractures (Loomis and Alexander, 1990).

Fluorite was frequently noted in mineralized zones, occurring as massive pods, crystalline veins or in cavities, as well as replacing phenocrysts in porphyry and as matrix in breccias. Fluorite is found in both mineralized and unmineralized rock and multiple phases of fluorite mineralization used the same conduits as the mineralization event(s). Fluorite is considered a late-stage mineral (Paterson et al., 1989).

High-grade mineralization at Annie Creek is associated with clustered, euhedral marcasite with quartz (Giebink and Paterson, 1986a), which, along with quartz, was likely a replacement of dolomite (Paterson and Giebink, 1989). Quartz and marcasite were later rimmed by arsenopyrite and replaced by arsenian pyrite (Giebink and Paterson, 1986a, Paterson and Giebink, 1989). Later generations of slightly larger, disseminated, euhedral pyrite, followed by coarser void fillings of pyrite have been identified (Giebink and Paterson, 1986a).

Gold mineralization occurred as gold substitution within sulfides (e.g., Giebink and Paterson, 1986a), similar to occurrences of gold-bearing sulfides in Carlin-type systems, and as native gold with silver in the main stage of mineralization (Pedraza Rojas, 2017). Historic mining at Two Johns and Golden Reward focused at times on the “blue ores,” which are silicified, unoxidized lower Deadwood Formation sandstone. These “blue ores” were milled and roasted to recover gold (Miller, 1962). The benefits of roasting indicate at least a portion of the gold is within sulfides. Thin sections of high-grade samples from the Annie Creek mine analyzed by Schurer and Fuchs (1991) show native gold associated with hematite, goethite, and jarosite, which forms from oxidation of iron sulfides, and arseniosiderite which forms from oxidation of arsenopyrite. Quartz is also associated with gold. A thin section from the lowest-grade sample in that study showed no native gold, but abundant sulfides, which was assumed to indicate lattice or sub-micrometer gold.

Silver to gold ratios vary throughout the district; at Golden Reward they range from 1:1 to 14:1 (Emanuel et al., 1990) averaging 4:1 during historic mining according to Emanuel and Walsh (1987). At Annie Creek the average ratio was 2.5:1 (Lessard and Loomis, 1990), and the ratio was approximately 2:1 at Foley Ridge (Loomis and Alexander, 1990).

6.4 Property Geology

6.4.1 Deposit Dimensions

The Wharf deposit dimensions range from 8,000–9,000 ft long in the east–northeast direction, 2,100–5,000 ft wide, 150 ft thick in historically mined areas to 500 ft in active pits. Mineralization has been drill tested to varying depths to the Precambrian surface, which ranges from 5,400–6,200 ft in elevation across the deposit.

6.4.2 Lithologies

Trachytic sills are the bulk of the mineralized lithology within the mine plan. Composition varies and includes trachytic, quartz trachytic, and quartz alkali feldspar trachytic (Pedraza, 2017). Phonolite is present as a large capping sill and as dikes and smaller sills and is post-mineral.

The entire Deadwood sequence is present in the current mine area, as well as some overlying Icebox Shale. Manto-like mineralization occurs in the sandstone and dolomitic zones of the lower member of the Deadwood Formation, and narrower, higher-grade zones occur in the upper sandstone and glauconitic sandstone units.

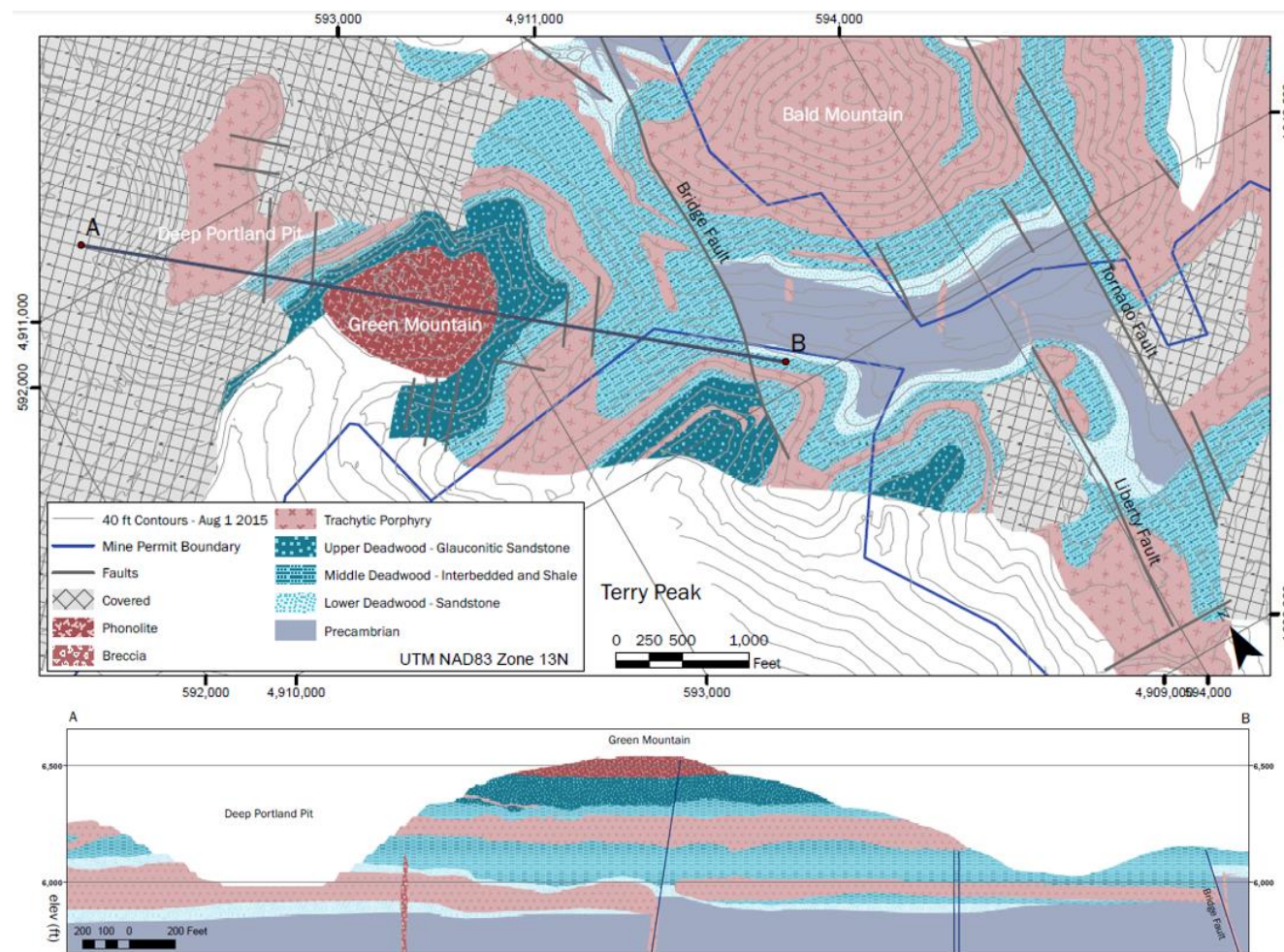
Precambrian metamorphic rocks including phyllites and quartzites underlie the property and but not intercepted by any of the pits.

A trachyte sill is a main host for mineralization, with low-grade disseminated mineralization throughout the body. Igneous bodies at Wharf are predominantly sills. Dikes are less volumetrically important but occur in most mined areas.

The best mineralized intrusion, the lower trachyte sill, occurs in several pits at Wharf. This trachyte sill was intruded both above and below the base of the Deadwood Formation.

A geological cross-section is included as Figure 6-4.

Figure 6-4: Wharf Geology Cross-Section



Note: Figure prepared by Pedraza (2018) and modified by Coeur, 2021.

6.4.3 Structure

Sills geometries in the pits vary. Sill thickness is highly varied; almost the entire depth of the Foley and American Eagle pits were porphyry sills, but other pits intersected the sills where they were 20–30 ft thick. Sills can be discordant across thick sequences of stratigraphy, moving up-section gradually, possibly along pre-existing structures.

A weakly mineralized dike up to 100 ft wide was present in the easternmost Bald Mountain area. Narrow, late phonolite dikes cross-cut trachyte sills in several places in the pits.

A fault zone exposes Precambrian rocks at Bald Mountain, east of the haul road tunnels connecting Wharf to Golden Reward. Zones of intense silicification, clay alteration, and brecciation parallel the fault. This fault continues south to Golden Reward, and parallels north-trending Precambrian structures and is probably a reactivated older structure. Other faults with minor offset are present throughout the site and have been viewed in-pit.

The main trends of mineralization at Wharf parallel the strike of major joint sets measured in upper and lower Deadwood Formation outcrops (Shapiro and Gries, 1970).

6.4.4 Alteration

Silicic alteration within the Golden Reward portion of the property was common in mineralized areas and was expressed as quartz veins, stockworks, and as disseminated quartz with sulfides (Emanuel et al., 1990). Silicification in the Annie Creek portion of the property was typically focused around fractures (Loomis and Alexander, 1990). Silicification included destruction of glauconite in sandstone and porphyritic texture in the intrusions, replacement of dolomite crystals, and preservation of primary sedimentary structures (Paterson and Giebink, 1989; Loomis and Alexander, 1990). In the Foley sill at Wharf, zones of silicification were observed to be enclosed by decalcified zones, with metal grade decreasing from the zone interior outward (Loomis and Alexander, 1990). Silicification also occurred along structures, such as the Bald Mountain fault zone, at contacts with the igneous intrusions, and along bedding planes and lithologic contacts.

Outside of these silicified zones, carbonate replacement and veinlets formed by remobilization of carbonate from the mineralized zone (Loomis and Alexander, 1990). Locally, rather than decalcification, original calcareous horizons were replaced with dolomite (Shapiro and Gries, 1970). In the mine area, phenocrysts in trachytic porphyry sills are partially replaced by carbonate, and carbonate veinlets occur within the sills.

Argillization occurs in porphyritic intrusive rocks. Prominent clay-altered structures were visible in the pits, but these structures were barren and typically contained an extremely altered phonolite dike core. A late-stage barren phonolite cap at Green Mountain and along Foley Ridge had similar strong argillic alteration along fractures.

6.4.5 Mineralization

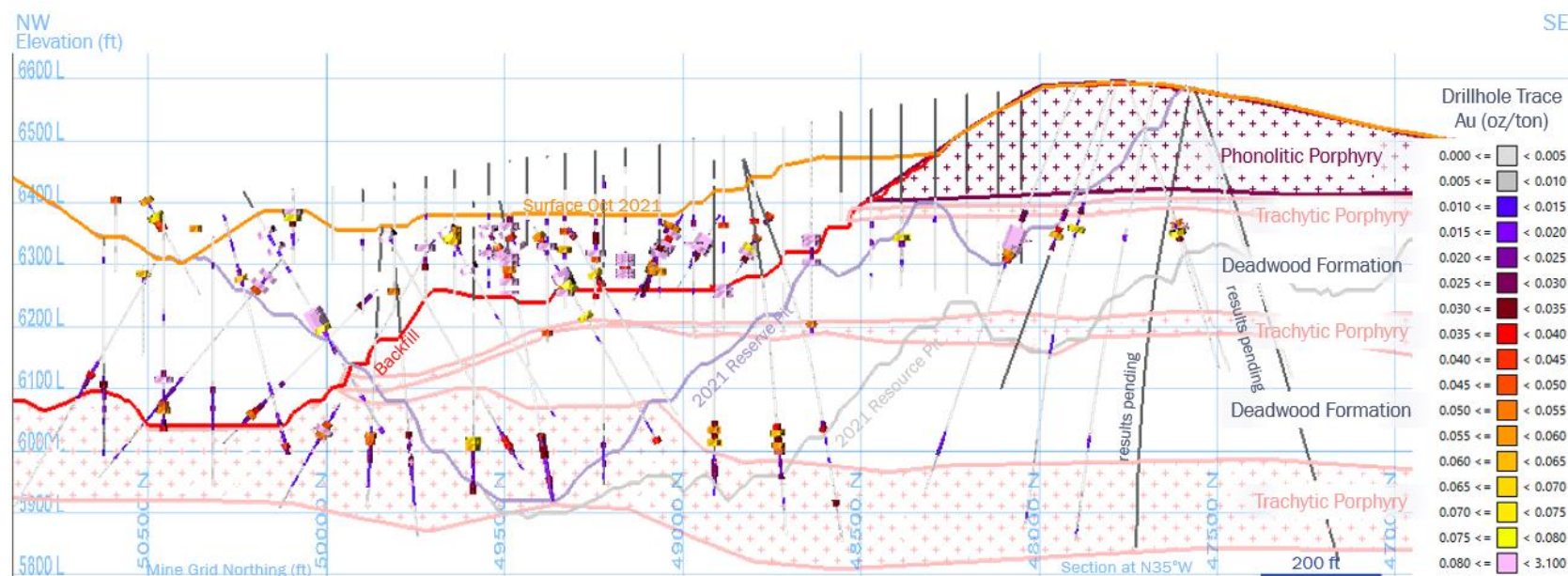
Most of the mineralized intrusive rocks at Wharf are trachytic in composition. Trachyte porphyry forms sills that exhibit fracture-controlled mineralization. Locally, gold is disseminated strongly fractured zones contain higher grades and more continuous mineralization.

Quartz trachytic and quartz alkali feldspar trachytic rocks are varyingly mineralized, with a barren sill in the western portion of the mine area, and a more mineralized sill has been mined in the eastern portion of the pit. A thin biotite-rich sill similar in texture and composition to the barren cap phonolite is also mineralized.

The upper and lower Deadwood Formation are host to higher-grade mineralization. The upper unit has narrower, higher-grade, more structurally controlled mineralization, with the lower Deadwood exhibiting more pervasive mineralization. More impermeable units such as the interbedded shale units of the Deadwood Formation are less mineralized, but in places host structurally controlled mineralization.

Drilling intercepts showing mineralization with general geology for a cross-section central to the future pit area is shown in Figure 6-5.

Figure 6-5: Wharf Geological and Mineralization Cross-Section



Note: Figure prepared by Coeur, 2021.

7.0 EXPLORATION

7.1 Exploration

7.1.1 Grids and Surveys

All broad-scale topography was generated from aerial photogrammetry, with the most recent survey completed in 2016. Local surveys are generated with RTK global positioning system (GPS) high-precision rover survey systems and aerial drones.

The Wharf Operations' local grid system is based on the WGS 1984 coordinate system with a transverse Mercator projection. Northings and eastings were truncated to reduce the size of coordinates.

7.1.2 Geological Mapping

Geological maps from Redden and DeWitt (2008) are used at the regional (1:100,000) and local (1:24,000) scale. Small-scale mapping was performed on a limited basis.

No pit highwall or blasthole mapping is done. On a blast pattern basis, general rock type is recorded by engineering personnel as broadly porphyry, lower Deadwood Formation, or general Deadwood lithology.

7.1.3 Geochemistry

A limited number of drill samples were analyzed to provide geochemical data for permit requirements. Humidity cells, meteoric water mobility tests, and acid base accounting (ABA) samples were collected and analyzed for permit requirements. ABA sampling is done on an ongoing basis for waste rock characterization.

7.1.4 Geophysics

A geophysical survey was flown covering both the Wharf and Golden Reward properties in October 1994. Geophysical measurements consisted of total magnetic fields, apparent resistivity (at 865, 4175, and 33000 Hz), and radiometric measurements (potassium, thorium, and uranium). Resultant maps exist but digital data were not retained.

7.1.5 Qualified Person's Interpretation of the Exploration Information

The Wharf Operations area has been the subject of exploration and development activities since the mid 1970s, and a considerable information database developed because of both exploration and mining activities. Procedures are consistent with industry-standard practices at the time the work was performed.

7.1.6 Exploration Potential

Within the current Wharf permit boundary, all past production areas are of interest for future exploration potential. Condemnation drilling previously conducted is not sufficient for depth or extents. Drilling is currently being conducted near the Juno pit testing at depth and perpendicular to strike.

The Portland Ridge south of the current permit boundary is under evaluation for expansion towards our surface ownership extent.

Near-mine locations near mine have been evaluated with regards to metals pricing, production limitations, and socioeconomic factors. Near-mine areas include Two Johns to the north, eastern Bald Mountain (Alpha underground workings), deeper open pits at Golden Reward, and the Hannibal and Astoria workings in southern Golden Reward.

7.2 Drilling

7.2.1 Overview

A total of 11,140 drill holes (2,700,999 ft) have been completed in the Project area, the majority of which were RC drill holes. A summary of this drilling is included as Table 7-1. RC and core drilling supports mineral resource estimation. Drilling that supports the mineral resource estimate is summarized in Table 7-2.

A drill collar location map for the Project area is included in Figure 7-1. All of the drill holes shown on Figure 7-1 were used in the variography and exploratory data analysis for the resource model, even though they are outside the current model boundaries.

Drill holes in the drill database that are flagged as being completed by a production rig, are considered to have generated unreliable samples, and are flagged such that they are not be exported from the acQuire database for resource modelling purposes.

7.2.2 Drill Methods

The majority of the drilling is reverse circulation. From 2007–2013, drilling was contracted to North River Drilling; in 2014, Major Drilling; and from 2015–2017, Boart Longyear; 2018, HD Drilling; and Boart Longyear in 2021.

RC holes were typically 5.5" in diameter.

Core drilling was completed by Boyles Brothers Drilling or Longyear Drilling. The only core size used was HQ (63.5 mm diameter). No core drilling and sampling has been completed since 2007.

7.2.3 Logging

RC chips were logged for lithology, alteration, and mineralization. Core holes were logged for lithology, rock type, mineralization, alteration, recovery, and rock quality designation (RQD).

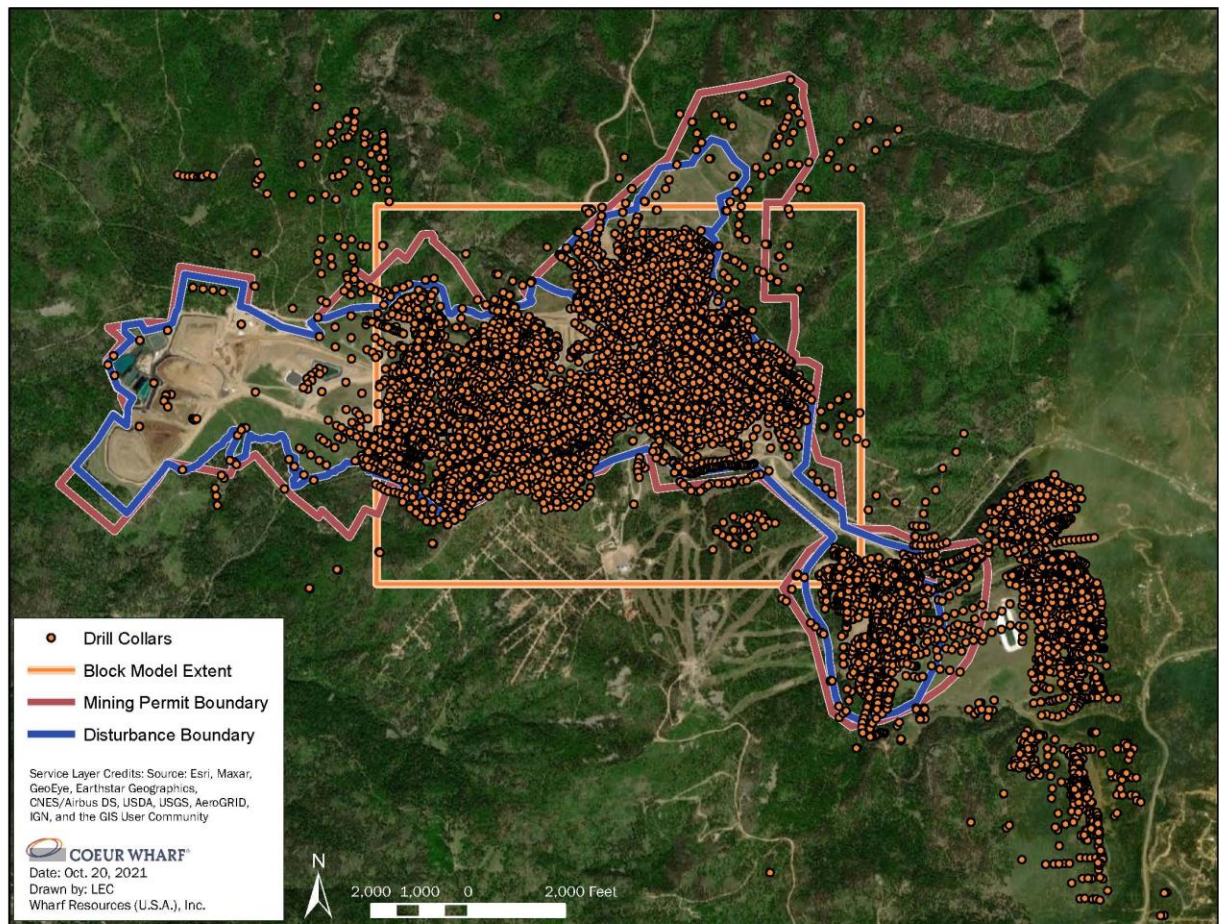
Table 7-1: Property Drill Summary Table

Year	Number of RC Holes	RC Footage (ft)	Number of Core Holes	Core Footage (ft)
1979–2006	9,459	1,988,188	11	19,040
2007	169	43,110	—	—
2008	125	57,310	—	—
2009	63	19,455	—	—
2010	379	157,155	—	—
2011	284	97,181	—	—
2012	119	49,010	—	—
2013	94	21,340	—	—
2014	61	32,260	—	—
2015	56	35,180	—	—
2016	51	30,530	—	—
2017	87	56,190	—	—
2018	51	—	—	—
2019	—	—	—	—
2020	—	—	—	—
2021	131	95,050	—	—
Total	11,129	2,681,959	11	19,040

Table 7-2: Drill Summary Table Supporting Mineral Resource Estimates

Number of RC Holes	RC Footage (ft)	Number of Core Holes	Core Footage (ft)
7,655	1,835,090	11	19,040

Figure 7-1: Property Drill Collar Location Plan



Note: Figure prepared by Coeur, 2021. Drill holes can plot outside current boundaries as permit areas have changed over time.

7.2.4 Recovery

Recovery is not recorded for RC or core drilling.

7.2.5 Collar Surveys

Designed drill holes are marked with a Trimble GPS instrument, using coordinates in the local Wharf Operations grid. The drill setup is confirmed by the exploration team (dip, azimuth, collar location). After completion of the hole, the collar is re-surveyed using a Trimble differential GPS.

Surveyed drill holes are reviewed in GEMS against the designed coordinates and the current topography.

Historically, the collar coordinates were written on paper logs and input manually as actuals into a GEMS database.

7.2.6 Down Hole Surveys

Downhole surveys were not performed on RC drill holes prior to 2014. After 2015 downhole surveys were completed on all RC drilling regardless of depth. A small subset of surveys was conducted on drilling performed in 2015.

Fourteen core holes, completed prior to 2007, with average depths of ~1,600 ft have downhole surveys using an unknown method. The results are stored in an acQuire database.

7.2.7 Drilling Since Wharf Database Close-out Date

A total of 47 drill holes (27,320 ft) were drilled at Wharf since July 27, 2021. All footage was RC, and the drill holes have valid assay data. Although a few of the newer drill holes may change the grades locally, the drill holes that are within the existing model should, in the QP's view, have no material effect on the overall tonnages and average grade of the current mineral resource estimate.

7.2.8 Comment on Material Results and Interpretation

Drill holes are designed to intersect mineralization as perpendicular as possible. Mineralized zones in the Wharf Operations are generally horizontal to sub-horizontal and can be adequately drilled with vertical drill holes. A sufficient number of angled drill holes have been completed at Wharf to test for vertical controls on the mineralization.

Drilling and surveying were conducted in accordance with industry standard practices at the time and provide suitable coverage of the mineralization. The collar and downhole survey methods used provide reliable sample locations. Logging procedures provide consistency in descriptions.

These data are suitable for mineral resource and mineral reserve estimation. There are no drilling factors known to the QP that could materially impact the accuracy and reliability of the results.

7.3 Hydrogeology

7.3.1 Sampling Methods and Laboratory Determinations

Third-party consultants Respec were responsible for creating the groundwater model of the Wharf site. Monitor well data were used to create an average potentiometric surface as a base for any flow and transport modelling.

7.3.2 Comment on Results

No definitive aquifers have been encountered in exploration drilling at Wharf. All workings encountered in production are dry outside of meteoric events.

Pit water management is seasonal and situational, depending on the orientation of the current pit floor compared to backfilled pits and WRSFs.

Meteoric water infiltrates the WRSFs and hits the relatively impermeable Precambrian basement. The Precambrian dips gently to the southwest, which is the same direction of pit progression. Given this scenario, snow melt along with spring rains has the pit bottoms filling. The water is pumped out when needed to facilitate production on the final benches.

7.3.3 Surface Water

The east–west-trending Foley Ridge is a major surface water divide at the mine site. Surface water flow north of the ridge drains to Cleopatra Creek and False Bottom Creek, and east to Deadwood Creek. Surface water flow south of the ridge drains to Ross Creek, Annie Creek and Nevada Gulch. Cleopatra Creek and Annie Creek subsequently flow generally west into Spearfish Creek.

Cleopatra Creek is fed by a spring at the headwaters of the stream. The spring discharges from the toe of the backfill in the Cleopatra Creek WRSF, approximately 100 feet upstream of National Pollutant Discharge Elimination System (NPDES) Compliance Point 004. Barren rock was deposited in the Cleopatra Creek WRSF from 1987 to 1990 by Wharf Resources. The headwater spring discharges groundwater from a perched zone above the Tertiary intrusive units that underlie the Juno Pit and upper Cleopatra Creek valley. Cleopatra Creek flows northward into Spearfish Creek, 4.5 miles northwest of the mine.

False Bottom Creek originates north of Bald Mountain and runs northward through Lawrence and Butte Counties. False Bottom Creek flows into the Redwater River south of Belle Fourche. Deadwood Creek originates east of the Trojan Pit and flows eastward into Whitewood Creek west of Lead. Surface water flow in the creeks is mainly from direct runoff of precipitation and snowmelt, with the remainder base flow from springs and seeps. High flows in the spring typically occur during periods when the surface water drainages receive a combination of snowmelt and precipitation during major storm events.

7.3.4 Groundwater

The primary bedrock aquifer underlying the western portion process area of the mine site is the Madison Formation. Madison Formation is not present under locations where active mining occurs. The Madison Formation consists of limestone, sandy limestone, and dolomite. Secondary aquifers include the limestones and dolomites of the Englewood and Whitewood Formations. These aquifers are underlain by the relatively low permeability sandstones, siltstones and shales of the Winnipeg and Deadwood Formations. Groundwater flow in the Madison Formation is unconfined and occurs mainly in fractures and small dissolution cavities in the upper

part of the formation. Horizontal groundwater flow within the Madison Formation is generally to the west, and vertical flow is predominantly downward. However, the fractures and solution cavities are not uniformly distributed in the aquifer, and they form preferential flow paths that locally control the direction of groundwater flow.

Groundwater recharge occurs primarily through the infiltration of precipitation and surface runoff. Average recharge rate in this area of the Black Hills is estimated to be about 6.8 inches per year.

Hydraulic conductivities of the aquifers vary significantly and are dependent on the degree of fracturing and dissolution. The primary aquifer, the Madison Formation, has low to moderate hydraulic conductivities, ranging from 1.3×10^{-4} to 7.7×10^{-2} cm/sec. Well yields range from 10–75 gpm. Measured hydraulic conductivities of the underlying Winnipeg and Deadwood Formations are somewhat lower, ranging from 3.7×10^{-6} to 1.6×10^{-4} cm/sec. Measured hydraulic conductivities of the Tertiary intrusive units are very low, ranging from 1.6×10^{-7} to 5.8×10^{-5} cm/sec.

7.4 Geotechnical

7.4.1 Sampling Methods and Laboratory Determinations

Due to the difficulty of gathering structural and rock strength information from RC chips, no specific geotechnical information is recorded. Interpretation on where fracture zones are and the presence of underground workings have been recorded through logging.

An initial evaluation was conducted on the current pit slope angles and benches in 2021. Respec gathered past evaluations and current physical measurements of fracturing and rock properties to conduct an analysis. The results of the analysis state Coeur's current practices are within an appropriate factor of safety, and additional sampling and studies should be performed before adjusting the slope angles.

7.4.2 Comment on Results

A combination of historical and current geotechnical data, together with mining experience, is used in the operations.

The Wharf Operations conduct twice-yearly highwall and pit rim inspections with associated maps as well as twice daily work area (pit) inspections performed by the operations team.

8.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

8.1 Sampling Methods

8.1.1 Reverse Circulation

RC sampling was performed by drill contractors at the drill rig. Sampling practice from 2007–2021 was to sample 10 ft. intervals. Pre-2007 RC drilling at the Wharf Operations was sampled on 10-ft intervals and drilling at the Golden Reward area that is now part of the Wharf Operations was at 5-ft intervals. Approximately 2 in³ of chips per sample interval was retained for geological logging.

Cuttings from the center-return RC drill were directed to a cyclone and collected as underflow from the cyclone in five-gallon buckets. These samples were split into two samples, the size of which depended on drilling return, which in turn was affected by factors such as rock type and presence of underground voids. The average weight of dried cuttings collected from 2015–2021 was 14.8 lbs, with 90% of samples weighing between 5.4–28.1 lbs, and with <1% of samples being under 2 lbs.

Sampling was conducted on primarily dry drilling through 2014, with wet drilling encountered depending on conditions, and wet-drilled samples from 2015–2021. Pre-2015, when drilling in dry conditions, the entire sample was retained for analysis; however, in wet drilling conditions, the suspended fines were washed off the sample to reduce water volume.

Groundwater was rarely encountered in RC drilling; depth and flow rates were not recorded. Typically, water was used in drilling to improve drilling performance and sample recovery.

Prior to 2015, samples were collected into large, numbered, impervious plastic sample bags, with a numbered ID tag attached. From 2015–2021, samples were collected in cloth sample bags for drainage while retaining fines. One sample was delivered to the assay laboratory, and another was saved for geochemical testing. Only one sample was collected in areas of sufficient density of testing. Excess pulps were stored on-site for at least two years in case additional analyses were required.

8.1.2 Core

The entire length of the drill hole was sampled. Sample runs of holes recorded as core averaged 4.5 ft at the Wharf Operation.

One half of the core was delivered to the Wharf laboratory for sample preparation and analysis for gold and silver. All remaining core samples were eventually discarded.

8.1.3 Grade Control

Grade control samples are collected while drilling blast patterns. Coeur uses DM-45 hammer drills to drill patterns on approximately 15 x 15 ft spacing. The production drills currently have a

GPS instrument for guidance on hole location and sampling identification. Cuttings are collected in a rectangular pan placed near the collar of the drill hole. Rock fragments are flushed from the hammer via injected air/water out to the surface where the fragments either deflect off the apron or land directly in the pan.

The drill operator collects the pan at 10 ft intervals down the hole and empties the pan into a plastic bag with the associated hole-ID tag. The individual hole-IDs are assigned before drilling and match a barcode that is used in the laboratory information management system (LIMS) at the Wharf Operations on-site assay laboratory (mine assay laboratory). The sample bags are stapled shut and delivered to the mine assay laboratory at the end of shift.

8.2 Sample Security Methods

RC cuttings were collected in sample bags by the drill crew at the active drill site. Prior to 2014 samples were transported from the site to the mine assay laboratory by exploration or laboratory personnel. In 2014 contract drilling company personnel transported the samples to the mine assay laboratory.

All samples remained at the mine assay laboratory through the entire sample preparation and assay process. All pre-2014 sample material was discarded.

From 2015–2018 all samples were transported to the Wharf Operations exploration building by drill contract personnel. From 2019–2021 samples were transported by exploration personnel. Samples were staged and prepared for shipment to a commercial analytical laboratory. Shipping was conducted via overland transport, with samples secured in palletized super sacks from 2018–2020. Starting in 2021 samples were shipped in bulk container plastic totes. Chain-of-custody documentation was maintained throughout the shipping and receiving process. Following analytical testwork, samples were stored at the commercial laboratory during the quality control (QC) review process and then returned to Wharf for storage. Pulps are stored for two years before discarding.

From 2015–2020, certified reference material (standards) and blanks purchased from CDN Laboratories were inserted into the sample stream during staging. Certified reference materials acquired from OREAS starting in 2020 were provided in sealed plastic packages.

8.3 Density Determinations

Historically, density was determined through laboratory testing. Documentation was not preserved. Density values corresponded to the general rock types used in grade control, and are:

- 0.0714 st/ft³ for Deadwood Formation;
- 0.0769 st/ft³ for trachyte porphyry;
- 0.079 st/ft³ for phonolite porphyry;
- 0.0588 st/ft³ for backfill.

In addition to production records and scale tests, verification of trachyte porphyry density values was conducted with four samples in 2010, 15 in 2013, and 40 in 2021, and of phonolite porphyry with 10 samples in 2013 and 30 in 2021. The analysis by was performed by an external laboratory, FMG Engineering, Inc., using ASTM C 127, the standard test method for specific gravity of coarse aggregate, in 2010. In 2013 and 2021, FMG Engineering, Inc. used ASTM D 6473-10 in 2013 and 2021, the standard test method for specific gravity of rock for erosion control. Past production and supplemental density testing show density values in use are reasonable, and ongoing testwork will be used to refine values for sub-types to these categories.

8.4 Analytical and Test Laboratories

The mine assay laboratory, located on site, was the primary analytical facility from mine inception to 2015. The laboratory was not independent and was not accredited.

Check analyses for gold fire assays were completed from 2009–2010 and from 2012–2014 at ALS U.S.A. Inc. Minerals Division in Reno, Nevada (ALS Reno). ALS Reno is independent and at the time used, held ISO/IEC 17025:2005 accreditations for selected analytical techniques.

Check assays were also completed at Inspectorate America Corporation (Inspectorate, now Bureau Veritas) in Sparks, Nevada, on a large portion of pulp samples from the 2014 drill campaign. Bureau Veritas was a check analysis laboratory in 2015 and 2016. Bureau Veritas was the primary laboratory from 2017–2021. Inspectorate was an independent laboratory, and at the time used, held ISO/IEC 17025:2005 accreditations for selected analytical techniques. Bureau Veritas is independent and holds SO/IEC 17025:2005 accreditations for selected analytical techniques.

McClelland Laboratories Inc., located in Sparks, Nevada (McClelland) was used as a check laboratory from 2017 onward. The laboratory is accredited under ISO/IEC 17025:2005 for selected analytical techniques and is independent of Coeur.

8.5 Sample Preparation

Prior to 2015, all exploration and near mine development sample preparation was completed by the mine assay laboratory. RC samples were dried, crushed to 80% passing ½ inch, and pulverized to 85% passing 200 mesh.

At ALS Reno, samples were dried, crushed to >70% passing 2 mm, and pulverized to >85% passing 75 µm.

Bureau Veritas dries the samples, crushes to >70% passing 2 mm, and pulverizes to >85% passing 75 µm.

8.6 Analysis

8.6.1 Mine Assay Laboratory

All primary exploration and development gold analyses for samples collected by Coeur, following the commencement of mine operations in 1983 through 2014 were analyzed at the mine assay laboratory.

Gold analyses were completed with a cold cyanide shake with an atomic absorption (AA) finish. Over-limit analyses were completed on gold and silver by fire assay with a gravimetric finish. The over-limit analyses were completed based on a trigger value from the cold shake cyanide analyses. The trigger varied by year, based on variables such as the mine cut-off grade. In 2014, the over-limit was set at 0.012 oz/st Au. From 2007–2014, the over limit trigger was 0.008 oz/st Au.

8.6.2 ALS Reno

Primary analyses for gold were completed by fire assay with AA finish, and for silver by four-acid digestion with AA finish. Cyanide leach with AA finish for Au and Ag was completed for all samples with gold fire assays above lower detection (0.0001 oz/st) in 2015, and for all samples with gold fire assays above 0.006 oz/st in 2016. Over-limit gold fire analyses were completed with gravimetric finish above a trigger of 0.292 oz/st Au.

For check analyses, gold analyses were completed by fire assay with an AA finish. Over-limit analyses were completed by fire assay with a gravimetric finish. The trigger for the over-limit was 0.292 oz/st Au.

Trace multi-element aqua regia digestion with ICP finish was completed for 51 elements in 2010, 2011, and 2015 on samples selected for testwork to support permitting requirements.

Humidity cell analyses of approximately two-month duration were completed for 32 elements, conductivity, pH, and sulfate on samples selected for permitting requirements in 2010, 2011, and 2012.

8.6.3 Bureau Veritas

From 2017 to present all primary exploration and development analyses of samples for inclusion in resource estimation were analyzed at Bureau Veritas. Prior to this it was used as a check assay laboratory for 2016 drilling.

Gold analyses were completed with a fire assay with an AA finish, and results registering above lower detection (>0.0001 oz/st) Au triggered a cold cyanide shake with an AA finish. Silver was analyzed as part of a 30-element suite by aqua regia with an inductively coupled plasma (ICP) finish and results greater than the lower detection limit triggered a silver cold cyanide shake with an AA finish. Over-limit analyses were completed by fire assay with gravimetric finish when the initial fire assay results were >0.29 oz/st Au.

Bureau Veritas conducted 2016 check assays, which were fire assay gold analyses with an AA finish.

Bureau Veritas in Vancouver conducted modified acid-base accounting (ABA) with paste pH, total sulfur, and sulfate sulfur of every fourth primary sample in 2021 after preparation and splitting in Sparks, NV.

8.6.4 Inspectorate

For check assays of 2014 pulps, gold analyses were completed by cold cyanide shake with an AA finish. Gold fire analyses with an AA finish were completed and triggered by cold cyanide analyses ≥ 0.008 oz/st Au to match the original procedure used at the Wharf Operations.

An additional higher-accuracy fire assay with gravimetric finish was triggered on one sample, at >0.292 oz/st gold. For 2015 check assays, gold analyses consisted of fire assay with an AA finish.

8.6.5 McClelland

McClelland Laboratories, Inc., performed check assays on pulps from 2018–2020. Gold analyses were completed by fire assay with an AA finish. No check samples are currently available, as the 2021 umpires are pending sample return from the primary laboratory.

8.6.6 Energy Laboratories

Energy Laboratories performed ABA analysis with sulfur speciation on primary samples and pulps from 2010–2013 and 2018. Analyses were conducted at regular intervals that varied from every tenth to every sample in a drill hole. Nitrate analysis on samples selected for permitting requirements was also completed in 2010 and 2012.

8.6.7 Intermountain Laboratories

Intermountain Laboratories completed meteoric water mobility procedures (MWMP) that included pH, total dissolved solids, anions, cations, and dissolved metals in 2011 on samples selected for permitting requirements.

8.7 Quality Assurance and Quality Control

8.7.1 Pre-Coeur

Prior to Coeur's Project acquisition, sample quality assurance and quality control (QA/QC) consisted of check assays completed at a commercial laboratory as a check on the mine assay laboratory. There is no record of certified reference materials, standards, or blanks being inserted into the analytical batches.

For the cold cyanide shake method, for each batch of 48 samples, one internally made gold standard of known value was inserted. The control failed if it was outside of a ± 0.003 oz/st Au tolerance limit. The instrument was recalibrated, and then all previous samples following the previous successful QC check were re-run. This process was continued until the control sample passed the check. For each batch of 48 samples, every 10th sample analyzed by the cold cyanide method was weighed and digested in duplicate. If the duplicate and parent values were not within the ± 0.003 oz/st Au tolerance limit of the instrumentation, the batch was considered a failure. If a failure occurred, the entire batch was re-processed and re-run. This process was continued until the duplicate in the batch passed the check.

For fire assay, for each batch of 24 samples, a QC sample of internally made composited reference material was inserted and used as a standard.

Fire assays values were also checked against AA values, with acceptable differences based on grade. Differences greater than this resulted in rerun of first AA, then fire assay if AA values were within ± 0.003 oz/st Au.

Quantile–quantile plots of the entire assay population for check assays completed at ALS Reno from 2009–2014 indicated no bias and good correlation between the two datasets. The resulting overall correlation and lack of bias in the population supported the data quality produced by the mine assay laboratory.

8.7.2 Coeur

Certified reference standards and certified blank samples were inserted at regular intervals to maintain a 5% insertion rate of primary samples. Sample-stage duplicates were collected at the drill rig to maintain a 2.5% insertion rate. Crush stage and pulp-stage duplicates were generated by the commercial laboratory at a 2.5% insertion rate. Additionally, 5–10% of primary sample pulps were sent to a secondary commercial laboratory for check analysis.

A standard failed when the value exceeded or fell short of ± 3 standard deviations of the certified value. A blank failed when the value exceeded five times the lower detection limit of the assay method. Failure of a standard or blank sample required re-submission of the pulps within the same laboratory job on either side of the failure from the previous to the next passing standard or blank, respectively. Failure of a crush duplicate occurred when values exceeded 15% mean paired relative difference, and a pulp duplicate when exceeding 10%. Passing re-runs were given precedence over the original results when used in resource estimation, unless repeated analyses of the batch resulted in failures. Secondary re-runs were then processed at the check laboratory, subject to the same QA/QC protocol. Low-level failures, such as those acceptable within rounding, when there was insufficient pulp for additional re-runs, may have been accepted at staff discretion.

Results were reviewed quarterly, and elements of the QA/QC program were adjusted as necessary.

The reviews of the 2015–midyear 2021 QA/QC data indicated no significant biases or contamination in the reviewed data.

8.8 Database

Collar surveys of drillholes are taken with a Trimble or Topcon GPS instrument, and data are exported from the device to a csv file. Prior to 2015, locations were imported into the GEMS drill hole database in use at the time, as surveys were completed. Since 2015, files have been imported into a controlled acQuire database.

Since 2016, downhole surveys were completed on all holes by a third-party contractor, IDS. Files received from IDS were uploaded into the acQuire database. Prior to 2015, no downhole surveys were completed except for core holes. In 2015, no downhole surveys passing QA/QC were completed.

Prior to 2015, geologic logging was completed on paper logs and manually entered the GEMS drill hole database. Since 2015, geologic logging data are directly entered into the acQuire database.

Prior to 2015, the mine assay laboratory data were entered into Microsoft Excel files, which were imported into the GEMS drill hole database. All historic data were migrated to acQuire in 2015, after validation and modeling in Hexagon Mining MineSight by an external consultant, Moose Mountain Technical Services, in 2015.

Since 2015, assay data have been imported directly into the acQuire database and must pass internal database checks for referential integrity. Assays were reviewed for QA/QC of certified reference materials and duplicates. Assays were accepted or rejected in the database by the database manager based on QA/QC results. All assay data are retained, and assays passing QA/QC are available for export in acQuire to other software systems.

From 2015–2021, collar surveys, downhole surveys, geology logs, and QA/QC-passing assay data have been exported from acQuire as csv files for upload into a GEMS drill hole database for each yearly and mid-year model update. In 2021, the acQuire database was transferred to a Maptek Vulcan ISIS database.

Drill hole locations and downhole surveys are visually compared against hole designs in GEMS for verification.

8.9 Qualified Person's Opinion on Sample Preparation, Security, and Analytical Procedures

In the opinion of the QP, the sample preparation procedures, analytical methods, QA/QC protocols, and sample security for the samples used in mineral resource estimation are acceptable, meet industry-standard practice, and are acceptable for mineral resource and mineral reserve estimation and mine planning purposes.

9.0 DATA VERIFICATION

9.1 Internal Data Verification

In 2015, a paired sampling study was completed on three drill holes to evaluate the potential for systematic bias in RC sampling regarding the pre-Coeur method where fines and water were removed, and the Coeur method of larger bagged samples. A total of 155 samples were analyzed and compared. The grade of the collective population was biased to the Coeur-preferred sampling method, but overall was equivocal with respect to potential sources of variance. Additional work was not warranted because the results showed there were unlikely to be material impacts.

In 2015, prior to import of the legacy GEMS database to an acQuire database, data were reviewed for internal consistency corresponding to database rules such as no overlapping intervals and unique IDs. Corrections were made based on data in paper logs and digital files.

In 2018, a project to recombine previously split assay intervals caused by lithology breaks on assays during transfer from the 2015 MineSight model to the acQuire implementation was completed. Extra breaks had been created in assay intervals in the migration to new software based on geochemical sampling intervals that did not correspond to gold assay intervals. Combining split intervals by reimporting the validated historic data into acQuire was conducted by CT Geoservices.

The Wharf Operations laboratory, which produced exploration results prior to 2015, participated in a Society of Mineral Analysts round-robin program of fire assay gold in 2017–2018. Results indicated good repeatability between duplicates of each sample, and good correlation with peer laboratories, with 16 of 18 samples reporting within the 95% confidence limits, including one outlier.

