

Preliminary Economic Assessment
OF MINERAL RESOURCES,
TONOPAH WEST SILVERGOLD PROJECT
NYE AND ESMERALDA COUNTIES.

NYE AND ESMERALDA COUNTIES, NEVADA, USA

PREPARED FOR

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BLACKROCK

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FORWARD-LOOKING STATEMENTS

This Technical Report contains forward-looking statements within the meaning of Section 27A of the U.S. Securities Act of 1933, as amended, and Section 21E of the U.S. Securities Exchange Act of 1934, as amended, and forward-looking information under the equivalent Canadian securities laws (hereinafter collectively referred to as "forward-looking statements"), (i) which are intended to be covered by the safe harbor created by such sections and (ii) in compliance with Part 4A of National Instrument 51-102. Words such as "may", "will", "should", "expects", "intends", "projects", "believes", "estimates", "targets", "anticipates" and similar expressions are used to identify these forward-looking statements. Such forward-looking statements include, without limitation, statements regarding Blackrock Silver's expectation for its mines and any related development or expansions, including estimated cash flows, production, revenue, costs, taxes, capital, rates of return, mine plans, material mined and processed, recoveries and grade, future mineralization, future adjustments and sensitivities and other statements that are not historical facts. Other forward-looking statements in this report may involve, without limitation, the following:

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- / Proposed mine and process production plan.
- / Projected mining and process recovery rates.
- / Ability to market the doré on favorable terms as shown in the life of mine plan.
- / Sustaining capital costs and proposed operating costs.
- / Assumptions as to closure costs and closure requirements.
- / Assumptions as to ability to obtain remaining outstanding permits.
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- / Exploration risks and results, including that mineral resources are not mineral reserves, they do not have demonstrated economic viability and there is no certainty that they can be upgraded to mineral reserves through continued exploration.
- / Geotechnical or hydrogeological considerations during operations being different from what was assumed.
- / Mineral depletion estimate based on historic mine property maps are not fully known.
- / Failure of mining methods to operate as anticipated.
- / Operating risks, including but not limited to failure of plant, equipment or processes to operate as anticipated.
- / Accidents and other risks of the mining industry.
- / Silver and other metals price volatility.
- / Currency fluctuations.
- / Increased production costs and variances in grade or recovery rates from those assumed in mining plans.
- / Community relations.
- / Conflict resolution and outcome of projects or oppositions.
- / Litigation, political, regulatory, labor, and environmental risks.
- / Inflation causes our costs to rise more than we currently expect.

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1 SUMMARY (ITEM 1)

This report entitled "Preliminary Economic Assessment of the Mineral Resources, Tonopah West Silver-Gold Project" (the "Technical Report") describes the proposed mining and processing operations for the Tonopah West Project ("Tonopah West" or "the Project") located immediately adjacent and west of the town of Tonopah, Nevada. This report was prepared for Blackrock Silver Corp. (TSXV:BRC; OTC:BKRRF; FSE AHZO) ("Blackrock"), a Canadian company based in Vancouver, British Columbia.

This Technical Report considers an underground mine with silver ("Ag") and gold ("Au") mineralization being processed on the surface by three stage crushing, agitated cyanide leaching, and counter-current decantation followed by Merrill-Crowe zinc precipitation. Precipitate will be melted to produce Ag-Au doré bars as a final saleable product.

Mineral resource estimates herein have been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101 ("NI 43-101"), Companion Policy 43-101CP, and Form 43-101F1, as well as with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards - For Mineral Resources and Reserves, Definitions and Guidelines" ("CIM Standards") adopted by the CIM Council on May 10, 2014. The effective date of the mineral resources estimate is August 23, 2024 and this Technical Report is dated September 4, 2024. Mineral Resources are geologically constrained and defined at economic cutoff grades that demonstrate reasonable prospects of eventual economic extraction. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources will be converted into Mineral Reserves.

1.1 Preliminary Economic Assessment

The preliminary economic assessment is preliminary in nature, and there is no certainty that the reported results will be realized. The Mineral Resource estimate used for the PEA includes Inferred Mineral Resources which are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that the projected economic performance will be realized. The purpose of the PEA is to demonstrate the economic viability of the Tonopah West Mine, and the results are only intended as an initial, first-pass review of the Project economics based on preliminary information. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

1.2 Property Description and Ownership

The Tonopah West property totals 1,030.2 hectares of private land (patented mining claims) and public land controlled by the United States Department of the Interior Bureau of Land Management ("USBLM"). The property consists of 83 unpatented lode mining claims and 100 patented claims held by





Blackrock that cover portions of Section 3, Township 2 North, R42 East, and Sections 26 through 29 and 33 through 35 of Township 3 North, Range 42 East, Mount Diablo Base Meridian in Nye and Esmeralda counties, Nevada, adjacent to and locally within the town limits of Tonopah, Nevada. The approximate center of the property is located at latitude 38.0719°N and longitude 117.2498°W. The current annual holding costs for the Tonopah West unpatented mining claims are estimated at \$1,200 including the county recording fees.

Historical mining and exploration activities have occurred at various areas within the Tonopah West property since the early 1900s. These activities have left roads, drill pads, historic underground workings, mine tailings and mine dumps. The author is not aware of any environmental liabilities associated with the above. Blackrock's US subsidiary, Blackrock Gold Corporation, is authorized for a surface disturbance of up to 65.8 acres under a surety bond for US\$204,091 posted with the Nevada Department of Environmental Protection (NDEP). Blackrock also has an approved Notice of Intent NVN100896 with the USBLM, bonded in the amount of \$41,262 in December 2021, that allows for up to five acres of disturbance of the unpatented claims. Blackrock represents the surface disturbance permits are sufficient for the exploration work recommended in this report.

1.3 EXPLORATION AND MINING HISTORY

The Tonopah West project is located in the western part of the Tonopah mining district which produced an estimated 8,023,371 tonnes, valued at \$150,198,315 from 1900 to the 1940s [Carpenter et al., 1953]. This includes an estimated 2,305,192 tonnes, valued at \$40,189,799, reported to have been mined from the western portion of the district [Carpenter et al., 1953] where the Tonopah West property is located. Details of the specific mining operations are not well known. Some of the available, more important underground maps and reports have been compiled and digitized by Blackrock. Historical modern exploration commenced in 1969 with underground work by Howard Hughes' Summa Corporation. Subsequent operators included Houston Oil and Minerals, Chevron USA (Chevron), Coeur Mining, Inc. (Coeur), and Eastfield Resources Ltd. (Eastfield). Blackrock acquired an option on the Tonopah West property in 2020. The author is not aware of any significant historical mineral resources or reserves estimated for the Tonopah West property.

1.4 GEOLOGY AND MINERALIZATION

The Tonopah West project is situated on the southwestern flank of the San Antonio Mountains between and overlapping the margins of the 20 million years old (Ma) Fraction caldera to the north, and the 17.3 Ma Heller caldera to the south. Surface exposures at the Tonopah West property include Miocene volcanic rocks and Quaternary fan and pediment deposits. At depth, the andesitic to silicic volcanic flows, tuffs, and volcaniclastic rocks of the Tonopah volcanic center overlie basement granitic intrusive rocks of probable Mesozoic age.





Silver-gold mineralization at the Tonopah West property occurs in low- to intermediate-sulfidation epithermal quartz veins and quartz-cemented breccias that do not crop out at the surface. The veins generally strike west, west-northwest or northwest and dip at various angles to the north and northeast. The principal host rocks include the West End Rhyolite, and to a lesser extent, the Mizpah Andesite (also known as the Mizpah Formation), Extension Breccia, Tonopah Formation, and Sandgrass Andesite. Mineralized quartz veins range from a few centimetres to a several metres in thickness. The average thickness of the modelled veins is 4.3 metres. Thicker zones tend to be characterized by sub-parallel quartz fissure veins. Vein mineralogy includes quartz, adularia, pyrite, and parallel bands of fine-grained black sulfide and/or sulfosalt minerals. Polybasite, pyrargyrite, acanthite, freibergite/tennantite and possibly naumannite are inferred based on sample geochemistry. Related quartz-cemented breccias contain pyrite and fine-grained black sulfide and/or sulfosalt minerals in the matrix.

Groups of mineralized veins have been defined that comprise the four spatial areas of estimated mineral resources and mineralized material in the Tonopah West property: Denver-Paymaster ("DP") vein group, Bermuda-Merten ("Bermuda") vein group, Victor vein group, and Northwest ("NW") Step Out vein group. The DP and Bermuda vein groups are located approximately 1 kilometre west of the town of Tonopah and was historically accessed by the westernmost underground mining workings in the Tonopah district. The DP and Bermuda vein groups are sometimes collectively referred to as "DPB" throughout this document, as they occur in a spatial area that has the most known widespread mineralization along strike. Otherwise, the separation of DP and Bermuda exists for convenience of reporting and modeling, and while there are some differences between vein groups, the distinction between these zones is not important.

The Victor vein historically was accessed by workings more proximal to the central Tonopah mining district. The known extent of the Victor vein is approximately 750 metres in an east-west direction, with a vertical extent of about 400 metres. The NW Step Out vein group is a new discovery that was not previously known to exist or to have been developed during historical work in the district.

1.5 METALLURGICAL TESTING AND MINERAL PROCESSING

Blackrock has completed two rounds of metallurgical test work at Tonopah West. The first round of metallurgical work completed consisted of 12 bottle-roll cyanide leach analyses on reverse circulation (RC) and core composite drill samples. The samples were analyzed by Kappes, Cassiday & Associates (KCA) and the results were completed in January 2022. A second round of metallurgical testing is in progress at KCA as of the date of this report. Any completed tests from the second ongoing round of test work are included in this report.

The estimated gold recovery for all of the veins excluding Victor is 95.1% and Victor is 97.2%. The estimated silver recovery for all of the veins excluding Victor is 87.7% and Victor is 90.1%. The average





laboratory NaCN consumption at design parameters is 2.18 kg/T. Lime consumption is estimated at 0.9 kg/T.

1.6 MINERAL RESOURCE ESTIMATE

The estimated mineral resources presented in this Technical Report were classified in order of increasing geological and quantitative confidence to be in accordance with the "CIM Definition Standards - For Mineral Resources and Mineral Reserves" [2014] and therefore Canadian National Instrument 43-101. Mineral resources are reported at cutoffs that are reasonable for deposits of this nature given anticipated mining methods and plant processing costs, while also considering economic conditions, because of the regulatory requirements that a mineral resource exists "in such form and quantity and of such a grade or quality that it has reasonable prospects for eventual economic extraction."

RESPEC modeled metal domains for the Tonopah West project vein deposits using geologic models provided by Blackrock as a guide, then estimated and classified silver and gold mineral resources. A small block size of 1.5 metres x 1.5 metres x 1.5 metres was chosen for evaluation of underground potential using small equipment. Estimation was done using inverse distance interpolation methods, constrained to mineral domains generated by RESPEC which were coded to the block model by partial percentages to obtain precise dilution of grades.

The Tonopah West project mineral resources have been estimated to reflect potential underground extraction and processing by standard cyanide milling techniques. To meet the requirement of having reasonable prospects for eventual economic extraction, only those model blocks with greater than or equal to a minimum silver equivalent cutoff grade considered amenable to underground extraction were included in the mineral resource tabulation. The cutoff grade was calculated using input costs and parameters. Silver equivalent ("AgEq") grades were calculated from silver and gold values interpolated in the block model. The AgEq grades were calculated using metal prices of \$23/oz silver and \$1,900/oz gold, and metal recoveries of 87% silver and 95% gold, the AgEq grade assigned to each model block is determined by the following formulas:

 $($23/$1900) \times (0.87/0.95) = 0.011086$ and g AgEq/t = g Ag/t + (g Au/t/0.011086)

The AgEq cutoff grade was calculated using assumed average mining costs which reflect the potential use of longhole stoping methods for the steeply-dipping veins, and cut-and-fill methods for the shallow-dipping veins. In addition to these parameters, a 3.0% Net Smelter Return (NSR) royalty was applied to the cutoff grade.





Estimated mineral resources at the Tonopah West project are presented Table 1-1 Mineral resources that are not mineral reserves do not have demonstrated economic viability.

Table 1-1 Tonopah West Inferred Mineral Resources

Tonopah West Total Resource									
Cutoff Grade g AgEq/t	Tonnes	Ave. AgEq Grade g AgEq/t	Ave. Ag Grade g Ag/t	Ave. Au Grade g Au/t	Contained oz Ag	Contained oz Au	Contained oz AgEq		
190	6,351,000	492.5	237.8	2.8	48,550,000	577,000	100,560,000		

- 1. The Effective Date of the Tonopah West mineral resources is August 23, 2024.
- 2. The project mineral resources are comprised of all complete or partial model blocks that have a grade equal to or greater than the cutoff grade of 190 g AgEq/tonne.
- 3. The cutoff grade was calculated using a \$25/oz Ag price, costs of \$82.6/tonne mining, \$36.3/tonne processing, and \$9.7/tonne G&A costs for a total cost of \$128.6/tonne. Metallurgical recovery for silver was assumed to be 87% and 95% recovery of gold was assumed. Refining costs of \$0.20/oz Ag produced and a 3% NSR royalty were also applied to the cutoff grade calculation.
- 4. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
- 5. The estimate of mineral resources may be materially affected by geology, environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
- There are no known factors related to metallurgical, environmental, permitting, legal, title, taxation, socio-economic, marketing or political issues which could materially affect the mineral resource estimates contained in this Technical Report.
- 7. Rounding as required by reporting guidelines may result in apparent discrepancies between tons, grade, and contained metal content.
- 8. Mineral resources which are not mineral reserves do not have demonstrated economic viability. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

1.7 MINING METHODS

Tonopah west consists of a series of steeply and moderately-dipping vein structures. Ground conditions are very good, and many historic surface excavations remain open. Narrow high-grade veins will be mined by Longitudinal Open Stoping and overhand Cut-and Fill methods. For Cut-and-Fill mining an initial cut heading is driven in the mineralization low in the vein, then backfilled. Subsequent cut headings are then driven in a bottom-up manner using the previously filled stope as a platform. Wider veins will be mined by Longitudinal Open Stope (longhole stoping) methods. These will be developed by driving access levels along strike in the mineralization at 15 m (sill to sill) intervals. The panels, (or benches) between the levels in the vein will be removed in a retreating fashion using the top heading as drill and explosive loading access and the lower heading as mucking access. These stopes will also be filled with either cemented rock fill (CRF) or an engineered hydraulic fill. The majority of these stopes will be taken at vein width along the vein strike length.





1.8 RECOVERY METHODS

The report considers a processing plant with a design capacity to treat 1,500 metric tonnes per day. The design for the project is based on a conventional metallurgical flowsheet. Extraction of gold and silver from the crushed and finely ground whole mineral will be carried out by agitated cyanide leaching to produce a pregnant leach solution. The precious metal pregnant leach solution is separated from the solid material in counter-current decantation thickeners. Process tailings will be dewatered by pressure filtration. Solid tailings waste material from pressure filtration will be transported by dump truck to a lined dry-stack tailings storage area. For this evaluation, 20% of the tails were assumed to be used for backfill in the underground mine. Precious metal values will be recovered from the pregnant solution by Merrill-Crowe zinc precipitation, followed by precipitate smelting. Precipitate smelting will produce gold and silver doré bars.

The process and infrastructure capital costs are shown in Table 1-5.

1.9 ENVIRONMENTAL STUDIES AND PERMITTING

Blackrock has not initiated the environmental baseline data collection studies that are necessary to support the permit application submittals for a mining operation. Environmental baseline data collection that will be necessary of complete mine permit applications includes; a groundwater characterization, a geochemical characterization of the waste rock, backfill materials and tailings, and a botanical assessment of the reclamation standards.

In order to conduct mining and processing activities, the Project will need specific permits from the State of Nevada Division of Environmental Protection (NDEP), Bureau of Mining Regulation and Reclamation (BMRR), as well as other state agencies. The following major permits will be required: Nevada Reclamation Permit; Water Pollution Control Permits; Air Quality Operating Permit; Water Rights; Industrial Artificial Pond Permit; and Encroachment Permit.

1.10 Capital and Operating Costs

1.10.1 Mine Capital and Operating Costs

The mine development and operating costs were based on first principles mining task cycle times using recent labor and materials data. The majority of development and all mine operations will be by Tonopah West crews with owned equipment. Vertical development except for drop raises will be contracted, and these costs use current contractor labor and equipment rental rates. Mining labor was calculated separately from the component equipment operating, materials and supplies costs. Labor was then applied to either Capital or Operating as appropriate. Contingencies are only applied at the bottom line for both Capital and Operating. Table 1-2 is the underground infrastructure summary, Table





1-3 is a summary of the underground Capital expenditures including labor and contingency. Table 1-4 shows all Tonopah west labor in the Capital and Operating costs.

Table 1-2 Underground Project Infrastructure Schedule - No Contingency

Tonopah West Underground	Total	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Infrastructure		Expenditure Schedule - US\$- Contingency Separate							
Portal	\$500,000	\$415,000	\$85,000						
Primary Fans	\$320,000	\$40,000	\$40,000	\$120,000	\$80,000		\$40,000		
Cemented Rock Fill Plant	\$1,500,000			\$1,500,000					
Sand Plant	\$2,000,000		\$1,000,000	\$1,000,000					
Sand Plant Distribution System	\$1,875,000			\$1,500,000	\$125,000		\$125,000		\$125,000
Secondary Escape Hoist	\$350,000		\$350,000						
Load Centers	\$361,000	105000	\$25,000	\$141,000			\$90,000		
Compressor	\$400,000	\$180,000	\$20,000				\$200,000		
Compressor House	\$60,000	\$60,000							
Equip UG Shop	\$200,000		\$200,000						
Communication	\$21,500	\$10,000		\$1,500	\$2,500	\$2,500	\$2,500	\$2,500	
Refuge Chamber	\$80,000				\$40,000		\$40,000		
Total Capital Infrastructure	\$7,667,500	\$810,000	\$1,720,000	\$4,262,500	\$247,500	\$2,500	\$497,500	\$2,500	\$125,000

Note 1: Secondary fans, electrical cable, communications cable, pumps and pipe are included in ramp development direct costs

Note 2: Non-contracted labor costs are tabulated separately in development costs





Table 1-3 Tonopah West Underground Capital Summary

Table 1-3 Tollopali West Office ground Capital Sulfillary										
Tonopah West Underground Wa	iste	Total	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Development Summary			Develo	opment Ex	penditure	Schedule -	- Continge	ncy Include	ed - US\$(0	00's)
	ters									
Primary Declines	3,563	\$16,655		\$8,978	\$5,511	\$2,165				
Victor Decline	2,513	\$10,171				\$1,393	\$3,752	\$3,274	\$1,752	
DPB Decline	7,738	\$31,569			\$7,662	\$7,309	\$7,503	\$5,877	\$3,217	
Victor Cross Cuts	1,989	\$8,053				\$546	\$2,251	\$2,212	\$2,185	\$859
DPB Cross Cuts	7,036	\$28,629			\$3,065	\$5,116	\$5,252	\$5,161	\$5,081	\$4,953
Primary Ventilation Cross Cuts	2,275	\$9,406		\$863	\$1,492	\$1,443	\$1,476	\$1,456	\$1,437	\$1,238
UG Work Stations (shop)	90	\$967		\$516				\$451		
Miscellaneous - (Note 1)		\$1,610		\$539	\$331	\$213	\$225	\$196	\$105	
Exploration Development	2,858	\$11,653			\$1,387	\$2,403	\$2,467	\$2,424	\$2,395	\$578
Sub-Total Blackrock Development		\$118,712	\$0	\$10,896	\$19,449	\$20,587	\$22,926	\$21,052	\$16,173	\$7,628
Contactor Vertical Development										
Internal Drop Vent Raises	1,312	\$3,621		\$44	\$596	\$596	\$596	\$596	\$596	\$596
Bore Hole	344	\$6,725			\$6,725					
Shaft Rehabilitation										
Tonopah West	133	\$994		\$994						
McKane	407	\$11,982				\$11,982				
Victor - (Note 2)	441	\$11,157						\$11,157		
Sub-Total Vertical Development		\$34,480	\$0	\$1,038	\$7,321	\$12,578	\$596	\$11,753	\$596	\$596
Total Mine Development - \$USD (000's)	\$153,192	\$0	\$11,935	\$26,770	\$33,166	\$23,522	\$32,806	\$16,769	\$8,224
Other Capex										
Diamond Drilling		\$6,297	\$0	\$0	\$1,799	\$1,000	\$1,000	\$1,000	\$1,000	\$500
Mobile Equipment		\$43,130	\$6,296	\$4,789	\$19,099	\$1,242	\$3,407	\$5,849	\$2,447	
Mine Infrastructure		\$8,818	\$810	\$2,100	\$4,902	\$285	\$3	\$572	\$3	\$144
Mining G&A		\$1,506		\$1,046	\$460					
Mine Power		\$1,258		\$874	\$384					
Sub-Total Other Capex		\$61,009	\$7,106	\$8,808	\$26,645	\$2,526	\$4,410	\$7,421	\$3,450	\$644
Total Mine Development - \$USD		\$214,201	\$7,106	\$20,743	\$53,415	\$35,692	\$27,932	\$40,227	\$20,219	\$8,867

Note 1: Miscellaneous includes muck bays, sumps, vent XC's, power bays, etc.

Table 1-4 Tonopah West Total Hourly Labor Costs

Tonopah West Labor	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Total
Tonopan West Labor	US\$ (000's) US\$ (000's)									
Lateral Waste Drives	\$6,627	\$10,997	\$11,273	\$12,727	\$11,385	\$8,799	\$4,232	\$0	\$0	\$66,040
Ore Sublevels	\$0	\$4,523	\$3,962	\$4,872	\$5,357	\$5,290	\$5,539	\$5,286	\$3,330	\$38,160
Cut and Fill	\$0	\$6,855	\$10,106	\$7,258	\$4,192	\$3,971	\$4,186	\$4,357	\$4,962	\$45,887
Panel Extraction	\$0	\$3,071	\$6,075	\$7,653	\$8,692	\$8,732	\$9,394	\$10,265	\$8,679	\$62,561
Total	\$6,627	\$25,446	\$31,415	\$32,510	\$29,627	\$26,792	\$23,350	\$19,909	\$16,972	\$212,648

Note 1: The mill has a 50,000 tonne surge stockpile, therefore mill production lags mine production $\frac{1}{2}$

1.10.2 Process and Surface Infrastructure Capital and Operating Cost

The estimated required capital costs have been based on the process design described in Section 17 of this report. The scope of the costs includes all expenditures for process plant, infrastructure, construction indirect cost and owner's costs for the Project. The cost for earthworks, concrete,





Note 2: Reuses some of McKane Rehab Gear

Note 3: Contingency on Diamond Drilling 5%; Mining G&A and Mine Power is 10%; all other Capital is 15%

Note 4: Columns may not total due to rounding

Note 2: A 10% contingency for mining labor and 15% contingency for waste development labor was added to the bottom line Cash Flows.

structural steel and major piping have been estimated by KCA from similar projects in the Western United States. The process and infrastructure capital costs are presented in Table 1-5.

Table 1-5 Process and Infrastructure Capital Cost Summary

Discipline	Grand Total
	US\$,000
Major Earthworks & Liner	\$2,476
Civils (Supply & Install)	\$3,627
Structural Steelwork (Supply & Install)	\$3,400
Platework (Supply & Install)	\$4,651
Mechanical Equipment	\$42,940
Piping	\$6,739
Electrical	\$10,748
Instrumentation	\$1,563
Infrastructure	\$4,911
Spare Parts	\$2,013
Contingency	\$15,957
Plant Total Direct Costs	\$99,025

Total Operating Expenses (OPEX) for processing at the Project is estimated \$43.37/T processed. No provision has been included in the operating cost for future escalation. No contingency is applied to operating costs. Costs are provided using Q3 2024 US dollars.

Process plant operating costs have been estimated based on the information extracted from metallurgical tests and experience from KCA's recent projects with similar process in the Western United States. The average annual process costs and unit costs are presented in Table 1-6.

Table 1-6 Operating Cost Summary

Tonopah West	Annual	US\$ per
Operating Cost Summary	Costs, US\$	Tonne
Labor - All Process Areas	\$5,278,005	\$9.640
Area 13 - Crushing	\$899,825	\$1.644
Area 20 - Grinding & Thickening	\$3,644,496	\$6.657
Area 30 - Agitated Leach	\$392,863	\$0.718
Area 25 - CCD Wash & Detox Circuit	\$530,377	\$0.969
Area 21 - Filtration & Tailings	\$1,223,187	\$2.234
Area 70 - Tailings Paste Backfill	\$1,876,732	\$3.428
Area 31 - Merrill-Crowe & Refinery	\$232,911	\$0.425
Area 34 - Reagents	\$3,224,084	\$5.889
Area 38 - Laboratory	\$391,675	\$0.715
Area 60 - Power	\$10,950	\$0.020





Tonopah West	Annual	US\$ per
Area 62 - Water Supply, Storage & Distribution	\$459,594	\$0.839
Area 65 - Compressed Air	\$1,893,454	\$3.458
Area 66 - Facilities	\$53,578	\$0.098
Area 08 - Plant Mobile Equipment	\$394,012	\$0.720
Total Process Operating Costs	\$20,505,742	\$37.453
Fixed Costs	\$6,283,654	\$11.477
Variable Costs	\$14,222,089	\$25.976
G&A Costs	\$3,240,911	\$5.919
Total OPEX incl. G&A	\$23,746,653	\$43.373

1.11 ECONOMIC ANALYSIS

The economic analysis of the Tonopah West project was undertaken using a discounted cash flow (DCF) model in Microsoft Excel with a discount rate of 5%.

Table 1-7 summarizes the principal assumptions and results of the analysis.





Table 1-7 Assumptions and Results of Economic Analysis

Tonopah West Project - Assumptions / Results	2024 PEA
Total tonnes processed over the LOM	4,114,000
Total waste mined over the LOM	1,486,000
Gold grade mined – LOM average (g/t)	3.34
Silver grade mined – LOM average (g/t)	271.0
Silver Equivalent grade mined – LOM average (g/t) (3)	569.7
Gold recovery – LOM weighted average	96.1%
Silver recovery – LOM weighted average	88.9%
Expected Long-term Gold Price (US\$/oz)	\$1,900
Expected Long-term Silver Price (US\$/oz)	\$23.00
Total gold production (payable ounces)	424,000
Total silver production (payable Ag ounces)	31,780,000
Total silver production (payable AgEq ounces)	66,816,000
Average silver equivalent production per Annum (payable AgEq ounces)	8,596,000
LOM gross revenue, before refining and treatment charges (US\$ millions)	\$1,537
Initial capital costs (US\$ millions) (Table 2)	\$178
Sustaining capital costs (US\$ million)	\$178
LOM cash costs (US\$ millions) (Table 3)	\$621
LOM cash cost per payable ounce of AgEq (US\$)	\$9.30
LOM AISC per payable ounce of AgEq (US\$)	\$11.96
Mine Life (years) (2)	7.8
Average LOM process rate (tpd)	1500
After-tax undiscounted LOM Project Cash Flow (US\$ millions) (1)	\$496
After-Tax NPV (5% discount) (US\$ millions) (1)	\$326
After-Tax IRR (1)	39.2%
Payback Period (years) (2)	2.3
After-Tax NPV of LOM Cash Flow / NPV of Pre-production capex (1)	2.0

Note 1: from start of construction

Note 2: from start of production

Note 3: g AgEq/tonne = g Ag/tonne + (g Au/tonne x Silver Equivalency Factor)

Silver Equivalency Factor = [(Metal Price Au) / (Metal Price Ag)] x [(Met. Rec. Au) x (Au Payable %)] / [(Met. Rec. Ag) x (Ag Payable %)] where payables are assumed 99.9% for Au and 99.75% for Ag.

Table 1-8 summarizes the production profile and cash flows for the project.





Table 1-8 Cash Flow Summary

Year	Produc	tion (2)	Gross Revenue	Operating Costs &	Operating	Sustaining	•		AISC
	Gold	Silver	(3)	Royalties (5)	Cash Flow	Capex (6)	Capex (4)	(7)	
	Kozs				US	\$ Millions			
Year -2	0	0	0	0	0	0	18	-18	0
Year -1	0	0	0	0	0	0	126	-126	0
Year 1	35	2,837	133	53	79	40	34	5	94
Year 2	67	5,091	244	87	157	37	0	120	124
Year 3	57	4,014	200	82	118	29	0	89	111
Year 4	56	4,214	204	81	123	41	0	82	122
Year 5	57	4,303	207	82	125	21	0	104	103
Year 6	55	4,045	198	82	116	10	0	107	91
Year 7	56	3,887	195	82	113	1	0	113	82
Year 8	42	3,387	157	71	86	1	0	86	72
Total	424	31,780	1,537	620	916	178	178	560	799

Note 1: All figures are rounded to reflect the relative accuracy of the estimate.

Note 2: Production represents payable gold and silver.

Note 3: Gross revenue is based on gold and silver prices of US\$1,900 and US\$23 per ounce respectively.

Note 4: From start of construction.

Note 5: Includes production taxes

Note 6: Excludes exploration development for NW veins.

Note 7: Excludes Federal Income Tax

Figure 1-1 illustrates the annual versus cumulative unlevered free cash flows for the project.

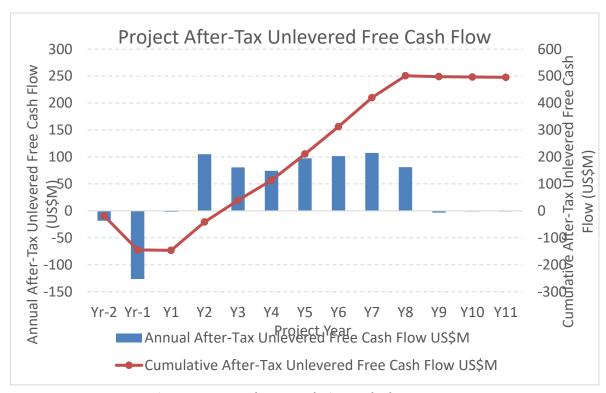


Figure 1-1 Annual vs Cumulative Cash Flows





Figure 1-2 and Figure 1-3 illustrate the sensitivities of the project Net Present Value (NPV) and Internal Rate of Return (IRR) to metals prices, initial capital expenditure, and operating expenses.

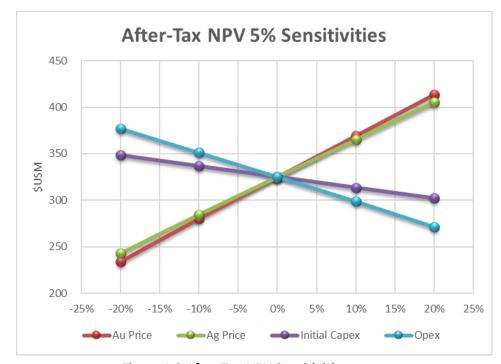


Figure 1-2 After-Tax NPV Sensitivities

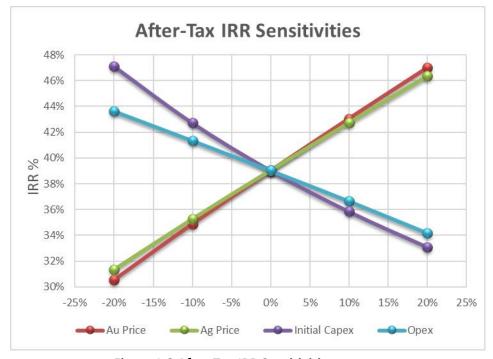


Figure 1-3 After-Tax IRR Sensitivities





1.12 CONCLUSIONS AND RECOMMENDATIONS

The Tonopah West vein system contains low- to intermediate-sulfidation epithermal precious metal mineralization that extends west from the central part of the Tonopah district. The mineralization is silver-rich, relatively base metal-poor and consists of parallel sets of veins and vein stockworks. The author believes that exploration potential for additional mineralization at the Tonopah West project remains significant within the historical veins and the new veins discovered by Blackrock. Most of the modeled mineralization is open at depth, and, in several areas, along strike, with opportunity to expand the current resources with further drilling, both down-dip and laterally. In particular, the area between the DPB and Victor resources, and DPB and NW Step Out are poorly explored by drilling and further drilling has the potential to connect these resource areas.

The Inferred classification of the current mineral resources reflects the relatively early stage of exploration and delineation. As the project advances, drill spacing and general knowledge of geology and mineralization can improve. Higher classification will require infill drilling in order to test the current silver and gold models. Underground access may be necessary to efficiently perform infill and expansion drilling and may also aid in refining the location of historical underground mine development.

Blackrock's drilling, including the 2022 NW Step Out program, has intersected new mineralized veins, which attests to the potential for discovery of additional silver-gold resources in the Tonopah West project area. Further work is warranted, and the author recommend an infill and exploration program with an estimated total cost of approximately \$8.7 million (approximately CAD\$11.7 million) as summarized in Table 1-9. Blackrock would complete a combined 20,000 metres of RC and core drilling Expenditures for RC drilling are approximately \$230/metre, including assays, logging, and dirt work/reclamation costs. Core drilling costs would likely be in the range of \$550/metre including assays, logging, and dirt work/reclamation costs.

Table 1-9 Blackrock Cost Estimate for the Recommended Infill and Exploration Program

Item	Estimated Cost (USD)
Exploration RC Pre-Collar Drilling – 3,500m (@ ~\$230/metre)*	\$800,000
Exploration Core Drilling – 4,500m (@ ~\$550.00/metre)*	\$2,500,000
Infill RC Pre-Collar Drilling – 5,000m (@ ~\$230/metre)*	1,150,000
Infill Core Drilling – 7,000m (@ ~\$550.00/metre)*	3,850,000
Exploration Overhead**	\$275,000
Resource Update	\$125,000
Total	\$8,700,000

^{*} Includes all assaying, dirt work, reclamation, and drilling consumables

^{**} Includes all payroll, consultants, travel and meals, computer software, storage rental, various supplies.





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The author notes that exploration and development from underground may be necessary to efficiently perform infill drilling for resource delineation, and costs for such development have not been included in these recommendations. It is the author's opinion that the Tonopah West project is a project of merit that warrants the proposed exploration program and level of expenditures summarized above.





2 Introduction and Terms of Reference (ITEM 2)

The authors prepared this Technical Report on the Tonopah West silver-gold project, Nye and Esmeralda Counties, Nevada, at the request of Blackrock, a British Columbia corporation. Blackrock controls the Tonopah West project and property through its wholly-owned U.S. subsidiary Blackrock Gold Corp. and both companies are referred to collectively herein as "Blackrock."

The Tonopah West project lies in the western portion of the historic Tonopah mining district of west-central Nevada. The Tonopah district has been the site of extensive exploration and underground mining since 1900. The purpose of this report is to provide an updated estimate of mineral resources and preliminary economic assessment for the Tonopah West project.]. This report draws extensively from Lindholm and Bickel [2022] and has been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators' NI 43-101, Companion Policy 43-101CP, and Form 43-101F1, as amended.

The authors of this report are:

Minetech, LLC ("Minetech") is responsible for the underground infrastructure, the mine Capex and Opex portions of the PEA as well as mining methods, the mine plan and operating schedules in coordination with the other "Qualified Persons". Mr. Robert H. Todd, PE, is a Principal of Minetech, LLC, an independent consulting mining engineer, a registered engineer in Nevada (#007779), consultant to the Company and Independent "Qualified Person" as defined by NI 43-101.

Mr. Jeffery Bickel, C.P.G (AIPG) is a Registered Geologist and Senior Geologist with RESPEC Company LLC. ("RESPEC"). RESPEC is responsible for the Mineral Resource Estimate (MRE), the geology settings and mineralization, property descriptions, explorations and drilling, portions of the report along with data verifications. Mr. Bickel is an independent consultant to the Company and "Qualified Person" as defined by NI 43-101

Mr. Travis Manning, P.E. is a Senior Engineer and Project Manager with Kappas, Cassiday & Associates. KCA is responsible for the metallurgical test work, recovery methods, the surface infrastructure including the operating expenses and capital expenditure cost estimates.

Mr. Thomas H. Bagan, P.E., MBA, SME-RM is a Principal of Thomas H Bagan LLC, an independent consulting mining engineer, a registered Professional Engineer, Mining (#6883) in Nevada, a Registered Member of the Society for Mining, Metallurgy & Exploration, consultant to the Company, and an Independent "Qualified Person" as defined by NI 43-101. Mr. Bagan is responsible for the economic analysis in this report





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Mr. Richard DeLong is a Registered Geologist with the State of Idaho and the State of California and Senior Mining Technical Advisor with Westland Engineering and Environmental Inc. ("Westland"). Mr. DeLong is also recognized as a Qualified Professional (QP) Member of the Mining and Metallurgical Society of America (MMSA) with special expertise in Environmental Permitting and Compliance (01471QP). Westland is responsible for the environmental studies, permitting, and social or community impacts section. Mr. DeLong is an independent consultant to the Company and "Qualified Person" as defined by NI 43-101

2.1 PROJECT SCOPE AND TERMS OF REFERENCE

The mineral resources presented in this report were estimated and classified under the supervision of Jeffrey Bickel, Principal Geologist for RESPEC. Mr. Bickel is a Qualified Person under NI 43-101 and has no affiliations with Blackrock except that of independent consultant/client relationship. The mineral resources reported herein have been estimated in accordance with the "CIM Definition Standards - For Mineral Resources and Mineral Reserves" [2014].

The scope of this study included a review of pertinent technical reports and data provided to RESPEC by Blackrock relative to the general setting, geology, project history, exploration activities and results, methodology, quality assurance, interpretations, drilling programs, and metallurgy. This report is based almost entirely on data and information derived from work done by historical operators and Blackrock. There have been three prior NI 43-101 technical reports for the project by: Wolverson [2021], Lindholm and Bickel [2022], Bickel [2023].

The authors have reviewed much of the available data and have made judgments about the general reliability of the underlying data. Where deemed either inadequate or unreliable, the data was either eliminated from use or procedures were modified to account for lack of confidence in the information. The authors have visited the project site and made such independent investigations as deemed necessary in their professional judgment to be able to reasonably present the conclusions, interpretations, and recommendations presented herein.

The authors collectively visited the Tonopah West project on May 16-17, 2024. This site visit included an inspection of the property grounds and layout a review of the surface geology at the property and historical mining infrastructure, and a visit to the Blackrock core logging facility in Tonopah to examine drill core. Mr. Bickel reviewed and verified geologic logs and cross sections at the Tonopah core facility and compared them with drill core for accuracy. Mr. Bickel engaged in geologic discussions and interpretations with Blackrock staff, and he also verified drill hole collar locations in the field.

The Effective Date of this Technical Report is September 4, 2024.





2.2 FREQUENTLY USED ACRONYMS, ABBREVIATIONS, DEFINITIONS, AND UNITS OF MEASURE In this report, measurements are generally reported in metric units. Where information was originally reported in Imperial units, RESPEC has made the conversions as shown below.

Currency, units of measure, and conversion factors used in this report include:

Linear Measure

1 centimetre = 0.3937 inch

1 metre = 3.2808 feet = 1.0936 yard

1 kilometre = 0.6214 mile

Area Measure

1 hectare = 2.471 acres = 0.0039 square mile

Capacity Measure (liquid)

1 liter = 0.2642 US gallons

Weight

1 tonne = 1.1023 short tons = 2,205 pounds

1 kilogram = 2.205 pounds

Conversion of Metric to Imperial 1 gram = 31.10348 troy ounces

Currency Unless otherwise indicated, all references to dollars (\$) in this report refer to currency of the United States.

Frequently used acronyms and abbreviations

AA atomic absorption spectrometry

Ag silver Au gold

cm centimetres

core diamond core-drilling method CRM certified reference materials

°C degrees centigrade

EPCM engineering, procurement and construction management

ft foot or feet g/t grams per tonne

ICP inductively coupled plasma analytical method

in. inch or inchesID inverse distance

IRR internal rate of return

km kilometres LOM life of mine





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m metres

Ma million years old mi mile or miles mm millimetres

MSHA Mine Safety and Health Administration

nn nearest neighbor
NSR net smelter return
NPV net present value

oz ounce

ppm parts per million ppb parts per billion

QA/QC quality assurance and quality control RC reverse circulation drilling method

RQD rock quality designation

t tonne

ton Imperial short ton





3 Reliance on Other Experts (ITEM 3)

The authors are not experts in legal matters, such as the assessment of the validity of mining claims, mineral rights, and property agreements in the United States or elsewhere. The authors have therefore relied fully upon information and opinions regarding the Tonopah West property as follows:

Blackrock provided the Confidential Legal Advice reports of Erwin Thompson Faillers [2022a; 2022b; 2023c; 2024d] which reports the results of their examinations of the records of the United States Bureau of Land Management ("BLM") and the records of Esmeralda County and Nye County, Nevada concerning certain patented mining claims (collectively the "Patents") and unpatented mining claims (collectively the "Claims") described in this report. The Patents and the Claims (collectively the "Project") are situated in Esmeralda County and Nye County, Nevada.