Drill hole lockdown of holes drilled from 2015–2018 was completed, where the acQuire database was locked for the given holes by the database manager, and data could not be changed except by the database manager unlocking them. Prior to locking, assay certificates, downhole survey certificates, geology logs, and chip photos were reviewed and filed, and QA/QC reports were generated, reviewed, and filed. Drill hole lockdown signoff reports were completed by the geologist and database manager. All were stored as digital copies on a network drive with restricted access and as paper copies.

9.2 External Data Verification

The Wharf blasthole dataset was reviewed by AMC Consultants (UK) Limited during 2017, as part of a larger study of the regression-based data transformation used to correct atomic absorption cyanide shake results to fire assay values. The dataset was used in the analysis of the 2017 resource estimate for verification purposes.

9.3 Data Verification by Qualified Person

Data verification performed included:

- Imported and conducted QA/QC on all assay data from 2015–2021;
- Quarterly QA/QC reports of gold assay data from 2015–2021;
- Logged all geologic data from 2015, 2017, and 2018;
- Conducted a 10–20% check of geologic logs from 2016 and 2021;
- Participated in the 2018 project to recombine split historic assay intervals;
- Conducted drill hole lockdown, including checks of assay certificates, collar and downhole surveys, geology, and QA/QC reports;
- Signed off as the geologist for the 2015–2018 drill holes;
- Working at the Wharf Operations from 2009–2021.

9.4 Qualified Person's Opinion on Data Adequacy

The process of data verification for the Project was performed by third parties and Coeur personnel, including the QP. The QP reviewed the appropriate reports. The QP considers that a reasonable level of verification has been completed, and that no material issues would have been left unidentified from the programs completed.

The QP is of the opinion that the data verification programs for Project data adequately support the geological interpretations, the analytical and database quality, and therefore support the use of the data in mineral resource and mineral reserve estimation, and in mine planning.

10.0 MINERAL PROCESSING AND METALLURGICAL TESTING

10.1 Test Laboratories

The process plant was built in 1983. Historical testwork on which the plant designs were based is not available to Coeur. Changes made to the process plant have been based on actual plant performance trends and testwork performed on-site and at independent facilities.

Independent metallurgical testwork facilities used over the Project life included Amtel and McClelland Laboratories. Testwork conducted included column leach test, bottle roll tests, and gold deportment studies.

The Wharf Operations have an on-site analytical laboratory that assays concentrates, in-process samples, and geological samples. The on-site metallurgical laboratory is used for testing flotation reagents, grind analysis, and characterizing the behavior of new ores. The laboratory is not independent.

There is no international standard of accreditation provided for metallurgical testing laboratories or metallurgical testing techniques.

10.2 Metallurgical Testwork

The Wharf Operations maintain a continuous testing program on the ore being sent to the heap leach. Composite samples are collected from the crusher product using a cross-belt sampling system. Samples are taken at 50 st intervals from the combined product conveyor belt. These samples are analyzed for moisture, size distribution, and gold and silver using AA and fire assay.

Metallurgical testing is undertaken at the mine site internal laboratory and periodically through contracting external laboratories. Testing at external laboratories includes, but is not limited to, column leach tests, bottle rolls, carbon activity testing, and deportation studies.

Regular testing at the mine site internal laboratory includes head analysis for gold and silver using AA and fire assays and column leach testing on an as-needed basis. The head assays, final tails assays and the information from the daily solution samples are used to determine the overall percent recovery rate and recovery by size fraction for the material. Sodium cyanide and lime consumption rates are estimated for process. The data from the column testing are used either to predict leach pad performance or reconcile actual leach pad performance.

Exploration duplicates are created by taking a split of drill cuttings from the exploration drill sites. The samples are retained for two years and available in case analysis is required.

10.3 Recovery Estimates

Metallurgical performance using laboratory testing suggests that recovery of gold varies by lithology and sizing of placed material. Lithological recoveries used to estimate overall heap expected recovery for planning purposes are shown in Table 10-1.

Actual performance compared to ore-weighted expected recoveries for pads processed during the period 2019–2020 are provided in Table 10-2.

Table 10-2 includes pads from a period in time which ROM was used to overcome temporary operational challenges. ROM is not part of the current life-of-mine (LOM) plan or the cashflow analysis.

10.4 Metallurgical Variability

Metallurgical test results obtained from several testwork programs conducted during the past five years show low variability between several different locations with respect to gold recovery. This low variability has been verified through the actual leach performance.

Tests were performed on samples that are representative for the deposit and its mineralogy.

10.5 Deleterious Elements

Based on extensive operating experience and testwork, there are no known processing factors of deleterious elements that could have a significant effect on the economic extraction of the mineral reserve estimates.

Analysis of net acid generating (NAG) potential has identified isolated pockets within the ore body of potential acid generating material. This material is handled by existing, State approved protocols to blend NAG material with non-NAG ore to reduce the impact on pad pH. Lime is added to the crushed ore that is placed on the leach pad to control pH. The amount of lime added is based on daily composite bottle rolls and the lime required to control the bottle roll to the target pH. The pH of the process solutions and pad effluents is monitored each day.

None of the deposits contain sufficient quantities of sulfide minerals, organic carbons or silica encapsulation to be categorized as refractory ore.

10.6 Qualified Person's Opinion on Data Adequacy

Production experience and focused investigations, as well as marketing requirements, have guided leach pad process improvements and changes since Coeur's acquisition of the Wharf Operations.

Testwork programs, both internal and external, continue to be performed to support current operations and potential improvements.

Table 10-1: Forecast Metallurgical Recovery Estimates

Ore Type	% Gold Recovery
Intermediate	80.0
Lower Contact	71.0
Porphyry	80.5

Table 10-2: Expected versus Actual Recovery

Pad Loading (pad cycle)	Est. Geological Gold Recovery (%)	Actual Gold Recovery (%)	Delta (%)
4.14	70.7	69.6	(1.2)
5.04	73.4	70.8	(2.6)
3.15	74.5	75.1	0.6
2.15	77.9	75.3	(2.7)
Pad Average	74.2	72.7	(1.5)

Note: ROM ore was used in various amounts for the four pads. Additionally, for the pads listed, sizing from the crusher exceeded historical norms, negatively impacting recovery.

Current metallurgical testwork confirms the material to be mined as having similar response to the heap leaching process as previously mined ores. Metal recovery assumptions are derived from past performance of the leaching operation.

The QP reviewed the information compiled by Coeur, as summarized in this Report Chapter, and performed a review of the reconciliation data available to verify the information used in the LOM plan.

Based on these checks, in the opinion of the QP, the metallurgical testwork results and production data support the estimation of mineral resources and mineral reserves and can be used in the economic analysis.

11.0 MINERAL RESOURCE ESTIMATES

11.1 Introduction

Mineral resources are estimated for the Wharf deposit (Figure 11-1).

The database closeout date for the estimate was July 27, 2021. Drilling used in estimation was summarized in Table 7-2.

11.2 Exploratory Data Analysis

All deposits were subject to exploratory data analysis methods, which could include histograms, cumulative probability plots, box and whisker plots, and contact analysis.

Statistics were compiled and compared for raw drill hole data, length weighted drill holes, composites, declustered composites, and capped declustered composites to ensure that the grade distribution and true mean of the system were conserved through the estimation process.

11.3 Geological Models

Domains were created based on lithology and changing trends in strike and dip of the major mineralized structures and underground workings that cross cut lithological units. Adjustments to the existing geologic model were made where new drill data were added. Lithologic domains were assessed for changes in the strike and dip of near vertical structures. A total of three main structural domains were modeled resulting in 16 separate estimation domains.

11.4 Density Assignment

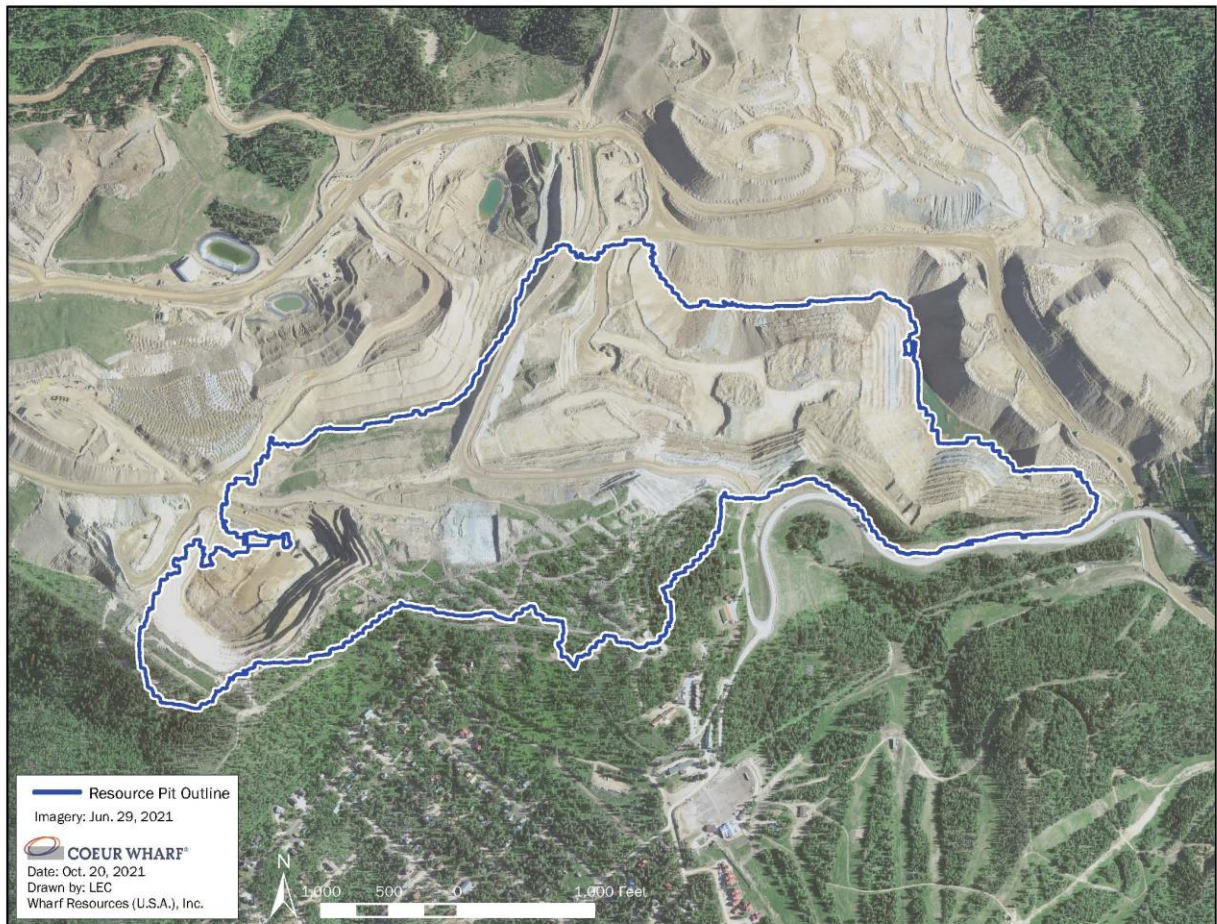
Density values were assigned to each block based on the major rock type within the block. Underground workings were assigned an adjusted density values determined by the percentage of the block intersected by workings.

11.5 Grade Capping/Outlier Restrictions

Capping was applied to raw assays prior to compositing, with values to be capped assessed from probability plots. Grade caps ranged from 0.08–0.6 oz/st Au, with 147 samples capped.

To reduce smearing of structurally controlled high-grade mineralization, an indicator was applied during estimation. Indicator variograms were run on the low-grade portion of the distribution and on the high-grade. Final search ellipsoids for low-grade were approximately equal to the range at 95% of the sill and for the high-grade the range at 100% of the sill. High-grade samples were used to estimate a high-grade gold variable in every block where the sample selection criteria was met using the high-grade search ellipsoid. A similar estimation was done for the low-grade into a low-grade gold variable using the estimation parameters.

Figure 11-1: Map Showing Wharf Pit Model Extent



To determine the proportion of high-grade and low-grade to combine into the final gold grade, an indicator estimate was made so that each block has a percent variable of the amount (number of close by samples) of high-grade. The final estimate is created by combining the proportion of high-grade multiplied by the high-grade estimate (if one exists) with the remaining proportion and grade of the low-grade.

11.6 Composites

The majority of assay data used in the model were sampled on 10 ft sample lengths (94%).

Compositing was done on 10 ft intervals to ensure enough samples were available in the vertical direction for estimation and to avoid over-smoothing prior to variography.

11.7 Variography

Back-transformed, normal scores (gaussian) variography was completed using Snowden Supervisor software for each of the 16 domains. Usually, the down-hole variogram was used to determine the nugget, but in several cases the downhole variogram was of poor quality and the minor direction variogram was used.

For eight of the domains, an indicator estimation technique was used. For these domains, variograms were created for the high-grade portion of the data and for the low-grade portion. Those domains will have two variograms for each of the three domains: a high-grade, low-grade, and indicator variogram. To generate the indicator percent of high and low grade, the low-grade variogram was used.

11.8 Estimation/interpolation Methods

Ordinary kriging (OK) interpolation was chosen to estimate all lithology units. Iterations were performed with a single pass OK estimate, adjusting the search parameters, minimum and maximum samples and maximum number of drill holes. The resulting basic statistics were then compared to those of the composites, nearest neighbor (NN) estimate, and an inverse distance squared (ID2) estimate.

The high-grade indicator runs use a range of 2–7 composites, the low-grade indicator 2–14 composites, with the rest OK estimates using 4–12 composites. All domains are limited to two composites from any one drill hole.

11.9 Validation

The block models were validated using some or all of the following methods:

- Visually by stepping through sections and comparing the raw drill data and composite data with the block values;
- Comparison of model statistics to drill data;
- Swath plots;
- Mill to model reconciliation;
- General visual inspection of shape and spread of the estimate with regards to production experience.

11.10 Confidence Classification of Mineral Resource Estimate

11.10.1 Mineral Resource Confidence Classification

Variograms for each domain using exploration data were generated and plotted. The search ranges for each domain at 70% of the sill, 80%, 90%, and 95% were compiled. As a starting point,

Measured used a range at 70% of the sill, Indicated used a range at 80% of the sill, and Inferred used a range at 95% of the sill. With several iterations and analysis, these ranges were adjusted as needed. Each block was then queried for distance to the closest composite, number of composites used in the estimate, and number of drill holes used in the estimate, and a confidence classification was assigned. Variograms for blastholes were also generated and plotted as a way of confirming the exploration data. In general, the maximum range of the blastholes were reasonably close to the ranges from exploration variograms, but the range from blastholes at 70% and 80% of the sill were shorter. When selecting the classification range, this information was considered.

The confidence classifications on average used:

- Measured: 30–55 ft from nearest drill hole; maximum of six composites, maximum of three composites from a single drill hole;
- Indicated: 80–140 ft from nearest drill hole; maximum of four composites, maximum of two composites from a single drill hole;
- Inferred: 155–410 ft from nearest drill hole; maximum of two composites, maximum of two composites from a single drill hole.

11.10.2 Uncertainties Considered During Confidence Classification

Following the drill spacing analysis that classified the mineral resource estimates into the measured, indicated, and inferred confidence categories, uncertainties regarding sampling and drilling methods, data processing and handling, geological modelling, and estimation were incorporated into the classifications assigned. The areas with the most uncertainty were assigned to the inferred category, and the areas with fewest uncertainties were classified as measured.

11.11 Reasonable Prospects of Economic Extraction

11.11.1 Input Assumptions

For each resource estimate, an initial assessment was undertaken that assessed likely infrastructure, mining, and process plant requirements; mining methods; process recoveries and throughputs; environmental, permitting, and social considerations relating to the proposed mining and processing methods, and proposed waste disposal; and technical and economic considerations in support of an assessment of reasonable prospects of economic extraction.

Mineral resources are confined within conceptual pit shells that use the assumptions in Table 11-1.

Pit optimizations were completed using the Lerchs-Grossmann algorithm in Whittle software.

Table 11-1: Constraining Pit Shell Assumptions

Mining Cost		Process Cost	
Drilling	US\$0.20/st mined		
Blasting	US\$0.26/st mined	Crushing	US\$2.31/st processed
Dozing	US\$0.26/st mined	Pad load	US\$0.80/st processed
*Hauling(waste)	US\$0.75/st mined	Unload	US\$1.22/st processed
Loading	US\$0.16/st mined	Process	US\$2.46/st processed
Roads & yards	US\$0.16/st mined	G&A	\$US3.55/st processed
General mining	US\$0.35/st mined		
Total Mining	US\$2.15/st mined	Wharf Total Process	US\$10.34/st processed
Rehandle cost	US\$1.62/t rehandled	Metallurgical recovery	78.7%
Cut-off grade (oz/ton Au)	0.010		
Selling price (Au/oz)	US\$1,700		
<i>Burden</i>			
Royalty (Au/oz)	US\$68.00		
<i>Pit slopes by rock type</i>			
Deadwood Formation	45°		
Porphyry	50°		
Fill	34°		

11.11.2 Commodity Price

The gold price used in resource estimation is based on analysis of three-year rolling averages, long-term consensus pricing, and benchmarks to pricing used by industry peers over the past year. The estimated timeframe used is the eight-year LOM that supports the mineral reserves estimates. The gold price forecast for the mineral resource estimate is US\$1,700/oz. The QP reviewed the forecasts as outlined in Chapter 16.

11.11.3 Cut-off

The mineral resources are reported using a cut-off of 0.010 oz/st Au. The cut-off is based on the operational history of the deposit. The cut-off selected is higher than the break-even grade to keep the cut-off within the range of known outcomes.

11.11.4 QP Statement

The QP is of the opinion that any issues that arise in relation to relevant technical and economic factors likely to influence the prospect of economic extraction can be resolved with further work.

The mineral resource estimates are performed for deposits that are in a well-documented geological setting. Coeur is very familiar with the economic parameters required for successful operations in the Wharf area; and Coeur has a history of being able to obtain and maintain permits, social license and meet environmental standards. There is sufficient time in the seven-year timeframe considered for the commodity price forecast for Coeur to address any issues that may arise, or perform appropriate additional drilling, testwork and engineering studies to mitigate identified issues with the estimates.

11.12 Mineral Resource Statement

Mineral resources are reported using the mineral resource definitions set out in SK1300 and are reported exclusive of those mineral resources converted to mineral reserves. The mineral resources are current as at December 31, 2021. The reference point for the estimate is in situ.

Measured and indicated mineral resources are summarized in Table 11-2 and inferred mineral resources in Table 11-3. Estimates are reported on a 100% ownership basis.

The Qualified Person for the estimate is Mr. Kenan Sarratt, RM SME, a Wharf Resources employee.

11.13 Uncertainties (Factors) That May Affect the Mineral Resource Estimate

Factors that may affect the mineral resource estimates include:

- Metal price and exchange rate assumptions;
- Changes to the assumptions used to generate the gold equivalent grade cut-off grade;
- Changes in local interpretations of mineralization geometry and continuity of mineralized zones;
- Changes to geological and mineralization shape and geological and grade continuity assumptions;
- Density and domain assignments;
- Changes to geotechnical, mining, and metallurgical recovery assumptions;
- Changes to the input and design parameter assumptions that pertain to the assumptions for the conceptual pit shell constraining the estimates;
- Assumptions as to the continued ability to access the site, retain mineral and surface rights titles, maintain environment and other regulatory permits, and maintain the social license to operate.

Table 11-2: Summary of Gold Measured and Indicated Mineral Resources at December 31, 2021 (based on US\$1,700/oz gold price)

Confidence Category	Tons (st x 1,000)	Gold Grade (oz/st)	Contained Gold Ounces (oz x 1,000)	Gold Cut-off Grades (oz/st)	Metallurgical Recovery (%)
Measured	13,947	0.02	273	0.010	80
Indicated	6,379	0.022	140	0.010	80
Total Measured and Indicated	20,326	0.020	413	0.010	80

Table 11-3: Summary of Gold Inferred Mineral Resources at December 31, 2021 (based on US\$1,700/oz gold price)

Confidence Category	Tons (st x 1,000)	Gold Grade (oz/st)	Contained Gold Ounces (oz x 1,000)	Gold Cut-off Grades (oz/st)	Metallurgical Recovery (%)
Inferred	3,724	0.024	89,704	0.010	80

Notes to accompany mineral resource tables:

1. The mineral resource estimates are current as of December 31, 2021 and are reported using the definitions in Item 1300 of Regulation S-K (17 CFR Part 229) (SK1300).
2. The reference point for the mineral resource estimate is in situ. The Qualified Person for the estimate is Mr. Kenan Sarratt, RM SME, a Wharf Resources employee.
3. Mineral resources are reported exclusive of the mineral resources converted to mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
4. The estimate uses the following key input parameters: assumption of conventional open pit mining; gold price of US\$1,700/oz; reported above a gold cut-off grade of 0.010 oz/st Au; metallurgical recovery assumption of 78.7%; royalty burden of US\$68/oz Au; pit slope angles that vary from 34–50°; mining costs of \$2.15/st mined, rehandle costs of US\$1.65/st rehandled, and process costs of US\$10.34/st processed (includes general and administrative costs).
5. Rounding of short tons, grades, and troy ounces, as required by reporting guidelines, may result in apparent differences between tons, grades, and contained metal contents.

12.0 MINERAL RESERVE ESTIMATES

12.1 Introduction

Mineral reserves were converted from measured and indicated mineral resources using a detailed pit design and block model from a physical survey of the topography as of December 31, 2021. The mine plans assume open pit mining, and a conventional truck and loader fleet.

Mining rates are predominantly dictated by the crusher throughput. Average annual throughput of 4.6 Mst from the crusher is expected. Throughput rates were established and proven over the more than 30 years of operational history at the site.

The Wharf mining area contains the remaining Portland Ridgeline pit. Different nomenclature used for mining areas are all part of the same deposit but represent distinct mining phases.

12.2 Development of Mining Case

The site was evaluated using economic pit shells generated using Whittle software. Appropriate cost and mining schedules were applied using cost estimates forecast for the life of mine (LOM). A gold price of \$1,400 was used for the economic shells.

12.3 Designs

Pit optimizations were done using the Lerchs–Grossmann algorithm using Whittle software. Whittle software uses the operating and processing costs in conjunction with a range of selling costs for the metal to produce a set of nested pits. Nested pits begin at the lowest metal price and get successively larger as the metal price is increased. If the pits are mined in order, they will generate the maximum value.

The nested pits generated from the Whittle software are brought into GEMS mine planning software and used as a template to design pits and laybacks. The individual pits are phased by the Wharf Operations engineering staff and consideration is given to mining the highest-grade areas first, while maintaining adequate space for waste advancement in the mined-out portions of the pit. Pits are designed from bottom up in 20 ft increments, designing in the toe, crest, catch benches at specified intervals for the appropriate rock types.

Design input parameters used in the pit optimizations are summarized in Table 12-1, and the design assumptions for the leach pads are provided in Table 12-2.

Phased laybacks are designed from the nested Whittle pit shells for the Wharf mining area. Using appropriate determinations for the annual mining limits based on the estimated crusher production, specific shells are selected as potential laybacks. The Whittle operational scenario and schedule graph allows for ore and total material limits to be input, and if the mining limits imposed can be honored, the output will be a series of annual pit shells. After numerous Whittle iterations the resulting outputs become the basis of the phase selection used to optimize mining.

Table 12-1: Pit Shell Input Parameters

Parameter	Deadwood	Porphyry	Fill
Bench height (ft.)	20	20	20
Bench toe offset (ft.)	10	7.5	20
Batter angle (degrees)	63	69	45
Catch bench (ft.)	20	20	10
Slope (degrees)	45	50	34
Minimum mining width (ft.)	80		
Road design width (ft.)	80		
Haul road grade (typical; %)	10		
Haul road grade (maximum; %)	12		

Table 12-2: Leach Pad Optimization Input Parameters

Parameter	Value	Unit
Lift height (ft.)	20	
Overall slope	2:1	H:V
Catch bench (ft.)	10	per lift
Maximum design height (ft.)	150	above liner
Cushion layer (working area) (ft.)	10	above liner

The outline of the final pit is shown in Figure 12-1, and the remaining pit mine plan by year is provided in Figure 12-2.

The resulting mine plan was analyzed in a financial model and is economically viable.

12.4 Input Assumptions

Input parameters used in the pit designs were summarized in Table 12-1.

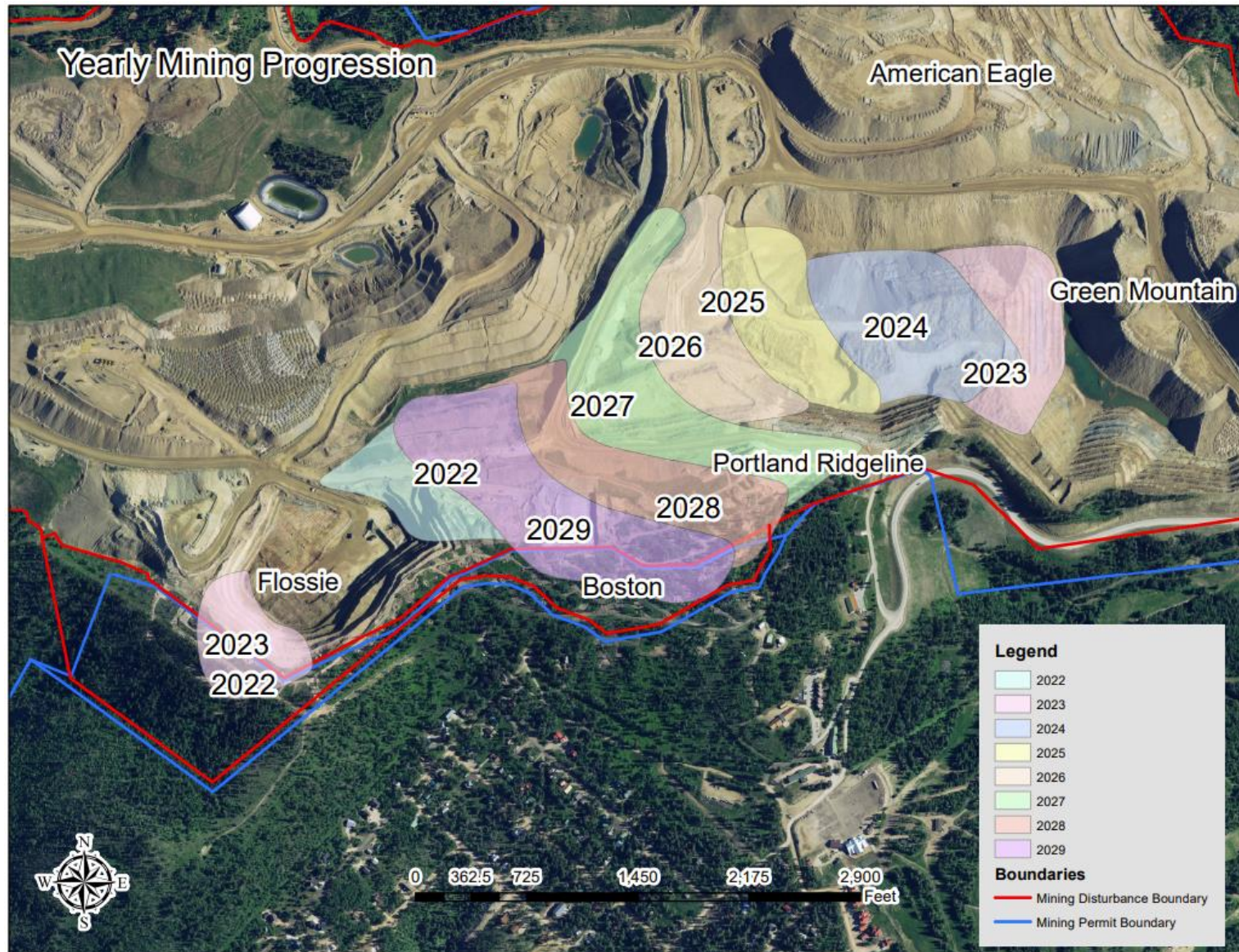
Geotechnical assumptions are discussed in Chapter 13.2. Hydrological assumptions are included in Chapter 13.3.

A design cut-off grade of 0.12 oz/st Au was used to determine the material that is economically viable to mine. The ultimate pit design was generated using this design cut-off grade of 0.012 oz/st Au. Economic considerations are factors in selecting a design cut-off grade slightly above the calculated break-even cut-off.

Figure 12-1: Life-of-Mine Outline Plan



Figure 12-2: Mine Progression Layout Plan



The calculated design cut-off is based on the following equation:

- $(\text{Cost/ton Total Mining} + \text{Cost/ton Total Process}) \div (\text{Gold Price } (\$/\text{oz}) \times \text{Gold Recovery } (\%))$

Since all material contained in the ultimate pit design will be mined and moved to the crusher or waste rock storage facility (WRSF), the mining cost is removed from the above equation to calculate the operational cut-off grade of 0.010 oz/st Au. The material above 0.010 oz/st Au is sent to the leach pad for processing. The material below 0.010 oz/st Au is sent to the WRSF. The mining cost is the same for ore and waste. Gold recovered from processing the material between 0.010 and 0.012 oz/st Au offsets the mining and processing costs so that it is more economic to process it than sending it to the WRSF. This also helps improve the net present value (NPV) of the operation. The reserves are reported above the operational cut-off of 0.010 oz/st Au.

Economic parameters used for the cut-off grade were those provided in Table 12-3. The costs are based on the LOM mine plans and the costs associated with executing the plan. The costs selected for use are shown as reasonable by examining the full LOM costs. A discussion of the operating costs is provided in Chapter 18.3.

12.5 Surface Topography

The topography used for reserve estimation was a December 2021 actual month-end surface. A survey of all active mining areas and WRSFs is completed at the end of each month, which was used to update the topography in active mining areas. Topography outside the active surveyed areas was obtained from orthophotos and photogrammetry.

12.6 Density and Moisture

The densities used for the mineral reserve estimate are:

- In-situ (open pit):
 - Phonolite: 0.0790 ton/ft³;
 - Porphyry: 0.0769 ton/ft³;
 - Deadwood Formation: 0.0714 ton/ft³;
- Stockpile: 0.0591 ton/ft³.

In situ moisture averages 5% and stockpile material averages 5%.

Mineral reserve tonnages are reported as dry bank tons.

Table 12-3: Mineral Reserves Pit Shell Input Parameters

Mining Cost		Process Cost	
Drilling	US\$0.20/st mined		
Blasting	US\$0.26/st mined	Crushing	US\$2.31/st processed
Dozing	US\$0.26/st mined	Pad load	US\$0.80/st processed
*Hauling(waste)	US\$0.75/st mined	Unload	US\$1.22/st processed
Loading	US\$0.16/st mined	Process	US\$2.46/st processed
Roads & yards	US\$0.16/st mined	G&A	\$US3.55/st processed
General mining	US\$0.35/st mined		
Total Mining	US\$2.15/st mined	Wharf Total Process	US\$10.34/st processed
Rehandle cost	US\$1.62/t rehandled		
Cut-off grade (oz/ton Au)	0.010		
Selling price (Au/oz)	US\$1,400		
<i>Burden</i>			
Royalty (Au/oz)	US\$56.00		
<i>Pit slopes by rock type</i>			
Deadwood Formation	45°		
Porphyry	50°		
Fill	34°		

12.7 Ore Loss and Dilution

Estimates assume 100% mining recovery and no dilution was applied.

12.8 Commodity Price

The gold price used in mineral reserve estimation is based on analysis of three-year rolling averages, long-term consensus pricing, and benchmarks to pricing used by industry peers over the past year. The estimated timeframe used is the eight-year LOM that supports the mineral reserves estimates. The gold price forecast for the mineral reserve estimate is US\$1,400/oz. The QP reviewed the forecast as outlined in Chapter 16.

12.9 Mineral Reserve Statement

Mineral reserves have been classified using the mineral reserve definitions set out in SK1300. The reference point for the mineral reserve estimate is the point of delivery to the heap leach facility. Mineral reserves are reported in Table 12-4 and are current as at December 31, 2021. The Qualified Person for the estimate is Mr. Tony Auld, RM SME, a Wharf Resources employee.

Table 12-4: Summary of Gold Proven and Probable Mineral Reserves at December 31, 2021 (based on US\$1,400/oz gold price)

Confidence Category	Tons (st x 1,000)	Gold Grade (oz/st)	Contained Gold Ounces (oz x 1,000)	Gold Cut-off Grades (oz/st)	Metallurgical Recovery (%)
Proven	27,976	0.022	620	0.010	80
Probable	8,306	0.028	231	0.010	80
Total proven and probable	36,282	0.023	851	0.010	80

Notes to accompany mineral reserve table:

1. The Mineral Reserve estimates are current as of December 31, 2021 and are reported using the definitions in Item 1300 of Regulation S-K (17 CFR Part 229) (SK1300).
2. The reference point for the mineral reserve estimate is delivery to the heap leach facility. The Qualified Person for the estimate is Mr. Tony Auld, RM SME, a Wharf Resources employee.
3. The estimate uses the following key input parameters: assumption of conventional open pit mining; gold price of US\$1,400/oz; reported above a gold cut-off grade of 0.010 oz/st Au; metallurgical recovery assumption of 78.7% across all rock types; royalty burden of US\$56/oz Au; pit slope angles that vary from 34–50°; mining costs of \$2.15/st mined, rehandle costs of US\$1.65/st rehandled, process costs of US\$10.34/st processed (includes general and administrative costs).
4. Rounding of short tons, grades, and troy ounces, as required by reporting guidelines, may result in apparent differences between tons, grades, and contained metal contents.

12.10 Uncertainties (Factors) That May Affect the Mineral Reserve Estimate

Factors that may affect the mineral reserve estimates include:

- **Commodity prices:** the mineral reserve estimates are most sensitive to metal prices. Coeur's current strategy is to sell most of the metal production at spot prices, exposing the company to both positive and negative changes in the market, both of which are outside of the company's control;
- **Metallurgical recovery:** changes in metallurgical recovery could also have an impact on the mineral reserve estimates;
- **Operating costs:** higher or lower operating costs than those assumed could also affect the mineral reserve estimates. Operating costs could increase over the life of the Project, due to factors outside of the company's control;
- **Geotechnical:** unforeseen geotechnical issues could lead to additional dilution, difficulty accessing portions of the orebody, or sterilization of broken or in situ ore. There are sufficient management controls in place to effectively mitigate geotechnical risks. Designed pit slopes have been evaluated for stability in several geotechnical studies and are regularly evaluated

by the engineering group at the mine. The QP considers that sufficient controls are in place at the Wharf mine to effectively manage geotechnical risk, and the risk of significant impact on the mineral reserve estimate is low;

- Hydrogeological: unexpected hydrogeological conditions could cause issues with access and extraction of areas of the mineral reserve due to higher than anticipated rates of water ingress. The QP considers the risk of encountering hydrogeological conditions which would significantly affect the mineral reserve estimate is low;
- Equipment leases: equipment leases have been maintained over the last 25 years. Current truck and loader fleet lease rates are under contract through 2024 with an option for a two-year extension beyond. A major change in pricing would affect operating cost and have an impact on the mineral reserve estimate;
- Geological and structural interpretations: changes in the underlying geology model including changes in local interpretations of mineralization geometry and continuity of mineralized zones, changes to geological and mineralization shape and geological and grade continuity assumptions, and density and domain assignments could result in changes to the geology model upon which mineral reserve estimate is based;
- Treatment of nitrates: the ability to treat the spent ore for nitrates to below 10 ppm has been demonstrated through years of operational history. If an unexpected interruption to the treatment process occurred, it could affect the ability to offload and reuse the leach pad, which could impact the mineral reserve estimate due to increased costs;
- Permitting: a portion of the estimated mineral reserves are not currently permitted. The application process for acquiring new permits and permit amendments has been initiated with both the State and Lawrence County. If the permits are not granted, a portion of the estimated mineral reserves will not be available to mine;
- Permitting and social license: inability to maintain, renew, or obtain environmental and other regulatory permits, to retain mineral and surface right titles, to maintain site access, and to maintain social license to operate could result in the inability to extract some or all of the mineral reserve.

13.0 MINING METHODS

13.1 Introduction

The Wharf Operations use conventional truck and loader mining methods to feed a heap leach pad. The mine has been in continuous operation since 1983.

13.2 Geotechnical Considerations

The last geotechnical study was completed in 2021 by personnel from third-party consultants, Respec. This study was to assess the potential for highwall instabilities at the mine site. Respec concluded that the current design configurations are appropriate, but there is an opportunity to design the ultimate pit with steeper slopes.

13.3 Hydrogeological Considerations

Water infiltration near the 5,960 ft elevation has made drill and blast activities below this horizon challenging. Previous mining has advanced benches to the 5,920 ft bench. The current mineral reserve estimate includes material down to the 5,900 ft elevation.

13.4 Operations

The Wharf Operations are currently a conventional truck and loader heap leach gold mine. The operation consists of five heap leach pads, which are all load/offload pads. The majority of the planned mining disturbance falls within the current permitted area and an expansion to the mine permit is expected in 2022 that will cover the remaining mineral reserve estimate.

Coeur leases nearly all the earth-moving equipment used at the mine. Relationships with local dealers span over 15 years, and the earthmoving equipment is under contract through 2024.

In-situ ore and waste must be blasted prior to removal. Several historic pits that were partially backfilled are being mined again and the backfilled material is considered re-handle and does not require blasting. Waste material removed for access to the ore is taken to one of the WRSF sites. The WRSF sites are all designed to fill existing pits and are reclaimed as soon as possible after placement.

Mined ore is either placed in a stockpile or placed directly into the primary crusher ore hopper. Crushed ore is then conveyed to a final product stockpile. Crushed ore is picked up by loaders and placed in trucks to be dumped in 20 ft lifts on one of the five heap leach pads.

Ore is leached for a specified time and then neutralized and de-nitrified. Once the ore has been leached and neutralized, it is considered spent ore and upon approval from the South Dakota Department of Agriculture and Natural Resources (DANR), can be unloaded and the pad reused for fresh ore loading. The spent ore is used to backfill pits within defined perimeter of pollution zones. Within each perimeter of pollution zone, nitrates in the spent ore in specific quantities can

be placed. The current active perimeter of pollution zones have physical capacity to contain the estimated mineral reserves.

13.5 Blasting and Explosives

Coeur uses Epiroc DM-45 hammer drills to drill patterns. Patterns consist of approximately 250 holes. The drill pattern spacings vary based on the rock type:

- Porphyry: 15 x 15 ft;
- Deadwood Formation: 16 x 16 ft;
- Phonolite: 17 x 17 ft.

Coeur contracts out the loading and blasting of the drill holes. The contractor uses ammonium nitrate/fuel oil (ANFO) in dry holes and uses emulsion in wet holes. Drill patterns are shot five days a week.

13.6 Grade Control and Production Monitoring

Grade control samples are collected while drilling out the blast pattern. The drills have a GPS instrument for guidance on hole location and sampling identification. Cuttings are collected in a pan placed near the collar of the drill hole. The drill operator collects the pan at 10 ft intervals down the hole and empties the pan into a plastic bag with the associated hole-ID tag. Sample bags are delivered to the assay laboratory at the end of each shift.

Assay data are delivered to the Wharf engineering department as csv files and subsequently imported into Geovia GEMS mining software. The ore control engineer uses the data to design ore and waste polygons that are then staked out in the pit for mining. Ore polygons are a minimum of 20 ft wide due to the size of the mining equipment employed.

13.7 Production Schedule

The forecast annual production schedule is provided in The mine operations personnel requirement for the remaining LOM averages 255.

Table 13-1. An outline of the final pit was provided in Figure 12-1, and the planned mine progression in Figure 12-2.

13.8 Equipment

A list of key primary and support equipment required for mining is provided in Table 13-2.

13.9 Personnel

The mine operations personnel requirement for the remaining LOM averages 255.

Table 13-1: Forecast LOM Production Schedule

	Units	2022	2023	2024	2025	2026	2027	2028	Total
<i>Mine</i>									
Tons ore	kst	5,030	4,594	4,124	4,561	4,600	4,600	4,600	3,670
Gold grade	oz/st	0.021	0.025	0.025	0.023	0.024	0.024	0.024	0.023
Mined gold	koz	106	116	102	106	110	110	110	83
Tons waste	kst	12,989	10,671	11,852	11,065	10,170	10,414	8,840	1,674
Tons rehandle	kst	4,342	5,509	2,029	1,167	1,795	1,838	1,560	26
Total material mined	kst	22,361	20,774	18,005	16,793	16,565	16,852	15,000	5,370
Strip ratio	waste:ore	3.45:1	3.52:1	3.37:1	2.68:1	2.60:1	2.66:1	2.26:1	0.46:1
<i>Placed Ore</i>									
Tons ore	kst	4,600	4,600	4,600	4,600	4,600	4,600	4,600	3,579
Gold grade	oz/st	0.022	0.025	0.023	0.024	0.024	0.024	0.024	0.023
Placed gold	koz	101	116	106	110	111	110	111	82

Table 13-2: Peak Required Equipment List

Equipment	Units
Production bench drill	3
Dozer	8
Wheel loader	5
Haul truck	17
Backhoe	3
Track hoe	2
Motor grader	2
Water truck	2
Oil/fuel truck	1
Sand truck	1
Snowplow	2

14.0 RECOVERY METHODS

14.1 Process Method Selection

The process plant design is conventional to the gold industry and has no novel parameters. Debottlenecking and optimization activities that have occurred since Coeur acquired the operations have assisted in increasing capacities and efficiencies.

14.2 Flowsheet

A flow diagram for the crusher is provided in Figure 14-1. The leach pad flowsheet is included as Figure 14-2. A simplified diagram showing the neutralization and denitrification process is shown in Figure 14-3.

14.3 Plant Design

14.3.1 Overview

Ore is trucked to the crusher located at the east end of the plant/pad area to be crushed to a nominal size of 83% minus 1/2-inch. The crushing plant can process between 4.2 and 4.6 Mst/a of ore, depending on ore hardness. Lime is added to the crushed ore. Once crushed, the ore is trucked to leach pads to be stacked in 20 ft high lifts up to a maximum height of 150 ft above liner.

Stacked ore is then leached with dilute sodium cyanide solution. Gold and silver in the pregnant (metal-bearing) leach solution are recovered by adsorption on activated carbon and the barren (non-metal bearing) leach solution is recycled to the heap leach pad. Spent ore is rinsed, neutralized, and denitrified and then removed from the leach pad to be placed on a designated spent ore storage area.

Gold and silver are recovered from loaded carbon using a modified pressure Zadra method. The rich electrolyte from elution is processed by electrowinning, depositing the metals into an electrolytic sludge comprised of 90–98% gold and silver.

Precious metals in the electrolytic sludge are further purified by smelting at a commercial refinery.

14.3.2 Crushing

A single crushing circuit is used to process ore before being transferred to the leach pads. This crushing circuit has undergone numerous modifications over its history to accommodate operational conditions and optimize performance.

Ore is hauled from the pit with CAT 777 and 785 haul trucks that dump directly into a hopper or onto a stockpile adjacent to the hopper. Stockpiled ore is fed into the hopper by a loader at times when a direct ore haul is not available.