The authors relied on Erwin Thompson Faillers examination of the public records to (1) confirm that record title to the Patents described in the Ely Gold Report and the Coeur Report remains vested in Nevada Select Royalty, Inc., subject to the leasehold and contractual rights of Blackrock Gold Corp. under the Blackrock Option Agreement; (2) confirm that record title to the Claims remains vested in Nevada Select Royalty, Inc., subject to the leasehold and contractual rights of Blackrock Gold Corp. under the Blackrock Option Agreement; and (3) identify adverse claims, if any, asserted against the title held by Nevada Select Royalty, Inc. and Blackrock Gold Corp.

The authors have fully relied on Blackrock to provide complete information concerning the pertinent legal status of Blackrock and its affiliates, as well as current legal title, material terms of all agreements, and material environmental and permitting information that pertains to the Tonopah West project.





4 Property Description and Location (ITEM 4)

The author is not an expert in land, legal, environmental, and permitting matters and expresses no opinion regarding these topics as they pertain to the Tonopah West project. Subsections 4.2, and 4.3 were prepared with information received from Mr. William Howald, Executive Chairman of Blackrock, in project communication documents received via electronic mail on April 13, 2022, September 15, 2023, October 2, 2023, October 3, 2023, October 22, 2023, July 17, 2024. Reports of the status of the property title were prepared by the firm Erwin Thompson Faillers dated January 24, 2022 [Erwin, 2022a], February 13, 2022 [Erwin, 2022b], March 15, 2023 [Erwin, 2023c], and May 29, 2024 [Erwin, 2024d].

Mr. Bickel does not know of any significant factors and risks that may affect access, title, or the right or ability to perform work on the property, beyond what is described in this report.

4.1 LOCATION

The Tonopah West property is in west-central Nevada approximately 370 kilometres southeast of Reno adjacent to and locally within the town limits of Tonopah (). The property covers portions of Sections 2 & 3 in Township 2 North, Range 42 East, and Sections 20, 21, 26 through 29 and 33 through 35 in Township 3 North, Range 42 East, Mount Diablo Base Meridian, in Nye and Esmeralda counties. The approximate center of the property is located at latitude 38.0719°N and longitude 117.2498°W.



Figure 4-1 Map Showing the Location of the Tonopah West Property [RESPEC, 2022]





4.2 LAND AREA

The Tonopah West property totals 1,030.2 hectares of private land (patented mining claims) and public land controlled by the USBLM. There are 83 unpatented lode mining claims and 100 patented claims held by Blackrock which constitute the property as shown in Figure 4-2 and as listed in Appendix A.

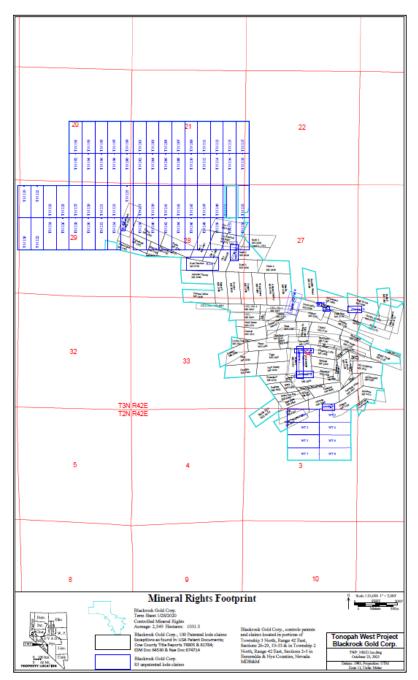


Figure 4-2 Tonopah West Property Map [Blackrock, 2023]





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Title to the unpatented mining claims owned by Blackrock and its lessor is subject to the paramount title of the United States of America. The federal public lands on which the unpatented mining claims are located are under the administration of the USBLM. Under the Mining Law of 1872, which governs the location of unpatented mining claims on federal lands, the locator has the right to explore, develop, and mine minerals on unpatented mining claims with no obligation to pay production royalties to the US Department of the Interior. The federal lands are subject to the surface management regulations of the USBLM. Currently, the federal annual mining claim maintenance fees of \$200 per claim is the only federal payment required to maintain the good standing of an unpatented mining claim. Blackrock informed the author that it paid the fees in full until September 1, 2025. The 2024-2025 annual claim maintenance fees paid to the USBLM for the Tonopah West unpatented mining claims are \$3,800 for the WT et al. claims, and \$12,800 for the TN et al. claims.

Fifty-six of the unpatented lode claims are in Esmeralda County, 13 are in Nye County, and 14 are in both Nye and Esmeralda Counties. Blackrock has recorded its notice of intent to hold and affidavit of payment of the USBLM claim maintenance fees in both Nye and Esmeralda Counties for the annual assessment year 2024-2025. On recording, Blackrock paid the State of Nevada mining claim fees. Blackrock has paid the annual Nye and Esmeralda recording fees totaling \$1,458.85.

County real property taxes are assessed and payable annually on the patented claims (private land) in both Nye and Esmeralda County by December 31 of each year. The real property tax records indicate that the taxes are current as of July 2024 for the 2924-2025 tax year.

In three areas of the Tonopah West property, the surface ownership is severed from the mineral estate. Area 1: the Lambertucci Ranch consists of 212 hectares (525 acres) where a historic deed dated 1952 grants the Tonopah Extension Mines Company and its successors unrestricted access to the surface for mining and exploration activities, excluding the surface area described below in the Lambertucci Land Exchange. Area 2: on the eastern boundary of the project, approximately 20.3 hectares (50 acres) require permission from the surface owners to access the surface for all activities. The 20.3 hectares are not contiguous. Local businesses and property owners have surface rights to a maximum depth of 30.48 metres below the surface. Area 3: the cemetery located in the NW ¼ of the NE ¼ of Section 34, Township 3 North, Range 42 East, MDB&M covers 5 hectares (12.4 acres) where no surface activities are permitted.

The patented claims have 100% of the mineral rights and complete access to approximately 90% of the surface, including the 212 hectares of the Lambertucci Ranch. The remaining 10% of the surface rights are held by third party ownership in and adjacent to the town of Tonopah. The majority of the third party surface rights are on the east side of the project where local businesses and property owners have surface rights to a maximum depth of 30.48 metres below the surface; however, one parcel totalling 11 acres (4.4 hectares) adjacent to the highway has surface rights to 150 metres. The cemetery located in





the NW ¼ of the NE ¼ of Section 34, Township 3 North, Range 42 East, MDB&M covers five hectares and is off limits to drilling. The unpatented lode mining claims have mineral rights and statutory surface access as long as the claims are maintained in good standing.

On approximately 800 hectares (2,000 acres) the mineral and surface estate are not severed. Blackrock owns the surface pursuant to the Nevada Select Option summarized in Section 4.3.1.

4.3 AGREEMENTS AND ENCUMBRANCES

On February 20, 2020, Blackrock executed an Option Agreement with Nevada Select Royalty Inc. ("Nevada Select"), the wholly-owned subsidiary of Ely Gold Royalties Inc., with respect to 97 patented claims and 19 unpatented lode mining claims that make up the Tonopah West property (the "Nevada Select Option"). In March 2021, Blackrock completed a land exchange and acquired three additional patented claims. This addition brought the total of the patented claims to 100. The following subsections summarize the current agreements on the Tonopah West Property based on Blackrock corporate documents and Erwin [2022a, 2022b].

4.3.1 Nevada Select Option

The Nevada Select Option executed February 24, 2020, with Nevada Select gives Blackrock all rights and privileges incidental to ownership of the Nevada Select patented and unpatented mining claims, including the rights to explore, develop and mine at the Tonopah West property. The Nevada Select Option was amended on March 27, 2020, to extend the time for the acquisition of the Cliff ZZ claims to April 1, 2020. The Nevada Select Option was amended a second time on October 12, 2022, to include the Flag and Wedge unpatented mining claims. The following is a summary of the Nevada Select Option terms:

- / Nevada Select was to complete the purchase of 74 patented mining claims from Cliff ZZ, L.L.C., which were then to become part of this agreement. Nevada Select completed the purchase, and effective April 1, 2020, the 74 patented mining claims were included in the total number of the patented mining claims which make up the Tonopah West property.
- / Blackrock will pay the federal annual mining claim maintenance fees to the Bureau of Land Management (BLM) and counties at least 15 days before the due dates for payment of the fees to keep the Nevada Select claims in good standing.
- / The Nevada Select Option will remain in effect until a) the option closing, b) termination of the option agreement or c) four years from the initial closing date.
- / The purchase price for the property is \$3,000,000 to be paid as option payments as follows:
 - \$325,000 paid to Nevada Select on March 25, 2020, for the Initial Closing, which the Optionee shall be obligated to pay if, and only if, Nevada Select has acquired record and possessory title to the Cliff ZZ Claims. The Cliff ZZ purchase is complete, and the payment was made by Blackrock;





- \$325,000 paid to Nevada Select on March 25, 2021, on or before the first anniversary of the Initial Closing Date (April 1, 2021);
- » \$650,000 paid to Nevada Select on March 25, 2022, on or before the second anniversary of the Initial Closing Date (April 1, 2022);
- \$700,000 paid to Nevada Select on March 24, 2023, on or before the third anniversary of the Initial Closing Date (April 1, 2023); and
- » \$1,000,000 paid to Nevada Select on March 12, 2024 completed the Purchase Option Agreement.
- » The final Option payment was made on March 12, 2024 and the deed was recorded in Nye and Esmeralda Counties.
- / Blackrock must pay Nevada Select a production royalty equal to 3% of the net smelter returns from the production of minerals on the Tonopah West property and on lands acquired by Blackrock in a contractual Area of Interest which is 1 mile (1.6 kilometres). The 3% royalty will be net of any third-party mineral production royalties, such that the total production royalty will not exceed 3% of the net smelter returns. The royalty agreement also requires an annual Advance Minimum Royalty payment of US\$50,000 until commencement of commercial production during which time all of the advance payments will be credited to the Production Royalty. The royalty deed was recorded in Nye and Esmeralda Counties on March 12, 2024.

4.3.2 Lambertucci Land Exchange

On March 26, 2021, Blackrock Gold Corporation and Nevada Select entered into a Property Exchange Agreement with three other landowners who desired to acquire surface use rights on certain of the lands within the Tonopah West property. Under the agreement, Nevada Select acquired three patented mining claims consisting of 14.3 hectares (35.411 acres) which were inliers within the Tonopah West property. In exchange for the three patented claims, the landowners acquired surface rights to a depth of 30.48 metres (100 feet) below the surface on 19.8 hectares (49.84 acres). Blackrock retained the mineral rights and attendant use rights below the depth of 100 feet. The affected patented mining claims are included in the property subject to the Nevada Select Option.

4.3.3 2023 Tonopah North Agreement

In 2021, Blackrock located 260 unpatented claims in Esmeralda and Nye Counties. The certificates of location were filed with the USBLM and recorded in Nye and Esmeralda Counties. Sixty-four of the TN unpatented lode claims were retained as part of the Tonopah West project, and the remaining 196 TN claims were subject to an Exploration and Option to Enter Joint Venture Agreement for the Tonopah North Lithium Project dated January 9, 2023, by and among Blackrock Gold Corp., Tearlach Resources Limited, a British Columbia corporation ("TRL"), and Pan Am Lithium ("PAL") (Nevada) Corp., a Nevada corporation, pursuant to which Blackrock Gold Corp. granted to TRL the right to explore for the lithium minerals from the topographical surface of the TN Claims to 650 feet (198.12 metres) below the surface of the TN Claims and the Option to form a joint venture in which TRL will hold an initial 51.0% interest





and Blackrock Gold Corp. will hold an initial 49.0% interest, subject to TRL's right to earn an addition 19.0% interest for a total interest of 70.0%.

On May 15, 2024, Blackrock Gold Corp. terminated the PAL Agreement. The original 196 unpatented TN claims remain as part of the Tonopah North project. Upon termination of the Agreement, PAL quitclaimed 60 additional TN claims to Blackrock bring the total number of unpatented lode claims for the Tonopah North project to 256.

4.3.4 Other

Nevada Select holds ownership of only 1/16th of the Taft patented claim. Nye County holds 15/16th ownership. Nevada Select holds 100% ownership of the other 99 patented claims within the Tonopah West property.

There is an easement to Nevada Bell Telephone company, dba AT&T Nevada, and there are various easements, rights-of-way and other entries granted and reserved by the United States on certain of the Tonopah West Project federal public lands.

Blackrock, Nevada Select, and the State of Nevada Department of Transportation ("NDOT") entered into a Public Highway Agreement in January 2023 to sell to NDOT an area of 0.5 hectares (1.1713 acres) which includes the surface and mineral estate to a depth of 30.48 metres (100 feet) for the construction of highway improvements along US95/US6.

4.4 ENVIRONMENTAL LIABILITIES

Historical mining and exploration activities have occurred at various areas within the Tonopah West property since the early 1900s. These activities have left roads, drill pads, historic underground workings, mine tailings and mine dumps. The authors are not aware of any current environmental liabilities associated with the above. Blackrock plugs all drill holes according to State and Federal regulations and fills in the sumps upon completion of each hole. The roads and drill pads are reclaimed soon after drilling is completed unless there are plans to complete additional drilling at the same site. Access roads will be reclaimed following completion of the drill program.

4.5 ENVIRONMENTAL PERMITTING

The Blackrock activities described and proposed in this report are on the patented claims (private land) controlled by Blackrock. The Nevada Bureau of Mining, Regulation and Reclamation (BMRR) within the Nevada Department of Environmental Protection (NDEP) requires a permit when the surface disturbance is greater than five acres.

Blackrock's initial disturbance did not exceed five acres. Blackrock applied for the permit with BMRR in April 2021. On April 7, 2021, permit 0410 was granted to Blackrock's US subsidiary, Blackrock Gold Corporation. Permit 0410 authorizes Blackrock for a surface disturbance of up to 65.8 acres. Blackrock submitted a surety bond for US\$173,816 which was posted with NDEP-BMRR. In March 2024, Blackrock





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completed a review and update of the reclamation cost estimate for the project. As a result of this review, the bond amount increased by \$30,275 to \$204,091. Blackrock represents it is in compliance with all NDEP-BMRR requirements and the surface disturbance permit is sufficient for the planned additional exploration and environmental baseline data collection work.

Blackrock has a Notice with the United States Bureau of Land Management covering a portion of the TN unpatented claim group located on the north end of the project area. Notice, NVN100896, was bonded in the amount of \$41,262 in December 2021 and allows for up to five acres of disturbance. No exploration or development work is currently contemplated on the unpatented claims.





5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY (ITEM 5)

The information summarized in this section is derived from publicly available sources, as cited. The author has reviewed this information and believes this summary is materially accurate.

5.1 Access to Property

The property is approximately halfway between the cities of Reno and Las Vegas, Nevada and is easily accessed via U.S. Highways 6 and 95, which transect the property from northwest to southeast. A network of various paved, graveled and dirt roads and tracks also traverse the property and connect with the adjacent town of Tonopah where there are approximately 2,100 residents as of the 2020 census. U.S. Highways 95 and 6 provide all-weather and all-season access for commercial semi-trailers.

5.2 CLIMATE

The climate in the Tonopah area is semi-arid. Average annual precipitation is approximately 12.5 centimetres, falling mainly as snow during the winter months and during occasional summer thunderstorms. Temperatures can vary from about -24 to 40°C, with an average of -5°C in the winter and 23°C in the summer. Evapotranspiration exceeds precipitation in the summer months. Rare heavy snowfalls during the winter months may reduce or delay access on secondary roads through the property for hours to a day or two at a time. Snow cover can make access to portions of the property difficult from January through April, although operations, such as drilling, should be possible during these months. Mining and exploration can be conducted year-round.

5.3 Physiography

The property is situated on the gently sloping west flank of the San Antonio Mountains with elevations that vary from approximately 1,722 to 1,951 metres. The property is punctuated by a few low hills and several dry stream courses. Vegetation is sparse, consisting of mixtures of sagebrush, small desert shrubs and grasses. There are no trees.

5.4 LOCAL RESOURCES AND INFRASTRUCTURE

The surface rights summarized in Section 4 are sufficient for the exploration and mining activities proposed in this report. Electrical power is available within the property from the Tonopah West Substation owned by NV Energy and the regional electrical grid. The substation will require new 120 kV switchgear. Water for exploration drilling is purchased from the Tonopah Public Utility. Ground water has been encountered in the drilling. Blackrock does not hold any water rights as of the Effective Date of this report and has not conducted hydrology studies at the project site. There is adequate gently sloping ground on the property for processing plant sites, heap leach pads, waste rock storage and tailings storage. Sufficient sources of labor for exploration and mining operations are available in the cities of Las Vegas, Reno and Carson City, Nevada, as well as in Tonopah and in Bishop, California.





6 HISTORY (ITEM 6)

The information summarized in this section has been extracted and modified from Lindholm and Bickel [2022], Wolverson [2021], Blackrock's unpublished company files, and other sources as cited. The author has reviewed this information and believes this summary is materially accurate.

The Tonopah West project is located in the western part of the Tonopah mining district which has been active since 1900 when Jim Butler discovered precious metal mineralization in what would become known as the Mizpah vein. Tonopah was an active and productive mining district from 1900 through 1930, with sporadic production up to 1961. The author is not aware of any significant historical mineral resources or reserves estimated for the Tonopah West property.

6.1 MINING AND EXPLORATION HISTORY

6.1.1 1900 to 1961 Activities

Following the discovery of high-grade silver and gold in 1900, numerous individuals and companies were active throughout the Tonopah mining district. The Tonopah West area of the Tonopah mining district became active in 1902-1903 and some of the mines produced until the 1940s. Some of the past producers were the Monarch-Pittsburg, Red Plume, Silver Top, Tonopah Extension, West End, McKane, Cash Boy, Tonopah Merger, Tonopah Midway, West Tonopah and West End historical mines (Figure 6-1 and Figure 6-2). The mining companies active at Tonopah West included Tonopah Extension, Tonopah 76 Mining Co., and West End Consolidated, among others [Nolan, 1935a].

Prior to 1961, an estimated 8,023,371 tonnes, valued at \$150,198,315, were mined from the entire district [Carpenter et al., 1953]. This includes an estimated 2,305,192 tonnes, valued at \$40,189,799, reported to have been mined from the western portion of the district [Carpenter et al., 1953] located on the northeastern end of the Tonopah West property.

Details of the specific mining operations are not well known. Some of the underground maps and reports are available by levels [Nolan, 1935b]. Blackrock has compiled available information but there are no certified analytical results, raw data or detailed information on sampling or sample security protocols for any of the work completed during this time period. Figure 6-3, Figure 6-4 and Figure 6-5 are level plans of the 1200, 1540 and 1880 levels, respectively, that were originally completed by Nolan (1935b). Later, during 1979-1980, Houston Oil and Minerals transferred these level plans to mylar. Blackrock digitized and re-projected the data to the Universal Transverse Mercator (UTM) coordinate system, 1927 North American Datum (NAD27), for use in their exploration activities. The exact location of the underground workings is uncertain, and best efforts were used to locate the workings as accurately as possible.





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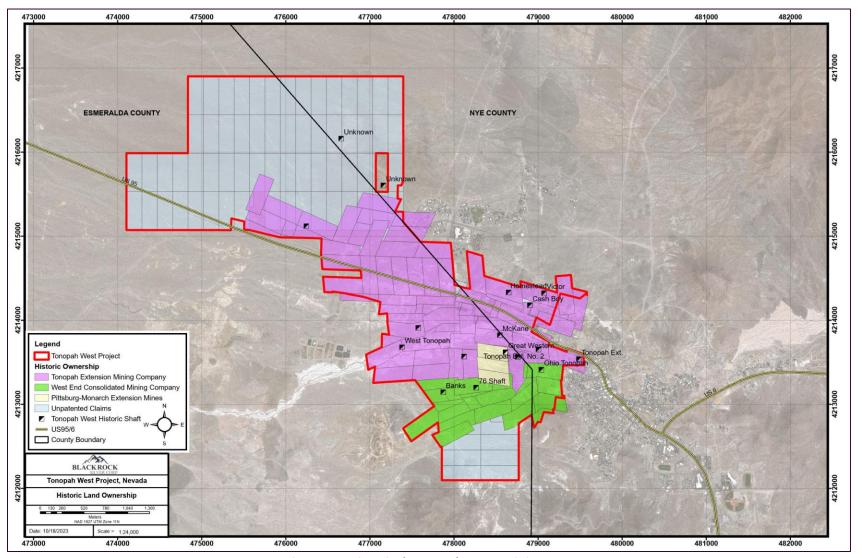


Figure 6-1 Historical Tonopah West Mining Company Areas

[Blackrock, 2023; unpatented claims north of 4,215,000N located in 2021 by Blackrock]





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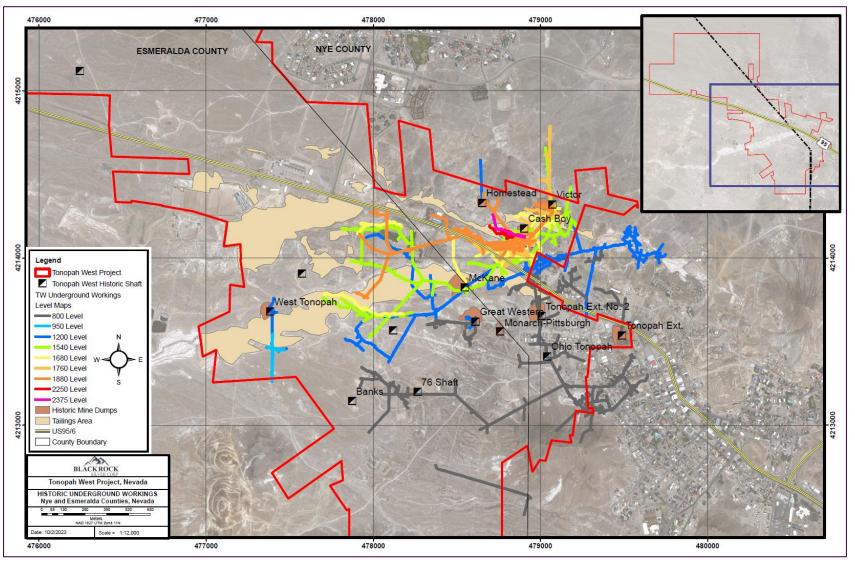


Figure 6-2 Historical Underground Mines and Underground Levels, Tonopah West [Blackrock, 2023]





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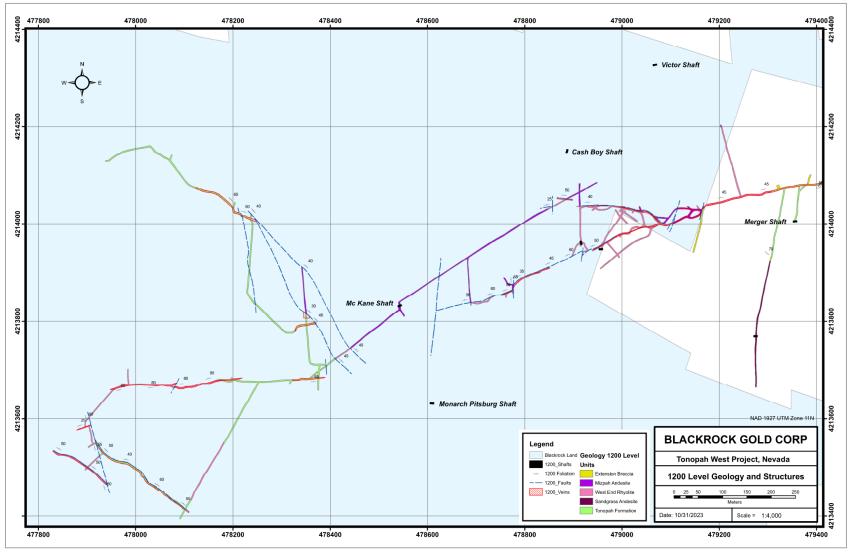


Figure 6-3 Historical Level 1200 Plan Map, Tonopah West

[Blackrock (2020) after maps from Nolan (1935b) and HOM (1979); inlier claims now held by Blackrock]





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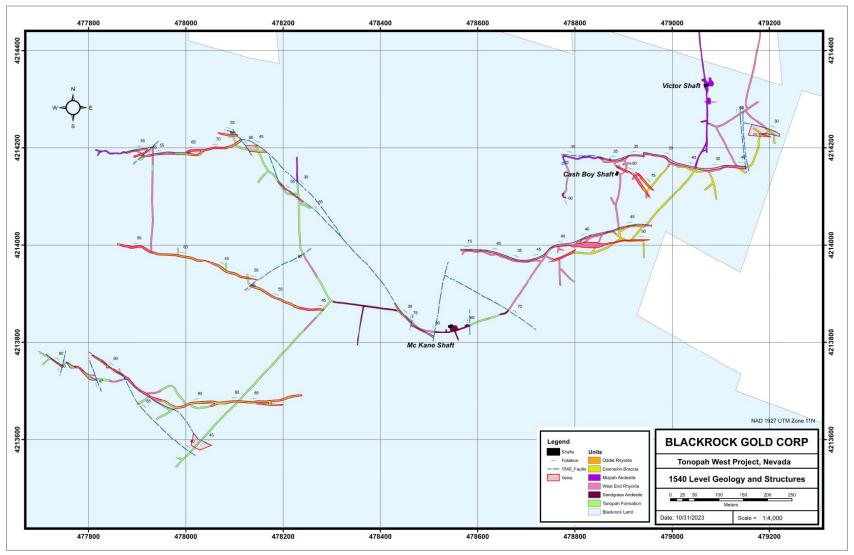


Figure 6-4 Historical Level 1540 Plan Map, Tonopah West

[Blackrock (2020) after maps from Nolan (1935b) and HOM (1979); inlier claims now held by Blackrock]





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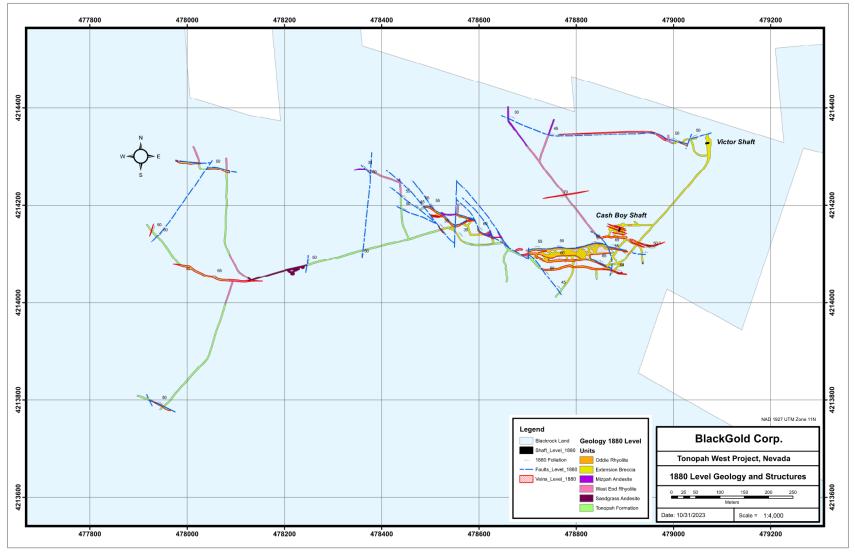


Figure 6-5 Historical Level 1880 Plan Map, Tonopah West

[Blackrock (2020) after maps from Nolan (1935b) and HOM (1979); inlier claims now held by Blackrock]





6.1.2 1961 to 2022 Modern Exploration

Since 1961 there have been several periods of exploration in the Tonopah mining district, with several operators. Gold and silver exploration activities increased during this time, although most of the modern exploration at Tonopah West has occurred since the late 1970s. During this time, historical mining data was compiled and exploration drilling was conducted. The results of the historical drilling are summarized in Section 10.2.

In 1969, Howard Hughes purchased patented claims from the West End Mining Company. Hughes' Summa Corporation refurbished the Mizpah shaft and some of the underground workings.

In 1974, the Tonopah Extension Mines, Inc. was sold to James R. Keighley ("Keighley"). Summa Corporation sold its Tonopah claim holdings to HOM in 1977. During 1979 and 1980, HOM conducted exploration throughout the Tonopah mining district and drilled a total of 3,268 metres in ten drill holes (HT series holes) in what is presently Blackrock's Tonopah West property. Details of this drilling are summarized in Section 10.2.1. HOM performed no further work within the property.

Chevron USA ("Chevron") entered into a lease with option to purchase the Keighley ground starting in June 1984. Chevron drilled one reverse-circulation rotary RC hole with a diamond-core tail in 1984 for a total of 659 metres. Details of this drilling are summarized in Section 10.2.2. Chevron relinquished the property back to Keighley in July of 1985.

Coeur Mining, Inc. ("Coeur") acquired patented claims covering a portion of what is presently the Tonopah West property in the 1990s and sold the patented claims to Eastfield Resources Ltd. ("Eastfield") in 1996. During 1996 and 1997, Eastfield conducted exploration in the Tonopah mining district and drilled a total of 2,149 metres in 13 RC holes (TH series holes) in the Tonopah West property. Details of this drilling are summarized in Section 10.2.3. In 1998, Eastfield purchased the patented claims held by HOM's successor Kinross Gold Corporation.

No work is known to have been done within the Tonopah West property between 1998 and 2008. In 2008, Keighley quitclaimed 74 patented claims to Cliff ZZ. In 2017, Cliff ZZ leased these claims to Coeur. Also in 2017, Ely Gold purchased 18 patented claims from Eastfield and an additional five patented claims from a local family. Ely Gold then leased these 23 claims to Coeur later in 2017.

In 2018, Coeur drilled a total of 3,392 metres in 13 RC drill holes (TW18 series holes). Details of this drilling are summarized in Section 10.2.4. Coeur terminated their leases with Cliff ZZ and Ely Gold in October of 2019.





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Blackrock acquired the Tonopah West property in 2020 through a sequence of lease-option agreements involving Ely Gold, Nevada Select Royalty, and Cliff ZZ. This included two unpatented lode claims that were located by Coeur in 2018, and quitclaimed to Nevada Select Royalty in 2020, as well as 17 unpatented mining claims that were located by Nevada Select Royalty in 2015 and 2017.

Blackrock's exploration work is summarized in Section 9 and Section 10.3.





7 GEOLOGIC SETTING AND MINERALIZATION (ITEM 7)

The information presented in this section of the report is derived from multiple sources, as cited and draws extensively from Lindholm and Bickel [2022]. The author has reviewed this information and believes this summary accurately represents the Tonopah West project geology and mineralization as it is presently understood.

7.1 REGIONAL AND DISTRICT GEOLOGIC SETTING

The Tonopah West property is situated on the southwestern flank of the San Antonio Mountains, a north-south trending range in the Basin and Range physiographic province of southwestern Nevada. North of the district, the San Antonio Mountains expose Cretaceous plutons of mainly granite to granodiorite that have been intruded into folded units of Ordovician and Permian marine sedimentary rocks [Bonham and Garside, 1979; Kleinhampl and Ziony, 1985]. The Paleozoic rocks are structurally overlain by folded limestone of Mesozoic age and all of the pre-Cenozoic rocks are unconformably overlain by volcanic rocks of Oligocene and Miocene ages that vary in composition from rhyolite to trachyandesite [Bonham and Garside, 1979]. The Oligocene volcanic rocks include thick units of felsic ash-flow tuff erupted from the Central Nevada Caldera Complex north of the San Antonio Mountains. The Miocene units were interpreted to have been erupted from volcanic centers within the San Antonio Mountains [Bonham and Garside, 1979], including the Fraction caldera and the Heller caldera of the Tonopah volcanic center of John et al. [2022a]. Intermediate to silicic-composition ash-flow tuffs, lavas and flow-dome complexes, and high-level dikes and plugs of the Tonopah volcanic center are genetically, spatially, and temporally linked to Miocene ancestral Cascade arc magmatism [du Bray et al., 2019; John and Henry, 2022; John et al., 2022a].

Geologic mapping and ⁴⁰Ar/³⁹Ar and uranium-lead ("U-Pb") age determinations from du Bray et al. [2019] and John et al. [2022a] have defined the margins of the Fraction and Heller calderas and further constrained the timing of volcanic activity and mineralization in the Tonopah mining district. The Tonopah West project area straddles the southern margin of the approximately 20.0 Ma Fraction caldera and the northern margin of the 17.3 Ma Heller caldera as shown in Figure 7-1.





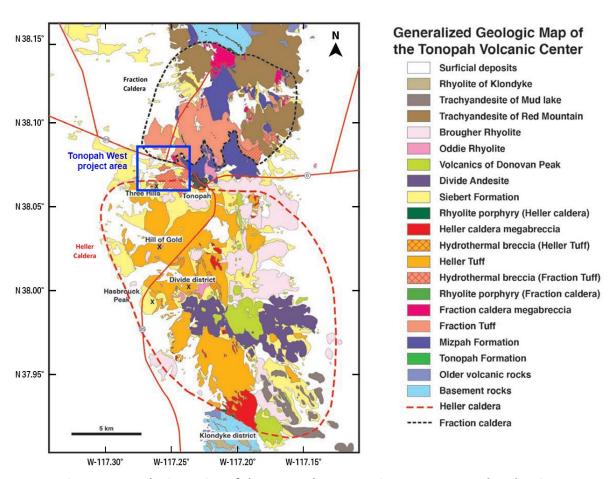


Figure 7-1 Geologic Setting of the Tonopah West Project Area, Tonopah Volcanic Center [modified from John et al. (2022b)]

7.2 PROPERTY GEOLOGY

Surface exposures at the Tonopah West property include Miocene volcanic rocks and Quaternary fan and pediment deposits as mapped by Bonham and Garside [1979] and updated by John et al. [2022b] (Figure 7-2). At depth, the andesitic to silicic volcanic flows, tuffs, and volcaniclastic rocks of the Tonopah volcanic center [John et al., 2022b] overlie basement granitic intrusive rocks of probable Mesozoic age that have been identified in underground workings [Nolan, 1930] and in Blackrock's drill holes. Stratigraphic units are summarized in Figure 7-3. These units were defined by Garside and Bonham [1979] and have been revised with new field, drill hole, petrographic, geochemical and ⁴⁰Ar/³⁹Ar and U-Pb age determinations by John et al., [2022a] and Blackrock.





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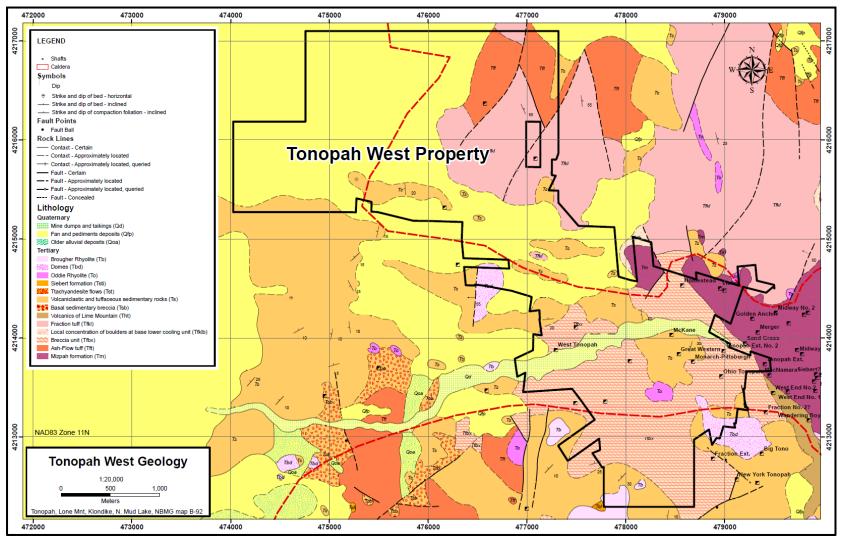


Figure 7-2 Generalized Geologic Map of the Tonopah West Property Area

[Blackrock (2023) after Bonham and Garside (1979)]





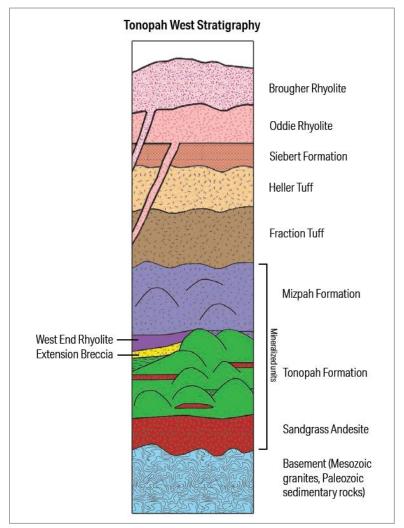


Figure 7-3 Stratigraphic Column for the Tonopah West Project [modified from John et al. (2022b)]

Property stratigraphic units are summarized from oldest to youngest as follows:

Basement Rocks

Drilling at Tonopah West by Blackrock has intercepted intrusive rocks interpreted as Mesozoic granodiorite in TXC22-051. The US Geological Survey performed age dating on zircons from the intrusive, and determined the age is 107 Ma or Cretaceous in age. Surface exposures of pre-Tertiary rocks that crop out peripheral to the main Tonopah district, but not within the property, include predominantly Paleozoic gray chert, argillite, and siltstone, and Mesozoic granites [Kleinhampl and Ziony, 1984; John et al., 2022b].





Sandgrass Andesite

The Sandgrass Andesite consists of propylitized andesitic lava flows and possibly high-level intrusions underlying and locally interbedded with the Tonopah Formation [John et al., 2022b]. These units represent the oldest volcanic rocks exposed in underground mine workings and recovered from drill holes.

Tonopah Formation

First described by Nolan [1935b] from underground workings of the Tonopah district, the Tonopah Formation consists of silicic tuffs, lavas, intrusive rocks, and fluvial volcaniclastic rocks. The Tonopah Formation is sparsely exposed about one kilometre east of the property (Figure 7-3). A U-Pb age of 21.84 ±0.2 Ma was reported for the Tonopah Formation by John et al. [2022a]. The Tonopah Formation is one of the host rock units for mineralization in the Tonopah district [du Bray et al., 2019] and hosts veins in the Tonopah West property.

Extension Breccia

The Extension Breccia is a heterolithic, clast-supported breccia of likely volcaniclastic origin [John et al., 2022a; 2022b] that locally overlies the Tonopah Formation. Nolan [1930] interpreted this unit as an intrusive breccia. John et al. [2022a; 2022b] interpreted this unit as debris flows and/or conglomerates deposited in paleo-topographic low points within the Tonopah Formation. The Extension Breccia is a major host rock for mineralization, particularly in the Victor mine area.

West End Rhyolite

The West End Rhyolite consists mainly of sparsely porphyritic, variably welded rhyolite tuff and subordinate volcaniclastic rocks overlying the Extension Breccia and the Tonopah Formation [John et al., 2022a]. U-Pb ages of 21.59 ± 0.46 and 21.97 ± 0.41 Ma, which are identical within the limits of the analytical uncertainty, were obtained by John et al. [2022a]. This unit was previously interpreted as a rhyolitic sill [Nolan, 1930].

Mizpah Andesite

The Mizpah Andesite is Blackrock's term for the Mizpah Trachyte of Spurr [1911], Nolan [1930], Kleinhampl and Ziony [1985], and John et al. [2022a]. This unit was named the Mizpah Formation by Bonham and Garside [1979] as shown in Figure 7-1, Figure 7-2, and Figure 7-3, and the term was later used by John et al. [2022b]. The Mizpah Andesite consists largely of hydrothermally altered hornblendebiotite andesite to dacite lavas, flow domes, and lesser debris-flow deposits [Bonham and Garside, 1974; John et al., 2022a]. ⁴⁰Ar/³⁹Ar age determinations reported by John et al. [2022a] constrain the age of this unit to approximately 21.5 to 21.0 Ma.