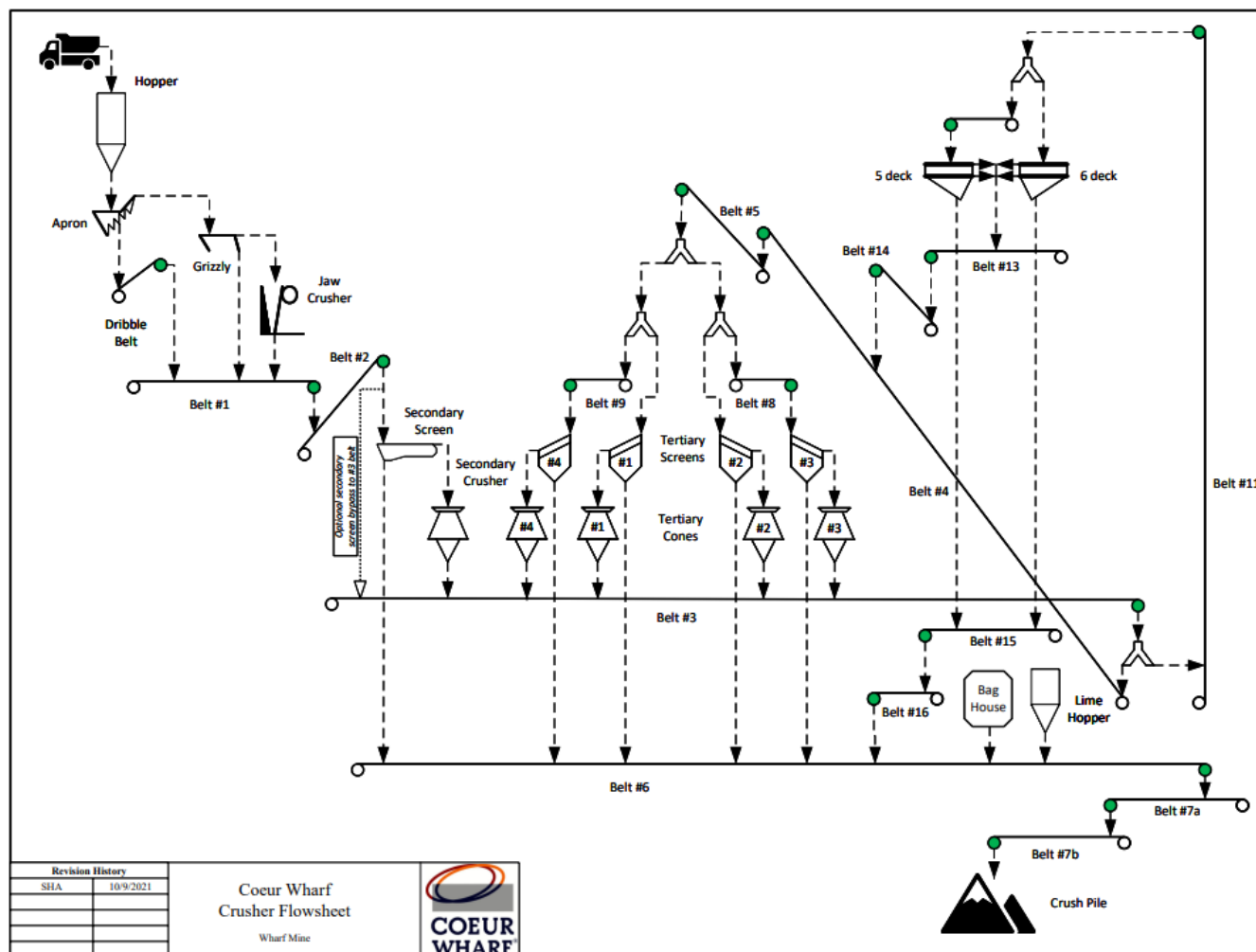
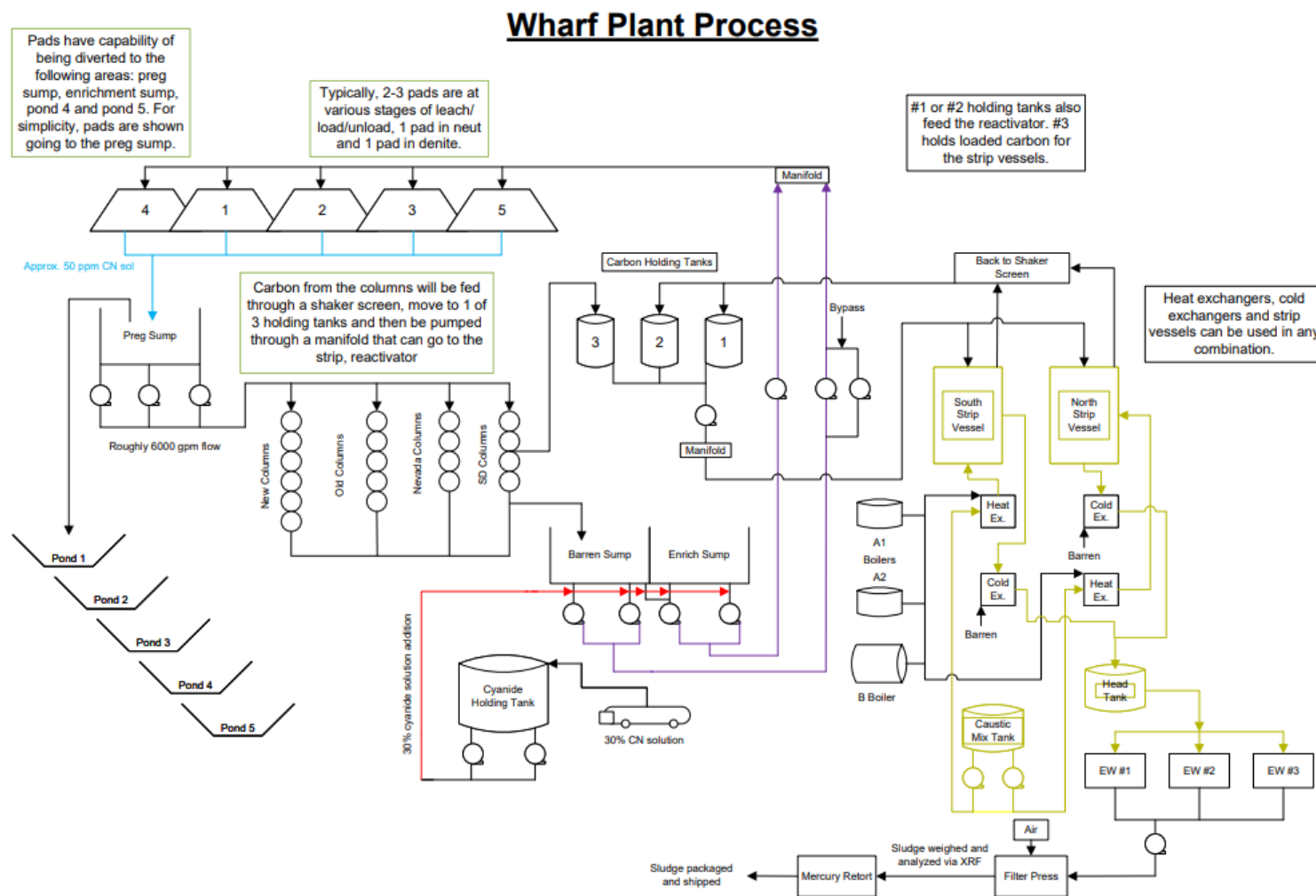
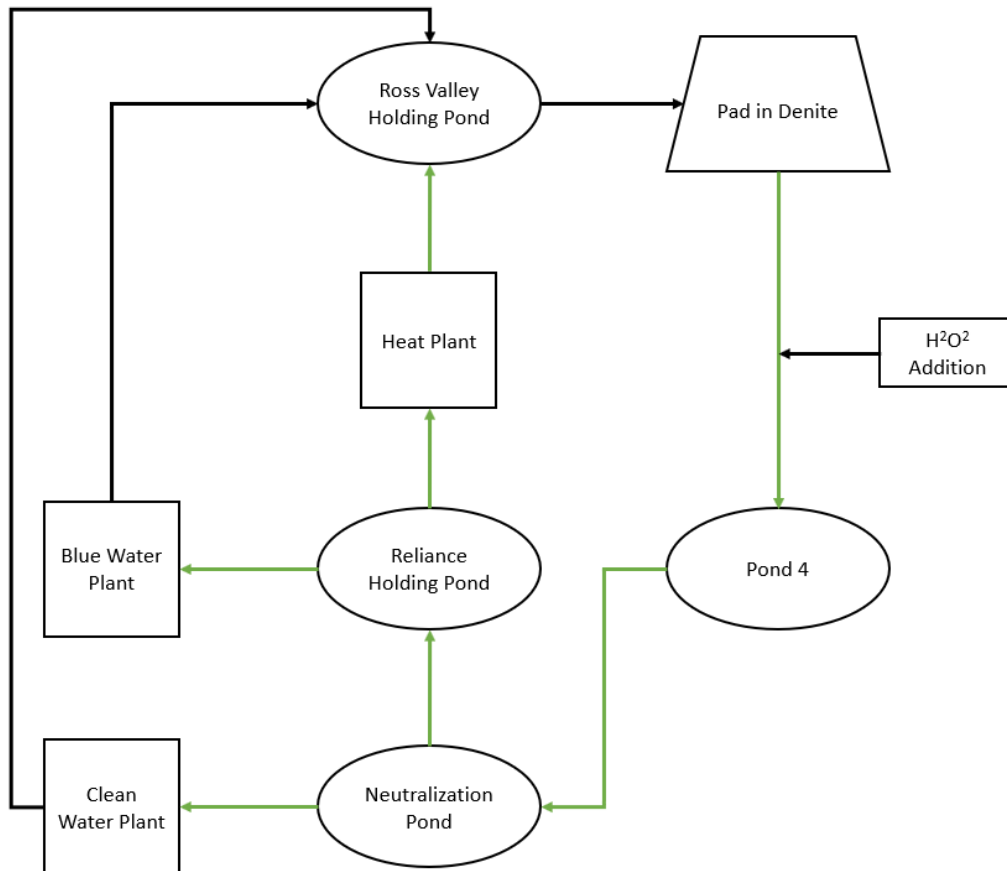
Figure 14-1: Crusher Flow Diagram


Figure 14-2: Leach Pad Flowsheet



Note: Figure prepared by Coeur, 2021.

Figure 14-3: Neutralization and Denitrification Flow Diagram



Note: Figure prepared by Coeur, 2021.

Ore is transferred by an apron chain feeder to a vibrating grizzly where oversize rock is diverted into a Metso C140 jaw crusher. The jaw crusher reduces the rock down to a 6 inch nominal size before dropping onto a conveyor belt along with the fines from the grizzly.

Before being fed into the secondary crusher, the ore passes over a screen deck to remove final product sized material. These fines are conveyed to the final product pile and oversize rock drops into a Metso-Nordberg HP 500 cone crusher where it is reduced to 2½ inch nominal size. Crushed ore may be conveyed to an adjacent screen plant to remove product size material before being conveyed to the tertiary crushing stage. Product size rock from the screen plant is conveyed to the final product pile. The system can be set for the ore to bypass the screen plant and be fed directly to the tertiary crushers in the event of a failure or planned maintenance at the screen plant.

The tertiary stage of the crushing system consists of four Metso-Nordberg Omnicone 1560 cone crushers. Ore enters the tertiary stage through a diverter that distributes the rock to the four cone crushers. Each cone has its own screen deck to remove product size material before dropping into the crusher. This product size material is conveyed to the final product pile. Rock that is larger than product size falls in the tertiary cones and is crushed down to $\frac{3}{4}$ -inch nominal size. The total crushing system throughput of 750–1,000 st/hr can be achieved with only three of the tertiary cones operating. A fourth cone can be left in standby in the event of a failure or planned maintenance on one of the other cones.

After leaving the tertiary crushers the ore is conveyed back to the screen plant and any material not meeting the final product size is recirculated back into the tertiary cones until it meets specifications. The final product size target is 95% passing $\frac{3}{4}$ -inch and 83% passing $\frac{1}{2}$ -inch. Powdered lime is added to the final crushed product. The lime application rate is adjusted as needed to control solution pH during leaching.

The maximum system throughput is generally considered to be 1,000 st/hr; however, rock type, moisture content, and weather conditions have a significant impact on actual throughput. Average throughput is approximately 730 st/hr. The crushing system is operated on 12-hour shifts for 680 shifts per year. Non-operating shifts are used for planned maintenance.

14.3.3 Heap Leach

The heap leach process began in 1983 using reusable heap leach pads (load/offload). There are currently five on/off heap leach pads used for the leaching cycle; the newest pad (Pad #5) was constructed in 2008.

In 2013, Wharf received certification by the International Cyanide Management Institute in recognition of being compliant with the International Cyanide Management Institute cyanide code for adhering to the best industry practices for storage, handling, and use of cyanide. International Cyanide Management Institute cyanide code re-certification was attained in 2019. Re-certification is in process.

Each pad is loaded in 20-ft lifts to a maximum of 150 ft above the liner. Each lift is wetted with a dilute sodium cyanide solution that is distributed through a series of drip emitters, wobblers, or Rain Bird-style impact sprays. Drippers are the primary solution distribution method and involve drip lines being placed underneath the pads active ore placement surface to mitigate potential freezing, reduce evaporation, and minimize the opportunity for ponding. In the final stages of precious metal recovery from the heap leach, sodium cyanide addition ceases for the rinsing stage. The rinsing stage of leaching recovers the final gold and silver ounces prior to spent ore treatment.

Once the contained gold's full economic recovery from the ore has been achieved, the pad enters the neutralization/denitrification stage. The pad neutralization circuit uses hydrogen peroxide to destroy the sodium cyanide contained in the pad effluent. Once the WAD cyanide levels have been reduced to target levels, the solution is routed to the denitrification system. The denitrification system consists of two biological denitrification plants and a heated pond which acts as a biological reaction cell. The biological denitrification process uses bacteria to remove the oxygen from the nitrates and nitrites, chemically reducing them to inert nitrogen gas. Upon

completion of nitrate destruction in the solution stream, solution is routed back to the pad through the same piping network, drippers, and wobblers that applied the original leach solution. The five-pad system allows for a minimum of one pad to be available for each phase of the processing cycle at any given time.

Denitrification continues until the spent ore meets the criteria for off-loading. Both DANR representatives and Coeur sample the solutions for testing to verify the pad effluent meets off-load criteria through third-party analysis. When the spent ore is approved for removal from the pad, the spent ore is trucked to a spent ore disposal area.

14.3.4 Adsorption, Desorption and Recovery Process Facility

In the gold leaching process, barren (non-metal bearing) process solution is pumped to the active leach pads and applied at a target rate of 0.0045 gpm/ft². The barren leach solution trickles through the heap leach, chemically extracting precious metals through cyanidation. The pad pregnant liquor solution sodium cyanide target concentrations are 25 to 35 ppm weakly acid-dissociable cyanide (maximum weakly acid-dissociable cyanide value of 50 ppm for cyanide code compliance).

The pregnant leach solution is collected on high density polyethylene liner and routed through a collection of drainpipes under the pad. The pregnant leach solution is directed to the collection dam of the respective pad and through a series of pipes into the pregnant sump. From the sump, the pregnant solution is pumped to the first tank of a series of carbon-in-column tanks. There are four carbon-in-column circuits to process precious metal solutions. Activated coconut shell carbon is used to collect metals from solution. Once the precious metals have been adsorbed on carbon to sufficient concentration, the loaded carbon is transferred to the elution circuit. The barren solution has additional sodium cyanide added to it and is pumped back to the pads. A safety screen is used to prevent carbon fines loss. If the pregnant leach solution from the pad is too low in grade due to late stage leaching or rinsing, the pregnant leach solution is routed to the enrichment sump and returned to another pad.

In the elution circuit, carbon is prepared by acid washing with 3–4% nitric acid, rinsed with soft water, and then pH adjusted using liquid caustic. Gold and silver are stripped from the loaded carbon using a modified Zadra process. Coeur incorporates a heated sodium hydroxide solution under sufficient pressures to keep solution from flashing. This process forces the precious metals back into solution at concentrations up to 40 times what is seen in the pregnant leach solution plant feed. The rich electrolyte solution is then passed through a series of electrowinning cells where the precious metals are precipitated producing 90–98% precious metal electrolytic sludge. The electrolytic sludge is harvested, dewatered, retorted, sampled, packaged, and shipped to a commercial refinery for further processing. Alternatively, the refinery has the capability to smelt the sludge using a furnace to make doré. Liquid mercury is collected from the retort process and stored. Stripped carbon is reactivated and returned to the carbon-in-column circuit.

Carbon fines are collected and shipped off site for precious metals removal. Spent environmental carbon for either cyanide or mercury collection is sent off site for disposal.

14.4 Process Facility Performance

Silver to gold ratios in the process feed have historically varied from near 1:1 to >40:1. These variations in the ore delivered to the pad have resulted in wide swings in the bullion composition produced by the plant. A Merrill-Crowe circuit would provide better plant performance in high silver situations, but during the early years the gold to silver ratio did not warrant use of the technique. By the time the silver ratios began increasing, the plant was firmly established as an activated carbon adsorption–desorption–recovery plant.

Plant gold efficiency during the low silver periods reaches the industry norm of +95% for this type of plant. During periods when the silver concentration begins to climb, silver preferentially loading on the carbon reduces both the plant gold and silver efficiencies. Changes in the plant stripping circuit have improved the ability for the plant to compensate for the additional silver content.

The plant has sufficient electrowinning capacity and can adjust strip cycles to increase the carbon volume processed. During periods of extremely high silver grades, the retort is used at maximum capacity. Consumption of reagents also increases with additional silver content. Greater amounts of cyanide are consumed by increased silver in leach solutions. Changes in the plant stripping schedule also affect sodium hydroxide and carbon consumption rates.

14.5 Equipment Sizing

The major equipment used in the process is summarized in Table 14-1 and Table 14-2.

14.6 Power and Consumables

14.6.1.1 Power

Processing power requirements are approximately 13,700 MWh per year. This power requirement is consistent through the LOM plan. Incoming power to the site was designed with redundancies. Black Hills Energy provides power to the site from two different directions allowing a swap in direction in the event of an outage. In addition, generators are installed on site with sufficient capacity to critical facilities, with exception of the crusher, during an outage.

14.6.1.2 Water

The pregnant, barren, overflow, and contingency process ponds are used to collect either the excess or drain down solution in the event of a water balance upset or power supply interruptions. Surplus water in the processing circuit can be routed through the contingency pond and sent to the Reliance and Ross Valley holding ponds.

During times of water surplus, water is processed out of the system from the Ross Valley holding pond through water treatment plants. Each water treatment facility is operated similar to a municipal water treatment plant. Bacteria are used to reduce nitrates and nitrites to permitted levels. The effluents of both treatment plants are routed to the Ross Valley holding pond where

heated raw water is mixed in with nutrients. In cases where metals species or pH are not within the acceptable parameters, consumables are utilized to precipitate the metals species or adjust the pH prior to discharge in the permitted mining area.

During times of drought, make up water can be added to the system from PW3. This process well has sufficient capacity to supply necessary water to maintain operations during dry conditions.

Treated water is discharged to surface or groundwater, depending on permit and operational requirements. The water treatment facilities consist of Pond 4, the South Dakota carbon-in-columns, Pond 5, Reliance holding pond, Ross Valley heat plant, Ross Valley holding pond, the Egg Pond, the Clean Water treatment plant, and the Ross Valley treatment plant. These facilities are used to treat nitrates and nitrites in pad effluents for offload, in excess process fluids due to meteoric events, and in historic mining fluids from prior operations.

Table 14-1: Process Equipment List Summary (Crusher, Cones, Screens)

Crusher and Cones			
Equipment	Model	Liner Manufacturer	Liner Model #
Jaw crusher	Metso c-140 jaw crusher	ESCO	PN JLKC140M26-14R, PN JLKC140S21-14R
Secondary crusher	Metso-Nordberg HP-500	ESCO	PN GMTH500LO914R, PN GMTH500M26-14R
Tertiary cones	Metso-Nordberg Omnicone 1560	ESCO	PN GNB1560L08-14R, PN GNB1560M14-14R
Screens			
Equipment	Model	Screen Manufacturer	Screen Model #
Grizzly	Tabor 5*10	-	-
Secondary screen	Tabor 8*20 (or 8*24)	ESCO	PN 920FE35CA, Polydeck, Deister top deck
			PN 920SE35CA, Polydeck, panel with skid bars, 12 x 24 in
			PN 1374FC3JEA, Polydeck, secondary lower deck / upper half screen panel, 19 x 60-BK40F-MX-SWF-8P, B3H2#1186-PD60, NR80, 1 x 2
			PN 1373FC3CWA, Polydeck, panel, 12.5 x 65 mm slotted opening, black, 40 mm thick, flat, maxi high open area style, slotted with flow, 8 pin fastening, Rubberdex 40 flexi rubber, DMAX, 12 X 24 in
1, 2, and 4 decks	Tabor 7*16	ESCO	PN 767FC3JEA, Polydeck, panel, 25 x 75 mm (1 x 3 in equivalent) slotted opening, black, 40 mm thick, flat, maxi high open area style, slot with flow, 8 pin fastening, Rubberdex 60 flexi rubber, 12 x 24 in,
			PN 1373FC3CWA, Polydeck, panel, 12.5 x 65 mm slotted opening, black, 40 mm thick, flat, maxi high open area style, slotted with flow, 8 pin fastening, Rubberdex 40 flexi rubber, DMAX, 12 x 24 in
3 deck	Tabor 6*16 (swapped to Tabor 7*16 on OCT2021)	ESCO	PN SFMOT-1.000-243-S00002, major wire, tert 3 deck, 1 in
			PN SFMOT-0.500-148-S00005, major wire, tert 3 deck, 1/2 in
5 and 6 decks	KCI-JCI	ESCO	PN SFMOT-1.250-243-S00007, major wire, top deck, 1-1/4 in
			PN SFMOT-0.500-148-S00006, major wire, bottom deck, 1/2 in

Table 14-2: Process Equipment List Summary (Plant)

Equipment	Manufacturer	Model
Preg solution pumps (3)	Summit pump	2196XLO
Barren/enrichment pumps	Summit Cornell	2196XLO 81024MX-12DB
Reactivation kiln	FLSmidth	2MT2422
EW cells (3)	Summit Valley Equipment	75EC18
Retort	Summit Valley Equipment	n/a
Refining furnace	MIFCO	T-200-MT
Strip vessels	Gladwin Tank MFG	n/a
Boilers (3)	Superior Boiler Superior Boiler	Triad GMS-2000-HP-HEP Mohawk 4-5-304
New columns (6)	n/a	n/a
Old columns (5)	n/a	n/a
South Dakota columns (4)	n/a	n/a
Nevada columns (4)	n/a	n/a
Mercury scrubber (2)	FLSmidth	n/a
Generators (3)	Euclid Caterpillar Caterpillar	573RSL2049A SR4 SR4B

14.6.1.3 Consumables

Consumables used in processing include activated carbon, cyanide, nitric acid, caustic, anti-scalant, hydrogen peroxide, and lime.

14.6.2 Personnel

The personnel requirements in the heap leach and process area for the LOM average 52 hourly and 15 salary positions.

15.0 INFRASTRUCTURE

15.1 Introduction

All infrastructure required to support operations has been constructed and is operational. The operation consists of mining one open pit that comprises several historic open pits and underground mines. During the life of the operation, once a portion of the ultimate pit is finished it is backfilled and reclaimed as soon as possible.

Active mining and processing areas at Wharf are fenced to maintain perimeter safety and security. Gates with locks are used on all tertiary roads that have access on and off the site. The mine is fully supported with electricity, natural gas, telephone, and radio communications. On-site infrastructure includes production and monitoring water wells, offices, maintenance, warehouse and various ancillary facilities, open-pit mining areas, WRSF areas, crushing and conveying facilities, five lined heap leach pads, two water treatment plants and a process facility. There is an onsite assay laboratory as well as a metallurgical laboratory.

A site utility layout plan is presented in Figure 15-1. A site facilities layout plan is presented in Figure 15-2. The WRSFs and spent ore facilities are shown on Figure 15-3.

The Golden Reward area is undergoing closure and rehabilitation. On-site infrastructure at Golden Reward includes a production well used to supply the Terry Peak Ski Area with snow-making water, several monitoring wells, a lined pond used for snow making by the Terry Peak Ski Area, a maintenance shop building used by the Terry Peak Ski Area, and an administration building used by Coeur for cold storage.

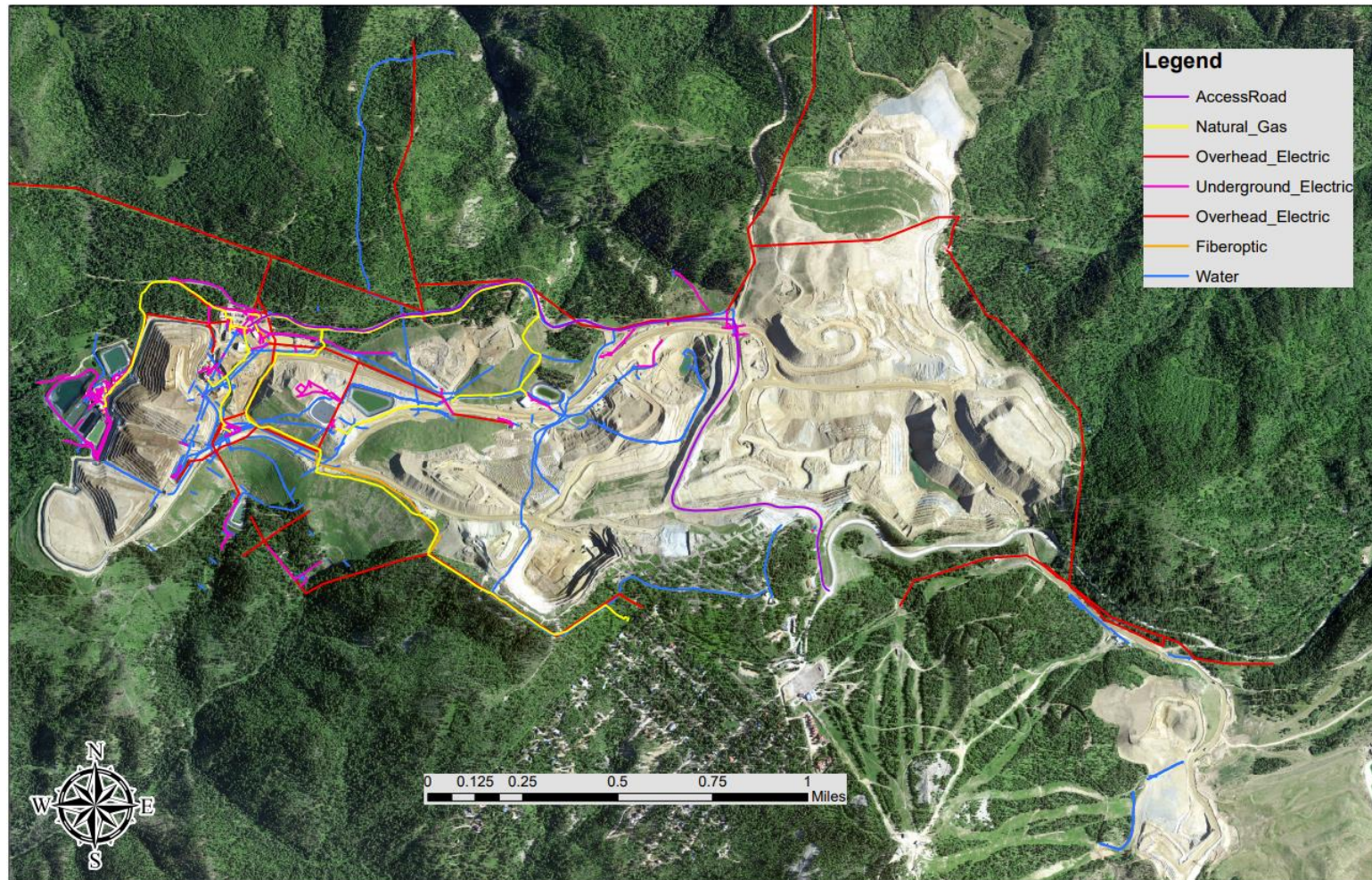
15.2 Roads and Logistics

The Wharf Operations are located four miles west of Lead in Lawrence County. The site is accessed by traveling south of Lead on Highway 85/14A for one mile, then traveling west on Highway 473 to the Stewart Slope Road and turning left onto the Wharf access road. The paved portion of the Stewart Slope Road terminates at the Wharf access road. The Wharf access road and the Stewart Slope Road are maintained by Coeur to provide continuous access from Highway 473 to the Wharf security gate in all weather conditions.

Various unpaved roads exist on and around the Wharf Operations area and are maintained by Coeur to facilitate light vehicle and heavy mobile equipment traffic movements.

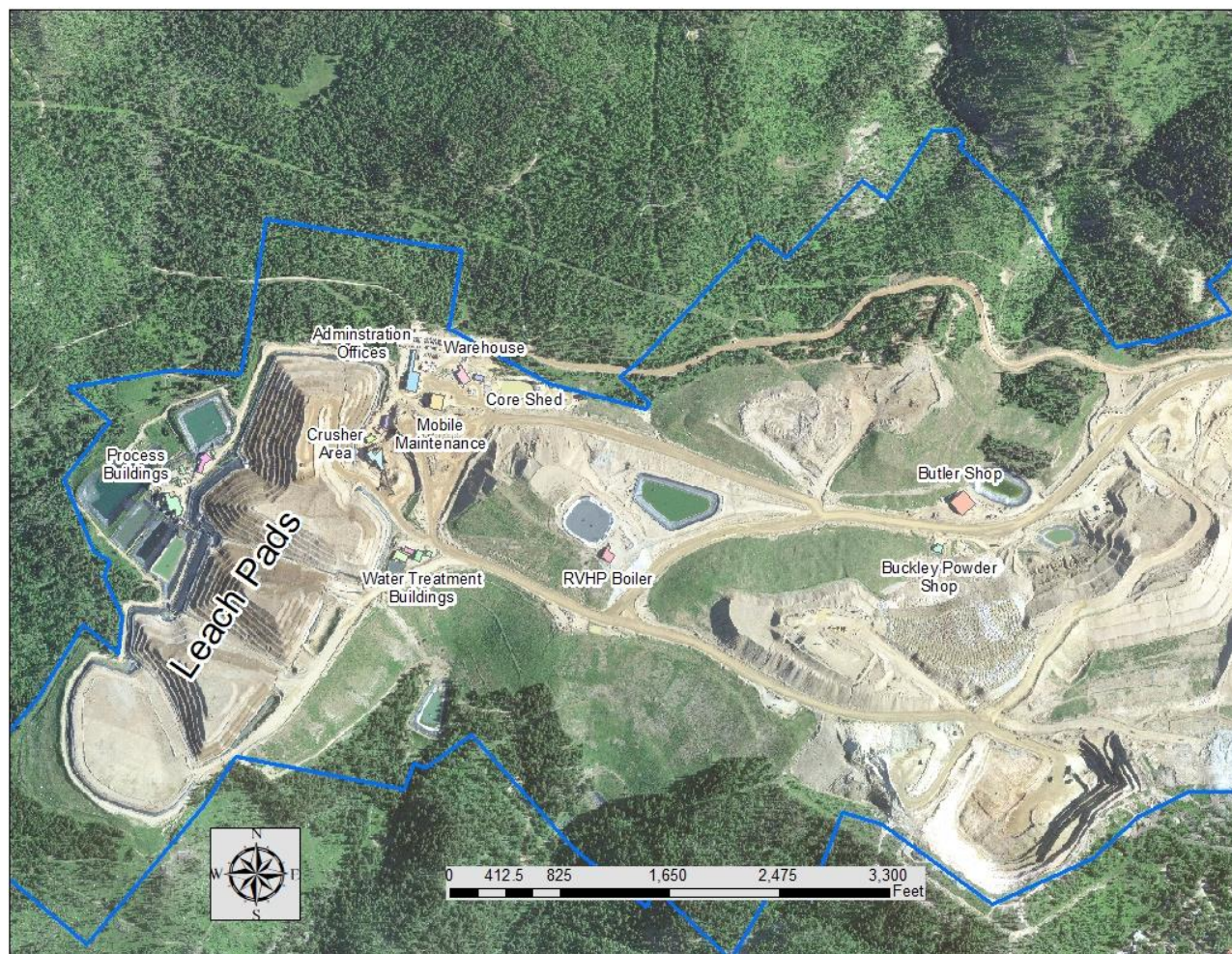
The Golden Reward area is situated two miles southwest of the town of Lead and is accessed by traveling south of Lead on Highway 85/14A one mile and then traveling west on Highway 473 for a quarter of a mile to Fantail Gulch Road. Fantail Gulch Road leads to the main gate at Golden Reward. Very little maintenance is done to the few existing roads on site because of the inactive status of the area.

Figure 15-1: Infrastructure Layout Plan



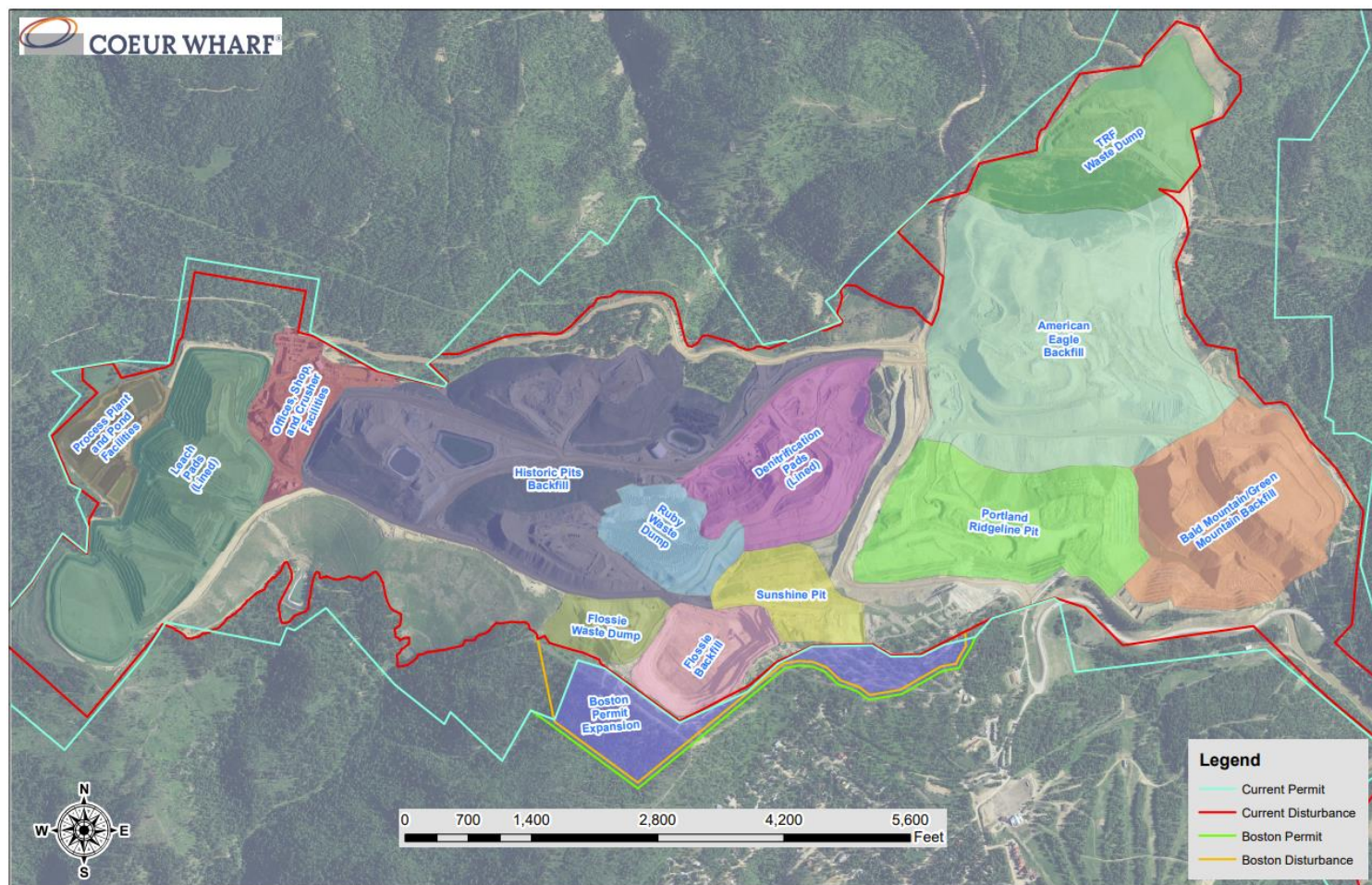
Note: Figure prepared by Coeur, 2021.

Figure 15-2: Facilities Layout Plan



Note: Figure prepared by Coeur, 2021.

Figure 15-3: Waste Rock and Spent Ore Facility Layout Plan



Note: Figure prepared by Coeur, 2021.

15.3 Stockpiles

Topsoil stockpiles are utilized at strategic locations throughout the mine site. These locations are generally close to stripping areas as well as future reclamation sites to minimize haulage. An interim reclamation seed mix approved by the State is applied to topsoil stockpiles to minimize erosion potential and limit weed growth.

15.4 Leach Pads

There are currently five on/off heap leach pads used for the leaching cycle; the newest pad (Pad #5) was constructed in 2008. In 2013, Wharf received certification by the International Cyanide Management Institute (ICMI) in recognition of being compliant with the ICMI cyanide code for adhering to the best industry practices for storage, handling, and use of cyanide. ICMI cyanide code re-certification was attained in early 2016.

Each pad is loaded in 20 ft lifts to a maximum of 150 ft above the liner. Each lift is wetted with a dilute sodium cyanide solution that is distributed through a series of drip emitters, wobblers, or Rain Bird-style impact sprays. Drippers are the primary solution distribution method and involve drip lines being placed underneath the pads active ore placement surface to mitigate potential freezing, reduce evaporation and minimize the opportunity for ponding. In the final stages of precious metal recovery from the heap leach, sodium cyanide addition ceases for the rinsing stage. The rinsing stage of leaching recovers the final gold and silver ounces prior to spent ore treatment.

Once the contained gold's full economic recovery from the ore has been achieved, the pad enters the neutralization/denitrification stage. The pad neutralization circuit uses hydrogen peroxide to destroy the sodium cyanide in pad effluent to the target levels required for denitrification plant influent. The pad effluent is then processed using CIC for metals removal to meet surface water discharge quality. From the CIC, the solution is then routed to the denitrification circuit for nitrate destruction. Neutralization continues until cyanide, pH and metals contents are within required target ranges.

The denitrification system consists of two biological denitrification plants and a heated pond which acts as a biological reaction cell. The biological denitrification process utilizes bacteria to remove the oxygen from the nitrates and nitrites, chemically reducing them to inert nitrogen gas. Upon completion of nitrate destruction in the solution stream, solution is routed back to the pad through the same piping network, drippers and wobblers that applied the original leach solution. The five-pad system allows for a minimum of one pad to be available for each phase of the processing cycle at any given time.

Denitrification continues until the spent ore meets the criteria for off-loading. When the spent ore is approved for removal from the pad, the spent ore is trucked to a spent ore storage area.

15.5 Waste Rock Storage Facilities

Waste rock is disposed of in designated waste rock storage facility (WRSF) areas, typically used to backfill existing pits (refer to Figure 15-3).

A small amount of material has elevated sulfides and has sporadically been encountered during mining. This material is handled according to the acid rock drainage mitigation plan approved by DANR. All WRSFs are located within the permitted disturbance boundary. Waste facilities are re-contoured to an approximate 3:1 slope, covered with topsoil, and revegetated as soon as possible upon completion.

For the remaining mine life, Wharf will mine approximately 92 Mst of waste. There is sufficient space in the WRSFs for the estimate waste quantity.

15.6 Spent Ore Facilities

Once the ore has been leached, neutralized, and denitrified, it is considered “spent ore”. Spent ore backfill on unlined facilities are permitted by way of a groundwater discharge permit. Currently Coeur has both un-lined and lined spent ore facilities. Facility locations were shown on Figure 15-3.

DANR has approved a Perimeter of Operational Pollution zone for each groundwater discharge permit and allows for a variance to select groundwater standards within the Perimeter of Operational Pollution zones.

The limiting factor that controls the amount of spent ore that can be placed unlined in each facility under the groundwater discharge plan is nitrate loading. By maintaining the loading limit for nitrate, regional groundwater quality will be protected. DANR has assigned a loading limit for each groundwater discharge permit based on hydrogeological fate and transport models submitted during the permit application process.

Coeur is required to monitor the pore water of every neutralized heap prior to off-loading to calculate the nitrate loading within each permit. Coeur is also required to monitor compliance wells located at the edges of the Perimeter of Operational Pollution zones and implement a mitigation plan if the nitrate concentration exceeds half of the groundwater standard. When the nitrate loading within each facility approaches the assigned limit, Coeur has the option of placing spent ore on lined facilities or implementing in-situ denitrification. DANR may grant a credit to the loading limit if Coeur can demonstrate successful in-situ denitrification.

Coeur is required to perform an update to the site fate and transport model at least once every three years to verify model accuracy and update input parameters and sampling data. The most recent model update was performed in December 2019, which demonstrated adequate capacity for LOM projected spent ore and waste rock within currently designed facilities.

15.7 Water Management

The annual water accumulation within lined pads, ponds, and ditches due to precipitation averages approximately 100-Mgal.

The focus of the water balance program is monitoring and proactive control of the process to maintain solutions at appropriate levels for any given situation. The method is a combination of constant monitoring and a set of “go” or “no go” parameters that, when the conditions are met, trigger a set of actions. The program is a holistic, comprehensive approach in that it examines daily precipitation, accounts for varying amounts of water inventory and the current routing of flows to various locations.

The water management system consists of five major sections: five leach pad cells, five process ponds (pregnant, barren, overflow, contingency, and neutralization), three water treatment plants, treated water discharge/spray system, and a lead detection/recapture system.

DANR requires that Coeur manage for a total pond freeboard to hold a 19.6-inch storm event (probable maximum precipitation) between all the ponds on site.

The water balance is maintained by monitoring daily precipitation and using a spreadsheet model and decision tree to determine how water is transferred between the five sections of the water system. In the event of excess water being stored within the ponds, treated water is discharged to specifically permitted surface and groundwater discharge areas.

15.8 Water Supply

Potable water is supplied to the Wharf Operations by well PW-2 that taps the Madison limestone aquifer. Well PW-2 can supply approximately 80–100 gpm of quality drinking water.

After chlorination treatment, the water enters two 5,000-gal concrete storage reservoirs prior to distribution to the various mine facilities, which include the warehouse, administration, shop building, crusher, Ross Valley treatment plant, and the process plant.

Potable water is also supplied to a fill station used to fill portable tanks used for in-pit drilling.

Freshwater wells PW-1, PW-3, and HDH-8A provide supplemental water for water treatment and process use as needed.

15.9 Camps and Accommodation

There is no onsite accommodation. Employees reside in adjacent communities.

15.10 Power and Electrical

Electrical power is principally supplied by Black Hills Power via a 12.47kV transmission line that runs up Nevada Gulch. This transmission line is shared by Terry Peak Ski Area, Spearfish Canyon, and residential customers.

Main power service enters the mine site near the warehouse and administration buildings and is primary metered at the service point. Several small services are fed ahead of the main service and are individually metered (i.e., Candy Cane Gates, Polo Pump Shed, Two Johns well, and the original viewing platform area lighting).

Once past the service metering point, the lines divide with one circuit feeding the Crusher and one feeding the rest of the mine site. The crusher circuit uses pad mount step-down transformers 12.47 kV x 4160 volt and 12.47 kV x 480 to feed various motor control centers and various distribution panels. The other circuit feeding the balance of the mine site, uses various pad mount and various pole mount 12.47 kV x 480-volt transformers to serve the loads as required. The loads vary between motor control centers and distribution panels.

Maintenance of the transformers and 12.47 kV lines is contracted to Black Hills Power, as needed. The secondary circuit is maintained by the on-site electrical department.

One auxiliary generator is located at the process plant and services the plant exclusively. A second generator is located at the neutralization building and back feeds the transformer to the rest of the mine site 12.47 kV line, excluding the crusher.

15.11 Fuel

The Wharf Operations maintain three 14,500-gallon tanks for storage of #2 dyed diesel: two are located at the Trojan Fueling Station, and one is in the Maintenance Shop Yard. Two companies are available that can deliver, as needed. The average number of fuel deliveries is seven per week at 8,000 gallons each.

16.0 MARKET STUDIES AND CONTRACTS

16.1 Markets

Coeur has established contracts and buyers for the gold concentrate product (doré) from the Wharf Operations and has an internal marketing group that monitors markets for its key products. Together with public documents and analyst forecasts, these data support that there is a reasonable basis to assume that for the LOM plan, that the key products will be saleable at the assumed commodity pricing.

There are no agency relationships relevant to the marketing strategies used.

Product valuation is included in the economic analysis in Chapter 19 and is based on a combination of the metallurgical recovery, commodity pricing, and consideration of processing charges.

Coeur sells its payable silver and gold production on behalf of its subsidiaries on a spot or forward basis, primarily to multi-national banks and bullion trading houses. Markets for both silver and gold bullion are highly liquid, and the loss of a single trading counterparty is not expected to impact Coeur's ability to sell its bullion.

16.2 Commodity Price Forecasts

Coeur uses a combination of analysis of three-year rolling averages, long-term consensus pricing, and benchmarks to pricing used by industry peers over the past year, when considering long-term commodity price forecasts.

Higher metal prices are used for the mineral resource estimates to ensure the mineral reserves are a sub-set of, and not constrained by, the mineral resources, in accordance with industry-accepted practice.

The long-term gold price forecasts are:

- Mineral reserves:
 - US\$1,400/oz Au;
- Mineral resources:
 - US\$1,700/oz Au;

The economic analysis in Chapter 19 uses a reverting price curve (Table 16-1). All commodity prices are advised by the corporate investment committee and revised as necessary throughout the budget and forecast process. This guidance is used to keep all sites using the same basis for revenue. The sites do not advise prices or deviate from the prices provided.