Fraction Tuff

The Fraction Tuff consists of variably welded, crystal-poor rhyolite ash-flow tuff that erupted at 20.04 ± 0.06 Ma based on seven 40 Ar/ 39 Ar age determinations [John et al., 2022a]. The Fraction Tuff includes large intercalated exposures of megabreccia related to the formation of the Fraction caldera (Figure 7-1). The Fraction Tuff was formerly divided into the lower Tonopah Summit Member and the upper King Tonopah Member, by Bonham and Garside [1979]. Geochemical, petrographic, and geochronologic evidence analyzed by du Bray et al. [2019] established that the revised Fraction Tuff of John et al. [2022a; 2022b] is a single eruptive unit.

Heller Tuff

The Heller Tuff consists of lithic and pumice-rich, crystal-rich ash-flow tuffs of trachydacite, dacite, and rhyolite compositions along with megabreccias [du Bray et al., 2019; John et al., 2022a]. Five 40 Ar/ 39 Ar age determinations reported by John et al. [2022a] indicate the eruption of the Heller Tuff and formation of the Heller caldera occurred at 17.34 ± 0.05 Ma south of the Fraction caldera (Figure 7-1).

Siebert Formation

The Siebert Formation according to Bonham and Garside [1979] is composed of "fluvatile and lacustrine epiclastic volcanic conglomerate, sandstone, siltstone, and lesser amounts of subaqueously deposited tuffs" that contain volcaniclastic deposits with blocks of "Mizpah Trachyte" and Fraction Tuff [du Bray et al., 2019]. The Siebert Formation likely was deposited initially within the Heller and possibly Fraction calderas.

Oddie Rhyolite

The Oddie Rhyolite is pink-gray to pale orange, sparsely porphyritic with phenocrysts of quartz, alkali feldspar, sodic plagioclase, and sparse biotite. The rhyolite is typically weakly to strongly hydrothermally altered [Bonham and Garside, 1979]. The Oddie Rhyolite intruded the Siebert Formation, as well as the Fraction and Heller calderas, and formed lava domes and hypabyssal intrusions [du Bray et al., 2019]. Although hydrothermally altered, the Oddie Rhyolite postdates mineralized veins at the Tonopah West property. ⁴⁰Ar/³⁹Ar age determinations on the Oddie Rhyolite domes range from approximately 17.29 to approximately 16.6 Ma [John et al., 2022a].

Brougher Rhyolite

The Brougher Rhyolite is light-gray to orange-pink, sparsely porphyritic with phenocrysts of quartz, sodic plagioclase, alkali feldspar, biotite, and trace clinopyroxene and hornblende [Bonham and Garside, 1979]. The rhyolite forms topographically prominent outcrops and domes that are unaltered and postdate mineralization at the Tonopah West property. ⁴⁰Ar/³⁹Ar age determinations of the Brougher Rhyolite range from approximately 17.18 to approximately 16.55 Ma [John et al., 2022a].





7.3 TONOPAH DISTRICT MINERALIZATION

Silver and gold mineralization in the Tonopah district is present in multi-stage quartz-adularia veins, stockwork and vein-cemented breccia emplaced along faults and fractures. Sulfide minerals include pyrite, pearcite, sphalerite, galena, chalcopyrite, acanthite, and the sulfosalts polybasite and pyrargyrite [du Bray et al., 2019]. Gold occurs in electrum. Gangue minerals include calcite, barite, and rhodochrosite. In places the veins and vein-cemented breccia contain colloform bands, comb textures, and crustification characteristic of open-space fill. In other places the textures are more massive and were considered by early workers in the district to be of a replacement origin. Silver is predominant to gold at a ratio of approximately 100:1. Oxidized supergene ores containing silver haloids and native gold were mined early in the history of the district [Ashley et al., 1990].

Veins in the Tonopah district are primarily hosted by the Tonopah Formation, Mizpah Andesite, Extension Breccia, and the West End Rhyolite [Nolan, 1930, 1935a; du Bray et al., 2019]. A major control in the central part of the district is the pre-mineralization Tonopah fault and its subsidiary structures, which range from low-angle to moderately-dipping with associated steeply-dipping splays. Deposits generally occurred as irregular tabular sheets, with the thickest veins following faults at the contacts between lithologic units [Nolan, 1930; Ashley et al., 1990].

Wall rocks immediately surrounding the mineralized veins are altered to a quartz-adularia-pyrite assemblage. This assemblage is bordered by an intermediate argillic zone with kaolinite-quartz-sericite-pyrite assemblage, which then transitions outward to include montmorillonite instead of kaolinite. These zones are surrounded by propylitic alteration dominated by chlorite [Nolan, 1930; Bonham and Garside, 1979; Ashley et al., 1990; John et al., 2022b].

The most productive zones of the Tonopah district formed a carapace-like profile with an average thickness of approximately 200 metres in cross section. The apex of the carapace lies just below the surface in the center of the district and descends to the western and eastern ends of the district to depths of greater than 1,500 metres [Bonham and Garside, 1979]. Interpreting underground mapping in the Tonopah district by Nolan [1930, 1935a], Ashley et al. [1990] estimated that major deposits following fault contacts reached maximum dimensions of about 300 to 400 metres.

Hydrothermal activity and silver-gold mineralization in the district is believed to slightly pre-date the 20Ma eruption of the Fraction Tuff and the formation of the Fraction caldera [John et al., 2022]. This is based on eight 40 Ar- 39 Ar age dates on adularia from vein material reported by du Bray et al. [2019] and John et al. [2022a].





7.4 PROPERTY MINERALIZATION

Mineralization at the Tonopah West property is exclusively hosted in hydrothermal quartz veins and quartz-cemented breccias that do not crop out at the surface. Drilling discussed in Section 10 and reports from historical underground workings indicate the principal host rocks include the West End Rhyolite, and to a lesser extent, the Mizpah Andesite (Mizpah Formation in Figure 7-1, Figure 7-2, and Figure 7-3, Extension Breccia, Tonopah Formation, and Sandgrass Andesite. Mineralized quartz veins range from a few centimetres to several metres in thickness. Overall, the veins average 4.3 metres in width based on the geologic modelling. Thicker vein zones tend to be characterized by sub-parallel quartz fissure veins as mapped in the Victor mine area by Nolan [1930] where the Victor vein was over 20 metres wide and 165 metres in length.

Vein mineralogy is characterized by quartz centerlines with local adularia, pyrite, and parallel bands of fine-grained black sulfide and/or sulfosalt minerals. The zones of fine-grained black sulfide and/or sulfosalt minerals typically occur at the vein margins or in millimetre-scale veinlets parallel to the larger veins and are inferred to contain the silver and gold. Related quartz-cemented breccias contain pyrite and fine-grained black sulfide and/or sulfosalt minerals in the matrix (Figure 7-4 and Figure 7-5).







Figure 7-4 Denver Vein Drill Hole Interval 440.0 to 442.6 Metres
Hole number TXC21-001; assay range: 86.1-220.0g Ag/t, 0.83-1.73g Au/t



Figure 7-5 Victor Vein Drill Hole Interval 635.8 to 638.6 Metres Hole number TW20-061C; assay range: 18.23-205.5g Ag/t, 0.15-1.77g Au/t





Although petrographic data have not yet been obtained, the presence of polybasite, pyrargyrite, acanthite, freibergite/tennantite and possibly naumannite are inferred based on sample geochemistry. In places, subsequent stages of quartz veins have crosscut and overprinted the black-matrix quartz-cemented brecciated zones. Argillic and propylitic alteration of the wall rock is observed proximal to mineralized veins.

Three groups of mineralized veins have been defined that comprise the four areas of estimated mineral resources and mineralized material in the Tonopah West property: the Denver-Paymaster-Bermuda-Merten vein group, which Blackrock refers to as the "DPB" vein group, the Victor vein, and the NW Step Out vein group. The DPB vein group is located approximately 1 kilometre west of the town of Tonopah and was historically accessed by the westernmost underground mining workings in the Tonopah district (Figure 6-2). Because of the higher-grade nature of the gold and silver mineralization identified in the Bermuda vein, the vein was estimated separately from the Denver, Paymaster and Merten vein sets. The Victor vein historically was accessed by workings more proximal to the central Tonopah mining district (Figure 6-2). The NW Step Out vein (Figure 7-6) is located approximately one kilometre northwest of DPB area. This vein area is a bona fide new discovery as no previous work, records or reports of historical exploration or mining are known to exist.



Figure 7-6 Northwest Step Out Vein Drill Hole Interval 570.6 to 572.1 Metres
Hole number TXC22-074; assay range: 13.0 - 334.0g Ag/t, 0.22 - 3.78g Au/t





Veins in the Tonopah West property appear to parallel the structural margin of the Fraction caldera along the caldera's southern boundary. At Victor, the veins strike east-northeast and rotate to an east-west to west-northwest alignment in the DPB area. On the western side of the DPB area, the veins change to a northwest orientation toward the NW Step Out area. All the veins dip north at various angles toward the interior of the caldera. Dip angles of some veins, such as the Merten vein, are low to moderate (approximately 30° to 40°) while other veins, such as Denver, Bermuda, Paymaster, and Victor veins, dip more steeply (approximately 60° to 75°).

7.4.1 Victor Vein

The Victor vein was accessed via the historical Victor shaft in the northeast part of the Tonopah West property (Figure 6-2). The Victor vein (see Figure 10-3) includes relatively high-grade silver and gold mineralization within several adjacent sheeted veins occurring along, and sub-parallel with, the Pittsburgh-Monarch fault. The Victor vein dips approximately 70° to the north and possesses multiple mineralized splays and sub-parallel veins. Higher-grades range in thickness from about 0.5 metres to a maximum thickness of 24 metres [Carpenter et al., 1953] along the footwall of the Pittsburg-Monarch fault.

As of the Effective Date of this report, the known extent of the Victor vein is approximately 750 metres in an east-west direction. From the surface, drilling has encountered mineralized veins from 400 metres to a depth of approximately 800 metres. The Victor veins are open below the depth of Blackrock's drilling.

7.4.2 Denver-Paymaster-Bermuda Vein Groups

Major veins in the DPB group include, from south to north: the Merten vein, the Bermuda vein, the Paymaster vein, and the Denver vein. All veins in the DPB area dip to the north at angles ranging from approximately 30° to approximately 75°. A representative cross section through the DPB group is presented in Figure 10-2. The veins have a presently known vertical extent of approximately 500 metres.

Mineralized material in the DPB area consists of parallel sets of veins and stockwork veins in three dominant dip orientations. These include: a package of shallow- to moderately-dipping veins (approximately 30° to 45°) following the Merten veins in the southern part of the DPB area; a package of high-angle veins dipping at approximately 75° following the Bermuda vein in the center of the DPB area; and a package of moderately-dipping veins at angles of approximately 60° following the Paymaster and Denver veins in the northern part of the area. The steeper-dipping vein sets paralleling the Bermuda, Paymaster, and Denver veins in the central and northern portions of the group were the target of historic underground development, but no mining, and generally contain higher-grade mineralization than the shallow-dipping vein sets to the south.





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The DPB veins are open below the depth of Blackrock's drilling. These veins are also open to the east toward the Victor area and to the northwest toward the NW Step Out vein zone.

7.4.3 Northwest Step Out Vein Group

As of the Effective Date of this report, there are two vein sets identified in the NW Step Out area with only limited drilling. The veins strike northwest and dip moderately to the northeast at approximately 30 to 45°. The shallower-dipping vein set is host to the high-grade gold and silver. The steeper-dipping vein set contains low-grade mineralization. The NW Step Out veins are open to the northwest, southeast toward DPB, and are open at depth.





8 DEPOSIT TYPES (ITEM 8)

Based upon the styles of alteration, the nature of the veins, the alteration and vein mineralogy, and the geologic setting, the silver and gold mineralization at the Tonopah West project is best interpreted in the context of the volcanic-hosted, intermediate- to low-sulfidation type of epithermal model [e.g., Heald et al., 1987; Ashley et al. 1990; John et al., 2018]. This model has its origins in the De Lamar - Silver City district, where it was first developed by Lindgren [1900]. Figure 8-1, from Sillitoe and Hedenquist [2003], is a conceptual cross section depicting a low-sulfidation epithermal system. The host rock setting of mineralization at the Tonopah West project is similar to the simple model shown in Figure 8-1, with the Sandgrass Andesite through the Mizpah Andesite occupying the stratigraphic position of the volcano-sedimentary rocks shown below, shortly prior to the eruption of the Fraction Tuff. Note that at the time of younger (17 Ma) mineralization in the Divide district to the south, the Siebert Formation and Oddie Rhyolite domes would have represented the near-surface portion of Figure 8-1, including the sinter deposits preserved at Hasbrouck Peak (Figure 7-1).

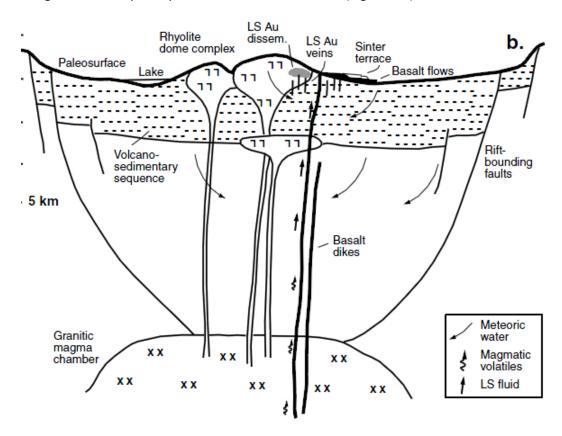


Figure 8-1 Schematic Model of a Low-Sulfidation Epithermal Mineralizing System
[Sillitoe and Hedenquist, 2003]





9 EXPLORATION (ITEM 9)

This section summarizes the exploration work carried out by Blackrock. Drilling by previous operators is summarized in Section 10.2. Blackrock commenced drilling in June of 2020 and the details are summarized in Section 10.3.

Since acquiring the project in February 2020, Blackrock initially focused on an in-depth review of the historical mining and drilling data. Some of the data had been previously compiled at varying levels of detail. Many underground maps had been made from the work by Nolan [1935b] and others during the early 1900s.

Blackrock compiled and digitized mine workings and historical drill hole data, reviewed reports and data from underground workings, and reviewed geologic reports on the controls of mineralization. Blackrock has compiled a significant amount of the data into ArcGIS, AutoCAD and Leapfrog formats. These compilation and interpretation activities are ongoing and being used with Blackrock's drill data to further guide exploration drilling.

Blackrock's compilation and digitizing work resulted in the definition of four target areas: the Victor vein target; the Denver-Paymaster-Bermuda vein target; the New Discovery area; and the Ohio vein area. In 2021, Drilling by Blackrock was focused on the Victor vein area and the Denver-Paymaster-Bermuda vein target.

In 2022, Blackrock completed additional drilling at Victor, Denver-Paymaster-Bermuda and drilled a new area designated as the NW Step Out target. Precious metals were discovered in the NW Step Out target and estimated gold-silver resources for this area are reported in Section 14. From the new drilling, a new geologic concept was gleaned that the Victor, DPB and NW Step Out mineralization was strongly associated with the southern margin of the Fraction Caldera. Based on the re-interpretation, follow-up modeling was completed in the first half of 2023 and is the basis for the updated gold-silver resource estimate reported in Section 14.





10 DRILLING (ITEM 10)

The information presented in this section of the report is extracted from Lindholm and Bickel [2022] and multiple sources, as cited. The author has reviewed this information and believes this summary accurately represents drilling done at the Tonopah West property. The author is unaware of any drill sampling, core recovery, or additional factors related to drilling other than those described below in this section that materially impact the mineral resources discussed in Section 14.

10.1 SUMMARY

The drilling described in this section was performed at the Tonopah West project by historical operators from the late 1970s to the present. The author is aware of a total of 130,441 metres drilled in 242 drill holes from 1979 through the end of 2022 as summarized in Table 10-1. Approximately 85% of the holes and 93% of the metres were drilled by Blackrock in 2020, 2021 and 2022. Only RC methods were used for 53% of the holes and 48% of the metres drilled within the property. Approximately 39% of the holes were drilled with RC "pre-collars" and finished with core "tails." Most of the drill holes (96.2%) were inclined; only eight holes were vertical. A map showing the distribution of the drill holes within the property is presented in Figure 10-1.

Table 10-1 Summary of Tonopah West Drilling

Year	Company	RC Holes	RC Metres	Core Holes	Core Metres	RC+Core Holes	RC+Core	Total Holes	Total		
		noies	wetres	noies	wetres	noies	Metres	noies	Metres		
Historical Operators											
1979 -	Houston Oil &					10	3,268	10	3,268		
1980	Minerals					10	3,200	10	3,200		
1984	Chevron*					1	659	1	659		
1996	Eastfield Resources*	13	2,149					13	2,149		
2018	Coeur Mining	13	3,392					13	3,392		
1979 - 2018	Historical Totals	26	5,541	-	-	11	3,927	37	9,468		
Blackrock Silver											
2020	Blackrock Silver	42	22,110	5	2,634	6	3971	53	28,715		
2021	Blackrock Silver	54	30,723	14	9,857	44	27,800	112	68,380		
2022	Blackrock Silver	7	4,749			33	19,130	40	23,544		
2020 - 2022	Blackrock Silver Totals	103	57,582	19	12,490	83	50,901	205	120,973		
1979 - 2022	Grand Totals	129	63,123	19	12,490	94	54,828	242	130,441		

^{*}Hole types as reported by Wolverson [2021]; Houston Oil and Minerals holes were drilled with rotary rock bit followed by core tails [Wolverson, 2021].





10.2 HISTORICAL DRILLING

Records of pre-Coeur drilling are incomplete with respect to access to original drill logs and assay certificates. However, there is sufficient documentation that supports the Coeur drill hole data. The known limitations of the data sets are described for each historical operator in the respective subsections that follow.

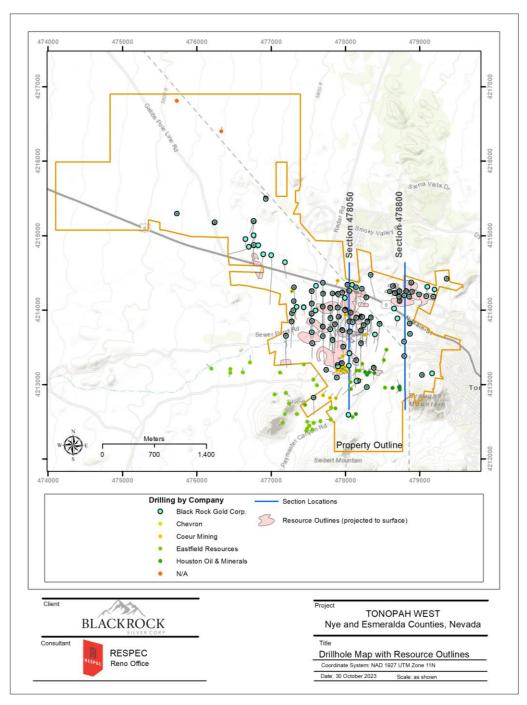


Figure 10-1 Map of Tonopah West Drill Holes





10.2.1 1979 to 1980 Drilling by Houston Oil and Minerals

During 1979 and 1980, HOM drilled a total of 3,268 metres in ten drill holes (HT series holes) at Tonopah West using rotary (rock bit) methods with core tails [Wolverson, 2021]. The author has copies of drill logs for eight of the holes; the logs do not provide information regarding the drilling contractors, rigs, and specific drilling, splitting and sampling methods and procedures.

10.2.2 1984 Chevron Minerals

The author has records for one rotary hole totaling 659 metres drilled in 1984 by Chevron. Boyles Brothers drilled a 5.5-inch (13.97 centimetres) rotary hole to 244 metres, followed by NC-diameter core to the bottom of the hole. The hole targeted a projected intersection of the Merton, Paymaster and Denver veins; it intersected several gold-silver-bearing quartz veins with intervening zones of quartz stockwork veins and silicification. The contact between overlying relatively unaltered rocks and strongly altered rocks was interpreted as a fault [Fahley, 1985]. The author is unaware of the specific splitting and sampling methods and procedures used.

10.2.3 1996 to 1997 Eastfield Resources

The author has records for 13 RC holes totaling 2,149 metres drilled in 1996 and 1997 by Eastfield within Blackrock's Tonopah West property (Figure 10-1). In 1996 Hackworth Drilling Company drilled 5-inch (12.7-centimetre) RC holes with a MPD 1500 rig, and in 1997 drilled 5.5-inch (13.97-centimetre) RC holes with a Schramm C-560 rig. The author is unaware of specific drilling, splitting and sampling methods and procedures used.

10.2.4 2018 Coeur Mining

The author has records for 13 RC holes totaling 3,392 metres drilled in 2018 by HD Drilling; they completed 5.75-inch (14.6-centimetre) holes. Coeur intercepted gold and silver in several drill holes in what is referred to in this report as Blackrock's New Discovery target area. The author is unaware of the rig type and specific drilling, splitting and sampling methods and procedures used.

10.3 2020 TO 2022 BLACKROCK SILVER DRILLING

Blackrock has drilled a total of 120,931 metres in 204 holes at Tonopah West from June 16, 2020 to December 31, 2022 as summarized in Table 10-1. Locations of Blackrock's Tonopah West drill holes are shown in Figure 10-1. Approximately 50% of the holes and 47% of the metres were drilled completely with RC methods. The remaining Tonopah West holes were drilled with diamond core, or with an initial RC pre-collar followed by a core tail. Blackrock drilled 67 vertical holes, and 137 inclined holes at angles of -50° to -88°.

RC drilling in 2020, 2021 and 2022 was conducted by Boart Longyear of Elko, Nevada using a Schram 685 rig. Bit diametres varied from 12.065 centimetres to 17.145 centimetres (4.75 to 6.75 inches). RC drilling





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was conducted wet; the slurry of cuttings was passed through a rotating vane-type splitter to obtain samples.

RC samples were collected at the drill site using 5-foot (1.52-metre) intervals under the supervision of Blackrock's project geologists. The samples were placed in pre-numbered sample bags and transported from the drill site to Blackrock's fenced facility in Tonopah, Nevada. Representative cuttings from each 5-foot interval were collected at the drill rig, placed in marked chip trays, and logged either at the drill site or at the Tonopah facility.

In 2020, core holes were drilled by Timberline Drilling Inc., of Elko, Nevada ("Timberline") using a CT20-03 drill rig. HQ- and lesser PQ-size core was recovered with conventional wireline methods.

In 2021, core holes were drilled by Timberline using a CT20-03 drill rig; and Tonatec Exploration, LLC of Mapleton, Utah, using a LF100 drill rig. HQ- and lesser PQ-size core was recovered with conventional wireline methods.

Core drilling in 2022 was conducted by TonaTec Exploration ("TonaTec") of West Jordan, Utah. TonaTec used conventional wireline methods to recover HQ-size core.

Blackrock's drill core was placed in wax-impregnated core boxes by the drilling contractor and transported daily from the drill sites to Blackrock's core logging and storage facility located in Tonopah, Nevada. Blackrock project geologists completed paper logs for RC chips and core either at the drill site or at the core logging facility in Tonopah. The logs included descriptions of lithology, structure, alteration, and mineralization which were subsequently entered into Blackrock's database.

The 2020 through 2022 drilling by Blackrock penetrated approximately eleven principal veins, vein splays, and related vein-breccia bodies mineralized to varying degrees with silver and gold. Blackrock's drill intercepts in aggregate form the basis for the estimated silver and gold resources described in Section 14. Representative cross sections showing significant assay results and typical vein geometries are presented in Figure 10-2and Figure 10-3.





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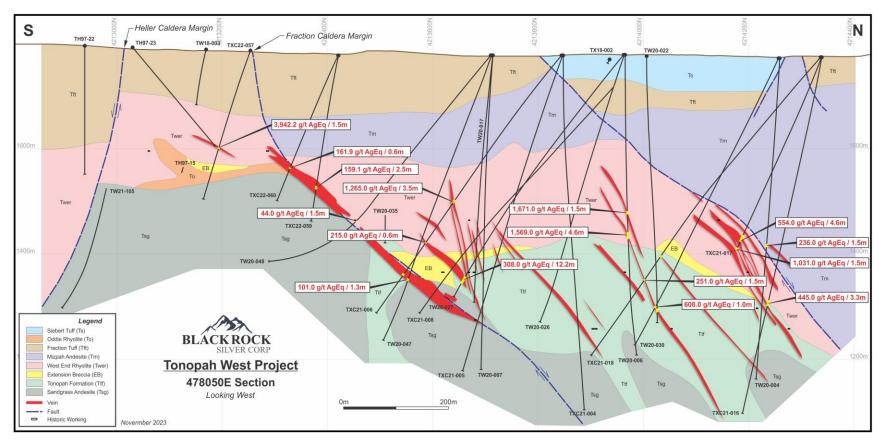


Figure 10-2 Tonopah West Drilling Cross Section 478,050W

(Blackrock, 2023). True widths are approximately 30-97% of the drill hole interval lengths





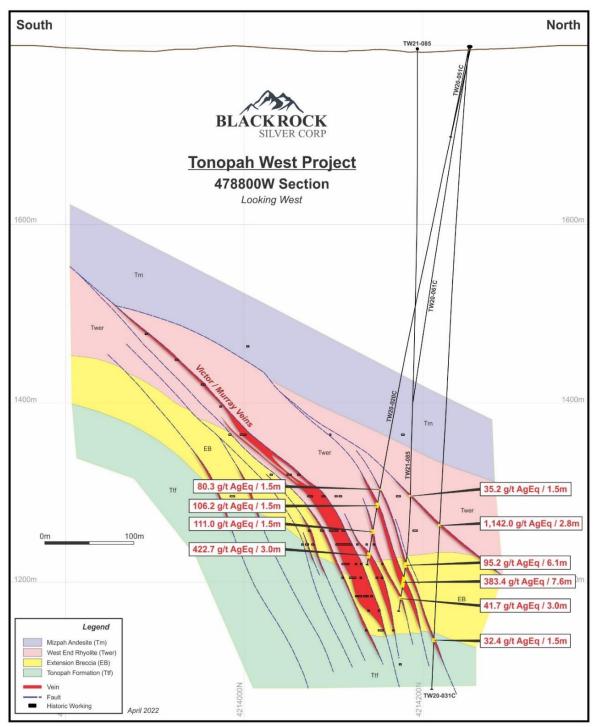


Figure 10-3 Tonopah West Drilling Cross Section 478,800W

(Blackrock, 2022). True widths are approximately 30-97% of the drill hole interval lengths





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10.4 BLACKROCK DOWN-HOLE MULTI-ELEMENT GEOCHEMISTRY

Blackrock evaluated multi-element assays from all 2020 – 2022 drill samples (see Section 11.1.2). The elements included Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, and Zr.

Regression analysis shows gold and silver correlate well as summarized in Table 10-2 and are spatially coincident within the veins. Other elements that correlate with gold and silver are selenium and antimony. There is relatively no correlation of gold and silver to lead, zinc, or copper. The correlations are based on 63,194 individual sample assay determinations.

The correlation with gold and silver is lower when incorporating all the 2022 drillhole data. One explanation for this lower correlation is the drilling in the southern portion of the property where gold with little to no silver was encountered. This gold rich mineralization may be the result of a second system associated with the Heller Caldera which hosts the Three Hills, Hasbrouck Peak and Tonopah Divide gold deposits. These deposits have much lower silver to gold ratios than the Tonopah district.





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Table 10-2 Correlation Matrix for Down-hole Assays

[Visible]											
Spearman - 63194 rows - Pair	Au_ppm	Ag_ppm	As_ppm	Sb_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Se_ppm	Bi_ppm	Te_ppm	W_ppm
Au_ppm	1	0.8	0.62	0.56	0.24	-0.04	0.2	0.52	0.17	0.38	0.13
Ag_ppm	0.8	1	0.63	0.6	0.31	-0.02	0.27	0.54	0.14	0.42	0.12
As_ppm	0.62	0.63	1	0.69	0.1	-0.04	0.12	0.36	0.15	0.28	0.27
Sb_ppm	0.56	0.6	0.69	1	0.058	-0.09	0.1	0.36	0.25	0.28	0.37
Cu_ppm	0.24	0.31	0.1	0.058	1	0.094	0.57	0.24	-0.28	0.095	0.2
Pb_ppm	-0.04	-0.02	-0.04	-0.09	0.094	1	0.22	-6.11E-4	-0.13	-0.08	0.063
Zn_ppm	0.2	0.27	0.12	0.1	0.57	0.22	1	0.16	-0.17	0.067	0.12
Se_ppm	0.52	0.54	0.36	0.36	0.24	-6.11E-4	0.16	1	0.2	0.54	0.047
Bi_ppm	0.17	0.14	0.15	0.25	-0.28	-0.13	-0.17	0.2	1	0.29	-0.04
Te_ppm	0.38	0.42	0.28	0.28	0.095	-0.08	0.067	0.54	0.29	1	-0.03
W_ppm	0.13	0.12	0.27	0.37	0.2	0.063	0.12	0.047	-0.04	-0.03	1





10.5 DRILL HOLE COLLAR SURVEYS

The author is not aware of collar surveys for the pre-Coeur drill hole locations. Drill hole collars for Blackrock's 2020, 2021, and 2022 drill collar locations used in this report were surveyed under the supervision of a professional land surveyor. All coordinates were recorded in UTM NAD 27.

10.6 DOWN-HOLE SURVEYS

Coeur's 2018 RC holes at Tonopah West were surveyed for down-hole deviations by International Directional Services ("IDS"). None of the other historical drill holes in the Tonopah West project area are known to have been surveyed for down-hole deviations. All of Blackrock drill holes have been surveyed for down-hole deviations by IDS.





11 SAMPLE PREPARATION, ANALYSIS AND SECURITY (ITEM 11)

This section summarizes all information known to Mr. Bickel relating to sample preparation, analysis, and security, as well as quality assurance/quality control (QA/QC) procedures and results, that pertain to the Tonopah West project. The information has either been compiled from historical records as cited, provided by Blackrock, or extracted from Lindholm and Bickel [2022].

11.1 SAMPLE PREPARATION, ANALYSIS AND SAMPLE SECURITY

11.1.1 Historical Drill Samples

Records of the sampling, analytical and security methods and procedures used by HOM, Chevron, Eastfield and Coeur are incomplete and limited. The author is not aware of the specific sample splitting and sample security protocols used by the historical operators.

HOM's samples were analyzed for gold and silver. However, the author is unaware of the laboratory, preparation and analytical methods used.

Chevron's drilling samples were analyzed at Cone Geochemical Inc., ("Cone") for gold and silver. The author has no information on the sample preparation methods. Silver was analyzed by atomic adsorption spectrometry ("AAS") following a 4-acid digestion. Gold was analyzed by AAS after aquaregia digestion. A few gold analyses were done using fire-assay fusion.

The Eastfield RC samples consisted of 5-foot intervals that were analyzed for gold at Chemex Labs Inc., ("Chemex"). The author has no information on the sample preparation methods. Gold was analyzed by 30-gram fire-assay fusion with AAS finish.

Coeur's RC samples consisted of 5-foot intervals that were analyzed by Bureau Veritas ("BV"). The author has no information on the sample preparation methods used. Gold was analyzed by 30-gram fire-assay fusion with an AAS finish. In some cases, the gold fire assays were finished with a gravimetric method. Silver was analyzed by fire-assay fusion with a gravimetric finish. Forty-eight major, minor and trace elements were analyzed by inductively coupled plasma emission ("ICP") methods.

Cone, Chemex, and BV were independent commercial assay laboratories. The author has no information on the certifications that may have been held by these laboratories in 1984, 1997 and 2018, respectively.

11.1.2 Blackrock Drill Samples 2020 to 2022

During RC drilling, a small portion of the RC cuttings from each 1.52-metre interval was placed by the drilling contractor in plastic chip trays at the drill rig and delivered to Blackrock's geologist. These





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"character samples" were logged for geology, structure, alteration, and mineralization by Blackrock geologists. Blackrock's RC assay samples were loaded directly into large porous plastic storage bins and transported by the drilling contractor to the Blackrock fenced storage and logging facility in Tonopah where the samples were placed in large plastic bins. These bins were periodically trucked by personnel of American Assay Laboratories ("AAL") to the AAL laboratory in Sparks, Nevada. AAL is an independent commercial laboratory accredited effective December 1, 2020 to the ISO/IEC Standard 17025:2017 for testing and calibration laboratories.

Blackrock's drill core was placed in wax-impregnated core boxes at the drill sites and transported by the drilling contractor on a daily basis to Blackrock's core logging facility in Tonopah. Blackrock geologists logged the core for geology, structure, alteration, mineralization, rock quality designation, and recovery. Sample intervals were selected and marked in the core boxes with red-colored wooden blocks and numbered aluminum tags that were stapled into the core boxes. Unique sample identification numbers were assigned to each sample interval, which varied between 0.3 metres (1.0 feet) to a maximum of 3.0 metres (10 feet) in length. Each core box was then photographed with the sample mark-ups. A cut sheet was created and individual samples bags with the corresponding sample numbers were completed. A QA/QC standard was placed in the appropriate labelled sample bag, and all sample bags and associated drill core was then trucked by AAL personnel to AAL's laboratory in Sparks, Nevada.

At the AAL laboratory, AAL personnel sawed the marked core lengthwise into halves. One half was placed in numbered sample bags. The other half was placed back into the original core boxes, which were periodically returned along with coarse rejects and pulps to Blackrock. The returned core and pulps are stored in locked shipping containers on the project site, and coarse rejects are stacked on pallets, shrink-wrapped, and stored uncovered on the Tonopah West mine dump.

RC and core samples from the 2020-2022 drilling were placed in drying ovens and dried overnight at 85°C at AAL's Sparks facility. The dry samples were crushed to a size of -6 mesh and then roll-crushed to -10 mesh. One-kilogram (2.205-pound) splits of the -10-mesh materials were pulverized to 95% passing -150 mesh. Sixty-gram aliquots of the one-kilogram pulps were analyzed at AAL for gold mainly by fire-assay fusion with an ICP finish. Silver and 48 major, minor, and trace elements were determined by ICP and ICP-MS following a 5-acid digestion of 0.5-gram aliquots. Samples that assayed greater than 10g Au/t were re-analyzed by fire-assay fusion of 30-gram aliquots with a gravimetric finish. Samples with greater than 100g Ag/t were also re-analyzed by fire-assay fusion of 30-gram aliquots with a gravimetric finish. Standards were not crushed.

Silver and 48 major, minor and trace elements were analyzed by a combination of ICP and mass spectrometry ("MS" or "ICP-MS") methods following a 5-acid digestion. Silver was also analyzed by fire-assay fusion with a gravimetric finish after an aqua-regia digestion. Gold was analyzed by fire-assay





fusion with an ICP finish after an aqua-regia digestion. Over-limit gold assays were re-analyzed with a fire-assay fusion and gravimetric finish.

Blackrock also selected a group of sample pulps from the 2020–2022 drill samples analyzed by AAL for second-lab check assays as described in Section 11.2.2. This group of pulps was analyzed for gold, silver and a suite of multi-elements by ALS Minerals ("ALS") at their laboratories in North Vancouver, British Columbia and Lima, Peru. ALS is an independent commercial laboratory accredited under ISO 9001 and ISO 17025.

Gold was analyzed by ALS using a 30-gram fire-assay fusion with an AAS finish. Pulps that assayed greater than 10g Au/t were re-analyzed for gold by 30-gram fire-assay fusion with a gravimetric finish. Silver and 32 major, minor and trace elements were analyzed by ICP methods. One sample that assayed greater than 1,500g Ag/t was re-analyzed for silver by 30-gram fire-assay fusion with a gravimetric finish. ALS returned the pulps to Blackrock after the analysis was completed.

11.2 QUALITY ASSURANCE/QUALITY CONTROL

The author is unaware of the QA/QC protocols that may have been used by HOM, Chevron and Eastfield. For the 2018 drilling program, Coeur used four certified reference materials ("CRM" or "CRMs") obtained from CDN Resource Laboratories Ltd. (CDN), of Langley City, British Columbia, Canada, and one CRM from ORE Pty Ltd. (OREAS) of Melbourne, Australia.

For assays performed in the years 2020 through 2023, Blackrock used 39 different CRMs obtained from Moment Exploration Geoservices LLC. ("MEG"), of Lamoille, Nevada. Table 11-1 summarizes the types and quantities of QA/QC materials that were submitted to the laboratories with drill samples by Coeur and Tonopah West. The table does not include samples that were part of the internal QA/QC protocols of the laboratories.

Table 11-1 Summary Counts of Tonopah West QA/QC Analyses

0.4/0.5	20	18	2020-2023					
QA/QC Type	Au	Ag	Au	Ag				
Standard (CRM)								
Number in Use	5	5	39	39				
Number of Analyses	124	87	2,912	2,858				
Number of Failures	30	5	39	20				
Duj	olicate							
Field Duplicate	144	60	0	0				
Coarse (Prep) Duplicate	142	59	0	0				
Pulp Duplicate or Replicate	141	59	0	0				
External Check**	0	0	1,144	1,133				





04/057	20	18	2020-2023						
QA/QC Type	QA/QC Type Au Ag		Au	Ag					
Blank									
Pulp Blank	0	0	368	368					
Coarse Blank	84	54	162	161					
Drill Hole Samples	3,444	2,371	53,455	53,680					
Total Insertion Percent	12.7	12.6	7.23	7.20					

Note: **External check (cross-laboratory) samples were all Pulp Duplicates.

11.2.1 Coeur [2018] Drilling QA/QC

Coeur's QA/QC program involved the use of coarse blanks, CRMs and field duplicates. Some coarse and pulp duplicates were also submitted for re-analysis. The exact procedures are not known, but the insertion rates of QA/QC materials appear to be more than adequate at 12.6% silver and 12.7% for gold. Coeur used BV as its primary laboratory in 2018.

The CRMs for the silver analyses are listed in Table 11-2. The silver sample analyses were obtained by ICP using four-acid digestion, which was the same method and digestion used for the CRM values. No information on preparation of the samples was available.

Table 11-2 Summary of Silver CRM Assay Results [Coeur, 2018]

CDMID		Silver (pp	om)		Count	Dates Used		Failure Counts		Bias pct
CRM ID	Target	Average	Max	Min		First	Last	High	Low	віаѕ рсі
CDN-ME-1402	131	129.088	150.0	103	36	04/11/18	12/19/18	0	0	-1.46
CDN-ME-1413	52.2	54.610	118.4	49.9	31	04/11/18	12/19/18	2	0	4.62
CDN-ME-1604	299	278.867	299.0	189.8	9	11/14/18	12/08/18	0	2	-6.73
CDN-ME-1706	11.7	11.863	12.30	11.6	8	12/03/18	12/06/18	0	0	1.39
OREAS 603	284	194.167	280.0	24.5	3	04/26/18	04/26/18	0	1	-31.63
Count or Sum	5				87			2	3	
Percent					100			1.6	2.4	

ppm = parts per million

RESPEC defines a failure as a CRM assay above or below a three-standard deviation threshold relative to the target value. The standard deviation is derived from the round-robin testing conducted by the supplier (i.e., MEG) to certify the CRM as provided on the certificate. Five silver CRM failures represent a 4% failure rate and are detailed in Table 11-3. Two of the five are significantly high or low, and the pulp bags may have been mislabeled. This conclusion is speculative; however, the CRM assay values are within the range of other CRMs in use at the time.





Table 11-3 Summary of Silver CRM Assay Failures

(Coeur, 2018)

			Silver (ppm)		
Standard ID	Hole ID	Target Value	Fail Type High/Low	3-Std. Dev. Limit	CRM Assay Value	Comment
CDN-ME-1413	TW18-001	52.2	High	56.4	57.8	
CDN-ME-1413	TX18-001	52.2	High	56.4	118.4	Mislabeled?
CDN-ME-1604	TW18-008	299	Low	276.5	189.8	
CDN-ME-1604	TX18-002	299	Low	276.5	270.0	
OREAS 603	TW18-005	284	Low	236.3	24.5	Mislabeled?

Results for CRM gold analyses associated with Coeur's drilling program are summarized in Table 11-4. There is an overall negative bias apparent in the CRM assay data.

Table 11-4 Summary of Gold CRM Assay Results [Coeur, 2018]

Standard ID		Go (pp			Count	Dates Used		Failure	Bias pct	
	Target	Average	Max	Min		First	Last	High	Low	·
CDN-ME-1402	13.90	14.007	16.348	11.127	37	4/11/18	1/7/19	4	3	0.8
CDN-ME-1413	1.010	0.941	1.907	0.476	50	4/11/18	1/7/19	2	13	-6.8
CDN-ME-1604	2.510	2.456	2.800	2.200	22	11/10/18	1/7/19	1	4	-2.1
CDN-ME-1706	2.062	2.023	2.146	1.960	7	12/3/18	12/6/18	0	0	-1.9
OREAS 603	5.180	4.074	5.991	0.195	8	4/26/18	4/26/18	1	2	-21.4
Count or Sum	5				124			8	22	
Percent					100			6.4	17.7	

The overall failure rate for CRM gold analyses is high at 24% with 30 CRM gold analytical failures recorded (Table 11-5). Of these, three are speculated to be the result of a sample mislabeling as the values matches another CRM in use at the time. Regardless, the number and rate of failed gold CRM assays is high. Coeur's response to any silver or gold CRM failures is not known.