16.3 Contracts

The Wharf Operations produce precious metal concentrates in the form of doré containing gold and silver, which is transported from the mine site to the refinery by a secure transportation provider. Transportation costs, which consist of a fixed charge plus a liability charge based on the declared value of the shipment, equate to approximately \$1.15/oz of material shipped.

Wharf Resources has a contract with a U.S.-based refiner that refines the doré into gold and silver bullion to meet certain benchmark standards set by the London Bullion Market Association, which regulates the acceptable requirements for bullion traded in the London precious metals markets.

Wharf Resources also uses a secondary refiner for the “sludge” product, which is the remainder containing gold that cannot be recovered by processes used by the primary refiner. By agreement penalties in the metal processing are incurred for quantities of elements above specific levels. These elements include mercury, arsenic, lead, selenium nickel, zinc, iron and copper. Quantities of these elements above non-penalty limits are not commonly found in the ore shipped to the refiner. In regard to the secondary refinery who handles the sludge product there are no penalties per se. If the material is above agreed limits of mercury, it is returned to Wharf Resources for treatment to reduce the mercury levels. The shipment and return cost are at Wharf Resources’s expense.

Contract terms include: a treatment charge based on the weight of the doré received at the refinery; a metal return percentage applied to recoverable gold; a metal return percentage applied to recoverable silver; and, penalties charged for deleterious elements contained in the doré. The total of these charges can range from \$1.00–\$1.50/oz of doré based on the silver and gold grades of the doré, as well as the contained amounts of deleterious elements.

In addition to the contracted terms, there are other uncontracted losses experienced through the refining of the Wharf Operations doré, including the loss of precious metals during the doré melting process as well as differences in assays between Wharf Resources and the refiner. For the purposes of the cashflow analysis in Chapter 19, the QP assumed that uncontracted losses averaged \$2.00–\$4.00/oz doré received by the refiner.

Table 16-1: Commodity Price Forecast Used in Cashflow Analysis

	2022	2023	2024	2025	2026	2027	2028	2029	2030
Gold \$/oz	1,750	1,750	1,700	1,600	1,600	1,600	1,600	1,600	1,600
Silver \$/oz	24	23	22	21	21	21	21	21	21

There are numerous contracts in place at the Project to support mine development or processing. Currently there are contracts in place to provide supply for all major commodities used in mining and processing, such as equipment vendors, power, explosives, cyanide, tire suppliers and drilling contractors. The terms and rates for these contracts are within industry norms. The contracts are periodically put up for bid or re-negotiated as required.

16.4 QP Statement

For the purposes of the gold price forecasts used in the mineral resource and mineral reserve estimates, the QPs reviewed the corporate pricing provided by Coeur, and accepted these prices as reasonable. The reviews included checking the pricing used in technical reports recently filed with Canadian regulatory authorities, pricing reported by major mining company peers in recent public filings, the current spot gold pricing, and three-year trailing average pricing.

The US\$1,400/oz Au price is a reasonable forecast for the eight-year mine life envisaged in the mine plan. The US\$1,700/oz Au mineral resource price is, as noted, selected to ensure that the mineral reserves are a subset of the mineral resources and assume that there is sufficient time in the eight-year mine life forecast for the mineral reserves for the mineral resources to potentially be converted to mineral reserves.

Overall, the QPs conclude that there is sufficient time in the eight-year timeframe considered for the commodity price forecasts for Coeur to address any issues that may arise, or perform appropriate additional drilling, test work and engineering studies to mitigate identified issues with the estimates or upgrade the confidence categories that are currently assigned.

17.0 ENVIRONMENTAL STUDIES, PERMITTING, AND PLANS, NEGOTIATIONS, OR AGREEMENTS WITH LOCAL INDIVIDUALS OR GROUPS

17.1 Baseline and Supporting Studies

Baseline studies and monitoring were required for permitting. Hydrogeological fate and transport modeling and baseline monitoring were also required for each groundwater discharge plan. Statement of basis analyses were also required during each renewal of National Pollution Discharge Elimination System (NPDES) surface water discharge permits.

17.2 Environmental Considerations/Monitoring Programs

The Wharf Operations comply with all current permit conditions and requirements and there are no outstanding environmental issues.

Environmental monitoring for air quality (monthly and quarterly), surface water quality (biweekly, quarterly, and annually), groundwater quality (quarterly and annually), leak detection of lined facilities (daily), and rock geochemistry (quarterly) are completed regularly and reported per permit conditions.

17.3 Closure and Reclamation Considerations

The Golden Reward mining area was closed in 2009 and placed into Post Closure Status with the state of South Dakota (a portion of the West side of Golden Reward was re-opened in 2012 with State Permit #476). Closure monitoring and maintenance are conducted in accordance with the Golden Reward Post Closure Plan and Financial Assurance document. Costs associated with closure of the Golden Reward mining area are typically updated every year and included in the Golden Reward ARO estimate and technical review document.

Costs associated with closure and post closure of the Wharf Operations are typically updated every year and included in the annual Wharf Operations asset retirement obligation estimate and technical review document.

Financial surety sufficient to reclaim the Wharf Operations mine and processing facilities is up to date and held by the state of South Dakota. The closure bond plan associated with reclamation and post closure surety was updated in 2020. The estimated asset retirement obligation for the Project is approximately \$47.6 M.

Financial surety for the Golden Reward area, sufficient to conduct monitoring and maintenance during a 30-year post closure period is up to date and held by the state of South Dakota. The estimated asset retirement obligation for the project is approximately \$0.61 M.

17.4 Permitting

The Wharf Operations commenced in 1983 and have obtained all necessary environmental permits and licenses from the appropriate county, state and federal agencies for the open pit mines, heap leach pads, and all necessary support facilities. The key approvals and permits are summarized in Table 17-1.

Operational standards and Best Management Practices were established to maintain compliance with applicable state and federal regulatory standards and permits.

17.5 Social Considerations, Plans, Negotiations and Agreements

Coeur currently enjoys a positive relationship with local communities. The entire workforce is local to the area and mining is a historically and economically important activity in Lawrence County.

The Wharf Operations continue to support local businesses and expects local community support during permit actions or other activities involving the public.

17.6 Qualified Person's Opinion on Adequacy of Current Plans to Address Issues

Based on the information provided to the QP by Coeur, there are no material issues known to the QP that will require mitigation activities or allocation of remediation costs in respect of environmental, permitting, closure or social license considerations.

Table 17-1: Key Permits and Approvals

Agency	Permit or Approval
DANR Air Quality Program	Title V Air Quality Permit # 28.1155-09 (under renewal process)
South Dakota DANR Surface Water Program	Surface Water Discharge Permit # SD-0025852 Surface Water Discharge Permit # SDG-070867
South Dakota DANR Groundwater Program	Ross Valley Groundwater Discharge Plan (Permit and Variance) # GWD 1-88 Reliance Groundwater Discharge Plan (Permit and Variance) # GWD 1-94 Juno/Foley Groundwater Discharge Plan (Permit and Variance) # GWS 1-98 American Eagle Groundwater Discharge Plan (Permit and Variance) # GWD 1-11
South Dakota DANR Drinking Water Program	Public Water System EPA ID # 0933
South Dakota DANR Minerals and Mining Program	Large Scale Surface Mine Permit # 356 Large Scale Surface Mine Permit # 434 Large Scale Surface Mine Permit # 435 Large Scale Surface Mine Permit # 464 Large Scale Surface Mine Permit # 476 Aggregate Mine License # 90-400
South Dakota DANR Waste Management Program	Construction Demolition Debris Permit # 97-22- 054
South Dakota DANR Water Rights Program	Water Right Permit # 1173-1 Water Right Permit # 1346-1 Water Right Permit # 1365-1 Water Right Permit # 1406-1 Water Right Permit # 1437-1 Water Right Permit # 1493-1 Water Right Permit # 1667-1 Water Right Permit # 1761-1
Lawrence County, South Dakota	Conditional Use Permit # 224 Conditional Use Permit # 398 Sewage Disposal System Permit # 168 Sewage Disposal System Permit # 457 Sewage Disposal System Permit # 497
U.S. Army Corp of Engineers	Army Nationwide 404 Permit # 14
U.S. Federal Communication Commission	FCC Radio Station Authorization # WPRM414 FCC Radio Station Authorization # WQAH357
South Dakota Secretary of State	Corporate Business License # FB015535 Corporate Business License # FB015535

Agency	Permit or Approval
U.S. Department of Transportation	Hazardous Materials Transportation General Permit Reg. #062112 600 032UW; Company ID #051785

18.0 CAPITAL AND OPERATING COSTS

18.1 Introduction

Capital and operating cost estimates in the current budget cycle are at a minimum at a pre-feasibility level of confidence, having an accuracy level of $\pm 25\%$ and a contingency range not exceeding 15%. In later years, capital estimates are based on estimated annual operating requirements and are considered as sustaining capital.

18.2 Capital Cost Estimates

All major capital construction projects needed to maintain consistent production and extraction of mineral reserves at the Wharf Operations have been completed over the last 30 years.

The future capital estimates are derived from expected equipment needs and project plans and are determined with the assistance of vendor quotes, previous buying experience and/or experience with construction of similar projects. The capital cost estimate includes consideration of historical capital cost estimates.

Labor assumptions for capital projects are based on third-party contractor costs, internal employee wage rates plus benefits, or a combination of the two.

Material costs are based on current prices for consumables with no market or inflation rate assumed.

A 10–15% contingency has been added to select capital projects. This contingency is used where project elements have not been fully defined.

Other sustaining capital costs consist of technology related purchases, light vehicles, and other general or administrative expenditure. Exploration drilling capital is estimated for infill drilling costs required to improve estimates for short-range planning purposes. Drilling is based on a quoted cost per foot drilled; the expenditure also includes Wharf Operations salary personnel dedicated to the exploration program, in addition to assaying, supplies and consumables necessary to complete the work.

Mine capital costs comprise typical sustaining capital items for a mature open pit mine the cost of which reduces as the mine approaches the end of its life. Most the Wharf Operations' capital needs are sustaining in nature, required for the ongoing mining operations, and low in dollar amounts. Capital needs are subject to change with the needs of the mine plan. Since most of the capital projects do not have a direct impact to production in the given year, there is flexibility to postpone or remove projects to adhere to the approved budget.

The LOM sustaining capital cost estimate is provided in Table 18-1. Sustaining capital costs total approximately US\$16.4 M, capitalized drilling costs are US\$5.3 M, for an overall capital cost estimate for the LOM of approximately US\$21.7 M.

Table 18-1: LOM Sustaining Capital Cost Estimate (US\$ x 1,000)

Description	2022	2023	2024	2025	2026	2027	2028	2029	Total
Sustaining capital	1,392	3,000	3,000	3,000	3,000	3,000	—	—	16,392
Capitalized drilling	1,610	2,103	1,550	—	—	—	—	—	5,263
Total Capital	3,002	5,103	4,550	3,000	3,000	3,000	—	—	21,655

Note: Numbers have been rounded.

18.3 Operating Cost Estimates

18.3.1 Basis of Estimate

The operating costs are well understood and based on a 30-year operational history. The basis used for costs can be derived from a variety of factors including but not limited to contract price, historical market/actual price, market price plus appropriate rate increase, current wages, cost per unit mined, crushed, produced, hour, and utilized.

18.3.2 Mine Operating Costs

Mine operating costs include the costs required to move all the material needed to maintain a constant supply of ore to the crusher, maintain access to the property and provide access to all areas of the mine.

Mine operating costs incorporate all the costs for operating and maintaining the production earthmoving equipment. The mine operating costs are broken into seven cost centers based on the equipment used. The cost centers are hauling, loading, dozing, drilling, blasting, roads and dumps, and general operating. Mine operating costs are reported as a cost per ton mined.

Each cost center incorporates all the costs needed to operate and maintain the corresponding equipment and include all labor, rental, tires, tracks, fuel and wear parts needed to operate:

- Hauling includes all the costs associated with the 777 and 785 truck fleets;
- Loading includes all the costs associated with the 993 and 994 loaders;
- Dozing includes all the costs associated with the D-9 and D-10 dozers;
- Drilling includes the costs for the DM45 downhole blast hole drills.
- Blasting includes all the costs for the explosives and contract blasting group;
- Roads and yards include all costs associated with maintaining the roads and the mine travel infrastructure and includes costs for sand trucks, water trucks and motor graders;

- General operating includes the cost for the maintenance group and the operations salary supervision staff. This cost center also includes the costs for the building maintenance and much of the small equipment and light vehicles needed to maintain daily operations.

The mining cost/ton figure used in the mineral reserve estimate and cut-off calculations is applied to all ore and waste tons. A summary of the forecast mining costs for the remaining LOM is provided in Table 18-2.

18.3.3 Process Operating Costs

The process operating costs include all the costs incurred once an ore ton is delivered to the crusher. Each ore ton must be crushed, placed on a leach pad, leached, neutralized, de-nitrified and offloaded and placed back in the pit. Process operating costs are where these costs are accounted for. Process operating costs are broken down into nine cost centers: pad load, pad unload, crushing, leaching, process operating, denitrification, water treatment, neutralization, and metallurgical administration. Processing unit costs are reported as a cost per ton crushed.

The pad load and pad unload cost centers contain costs allocated from loading, hauling, and dozing cost centers. Both the pad load and pad unload cost centers are based upon the number of hours each equipment type spends doing the task. On a monthly basis, each group from loading, hauling, and dozing has a cost per hour calculated based on the total spend and number of hours used. This cost is applied to the pad load and pad unload cost centers according to the number of hours spent multiplied by the cost per hour. These are considered process costs because they only apply to the ore tons moved.

Crusher costs incorporates all the costs to reduce the ore size from 2 ft down to 80% passing ½ inch. The costs include all labor, maintenance, lime, belts, wear metal and replacement parts needed to maintain operation above 80% availability.

The process cost/ton figure used in the mineral reserve estimate and cut-off calculations is applied to crusher tons only. Forecast process operating costs are provided in Table 18-3 and Table 18-4.

18.3.4 Infrastructure Operating Costs

All infrastructure is in place. The cost of upkeep is included within each department's individual operating costs on an annual basis. Maintenance and upkeep for the administration building, warehouse and shop are included in the general mining cost center.

Table 18-2: Mining Operating Cost Estimate (US\$ x 1,000)

Area	2022	2023	2024	2025	2026	2027	2028	2029	Total
Drilling	4,132	4,132	4,455	3,121	3,663	3,686	3,231	1,889	28,309
Blasting	4,165	4,165	4,490	3,146	3,692	3,715	3,256	1,904	28,533
Dozing	3,143	3,002	3,058	2,082	2,544	2,573	2,286	1,145	19,833
Hauling	18,369	18,258	16,697	11,590	13,811	14,337	12,599	7,077	112,738
Loading	6,455	6,221	5,960	3,751	4,819	4,795	4,215	1,656	37,872
Roads & yards	2,923	2,755	2,793	2,175	2,510	2,371	2,310	1,347	19,184
General mining	7,218	7,221	6,514	6,517	6,165	6,110	5,017	2,524	47,286
Total	46,405	45,753	43,965	32,383	37,203	37,588	32,914	17,542	293,753

Note: Numbers have been rounded.

Table 18-3: Process Plant Operating Cost Estimate (US\$ x 1,000)

Area	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Leaching	6,113	6,113	6,113	6,113	6,113	6,113	6,113	4,340	1,302	48,433
Process operating	3,256	3,278	3,299	3,321	3,343	2,911	2,777	2,328	698	25,211
Denitrification	580	598	616	634	653	475	293	61	18	3,928
Water treatment	546	569	591	613	637	364	158	(51)	(15)	3,412
Neutralization	187	192	196	201	205	111	85	40	12	1,229
Met administration	2,187	2,187	2,187	2,187	2,187	2,187	2,187	1,553	466	17,328
Totals	12,869	12,936	13,001	13,069	13,138	12,161	11,612	8,271	2,481	99,538

Note: Numbers have been rounded.

Table 18-4: Other Process Operating Cost Estimate (US\$ x 1,000)

Area	2022	2023	2024	2025	2026	2027	2028	2029	Total
Crusher	10,854	10,797	10,818	10,840	10,863	10,422	10,289	8,966	83,849
Pad load	4,212	4,387	4,387	4,387	4,387	4,387	4,387	3,894	34,428
Pad unload	4,090	5,713	7,743	6,928	8,005	5,480	7,199	3,318	48,476
Total	19,156	20,897	22,948	22,155	23,255	20,289	21,875	16,178	166,753

Note: Numbers have been rounded.

18.3.5 General and Administrative Operating Costs

The general and administrative costs include overhead departments to support the mining and processing operations. This includes costs received from support by the corporate office as well as the refining and processing costs required to create a saleable product. Costs are based upon historical spending and updated for market trends such as cost of living increases for the salaried and hourly work force. The reporting measurement is on a ton per crushed basis to determine the reasonableness for prior and future years.

The general and administrative cost includes senior management overhead costs, salaries, travel, training, insurance, production tax and general costs covering all areas as approved by the General Manager.

Laboratory costs support mining and processing operations by providing assay results for the various drilling programs to provide guidance on ore extraction and ore blending for the leach pads. This is critical in order to optimize gold ore leaching and recovery.

Exploration covers costs related to property review where the results are preliminary and not likely to lead to extension of current mining operations. This is expensed cost, whereas costs to expand current operations would be capitalized in order to match the expenditure with future extraction of ore.

Warehouse costs are minimal as the majority of the costs are budgeted in general administration.

Safety costs cover the mine site and benefit all operations. This entails review of processed, defining safety procedures, creating administrative and engineering controls and review that all work is being completed in a safe manner.

Engineering works with mining and process to plan operational goals which meet both short, and long term, needs for staying on the life of mine plan. This includes geophysical review of ore types, blending and strategies for efficient use of equipment and manpower.

The Environmental team is responsible for the operations staying within the guidelines set by regulatory agencies for staying within proper limits of environmental standards. This includes updating and necessary permits and being a liaison with external entities.

The Human Resources operations handles the functions necessary for hiring and retention of personnel. Dealing with daily employee issues and aligning benefits for specific and overall needs. The team works closely with all operational departments to ensure that the correct number of employees are available to meet the needs to achieve the workload.

Information Technologies is responsible for computer infrastructure needs. Much of the cost is passed down from the corporate office to cover the Wharf Operations' share of the company computer systems. In addition, the mine has site-specific computer and software needs to assist the Engineering team and other functions complete their tasks.

Land costs cover expenses for re-seeding, fencing, soil testing which are not part of the reclamation and closure cost functions.

The administrative cost/ton figure used in the mineral reserve estimate and cut-off calculations is applied to crusher tons only. The LOM forecast general and administrative costs are summarized in Table 18-5.

18.3.6 Owner (Corporate) Operating Costs

The Wharf Operations pay corporate costs monthly. These are typically in the form of management fees and insurance premiums which are split between the mines. These costs are reported under the general administration cost center and is accounted for in general and administrative operating costs. Annually, these costs plus costs for information technology are included in the budget and forecasts.

18.3.7 Operating Cost Summary

The operating cost estimate for the remaining LOM is provided on an annualized basis in Table 18-6 and on a dollar per ton basis in Table 18-7. The LOM operating cost is US\$664 M, which equates to US\$2.23/t mined and US\$10.29/t processed.

18.4 QP Statement

Capital and operating cost estimates are at a minimum at a pre-feasibility level of confidence, having an accuracy level of $\pm 25\%$ and a contingency range not exceeding 15%. The estimate accuracies and ranges comply with the stated accuracy and contingency ranges required to meet a pre-feasibility level of study under SK1300. The QPs considered the risks associated with the engineering estimation methods used when stating the accuracy and contingency ranges and preparing the cost estimate forecasts.

The capital and operating cost estimates are presented for an operating mine, with a 30+-year production history. Analogues to prior similar environments are not relevant to the Wharf Operations given the production history and that the mine was in production as at December 31, 2021.

Table 18-5: General and Administrative Operating Costs (US\$ x 1,000)

Area	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
General Admin	6,164	6,394	6,445	6,534	6,671	5,374	5,364	3,459	709	47,114
Laboratory	1,322	1,322	1,322	1,322	1,322	1,058	1,058	635	127	9,488
Safety	881	881	881	881	881	705	705	423	85	6,323
Engineering/ Ops Support	1,324	1,321	1,321	1,321	1,321	1,056	1,056	634	127	9,481
Environmental Services	1,485	1,485	1,485	1,485	1,485	1,188	1,188	713	143	10,657
Human Resources	2,173	2,173	2,173	2,173	2,173	1,738	1,738	1,043	209	15,593
Information Technology	687	687	687	687	687	549	549	330	66	4,929
Land	81	81	81	81	81	65	65	39	8	582
Totals	14,117	14,343	14,395	14,484	14,621	11,734	11,724	7,275	1,472	104,165

Note: Numbers have been rounded.

Table 18-6: LOM Operating Cost Estimate (US\$ x 1,000)

Area	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Mining	46,405	45,753	43,965	32,383	37,203	37,588	32,914	17,542	—	293,753
Pad loading	4,212	4,387	4,387	4,387	4,387	4,387	4,387	3,894	—	34,428
Pad unloading	4,090	5,713	7,743	6,928	8,005	5,480	7,199	3,318	—	48,476
Crushing	10,854	10,797	10,818	10,840	10,863	10,422	10,289	8,966	—	83,849
Plant	12,869	12,936	13,001	13,069	13,138	12,161	11,612	8,271	2,481	97,057
Services	14,117	14,343	14,395	14,484	14,621	11,734	11,724	7,275	1,472	102,693
Total	92,547	93,930	94,309	82,090	88,216	81,770	78,124	49,266	3,953	660,252

Note: Numbers have been rounded.

Table 18-7: LOM Total Operating Cost Estimate

	LOM Totals (US\$ x 1,000)	\$/st	Units
Mining	293,752	2.23	US \$/st mined
Pad loading	34,426	0.96	US \$/st crushed
Pad unloading	48,477	1.35	US \$/st crushed
Crushing	83,849	2.33	US \$/st crushed
Plant	99,538	2.76	US \$/st crushed
Services	104,164	2.89	US \$/st crushed
LOM Total	664,207		
Mining cost		2.23	US \$/st mined
Process cost		10.29	US \$/st crushed

Note: Numbers have been rounded.

19.0 ECONOMIC ANALYSIS

19.1 Forward-looking Information

Results of the economic analysis represent forward- looking information that is subject to several known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those presented here.

Other forward-looking statements in this Report include, but are not limited to: statements with respect to future metal prices and concentrate sales contracts; the estimation of mineral reserves and mineral resources; the realization of mineral reserve estimates; the timing and amount of estimated future production; costs of production; capital expenditures; costs and timing of the development of new ore zones; permitting time lines; requirements for additional capital; government regulation of mining operations; environmental risks; unanticipated reclamation expenses; title disputes or claims; and, limitations on insurance coverage.

Factors that may cause actual results to differ from forward-looking statements include: actual results of current reclamation activities; results of economic evaluations; changes in Project parameters as mine and process plans continue to be refined, possible variations in mineral reserves, grade or recovery rates; geotechnical considerations during mining; failure of plant, equipment or processes to operate as anticipated; shipping delays and regulations; accidents, labor disputes and other risks of the mining industry; and, delays in obtaining governmental approvals.

19.2 Methodology Used

Coeur records its financial costs on an accrual basis and adheres to U.S. Generally Accepted Accounting Principles (GAAP).

The financial costs used for this analysis are based on the 2022 LOM budget model, which was built on a zero-based budgeting process that was validated through a historical cost comparison from the previous financial year. Production figures in this Chapter are based on predicted equipment hours and manpower requirements needed to execute the mine plan using actual unit costs, labor rates and may vary from year to year depending on capital and production needs.

Consumables are based upon market projections and contract pricing. Experts and bids are used for capital purchases to ensure that all costs are included in the project to avoid and unbudgeted expenditures.

All financial results are communicated to the site management team. This process results in refinements and agreements as to the validity of the cost, capital and cash flow results. This is an on-going process through-out the budget and provides consistency of the results and acceptance of both short- and long-term goals.

Capitalized exploration is determined annually through the corporate office, is discretionary, and therefore not included in the economic analysis. Management fees assessed through the corporate office are not included in the economic analysis.

19.3 Financial Model Parameters

19.3.1 Mineral Resource, Mineral Reserve, and Mine Life

The mineral resources are discussed in Chapter 11, and the mineral reserves are discussed in Chapter 12.

The mineral reserves support a mine life of eight years with mining complete in late 2029 and processing and gold production continuing to December 2030.

19.3.2 Metallurgical Recoveries

Forecast metallurgical recoveries are provided in Chapter 10.

19.3.3 Smelting and Refining Terms

Smelting and refining terms for the doré are outlined in Chapter 16. Smelting and refining costs are defined by contract with Wharf Operation's primary refiner and customer. Wharf Operations also use a secondary refiner for the "sludge" product, which is the remainder containing gold that cannot be recovered by processes used by the primary refiner.

19.3.4 Metal Prices

Metal price assumptions are provided in Chapter 16.

19.3.5 Capital and Operating Costs

Capital and operating cost forecasts price assumptions are outlined in Chapter 18.

Capitalized exploration is determined annually through corporate office and is discretionary and therefore not included in the economic analysis. Management fees assessed through the corporate office are excluded in the economic analysis.

19.3.6 Working Capital

Working capital based for the analysis in the 2022 LOM, is based upon historical trends for movement in payables and receivables. This is adjusted year over year for changes in spending levels. Historically the spending levels remain constant on a cost per ton basis. Tax payments are adjusted annually for production and sales of gold and silver. Inventory movement is also adjusted annually for production levels. In future years the working capital is adjusted from recent historical values based upon the timing of the remaining mine life. The timing and annual spending at the Wharf Operations is very consistent on a per ton basis, and this analysis is used to support the cash flow movements that create the working capital.

19.3.7 Taxes and Royalties

Royalties are discussed in Chapter 3.7. Royalties included in the cashflow analysis are based upon gold ounces mined or produced depending upon the agreement.

Net profits severance tax rates are 10%, royalty tax rates are 8% and production taxes are US\$8/oz Au sold.

The tax rates used are set by governmental agencies and the Wharf Operations remain in compliance. Severance taxes are the largest tax component.

Currently, Coeur pays no federal income tax due to historic net operating losses.

19.3.8 Closure Costs and Salvage Value

Closure costs are summarized in Chapter 17.3.

Closure costs are based upon economic review by the Environmental team. The models used are reviewed internally and validated by external auditors. The closure costs are included in the annual budget LOM. This is reviewed by corporate investment teams.

19.3.9 Financing

The economic analysis is based on 100% equity financing and is reported on a 100% project ownership basis.

19.3.10 Inflation

The economic analysis assumes constant prices with no inflationary adjustments.

19.4 Economic Analysis

The NPV at 5% is \$274.2 M. As the cashflow is based on existing operations, considerations of payback and internal rate of return are not relevant.

A summary of the financial results is provided in Table 19-1. An annualized cashflow statement is provided in Table 19-2.

The active mining operation ceases in 2029; however, closure costs are estimated to be paid out through 2083. For the purposes of the financial model, all costs incurred beyond 2030 are included in the cash flow in the year 2030.

Table 19-1: Cashflow Summary Table

Item	Units	Value
Revenue	kUS\$	1,145,120
Production costs	kUS\$	738,310
Write downs	kUS\$	3,471
Total costs and expenses	kUS\$	741,782
EBITDA	kUS\$	403,339
Amortization	kUS\$	(60,130)
Accretion of liability	kUS\$	(10,962)
Interest income	kUS\$	(0)
Interest expense	kUS\$	(1,031)
Income before taxes	kUS\$	331,216
Income tax expense (benefit)	kUS\$	36,827
Net income	kUS\$	294,389
Add back amortization	kUS\$	60,130
Add back accretion	kUS\$	10,962
Operating cash flow before working capital changes	kUS\$	365,481
Receivables trade	kUS\$	(2)
Inventory variation	kUS\$	19,961
Inventory - other	kUS\$	(2,232)
Other current assets	kUS\$	2,763
Tax payable	kUS\$	163
Other liability items	kUS\$	(13,548)
Operating cash flow	kUS\$	372,587
Payments on capital leases	kUS\$	(1,089)
AFE capital	kUS\$	(18,947)
Total cash flow	kUS\$	352,552
NPV @ 5%	kUS\$	274,222

Note: AFE = authorization for expenditure ; EBITDA = earnings before interest, taxes, depreciation, and amortization. Numbers have been rounded.

Table 19-2: Cashflow Forecast on Annualized Basis (US\$ x 1,000)

Item	2022	2023	2024	2025	2026	2027	2028	2029	2030
Revenue	131,706	152,332	141,978	135,309	144,618	135,508	138,837	134,540	30,293
Production costs	95,824	100,063	95,501	96,729	99,114	87,891	83,300	67,060	12,830
Write downs	484	484	484	484	484	387	387	232	46
Total costs and expenses	96,308	100,546	95,984	97,213	99,597	88,278	83,687	67,292	12,877
Earnings before depreciation interest and taxes (EBITDA)	35,398	51,786	45,994	38,096	45,020	47,230	55,150	67,248	17,416
Amortization	(8,317)	(6,758)	(6,723)	(7,103)	(7,026)	(6,882)	(7,743)	(7,639)	(1,939)
Accretion of liability	(1,034)	(828)	(925)	(961)	(1,084)	(1,225)	(1,198)	(2,004)	(1,703)
Interest expense	(140)	(131)	(130)	(132)	(140)	(132)	(135)	(74)	(17)
Income before taxes	25,907	44,069	38,216	29,901	36,770	38,991	46,075	57,531	13,757
Income tax expense (benefit)	2,404	4,147	3,433	4,053	4,302	3,949	4,270	7,673	2,597
Net income	23,503	39,922	34,783	25,848	32,468	35,043	41,804	49,858	11,160
Add back amortization	8,317	6,758	6,723	7,103	7,026	6,882	7,743	7,639	1,939
Add back accretion	1,034	828	925	961	1,084	1,225	1,198	2,004	1,703
Operating cash flow before working capital changes	32,855	47,508	42,431	33,912	40,579	43,150	50,745	59,501	14,803
Receivables trade	(0)	(0)	(0)	(0)	(0)	(0)	(0)	—	—
Inventory variation	(3,404)	(1,461)	(6,047)	8,640	4,043	(549)	(1,456)	11,971	8,225
Inventory - other	(376)	(376)	(376)	(376)	(376)	(188)	(94)	(60)	(10)
Other current assets	471	471	471	471	471	236	118	50	5
Tax payable	(833)	996	—	—	—	—	—	—	—
Other liability items	(1,517)	(1,616)	(1,382)	(1,370)	(1,544)	(1,462)	(2,531)	(2,414)	288
Operating cash flow	27,195	45,522	35,096	41,276	43,173	41,186	46,781	69,048	23,311
Payments on capital leases	(497)	(545)	(47)	—	—	—	—	—	—
AFE capital	(1,447)	(4,500)	(3,000)	(3,000)	(3,000)	(3,000)	(500)	(500)	—
Total cash flow	25,251	40,477	32,049	38,276	40,173	38,186	46,281	68,548	23,311

Note: AFE = authorization for expenditure. Numbers have been rounded.

19.5 Sensitivity Analysis

The sensitivity of the Project to changes in metal prices, grade, sustaining capital costs and operating cost assumptions was tested using a range of 30% above and below the base case values. The NPV sensitivity to these parameters is illustrated in Table 19-3, with the base case bolded. Recovery is not shown as the sensitivity to recovery mirrors the sensitivity to metal price.

The Project is most sensitive to gold price, less sensitive to operating cost increases, and least sensitive to capital expenditure changes.

The Wharf Operations are not subject to exchange rates as the operation and customers are both residents of the United States.

The primary sensitivity is to the impact of macroeconomic conditions and other factors upon gold pricing. Coeur typically ensures that production from the Wharf Operations is sold in the year that the doré is produced.

Table 19-3: Sensitivity Table (US\$ x 1,000)

Parameters	-30%	-20%	-10%	-5%	0%	5%	10%	20%	30%
Metal price	(2,155)	89,971	182,097	228,159	274,222	320,285	366,348	458,473	550,599
Operating costs	454,282	394,262	334,242	304,232	274,222	244,212	214,202	154,182	94,163
Capital costs	278,963	277,383	275,802	275,012	274,222	273,432	272,642	271,061	269,482
Grade	(2,155)	89,971	182,097	228,159	274,222	320,285	366,348	458,473	550,599

Note: Numbers have been rounded.

20.0 ADJACENT PROPERTIES

This Chapter is not relevant to this Report.

21.0 OTHER RELEVANT DATA AND INFORMATION

This Chapter is not relevant to this Report.

22.0 INTERPRETATION AND CONCLUSIONS

22.1 Introduction

The QPs note the following interpretations and conclusions within their areas of expertise, based on the review of data available for this Report.

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

The Wharf Operations are wholly owned by Coeur and operated through Coeur's subsidiaries Wharf Resources and Golden Reward LP.

The Project consists of two contiguous property groups:

- Wharf group: northern and western sectors of the Project area; 362 patented lode claims, 35 government lots, 133 subdivided lots, and 59 federal unpatented lode claims;
- Golden Reward group: southern and eastern sectors of the Project area; 196 patented lode claims, 14 government lots, 19 subdivided lots, and 34 federal unpatented lode claims.

The mineral tenures are subject to several royalties, which range from sliding scale royalty payments on production to fixed production royalties to net smelter return royalties. The largest royalty is payable to Royal Gold.

Agreements are in place with local ski areas to allow mining access.

Surface rights are a combination of patented lode claims, federal unpatented lode claims, government lots and fee property. No additional rights are needed to support the LOM plan presented in this Report.

Potable water is supplied to the Wharf Operations by wells. Coeur owns multiple groundwater and surface water rights sufficient to support ongoing operations. No additional water rights are anticipated to be required for LOM operations.

22.3 Geology and Mineralization

The genesis of the Wharf deposit is considered controversial; most recently the deposit has been interpreted as epithermal in style. The gold mineralization is disseminated and structurally controlled.

The geological understanding of the settings, lithologies, and structural and alteration controls on mineralization is sufficient to support estimation of mineral resources.

22.4 Exploration, Drilling, and Sampling

The exploration programs completed by Coeur to date and predecessor companies are appropriate for the mineralization styles.

The quantity and quality of the lithological, collar and down-hole survey data collected in the exploration program completed are sufficient to support mineral resource estimation. No drilling, sampling, or core recovery issues that could materially affect the accuracy or reliability of the core samples have been identified.

The collected sample data adequately reflect deposit dimensions, true widths of mineralization, and the deposit style.

Sampling is representative of the gold and silver values, reflecting areas of higher and lower grades.

The independent analytical laboratories used by Coeur and predecessor companies, where known, are accredited for selected analytical techniques.

Sample preparation has used procedures and protocols that are/were standard in the industry and has been adequate throughout the history of the Project. Sample analysis uses procedures that are standard in the industry.

The QA/QC programs adequately address issues of precision, accuracy, and contamination, and indicate that the analytical results are adequately accurate, precise, and contamination free to support mineral resource estimation.

The sample preparation, analysis, and security procedures are adequate for use in the estimation of mineral resources.

22.5 Data Verification

The QP personally verified, amongst other checks, QA/QC of assay data from 2015–2021, logged all geologic data from 2015, 2017, and 2018, and conducted a 10–20% check of geologic logs from 2016 and 2021. The QP worked at the Wharf Operations from 2009–2021.

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 mineral resource estimation.

22.6 Metallurgical Testwork

The Wharf Operations have an on-site analytical laboratory that assays concentrates, in-process samples, and geological samples. The on-site metallurgical laboratory is used for testing flotation reagents, grind analysis, and characterizing the behavior of new ores. The laboratory is not independent.

Metallurgical performance using laboratory testing suggests that recovery of gold varies by lithology and sizing of placed material. Forecast recoveries range from 76–80.5%, depending on lithology.

Based on extensive operating experience and testwork, there are no known processing factors of deleterious elements that could have a significant effect on the economic extraction of the mineral reserve estimates.

22.7 Mineral Resource Estimates

The mineral resource estimate is reported using the definitions set out in SK-1300 and is reported exclusive of those mineral resources converted to mineral reserves. The reference point for the estimate is in situ. The estimate is primarily supported by RC drilling. The estimate is current as at December 31, 2021. The estimate was constrained using reasonable prospects of economic extraction that assumed open pit mining methods.

Factors that may affect the mineral resource estimates include: metal price and exchange rate assumptions; changes to the assumptions used to generate the gold equivalent grade cut-off grade; changes in local interpretations of mineralization geometry and continuity of mineralized zones; changes to geological and mineralization shape and geological and grade continuity assumptions; density and domain assignments; changes to geotechnical, mining and metallurgical recovery assumptions; changes to the input and design parameter assumptions that pertain to the assumptions for the conceptual pit shell constraining the estimates; and assumptions as to the continued ability to access the site, retain mineral and surface rights titles, maintain environment and other regulatory permits, and maintain the social license to operate.

22.8 Mineral Reserve Estimates

The mineral reserve estimate is reported using the definitions set out in SK-1300. The reference point for the estimate is the point of delivery to the heap leach facilities. The estimate is current as at December 31, 2021.

Mineral reserves were converted from measured and indicated mineral resources using a detailed pit design and block model from a physical survey of the topography as of December 31, 2021. The mine plans assume open pit mining, and a conventional truck and loader fleet. Mining rates are predominantly dictated by the crusher throughput. Average annual throughput of 4.6 Mst from the crusher is expected. Throughput rates were established and proven over the more than 30 years of operational history at the site.

An operational cut-off grade of US\$0.10 oz/st Au was used to determine the material that is economically viable to mine. Economic and sustaining capital considerations were factors in using an operational cut-off grade above the break-even cut-off.

Factors that may affect the mineral reserve estimates include variations to the following assumptions: the commodity price; metallurgical recoveries; operating cost estimates, including assumptions as to equipment leasing agreements; geotechnical conditions; hydrogeological conditions; geological and structural interpretations; and the inability to maintain, renew, or obtain

environmental and other regulatory permits, to retain mineral and surface right titles, to maintain site access, and to maintain social license to operate. A portion of the reserves are not currently permitted. The application process for acquiring new permits and permit amendments has been initiated with both the State and Lawrence County. If the permits are not granted, a portion of the estimated mineral reserves will not be available to mine.

22.9 Mining Methods

The current geotechnical design configurations were concluded to be appropriate following examination by a third-party consultant. The consultant noted that there was an opportunity to design the ultimate pit with steeper slopes.

Water infiltration near the 5,960 ft elevation has made drill and blast activities below this horizon challenging. Current mineral reserve estimate includes material down to the 5,900 ft elevation.

Several historic pits that were partially backfilled are being mined again and the backfilled material is considered re-handle and does not require blasting. Waste material removed for access to the ore is taken to one of the WRSF sites. The WRSFs are all designed to fill existing pits and are reclaimed as soon as possible after placement.

Mined ore is either placed in a stockpile or placed directly into the primary crusher ore hopper.

Spent ore is used to backfill pits within defined perimeter of pollution zones. The current active perimeter of pollution zones has physical capacity to contain the estimated mineral reserves.

The production plan assumes an eight-year mine life to 2029.

Equipment is leased, and conventional to open pit operations.

22.10 Recovery Methods

The process plant was built in 1983. Historical testwork on which the plant designs were based is not available to Coeur. Changes made to the process plant have been based on actual plant performance trends and testwork performed on-site and at independent facilities.

The process plant design is conventional to the gold industry and has no novel parameters. Debottlenecking and optimization activities that have occurred since Coeur acquired the operations have assisted in increasing capacities and efficiencies.

Silver to gold ratios in the process feed have historically varied from near 1:1 to >40:1. These variations in the ore delivered to the pad have resulted in wide swings in the bullion composition produced by the plant. Plant gold efficiency during the low silver periods reaches the industry norm of +95% for this type of plant. During periods when the silver concentration begins to climb, silver preferentially loading on the carbon reduces both the plant gold and silver efficiencies. Changes in the plant stripping circuit have improved the ability for the plant to compensate for the additional silver content.

The plant has sufficient electrowinning capacity and can adjust strip cycles to increase the carbon volume processed. During periods of extremely high silver grades, the retort is used at maximum capacity.

22.11 Infrastructure

All infrastructure required to support operations has been constructed and is operational. On-site infrastructure includes a production and monitoring water wells, offices, maintenance, warehouse and various ancillary facilities, open-pit mining areas, rock disposal areas, crushing and conveying facilities, five lined heap leach pads, two water treatment plants and a process facility. There is an onsite assay laboratory as well as a metallurgical laboratory. There is no onsite accommodation. Employees reside in adjacent communities.

There are currently five on/off heap leach pads used for the leaching cycle.

Spent ore backfill on unlined facilities is permitted by way of a groundwater discharge permit. Currently Coeur has both un-lined and lined spent ore facilities. DANR has approved a Perimeter of Operational Pollution zone for each permit and allows for a variance to select groundwater standards within the Perimeter of Operational Pollution zones.

The water management system consists of five major sections: five leach pad cells, five process ponds (pregnant, barren, overflow, contingency, and neutralization), three water treatment plants, treated water discharge/spray system, and a lead detection/recapture system.

In the event of excess water being stored within the ponds, treated water is discharged to specifically permitted surface and groundwater discharge areas.

Electrical power is principally supplied by Black Hills Power.

22.12 Market Studies

Coeur has established contracts and buyers for the gold concentrate product from the Wharf Operations and has an internal marketing group that monitors markets for its key products. Together with public documents and analyst forecasts, these data support that there is a reasonable basis to assume that for the LOM plan, that the key products will be saleable at the assumed commodity pricing.

Coeur uses a combination of analysis of three-year rolling averages, long-term consensus pricing, and benchmarks to pricing used by industry peers over the past year, when considering long-term commodity price forecasts. Higher metal prices are used for the mineral resource estimates to ensure the mineral reserves are a sub-set of, and not constrained by, the mineral resources, in accordance with industry-accepted practice. The economic analysis uses a reverting price curve.

Wharf Resources has a contract with a U.S.-based refiner that refines the doré into gold and silver bullion.

Wharf Resources also uses a secondary refiner for the “sludge” product, which is the remainder containing gold that cannot be recovered by processes used by the primary refiner.

There are numerous contracts in place at the Project to support mine development or processing. Currently there are contracts in place to provide supply for all major commodities used in mining and processing, such as equipment vendors, power, explosives, cyanide, tire suppliers, raise boring, ground support suppliers and drilling contractors.

The terms and rates for these contracts are within industry norms. The contracts are periodically put up for bid or re-negotiated as required.

22.13 Environmental, Permitting and Social Considerations

Baseline studies and monitoring were required for permitting. Hydrogeological fate and transport modeling and baseline monitoring were also required for each groundwater discharge plan. Statement of basis analyses were also required during each renewal of NPDES surface water discharge permits. The Wharf Operations comply with all current permit conditions and requirements and there are no outstanding environmental issues.

Financial surety sufficient to reclaim the Wharf Operations mine and processing facilities is up to date and held by the state of South Dakota. The closure bond plan associated with reclamation and post closure surety was updated in 2020. The estimated asset retirement obligation for the Project is approximately US\$47.6 M.

Financial surety for the Golden Reward area, sufficient to conduct monitoring and maintenance during a 30-year post closure period is up to date and held by the state of South Dakota. The estimated asset retirement obligation for the project is approximately US\$0.61 M.

The Wharf Operations commenced in 1983 and have obtained all necessary environmental permits and licenses from the appropriate county, state and federal agencies for the open pit mines, heap leach pads, and all necessary support facilities. Operational standards and Best Management Practices were established to maintain compliance with applicable state and federal regulatory standards and permits.

Coeur currently enjoys a positive relationship with local communities.

22.14 Capital Cost Estimates

Capital cost estimates are at a minimum at a pre-feasibility level of confidence, having an accuracy level of $\pm 25\%$ and a contingency range not exceeding 15%. In later years, capital estimates are based on estimated annual operating requirements and are considered as sustaining capital.

All major capital construction projects needed to maintain consistent production and extraction of mineral reserves at the Wharf Operations have been completed over the last 30 years.

Costs remaining for the LOM are considered sustaining capital costs. The total LOM capital cost estimate is \$24.2 M, which consists of \$18.9 M for sustaining capital purchases and \$5.3 M for infill drilling programs.

22.15 Operating Cost Estimates

Operating cost estimates are at a minimum at a pre-feasibility level of confidence, having an accuracy level of $\pm 25\%$ and a contingency range not exceeding 15%.

The total LOM operating cost estimate is US\$664 M.

22.16 Economic Analysis

The mineral reserves support a mine life of eight years with mining complete in 2029 and processing and gold production continuing in 2030. Smelting and refining costs are defined by contract with Asahi, which is Coeur's primary refiner and customer. Royalties included in the cashflow analysis are based upon gold ounces mined or produced depending upon the agreement. Net profits severance tax rates are 10%, royalty tax rates are 8% and production taxes are US\$8/oz Au sold. The active mining operation ceases in 2029; however, closure costs are estimated to 2083. For the purposes of the financial model, all costs incurred beyond 2030 are included in the cash flow in 2030.

The NPV at 5% is US\$274 M. As the cashflow is based on existing operations, considerations of payback and internal rate of return are not relevant.

The Project is most sensitive to gold price, less sensitive to operating cost increases, and least sensitive to capital expenditures. The primary sensitivity is to the world economy and the effect this has upon gold pricing. Coeur typically ensures that production from the Wharf Operations is sold in the year that the doré is produced.

22.17 Risks and Opportunities

Factors that may affect the mineral resource and mineral reserve estimates were identified in Chapter 11.13 and Chapter 12.9 respectively.

22.17.1 Risks

Other risks noted include:

- Geotechnical and hydrological assumptions used in mine planning are based on historical performance, and to date historical performance has been a reasonable predictor of current conditions. Any changes to the geotechnical and hydrological assumptions could affect mine planning, affect capital cost estimates if any major rehabilitation is required due to a geotechnical or hydrological event, affect operating costs due to mitigation measures that may need to be imposed, and impact the economic analysis that supports the mineral reserve estimates;
 - Unforeseen geotechnical issues could lead to additional dilution, difficulty accessing portions of the ore body, or sterilization of broken or in situ ore. There are sufficient management controls in place to effectively mitigate geotechnical risks. Designed pit slopes have been evaluated for stability in several geotechnical studies and are

regularly evaluated by the engineering group at the mine. The QP considers that sufficient controls are in place at the Wharf mine to effectively manage geotechnical risk, and the risk of significant impact on the mineral reserve estimate is low;

- Water infiltration near the 5,960-foot elevation has made drill and blast activities below this horizon challenging, and may affect the portion of the mine plan that is expected to reach the 5,900 ft elevation;
- Coeur leases nearly all the earth moving equipment used at the mine. Relationships with local dealers span over 15 years. Current truck and loader fleet lease rates are under contract through 2024 with an option for a two-year extension beyond. A major change in pricing would affect operating cost and have an impact on the mineral reserve estimates and the economic analysis that supports the mineral reserve estimates;
- The mineral reserve estimates are most sensitive to metal prices. Coeur's current strategy is to sell most of the metal production at spot prices, exposing the company to both positive and negative changes in the market, both of which are outside of the company's control;
- Assumptions that the long-term reclamation and mitigation of the Wharf Operations can be appropriately managed within the estimated closure timeframes and closure cost estimates.

22.17.2 Opportunities

Opportunities include:

- Conversion of some or all of the measured and indicated mineral resources currently reported exclusive of mineral reserves to mineral reserves, with appropriate supporting studies;
- Upgrade of some or all of the inferred mineral resources to higher-confidence categories, such that such better-confidence material could be used in mineral reserve estimation;
- Evaluation by third-party consultants suggested that the pit walls in the last stage of the pit could be steepened, potentially resulting in minor operating cost estimate savings.

22.18 Conclusions

Under the assumptions in this Report, the operations evaluated show a positive cash flow over the remaining LOM. The mine plan is achievable under the set of assumptions and parameters used.

23.0 RECOMMENDATIONS

As the Wharf Operations is an operating mine, the QPs have no material recommendations to make.

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24.2 Abbreviations and Units of Measure

Abbreviation/Symbol	Definition
'	minutes (geographic)
"	seconds (geographic)
#	number
%	percent
<	less than
>	greater than
µm	micrometer (micron)
ft	feet
ft ³	cubic foot/cubic feet
HP	horsepower
HQ	2.5-inch core size
kV	kilovolt
lb	pound
Lbs	pounds
mesh	size based on the number of openings in one inch of screen
Mst/a	million tons per year
MWh	megawatt
°	degrees
oz	ounce/ounces (troy ounce)
pH	measure of the acidity or alkalinity of a solution
ppm	parts per million
oz/st	ounces per ton
st	ton, meaning US ton (short ton), 2,000 pounds
st/h	tons per hour
AA	atomic absorption spectroscopy

Abbreviation/Symbol	Definition
Cu Eq	copper equivalent
GPS	global positioning system
ICP	inductively-couple plasma
ID2	inverse distance interpolation; number after indicates the power, e.g.. ID2 indicates inverse distance to the second power.
LOM	life-of-mine
NN	nearest-neighbor (
NSR	net smelter return
OK	ordinary kriging
QA/QC	quality assurance and quality control
QP	Qualified Person
RC	reverse circulation
ROM	run-of-mine
RQD	rock quality designation
st/ft ³	tons per cubic foot

24.3 Glossary of Terms

Term	Definition
acid rock drainage/ acid mine drainage	Characterized by low pH, high sulfate, and high iron and other metal species.
ANFO	A free-running explosive used in mine blasting made of 94% prilled aluminum nitrate and 6% No. 3 fuel oil.
aquifer	A geologic formation capable of transmitting significant quantities of groundwater under normal hydraulic gradients.
argillic alteration	Introduces any one of a wide variety of clay minerals, including kaolinite, smectite and illite. Argillic alteration is generally a low temperature event, and some may occur in atmospheric conditions
azimuth	The direction of one object from another, usually expressed as an angle in degrees relative to true north. Azimuths are usually measured in the clockwise direction, thus an azimuth of 90 degrees indicates that the second object is due east of the first.
bullion	Unrefined gold and/or silver mixtures that have been melted and cast into a bar or ingot.
carbon-in-column (CIC)	A method of recovering gold and silver from pregnant solution from the heap leaching process by adsorption of the precious metals onto fine carbon suspended by up-flow of solution through a tank.
comminution/crushing/grinding	Crushing and/or grinding of ore by impact and abrasion. Usually, the word "crushing" is used for dry methods and "grinding" for wet methods. Also, "crushing" usually denotes reducing the size of coarse rock while "grinding" usually refers to the reduction of the fine sizes.

Term	Definition
cut-off grade	A grade level below which the material is not "ore" and considered to be uneconomical to mine and process. The minimum grade of ore used to establish reserves.
cyanidation	A method of extracting gold or silver by dissolving it in a weak solution of sodium cyanide.
data verification	The process of confirming that data has been generated with proper procedures, has been accurately transcribed from the original source and is suitable to be used for mineral resource and mineral reserve estimation
density	The mass per unit volume of a substance, commonly expressed in grams/cubic centimeter.
dilution	Waste of low-grade rock which is unavoidably removed along with the ore in the mining process.
doré	A bar composed of a mixture of precious metals, typically gold and silver
easement	Areas of land owned by the property owner, but in which other parties, such as utility companies, may have limited rights granted for a specific purpose.
elution	Recovery of the gold from the activated carbon into solution before zinc precipitation or electro-winning.
encumbrance	An interest or partial right in real property which diminished the value of ownership but does not prevent the transfer of ownership. Mortgages, taxes and judgements are encumbrances known as liens. Restrictions, easements, and reservations are also encumbrances, although not liens.
feasibility study	<p>A feasibility study is a comprehensive technical and economic study of the selected development option for a mineral project, which includes detailed assessments of all applicable modifying factors, as defined by this section, together with any other relevant operational factors, and detailed financial analysis that are necessary to demonstrate, at the time of reporting, that extraction is economically viable. The results of the study may serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project.</p> <p>A feasibility study is more comprehensive, and with a higher degree of accuracy, than a pre-feasibility study. It must contain mining, infrastructure, and process designs completed with sufficient rigor to serve as the basis for an investment decision or to support project financing.</p>
flowsheet	The sequence of operations, step by step, by which ore is treated in a milling, concentration, or smelting process.
gangue	The fraction of ore rejected as tailing in a separating process. It is usually the valueless portion, but may have some secondary commercial use
heap leaching	A process whereby valuable metals, usually gold and silver, are leached from a heap or pad of crushed ore by leaching solutions percolating down through the heap and collected from a sloping, impermeable liner below the pad.
indicated mineral resource	An indicated mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The term adequate geological evidence means evidence that is sufficient to establish geological and grade or quality continuity with reasonable certainty. The level of geological certainty associated with an indicated mineral resource is

Term	Definition
	sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.
inferred mineral resource	An inferred mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated based on limited geological evidence and sampling. The term limited geological evidence means evidence that is only sufficient to establish that geological and grade or quality continuity is more likely than not. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. A qualified person must have a reasonable expectation that the majority of inferred mineral resources could be upgraded to indicated or measured mineral resources with continued exploration; and should be able to defend the basis of this expectation before his or her peers.
internal rate of return (IRR)	The rate of return at which the Net Present Value of a project is zero; the rate at which the present value of cash inflows is equal to the present value of the cash outflows.
initial assessment	An initial assessment is a preliminary technical and economic study of the economic potential of all or parts of mineralization to support the disclosure of mineral resources. The initial assessment must be prepared by a qualified person and must include appropriate assessments of reasonably assumed technical and economic factors, together with any other relevant operational factors, that are necessary to demonstrate at the time of reporting that there are reasonable prospects for economic extraction. An initial assessment is required for disclosure of mineral resources but cannot be used as the basis for disclosure of mineral reserves
Lerchs–Grossmann	An algorithm used to select the optimum design for an open pit mine.
life of mine (LOM)	Number of years that the operation is planning to mine and treat ore and is taken from the current mine plan based on the current evaluation of ore reserves.
measured mineral resource	A measured mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated based on conclusive geological evidence and sampling. The term conclusive geological evidence means evidence that is sufficient to test and confirm geological and grade or quality continuity. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit.
merger	A voluntary combination of two or more companies whereby both stocks are merged into one.
Merrill-Crowe (M-C) circuit	A process which recovers precious metals from solution by first clarifying the solution, then removing the air contained in the clarified solution, and then precipitating the gold and silver from the solution by injecting zinc dust into the solution. The valuable sludge is collected in a filter press for drying and further treatment
mineral reserve	A mineral reserve is an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the

Term	Definition
	<p>economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted.</p> <p>The determination that part of a measured or indicated mineral resource is economically mineable must be based on a preliminary feasibility (pre-feasibility) or feasibility study, as defined by this section, conducted by a qualified person applying the modifying factors to indicated or measured mineral resources. Such study must demonstrate that, at the time of reporting, extraction of the mineral reserve is economically viable under reasonable investment and market assumptions. The study must establish a life of mine plan that is technically achievable and economically viable, which will be the basis of determining the mineral reserve.</p> <p>The term economically viable means that the qualified person has determined, using a discounted cash flow analysis, or has otherwise analytically determined, that extraction of the mineral reserve is economically viable under reasonable investment and market assumptions.</p> <p>The term investment and market assumptions includes all assumptions made about the prices, exchange rates, interest and discount rates, sales volumes, and costs that are necessary to determine the economic viability of the mineral reserves. The qualified person must use a price for each commodity that provides a reasonable basis for establishing that the project is economically viable.</p>
mineral resource	<p>A mineral resource is a concentration or occurrence of material of economic interest in or on the Earth's crust in such form, grade or quality, and quantity that there are reasonable prospects for economic extraction.</p> <p>The term material of economic interest includes mineralization, including dumps and tailings, mineral brines, and other resources extracted on or within the earth's crust. It does not include oil and gas resources as defined in Regulation S-X (§210.4-10(a)(16)(D) of this chapter), gases (e.g., helium and carbon dioxide), geothermal fields, and water.</p> <p>When determining the existence of a mineral resource, a qualified person, as defined by this section, must be able to estimate or interpret the location, quantity, grade or quality continuity, and other geological characteristics of the mineral resource from specific geological evidence and knowledge, including sampling; and conclude that there are reasonable prospects for economic extraction of the mineral resource based on an initial assessment, as defined in this section, that he or she conducts by qualitatively applying relevant technical and economic factors likely to influence the prospect of economic extraction.</p>
mining claim	<p>A description by boundaries of real property in which metal ore and/or minerals may be located.</p>
modifying factors	<p>The factors that a qualified person must apply to indicated and measured mineral resources and then evaluate to establish the economic viability of mineral reserves. A qualified person must apply and evaluate modifying factors to convert measured and indicated mineral resources to proven and probable mineral reserves. These factors include but are not restricted to: mining; processing; metallurgical; infrastructure; economic; marketing; legal; environmental compliance; plans, negotiations, or agreements with local individuals or groups; and governmental factors. The number, type and specific characteristics of the modifying factors applied will necessarily be a function of and depend upon the mineral, mine, property, or project.</p>

Term	Definition
net smelter return royalty (NSR)	A defined percentage of the gross revenue from a resource extraction operation, less a proportionate share of transportation, insurance, and processing costs.
open pit	A mine that is entirely on the surface. Also referred to as open-cut or open-cast mine.
ounce (oz) (troy)	Used in imperial statistics. A kilogram is equal to 32.1507 ounces. A troy ounce is equal to 31.1035 grams.
plant	A group of buildings, and especially to their contained equipment, in which a process or function is carried out; on a mine it will include warehouses, hoisting equipment, compressors, repair shops, offices, mill or concentrator.
potassic alteration	A relatively high temperature type of alteration which results from potassium enrichment. Characterized by biotite, K-feldspar, adularia.
preliminary feasibility study, pre-feasibility study	<p>A preliminary feasibility study (prefeasibility study) is a comprehensive study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where a qualified person has determined (in the case of underground mining) a preferred mining method, or (in the case of surface mining) a pit configuration, and in all cases has determined an effective method of mineral processing and an effective plan to sell the product.</p> <p>A pre-feasibility study includes a financial analysis based on reasonable assumptions, based on appropriate testing, about the modifying factors and the evaluation of any other relevant factors that are sufficient for a qualified person to determine if all or part of the indicated and measured mineral resources may be converted to mineral reserves at the time of reporting. The financial analysis must have the level of detail necessary to demonstrate, at the time of reporting, that extraction is economically viable</p>
probable mineral reserve	<p>A probable mineral reserve is the economically mineable part of an indicated and, in some cases, a measured mineral resource. For a probable mineral reserve, the qualified person's confidence in the results obtained from the application of the modifying factors and in the estimates of tonnage and grade or quality is lower than what is sufficient for a classification as a proven mineral reserve, but is still sufficient to demonstrate that, at the time of reporting, extraction of the mineral reserve is economically viable under reasonable investment and market assumptions. The lower level of confidence is due to higher geologic uncertainty when the qualified person converts an indicated mineral resource to a probable reserve or higher risk in the results of the application of modifying factors at the time when the qualified person converts a measured mineral resource to a probable mineral reserve. A qualified person must classify a measured mineral resource as a probable mineral reserve when his or her confidence in the results obtained from the application of the modifying factors to the measured mineral resource is lower than what is sufficient for a proven mineral reserve.</p>
propylitic	Characteristic greenish color. Minerals include chlorite, actinolite and epidote. Typically contains the assemblage quartz-chlorite-carbonate
proven mineral reserve	A proven mineral reserve is the economically mineable part of a measured mineral resource. For a proven mineral reserve, the qualified person has a high degree of confidence in the results obtained from the application of the modifying factors and in the estimates of tonnage and grade or quality.

Term	Definition
	A proven mineral reserve can only result from conversion of a measured mineral resource.
qualified person	<p>A qualified person is an individual who is a mineral industry professional with at least five years of relevant experience in the type of mineralization and type of deposit under consideration and in the specific type of activity that person is undertaking on behalf of the registrant; and an eligible member or licensee in good standing of a recognized professional organization at the time the technical report is prepared.</p> <p>For an organization to be a recognized professional organization, it must:</p> <p>(A) Be either:</p> <p>(1) An organization recognized within the mining industry as a reputable professional association, or</p> <p>(2) A board authorized by U.S. federal, state, or foreign statute to regulate professionals in the mining, geoscience or related field;</p> <p>(B) Admit eligible members primarily based on their academic qualifications and experience;</p> <p>(C) Establish and require compliance with professional standards of competence and ethics;</p> <p>(D) Require or encourage continuing professional development;</p> <p>(E) Have and apply disciplinary powers, including the power to suspend or expel a member regardless of where the member practices or resides; and;</p> <p>(F) Provide a public list of members in good standing.</p>
reclamation	The restoration of a site after mining or exploration activity is completed.
refining	A high temperature process in which impure metal is reacted with flux to reduce the impurities. The metal is collected in a molten layer and the impurities in a slag layer. Refining results in the production of a marketable material.
refractory	Gold mineralization normally requiring more sophisticated processing technology for extraction, such as roasting or autoclaving under pressure.
rock quality designation (RQD)	A measure of the competency of a rock, determined by the number of fractures in a given length of drill core. For example, a friable ore will have many fractures and a low RQD.
royalty	An amount of money paid at regular intervals by the lessee or operator of an exploration or mining property to the owner of the ground. Generally based on a specific amount per ton or a percentage of the total production or profits. Also, the fee paid for the right to use a patented process.
run-of-mine (ROM)	Rehandle where the raw mine ore material is fed into the processing plant's system, usually the crusher. This is where material that is not direct feed from the mine is stockpiled for later feeding. Run-of-mine relates to the rehandle being for any mine material, regardless of source, before entry into the processing plant's system.
strip ratio	The ratio of waste tons to ore tons mined calculated as total tons mined less ore tons mined divided by ore tons mined.

25.0 RELIANCE ON INFORMATION PROVIDED BY THE REGISTRANT

25.1 Introduction

The QPs fully relied on the registrant for the guidance in the areas noted in the following sub-sections. As the operations have been in production for 30+ years, the last seven of which were under Coeur's management, the registrant has considerable experience in this area.

The QPs took undertook checks that the information provided by the registrant was suitable to be used in the Report.

25.2 Macroeconomic Trends

Information relating to inflation, interest rates, discount rates, taxes.

This information is used in the economic analysis in Chapter 19. It supports the mineral resource estimate in Chapter 11, and the mineral reserve estimate in Chapter 12.

25.3 Markets

Information relating to market studies/markets for product, market entry strategies, marketing and sales contracts, product valuation, product specifications, refining and treatment charges, transportation costs, agency relationships, material contracts (e.g. mining, concentrating, smelting, refining, transportation, handling, hedging arrangements, and forward sales contracts), and contract status (in place, renewals).

This information is used when discussing the market, commodity price and contract information in Chapter 16, and in the economic analysis in Chapter 19. It supports the mineral resource estimate in Chapter 11, and the mineral reserve estimate in Chapter 12.

25.4 Legal Matters

Information relating to the corporate ownership interest, the mineral tenure (concessions, payments to retain, obligation to meet expenditure/reporting of work conducted), surface rights, water rights (water take allowances), royalties, encumbrances, easements and rights-of-way, violations and fines, permitting requirements, ability to maintain and renew permits

This information is used in support of the property ownership information in Chapter 3, the permitting and closure discussions in Chapter 17, and the economic analysis in Chapter 19. It supports the mineral resource estimate in Chapter 11, and the mineral reserve estimate in Chapter 12.

25.5 Environmental Matters

Information relating to baseline and supporting studies for environmental permitting, environmental permitting and monitoring requirements, ability to maintain and renew permits, emissions controls, closure planning, closure and reclamation bonding and bonding

requirements, sustainability accommodations, and monitoring for and compliance with requirements relating to protected areas and protected species.

This information is used when discussing property ownership information in Chapter 3, the permitting and closure discussions in Chapter 17, and the economic analysis in Chapter 19. It supports the mineral resource estimate in Chapter 11, and the mineral reserve estimate in Chapter 12.

25.6 Stakeholder Accommodations

Information relating to social and stakeholder baseline and supporting studies, relationships with the local ski areas, hiring and training policies for workforce from local communities, partnerships with stakeholders (including national, regional, and state mining associations; trade organizations; fishing organizations; state and local chambers of commerce; economic development organizations; non-government organizations; and, state and federal governments), and the community relations plan.

This information is used in the social and community discussions in Chapter 17, and the economic analysis in Chapter 19. It supports the mineral resource estimate in Chapter 11, and the mineral reserve estimate in Chapter 12.

25.7 Governmental Factors

Information relating to taxation and royalty considerations at the Project level, monitoring requirements and monitoring frequency, and bonding requirements.

This information is used in the economic analysis in Chapter 19. It supports the mineral resource estimate in Chapter 11, and the mineral reserve estimate in Chapter 12.

25.8 Internal Controls

Internal controls are discussed where required in the relevant chapters of the technical report summary. The following sub-sections summarize the types of procedures, protocols, guidance and controls that Coeur has in place for its exploration and mineral resource and reserve estimation efforts, and the type of risk assessments that are undertaken.

25.8.1 Exploration and Drilling

Coeur has the following internal controls protocols in place for exploration data:

- Written procedures and guidelines to support preferred sampling methods and approaches; periodic compliance reviews of adherence to such written procedures and guidelines;
- Maintenance of a complete chain-of-custody, ensuring the traceability and integrity of the samples at all handling stages from collection, transportation, sample preparation and analysis to long-term sample storage;
- Geological logs are checked and verified, and there is a physical sign-off to attest to the validation protocol required;

- Quality control checks on collar and downhole survey data for errors or significant deviations;
- Appropriate types of quality control samples are inserted into the sample stream at appropriate frequencies to assess analytical data quality;
- Regular inspection of analytical and sample preparation facilities by appropriately experienced Coeur personnel;
- QA/QC data are regularly verified to ensure that outliers sample mix-ups, contamination, or laboratory biases during the sample preparation and analysis steps are correctly identified, mitigated, or remediated. Changes to database entries are required to be documented;
- Database upload and verification procedures to ensure the accuracy and integrity of the data entered into the Project database(s). These are typically performed using software data-checking routines. Changes to database entries are required to be documented. Data are subject to regular backups.

25.8.2 Mineral Resource and Mineral Reserve Estimates

Coeur has the following internal controls protocols in place for mineral resource and mineral reserve estimation:

- Prior to use in mineral resource or mineral reserve estimation, the selected data to support estimation are downloaded from the database into a project file and reviewed for improbable entries and high values;
- Written procedures and guidelines are used to support estimation methods and approaches;
- Completion of annual technical statements on each mineral resource and mineral reserve estimate by qualified persons. These technical statements include evaluation of modifying and technical factors, incorporate available reconciliation data, and are based on a cashflow analysis;
- Internal reviews of block models, mineral resources and mineral reserves using a “layered responsibility” approach with Qualified Person involvement at the site and corporate levels;

25.8.3 Risk Assessments

Coeur has established mine risk registers that are regularly reviewed and maintained. The registers record the risk type, the nature of the impact if the risk occurred, the frequency or probability of the risk occurrence, planned mitigation measures, and record of progress of the mitigation undertaken. Risks are removed from the registers if mitigation measures are successful or added to the registers as a new risk is recognized.

Other risk controls include aspects such as:

- Active monitoring programs such as mill performance, geotechnical networks, water sampling, waste management;
- Regular review of markets, commodity, and price forecasts by internal specialists; reviews of competitor activities;
- Regular reviews of stakeholder concerns, accommodations to stakeholder concerns and ongoing community consultation;
- Monitoring of key permits and obligations such as tenures, surface rights, mine environmental and operating permits, agreements, and regulatory changes

to ensure all reporting and payment obligations have been met to keep those items in good standing

APPENDIX A

Claims

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
12000-00402-030-00	Lot 1	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.29	Wharf	South Dakota	Lawrence				
12000-00402-030-05_1	Lot 2	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.36	Wharf	South Dakota	Lawrence				
12000-00402-030-05_2	Lot 3	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.13	Wharf	South Dakota	Lawrence				
12000-00402-030-05_3	Lot 4	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.03	Wharf	South Dakota	Lawrence				
12000-00402-030-05_4	Lot 5	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.08	Wharf	South Dakota	Lawrence				
12000-00402-040-06	Lot 6	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.03	Wharf	South Dakota	Lawrence				
16000-00502-360-00_1	Lot 10	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.77	Wharf	South Dakota	Lawrence				
16000-00502-360-00_2	Lot 22	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.01	Wharf	South Dakota	Lawrence				
16000-00502-360-00_3	Lot 23	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.01	Wharf	South Dakota	Lawrence				
26280-00402-040-00	Tract 4 of MS 1704	402				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	1.00	Wharf	South Dakota	Lawrence	1.6125%	Valentine, et al	1.0000%	Metalla Royalty
26280-00561-000-00	War Eagle	561				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00562-000-00	Yukon	562				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.0000%	Royal Gold		
26280-00564-000-00	Gold Eagle	564				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.0000%	Royal Gold		
26280-00675-000-00	General Grant	675				Wharf Resources (USA) Inc.	Patented Lode Claim	8.12	Wharf	South Dakota	Lawrence				
26340-00945-000-90	House only on Monday Lode MS 945	945				Wharf Resources (USA) Inc.	Patented Lode Claim	0.00	Wharf	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26380-01095-000-10_1	Tigress	1095				Wharf Resources (USA) Inc.	Patented Lode Claim	10.04	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01095-000-10_2	Euphrat	1095				Wharf Resources (USA) Inc.	Patented Lode Claim	9.88	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01095-000-10_3	Allowez	1095				Wharf Resources (USA) Inc.	Patented Lode Claim	10.24	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01095-000-20_1	Gentle Annie	1095				Wharf Resources (USA) Inc.	Patented Lode Claim	9.63	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01095-000-20_2	Squaw Creek	1095				Wharf Resources (USA) Inc.	Patented Lode Claim	8.93	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26420-01139-000-40	Ground Hog, Foley, Buffaloe (part)	1139				Wharf Resources (USA) Inc.	Patented Lode Claim	4.31	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26420-01139-000-50	Lot A of Foley	1139				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	0.50	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26420-01139-000-70	Forest Queen	1139				Wharf Resources (USA) Inc.	Patented Lode Claim	2.48	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26420-01141-000-20_1	Saganaw (part outside CUP)	1141				Wharf Resources (USA) Inc.	Patented Lode Claim	0.70	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26420-01141-000-20_2	Camden	1141				Wharf Resources (USA) Inc.	Patented Lode Claim	9.81	Wharf	South Dakota	Lawrence	5.00%	White House Congress		
26420-01141-000-20_3	Georgie	1141				Wharf Resources (USA) Inc.	Patented Lode Claim	9.26	Wharf	South Dakota	Lawrence	5.00%	White House Congress		
26420-01141-000-20_4	Ford	1141				Wharf Resources (USA) Inc.	Patented Lode Claim	9.26	Wharf	South Dakota	Lawrence	5.00%	White House Congress		
26460-01205-000-10	Lot 1-A of MS 1341 & 1205	1205				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	7.13	Wharf	South Dakota	Lawrence				
26460-01205-000-20	Lot 2-A of MS 1341 & 1205	1205				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	3.02	Wharf	South Dakota	Lawrence				
26500-01213-000-10_1	Thora	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	1.99	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26500-01213-000-10_2	Comstock	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	2.89	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-10_3	Red Headed Woman	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	9.08	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-10_4	Red Headed Boy	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	8.98	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-10_5	Red Headed Girl	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	9.34	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-20_1	Lawrence	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	4.75	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-20_2	Red Headed Man	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	9.30	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-20_3	Lost Man	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	9.72	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-20_4	Gold King	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	9.26	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-20_5	Silver King	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	9.51	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-20_6	Mill Site	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	9.51	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-20_7	Pluto Fraction	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	2.04	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-20_8	Odin	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	8.86	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-20_9	Lucky Man	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	6.30	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-20_10	Found Fraction	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	2.55	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-20_11	Liewellen Fraction	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	5.91	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26500-01213-000-20_12	Connecting Link Fraction	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	3.60	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01213-000-20_13	Golden Wedge	1213				Wharf Resources (USA) Inc.	Patented Lode Claim	1.60	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01229-000-10_1	Hidden Ore	1229				Wharf Resources (USA) Inc.	Patented Lode Claim	9.15	Wharf	South Dakota	Lawrence	4.00%	Krejci Kane et al	2.000%	Royal Gold
26540-01229-000-10_2	Saxon	1229				Wharf Resources (USA) Inc.	Patented Lode Claim	9.67	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	4.0000% 2.0000%	Krejci Kane Royal Gold
26540-01229-000-10_3	Delancy	1229				Wharf Resources (USA) Inc.	Patented Lode Claim	9.97	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	4.0000% 2.0000%	Krejci Kane Royal Gold
26540-01229-000-10_4	Coxey Fraction	1229				Wharf Resources (USA) Inc.	Patented Lode Claim	2.90	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01229-000-10_5	Hamden	1229				Wharf Resources (USA) Inc.	Patented Lode Claim	8.16	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01229-000-10_6	Walton	1229				Wharf Resources (USA) Inc.	Patented Lode Claim	7.97	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01229-000-30	Harvey Fraction	1229				Wharf Resources (USA) Inc.	Patented Lode Claim	6.02	Wharf	South Dakota	Lawrence	2.0000%	Royal Gold		
26540-01283-000-30_1	Buffalo	1283				Wharf Resources (USA) Inc.	Patented Lode Claim	8.70	Wharf	South Dakota	Lawrence	5.00%	White House Congress		
26540-01283-000-30_2	Link Fraction	1283				Wharf Resources (USA) Inc.	Patented Lode Claim	6.62	Wharf	South Dakota	Lawrence	5.00%	White House Congress		
26540-01286-000-10	Revenue Fraction No. 2	1286				Wharf Resources (USA) Inc.	Patented Lode Claim	2.76	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26540-01286-000-20	Revenue Fraction No. 1	1286				Wharf Resources (USA) Inc.	Patented Lode Claim	1.96	Wharf	South Dakota	Lawrence				
26540-01288-000-20	Cardinal	1288				Wharf Resources (USA) Inc.	Patented Lode Claim	7.99	Wharf	South Dakota	Lawrence	5.00%	White House Congress	2.0000%	Royal Gold

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26580-01310-000-00_1	Desire No. 1 (part)	1310				Wharf Resources (USA) Inc.	Patented Lode Claim	0.93	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01310-000-00_2	Desire No. 2 (part)	1310				Wharf Resources (USA) Inc.	Patented Lode Claim	3.08	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01310-000-00_3	Hattie, Lost Camp and Minnesota Maid exc lots	1310				Wharf Resources (USA) Inc.	Patented Lode Claim	0.89	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01335-000-15	Gertrude Fraction	1335				Wharf Resources (USA) Inc.	Patented Lode Claim	2.61	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01340-000-00	Ontario	1340				Wharf Resources (USA) Inc.	Patented Lode Claim	6.01	Wharf	South Dakota	Lawrence				
26580-01341-000-10_1	Apex	1341				Wharf Resources (USA) Inc.	Patented Lode Claim	5.87	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01341-000-10_2	Argentine	1341				Wharf Resources (USA) Inc.	Patented Lode Claim	7.00	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01341-000-10_3	Golden (part)	1341				Wharf Resources (USA) Inc.	Patented Lode Claim	4.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01341-000-10_4	Star (part)	1341				Wharf Resources (USA) Inc.	Patented Lode Claim	4.31	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01341-000-30	50'X500' Parcel, MS 1341 & 1205	1341				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	0.55	Wharf	South Dakota	Lawrence				
26580-01378-000-00_1	Tibo	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	10.05	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_2	Alleta	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	9.89	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_3	Berta	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	9.73	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_4	Golconda	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	9.05	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_5	Yantic	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	9.85	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26580-01378-000-00_6	Eclipse	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	6.68	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_7	Bancroft	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	9.16	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_8	Little Chief	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	9.20	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_9	McKenzie	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	9.12	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_10	Summit	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	8.45	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_11	Summit Fraction	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	1.98	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_12	Little Eagle	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	10.26	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_13	Perry	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	9.38	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_14	Long Valley No. 1	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	8.16	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_15	Long Valley No. 3	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	6.65	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_16	Galena Fraction	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	1.21	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_17	Galena	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	9.37	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_18	Porcupine	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	9.58	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01378-000-00_19	Blue Jay	1378				Wharf Resources (USA) Inc.	Patented Lode Claim	9.60	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01384-000-20_1	Bath	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	13.27	Wharf	South Dakota	Lawrence				

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26580-01384-000-20_2	St. Croix	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	15.59	Wharf	South Dakota	Lawrence				
26580-01384-000-20_3	Havana	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	18.42	Wharf	South Dakota	Lawrence				
26580-01384-000-20_4	Cawnpore	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	18.55	Wharf	South Dakota	Lawrence				
26580-01384-000-20_5	Osaka	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	14.97	Wharf	South Dakota	Lawrence				
26580-01384-000-20_6	Ghent	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	11.66	Wharf	South Dakota	Lawrence				
26580-01384-000-20_7	Owls Roost	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	14.07	Wharf	South Dakota	Lawrence				
26580-01384-000-20_8	Boulders	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	12.44	Wharf	South Dakota	Lawrence				
26580-01384-000-20_9	Al Borak	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	1.83	Wharf	South Dakota	Lawrence				
26580-01384-000-20_10	Sometimes	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	17.34	Wharf	South Dakota	Lawrence				
26580-01384-000-20_11	Sardona	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	15.44	Wharf	South Dakota	Lawrence				
26580-01384-000-20_12	Blue Crow	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	7.85	Wharf	South Dakota	Lawrence				
26580-01384-000-20_13	Moscow	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	2.32	Wharf	South Dakota	Lawrence				
26580-01384-000-20_14	On Guard	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	18.15	Wharf	South Dakota	Lawrence				
26580-01384-000-20_15	Old Iron Sides	1384				Wharf Resources (USA) Inc.	Patented Lode Claim	15.13	Wharf	South Dakota	Lawrence				
26620-01413-000-40_1	Spotted Pike	1413				Wharf Resources (USA) Inc.	Patented Lode Claim	11.31	Wharf	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26620-01413-000-40_2	Fair Day	1413				Wharf Resources (USA) Inc.	Patented Lode Claim	17.76	Wharf	South Dakota	Lawrence				
26620-01413-000-40_3	Ohio	1413				Wharf Resources (USA) Inc.	Patented Lode Claim	17.32	Wharf	South Dakota	Lawrence				
26620-01413-000-40_4	Coolgarde	1413				Wharf Resources (USA) Inc.	Patented Lode Claim	20.09	Wharf	South Dakota	Lawrence				
26620-01419-000-10	Burlap	1419				Wharf Resources (USA) Inc.	Patented Lode Claim	7.99	Wharf	South Dakota	Lawrence				
26620-01419-000-20	Paystreak No. 3 exc Lot 2	1419				Wharf Resources (USA) Inc.	Patented Lode Claim	1.28	Wharf	South Dakota	Lawrence				
26620-01419-000-30	Lot 2 of Paystreak No. 3	1419				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	1.80	Wharf	South Dakota	Lawrence				
26620-01419-000-40	Paystreak No. 2	1419				Wharf Resources (USA) Inc.	Patented Lode Claim	7.99	Wharf	South Dakota	Lawrence				
26620-01419-000-50	Paystreak	1419				Wharf Resources (USA) Inc.	Patented Lode Claim	7.06	Wharf	South Dakota	Lawrence				
26620-01427-000-00_1	Gault No. 1	1427				Wharf Resources (USA) Inc.	Patented Lode Claim	20.00	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26620-01427-000-00_2	Gault No. 4	1427				Wharf Resources (USA) Inc.	Patented Lode Claim	12.07	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26620-01427-000-00_3	Gault No. 5	1427				Wharf Resources (USA) Inc.	Patented Lode Claim	12.19	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26620-01427-000-00_4	Gault No. 6	1427				Wharf Resources (USA) Inc.	Patented Lode Claim	14.49	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26620-01431-000-00_1	Aztec No. 1	1431				Wharf Resources (USA) Inc.	Patented Lode Claim	18.77	Wharf	South Dakota	Lawrence				
26620-01431-000-00_2	Aztec No. 2	1431				Wharf Resources (USA) Inc.	Patented Lode Claim	18.10	Wharf	South Dakota	Lawrence				
26620-01431-000-00_3	Aztec No. 3	1431				Wharf Resources (USA) Inc.	Patented Lode Claim	10.85	Wharf	South Dakota	Lawrence				

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26620-01438-000-00	McCullum Millsite	1438				Wharf Resources (USA) Inc.	Patented Lode Claim	3.66	Wharf	South Dakota	Lawrence				
26620-01451-000-10	Blanch E	1451				Wharf Resources (USA) Inc.	Patented Lode Claim	17.67	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01451-000-20_1	May E	1451				Wharf Resources (USA) Inc.	Patented Lode Claim	20.50	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01451-000-20_2	Nellie M	1451				Wharf Resources (USA) Inc.	Patented Lode Claim	14.83	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01451-000-20_3	Ruth	1451				Wharf Resources (USA) Inc.	Patented Lode Claim	11.10	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01451-000-20_4	Nettie C	1451				Wharf Resources (USA) Inc.	Patented Lode Claim	19.60	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01453-000-00	Dolphin	1453				Wharf Resources (USA) Inc.	Patented Lode Claim	13.20	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01475-000-00_1	Little Allen	1475				Wharf Resources (USA) Inc.	Patented Lode Claim	16.35	Wharf	South Dakota	Lawrence				
26620-01475-000-00_2	Baby	1475				Wharf Resources (USA) Inc.	Patented Lode Claim	19.50	Wharf	South Dakota	Lawrence				
26620-01475-000-00_3	Little Robbie	1475				Wharf Resources (USA) Inc.	Patented Lode Claim	9.26	Wharf	South Dakota	Lawrence				
26620-01475-000-00_4	Little Darling	1475				Wharf Resources (USA) Inc.	Patented Lode Claim	9.42	Wharf	South Dakota	Lawrence				
26620-01515-000-00	Wandering Jew	1515				Wharf Resources (USA) Inc.	Patented Lode Claim	9.60	Wharf	South Dakota	Lawrence				
26620-01536-000-20_1	Francis (pt)	1536				Wharf Resources (USA) Inc.	Patented Lode Claim	1.64	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01536-000-20_2	Rambler (pt)	1536				Wharf Resources (USA) Inc.	Patented Lode Claim	1.10	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01536-000-20_3	Madeline (pt)	1536				Wharf Resources (USA) Inc.	Patented Lode Claim	3.17	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26680-01567-000-10	Daisy Fraction	1567				Wharf Resources (USA) Inc.	Patented Lode Claim	1.59	Wharf	South Dakota	Lawrence				
26680-01581-000-10_1	Modoc (part outside CUP boundary)	1581				Wharf Resources (USA) Inc.	Patented Lode Claim	9.21	Wharf	South Dakota	Lawrence	2.00%	Royal Gold		
26680-01581-000-10_2	Paddy Ford Fraction	1581				Wharf Resources (USA) Inc.	Patented Lode Claim	4.51	Wharf	South Dakota	Lawrence	4.00%	Krejci, Kane, et al	2.00%	Royal Gold
26680-01616-000-10	Lot 2 of Lomie	1616				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	1.50	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01616-000-20	Lot 3 of Lomie	1616				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	1.52	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01616-000-40_1	Lot 1 of Lomie	1616				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	3.40	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01616-000-40_2	Lot 4 of Lomie	1616				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	3.03	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01616-000-40_3	Lot 5 of Lomie	1616				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	2.25	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01616-000-50	Thusnelda	1616				Wharf Resources (USA) Inc.	Patented Lode Claim	7.78	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01616-000-70_1	Phonolite	1616				Wharf Resources (USA) Inc.	Patented Lode Claim	4.87	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01616-000-70_2	Trenton	1616				Wharf Resources (USA) Inc.	Patented Lode Claim	20.52	Wharf	South Dakota	Lawrence				
26680-01659-000-10	Bad Tale Fraction	1657				Wharf Resources (USA) Inc.	Patented Lode Claim	11.01	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26680-01670-000-10	Camp Bird	1670				Wharf Resources (USA) Inc.	Patented Lode Claim	20.41	Wharf	South Dakota	Lawrence				
26680-01670-000-20_1	Log Cabin	1670				Wharf Resources (USA) Inc.	Patented Lode Claim	20.06	Wharf	South Dakota	Lawrence				
26680-01670-000-20_2	Denver	1670				Wharf Resources (USA) Inc.	Patented Lode Claim	18.72	Wharf	South Dakota	Lawrence				