Table 11-5 Summary of Gold CRM Assay Failures

[Coeur, 2018]

			Gol	d (ppm)		
CRM ID	Hole ID	Target Value	Fail Type High/Low	3-Std. Dev. Limit	CRM Assay Value	Comment
CDN-ME-1402	TW18-001	13.9	High	15.100	15.601	
CDN-ME-1402	TW18-001	13.9	High	15.100	15.156	
CDN-ME-1402	TW18-003	13.9	High	15.100	16.349	
CDN-ME-1402	TW18-008	13.9	High	15.100	16.100	
CDN-ME-1402	TW18-002	13.9	Low	12.700	11.128	
CDN-ME-1402	TW18-004	13.9	Low	12.700	11.326	
CDN-ME-1402	TW18-005	13.9	Low	12.700	11.974	
CDN-ME-1413	TW18-004	1.01	High	1.181	1.515	
CDN-ME-1413	TX18-001	1.01	High	1.181	1.907	Mislabeled?
CDN-ME-1413	TW18-001	1.01	Low	0.839	0.677	
CDN-ME-1413	TW18-002	1.01	Low	0.839	0.562	
CDN-ME-1413	TW18-002	1.01	Low	0.839	0.584	
CDN-ME-1413	TW18-002	1.01	Low	0.839	0.798	
CDN-ME-1413	TW18-003	1.01	Low	0.839	0.786	
CDN-ME-1413	TW18-003	1.01	Low	0.839	0.794	
CDN-ME-1413	TW18-003	1.01	Low	0.839	0.619	
CDN-ME-1413	TW18-004	1.01	Low	0.839	0.510	
CDN-ME-1413	TW18-004	1.01	Low	0.839	0.614	
CDN-ME-1413	TW18-005	1.01	Low	0.839	0.606	
CDN-ME-1413	TW18-005	1.01	Low	0.839	0.540	
CDN-ME-1413	TW18-005	1.01	Low	0.839	0.796	
CDN-ME-1413	TW18-006	1.01	Low	0.839	0.477	
CDN-ME-1604	TW18-009	2.51	High	2.690	2.800	
CDN-ME-1604	TW18-008	2.51	Low	2.330	2.300	
CDN-ME-1604	TW18-008	2.51	Low	2.330	2.297	
CDN-ME-1604	TX18-002	2.51	Low	2.330	2.300	
CDN-ME-1604	TX18-002	2.51	Low	2.330	2.200	
OREAS 603	TW18-005	5.18	High	5.633	5.991	
OREAS 603	TW18-005	5.18	Low	4.727	0.196	Mislabeled?
OREAS 603	TW18-005	5.18	Low	4.727	0.201	Mislabeled?

In 2018, Coeur inserted 84 blanks with no failures for either gold or silver. Sample weights in the assay certificates indicate coarse blanks were used, although the type of material is not known. As an example, Figure 11-1 shows the coarse blank and preceding gold values plotted against analysis dates. Only one each of the silver and gold blank values were preceded by samples with assays higher than their warning limits (five times detection limit), which are 0.5 parts per million (ppm) Ag and 0.025 ppm





Au, respectively. Coarse blanks test for contamination during sample preparation, however, the test is not effective if the preceding samples are not mineralized.

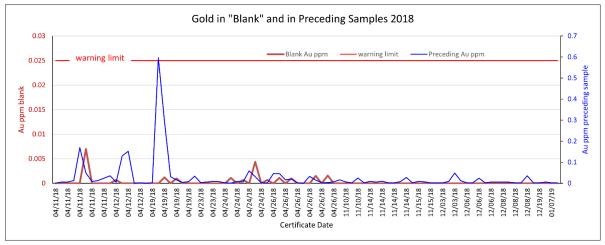


Figure 11-1 Coarse Blank and Preceding Sample Gold Assays [Coeur, 2018)]

In addition to CRMs and blanks, Coeur collected five to six field duplicates per hole at the drill rig. It is not known how the sample splits were obtained. In general, field and other duplicate sample sets provide a measure of the heterogeneity of metal contents inherent in deposits. High variability between duplicate pairs suggests more heterogeneous natural metal distribution. A strong bias between sample pairs, however, can result from a consistent sample splitting issue at the rig.

The scatter plot with a regression of silver pairs (Figure 11-2) shows a reasonable correlation between duplicate and original values, however, the plot does appear to indicate some variability in the assays. Also, there is some bias indicated with original assays greater than duplicates above 0.6g Ag/t.





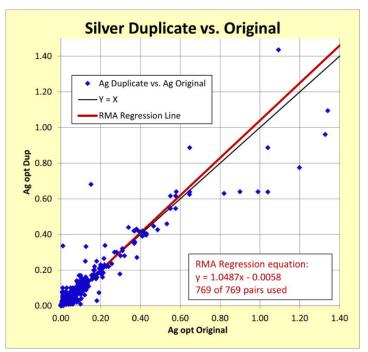


Figure 11-2 Scatter Plot of Field Duplicate vs. Original Silver Assays [Coeur, 2018]

The scatter plot of gold field duplicates vs. originals (Figure 11-3) shows a variable correlation between the pairs, with a decided bias indicated by the regression line relative to the ideal X=Y line. The original assays appear to be higher overall relative to the duplicates. All of the holes drilled by Coeur were RC, so the bias in sample splits could have been produced by an out-of-level "Y-Splitter" at the bottom of the cyclone splitter.





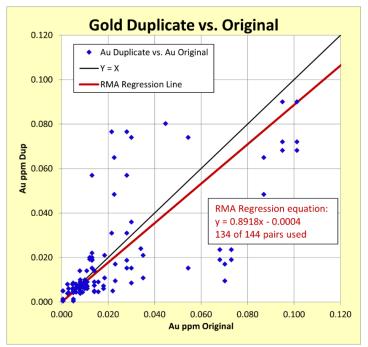


Figure 11-3 Scatter Plot of Field Duplicate vs. Original Gold Assays
[Coeur, 2018]

The coarse and pulp duplicates submitted to BV for re-analysis have been charted by RESPEC. Although the charts are not provided here, the duplicate assay results indicated no bias or excessive variability.

11.2.2 Blackrock Silver QA/QC

Blackrock's QA/QC program included the use of CRMs, coarse and pulp blanks, and check assay duplicates with total insertion rates above 7.2% for silver and gold. Field duplicates were not collected. Blackrock utilized several CRMs of varying gold grades for analytical QA/QC, which were inserted into the sample sequence at a rate of approximately one in 20 samples.

The silver sample analyses were obtained by ICP using five-acid digestion, which was the same method and digestion used for the CRM values. In several cases, two certified silver values by both total acid and aqua-regia digestions were available on a CRM certificate. Most of the sample analyses were preceded by five-acid digestion so it is reasonable to use the total digestion certified values.

Table 11-6 summarizes the CRMs inserted with samples from the 2020-2022 drilling program, including assays done in 2023. There is little or no overall bias indicated in the certified CRM assay data, and 10 of the 20 CRMs with certified silver values had no associated failures. A total of seven of 2,858 CRM assays were outside the certified three-standard deviation limit relative to the target which equates to a satisfactory failure rate of 0.4%. Some of the failures coincide with the target values of other CRMs in use at the time, and could possibly be mismarked labels.





Table 11-6 Summary of CRM Silver Assay Results

[Blackrock, 2020-2023]

		Silver (anm)	[Di-		, 2020-2023 j Dates	Usod	Failure	Counts		
CRM ID					Use Count					Bias pct	Comment
	Target	Ave	Max	Min	Count	First	Last	High	Low	per	
MEG-Au.09.05	12.60	19.21	19.86	18.66	5	8/14/2020	12/8/2020	0	0	52.4	Not Certified
MEG-Au.09.06	10.90	22.07	22.47	21.17	5	11/24/2020	11/25/2020	0	0	102.5	Not Certified
MEG-Au.09.07	10.80	19.81	20.45	18.46	4	8/14/2020	11/25/2020	0	0	83.5	Not Certified
MEG-Au.09.08	11.60	20.27	22.96	18.14	93	8/14/2020	4/18/2023	1	0	74.7	Not Certified
MEG-Au.11.13	20.60	19.88	22.36	17.68	95	12/22/2021	11/15/2022	1	0	-3.3	Certified
MEG-Au.11.15	52.20	52.11	58.33	26.92	310	12/21/2021	4/18/2023	0	1	-0.2	Certified
MEG-Au.11.16	26.00	25.96	27.91	21.58	220	12/21/2020	4/18/2023	0	1	-0.2	Certified
MEG-Au.11.17	0.50	0.49	0.54	0.45	3	8/14/2020	11/25/2020	0	0	-2.0	Not Certified
MEG-Au.11.29	13.40	13.80	25.37	12.59	270	12/21/2021	8/4/2022	3	0	3.0	Certified
MEG-Au.11.34	10.00	10.21	21.11	4.22	117	12/22/2021	11/5/2022	2	1	2.1	Not Certified
MEG-Au.12.13	33.40	32.98	37.41	16.60	20	8/14/2020	1/19/2022	0	1	-1.3	Certified
MEG-Au.12.20	0.40	0.25	0.29	0.22	3	8/14/2020	11/25/2020	0	0	-36.7	Not Certified
MEG-Au.12.21	0.20	0.15	0.15	0.14	3	8/14/2020	11/25/2020	0	0	-26.7	Not Certified
MEG-Au.12.23	2.00	1.83	1.88	1.78	3	8/14/2020	11/25/2020	0	0	-8.3	Not Certified
MEG-Au.12.27	607.00	592.09	874.87	530.00	207	12/21/2021	4/18/2023	1	0	-2.5	Certified
MEG-Au.13.03	4.48	4.01	4.55	3.20	204	9/1/2020	1/3/2022	0	0	-10.6	Certified
MEG-Au.17.01	6.52	6.68	7.00	6.48	9	8/14/2020	11/25/2020	0	0	2.5	Certified
MEG-Au.17.02	4.99	5.39	5.49	5.33	4	8/14/2020	12/8/2020	0	0	8	Certified
MEG-Au.17.07	0.20	0.17	0.20	0.14	3	12/8/2020	12/8/2020	0	0	-15	Not Certified
MEG-Au.17.08	0.30	0.23	0.40	0.14	38	8/14/2020	12/8/2020	0	0	-22.4	Not Certified
MEG-Au.17.09	16.72	16.97	20.75	15.05	320	12/21/2021	11/2/2022	1	0	1.5	Certified
MEG-Au.17.21	22.59	22.91	26.11	21.14	310	12/21/2021	8/2/2022	0	0	1.4	Certified
MEG-Au.19.05	1.70	1.67	1.82	1.55	7	6/10/2021	9/29/2021	0	0	-2	Not Certified
MEG-Au.19.07	1.30	1.33	1.42	1.27	5	6/25/2021	9/29/2021	0	0	2.5	Not Certified
MEG-Au.19.08	0.90	0.95	1.12	0.89	8	6/10/2021	1/19/2022	0	0	5.8	Not Certified
MEG-Au.19.09	36.70	36.19	40.82	33.17	34	5/11/2022	4/18/2023	0	0	-1.4	Certified
MEG-Au.19.10	35.10	35.27	38.32	30.87	104	12/22/2021	4/18/2023	0	0	0.5	Certified





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		Silver (_l	opm)		Use	Dates	Used	Failure (Counts	Bias	
CRM ID	Target	Ave	Max	Min	Count	First	Last	High	Low	pct	Comment
MEG-Au.19.11	33.63	33.09	36.89	29.89	49	8/2/2022	1/20/2023	0	0	-1.6	Not Certified
MEG-Au.21.01	241.59	281.22	292.00	274.0	9	11/5/2022	12/1/2022	2	0	16.4	Certified
MEG-Au.21.05	6.34	6.17	6.45	5.93	8	11/5/2022	1/20/2023	0	0	-2.7	Certified
S106004X	298.80	282.66	329.00	259.53	56	8/14/2020	10/29/2021	0	0	-5.4	Certified
S106008X	3.14	2.96	3.02	2.87	4	8/14/2020	11/25/2020	0	0	-5.7	Certified
S107009X	7.40	16.28	17.56	15.30	36	12/22/2021	4/8/2023	0	0	120.0	Not Certified
S107010X	18.00	23.92	24.91	23.41	11	7/31/2020	12/8/2020	0	0	32.9	Not Certified
S107011X	18.00	21.39	22.70	19.59	46	8/14/2020	1/19/2022	0	0	18.9	Not Certified
S107012X	18.00	21.39	23.60	19.45	33	7/31/2020	9/30/2021	0	0	18.8	Not Certified
S107013X	18.00	19.85	20.50	19.15	5	11/24/2020	12/8/2020	0	0	10.3	Not Certified
Count or Sum	39				2,858			11	4		
Percent					100			0.44	0.24		

According to Blackrock, CRM values that were considered high or low relative to the target value triggered a review of the assay associated with the respective batches. Internal AAL CRMs were taken into account, and materiality of the associated assays with respect to mineralized intervals was considered. AAL was notified of the errant CRM assays via email, and a review was requested. If the batch containing the CRM was associated with mineralized material, and AAL's review was not sufficient to explain the issue, then samples were selected for re-analysis.

As noted above, 20 of the CRMs used for silver were only certified for gold. Since no certified standard is provided for silver, CRM assays were compared to standard deviations derived from the CRM assay data set. Four CRM assays were above or below the three-standard deviation threshold. However, evaluation of the results in this manner does not test the accuracy of the CRM assays with respect to the target values, only the consistency of the assay results; no bias is generally indicated.

Results for CRM gold analyses are summarized in Table 11-7 and the failures are detailed in Table 11-8. Thirty-nine CRM assays exceeded the three-standard deviation threshold out of 2,912 total samples, yielding a satisfactory 1.3% failure rate. Nine of these failures are low failures for the CRM "MEG-Au.17.21", which also shows a negative bias. This may be an issue with the analytical method used for the target value.





Table 11-7 Summary of CRM Gold Assay Results

[Blackrock, 2020-2023]

Standard		Gold	(ppm)	[Blackrock	Use	Dates	Used	Failure	Counts	Bias
ID	Target	Ave	Max	Min	Count	First	Last	High	Low	pct
MEG-Au.09.05	8.175	8.836	8.950	8.620	5	08/14/20	12/08/20	0	0	8.09
MEG-Au.09.06	11.280	11.190	11.867	10.000	10	11/24/20	11/25/20	0	0	-0.80
MEG-Au.09.07	10.188	10.339	10.600	9.870	7	08/14/20	11/25/20	0	0	1.48
MEG-Au.09.08	5.4000	5.5653	6.1200	4.9100	93	12/22/21	4/18/23	1	0	3.10
MEG-Au.11.13	1.8000	1.8316	2.0400	1.7200	95	12/22/21	11/15/22	0	0	1.80
MEG-Au.11.15	3.4450	3.5218	4.1600	3.1700	310	12/21/21	4/18/23	3	0	2.20
MEG-Au.11.16	7.4980	7.4916	7.8300	6.2800	220	12/21/21	4/18/23	0	1	-0.10
MEG-Au.11.17	2.693	2.720	2.830	2.550	3	08/14/20	11/25/20	0	0	1.00
MEG-Au.11.29	3.6000	3.6566	4.4900	1.1000	269	12/21/21	8/4/22	0	1	1.6
MEG-Au.11.34	2.1130	2.0998	3.4800	1.7400	117	12/22/21	11/5/22	3	0	-0.6
MEG-Au.12.13	0.879	0.891	0.955	0.737	20	08/14/20	01/19/22	0	0	1.34
MEG-Au.12.20	0.500	0.496	0.503	0.489	3	08/14/20	11/25/20	0	0	-0.87
MEG-Au.12.21	0.140	0.140	0.144	0.133	3	08/14/20	11/25/20	0	0	-0.24
MEG-Au.12.23	0.290	0.297	0.317	0.272	3	08/14/20	11/25/20	0	0	2.30
MEG-Au.12.27	2.933	2.857	3.640	2.240	213	12/21/21	04/18/23	0	0	-2.60
MEG-Au.12.32	0.616	0.630	0.637	0.623	2	08/14/20	11/25/20	0	0	2.27
MEG-Au.12.46	7.551	7.551	8.060	6.880	194	12/21/21	01/03/23	0	0	0.00
MEG-Au.13.03	1.823	1.832	2.000	1.640	204	09/01/20	01/03/22	0	0	0.49
MEG-Au.17.01	0.380	0.402	0.560	0.344	9	08/14/20	11/25/20	1	0	5.85
MEG-Au.17.02	0.511	0.473	0.511	0.456	4	08/14/20	12/08/20	0	0	-7.39
MEG-Au.17.07	0.188	0.196	0.210	0.186	3	12/08/20	12/08/20	0	0	4.43
MEG-Au.17.08	0.410	0.419	0.445	0.387	39	08/14/20	12/08/20	0	0	2.25
MEG-Au.17.09	0.7670	0.7430	0.8640	0.6220	320	12/21/21	11/2/22	0	3	-3.1
MEG-Au.17.21	1.1070	1.0317	1.1900	0.8150	311	12/21/21	8/2/22	0	9	-6.8
MEG-Au.19.05	0.660	0.599	0.661	0.520	7	06/10/21	09/29/21	0	1	-9.20
MEG-Au.19.07	0.331	0.327	0.346	0.310	5	06/25/21	09/29/21	0	0	-1.21
MEG-Au.19.08	0.198	0.194	0.205	0.189	8	06/10/21	01/19/22	0	0	-1.89
MEG-Au.19.09	0.7110	0.7289	0.7830	0.6670	34	5/11/22	4/18/23	0	0	2.5
MEG-Au.19.10	0.8100	0.7893	0.8600	0.6720	104	12/22/21	4/18/23	0	2	-2.6
MEG-Au.19.11	1.2630	1.2180	1.3300	0.8400	49	8/2/22	1/20/23	0	5	-3.6
MEG-Au.21.01	0.4280	0.4410	0.4800	0.4100	10	11/5/22	12/1/22	0	0	3.0
MEG-Au.21.05	1.7230	1.7250	1.8700	1.3500	8	11/5/22	1/20/23	0	1	0.1
S106004X	1.050	1.044	1.110	1.000	58	08/14/20	10/29/21	0	0	-0.57
S106008X	6.842	6.780	7.040	6.470	4	08/14/20	11/25/20	0	0	-0.91
S107009X	4.734	4.753	5.180	3.960	36	12/22/21	04/18/23	0	3	0.40
S107010X	6.405	6.228	6.400	6.100	11	07/31/20	12/08/20	0	0	-2.76
S107011X	9.284	8.980	9.730	7.680	47	08/14/20	01/19/22	0	2	-3.28





Standard		Gold	(ppm)		Use Dates Used		Failure Counts		Bias	
ID	Target	Ave	Max	Min	Count	First	Last	High	Low	pct
S107012X	16.503	15.827	16.900	14.267	64	07/31/20	09/30/21	0	3	-4.10
S107013X	26.943	26.783	27.500	25.867	10	11/24/20	12/08/20	0	0	-0.59
Count or Sum	39				2912			8	31	-1.2
Percent					100			0.2	1.2	