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26680-01670-000-20_3	Grainger	1670				Wharf Resources (USA) Inc.	Patented Lode Claim	9.90	Wharf	South Dakota	Lawrence				
26680-01670-000-20_4	Allentown	1670				Wharf Resources (USA) Inc.	Patented Lode Claim	10.32	Wharf	South Dakota	Lawrence				
26680-01684-000-00	Plum Fraction	1684				Wharf Resources (USA) Inc.	Patented Lode Claim	1.32	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26720-01760-000-00	Dump	1760				Wharf Resources (USA) Inc.	Patented Lode Claim	9.81	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26760-01782-000-00_1	Marco Polo	1782				Wharf Resources (USA) Inc.	Patented Lode Claim	17.22	Wharf	South Dakota	Lawrence				
26760-01782-000-00_2	Bald Hill	1782				Wharf Resources (USA) Inc.	Patented Lode Claim	17.16	Wharf	South Dakota	Lawrence				
26760-01782-000-00_3	Saturday	1782				Wharf Resources (USA) Inc.	Patented Lode Claim	20.30	Wharf	South Dakota	Lawrence				
26760-01782-000-00_4	April	1782				Wharf Resources (USA) Inc.	Patented Lode Claim	17.14	Wharf	South Dakota	Lawrence				
26760-01786-000-10	Acme	1786				Wharf Resources (USA) Inc.	Patented Lode Claim	13.09	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26760-01790-000-00_1	Remo	1790				Wharf Resources (USA) Inc.	Patented Lode Claim	20.35	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26760-01790-000-00_2	Hector	1790				Wharf Resources (USA) Inc.	Patented Lode Claim	9.24	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26760-01790-000-00_3	Russell	1790				Wharf Resources (USA) Inc.	Patented Lode Claim	20.53	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26760-01790-000-00_4	Laborn No. 1	1790				Wharf Resources (USA) Inc.	Patented Lode Claim	14.75	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26760-01790-000-00_5	Calumet	1790				Wharf Resources (USA) Inc.	Patented Lode Claim	10.32	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26760-01795-000-10_1	Victor	1795				Wharf Resources (USA) Inc.	Patented Lode Claim	10.09	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26760-01795-000-10_2	Point	1795				Wharf Resources (USA) Inc.	Patented Lode Claim	20.66	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26760-01803-000-00_1	Bayou	1803				Wharf Resources (USA) Inc.	Patented Lode Claim	11.03	Wharf	South Dakota	Lawrence				
26760-01803-000-00_2	Eagle Fraction	1803				Wharf Resources (USA) Inc.	Patented Lode Claim	2.45	Wharf	South Dakota	Lawrence				
26760-01803-000-00_3	Eagle	1803				Wharf Resources (USA) Inc.	Patented Lode Claim	14.68	Wharf	South Dakota	Lawrence				
26760-01803-000-00_4	Texana	1803				Wharf Resources (USA) Inc.	Patented Lode Claim	8.09	Wharf	South Dakota	Lawrence				
26760-01803-000-00_5	Meteor	1803				Wharf Resources (USA) Inc.	Patented Lode Claim	11.36	Wharf	South Dakota	Lawrence				
26760-01803-000-00_6	Rocket	1803				Wharf Resources (USA) Inc.	Patented Lode Claim	9.68	Wharf	South Dakota	Lawrence				
26760-01844-000-00	Rochester	1844				Wharf Resources (USA) Inc.	Patented Lode Claim	17.12	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26760-01848-000-00	Myrtle	1848				Wharf Resources (USA) Inc.	Patented Lode Claim	17.29	Wharf	South Dakota	Lawrence				
26760-01875-000-10_1	Norwich	1875				Wharf Resources (USA) Inc.	Patented Lode Claim	17.54	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26760-01875-000-10_2	Gossan Fraction	1875				Wharf Resources (USA) Inc.	Patented Lode Claim	4.88	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26760-01875-000-10_3	Gossan (part)	1875				Wharf Resources (USA) Inc.	Patented Lode Claim	17.75	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01939-000-00_1	Caeser	1939				Wharf Resources (USA) Inc.	Patented Lode Claim	19.81	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01939-000-00_2	Plunger	1939				Wharf Resources (USA) Inc.	Patented Lode Claim	9.82	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01939-000-00_3	Non Plus Ultra	1939				Wharf Resources (USA) Inc.	Patented Lode Claim	8.09	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26840-01942-000-30_1	Busby exc Tract C	1942				Wharf Resources (USA) Inc.	Patented Lode Claim	3.28	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01942-000-30_2	Washington exc Tract C	1942				Wharf Resources (USA) Inc.	Patented Lode Claim	14.68	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01942-000-30_3	Heritage exc Tracts G & F	1942				Wharf Resources (USA) Inc.	Patented Lode Claim	7.00	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01942-000-30_4	Belle Plane	1942				Wharf Resources (USA) Inc.	Patented Lode Claim	20.64	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01946-000-00_1	Freshett	1946				Wharf Resources (USA) Inc.	Patented Lode Claim	11.13	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26840-01946-000-00_2	No Bagatelle	1946				Wharf Resources (USA) Inc.	Patented Lode Claim	14.04	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26840-01946-000-00_3	Slip Fraction No. 1	1946				Wharf Resources (USA) Inc.	Patented Lode Claim	5.05	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26840-01946-000-00_4	Meerschendals	1946				Wharf Resources (USA) Inc.	Patented Lode Claim	11.21	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26840-01946-000-00_5	Goldsmith Maid	1946				Wharf Resources (USA) Inc.	Patented Lode Claim	11.38	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26840-01946-000-00_6	Montesuma	1946				Wharf Resources (USA) Inc.	Patented Lode Claim	9.10	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26840-01946-000-00_7	Frankfurt	1946				Wharf Resources (USA) Inc.	Patented Lode Claim	7.71	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26840-01946-000-00_8	Bavaria	1946				Wharf Resources (USA) Inc.	Patented Lode Claim	11.70	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26840-01955-000-36	Arizona including Lots A-1 & A-2	1955				Wharf Resources (USA) Inc.	Patented Lode Claim	16.95	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01955-000-54_1	Wall	1955				Wharf Resources (USA) Inc.	Patented Lode Claim	13.84	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01955-000-54_2	Harrison	1955				Wharf Resources (USA) Inc.	Patented Lode Claim	8.32	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26840-01955-000-54_3	Morton	1955				Wharf Resources (USA) Inc.	Patented Lode Claim	14.76	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01960-000-00	Robert Emmett	1960				Wharf Resources (USA) Inc.	Patented Lode Claim	15.30	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	5.0000% 2.0000%	WH Con. Royal Gold
26840-01962-000-00	Silver King	1962				Wharf Resources (USA) Inc.	Patented Lode Claim	18.06	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01970-000-60	November	1970				Wharf Resources (USA) Inc.	Patented Lode Claim	11.93	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01970-000-70_1	July	1970				Wharf Resources (USA) Inc.	Patented Lode Claim	7.65	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01970-000-70_2	August	1970				Wharf Resources (USA) Inc.	Patented Lode Claim	16.50	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01970-000-70_3	Mollie Dare	1970				Wharf Resources (USA) Inc.	Patented Lode Claim	8.21	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01979-000-10_1	Imperial	1979				Wharf Resources (USA) Inc.	Patented Lode Claim	19.12	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01979-000-10_2	Queen	1979				Wharf Resources (USA) Inc.	Patented Lode Claim	18.10	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01979-000-10_3	Princess	1979				Wharf Resources (USA) Inc.	Patented Lode Claim	9.22	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01979-000-10_4	Crown	1979				Wharf Resources (USA) Inc.	Patented Lode Claim	19.26	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02006-000-00	Margurite No. 2	2006				Wharf Resources (USA) Inc.	Patented Lode Claim	14.27	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02021-000-10	Lot A of Clarence exc Lot 1 Rev	2021				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	2.08	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02021-000-15_1	Mother (part)	2021				Wharf Resources (USA) Inc.	Patented Lode Claim	12.26	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02021-000-15_2	Little Barefoot (part)	2021				Wharf Resources (USA) Inc.	Patented Lode Claim	4.58	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26880-02021-000-35_1	Belle Fraction	2021				Wharf Resources (USA) Inc.	Patented Lode Claim	8.73	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02021-000-35_2	Rope Fraction	2021				Wharf Resources (USA) Inc.	Patented Lode Claim	2.32	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02044-000-20	Tessa (part)	2044				Wharf Resources (USA) Inc.	Patented Lode Claim	0.30	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02050-000-00_1	Comet (part)	2050				Wharf Resources (USA) Inc.	Patented Lode Claim	0.98	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02050-000-00_2	Comet No. 1 (part)	2050				Wharf Resources (USA) Inc.	Patented Lode Claim	9.24	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02060-000-00	Pewabic	2060				Wharf Resources (USA) Inc.	Patented Lode Claim	16.56	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02066-000-10	Milton Fraction (part)	2066				Wharf Resources (USA) Inc.	Patented Lode Claim	5.70	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02074-000-10	Lillie M.	2074				Wharf Resources (USA) Inc.	Patented Lode Claim	17.30	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02074-000-30	Lillie M. No. 1	2074				Wharf Resources (USA) Inc.	Patented Lode Claim	7.16	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26920-00001-004-31	Lot 31 Block 4					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	0.37	Wharf	South Dakota	Lawrence				
26920-00001-005-01	Lots 1, 2, 3, 6, 7, 8, Pt 9, 16 of Block 5					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	5.04	Wharf	South Dakota	Lawrence				
26920-00001-008-29	Lots 29, 20, 31, 32, 33, 34, 35 of Block 9					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	2.61	Wharf	South Dakota	Lawrence				
26920-00001-009-01	Lots 1 thru 13, Lots 16 thru 29 of Block 9					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	12.14	Wharf	South Dakota	Lawrence				
26920-00001-010-01	Lots 1 thru 25 of Block 10					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	10.77	Wharf	South Dakota	Lawrence				
26920-00001-011-01	Lots 1 thru 12 of Block 11					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	5.23	Wharf	South Dakota	Lawrence				

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26920-00001-012-04	Lots 4, 8, 9 of Block 12					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	1.32	Wharf	South Dakota	Lawrence				
26930-00201-010-00	Lots 1 thru 6 of Block 1					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	3.72	Wharf	South Dakota	Lawrence				
26930-00202-060-00	Lots 6, 7, 8 of Block 2					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	6.00	Wharf	South Dakota	Lawrence				
26940-00003-001-02	Lots 1, 2 of Block 1					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	0.82	Wharf	South Dakota	Lawrence				
26940-00003-001-03	Lot 3 of Block 1					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	0.39	Wharf	South Dakota	Lawrence				
26940-00003-002-68	Lots 68, 69 of Block 2					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	1.31	Wharf	South Dakota	Lawrence				
26940-00005-000-50	Tract F					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	2.30	Wharf	South Dakota	Lawrence				
26940-00005-000-60	Tract G					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	6.71	Wharf	South Dakota	Lawrence				
31425-00700-002-00	LOT 2 BLK 7 HEARST SUB.					Wharf Resources (USA) Inc.	Tract or Parcel (Fee)		Wharf	South Dakota	Lawrence				
12000-00402-010-00_1	Lot 7	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	3.25	Wharf	South Dakota	Lawrence				
12000-00402-010-00_2	Lot 25	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.01	Wharf	South Dakota	Lawrence				
12000-00402-020-00	Lot 1	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.06	Wharf	South Dakota	Lawrence				
12000-00402-020-10_1	Lot 2	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.47	Wharf	South Dakota	Lawrence				
12000-00402-020-10_2	Lot 3	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	2.09	Wharf	South Dakota	Lawrence				
12000-00402-020-10_3	Lot 4	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.05	Wharf	South Dakota	Lawrence				

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12000-00402-020-10_4	Lot 5	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	1.38	Wharf	South Dakota	Lawrence				
12000-00402-020-10_5	Lot 7	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.25	Wharf	South Dakota	Lawrence				
12000-00402-020-10_6	Lot 8	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	1.98	Wharf	South Dakota	Lawrence				
12000-00402-020-10_7	Lot 10	402				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.02	Wharf	South Dakota	Lawrence				
16000-00502-340-00_1	Lot 8	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.08	Wharf	South Dakota	Lawrence				
16000-00502-340-00_2	Lot 9	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.09	Wharf	South Dakota	Lawrence				
16000-00502-340-00_3	Lot 10	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.11	Wharf	South Dakota	Lawrence				
16000-00502-340-00_4	Lot 11	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	1.37	Wharf	South Dakota	Lawrence				
16000-00502-340-00_5	Lot 12	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.03	Wharf	South Dakota	Lawrence				
16000-00502-340-00_6	Lot 13	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.01	Wharf	South Dakota	Lawrence				
16000-00502-340-00_7	Lot 14	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.07	Wharf	South Dakota	Lawrence				
16000-00502-340-00_8	Lot 15	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.02	Wharf	South Dakota	Lawrence				
16000-00502-340-00_9	Lot 16	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.01	Wharf	South Dakota	Lawrence				
16000-00502-350-00_1	Lot 1	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.44	Wharf	South Dakota	Lawrence				
16000-00502-350-00_2	Lot 5	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.10	Wharf	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
16000-00502-350-00_3	Lot 6	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.10	Wharf	South Dakota	Lawrence				
16000-00502-350-00_4	Lot 8	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	1.05	Wharf	South Dakota	Lawrence				
16000-00502-350-00_5	Lot 9	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.12	Wharf	South Dakota	Lawrence				
16000-00502-350-00_6	Lot 10	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	0.01	Wharf	South Dakota	Lawrence				
16000-00502-350-07	Lot 7	502				Wharf Resources (USA) Inc.	Government Lot or Block (Fee)	1.86	Wharf	South Dakota	Lawrence				
26280-00195-000-00	Decorah	195				Wharf Resources (USA) Inc.	Patented Lode Claim	10.21	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00330-000-00	Portland	330				Wharf Resources (USA) Inc.	Patented Lode Claim	8.66	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00331-000-00	Gustavus	331				Wharf Resources (USA) Inc.	Patented Lode Claim	8.20	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00332-000-00	Paragon	332				Wharf Resources (USA) Inc.	Patented Lode Claim	9.05	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00351-000-00_1	Silver Plume exc pt in Tract 11	351				Wharf Resources (USA) Inc.	Patented Lode Claim	5.16	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00356-000-00	Folger	356				Wharf Resources (USA) Inc.	Patented Lode Claim	9.74	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00357-000-00	Empire State	357				Wharf Resources (USA) Inc.	Patented Lode Claim	9.65	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00358-000-00	Perserverance	358				Wharf Resources (USA) Inc.	Patented Lode Claim	3.50	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00359-000-00	Indispensible	359				Wharf Resources (USA) Inc.	Patented Lode Claim	5.86	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00360-000-00	Olive	360				Wharf Resources (USA) Inc.	Patented Lode Claim	0.96	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26280-00361-000-20	Trojan	361				Wharf Resources (USA) Inc.	Patented Lode Claim	6.25	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00378-000-10	Mark Twain exc Lot U	378				Wharf Resources (USA) Inc.	Patented Lode Claim	9.87	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00397-000-00	Alameda	397				Wharf Resources (USA) Inc.	Patented Lode Claim	3.23	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00398-000-00	Alameda Extension	398				Wharf Resources (USA) Inc.	Patented Lode Claim	5.36	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00402-000-00_1	Sante Fe exc pt in Tracts 5 and 11	402				Wharf Resources (USA) Inc.	Patented Lode Claim	2.67	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00472-000-20	Mound	472				Wharf Resources (USA) Inc.	Patented Lode Claim	9.55	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00558-000-00	India	558				Wharf Resources (USA) Inc.	Patented Lode Claim	8.55	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00559-000-00	Japan	559				Wharf Resources (USA) Inc.	Patented Lode Claim	8.55	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00560-000-00	Pappoose	560				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00563-000-00	Goodenough	563				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00565-000-00	Marco Polo	565				Wharf Resources (USA) Inc.	Patented Lode Claim	10.26	Wharf	South Dakota	Lawrence	5.00%	White House Congress	2.00%	Royal Gold
26280-00566-000-00	Algoma	566				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	5.00%	White House Congress	2.00%	Royal Gold
26340-00793-000-00_1	Little Snowdrop	793				Wharf Resources (USA) Inc.	Patented Lode Claim	7.77	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00793-000-00_2	Dividend	793				Wharf Resources (USA) Inc.	Patented Lode Claim	9.60	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00793-000-00_3	Hector	793				Wharf Resources (USA) Inc.	Patented Lode Claim	1.74	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26340-00866-000-00	Dark Horse	866				Wharf Resources (USA) Inc.	Patented Lode Claim	5.46	Wharf	South Dakota	Lawrence	1.50%	Mountain View Heights		
26340-00898-000-00	Hardscrabble and Vulgar exc pt in Tract B	898				Wharf Resources (USA) Inc.	Patented Lode Claim	3.61	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-25_1	Red Flag	902				Wharf Resources (USA) Inc.	Patented Lode Claim	9.19	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-25_2	Horseshoe	902				Wharf Resources (USA) Inc.	Patented Lode Claim	8.00	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-25_3	Horseshoe Fraction	902				Wharf Resources (USA) Inc.	Patented Lode Claim	5.20	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00914-000-10	North	914				Wharf Resources (USA) Inc.	Patented Lode Claim	8.91	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00915-000-00	Bristol Fraction	915				Wharf Resources (USA) Inc.	Patented Lode Claim	0.87	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00915-000-10_1	Ashland	915				Wharf Resources (USA) Inc.	Patented Lode Claim	9.81	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00915-000-10_2	Norman	915				Wharf Resources (USA) Inc.	Patented Lode Claim	9.45	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00915-000-10_3	Boston	915				Wharf Resources (USA) Inc.	Patented Lode Claim	9.81	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00915-000-10_4	Providence	915				Wharf Resources (USA) Inc.	Patented Lode Claim	8.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00916-000-10_1	Jessie Lee	916				Wharf Resources (USA) Inc.	Patented Lode Claim	3.02	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00916-000-10_2	Leopard	916				Wharf Resources (USA) Inc.	Patented Lode Claim	2.26	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00944-000-00	Baltimore	944				Wharf Resources (USA) Inc.	Patented Lode Claim	10.15	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00945-000-10_1	Reindeer	945				Wharf Resources (USA) Inc.	Patented Lode Claim	6.44	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26340-00945-000-10_2	Ofer Fraction	945				Wharf Resources (USA) Inc.	Patented Lode Claim	7.27	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00945-000-10_3	Monday	945				Wharf Resources (USA) Inc.	Patented Lode Claim	5.41	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00978-000-00	Beaver Fraction	978				Wharf Resources (USA) Inc.	Patented Lode Claim	3.06	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00979-000-00	Burlington	979				Wharf Resources (USA) Inc.	Patented Lode Claim	4.08	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00996-000-00_1	Apex	996				Wharf Resources (USA) Inc.	Patented Lode Claim	2.17	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00996-000-00_2	Northerly Segregated Burlington	996				Wharf Resources (USA) Inc.	Patented Lode Claim	1.90	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-01013-000-00_1	Missouri	1013				Wharf Resources (USA) Inc.	Patented Lode Claim	9.44	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-01013-000-00_2	Gold Hill Fraction	1013				Wharf Resources (USA) Inc.	Patented Lode Claim	1.48	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-01013-000-00_3	Middle Fraction	1013				Wharf Resources (USA) Inc.	Patented Lode Claim	3.46	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-01016-000-00_1	Annie	1016				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26340-01016-000-00_2	Annie Fraction	1016				Wharf Resources (USA) Inc.	Patented Lode Claim	1.47	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26340-01016-000-00_3	Josie	1016				Wharf Resources (USA) Inc.	Patented Lode Claim	5.05	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26340-01016-000-00_4	Josie Fraction	1016				Wharf Resources (USA) Inc.	Patented Lode Claim	0.89	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26340-01016-000-00_5	Katy	1016				Wharf Resources (USA) Inc.	Patented Lode Claim	10.28	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26380-01041-000-00	Last Fraction	1041				Wharf Resources (USA) Inc.	Patented Lode Claim	1.17	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26380-01079-000-10_1	Keed	1079				Wharf Resources (USA) Inc.	Patented Lode Claim	5.48	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26380-01079-000-10_2	Mary	1079				Wharf Resources (USA) Inc.	Patented Lode Claim	8.87	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01104-000-10	Yukon	1104				Wharf Resources (USA) Inc.	Patented Lode Claim	5.57	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01104-000-20	Ajax	1104				Wharf Resources (USA) Inc.	Patented Lode Claim	8.96	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01104-000-30_1	Ajax No. 2	1104				Wharf Resources (USA) Inc.	Patented Lode Claim	5.99	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01104-000-30_2	Orinoco Fraction	1104				Wharf Resources (USA) Inc.	Patented Lode Claim	2.57	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01104-000-30_3	Atlas	1104				Wharf Resources (USA) Inc.	Patented Lode Claim	4.24	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01107-000-00_1	Elk Mountain Group No. 1	1107				Wharf Resources (USA) Inc.	Patented Lode Claim	10.31	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01107-000-00_2	Elk Mountain Group No. 2	1107				Wharf Resources (USA) Inc.	Patented Lode Claim	10.31	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01107-000-00_3	Elk Mountain Group No. 3	1107				Wharf Resources (USA) Inc.	Patented Lode Claim	10.31	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01107-000-10	Elk Mountain Group No. 3 (part)	1107				Wharf Resources (USA) Inc.	Patented Lode Claim	10.31	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01117-000-00_1	Keystone	1117				Wharf Resources (USA) Inc.	Patented Lode Claim	7.25	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26380-01117-000-00_2	Bunker Hill	1117				Wharf Resources (USA) Inc.	Patented Lode Claim	6.56	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26380-01117-000-00_3	Bunker Hill Fraction	1117				Wharf Resources (USA) Inc.	Patented Lode Claim	0.13	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26420-01141-000-10	Saganaw (part in CUP)	1141				Wharf Resources (USA) Inc.	Patented Lode Claim	6.68	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	5.00%	White House Congress

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26460-01172-000-00	Katie Putnam exc Tracts 8 & 10	1172				Wharf Resources (USA) Inc.	Patented Lode Claim	7.00	Wharf	South Dakota	Lawrence				
26460-01173-000-00_1	North Side exc Tracts 8 & 10	1173				Wharf Resources (USA) Inc.	Patented Lode Claim	6.60	Wharf	South Dakota	Lawrence				
26460-01175-000-10	Ingham	1175				Wharf Resources (USA) Inc.	Patented Lode Claim	10.01	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26460-01175-000-10_1	Winnesheik	1175				Wharf Resources (USA) Inc.	Patented Lode Claim	9.94	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26460-01175-000-20_2	File Closer Fraction	1175				Wharf Resources (USA) Inc.	Patented Lode Claim	2.54	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26460-01189-000-10_1	Rudolph	1189				Wharf Resources (USA) Inc.	Patented Lode Claim	9.78	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26460-01189-000-10_2	Costello	1189				Wharf Resources (USA) Inc.	Patented Lode Claim	3.88	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26460-01189-000-10_3	Dolphin	1189				Wharf Resources (USA) Inc.	Patented Lode Claim	7.51	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26500-01214-000-00	Peggie	1214				Wharf Resources (USA) Inc.	Patented Lode Claim	4.64	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01226-000-10	Red Wing exc Lots 1-2-4 and M&B	1226				Wharf Resources (USA) Inc.	Patented Lode Claim	3.93	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.00%	Carlson
26540-01226-000-20	Huxley, exc Lots 1-2-4, Block 5 (M&B)	1226				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	5.03	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01226-000-25	Wenona	1226				Wharf Resources (USA) Inc.	Patented Lode Claim	2.30	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01226-000-32_1	Lasalle exc Lots 1-2-4 and M&B	1226				Wharf Resources (USA) Inc.	Patented Lode Claim	5.77	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01226-000-32_2	Lasalle Fraction	1226				Wharf Resources (USA) Inc.	Patented Lode Claim	2.26	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01226-000-40	M&B of Huxley, Lasalle, Redwing	1226				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	0.75	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26540-01226-000-45_1	Austin	1226				Wharf Resources (USA) Inc.	Patented Lode Claim	9.97	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01226-000-45_2	Tacqua	1226				Wharf Resources (USA) Inc.	Patented Lode Claim	2.72	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01226-000-45_5	Austin Fraction	1226				Wharf Resources (USA) Inc.	Patented Lode Claim	1.94	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01226-000-50_1	Rutland	1226				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	7.55	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01226-000-50_2	Halford	1226				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	7.80	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01226-000-60	Lots 1-2-4 of Block 5 MS 1226 and 2027	1226				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	2.37	Wharf	South Dakota	Lawrence				
26540-01229-000-25_1	High Tarriff exc Lot A	1229				Wharf Resources (USA) Inc.	Patented Lode Claim	6.37	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01229-000-25_2	Maud	1229				Wharf Resources (USA) Inc.	Patented Lode Claim	3.31	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01229-000-25_3	Eagle Chief	1229				Wharf Resources (USA) Inc.	Patented Lode Claim	10.32	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01233-000-10_1	General Jackson	1233				Wharf Resources (USA) Inc.	Patented Lode Claim	5.46	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01233-000-10_2	Diamond Fraction	1233				Wharf Resources (USA) Inc.	Patented Lode Claim	2.98	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01233-000-20	Callebogie Fraction	1233				Wharf Resources (USA) Inc.	Patented Lode Claim	4.20	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01233-000-30	Callebogie	1233				Wharf Resources (USA) Inc.	Patented Lode Claim	6.34	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01272-000-00_1	Sunset	1272				Wharf Resources (USA) Inc.	Patented Lode Claim	5.11	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26540-01272-000-00_2	Rainy Day	1272				Wharf Resources (USA) Inc.	Patented Lode Claim	2.51	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26540-01283-000-10	May	1283				Wharf Resources (USA) Inc.	Patented Lode Claim	10.32	Wharf	South Dakota	Lawrence	5.00%	White House Congress		
26540-01283-000-20	Deadwood	1283				Wharf Resources (USA) Inc.	Patented Lode Claim	10.32	Wharf	South Dakota	Lawrence	5.00%	White House Congress		
26540-01292-000-10	Senator	1292				Wharf Resources (USA) Inc.	Patented Lode Claim	6.89	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01292-000-20	Gold Bug Fraction	1292				Wharf Resources (USA) Inc.	Patented Lode Claim	3.17	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01349-000-00	James G. Blain	1349				Wharf Resources (USA) Inc.	Patented Lode Claim	13.15	Wharf	South Dakota	Lawrence	5.00%	White House Congress		
26620-01404-000-10_1	Gunnison	1404				Wharf Resources (USA) Inc.	Patented Lode Claim	7.49	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01404-000-10_2	Vulcan exc Lot 1	1404				Wharf Resources (USA) Inc.	Patented Lode Claim	8.77	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01404-000-20	Lot 1 of Vulcan	1404				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	8.83	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01428-000-10_1	Wedge	1428				Wharf Resources (USA) Inc.	Patented Lode Claim	10.55	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01428-000-10_2	Jim	1428				Wharf Resources (USA) Inc.	Patented Lode Claim	16.66	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01428-000-10_3	Joseph	1428				Wharf Resources (USA) Inc.	Patented Lode Claim	15.08	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01428-000-10_4	Yellow Boy Fraction	1428				Wharf Resources (USA) Inc.	Patented Lode Claim	1.74	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01428-000-10_5	Little Rock	1428				Wharf Resources (USA) Inc.	Patented Lode Claim	9.46	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01429-000-20_1	Mono	1429				Wharf Resources (USA) Inc.	Patented Lode Claim	16.22	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01429-000-20_2	Tiger	1429				Wharf Resources (USA) Inc.	Patented Lode Claim	13.84	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26620-01429-000-20_3	Rehl	1429				Wharf Resources (USA) Inc.	Patented Lode Claim	14.90	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01429-000-20_4	Lucy	1429				Wharf Resources (USA) Inc.	Patented Lode Claim	8.77	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01468-000-00	Loyd	1468				Wharf Resources (USA) Inc.	Patented Lode Claim	18.49	Wharf	South Dakota	Lawrence				
26620-01472-000-00	Ruby Evans	1472				Wharf Resources (USA) Inc.	Patented Lode Claim	3.13	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26620-01493-000-00_1	Star (exc Tract 11)	1493				Wharf Resources (USA) Inc.	Patented Lode Claim	0.57	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01516-000-00_1	Summit Flat	1516				Wharf Resources (USA) Inc.	Patented Lode Claim	19.08	Wharf	South Dakota	Lawrence	5.00%	Kunz, et al		
26620-01516-000-00_2	Wm. B. Allison	1516				Wharf Resources (USA) Inc.	Patented Lode Claim	8.99	Wharf	South Dakota	Lawrence	5.00%	Kunz, et al		
26620-01551-000-10	Comerse	1551				Wharf Resources (USA) Inc.	Patented Lode Claim	9.46	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01551-000-20	Porcupine	1551				Wharf Resources (USA) Inc.	Patented Lode Claim	4.96	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01567-000-10	Daisy Fraction	1567				Wharf Resources (USA) Inc.	Patented Lode Claim	5.71	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01567-000-15_1	Daisy No. 1	1567				Wharf Resources (USA) Inc.	Patented Lode Claim	12.81	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01567-000-15_2	Daisy No. 2	1567				Wharf Resources (USA) Inc.	Patented Lode Claim	10.52	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01567-000-15_3	Giddings	1567				Wharf Resources (USA) Inc.	Patented Lode Claim	8.28	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01567-000-15_4	Funston	1567				Wharf Resources (USA) Inc.	Patented Lode Claim	8.45	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01567-000-15_5	Fargo	1567				Wharf Resources (USA) Inc.	Patented Lode Claim	18.10	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26680-01567-000-15_6	Fargo Fraction	1567				Wharf Resources (USA) Inc.	Patented Lode Claim	16.65	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01567-000-15_7	McLaughlin	1567				Wharf Resources (USA) Inc.	Patented Lode Claim	12.48	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01567-000-15_8	Little Eva	1567				Wharf Resources (USA) Inc.	Patented Lode Claim	16.17	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01567-000-15_9	Frost	1567				Wharf Resources (USA) Inc.	Patented Lode Claim	11.62	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01567-000-20	Hogarth	1567				Wharf Resources (USA) Inc.	Patented Lode Claim	7.72	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01580-000-00	Juno	1580				Wharf Resources (USA) Inc.	Patented Lode Claim	9.34	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01581-000-20	Modoc (part inside CUP boundary)	1581				Wharf Resources (USA) Inc.	Patented Lode Claim	2.33	Wharf	South Dakota	Lawrence	2.00%	Royal Gold		
26680-01616-000-60_1	Grenada	1616				Wharf Resources (USA) Inc.	Patented Lode Claim	20.58	Wharf	South Dakota	Lawrence				
26680-01616-000-60_2	Genesee	1616				Wharf Resources (USA) Inc.	Patented Lode Claim	20.47	Wharf	South Dakota	Lawrence				
26680-01616-000-60_3	Peerless	1616				Wharf Resources (USA) Inc.	Patented Lode Claim	20.64	Wharf	South Dakota	Lawrence				
26680-01643-000-00_1	Snorter	1643				Wharf Resources (USA) Inc.	Patented Lode Claim	9.91	Wharf	South Dakota	Lawrence	5.00%	White House Congress		
26680-01643-000-00_2	Snorter Fraction	1643				Wharf Resources (USA) Inc.	Patented Lode Claim	1.23	Wharf	South Dakota	Lawrence	5.00%	White House Congress		
26680-01649-000-10	Orinoco	1649				Wharf Resources (USA) Inc.	Patented Lode Claim	17.26	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01653-000-00	Golden Flag Fraction	1653				Wharf Resources (USA) Inc.	Patented Lode Claim	0.37	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01659-000-20_1	Telegram	1659				Wharf Resources (USA) Inc.	Patented Lode Claim	7.31	Wharf	South Dakota	Lawrence	5.00%	White House Congress		

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26680-01659-000-20_2	Maid of Erin	1659				Wharf Resources (USA) Inc.	Patented Lode Claim	14.40	Wharf	South Dakota	Lawrence	5.00%	White House Congress		
26680-01659-000-20_3	Gannon	1659				Wharf Resources (USA) Inc.	Patented Lode Claim	15.60	Wharf	South Dakota	Lawrence	5.00%	White House Congress		
26680-01659-000-20_4	B & M Fraction	1659				Wharf Resources (USA) Inc.	Patented Lode Claim	7.33	Wharf	South Dakota	Lawrence	5.00%	White House Congress		
26680-01667-000-00_1	Stanley	1667				Wharf Resources (USA) Inc.	Patented Lode Claim	19.10	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26680-01667-000-00_2	June	1667				Wharf Resources (USA) Inc.	Patented Lode Claim	9.85	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26680-01667-000-00_3	Keystone Fraction	1667				Wharf Resources (USA) Inc.	Patented Lode Claim	10.11	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26680-01668-000-10_1	Copperhead (pt inside CUP boundary)	1668				Wharf Resources (USA) Inc.	Patented Lode Claim	6.99	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26680-01668-000-10_2	Copperhead Fraction	1668				Wharf Resources (USA) Inc.	Patented Lode Claim	1.91	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26680-01668-000-15	Copperhead (pt outside CUP boundary)	1668				Wharf Resources (USA) Inc.	Patented Lode Claim	12.99	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26680-01668-000-20	Flossie	1668				Wharf Resources (USA) Inc.	Patented Lode Claim	14.66	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01740-000-10	Deadwood	1740				Wharf Resources (USA) Inc.	Patented Lode Claim	9.06	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01740-000-20	General Terry	1740				Wharf Resources (USA) Inc.	Patented Lode Claim	7.45	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26720-01756-000-00	Alaska Fraction	1756				Wharf Resources (USA) Inc.	Patented Lode Claim	8.87	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26760-01768-000-00	Foran	1768				Wharf Resources (USA) Inc.	Patented Lode Claim	6.67	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01937-000-00	Maria	1937				Wharf Resources (USA) Inc.	Patented Lode Claim	9.00	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26840-01955-000-37_1	Akka	1955				Wharf Resources (USA) Inc.	Patented Lode Claim	13.97	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01955-000-37_2	Cornucopia	1955				Wharf Resources (USA) Inc.	Patented Lode Claim	18.32	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01955-000-37_3	Prolific	1955				Wharf Resources (USA) Inc.	Patented Lode Claim	16.54	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01955-000-38_1	Water	1955				Wharf Resources (USA) Inc.	Patented Lode Claim	19.74	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01955-000-40	Elizabeth including Lot E1-A	1955				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	12.96	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01955-000-57	Granet Fraction	1955				Wharf Resources (USA) Inc.	Patented Lode Claim	19.00	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01955-000-59	Confidence	1955				Wharf Resources (USA) Inc.	Patented Lode Claim	18.28	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01960-000-10	Sarchfield	1960				Wharf Resources (USA) Inc.	Patented Lode Claim	14.46	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	5.0000% 2.0000%	WH Con. Royal Gold
26840-01970-000-50	January including Lot J-1	1970				Wharf Resources (USA) Inc.	Patented Lode Claim	17.10	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01984-000-00_1	Star	1984				Wharf Resources (USA) Inc.	Patented Lode Claim	4.14	Wharf	South Dakota	Lawrence	2.00%	Royal Gold		
26840-01984-000-00_2	Hart	1984				Wharf Resources (USA) Inc.	Patented Lode Claim	4.63	Wharf	South Dakota	Lawrence	2.00%	Royal Gold		
26880-02001-000-10	Ryan	2001				Wharf Resources (USA) Inc.	Patented Lode Claim	17.55	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02001-000-20_1	Ryan Fraction exc Tract 9 Rev	2001				Wharf Resources (USA) Inc.	Patented Lode Claim	6.86	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02027-000-10	Index exc Lot A	2027				Wharf Resources (USA) Inc.	Patented Lode Claim	2.35	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02027-000-15	Huxley Fraction	2027				Wharf Resources (USA) Inc.	Patented Lode Claim	5.82	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26880-02027-000-20	Lot A of Index	2027				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	3.60	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02029-000-10	Alaska	2029				Wharf Resources (USA) Inc.	Patented Lode Claim	9.12	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02029-000-20	Link	2029				Wharf Resources (USA) Inc.	Patented Lode Claim	4.25	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02036-000-00_1	Mill	2036				Wharf Resources (USA) Inc.	Patented Lode Claim	13.99	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26880-02036-000-00_2	Columbia Fraction	2036				Wharf Resources (USA) Inc.	Patented Lode Claim	1.94	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26880-02037-000-00	Reliance Fraction	2037				Wharf Resources (USA) Inc.	Patented Lode Claim	0.43	Wharf	South Dakota	Lawrence	3.00%	Dykes, et al		
26880-02075-000-00	Snowstorm exc Tract 11	2075				Wharf Resources (USA) Inc.	Patented Lode Claim	6.26	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00351-000-00_2	Silver Plume (pt under Tract 11)	351				Wharf Resources (USA) Inc.	Patented Lode Claim	2.40	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00352-000-00	Southerland (under Tract 11)	352*				Wharf Resources (USA) Inc.	Patented Lode Claim	2.44	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00378-000-00	Mark Twain (under Lot U)	378				Wharf Resources (USA) Inc.	Patented Lode Claim	0.13	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00402-000-00_2	Santa Fe (under Tracts 5 & 11)	402				Wharf Resources (USA) Inc.	Patented Lode Claim	6.18	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00409-000-10	Welcome	409-A				Wharf Resources (USA) Inc.	Patented Lode Claim	9.51	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00409-000-20	Welcome Mill Site exc. Tract B	409-B				Wharf Resources (USA) Inc.	Patented Lode Claim	4.26	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00410-000-00	Genoa	410-A				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00412-000-00	Marathon	412				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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26280-00413-000-00	Terry's Peak	413				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00414-000-00	Magenta	414				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00535-000-00	North Star #1	535				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00791-000-00	Ben Hur	791				Wharf Resources (USA) Inc.	Patented Lode Claim	10.07	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00881-000-00	Maringo	881				Wharf Resources (USA) Inc.	Patented Lode Claim	9.71	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-01105-000-00_1	Little Phil	1105				Wharf Resources (USA) Inc.	Patented Lode Claim	10.11	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-01105-000-00_2	Surprise	1105				Wharf Resources (USA) Inc.	Patented Lode Claim	9.52	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-02069-000-00	Martin Fraction	2069				Wharf Resources (USA) Inc.	Patented Lode Claim	3.30	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-02075-000-00	Snowstorm (under Tract 11)	2075				Wharf Resources (USA) Inc.	Patented Lode Claim	2.90	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00900-000-00_1	Blizzard	900				Wharf Resources (USA) Inc.	Patented Lode Claim	10.16	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00900-000-00_2	Silver Peak	900				Wharf Resources (USA) Inc.	Patented Lode Claim	9.76	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00900-000-00_3	Hurricane	900				Wharf Resources (USA) Inc.	Patented Lode Claim	9.92	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-00_1	Alaska	902				Wharf Resources (USA) Inc.	Patented Lode Claim	10.16	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-00_2	Hudson	902				Wharf Resources (USA) Inc.	Patented Lode Claim	10.16	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-00_3	Logan	902				Wharf Resources (USA) Inc.	Patented Lode Claim	9.87	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26340-00902-000-00_4	Mohawk	902				Wharf Resources (USA) Inc.	Patented Lode Claim	10.17	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-00_5	Opher	902				Wharf Resources (USA) Inc.	Patented Lode Claim	8.65	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-00_6	Terrific	902				Wharf Resources (USA) Inc.	Patented Lode Claim	8.09	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-00_7	Terror	902				Wharf Resources (USA) Inc.	Patented Lode Claim	8.84	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00976-000-00_1	Alexander	976				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00976-000-00_2	Badger	976				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00976-000-00_3	Carbonate	976				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00976-000-00_4	Custer	976				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00976-000-00_5	Fairview	976				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00976-000-00_6	Hubble	976				Wharf Resources (USA) Inc.	Patented Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-01089-000-00	Car Street	1089				Wharf Resources (USA) Inc.	Patented Lode Claim	9.16	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01040-000-00	May Queen (pt)	1040				Wharf Resources (USA) Inc.	Patented Lode Claim	4.66	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01119-000-00_1	Eva No. 2	1119				Wharf Resources (USA) Inc.	Patented Lode Claim	8.98	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01119-000-00_2	Monitor (pt)	1119				Wharf Resources (USA) Inc.	Patented Lode Claim	6.31	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01119-000-00_3	Monitor Fraction	1119				Wharf Resources (USA) Inc.	Patented Lode Claim	1.94	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26380-01119-000-00_4	Oak	1119				Wharf Resources (USA) Inc.	Patented Lode Claim	9.05	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01119-000-00_5	Oak Fraction (pt)	1119				Wharf Resources (USA) Inc.	Patented Lode Claim	1.46	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01120-000-00	Singapore	1120				Wharf Resources (USA) Inc.	Patented Lode Claim	10.06	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01121-000-00_1	Fulva	1121				Wharf Resources (USA) Inc.	Patented Lode Claim	0.76	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01121-000-00_2	Katisha	1121				Wharf Resources (USA) Inc.	Patented Lode Claim	1.71	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01121-000-00_3	Lew Wallace	1121				Wharf Resources (USA) Inc.	Patented Lode Claim	6.61	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01121-000-00_4	Passiac	1121				Wharf Resources (USA) Inc.	Patented Lode Claim	10.26	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01122-000-00_1	Little Hope Fraction	1122				Wharf Resources (USA) Inc.	Patented Lode Claim	1.55	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01122-000-00_2	Star	1122				Wharf Resources (USA) Inc.	Patented Lode Claim	1.35	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01122-000-00_3	Urgent	1122				Wharf Resources (USA) Inc.	Patented Lode Claim	2.27	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01122-000-00_4	White Pine	1122				Wharf Resources (USA) Inc.	Patented Lode Claim	9.71	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01341-000-10_5	Golden (pt)	1341				Wharf Resources (USA) Inc.	Patented Lode Claim	0.65	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01341-000-10_6	Star (pt)	1341				Wharf Resources (USA) Inc.	Patented Lode Claim	4.53	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01341-000-10_7	Lincoln (pt)	1341				Wharf Resources (USA) Inc.	Patented Lode Claim	0.14	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26420-01139-000-00_1	Lily of the West	1139				Wharf Resources (USA) Inc.	Patented Lode Claim	3.88	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26420-01139-000-00_2	Whale	1139				Wharf Resources (USA) Inc.	Patented Lode Claim	6.53	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26420-01139-000-00_3	Whale Fraction (pt)	1139				Wharf Resources (USA) Inc.	Patented Lode Claim	1.43	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26420-01139-000-00_2	Ground Hog, Foley, Buffalo (part)	1139				Wharf Resources (USA) Inc.	Patented Lode Claim	26.82	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26420-01205-000-00_1	Bunker Hill (pt)	1205				Wharf Resources (USA) Inc.	Patented Lode Claim	5.53	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26420-01205-000-00_2	Last Chance (pt)	1205				Wharf Resources (USA) Inc.	Patented Lode Claim	8.91	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26460-01172-000-00_2	Kate Putnam (under Tracts 8 & 10)	1172				Wharf Resources (USA) Inc.	Patented Lode Claim	1.41	Wharf	South Dakota	Lawrence				
26460-01173-000-00_2	Northside (under Tracts (8 & 10)	1173				Wharf Resources (USA) Inc.	Patented Lode Claim	2.02	Wharf	South Dakota	Lawrence				
26540-01271-000-00_1	Franklin	1271				Wharf Resources (USA) Inc.	Patented Lode Claim	4.65	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01271-000-00_2	Hamilton	1271				Wharf Resources (USA) Inc.	Patented Lode Claim	5.96	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01271-000-00_3	Tallahassee	1271				Wharf Resources (USA) Inc.	Patented Lode Claim	7.11	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01271-000-00_4	Tariff	1271				Wharf Resources (USA) Inc.	Patented Lode Claim	3.52	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01279-000-00_1	Hoboe Queen	1279				Wharf Resources (USA) Inc.	Patented Lode Claim	4.87	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01279-000-00_2	Tin Pie	1279				Wharf Resources (USA) Inc.	Patented Lode Claim	9.78	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26540-01279-000-00_3	Yogo	1279				Wharf Resources (USA) Inc.	Patented Lode Claim	7.49	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01310-000-00_4	Desire No. 1 (pt)	1310				Wharf Resources (USA) Inc.	Patented Lode Claim	1.56	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26580-01310-000-00_5	Desire No. 2 (pt)	1310				Wharf Resources (USA) Inc.	Patented Lode Claim	0.82	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01310-000-00_6	Emma Fraction (pt)	1310				Wharf Resources (USA) Inc.	Patented Lode Claim	3.44	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01310-000-00_7	Hattie and Lost Camp exc lots	1310				Wharf Resources (USA) Inc.	Patented Lode Claim	11.87	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01310-000-00_8	Leta (pt)	1310				Wharf Resources (USA) Inc.	Patented Lode Claim	4.24	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01310-000-00_9	Attraction	1310				Wharf Resources (USA) Inc.	Patented Lode Claim	6.12	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01310-000-00_10	Minnesota Maid (pt)	1310				Wharf Resources (USA) Inc.	Patented Lode Claim	3.99	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01310-000-00_11	Tiger Fraction (pt)	1310				Wharf Resources (USA) Inc.	Patented Lode Claim	3.05	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01310-000-00_12	Terry Fraction (pt)	1310				Wharf Resources (USA) Inc.	Patented Lode Claim	3.70	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01335-000-00	Emperor Fraction	1335				Wharf Resources (USA) Inc.	Patented Lode Claim	8.74	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01335-000-10_1	Belle of Deadwood	1335				Wharf Resources (USA) Inc.	Patented Lode Claim	6.59	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01335-000-10_2	Elroy Fraction	1335				Wharf Resources (USA) Inc.	Patented Lode Claim	4.31	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01335-000-10_3	Pasha Fraction	1335				Wharf Resources (USA) Inc.	Patented Lode Claim	2.69	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01335-000-10_4	Magnolia Fraction	1335				Wharf Resources (USA) Inc.	Patented Lode Claim	9.74	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01335-000-10_5	Transit of Venus	1335				Wharf Resources (USA) Inc.	Patented Lode Claim	8.85	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26580-01335-000-10_6	Magnolia Fraction No. 2	1335				Wharf Resources (USA) Inc.	Patented Lode Claim	7.25	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26583-00410-000-00	Rinaldo Mill Site	410-B				Wharf Resources (USA) Inc.	Patented Lode Claim	5.09	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01493-000-00	Star (under Tracts 7 & 11)	1493				Wharf Resources (USA) Inc.	Patented Lode Claim	5.82	Wharf	South Dakota	Lawrence				
26620-01536-000-00_1	Francis (pt)	1536				Wharf Resources (USA) Inc.	Patented Lode Claim	6.67	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01536-000-00_2	Rambler (pt)	1536				Wharf Resources (USA) Inc.	Patented Lode Claim	6.67	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01536-000-00_3	Madeline (pt)	1536				Wharf Resources (USA) Inc.	Patented Lode Claim	6.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01648-000-00	Baltimore	1648				Wharf Resources (USA) Inc.	Patented Lode Claim	18.79	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01704-000-00	Black Moon	1704				Wharf Resources (USA) Inc.	Patented Lode Claim	9.54	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01705-000-00_1	Cygnnet	1705				Wharf Resources (USA) Inc.	Patented Lode Claim	11.49	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26680-01705-000-00_2	Sunnyside	1705				Wharf Resources (USA) Inc.	Patented Lode Claim	8.54	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26684-01425-000-00_1	Freeport	1425				Wharf Resources (USA) Inc.	Patented Lode Claim	7.93	Wharf	South Dakota	Lawrence	2.0000%	Royal Gold		
26684-01425-000-00_2	J.C.	1425				Wharf Resources (USA) Inc.	Patented Lode Claim	5.35	Wharf	South Dakota	Lawrence	2.0000%	Royal Gold		
26684-01425-000-00_3	Newport	1425				Wharf Resources (USA) Inc.	Patented Lode Claim	8.83	Wharf	South Dakota	Lawrence	2.0000%	Royal Gold		
26684-01425-000-00_4	R.G.	1425				Wharf Resources (USA) Inc.	Patented Lode Claim	6.87	Wharf	South Dakota	Lawrence	2.0000%	Royal Gold		
26684-01439-000-00_1	Blacktail Chief	1439				Wharf Resources (USA) Inc.	Patented Lode Claim	8.25	Wharf	South Dakota	Lawrence	2.0000%	Royal Gold		
26684-01439-000-00_2	Valet Chief	1439				Wharf Resources (USA) Inc.	Patented Lode Claim	9.43	Wharf	South Dakota	Lawrence	2.0000%	Royal Gold		

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26684-01439-000-00_3	Manning (W/2)	1439				Wharf Resources (USA) Inc.	Patented Lode Claim	4.92	Wharf	South Dakota	Lawrence	2.0000%	Royal Gold		
26684-01439-000-00_4	Maggie Fraction	1439				Wharf Resources (USA) Inc.	Patented Lode Claim	1.01	Wharf	South Dakota	Lawrence	2.0000%	Royal Gold		
26684-01439-000-00_5	Mongrel and Dhoul	1439				Wharf Resources (USA) Inc.	Patented Lode Claim	8.80	Wharf	South Dakota	Lawrence	2.0000%	Royal Gold		
26760-01802-000-10	Revenue	1802				Wharf Resources (USA) Inc.	Patented Lode Claim	13.64	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01942-000-30_5	Busby (under Tract C)	1942				Wharf Resources (USA) Inc.	Patented Lode Claim	9.45	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01942-000-30_6	Washington (under Tract C)	1942				Wharf Resources (USA) Inc.	Patented Lode Claim	2.95	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01942-000-30_7	Paris	1942				Wharf Resources (USA) Inc.	Patented Lode Claim	17.76	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01942-000-30_8	Maggie	1942				Wharf Resources (USA) Inc.	Patented Lode Claim	17.63	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01942-000-30_9	Edinbergh	1942				Wharf Resources (USA) Inc.	Patented Lode Claim	18.52	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01942-000-30_10	Angeline Fraction	1942				Wharf Resources (USA) Inc.	Patented Lode Claim	9.85	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01942-000-30_11	Rome	1942				Wharf Resources (USA) Inc.	Patented Lode Claim	20.58	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01942-000-30_12	Heratage (pt)	1942				Wharf Resources (USA) Inc.	Patented Lode Claim	1.85	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01993-000-00_1	Apex	1993				Wharf Resources (USA) Inc.	Patented Lode Claim	13.49	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01993-000-00_2	Apex No. 3	1993				Wharf Resources (USA) Inc.	Patented Lode Claim	10.18	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01993-000-00_3	Apex No. 4	1993				Wharf Resources (USA) Inc.	Patented Lode Claim	8.11	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26840-01993-000-00_4	Missing Link	1993				Wharf Resources (USA) Inc.	Patented Lode Claim	7.17	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01993-000-00_5	Snowstorm No. 1	1993				Wharf Resources (USA) Inc.	Patented Lode Claim	15.13	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01993-000-00_6	Snowstorm Fraction	1993				Wharf Resources (USA) Inc.	Patented Lode Claim	2.46	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26840-01993-000-00_7	Hidden Fraction	1993				Wharf Resources (USA) Inc.	Patented Lode Claim	3.07	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02001-000-20_2	Ryan Fraction (under Tracts 8 & 9 Rev)	2001				Wharf Resources (USA) Inc.	Patented Lode Claim	2.19	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02021-000-10_2	Clarence (pt)	2021				Wharf Resources (USA) Inc.	Patented Lode Claim	3.49	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02021-000-15_3	Mother (pt)	2021				Wharf Resources (USA) Inc.	Patented Lode Claim	0.68	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02021-000-15_4	Little Barefoot (pt)	2021				Wharf Resources (USA) Inc.	Patented Lode Claim	9.52	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02044-000-20_2	Tessa (pt)	2044				Wharf Resources (USA) Inc.	Patented Lode Claim	3.60	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02050-000-00_3	Comet (pt)	2050				Wharf Resources (USA) Inc.	Patented Lode Claim	8.18	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02050-000-00_4	Comet No. 1 (pt)	2050				Wharf Resources (USA) Inc.	Patented Lode Claim	0.70	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26880-02066-000-10_2	Milton (pt)	2066				Wharf Resources (USA) Inc.	Patented Lode Claim	5.11	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC98673	INCLINE LODE			MMC 98673		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC98674	M & V			MMC 98674		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC114132	MARCIE			MMC 114132		Wharf Resources (USA) Inc.	Federal Lode Claim	15.36	Wharf	South Dakota	Lawrence				
MMC114133	FISCHER			MMC 114133		Wharf Resources (USA) Inc.	Federal Lode Claim	4.59	Wharf	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
MMC114134	ANNE			MMC 114134		Wharf Resources (USA) Inc.	Federal Lode Claim	13.32	Wharf	South Dakota	Lawrence				
MMC114135	CYNTHIA			MMC 114135		Wharf Resources (USA) Inc.	Federal Lode Claim	15.98	Wharf	South Dakota	Lawrence				
MMC114136	BEANIE			MMC 114136		Wharf Resources (USA) Inc.	Federal Lode Claim	15.45	Wharf	South Dakota	Lawrence				
MMC117070	KL #5			MMC 117070		Wharf Resources (USA) Inc.	Federal Lode Claim	4.59	Wharf	South Dakota	Lawrence	2.0000%	Royal Gold		
MMC164704	DIRTY DICK			MMC 164704		Wharf Resources (USA) Inc.	Federal Lode Claim	16.53	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC164705	PEDER DRAGON			MMC 164705		Wharf Resources (USA) Inc.	Federal Lode Claim	16.53	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC164706	CASEY FRACTION #1			MMC 164706		Wharf Resources (USA) Inc.	Federal Lode Claim	19.28	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC164707	CASEY FRACTION #2			MMC 164707		Wharf Resources (USA) Inc.	Federal Lode Claim	19.28	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC164708	CASEY FRACTION #3			MMC 164708		Wharf Resources (USA) Inc.	Federal Lode Claim	19.28	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC164709	CASEY FRACTION #4			MMC 164709		Wharf Resources (USA) Inc.	Federal Lode Claim	19.28	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC164710	D. J. K. 1			MMC 164710		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC164711	D.J.K. 2			MMC 164711		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC164712	D.J.K. 3			MMC 164712		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC164713	D.J.K. 4			MMC 164713		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC164714	D. J. K. 5			MMC 164714		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC164715	D. J. K. 6			MMC 164715		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold

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MMC164716	D. J. K. 7			MMC 164716		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence	1.6125% NSR	Valentine, et al	1.00% NSR	Metalla Royalty
MMC164717	D. J. K. 8			MMC 164717		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence	1.6125% NSR	Valentine, et al	1.00% NSR	Metalla Royalty
MMC164718	D. J. K. 9			MMC 164718		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence				
MMC164719	D. J. K. 10			MMC 164719		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence				
MMC164720	D. J. K. 11			MMC 164720		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence				
MMC164721	D. J. K. 12			MMC 164721		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence				
MMC164722	D. J. K. FRACTION			MMC 164722		Wharf Resources (USA) Inc.	Federal Lode Claim	10.33	Wharf	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC164723	D. J. K. FRACTION 1			MMC 164723		Wharf Resources (USA) Inc.	Federal Lode Claim	3.44	Wharf	South Dakota	Lawrence				
MMC164724	D. J. K. FRACTION 2			MMC 164724		Wharf Resources (USA) Inc.	Federal Lode Claim	16.53	Wharf	South Dakota	Lawrence				
MMC164725	D. J. K. FRACTION 3			MMC 164725		Wharf Resources (USA) Inc.	Federal Lode Claim	11.02	Wharf	South Dakota	Lawrence				
MMC164726	D. J. K. FRACTION 4			MMC 164726		Wharf Resources (USA) Inc.	Federal Lode Claim	16.53	Wharf	South Dakota	Lawrence				
MMC173949	BIG MOUTH			MMC 173949		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence				
MMC173950	BIG FOOT			MMC 173950		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence				
MMC173951	BIG LEG			MMC 173951		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence				
MMC173952	BIG HEAD			MMC 173952		Wharf Resources (USA) Inc.	Federal Lode Claim	20.58	Wharf	South Dakota	Lawrence				
MMC173953	BIG WIG			MMC 173953		Wharf Resources (USA) Inc.	Federal Lode Claim	13.77	Wharf	South Dakota	Lawrence				
MMC173954	BIG STICK			MMC 173954		Wharf Resources (USA) Inc.	Federal Lode Claim	13.77	Wharf	South Dakota	Lawrence				
MMC173955	BIG MAMA			MMC 173955		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence				
MMC173956	BIG LAC			MMC 173956		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence				
MMC173957	BIG HILL			MMC 173957		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence				
MMC173958	BIG DEAL			MMC 173958		Wharf Resources (USA) Inc.	Federal Lode Claim	20.66	Wharf	South Dakota	Lawrence				

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MMC173959	BIG SADDLE			MMC 173959		Wharf Resources (USA) Inc.	Federal Lode Claim	13.77	Wharf	South Dakota	Lawrence				
MMC183350	SPOTTED OWL			MMC 183350		Wharf Resources (USA) Inc.	Federal Lode Claim	2.07	Wharf	South Dakota	Lawrence				
MMC183447	SQUAW CREEK FRACTION			MMC 183447		Wharf Resources (USA) Inc.	Federal Lode Claim	4.82	Wharf	South Dakota	Lawrence				
MMC183448	M. BEAR			MMC 183448		Wharf Resources (USA) Inc.	Federal Lode Claim	16.64	Wharf	South Dakota	Lawrence				
MMC183449	LACROSSE			MMC 183449		Wharf Resources (USA) Inc.	Federal Lode Claim	19.97	Wharf	South Dakota	Lawrence				
MMC183450	HAWK FRACTION			MMC 183450		Wharf Resources (USA) Inc.	Federal Lode Claim	2.07	Wharf	South Dakota	Lawrence				
MMC183451	GOLD FRACTION			MMC 183451		Wharf Resources (USA) Inc.	Federal Lode Claim	2.07	Wharf	South Dakota	Lawrence				
MMC183452	FALCON			MMC 183452		Wharf Resources (USA) Inc.	Federal Lode Claim	4.13	Wharf	South Dakota	Lawrence				
MMC183453	BALD EAGLE			MMC 183453		Wharf Resources (USA) Inc.	Federal Lode Claim	4.13	Wharf	South Dakota	Lawrence				
MMC183454	ASHLEY			MMC 183454		Wharf Resources (USA) Inc.	Federal Lode Claim	4.13	Wharf	South Dakota	Lawrence				
MMC183455	CAMDEN WEDGE			MMC 183455		Wharf Resources (USA) Inc.	Federal Lode Claim	8.26	Wharf	South Dakota	Lawrence				
MMC183456	VINCENT			MMC 183456		Wharf Resources (USA) Inc.	Federal Lode Claim	7.35	Wharf	South Dakota	Lawrence				
MMC183689	GRAY WOLF			MMC 183689		Wharf Resources (USA) Inc.	Federal Lode Claim	6.20	Wharf	South Dakota	Lawrence				
MMC183693	CHELSEA			MMC 183693		Wharf Resources (USA) Inc.	Federal Lode Claim	2.07	Wharf	South Dakota	Lawrence				
MMC183694	STEALTH			MMC 183694		Wharf Resources (USA) Inc.	Federal Lode Claim	16.53	Wharf	South Dakota	Lawrence				
MMC187939	DUTCHMAN			MMC 187939		Wharf Resources (USA) Inc.	Federal Lode Claim	0.23	Wharf	South Dakota	Lawrence				
MMC187940	GUIEDO			MMC 187940		Wharf Resources (USA) Inc.	Federal Lode Claim	0.23	Wharf	South Dakota	Lawrence				
MMC187941	RUFUS			MMC 187941		Wharf Resources (USA) Inc.	Federal Lode Claim	2.07	Wharf	South Dakota	Lawrence				
13000- 00403-060- 00_1	Lot 7	403				Golden Reward Mining Company LP	Government Lot or Block (Fee)	0.20	Golden Reward	South Dakota	Lawrence				
13000- 00403-060- 00_2	Lot 13	403				Golden Reward Mining Company LP	Government Lot or Block (Fee)	5.14	Golden Reward	South Dakota	Lawrence				

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13000-00403-060-00_3	Lot 14	403				Golden Reward Mining Company LP	Government Lot or Block (Fee)	0.11	Golden Reward	South Dakota	Lawrence				
13000-00403-060-00_4	Lot 15	403				Golden Reward Mining Company LP	Government Lot or Block (Fee)	0.09	Golden Reward	South Dakota	Lawrence				
13000-00403-060-00_5	Lot 16	403				Golden Reward Mining Company LP	Government Lot or Block (Fee)	0.08	Golden Reward	South Dakota	Lawrence				
13000-00403-060-00_6	Lot 17	403				Golden Reward Mining Company LP	Government Lot or Block (Fee)	0.02	Golden Reward	South Dakota	Lawrence				
13000-00403-060-00_7	Lot 18	403				Golden Reward Mining Company LP	Government Lot or Block (Fee)	0.05	Golden Reward	South Dakota	Lawrence				
13000-00403-060-00_8	Lot 27	403				Golden Reward Mining Company LP	Government Lot or Block (Fee)	0.01	Golden Reward	South Dakota	Lawrence				
13000-00403-060-00_9	Lot 30	403				Golden Reward Mining Company LP	Government Lot or Block (Fee)	0.01	Golden Reward	South Dakota	Lawrence				
13000-00403-060-10	Lot 6 exc Oxford Subdivision	403				Golden Reward Mining Company LP	Government Lot or Block (Fee)	0.51	Golden Reward	South Dakota	Lawrence	2.00%	Carlson		
13000-00403-070-00	Lot 2	403				Golden Reward Mining Company LP	Government Lot or Block (Fee)	2.35	Golden Reward	South Dakota	Lawrence				
26280-00316-000-00	Steward	316				Golden Reward Mining Company LP	Patented Lode Claim	10.19	Golden Reward	South Dakota	Lawrence				
26280-00401-000-00	North Star	401				Golden Reward Mining Company LP	Patented Lode Claim	10.32	Golden Reward	South Dakota	Lawrence				
26280-00480-000-00	Black Sulphate	480				Golden Reward Mining Company LP	Patented Lode Claim	10.14	Golden Reward	South Dakota	Lawrence				
26280-00516-000-00	Bonanza	516				Golden Reward Mining Company LP	Patented Lode Claim	9.32	Golden Reward	South Dakota	Lawrence				
26280-00517-000-10	Plutus	517				Golden Reward Mining Company LP	Patented Lode Claim	10.00	Golden Reward	South Dakota	Lawrence				
26280-00518-000-00	Buxton	518				Golden Reward Mining Company LP	Patented Lode Claim	9.82	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26280-00519-000-00	Cheetor	519				Golden Reward Mining Company LP	Patented Lode Claim	5.64	Golden Reward	South Dakota	Lawrence				
26280-00520-000-00	Clarinda	520				Golden Reward Mining Company LP	Patented Lode Claim	9.96	Golden Reward	South Dakota	Lawrence				
26280-00536-000-00	Richelieu exc Hwy	536				Golden Reward Mining Company LP	Patented Lode Claim	7.24	Golden Reward	South Dakota	Lawrence				
26280-00537-000-00	Patrick Henry	537				Golden Reward Mining Company LP	Patented Lode Claim	8.40	Golden Reward	South Dakota	Lawrence				
26280-00538-000-00	Ruby Bell	538				Golden Reward Mining Company LP	Patented Lode Claim	7.92	Golden Reward	South Dakota	Lawrence				
26280-00539-000-00	Golden Reward	539				Golden Reward Mining Company LP	Patented Lode Claim	9.89	Golden Reward	South Dakota	Lawrence				
26280-00540-000-00	Silver Case	540				Golden Reward Mining Company LP	Patented Lode Claim	8.76	Golden Reward	South Dakota	Lawrence				
26280-00541-000-00	Golden Wedge Fraction	541				Golden Reward Mining Company LP	Patented Lode Claim	1.18	Golden Reward	South Dakota	Lawrence				
26280-00542-000-00	Isadorah Fraction	542				Golden Reward Mining Company LP	Patented Lode Claim	0.59	Golden Reward	South Dakota	Lawrence				
26280-00543-000-00	Silver Shower exc Oxford Sub	543				Golden Reward Mining Company LP	Patented Lode Claim	10.09	Golden Reward	South Dakota	Lawrence				
26280-00544-000-00	Smiley & Lundt	544				Golden Reward Mining Company LP	Patented Lode Claim	9.83	Golden Reward	South Dakota	Lawrence				
26280-00572-000-20	May Flower	572				Golden Reward Mining Company LP	Patented Lode Claim	6.25	Golden Reward	South Dakota	Lawrence				
26280-00573-000-00	Aurora	573				Golden Reward Mining Company LP	Patented Lode Claim	8.39	Golden Reward	South Dakota	Lawrence				
26280-00574-000-00	Lucke	574				Golden Reward Mining Company LP	Patented Lode Claim	2.77	Golden Reward	South Dakota	Lawrence				
26280-00575-000-00	Rebecca	575				Golden Reward Mining Company LP	Patented Lode Claim	10.22	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26280-00576-000-00	Motto	576				Golden Reward Mining Company LP	Patented Lode Claim	7.04	Golden Reward	South Dakota	Lawrence				
26280-00577-000-00	Motto Fraction	577				Golden Reward Mining Company LP	Patented Lode Claim	4.46	Golden Reward	South Dakota	Lawrence				
26280-00578-000-00	Point Fraction	578				Golden Reward Mining Company LP	Patented Lode Claim	1.15	Golden Reward	South Dakota	Lawrence				
26280-00579-000-00	Crown Point	579				Golden Reward Mining Company LP	Patented Lode Claim	6.60	Golden Reward	South Dakota	Lawrence				
26280-00600-000-00	Minnie (part)	600				Golden Reward Mining Company LP	Patented Lode Claim	6.37	Golden Reward	South Dakota	Lawrence				
26340-00760-000-00	New Atlantic	760				Golden Reward Mining Company LP	Patented Lode Claim	1.61	Golden Reward	South Dakota	Lawrence				
26340-00763-000-00	Green Point	763				Golden Reward Mining Company LP	Patented Lode Claim	9.19	Golden Reward	South Dakota	Lawrence				
26340-00764-000-00	Ophir exc Oxford Sub	764				Golden Reward Mining Company LP	Patented Lode Claim	3.27	Golden Reward	South Dakota	Lawrence				
26340-00765-000-00	Mikado	765				Golden Reward Mining Company LP	Patented Lode Claim	6.52	Golden Reward	South Dakota	Lawrence				
26340-00766-000-00	Silver Springs	766				Golden Reward Mining Company LP	Patented Lode Claim	7.23	Golden Reward	South Dakota	Lawrence				
26340-00768-000-00	Elizabeth	768				Golden Reward Mining Company LP	Patented Lode Claim	7.85	Golden Reward	South Dakota	Lawrence				
26340-00769-000-00	Fannie	769				Golden Reward Mining Company LP	Patented Lode Claim	8.06	Golden Reward	South Dakota	Lawrence				
26340-00781-000-00	Sunrise	781				Golden Reward Mining Company LP	Patented Lode Claim	8.39	Golden Reward	South Dakota	Lawrence				
26340-00782-000-00	Sunset	782				Golden Reward Mining Company LP	Patented Lode Claim	10.19	Golden Reward	South Dakota	Lawrence				
26340-00784-000-00	Sunshine	784				Golden Reward Mining Company LP	Patented Lode Claim	10.09	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26340-00785-000-00	Sunday	785				Golden Reward Mining Company LP	Patented Lode Claim	10.09	Golden Reward	South Dakota	Lawrence				
26340-00789-000-00	Tilton	789				Golden Reward Mining Company LP	Patented Lode Claim	7.11	Golden Reward	South Dakota	Lawrence				
26340-00845-000-00	Comit	845				Golden Reward Mining Company LP	Patented Lode Claim	4.17	Golden Reward	South Dakota	Lawrence				
26340-00872-000-00	National	872				Golden Reward Mining Company LP	Patented Lode Claim	3.70	Golden Reward	South Dakota	Lawrence				
26340-00873-000-00	International	873				Golden Reward Mining Company LP	Patented Lode Claim	4.31	Golden Reward	South Dakota	Lawrence				
26340-00880-000-00_1	Little Bonanza	880				Golden Reward Mining Company LP	Patented Lode Claim	7.46	Golden Reward	South Dakota	Lawrence				
26340-00880-000-00_2	Perry	880				Golden Reward Mining Company LP	Patented Lode Claim	4.84	Golden Reward	South Dakota	Lawrence				
26340-00880-000-00_3	Penny	880				Golden Reward Mining Company LP	Patented Lode Claim	6.84	Golden Reward	South Dakota	Lawrence				
26340-00896-000-00	Alice May	890				Golden Reward Mining Company LP	Patented Lode Claim	9.89	Golden Reward	South Dakota	Lawrence				
26340-00899-000-00_1	General Custer	899				Golden Reward Mining Company LP	Patented Lode Claim	9.88	Golden Reward	South Dakota	Lawrence				
26340-00899-000-00_2	Silver Reef	899				Golden Reward Mining Company LP	Patented Lode Claim	9.98	Golden Reward	South Dakota	Lawrence				
26340-00899-000-00_3	Florence Fraction	899				Golden Reward Mining Company LP	Patented Lode Claim	2.08	Golden Reward	South Dakota	Lawrence				
26340-00899-000-00_4	Belle Fourch	899				Golden Reward Mining Company LP	Patented Lode Claim	9.82	Golden Reward	South Dakota	Lawrence				
26340-00899-000-00_5	Alta	899				Golden Reward Mining Company LP	Patented Lode Claim	9.82	Golden Reward	South Dakota	Lawrence				
26340-00899-000-00_6	Glencoe	899				Golden Reward Mining Company LP	Patented Lode Claim	9.82	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26340-00899-000-00_7	Sundance	899				Golden Reward Mining Company LP	Patented Lode Claim	9.82	Golden Reward	South Dakota	Lawrence				
26340-00902-000-30_3	Oppitz	902				Golden Reward Mining Company LP	Patented Lode Claim	10.28	Golden Reward	South Dakota	Lawrence	2.0000%	Royal Gold		
26340-00902-000-30_4	Yetter	902				Golden Reward Mining Company LP	Patented Lode Claim	10.26	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-30_5	Hilton	902				Golden Reward Mining Company LP	Patented Lode Claim	10.03	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-30_6	Sarsfield	902				Golden Reward Mining Company LP	Patented Lode Claim	10.04	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-30_7	Pat Claybourne	902				Golden Reward Mining Company LP	Patented Lode Claim	10.04	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-30_8	Scott	902				Golden Reward Mining Company LP	Patented Lode Claim	10.04	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-30_9	Great Scott	902				Golden Reward Mining Company LP	Patented Lode Claim	10.27	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-30_10	Mason	902				Golden Reward Mining Company LP	Patented Lode Claim	10.05	Golden Reward	South Dakota	Lawrence	2.0000%	Royal Gold		
26340-00902-000-30_11	Security	902				Golden Reward Mining Company LP	Patented Lode Claim	9.81	Golden Reward	South Dakota	Lawrence	2.0000%	Royal Gold		
26340-00902-000-30_12	Syndicate	902				Golden Reward Mining Company LP	Patented Lode Claim	10.28	Golden Reward	South Dakota	Lawrence	2.0000%	Royal Gold		
26340-00902-000-82_1	Bacon Rind	902				Golden Reward Mining Company LP	Patented Lode Claim	4.44	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-82_2	Armada	902				Golden Reward Mining Company LP	Patented Lode Claim	5.12	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00911-000-10	Schuylkill	911				Golden Reward Mining Company LP	Patented Lode Claim	10.04	Golden Reward	South Dakota	Lawrence	2.0000%	Royal Gold		
26340-00911-000-20	Eddie	911				Golden Reward Mining Company LP	Patented Lode Claim	2.01	Golden Reward	South Dakota	Lawrence	2.0000%	Royal Gold		

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26340-00911-000-30	Monroe	911				Golden Reward Mining Company LP	Patented Lode Claim	9.94	Golden Reward	South Dakota	Lawrence	2.0000%	Royal Gold		
26340-00911-000-40	Lansford	911				Golden Reward Mining Company LP	Patented Lode Claim	4.57	Golden Reward	South Dakota	Lawrence	2.0000%	Royal Gold		
26340-00911-000-50	Lansford No. 2	911				Golden Reward Mining Company LP	Patented Lode Claim	0.72	Golden Reward	South Dakota	Lawrence	2.0000%	Royal Gold		
26340-00922-000-00_1	Hannibal	922				Golden Reward Mining Company LP	Patented Lode Claim	10.25	Golden Reward	South Dakota	Lawrence				
26340-00922-000-00_2	Ruby Basin Fraction	922				Golden Reward Mining Company LP	Patented Lode Claim	2.03	Golden Reward	South Dakota	Lawrence				
26340-00922-000-00_3	Roanoke	922				Golden Reward Mining Company LP	Patented Lode Claim	10.09	Golden Reward	South Dakota	Lawrence				
26340-00923-000-00_1	Rob Roy Fraction	923				Golden Reward Mining Company LP	Patented Lode Claim	4.41	Golden Reward	South Dakota	Lawrence				
26340-00923-000-00_2	Huron	923				Golden Reward Mining Company LP	Patented Lode Claim	10.08	Golden Reward	South Dakota	Lawrence				
26340-00923-000-00_3	Powhattan	923				Golden Reward Mining Company LP	Patented Lode Claim	9.73	Golden Reward	South Dakota	Lawrence				
26340-00923-000-00_4	Grove	923				Golden Reward Mining Company LP	Patented Lode Claim	9.73	Golden Reward	South Dakota	Lawrence				
26340-00924-000-00_1	Boston	924				Golden Reward Mining Company LP	Patented Lode Claim	8.34	Golden Reward	South Dakota	Lawrence				
26340-00924-000-00_2	Clark Fraction	924				Golden Reward Mining Company LP	Patented Lode Claim	3.78	Golden Reward	South Dakota	Lawrence				
26340-00924-000-00_3	Jimmie Fraction	924				Golden Reward Mining Company LP	Patented Lode Claim	0.53	Golden Reward	South Dakota	Lawrence				
26340-00924-000-00_4	Carthage	924				Golden Reward Mining Company LP	Patented Lode Claim	9.88	Golden Reward	South Dakota	Lawrence				
26340-00924-000-00_5	What's Left Frac., west of Hwy	924				Golden Reward Mining Company LP	Patented Lode Claim	6.77	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26340-00924-000-00_6	Plowman Frac., west of Hwy	924				Golden Reward Mining Company LP	Patented Lode Claim	2.25	Golden Reward	South Dakota	Lawrence				
26340-00951-000-10	Tract A of Henry George	951				Golden Reward Mining Company LP	Tract or Parcel (Fee)	2.12	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00951-000-20	Harrison	951				Golden Reward Mining Company LP	Patented Lode Claim	10.10	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00951-000-30	Tract B of Henry George	951				Golden Reward Mining Company LP	Tract or Parcel (Fee)	7.88	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00951-000-40_1	Axiom	951				Golden Reward Mining Company LP	Patented Lode Claim	2.67	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00951-000-40_2	Buna Vista	951				Golden Reward Mining Company LP	Patented Lode Claim	9.94	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00951-000-40_3	Clontarf	951				Golden Reward Mining Company LP	Patented Lode Claim	9.67	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00951-000-50	Tract A of Powderly	951				Golden Reward Mining Company LP	Tract or Parcel (Fee)	0.21	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00951-000-60	Tract B of Powderly	951				Golden Reward Mining Company LP	Tract or Parcel (Fee)	9.05	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00956-000-20	Clinton exc Oxford Sub	956				Golden Reward Mining Company LP	Patented Lode Claim	6.10	Golden Reward	South Dakota	Lawrence	2.00%	Carlson	3.00%	Thompson, et al
26340-00958-000-20_1	Tract A of Hardscrabble #3	958				Golden Reward Mining Company LP	Tract or Parcel (Fee)	4.49	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00958-000-20_2	Tract B of Hardscrabble #3	958				Golden Reward Mining Company LP	Tract or Parcel (Fee)	0.62	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00958-000-20_3	Tract A of Hardscrabble #4	958				Golden Reward Mining Company LP	Tract or Parcel (Fee)	4.36	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00958-000-20_4	Tract B of Hardscrabble #4	958				Golden Reward Mining Company LP	Tract or Parcel (Fee)	1.56	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00966-000-00_1	Aldebaran	966				Golden Reward Mining Company LP	Patented Lode Claim	9.56	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26340-00966-000-00_2	Nabob	966				Golden Reward Mining Company LP	Patented Lode Claim	9.55	Golden Reward	South Dakota	Lawrence				
26340-00966-000-00_3	Northern Crown	966				Golden Reward Mining Company LP	Patented Lode Claim	9.55	Golden Reward	South Dakota	Lawrence				
26340-00966-000-00_4	Andromeda	966				Golden Reward Mining Company LP	Patented Lode Claim	10.11	Golden Reward	South Dakota	Lawrence				
26340-00984-000-00_1	Buckingham	984				Golden Reward Mining Company LP	Patented Lode Claim	9.93	Golden Reward	South Dakota	Lawrence				
26340-00984-000-00_2	Rubican	984				Golden Reward Mining Company LP	Patented Lode Claim	9.93	Golden Reward	South Dakota	Lawrence				
26340-00984-000-00_3	Champion exc Lot 3	984				Golden Reward Mining Company LP	Patented Lode Claim	9.87	Golden Reward	South Dakota	Lawrence				
26340-00984-000-00_4	Peruvian exc Lot 3	984				Golden Reward Mining Company LP	Patented Lode Claim	8.40	Golden Reward	South Dakota	Lawrence				
26340-00984-000-00_5	Home	984				Golden Reward Mining Company LP	Patented Lode Claim	0.27	Golden Reward	South Dakota	Lawrence				
26340-01014-000-00_1	John Collins	1014				Golden Reward Mining Company LP	Patented Lode Claim	10.11	Golden Reward	South Dakota	Lawrence				
26340-01014-000-00_2	Harry	1014				Golden Reward Mining Company LP	Patented Lode Claim	10.19	Golden Reward	South Dakota	Lawrence				
26340-01014-000-00_3	Fred Fraction	1014				Golden Reward Mining Company LP	Patented Lode Claim	6.34	Golden Reward	South Dakota	Lawrence				
26340-01014-000-00_4	Little Blanch	1014				Golden Reward Mining Company LP	Patented Lode Claim	6.10	Golden Reward	South Dakota	Lawrence				
26380-01037-000-00	Last Chance exc Hwy	1037				Golden Reward Mining Company LP	Patented Lode Claim	8.66	Golden Reward	South Dakota	Lawrence				
26380-01039-000-10	Lot S of Silver Wave	1039				Golden Reward Mining Company LP	Tract or Parcel (Fee)	3.47	Golden Reward	South Dakota	Lawrence				
26380-01052-000-00	Spargo	1052				Golden Reward Mining Company LP	Patented Lode Claim	6.14	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26380-01061-000-00_1	Emma	1061				Golden Reward Mining Company LP	Patented Lode Claim	5.79	Golden Reward	South Dakota	Lawrence				
26380-01061-000-00_2	Emma Fraction No. 2	1061				Golden Reward Mining Company LP	Patented Lode Claim	3.82	Golden Reward	South Dakota	Lawrence				
26380-01062-000-00	Silver Hill	1062				Golden Reward Mining Company LP	Patented Lode Claim	9.98	Golden Reward	South Dakota	Lawrence				
26380-01062-000-10	Billy	1062				Golden Reward Mining Company LP	Patented Lode Claim	9.73	Golden Reward	South Dakota	Lawrence				
26380-01062-000-20	Isadorah	1062				Golden Reward Mining Company LP	Patented Lode Claim	9.92	Golden Reward	South Dakota	Lawrence				
26380-01062-000-30	Rock Bluff	1062				Golden Reward Mining Company LP	Patented Lode Claim	9.07	Golden Reward	South Dakota	Lawrence				
26380-01062-000-40	Silver Hill Fraction	1062				Golden Reward Mining Company LP	Patented Lode Claim	9.98	Golden Reward	South Dakota	Lawrence				
26380-01062-000-50	Jessie Fraction	1062				Golden Reward Mining Company LP	Patented Lode Claim	1.23	Golden Reward	South Dakota	Lawrence				
26380-01063-000-00	Alpha exc Oxford Sub	1063				Golden Reward Mining Company LP	Patented Lode Claim	7.86	Golden Reward	South Dakota	Lawrence				
26380-01064-000-20	Minnie	1064				Golden Reward Mining Company LP	Patented Lode Claim	8.83	Golden Reward	South Dakota	Lawrence				
26380-01064-000-30	Minnie Fraction	1064				Golden Reward Mining Company LP	Patented Lode Claim	1.19	Golden Reward	South Dakota	Lawrence				
26380-01065-000-00_1	Mineral Point exc. Oxford Sub	1065				Golden Reward Mining Company LP	Patented Lode Claim	5.91	Golden Reward	South Dakota	Lawrence				
26380-01065-000-00_2	Oxford exc. Oxford Sub	1065				Golden Reward Mining Company LP	Patented Lode Claim	5.27	Golden Reward	South Dakota	Lawrence				
26380-01065-000-00_3	Mohawk exc. Oxford Sub	1065				Golden Reward Mining Company LP	Patented Lode Claim	2.42	Golden Reward	South Dakota	Lawrence				
26380-01065-000-00_4	Dump Fraction	1065				Golden Reward Mining Company LP	Patented Lode Claim	1.45	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26380-01071-000-00_1	Bald Eagle	1071				Golden Reward Mining Company LP	Patented Lode Claim	9.80	Golden Reward	South Dakota	Lawrence				
26380-01071-000-00_2	Log Cabin	1071				Golden Reward Mining Company LP	Patented Lode Claim	4.13	Golden Reward	South Dakota	Lawrence				
26380-01072-000-00_1	Mountain Peak	1072				Golden Reward Mining Company LP	Patented Lode Claim	4.73	Golden Reward	South Dakota	Lawrence				
26380-01072-000-00_2	Compliment	1072				Golden Reward Mining Company LP	Patented Lode Claim	7.56	Golden Reward	South Dakota	Lawrence				
26380-01072-000-00_3	Ernest	1072				Golden Reward Mining Company LP	Patented Lode Claim	7.52	Golden Reward	South Dakota	Lawrence				
26380-01072-000-00_4	Mountain Peak Fraction	1072				Golden Reward Mining Company LP	Patented Lode Claim	0.54	Golden Reward	South Dakota	Lawrence				
26380-01073-000-00_1	Lone Pine exc. Oxford Sub	1073				Golden Reward Mining Company LP	Patented Lode Claim	3.92	Golden Reward	South Dakota	Lawrence				
26380-01073-000-00_2	Lone Jack exc. Oxford Sub	1073				Golden Reward Mining Company LP	Patented Lode Claim	7.90	Golden Reward	South Dakota	Lawrence				
26380-01073-000-00_3	Meadow Lark	1073				Golden Reward Mining Company LP	Patented Lode Claim	9.07	Golden Reward	South Dakota	Lawrence				
26380-01073-000-00_4	ED R.A.	1073				Golden Reward Mining Company LP	Patented Lode Claim	9.22	Golden Reward	South Dakota	Lawrence				
26380-01073-000-00_5	Shaft Fraction	1073				Golden Reward Mining Company LP	Patented Lode Claim	1.69	Golden Reward	South Dakota	Lawrence				
26380-01074-000-00	Golden Bar	1074				Golden Reward Mining Company LP	Patented Lode Claim	4.03	Golden Reward	South Dakota	Lawrence				
26380-01075-000-10	Monte Cristo	1075				Golden Reward Mining Company LP	Patented Lode Claim	8.45	Golden Reward	South Dakota	Lawrence				
26380-01075-000-20	Maybury	1075				Golden Reward Mining Company LP	Patented Lode Claim	5.69	Golden Reward	South Dakota	Lawrence				
26380-01076-000-00_1	Comet No. 1	1076				Golden Reward Mining Company LP	Patented Lode Claim	1.11	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26380-01076-000-00_2	Comet No. 2	1076				Golden Reward Mining Company LP	Patented Lode Claim	3.76	Golden Reward	South Dakota	Lawrence				
26380-01077-000-00	Victory	1077				Golden Reward Mining Company LP	Patented Lode Claim	7.52	Golden Reward	South Dakota	Lawrence				
26380-01097-000-00	Clarinda Extension	1097				Golden Reward Mining Company LP	Patented Lode Claim	5.56	Golden Reward	South Dakota	Lawrence				
26380-01101-000-00_1	St. Ives	1101				Golden Reward Mining Company LP	Patented Lode Claim	4.48	Golden Reward	South Dakota	Lawrence				
26380-01101-000-00_2	Some Left Frac., west of Hwy	1101				Golden Reward Mining Company LP	Patented Lode Claim	3.48	Golden Reward	South Dakota	Lawrence				
26380-01102-000-00_1	Blaine, west of Hwy	1102				Golden Reward Mining Company LP	Patented Lode Claim	4.36	Golden Reward	South Dakota	Lawrence				
26380-01102-000-00_2	Cleveland, west of Hwy	1102				Golden Reward Mining Company LP	Patented Lode Claim	4.38	Golden Reward	South Dakota	Lawrence				
26380-01102-000-00_3	Dickinson, west of Hwy	1102				Golden Reward Mining Company LP	Patented Lode Claim	6.52	Golden Reward	South Dakota	Lawrence				
26380-01112-000-00	Sunny	1112				Golden Reward Mining Company LP	Patented Lode Claim	4.45	Golden Reward	South Dakota	Lawrence				
26380-01124-000-00	Bertha Fraction	1124				Golden Reward Mining Company LP	Patented Lode Claim	1.61	Golden Reward	South Dakota	Lawrence				
26385-01073-010-00	Oxford Sub, Lot 1	1073				Golden Reward Mining Company LP	Tract or Parcel (Fee)	2.09	Golden Reward	South Dakota	Lawrence				
26385-01073-020-00	Oxford Sub, Lot 2	1073				Golden Reward Mining Company LP	Tract or Parcel (Fee)	2.15	Golden Reward	South Dakota	Lawrence				
26385-01073-030-00	Oxford Sub, Lot 3	1073				Golden Reward Mining Company LP	Tract or Parcel (Fee)	2.25	Golden Reward	South Dakota	Lawrence				
26385-01073-040-00	Oxford Sub, Lot 4	1073				Golden Reward Mining Company LP	Tract or Parcel (Fee)	2.06	Golden Reward	South Dakota	Lawrence				
26385-01073-050-00	Oxford Sub, Lot 5	1073				Golden Reward Mining Company LP	Tract or Parcel (Fee)	3.10	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26420-01136-000-00_1	Silver Belt No. 1, west of Hwy	1136				Golden Reward Mining Company LP	Patented Lode Claim	8.72	Golden Reward	South Dakota	Lawrence				
26420-01136-000-00_2	Silver Belt No. 2	1136				Golden Reward Mining Company LP	Patented Lode Claim	10.28	Golden Reward	South Dakota	Lawrence				
26420-01136-000-00_3	Big Crow	1136				Golden Reward Mining Company LP	Patented Lode Claim	10.25	Golden Reward	South Dakota	Lawrence				
26420-01136-000-00_4	Aztec	1136				Golden Reward Mining Company LP	Patented Lode Claim	10.21	Golden Reward	South Dakota	Lawrence				
26420-01136-000-00_5	Bayard	1136				Golden Reward Mining Company LP	Patented Lode Claim	8.01	Golden Reward	South Dakota	Lawrence				
26420-01136-000-00_6	Little Crow	1136				Golden Reward Mining Company LP	Patented Lode Claim	2.27	Golden Reward	South Dakota	Lawrence				
26420-01136-000-00_7	Little Crow Fraction	1136				Golden Reward Mining Company LP	Patented Lode Claim	0.79	Golden Reward	South Dakota	Lawrence				
26420-01136-000-00_8	Saw Tooth Fraction	1136				Golden Reward Mining Company LP	Patented Lode Claim	0.44	Golden Reward	South Dakota	Lawrence				
26420-01136-000-04	Lot 4 of Cuba & Great Western	1136				Golden Reward Mining Company LP	Tract or Parcel (Fee)	1.83	Golden Reward	South Dakota	Lawrence				
26420-01153-000-10_1	Cyclone Fraction No. 2	1153				Golden Reward Mining Company LP	Patented Lode Claim	2.40	Golden Reward	South Dakota	Lawrence				
26420-01153-000-10_2	Cyclone Frac., west of Hwy	1153				Golden Reward Mining Company LP	Patented Lode Claim	4.94	Golden Reward	South Dakota	Lawrence				
26420-01153-000-10_3	Sioux, west of Hwy	1153				Golden Reward Mining Company LP	Patented Lode Claim	1.44	Golden Reward	South Dakota	Lawrence				
26420-01158-000-30	Evangeline No. 7 & 8 (1/2 int)	1158				Golden Reward Mining Company LP	Patented Lode Claim	0.40	Golden Reward	South Dakota	Lawrence				
26420-01158-000-35	Evangeline No. 7 & 8 (1/2 int)	1158				Golden Reward Mining Company LP	Patented Lode Claim	0.40	Golden Reward	South Dakota	Lawrence				
26460-01167-000-00_1	Canyon exc. Hwy	1167				Golden Reward Mining Company LP	Patented Lode Claim	0.59	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26460-01167-000-00_2	Ruby Belle Frac. exc Hwy	1167				Golden Reward Mining Company LP	Patented Lode Claim	4.20	Golden Reward	South Dakota	Lawrence				
26460-01176-000-00_1	Harvard	1176				Golden Reward Mining Company LP	Patented Lode Claim	4.78	Golden Reward	South Dakota	Lawrence				
26460-01176-000-00_2	Cleveland	1176				Golden Reward Mining Company LP	Patented Lode Claim	6.64	Golden Reward	South Dakota	Lawrence				
26460-01197-000-00	Tony	1197				Golden Reward Mining Company LP	Patented Lode Claim	3.57	Golden Reward	South Dakota	Lawrence				
26460-01197-000-10	Maggie Fraction	1197				Golden Reward Mining Company LP	Patented Lode Claim	3.09	Golden Reward	South Dakota	Lawrence				
26460-01200-000-10_1	Carter, west of Hwy	1200				Golden Reward Mining Company LP	Patented Lode Claim	1.20	Golden Reward	South Dakota	Lawrence				
26460-01200-000-10_2	Trial No.1, west of Hwy	1200				Golden Reward Mining Company LP	Patented Lode Claim	1.46	Golden Reward	South Dakota	Lawrence				
26460-01200-000-10_3	Trial No. 2, west of Hwy	1200				Golden Reward Mining Company LP	Patented Lode Claim	8.66	Golden Reward	South Dakota	Lawrence				
26460-01200-000-10_4	Trial No. 3, west of Hwy	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.30	Golden Reward	South Dakota	Lawrence				
26460-01200-000-10_5	Trial Fraction, west of Hwy	1200				Golden Reward Mining Company LP	Patented Lode Claim	2.21	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_1	Bismark	1204				Golden Reward Mining Company LP	Patented Lode Claim	9.42	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_2	Bismark No. 1	1204				Golden Reward Mining Company LP	Patented Lode Claim	6.26	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_3	Bismark No. 2	1204				Golden Reward Mining Company LP	Patented Lode Claim	4.50	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_4	Bismark No. 3	1204				Golden Reward Mining Company LP	Patented Lode Claim	4.01	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_5	Crown Point	1204				Golden Reward Mining Company LP	Patented Lode Claim	9.70	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26460-01204-000-00_6	Crown Point No. 1	1204				Golden Reward Mining Company LP	Patented Lode Claim	10.62	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_7	Crown Point No. 2	1204				Golden Reward Mining Company LP	Patented Lode Claim	10.62	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_8	Crown Point No. 3	1204				Golden Reward Mining Company LP	Patented Lode Claim	10.26	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_9	Crown Point No. 4	1204				Golden Reward Mining Company LP	Patented Lode Claim	10.26	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_10	Crown Point No. 5	1204				Golden Reward Mining Company LP	Patented Lode Claim	10.21	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_11	Hanify	1204				Golden Reward Mining Company LP	Patented Lode Claim	10.06	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_12	Hanify No. 1	1204				Golden Reward Mining Company LP	Patented Lode Claim	10.06	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_13	Hanify No. 2	1204				Golden Reward Mining Company LP	Patented Lode Claim	10.06	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_14	Hanify No. 3	1204				Golden Reward Mining Company LP	Patented Lode Claim	10.06	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_15	Hanify No. 4	1204				Golden Reward Mining Company LP	Patented Lode Claim	10.06	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_16	Hanify No. 5	1204				Golden Reward Mining Company LP	Patented Lode Claim	10.06	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_17	Hanify No. 6	1204				Golden Reward Mining Company LP	Patented Lode Claim	10.06	Golden Reward	South Dakota	Lawrence				
26460-01204-000-00_18	Hanify No. 7	1204				Golden Reward Mining Company LP	Patented Lode Claim	10.24	Golden Reward	South Dakota	Lawrence				
26540-01221-000-00_1	Lovisa	1221				Golden Reward Mining Company LP	Patented Lode Claim	6.28	Golden Reward	South Dakota	Lawrence				
26540-01221-000-00_2	Eva	1221				Golden Reward Mining Company LP	Patented Lode Claim	8.00	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26540-01221-000-00_3	Addie	1221				Golden Reward Mining Company LP	Patented Lode Claim	7.56	Golden Reward	South Dakota	Lawrence				
26540-01221-000-00_4	Gamba Fraction	1221				Golden Reward Mining Company LP	Patented Lode Claim	6.91	Golden Reward	South Dakota	Lawrence				
26540-01221-000-00_5	Foster Fraction	1221				Golden Reward Mining Company LP	Patented Lode Claim	1.55	Golden Reward	South Dakota	Lawrence				
26680-01606-000-20	Lot 2B of Lot 2 of Augusta	1606				Golden Reward Mining Company LP	Tract or Parcel (Fee)	6.00	Golden Reward	South Dakota	Lawrence				
12000-00402-010-05_1	Lot 22	402				Golden Reward Mining Company LP	Government Lot or Block (Fee)	0.03	Golden Reward	South Dakota	Lawrence				
12000-00402-010-05_2	Lot 23	402				Golden Reward Mining Company LP	Government Lot or Block (Fee)	0.09	Golden Reward	South Dakota	Lawrence				
12000-00402-010-05_3	Lot 27	402				Golden Reward Mining Company LP	Government Lot or Block (Fee)	0.02	Golden Reward	South Dakota	Lawrence				
12000-00402-120-00	Lot 1	402				Golden Reward Mining Company LP	Government Lot or Block (Fee)	0.73	Golden Reward	South Dakota	Lawrence				
26340-00761-000-00	Bosebel	761				Golden Reward Mining Company LP	Patented Lode Claim	9.21	Golden Reward	South Dakota	Lawrence				
26340-00800-000-00	Harmony	800				Golden Reward Mining Company LP	Patented Lode Claim	5.55	Golden Reward	South Dakota	Lawrence				
26340-00801-000-00	Brewery exc Railroad ROW	801				Golden Reward Mining Company LP	Patented Lode Claim	8.31	Golden Reward	South Dakota	Lawrence				
26340-00802-000-00	Brewery Fraction	802				Golden Reward Mining Company LP	Patented Lode Claim	2.56	Golden Reward	South Dakota	Lawrence				
26340-00898-000-10	Tract B of M.S. 898, etal	898				Golden Reward Mining Company LP	Tract or Parcel (Fee)	15.77	Golden Reward	South Dakota	Lawrence				
26340-00907-000-00_1	Nevada Gulch Fraction	907				Golden Reward Mining Company LP	Patented Lode Claim	5.17	Golden Reward	South Dakota	Lawrence				
26340-00907-000-00_2	Silver Light	907				Golden Reward Mining Company LP	Patented Lode Claim	8.79	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26340-00907-000-00_3	Liberty Hill	907				Golden Reward Mining Company LP	Patented Lode Claim	9.96	Golden Reward	South Dakota	Lawrence				
26340-00907-000-00_4	Oblique Fraction	907				Golden Reward Mining Company LP	Patented Lode Claim	1.35	Golden Reward	South Dakota	Lawrence				
26340-00907-000-00_5	Oblique Fraction No. 2	907				Golden Reward Mining Company LP	Patented Lode Claim	1.70	Golden Reward	South Dakota	Lawrence				
26340-00925-000-10	Mogul exc Tract B	925				Golden Reward Mining Company LP	Patented Lode Claim	9.58	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00925-000-20	Tract B of Omega	925				Golden Reward Mining Company LP	Tract or Parcel (Fee)	3.41	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00925-000-30	Peabody exc Tract B	925				Golden Reward Mining Company LP	Patented Lode Claim	2.66	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00958-000-10_1	Belcher exc Tract B	958				Golden Reward Mining Company LP	Patented Lode Claim	6.57	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00958-000-10_2	North Cross	958				Golden Reward Mining Company LP	Patented Lode Claim	3.47	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00958-000-10_3	Hardscrabble No. 2	958				Golden Reward Mining Company LP	Patented Lode Claim	6.45	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00958-000-10_4	Contact	958				Golden Reward Mining Company LP	Patented Lode Claim	7.36	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00989-000-00_1	Yuba exc Terry Cemetary	989				Golden Reward Mining Company LP	Patented Lode Claim	7.29	Golden Reward	South Dakota	Lawrence				
26340-00989-000-00_2	Eldora exc Terry Cemetary	989				Golden Reward Mining Company LP	Patented Lode Claim	5.05	Golden Reward	South Dakota	Lawrence				
26340-00989-000-10	Terry Cemetary	989				Golden Reward Mining Company LP	Tract or Parcel (Fee)	1.34	Golden Reward	South Dakota	Lawrence				
26380-01052-000-10	Garland	1052				Golden Reward Mining Company LP	Patented Lode Claim	9.27	Golden Reward	South Dakota	Lawrence				
26380-01052-000-20	Graham	1052				Golden Reward Mining Company LP	Patented Lode Claim	5.69	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26380-01064-000-00_1	Big Test Fraction	1084				Golden Reward Mining Company LP	Patented Lode Claim	3.27	Golden Reward	South Dakota	Lawrence				
26380-01064-000-00_2	St. Louis	1084				Golden Reward Mining Company LP	Patented Lode Claim	8.26	Golden Reward	South Dakota	Lawrence				
26380-01064-000-00_3	Silver Fraction	1084				Golden Reward Mining Company LP	Patented Lode Claim	8.01	Golden Reward	South Dakota	Lawrence				
26380-01064-000-00_4	Tornado	1084				Golden Reward Mining Company LP	Patented Lode Claim	8.96	Golden Reward	South Dakota	Lawrence				
26380-01064-000-10_1	Daisy Fraction	1567				Golden Reward Mining Company LP	Patented Lode Claim	6.26	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26380-01064-000-10_2	Little Bird	1064				Golden Reward Mining Company LP	Patented Lode Claim	10.15	Golden Reward	South Dakota	Lawrence				
26380-01064-000-20	Minnie	1064				Golden Reward Mining Company LP	Patented Lode Claim	8.83	Golden Reward	South Dakota	Lawrence				
26380-01064-000-30	Minnie Fraction	1064				Golden Reward Mining Company LP	Patented Lode Claim	1.19	Golden Reward	South Dakota	Lawrence				
26380-01075-000-00	Livingston	1075				Golden Reward Mining Company LP	Patented Lode Claim	4.08	Golden Reward	South Dakota	Lawrence				
26380-01078-000-00	Ibex Fraction	1078				Golden Reward Mining Company LP	Patented Lode Claim	4.25	Golden Reward	South Dakota	Lawrence				
26340-00762-000-00	Mariposa	762				Golden Reward Mining Company LP	Patented Lode Claim	10.32	Golden Reward	South Dakota	Lawrence				
26280-00411-000-30	Tract A of Oriole	411				Golden Reward Mining Company LP	Tract or Parcel (Fee)	2.68	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00924-000-00	What's Left Frac. lying E & S of Hwy	924				Golden Reward Mining Company LP	Patented Lode Claim	0.05	Golden Reward	South Dakota	Lawrence				
26340-00984-000-03	Lot 3 of Champion & Peruvian Lodes	984				Golden Reward Mining Company LP	Tract or Parcel (Fee)	1.83	Golden Reward	South Dakota	Lawrence				
26380-01101-000-00	Some Left Frac. lying E & S of Hwy	1101				Golden Reward Mining Company LP	Patented Lode Claim	2.39	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26380-01102-000-00_4	St. Just	1102				Golden Reward Mining Company LP	Patented Lode Claim	1.79	Golden Reward	South Dakota	Lawrence				
26380-01102-000-00_5	Specie Payment Fraction	1102				Golden Reward Mining Company LP	Patented Lode Claim	1.90	Golden Reward	South Dakota	Lawrence				
26380-01102-000-00_6	Bryan	1102				Golden Reward Mining Company LP	Patented Lode Claim	1.78	Golden Reward	South Dakota	Lawrence				
26380-01102-000-00_7	Blaine lying E & S of Hwy	1102				Golden Reward Mining Company LP	Patented Lode Claim	4.36	Golden Reward	South Dakota	Lawrence				
26380-01102-000-00_8	Cleveland lying E & S of Hwy	1102				Golden Reward Mining Company LP	Patented Lode Claim	4.38	Golden Reward	South Dakota	Lawrence				
26380-01102-000-00_9	Dickinson lying E & S of Hwy	1102				Golden Reward Mining Company LP	Patented Lode Claim	6.52	Golden Reward	South Dakota	Lawrence				
26380-01131-000-00_1	Overdraft	1131				Golden Reward Mining Company LP	Patented Lode Claim	5.42	Golden Reward	South Dakota	Lawrence				
26380-01131-000-00_2	Cleopatra	1131				Golden Reward Mining Company LP	Patented Lode Claim	5.80	Golden Reward	South Dakota	Lawrence				
26380-01131-000-00_3	Argenta	1131				Golden Reward Mining Company LP	Patented Lode Claim	7.38	Golden Reward	South Dakota	Lawrence				
26380-01131-000-00_4	Daybreak	1131				Golden Reward Mining Company LP	Patented Lode Claim	0.91	Golden Reward	South Dakota	Lawrence				
26380-01131-000-00_5	Midnight	1131				Golden Reward Mining Company LP	Patented Lode Claim	7.51	Golden Reward	South Dakota	Lawrence				
26380-01131-000-00_6	Brandywine	1131				Golden Reward Mining Company LP	Patented Lode Claim	6.95	Golden Reward	South Dakota	Lawrence				
26380-01131-000-00_7	Brandywine Fraction	1131				Golden Reward Mining Company LP	Patented Lode Claim	3.12	Golden Reward	South Dakota	Lawrence				
26380-01131-000-00_8	Georgiana	1131				Golden Reward Mining Company LP	Patented Lode Claim	9.41	Golden Reward	South Dakota	Lawrence				
26380-01131-000-00_9	Florence Fraction	1131				Golden Reward Mining Company LP	Patented Lode Claim	2.77	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26380-01132-000-00_1	Wye House	1132				Golden Reward Mining Company LP	Patented Lode Claim	9.41	Golden Reward	South Dakota	Lawrence				
26380-01132-000-00_2	Mix	1132				Golden Reward Mining Company LP	Patented Lode Claim	6.67	Golden Reward	South Dakota	Lawrence				
26380-01132-000-00_3	Stir	1132				Golden Reward Mining Company LP	Patented Lode Claim	3.51	Golden Reward	South Dakota	Lawrence				
26380-01132-000-00_4	Glendale Fraction	1132				Golden Reward Mining Company LP	Patented Lode Claim	7.40	Golden Reward	South Dakota	Lawrence				
26380-01132-000-00_5	Buckeye No. 2	1132				Golden Reward Mining Company LP	Patented Lode Claim	7.58	Golden Reward	South Dakota	Lawrence				
26380-01132-000-00_6	Stone Wall	1132				Golden Reward Mining Company LP	Patented Lode Claim	5.78	Golden Reward	South Dakota	Lawrence				
26380-01132-000-00_7	Blue Ridge	1132				Golden Reward Mining Company LP	Patented Lode Claim	8.24	Golden Reward	South Dakota	Lawrence				
26380-01132-000-00_8	Lloyd Lounds	1132				Golden Reward Mining Company LP	Patented Lode Claim	8.81	Golden Reward	South Dakota	Lawrence				
26420-01136-000-10_1	Cuba	1136				Golden Reward Mining Company LP	Patented Lode Claim	4.89	Golden Reward	South Dakota	Lawrence				
26420-01136-000-10_2	Cuba Fraction	1136				Golden Reward Mining Company LP	Patented Lode Claim	4.30	Golden Reward	South Dakota	Lawrence				
26420-01136-000-10_3	Great Western	1136				Golden Reward Mining Company LP	Patented Lode Claim	6.74	Golden Reward	South Dakota	Lawrence				
26420-01136-000-10_4	Silver Belt No. 1 lying E & S of Hwy	1136				Golden Reward Mining Company LP	Patented Lode Claim	1.61	Golden Reward	South Dakota	Lawrence				
26420-01151-000-10_1	Beaver	1151				Golden Reward Mining Company LP	Patented Lode Claim	7.72	Golden Reward	South Dakota	Lawrence				
26420-01151-000-10_2	Sound Money	1151				Golden Reward Mining Company LP	Patented Lode Claim	4.75	Golden Reward	South Dakota	Lawrence				
26420-01151-000-10_3	Boone	1151				Golden Reward Mining Company LP	Patented Lode Claim	10.06	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26420-01151-000-10_4	Cuba No. 1 Fraction	1151				Golden Reward Mining Company LP	Patented Lode Claim	3.46	Golden Reward	South Dakota	Lawrence				
26420-01151-000-10_5	Colts	1151				Golden Reward Mining Company LP	Patented Lode Claim	8.99	Golden Reward	South Dakota	Lawrence				
26420-01151-000-10_6	Cook	1151				Golden Reward Mining Company LP	Patented Lode Claim	9.73	Golden Reward	South Dakota	Lawrence				
26420-01151-000-10_7	Missing Link	1151				Golden Reward Mining Company LP	Patented Lode Claim	9.77	Golden Reward	South Dakota	Lawrence				
26420-01151-000-10_8	Syracuse	1151				Golden Reward Mining Company LP	Patented Lode Claim	8.65	Golden Reward	South Dakota	Lawrence				
26420-01151-000-10_9	Cuba Fraction	1151				Golden Reward Mining Company LP	Patented Lode Claim	3.95	Golden Reward	South Dakota	Lawrence				
26420-01151-000-10_10	McKinley Fraction	1151				Golden Reward Mining Company LP	Patented Lode Claim	1.57	Golden Reward	South Dakota	Lawrence				
26420-01151-000-10_11	Diorite	1151				Golden Reward Mining Company LP	Patented Lode Claim	7.81	Golden Reward	South Dakota	Lawrence				
26420-01151-000-10_12	Xerxes	1151				Golden Reward Mining Company LP	Patented Lode Claim	3.61	Golden Reward	South Dakota	Lawrence				
26420-01151-000-10_13	Linnaeus	1151				Golden Reward Mining Company LP	Patented Lode Claim	7.72	Golden Reward	South Dakota	Lawrence				
26420-01152-000-00_1	Boston	1152				Golden Reward Mining Company LP	Patented Lode Claim	2.85	Golden Reward	South Dakota	Lawrence				
26420-01152-000-00_2	Welcome	1152				Golden Reward Mining Company LP	Patented Lode Claim	10.91	Golden Reward	South Dakota	Lawrence				
26420-01152-000-00_3	Derby	1152				Golden Reward Mining Company LP	Patented Lode Claim	6.91	Golden Reward	South Dakota	Lawrence				
26420-01152-000-00_4	Tiger	1152				Golden Reward Mining Company LP	Patented Lode Claim	9.39	Golden Reward	South Dakota	Lawrence				
26420-01152-000-00_5	Seagull	1152				Golden Reward Mining Company LP	Patented Lode Claim	6.13	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26420-01152-000-00_6	Sitting Bull	1152				Golden Reward Mining Company LP	Patented Lode Claim	10.17	Golden Reward	South Dakota	Lawrence				
26420-01152-000-00_7	Lot D of Doze, Palmetto, et al	1152				Golden Reward Mining Company LP	Tract or Parcel (Fee)	32.88	Golden Reward	South Dakota	Lawrence				
26420-01152-000-00_8	Lot F of Doze Frac. & Dexter	1152				Golden Reward Mining Company LP	Tract or Parcel (Fee)	1.41	Golden Reward	South Dakota	Lawrence				
26420-01153-000-00_1	Old Bill	1153				Golden Reward Mining Company LP	Patented Lode Claim	9.39	Golden Reward	South Dakota	Lawrence				
26420-01153-000-00_2	McLeod	1153				Golden Reward Mining Company LP	Patented Lode Claim	8.81	Golden Reward	South Dakota	Lawrence				
26420-01153-000-00_3	Golden Key	1153				Golden Reward Mining Company LP	Patented Lode Claim	8.92	Golden Reward	South Dakota	Lawrence				
26420-01153-000-00_4	Bayard Fraction	1153				Golden Reward Mining Company LP	Patented Lode Claim	5.57	Golden Reward	South Dakota	Lawrence				
26420-01153-000-00_5	Cyclone Frac. lying E & S of Hwy	1153				Golden Reward Mining Company LP	Patented Lode Claim	0.30	Golden Reward	South Dakota	Lawrence				
26420-01153-000-00_6	Sioux lying E & S of Hwy	1153				Golden Reward Mining Company LP	Patented Lode Claim	6.82	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_1	On Time	1158				Golden Reward Mining Company LP	Patented Lode Claim	9.40	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_2	On Time No. 1	1158				Golden Reward Mining Company LP	Patented Lode Claim	9.40	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_3	On Time No. 2	1158				Golden Reward Mining Company LP	Patented Lode Claim	9.40	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_4	On Time No. 3	1158				Golden Reward Mining Company LP	Patented Lode Claim	9.40	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_5	On Time No. 4	1158				Golden Reward Mining Company LP	Patented Lode Claim	2.30	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_6	Evangeline No. 1	1158				Golden Reward Mining Company LP	Patented Lode Claim	9.77	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26420-01158-000-00_7	Evangeline No. 2	1158				Golden Reward Mining Company LP	Patented Lode Claim	10.22	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_8	Evangeline No. 3	1158				Golden Reward Mining Company LP	Patented Lode Claim	10.20	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_9	Evangeline No. 4	1158				Golden Reward Mining Company LP	Patented Lode Claim	10.21	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_10	Evangeline No. 5	1158				Golden Reward Mining Company LP	Patented Lode Claim	10.21	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_11	Evangeline No. 6	1158				Golden Reward Mining Company LP	Patented Lode Claim	6.04	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_12	Evangeline No. 7	1158				Golden Reward Mining Company LP	Patented Lode Claim	0.29	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_13	Evangeline No. 8	1158				Golden Reward Mining Company LP	Patented Lode Claim	0.22	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_14	Big Four	1158				Golden Reward Mining Company LP	Patented Lode Claim	5.80	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_15	Big Four No. 1	1158				Golden Reward Mining Company LP	Patented Lode Claim	7.54	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_16	Big Four No. 2	1158				Golden Reward Mining Company LP	Patented Lode Claim	7.62	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_17	Big Four No. 3	1158				Golden Reward Mining Company LP	Patented Lode Claim	7.60	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_18	Big Four No. 4	1158				Golden Reward Mining Company LP	Patented Lode Claim	7.61	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_19	Square	1158				Golden Reward Mining Company LP	Patented Lode Claim	1.72	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_20	High Point	1158				Golden Reward Mining Company LP	Patented Lode Claim	8.18	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_21	Big Foot	1158				Golden Reward Mining Company LP	Patented Lode Claim	9.55	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26420-01158-000-00_22	Black Thunder	1158				Golden Reward Mining Company LP	Patented Lode Claim	9.55	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_23	Crow Dog	1158				Golden Reward Mining Company LP	Patented Lode Claim	7.41	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_24	Bull Eagle	1158				Golden Reward Mining Company LP	Patented Lode Claim	7.87	Golden Reward	South Dakota	Lawrence				
26420-01158-000-00_25	Little Bird Fraction	1158				Golden Reward Mining Company LP	Patented Lode Claim	1.22	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_1	CAW	1142				Golden Reward Mining Company LP	Patented Lode Claim	9.02	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_2	I.M.H.	1142				Golden Reward Mining Company LP	Patented Lode Claim	9.36	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_3	Florence	1142				Golden Reward Mining Company LP	Patented Lode Claim	10.23	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_4	Stead	1142				Golden Reward Mining Company LP	Patented Lode Claim	10.31	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_5	Stead No. 1	1142				Golden Reward Mining Company LP	Patented Lode Claim	10.30	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_6	Stead No. 2	1142				Golden Reward Mining Company LP	Patented Lode Claim	10.26	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_7	Stead No. 3	1142				Golden Reward Mining Company LP	Patented Lode Claim	10.26	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_8	Stead No. 4	1142				Golden Reward Mining Company LP	Patented Lode Claim	9.42	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_9	McLeod	1142				Golden Reward Mining Company LP	Patented Lode Claim	8.02	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_10	McLeod No. 1	1142				Golden Reward Mining Company LP	Patented Lode Claim	9.81	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_11	McLeod No. 2	1142				Golden Reward Mining Company LP	Patented Lode Claim	8.74	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26450-00200-000-00_12	Gertrude	1142				Golden Reward Mining Company LP	Patented Lode Claim	4.69	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_13	Coppy Fraction	1142				Golden Reward Mining Company LP	Patented Lode Claim	2.31	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_14	Low	1142				Golden Reward Mining Company LP	Patented Lode Claim	3.52	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_15	High	1142				Golden Reward Mining Company LP	Patented Lode Claim	5.39	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_16	Poorman	1142				Golden Reward Mining Company LP	Patented Lode Claim	8.71	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_17	Elsie	1142				Golden Reward Mining Company LP	Patented Lode Claim	7.97	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_18	Monmouth	1142				Golden Reward Mining Company LP	Patented Lode Claim	10.30	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_19	Monmouth No. 1	1142				Golden Reward Mining Company LP	Patented Lode Claim	10.30	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_20	Monmouth No. 2	1142				Golden Reward Mining Company LP	Patented Lode Claim	5.30	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_21	Monmouth No. 3	1142				Golden Reward Mining Company LP	Patented Lode Claim	10.30	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_22	Monmouth No. 4	1142				Golden Reward Mining Company LP	Patented Lode Claim	10.30	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_23	Monmouth No. 5	1142				Golden Reward Mining Company LP	Patented Lode Claim	9.93	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_24	Monmouth No. 6	1142				Golden Reward Mining Company LP	Patented Lode Claim	9.18	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_25	December	1142				Golden Reward Mining Company LP	Patented Lode Claim	4.10	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_26	Bridgeport	1142				Golden Reward Mining Company LP	Patented Lode Claim	9.69	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26450-00200-000-00_27	Blue Danube	1142				Golden Reward Mining Company LP	Patented Lode Claim	10.31	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_28	Dr. Late	1142				Golden Reward Mining Company LP	Patented Lode Claim	9.98	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_29	Lampighter	1142				Golden Reward Mining Company LP	Patented Lode Claim	10.31	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_30	West Virginia	1142				Golden Reward Mining Company LP	Patented Lode Claim	10.31	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_31	Client Fraction	1142				Golden Reward Mining Company LP	Patented Lode Claim	4.31	Golden Reward	South Dakota	Lawrence				
26450-00200-000-00_32	Client	1142				Golden Reward Mining Company LP	Patented Lode Claim	8.58	Golden Reward	South Dakota	Lawrence				
26450-01058-000-00_1	Carmyllie	1058				Golden Reward Mining Company LP	Patented Lode Claim	3.52	Golden Reward	South Dakota	Lawrence				
26450-01058-000-00_2	Sol Star	1058				Golden Reward Mining Company LP	Patented Lode Claim	10.13	Golden Reward	South Dakota	Lawrence				
26450-01058-000-00_3	Golden Eagle	1058				Golden Reward Mining Company LP	Patented Lode Claim	10.33	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26450-01058-000-00_4	Guild	1058				Golden Reward Mining Company LP	Patented Lode Claim	9.38	Golden Reward	South Dakota	Lawrence				
26450-01058-000-00_5	Mose Lyon Fraction	1058				Golden Reward Mining Company LP	Patented Lode Claim	0.20	Golden Reward	South Dakota	Lawrence				
26450-01058-000-00_6	Doctor Flick Fraction	1058				Golden Reward Mining Company LP	Patented Lode Claim	0.11	Golden Reward	South Dakota	Lawrence				
26450-01058-000-00_7	Robert Emet	1058				Golden Reward Mining Company LP	Patented Lode Claim	7.35	Golden Reward	South Dakota	Lawrence				
26450-01188-000-00_1	Wild Deer No. 1	1188				Golden Reward Mining Company LP	Patented Lode Claim	10.18	Golden Reward	South Dakota	Lawrence				
26450-01188-000-00_2	Wild Deer No. 2	1188				Golden Reward Mining Company LP	Patented Lode Claim	9.51	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26450-01188-000-00_3	Wild Fawn	1188				Golden Reward Mining Company LP	Patented Lode Claim	1.22	Golden Reward	South Dakota	Lawrence				
26450-01215-000-00_1	Leona Lock	1215				Golden Reward Mining Company LP	Patented Lode Claim	8.23	Golden Reward	South Dakota	Lawrence				
26450-01215-000-00_2	Lone Star	1215				Golden Reward Mining Company LP	Patented Lode Claim	4.94	Golden Reward	South Dakota	Lawrence				
26450-01215-000-00_3	Bengal Tiger	1215				Golden Reward Mining Company LP	Patented Lode Claim	6.34	Golden Reward	South Dakota	Lawrence				
26450-01215-000-00_4	Deposit	1215				Golden Reward Mining Company LP	Patented Lode Claim	5.19	Golden Reward	South Dakota	Lawrence				
26450-01215-000-00_5	B & M Fraction	1215				Golden Reward Mining Company LP	Patented Lode Claim	6.61	Golden Reward	South Dakota	Lawrence				
26450-01215-000-00_6	Gopher No. 1	1215				Golden Reward Mining Company LP	Patented Lode Claim	8.22	Golden Reward	South Dakota	Lawrence				
26450-01215-000-00_7	Gopher No. 2	1215				Golden Reward Mining Company LP	Patented Lode Claim	8.53	Golden Reward	South Dakota	Lawrence				
26450-01215-000-00_8	Gopher No. 3	1215				Golden Reward Mining Company LP	Patented Lode Claim	7.22	Golden Reward	South Dakota	Lawrence				
26455-01169-000-00_1	Polar Bear	1169				Golden Reward Mining Company LP	Patented Lode Claim	10.29	Golden Reward	South Dakota	Lawrence				
26455-01169-000-00_2	Wedge	1169				Golden Reward Mining Company LP	Patented Lode Claim	6.41	Golden Reward	South Dakota	Lawrence				
26455-01169-000-00_3	Edison	1169				Golden Reward Mining Company LP	Patented Lode Claim	9.35	Golden Reward	South Dakota	Lawrence				
26455-01169-000-00_4	Edison No. 2	1169				Golden Reward Mining Company LP	Patented Lode Claim	10.20	Golden Reward	South Dakota	Lawrence				
26455-01169-000-00_5	Edison No. 3	1169				Golden Reward Mining Company LP	Patented Lode Claim	10.30	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_1	King	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.32	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26460-01200-000-00_2	Carter No. 1	1200				Golden Reward Mining Company LP	Patented Lode Claim	4.88	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_3	Carter No. 2	1200				Golden Reward Mining Company LP	Patented Lode Claim	5.41	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_4	Carter No. 3	1200				Golden Reward Mining Company LP	Patented Lode Claim	2.94	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_5	Fay No. 2	1200				Golden Reward Mining Company LP	Patented Lode Claim	6.65	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_6	Fay No. 3	1200				Golden Reward Mining Company LP	Patented Lode Claim	2.70	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_7	Ray	1200				Golden Reward Mining Company LP	Patented Lode Claim	3.94	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_8	Ray No. 1	1200				Golden Reward Mining Company LP	Patented Lode Claim	9.13	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_9	Ray No. 2	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.31	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_10	Ray No. 3	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.29	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_11	Bancroft No. 1	1200				Golden Reward Mining Company LP	Patented Lode Claim	9.71	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_12	Bancroft No. 2	1200				Golden Reward Mining Company LP	Patented Lode Claim	9.41	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_13	Bancroft No. 3	1200				Golden Reward Mining Company LP	Patented Lode Claim	5.96	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_14	Violet No. 1	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.17	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_15	Violet No. 2	1200				Golden Reward Mining Company LP	Patented Lode Claim	2.22	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_16	Violet No. 3	1200				Golden Reward Mining Company LP	Patented Lode Claim	2.83	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26460-01200-000-00_17	Ox	1200				Golden Reward Mining Company LP	Patented Lode Claim	2.62	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_18	Flat	1200				Golden Reward Mining Company LP	Patented Lode Claim	8.30	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_19	Rainbow	1200				Golden Reward Mining Company LP	Patented Lode Claim	8.69	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_20	Albert Steele	1200				Golden Reward Mining Company LP	Patented Lode Claim	9.47	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_21	Browning	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.28	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_22	Paragon	1200				Golden Reward Mining Company LP	Patented Lode Claim	9.53	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_23	Charlie	1200				Golden Reward Mining Company LP	Patented Lode Claim	9.99	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_24	Ruby Basin	1200				Golden Reward Mining Company LP	Patented Lode Claim	8.35	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_25	Cunniff	1200				Golden Reward Mining Company LP	Patented Lode Claim	8.35	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_26	Star	1200				Golden Reward Mining Company LP	Patented Lode Claim	6.07	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_27	Principal Fraction	1200				Golden Reward Mining Company LP	Patented Lode Claim	6.00	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_28	Principal Fraction No. 1	1200				Golden Reward Mining Company LP	Patented Lode Claim	5.98	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_29	Principal No. 1	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.29	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_30	Principal No. 2	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.29	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_31	Principal No. 3	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.28	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26460-01200-000-00_32	Principal No. 4	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.29	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_33	Sheridan	1200				Golden Reward Mining Company LP	Patented Lode Claim	9.96	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_34	Annie	1200				Golden Reward Mining Company LP	Patented Lode Claim	9.96	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_35	Springview	1200				Golden Reward Mining Company LP	Patented Lode Claim	9.15	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_36	Maggie	1200				Golden Reward Mining Company LP	Patented Lode Claim	4.01	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_37	Amy	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.13	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_38	Waukegon	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.12	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_39	Genevieve	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.13	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_40	Little Johnny	1200				Golden Reward Mining Company LP	Patented Lode Claim	8.70	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_41	Llama	1200				Golden Reward Mining Company LP	Patented Lode Claim	7.74	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_42	Turn-Turn	1200				Golden Reward Mining Company LP	Patented Lode Claim	1.84	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_43	Lucky Girl	1200				Golden Reward Mining Company LP	Patented Lode Claim	8.80	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_44	Jay No. 1	1200				Golden Reward Mining Company LP	Patented Lode Claim	9.81	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_45	Jay No. 2	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.29	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_46	Jay No. 3	1200				Golden Reward Mining Company LP	Patented Lode Claim	9.64	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26460-01200-000-00_47	Albert Steel Fraction	1200				Golden Reward Mining Company LP	Patented Lode Claim	7.70	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_48	Log Cabin	1200				Golden Reward Mining Company LP	Patented Lode Claim	8.87	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_49	Hazard	1200				Golden Reward Mining Company LP	Patented Lode Claim	10.16	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_50	Carter lying E of Hwy	1200				Golden Reward Mining Company LP	Patented Lode Claim	7.77	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_51	Trial No. 1 lying E of Hwy	1200				Golden Reward Mining Company LP	Patented Lode Claim	8.86	Golden Reward	South Dakota	Lawrence				
26460-01200-000-00_52	Trial No. 2 lying E of Hwy	1200				Golden Reward Mining Company LP	Patented Lode Claim	1.66	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_1	St. George No. 1	1209				Golden Reward Mining Company LP	Patented Lode Claim	9.51	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_2	St. George No. 2	1209				Golden Reward Mining Company LP	Patented Lode Claim	10.04	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_3	Monte Carlo	1209				Golden Reward Mining Company LP	Patented Lode Claim	8.69	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_4	Venus	1209				Golden Reward Mining Company LP	Patented Lode Claim	10.19	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_5	Jupiter	1209				Golden Reward Mining Company LP	Patented Lode Claim	10.19	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_6	Deer Mountain	1209				Golden Reward Mining Company LP	Patented Lode Claim	10.19	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_7	Evarts	1209				Golden Reward Mining Company LP	Patented Lode Claim	10.19	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_8	Fairview	1209				Golden Reward Mining Company LP	Patented Lode Claim	10.15	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_9	World's Fair	1209				Golden Reward Mining Company LP	Patented Lode Claim	9.06	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26500-01209-000-00_10	Bangor Fraction No. 2	1209				Golden Reward Mining Company LP	Patented Lode Claim	2.82	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_11	Bangor No. 1	1209				Golden Reward Mining Company LP	Patented Lode Claim	9.61	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_12	Selbie	1209				Golden Reward Mining Company LP	Patented Lode Claim	6.74	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_13	Transit	1209				Golden Reward Mining Company LP	Patented Lode Claim	8.35	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_14	First Chance	1209				Golden Reward Mining Company LP	Patented Lode Claim	9.93	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_15	Chicago	1209				Golden Reward Mining Company LP	Patented Lode Claim	9.98	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_16	Big Dipper Fraction	1209				Golden Reward Mining Company LP	Patented Lode Claim	4.87	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_17	Big Dipper No. 1	1209				Golden Reward Mining Company LP	Patented Lode Claim	8.74	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_18	Big Dipper No. 2	1209				Golden Reward Mining Company LP	Patented Lode Claim	10.06	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_19	Big Dipper No. 3	1209				Golden Reward Mining Company LP	Patented Lode Claim	9.98	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_20	Big Dipper No. 4	1209				Golden Reward Mining Company LP	Patented Lode Claim	10.29	Golden Reward	South Dakota	Lawrence				
26500-01209-000-00_21	Big Dipper No. 5	1209				Golden Reward Mining Company LP	Patented Lode Claim	8.22	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_1	Havana No. 1	1210				Golden Reward Mining Company LP	Patented Lode Claim	9.90	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_2	Havana No. 2	1210				Golden Reward Mining Company LP	Patented Lode Claim	9.64	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_3	Havana No. 3	1210				Golden Reward Mining Company LP	Patented Lode Claim	9.36	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26583-01210-000-00_4	Havana No. 4	1210				Golden Reward Mining Company LP	Patented Lode Claim	9.39	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_5	Havana No. 5	1210				Golden Reward Mining Company LP	Patented Lode Claim	9.11	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_6	Havana No. 6	1210				Golden Reward Mining Company LP	Patented Lode Claim	9.38	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_7	Havana No. 7	1210				Golden Reward Mining Company LP	Patented Lode Claim	8.77	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_8	Havana No. 8	1210				Golden Reward Mining Company LP	Patented Lode Claim	3.66	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_9	Havana No. 9	1210				Golden Reward Mining Company LP	Patented Lode Claim	5.01	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_10	Havana No. 10	1210				Golden Reward Mining Company LP	Patented Lode Claim	5.81	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_11	Connecting	1210				Golden Reward Mining Company LP	Patented Lode Claim	3.50	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_12	Wabash No. 1	1210				Golden Reward Mining Company LP	Patented Lode Claim	4.43	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_13	Wabash No. 2	1210				Golden Reward Mining Company LP	Patented Lode Claim	4.44	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_14	Wabash No. 3	1210				Golden Reward Mining Company LP	Patented Lode Claim	3.98	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_15	Wabash No. 4	1210				Golden Reward Mining Company LP	Patented Lode Claim	3.95	Golden Reward	South Dakota	Lawrence				
26583-01210-000-00_16	Wabash No. 5	1210				Golden Reward Mining Company LP	Patented Lode Claim	2.99	Golden Reward	South Dakota	Lawrence				
26584-01217-000-00_1	Doze	1217				Golden Reward Mining Company LP	Patented Lode Claim	6.51	Golden Reward	South Dakota	Lawrence				
26584-01217-000-00_2	Doze Fraction	1217				Golden Reward Mining Company LP	Patented Lode Claim	7.57	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
26584-01217-000-00_3	Evening Star	1217				Golden Reward Mining Company LP	Patented Lode Claim	8.40	Golden Reward	South Dakota	Lawrence				
26584-01217-000-00_4	Bryan	1217				Golden Reward Mining Company LP	Patented Lode Claim	8.38	Golden Reward	South Dakota	Lawrence				
26584-01217-000-00_5	Belt	1217				Golden Reward Mining Company LP	Patented Lode Claim	8.45	Golden Reward	South Dakota	Lawrence				
26584-01217-000-00_6	Isreal	1217				Golden Reward Mining Company LP	Patented Lode Claim	8.45	Golden Reward	South Dakota	Lawrence				
26584-01217-000-00_7	Dolphin	1217				Golden Reward Mining Company LP	Patented Lode Claim	8.45	Golden Reward	South Dakota	Lawrence				
26340-00902-000-30_13	Quit Claim	902				Wharf Resources (USA) Inc.	Patented Lode Claim	10.27	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00925-000-40	Tract A of Omega	925				Wharf Resources (USA) Inc.	Tract or Parcel (Fee)	6.81	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26280-00411-000-10	Oriole exc Tract A	411-A				Wharf Resources (USA) Inc.	Patented Lode Claim	7.64	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-30_1	Cyanide	902				Wharf Resources (USA) Inc.	Patented Lode Claim	6.01	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26340-00902-000-30_2	LaPierre	902				Wharf Resources (USA) Inc.	Patented Lode Claim	9.67	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
26620-01470-000-00	Cherry Gulch	1470				Wharf Resources (USA) Inc.	Patented Lode Claim	7.65	Golden Reward	South Dakota	Lawrence	2.6125%	Valentine, et al, Metalla	2.0000%	Royal Gold
MMC89109	GOLDEN REWARD #2			MMC 89109		Golden Reward Mining Company LP	Federal Lode Claim	5.51	Golden Reward	South Dakota	Lawrence				
MMC89110	GOLDEN REWARD #4			MMC 89110		Golden Reward Mining Company LP	Federal Lode Claim	20.66	Golden Reward	South Dakota	Lawrence				
MMC92905	GOLDEN REWARD #5			MMC 92905		Golden Reward Mining Company LP	Federal Lode Claim	13.77	Golden Reward	South Dakota	Lawrence				
MMC94456	GOLDEN REWARD #15			MMC 94456		Golden Reward Mining Company LP	Federal Lode Claim	4.82	Golden Reward	South Dakota	Lawrence				
MMC94457	GOLDEN REWARD #16			MMC 94457		Golden Reward Mining Company LP	Federal Lode Claim	4.82	Golden Reward	South Dakota	Lawrence				
MMC94459	GOLDEN REWARD #18			MMC 94459		Golden Reward Mining Company LP	Federal Lode Claim	4.13	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
MMC94460	GOLDEN REWARD #19			MMC 94460		Golden Reward Mining Company LP	Federal Lode Claim	4.13	Golden Reward	South Dakota	Lawrence				
MMC94462	GOLDEN REWARD #25			MMC 94462		Golden Reward Mining Company LP	Federal Lode Claim	6.89	Golden Reward	South Dakota	Lawrence				
MMC125813	MOCO JV-11			MMC 125813		Golden Reward Mining Company LP	Federal Lode Claim	6.89	Golden Reward	South Dakota	Lawrence				
MMC125814	MOCO JV-12			MMC 125814		Golden Reward Mining Company LP	Federal Lode Claim	6.89	Golden Reward	South Dakota	Lawrence				
MMC125815	MOCO JV-13			MMC 125815		Golden Reward Mining Company LP	Federal Lode Claim	2.75	Golden Reward	South Dakota	Lawrence				
MMC132782	BABY			MMC 132782		Golden Reward Mining Company LP	Federal Lode Claim	2.75	Golden Reward	South Dakota	Lawrence				
MMC132783	MELANIE			MMC 132783		Golden Reward Mining Company LP	Federal Lode Claim	7.35	Golden Reward	South Dakota	Lawrence				
MMC134347	PATTI #2			MMC 134347		Golden Reward Mining Company LP	Federal Lode Claim	1.84	Golden Reward	South Dakota	Lawrence				
MMC134349	PATTI #4			MMC 134349		Golden Reward Mining Company LP	Federal Lode Claim	2.75	Golden Reward	South Dakota	Lawrence				
MMC134350	PATTI #5			MMC 134350		Golden Reward Mining Company LP	Federal Lode Claim	2.75	Golden Reward	South Dakota	Lawrence				
MMC134351	PATTI #6			MMC 134351		Golden Reward Mining Company LP	Federal Lode Claim	2.75	Golden Reward	South Dakota	Lawrence				
MMC134352	PATTI #7			MMC 134352		Golden Reward Mining Company LP	Federal Lode Claim	4.13	Golden Reward	South Dakota	Lawrence				
MMC134353	PATTI #8			MMC 134353		Golden Reward Mining Company LP	Federal Lode Claim	1.84	Golden Reward	South Dakota	Lawrence				
MMC172950	FRED #1			MMC 172950		Golden Reward Mining Company LP	Federal Lode Claim	8.26	Golden Reward	South Dakota	Lawrence				
MMC172951	FRED #2			MMC 172951		Golden Reward Mining Company LP	Federal Lode Claim	3.67	Golden Reward	South Dakota	Lawrence				
MMC172952	FRED #3			MMC 172952		Golden Reward Mining Company LP	Federal Lode Claim	3.67	Golden Reward	South Dakota	Lawrence				
MMC172953	FRED #4			MMC 172953		Golden Reward Mining Company LP	Federal Lode Claim	3.67	Golden Reward	South Dakota	Lawrence				
MMC184192	BONESPUR FRACTION			MMC 184192		Golden Reward Mining Company LP	Federal Lode Claim	0.23	Golden Reward	South Dakota	Lawrence				
MMC193034	GREMLIN NO 1			MMC 193034		Golden Reward Mining Company LP	Federal Lode Claim	16.52	Golden Reward	South Dakota	Lawrence				
MMC193035	GREMLIN NO 2			MMC 193035		Golden Reward Mining Company LP	Federal Lode Claim	13.77	Golden Reward	South Dakota	Lawrence				
MMC193323	GREMLIN NO 3			MMC 193323		Golden Reward Mining Company LP	Federal Lode Claim	0.55	Golden Reward	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
MMC193324	GREMLIN NO 4			MMC 193324		Golden Reward Mining Company LP	Federal Lode Claim	0.11	Golden Reward	South Dakota	Lawrence				
MMC222709	CAITLIN NO. 1			MMC 222709		Golden Reward Mining Company LP	Federal Lode Claim	1.03	Golden Reward	South Dakota	Lawrence				
MMC222710	CAITLIN NO. 2			MMC 222710		Golden Reward Mining Company LP	Federal Lode Claim	4.12	Golden Reward	South Dakota	Lawrence				
MMC222711	CAITLIN NO. 3			MMC 222711		Golden Reward Mining Company LP	Federal Lode Claim	1.03	Golden Reward	South Dakota	Lawrence				
MMC223020	CAITLIN NO. 4			MMC 223020		Golden Reward Mining Company LP	Federal Lode Claim	6.43	Golden Reward	South Dakota	Lawrence				
MMC223021	CAITLIN NO. 5			MMC 223021		Golden Reward Mining Company LP	Federal Lode Claim	0.69	Golden Reward	South Dakota	Lawrence				
MMC234507	Hattie Clay Lode			MMC 234507		Golden Reward Mining Company LP	Federal Lode Claim	20.66	Golden Reward	South Dakota	Lawrence				
MMC236754	JH 1			MMC 236754		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236755	JH 2			MMC 236755		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236756	JH 3			MMC 236756		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236757	JH 4			MMC 236757		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236758	JH 5			MMC 236758		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236759	JH 6			MMC 236759		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236760	JH 7			MMC 236760		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236761	JH 8			MMC 236761		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236762	JH 9			MMC 236762		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236763	JH 10			MMC 236763		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236764	JH 11			MMC 236764		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236765	JH 12			MMC 236765		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236766	JH 13			MMC 236766		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236767	JH 14			MMC 236767		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
MMC236768	JH 15			MMC 236768		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236769	JH 16			MMC 236769		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236770	JH 17			MMC 236770		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236771	JH 18			MMC 236771		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236772	JH 19			MMC 236772		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236773	JH 20			MMC 236773		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236774	JH 21			MMC 236774		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236775	JH 22			MMC 236775		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236776	JH 23			MMC 236776		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236777	JH 24			MMC 236777		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236778	JH 25			MMC 236778		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236779	JH 26			MMC 236779		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236780	JH 30			MMC 236780		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236781	JH 31			MMC 236781		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236782	JH 32			MMC 236782		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236783	JH 33			MMC 236783		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236784	JH 34			MMC 236784		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236785	JH 35			MMC 236785		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236786	JH 36			MMC 236786		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236787	JH 37			MMC 236787		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236788	JH 38			MMC 236788		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
MMC236789	JH 39			MMC 236789		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236790	JH 40			MMC 236790		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236791	JH 41			MMC 236791		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236792	JH 42			MMC 236792		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236793	JH 43			MMC 236793		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236794	JH 44			MMC 236794		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236795	JH 47			MMC 236795		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236796	JH 48			MMC 236796		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236797	JH 49			MMC 236797		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236798	JH 50			MMC 236798		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236799	JH 51			MMC 236799		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236800	JH 53			MMC 236800		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236801	JH 54			MMC 236801		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236802	JH 55			MMC 236802		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236803	JH 62			MMC 236803		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236804	JH 65			MMC 236804		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236805	JH 68			MMC 236805		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236806	JH 69			MMC 236806		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236807	JH 70			MMC 236807		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236808	JH 71			MMC 236808		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236809	JH 72			MMC 236809		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				

c	Name	M.S. Number	Patent #	BLM S/N	State S/N	Owner/Parties	Type	Acreage	Project	State	County	Royalty (1)	Royalty Holder (1)	Royalty (2)	Royalty Holder (2)
MMC236810	JH 73			MMC 236810		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236811	JH 74			MMC 236811		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236812	JH 75			MMC 236812		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236813	JH 76			MMC 236813		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236814	JH 77			MMC 236814		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236815	JH 78			MMC 236815		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236816	JH 79			MMC 236816		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				
MMC236817	JH 80			MMC 236817		Coeur Explorations, Inc.	Federal Lode Claim	20.66	Johana (Wharf)	South Dakota	Lawrence				

Maps