Table 11-8 List of 2020-2023 Failed Gold Certified Reference Materials

Table	Table 11-8 List of 2020-2023 Failed Gold Certified Reference Materials											
Standard		Drill		Gold (ppm)							
ID	Laboratory	Hole	Target Value	Fail Type High/Low	3-Std. Dev. Limit	CRM Assay Value	Comment					
MEG-Au.09.08	AAL	TXC22-058	5.4	High	5.964	6.12						
MEG-Au.11.15	AAL	TW20-034	3.445	High	3.844	4.010	Mislabeled?					
MEG-Au.11.15	AAL	TW21-089	3.445	High	3.844	4.160	Mislabeled?					
MEG-Au.11.15	AAL	TXC22-061	3.445	High	3.844	4.08						
MEG-Au.11.16	AAL	TW21-094C	7.498	Low	6.910	6.280						
MEG-Au.11.29	AAL	TW20-049	3.600	Low	2.643	1.100	Mislabeled?					
MEG-Au.11.34	AAL	TW21-104	2.113	High	2.629	2.700						
MEG-Au.11.34	AAL	TXC22-059	2.113	High	2.629	3.48						
MEG-Au.11.34	AAL	TXC22-068	2.113	High	2.629	3.28						
MEG-Au.17.01	AAL	TW20-005	0.380	High	0.425	0.560						
MEG-Au.17.09	AAL	TW21-059	0.767	Low	0.653	0.622						
MEG-Au.17.09	AAL	TW21-082	0.767	Low	0.653	0.646	Close to limit					
MEG-Au.17.09	AAL	TXC21-005	0.767	Low	0.653	0.653	Right at limit					
MEG-Au.17.21	AAL	PC21-032	1.100	Low	0.914	0.893						
MEG-Au.17.21	AAL	PC21-050	1.100	Low	0.914	0.883						
MEG-Au.17.21	AAL	TW21-066	1.100	Low	0.914	0.874						
MEG-Au.17.21	AAL	TW21-072	1.100	Low	0.914	0.868						
MEG-Au.17.21	AAL	TW21-087	1.100	Low	0.914	0.901						
MEG-Au.17.21	AAL	TW21-105	1.100	Low	0.914	0.815						
MEG-Au.17.21	AAL	TW21-92C	1.100	Low	0.914	0.902						
MEG-Au.17.21	AAL	TXC21-003	1.100	Low	0.914	0.884						
MEG-Au.17.21	AAL	TW21-114	1.1	Low	0.914	0.892						
MEG-Au.19.05	AAL	TXC21-016	0.660	Low	0.522	0.520	Close to limit					
MEG-Au.19.10	AAL	TXC21-045	0.810	Low	0.720	0.672						
MEG-Au.19.10	AAL	TXC21-045	0.810	Low	0.720	0.700						
MEG-Au.19.11	AAL	PC22-077	1.3	Low	1.213	1.13						
MEG-Au.19.11	AAL	TXC22-075	1.3	Low	1.213	1.14						
MEG-Au.19.11	AAL	TCX22-072	1.3	Low	1.213	1.1						
MEG-Au.19.11	AAL	TCX22-074	1.3	Low	1.213	0.863						
MEG-Au.19.11	AAL	TCX22-074	1.3	Low	1.213	0.84						





Standard		Drill		Gold ((ppm)		
ID	Laboratory	Hole	Target Value			CRM Assay	Comment
			. 0	High/Low	Limit	Value	
MEG-Au.21.05	AAL	TCX22-070	1.723	Low	1.447	1.35	
S107009X	AAL	TXC21-009	4.734	Low	4.152	4.150	Close to limit
S107009X	AAL	TXC21-042	4.734	Low	4.152	4.130	
S107009X	AAL	TXC21-047	4.734	Low	4.152	3.960	
S107011X	AAL	TXC21-006	9.284	Low	7.982	7.680	
S107011X	AAL	TXC21-013	9.284	Low	7.982	7.680	
S107012X	AAL	TW21-068	16.503	Low	14.625	14.267	
S107012X	AAL	TW21-081C	16.503	Low	14.625	14.600	
S107012X	AAL	TXC21-001	16.503	Low	14.625	14.500	

Figure 11-4 shows the control chart for CRM MEG-Au.11.15 for gold. The three high failures are clearly shown. There does appear to be a slight high bias in the CRM assays relative to the certified target value of 3.445 ppm Au.

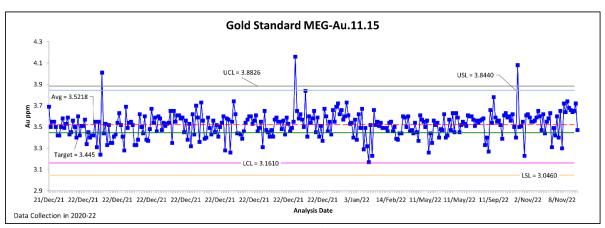


Figure 11-4 Control Chart for CRM MEG-Au.11.15

Figure 11-5 depicts the control chart for CRM MEG-Au.11.29 for gold, which has a single low failure. Only slight or no bias is indicated on the chart, as is the case for assays for charts of all 39 of the CRMs.





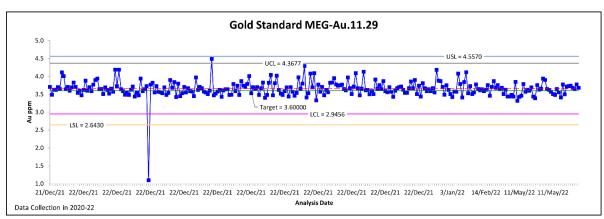


Figure 11-5 Control Chart for Gold CRM MEG-Au.11.29

Blackrock inserted blanks at a rate of about one blank for every five CRM samples. Coarse blanks and pulp blanks were alternately inserted into the sample sequence. For the 2020-2022 drill programs, 162 coarse blanks and 368 pulp blanks, all of which were obtained from and certified by MEG, were submitted by Blackrock with drill samples. The detection limit of the AAL analyses is 0.020g Ag/t for silver and 0.003 g Au/t for gold, so blank samples assaying in excess of 0.015 g Au/t and 0.100 g Ag/t are considered to be threshold failures that should be subject to review and possible action. A total of nine silver (1.5%) and four gold (0.7%) threshold failures occurred over the course of assays done in 2020-2023 and are summarized in Table 11-9. Blackrock has stated that samples above the threshold were reviewed in real time in context with other QA/QC data and mineralized zones in each sample batch. None of the high threshold blank values were associated with mineralized intervals and were not considered material.

Table 11-9 Blank and Preceding Sample Gold Assays
[Blackrock, 2020-2023]

				Preceding		Rlank	Blank	
Blank	Certificate	Element	Method				.,, ,	
				Sample Value (ppm		Sample	Value (ppm)	
MEG- BLANK.17.12	SP0136925	Au	Fire/ICP	TXC21-008 357359	0.004	TXC21-008 357360	0.024	
MEG- BLANK.17.12	SP0137054	Au	Fire/ICP	TW21-083 1535 1540	0.05	TW21-083 1535 1540A	0.02	
MEG- SiBlank.21.01	SP0138911	Au	Fire/ICP	TXC21-036 352699	0.027	TXC21-036 352700	7.490	
MEG- SiBlank.21.01	SP0143413	Au	Fire/ICP	PC22-078 565-570	0.002	PC22-078 565-570 A	1.830	
MEG- PRPBLK.19.12	SP0134085	Ag	ICP-OES	TW20-043 340-345	0.33	TW20-043 340-345A	0.6	
MEG- PRPBLK.19.12	SP0136291	Ag	ICP-OES	TXC21-014 626759	44.49	TXC21-014 626760	0.27	
MEG- PRPBLK.19.12	SP0142569	Ag	ICP-OES	PC22-062 365-370	0.220	PC22-062 365-370 A	0.460	





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DI I				Preceding		Blank		
Blank	Certificate	Element	Method	Sample	Value (ppm)	Sample	Value (ppm)	
MEG- BLANK.17.12	SP0136548	Ag	ICP-OES	TXC21-006 356714	100	TXC21-006 356715	0.3	
MEG- SiBlank.21.01	SP0140147	Ag	ICP-OES	TXC21-047 666279	0.39	TXC21-047 666280	1.3	
MEG- SiBlank.21.01	SP0138911	Ag	ICP-OES	TXC21-036 352699	1.380	TXC21-036 352700	27.630	
MEG- SiBlank.21.01	SP0143413	Ag	ICP-OES	PC22-078 565-570	0.110	PC22-078 565-570 A	6.110	
MEG- SiBlank.21.01	SP0143503	Ag	ICP-OES	TCX22-066A 749989	0.510	TCX22-066A 749990	0.550	
MEG- SiBlank.21.01	SP0144337	Ag	ICP-OES	TXC22-074 758284	4.030	TXC22-074 758285	0.580	

No field duplicates were collected or inserted into the sample stream during the 2020–2022 drill programs. However, 1,144 laboratory pulp splits were sent in 2020-2021 from AAL to ALS for analysis by fire and multi-element analytical methods. The check assay duplicates were analyzed at ALS for gold using 30-gram fire-assay with an AA finish, and the silver was analyzed using a four-acid digestion and ICP finish. Detection limits were 0.003 ppm Au and 0.05 ppm Ag for AAL, and 0.005 ppm Au and 0.5 ppm Ag for ALS.

In addition to a scatterplot showing a reduced major access (RMA) regression, duplicate pairs were evaluated by using a quantile/quantile plot, and relative percent and absolute relative percent difference plots. Two relative percent difference ("RPD") comparisons were considered. The max of the pair comparison is expressed as follows:

$$RPD(max) = 100 x ((Duplicate - Original))/(Lesser of (Duplicate, Original))$$

The RPD of the mean of the pair comparison, which is shown in the charts below, is expressed as follows:

$$RPD(mean) = 100 x ((Duplicate - Original))/(Mean of (Duplicate, Original))$$

For silver there is reasonable agreement between the regression line calculated from the data and the ideal X-Y line, particularly at grades less than 400 ppm silver (Figure 11-6). Some bias with ALS greater than AAL is indicated above 400 ppm Ag.





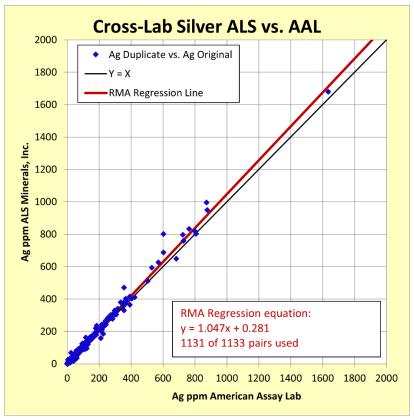


Figure 11-6 Scatter Plot of ALS vs. AAL Silver Check Assays
[Blackrock, 2020-2022]

AAL used a five-acid digestion method with an ICP detection for silver assays whereas the samples sent to ALS were digested using a four-acid method with an ICP detection method, resulting in an order of magnitude higher detection limit. The difference in detection limits resulted in some extreme RPDs at the low-grade end of the chart (Figure 11-7). The remaining pairs remain below 200% RPD, and variability indicated on the chart is within about 50%. Two outlier pairs were excluded for silver, because the absolute RPD was greater than 2,000%.





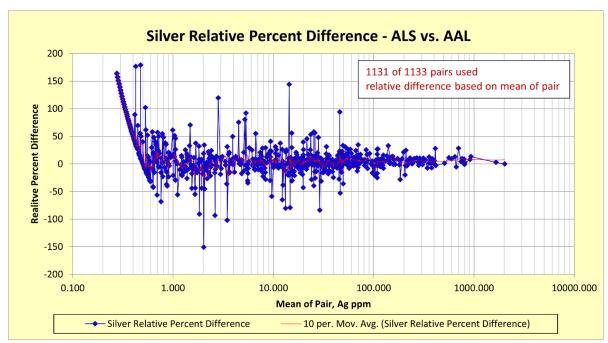


Figure 11-7 Relative Percent Difference Plot of ALS vs. AAL Silver Check Assays
[Blackrock, 2020-2022]

For gold, there is close agreement between the regression line calculated from the data and the ideal X-Y line (Figure 11-8). No bias in evident on the chart. Three outlier pairs were excluded for gold because their absolute RPD was greater than 2,000%.

Unlike silver, the detection limits from AAL and ALS were similar, however there are still some extreme differences observed at the low-grade end of the RPD chart (Figure 11-9). Above those mean grades, the variability in sample pairs indicated by the RPDs is about 100% to about 0.3 ppm Au, where it decreases to about 50%. The lack of bias in the gold check assays from the two laboratories increased confidence in the analyses produced by ALS. The relatively high variability is likely due to the inherent heterogeneity of gold in the deposit.





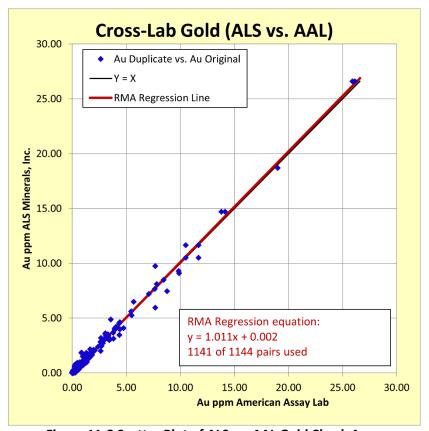


Figure 11-8 Scatter Plot of ALS vs. AAL Gold Check Assays [Blackrock, 2020-2022]

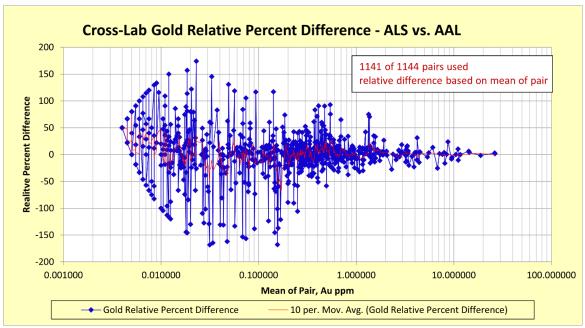


Figure 11-9 Relative Percent Difference Plot of ALS vs. AAL Gold Check Assays
[Blackrock, 2020-2022]





11.2.3 Discussion of QA/QC Results

Overall, the types and insertion rates of QA/QC samples were acceptable for the drill samples analyzed in 2018 to 2023. Coeur submitted coarse blanks, CRMs and field duplicates with drill samples at an insertion rates of about 13%. The results of Coeur's QA/QC program is summarized as follows:

- / Five silver CRM failures represent a 4% failure rate, although two of the five may have been mislabeled CRMs;
- / The overall failure rate for gold CRM analyses is high at 24% with 30 CRM gold analytical failures recorded;
- / No failures were recorded for either gold or silver from 84 coarse blanks that were analyzed. Only one of the preceding samples were slightly mineralized;
- / For field duplicates, there is a reasonable correlation between duplicate and original values, however, some variability is indicated. There is also some bias indicated with original assays greater than duplicates above 0.6g Ag/t; and
- / The plot of gold field duplicates shows a variable correlation between the pairs with a decided bias of the original assays higher overall relative to the duplicates.

The high percentage of Coeur's gold CRM failures is problematic. Silver CRMs performed much better, but the failure rate is still high. There is no known documented response by Coeur to any of these failures with the assaying laboratory. The lack of coarse blank failures is positive, however, all but one blank followed a sample that was unmineralized, so the potential for contamination during sample preparation was not really tested. Consistent bias in field duplicate assays is usually an indicator of a consistent issue in sample splitting, such as the use of an out-of-level "Y-Splitter" at the bottom of the cyclone splitter. Variability in field duplicate assays is generally natural, and the results from Coeur's sampling suggests more inherent heterogeneity in gold distribution than silver.

Blackrock's QA/QC program included the use of CRMs, pulp blanks, and coarse and pulp duplicates with insertion rates above 7.2% for gold and silver. The evaluation of Blackrock's QA/QC data is summarized as follows:

- A total of 20 of the 2,858 silver CRM assays were outside the three-standard deviation limit for the CRMs certified for silver, which equates to a satisfactory failure rate of 0.7%. Some of the failures could possibly be mismarked CRMs;
- / Thirty-nine gold CRM assays exceeded the three-standard deviation threshold out of 2,912 total samples, yielding a 1.3% failure rate;
- / Of the certified 162 coarse blanks and 368 certified pulp blanks assayed, only nine silver (1.7%) and four gold (0.75%) failures occurred;
- / Some bias with ALS greater than AAL is indicated above 400 ppm Ag was apparent in check assays. No bias was observed in the gold assays; and
- / Variability between laboratories for check assays indicates there is less variability associated with silver assays (approximately 50%) than with gold (200% at lower grades decreasing to approximately 50% at higher grades).





Analyses of CRMs for Blackrock's drilling programs returned a very low overall failure rate for both gold and silver. Blackrock has indicated that failures that were not determined to be mislabeled pulps were evaluated, and for the few associated batches that contained significant mineralized intervals, the laboratory was asked to rerun all relevant samples. Similarly, the failure rate in coarse and pulp blank assays is low. There was a slight bias (ALS > AAL) shown by check assay pulp splits sent to ALS, and no bias demonstrated in the gold analyses. This provides support and greater confidence in the AAL assays used for resource estimation. The variability indicated by silver check assays, and higher variability in gold, can be an indication that there is more coarse gold than silver in the deposit.

11.3 SUMMARY STATEMENT

Based on the reviews of available documentation regarding sample preparation, gold and silver analytical methods, sample security and QA/QC evaluation and results, Mr. Bickel believes the silver and gold assays in the Tonopah West drill hole database are adequate for the uses described in this Technical Report.

Documentation of the methods and procedures used for sample preparation, analyses, and sample security, as well as for QA/QC procedures and results, associated with HOM, Chevron, and Eastfield assays is incomplete or not available. These assay data were used for metal domain modeling, but not for resource estimation. There is a large number of CRM failures associated with the Coeur silver and gold assays, but these are associated with only 13 RC drill holes. These issues that Mr. Bickel has identified in Blackrock's data are not sufficient to preclude the use of the gold or silver assays in a mineral resource estimate. However, if higher classification is considered for future resource estimates, these issues should be considered by reducing classification for estimated block grades relying heavily on pre-Blackrock drilling assays.

Mr. Bickel recommends that Blackrock implement the following in future QA/QC programs:

- / Continue use of coarse blanks rather than pulp blanks to monitor the potential for contamination during the laboratory's sample preparation procedures;
- Collect field duplicates and split preparation duplicates from coarse rejects to provide a measure of silver and gold heterogeneity in the deposit, as well as to evaluate sample splitting at the drill rig and sample preparation at the laboratory;
- / Continue to evaluate CRM assays upon receipt, make the laboratory aware of failures, then investigate and remediate the failures as needed;
- / Every effort should be made to insert CRM pulps in a manner that is blind to the assay laboratory;
- / Continue to send pulp split check assays to a referee laboratory and investigate any significant bias if it is observed.





12 DATA VERIFICATION (ITEM 12)

Data verification, as defined in NI 43-101, is the process of confirming that data have been generated with proper procedures, have been accurately transcribed from the original sources and are suitable to be used. Additional confirmation of the drill data's reliability is based on the author's evaluations of the Tonopah West project QA/QC procedures and results, as described in Section 11.2, and in general working with the data.

12.1 SITE VISIT

Mr. Bickel visited the Tonopah West project on May 16, 2024, November 3, 2023, and September 16, 2021. This site visits included an inspection of both core and RC drilling procedures in the field, a review of the surface geology at the property, verification of drill collar locations, and a visit to the Blackrock core logging facility in Tonopah to examine drill core. Mr. Bickel reviewed and verified geologic logs and cross sections at the Tonopah core facility and compared them with drill core for accuracy. Mr. Bickel engaged in geologic discussions and interpretations with Blackrock staff, and he also verified drill hole collar locations in the field.

Mr. Bickel toured the warehouse where core and chips are stored, logged, and marked for samples before being sent to the assay lab for processing. Numerous observations were made on data collection and data storage procedures. Mr. Bickel has also maintained a relatively continual line of communication through telephone calls and emails with Blackrock personnel in which the project status, procedures, and geologic ideas and concepts have been discussed. The result of the site visit and communications is that the author has no significant concerns with the project procedures.

12.2 Independent Verification of Drill Hole Collar Locations and Mineralization

Mr. Bickel selected 14 holes from Blackrock's 2020-2022 drilling campaigns and successfully verified the physical collar locations with a handheld GPS during his site visits. Visual verification of mineralization was also conducted during Mr. Bickel's site visits. Drill core and surface outcrops were examined as well as dump piles near the Victor shaft. In the drill core, visible mineralization in veins, breccias, and vein selvages were observed as fine-grained sulfide and sulfosalt minerals. The existence of mineralization in the district has been widely known in the mining industry for many years and local mineralization has been documented in the historical mining records at Victor, supported by the presence of historical stope maps and voids in drilling.

12.3 DATABASE VERIFICATION

The Tonopah West project data includes information derived from 37 historical (24 pre-Coeur and 13 Coeur) and 204 Blackrock drill holes. Documentation for pre-Coeur data is available for the Tonopah West project, however, records are either incomplete or in a form that does not provide unequivocal





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verification. Maps and other information from historic mining operations in the Tonopah West project area during the early 1900s were generated prior to the implementation of NI 43-101 and cannot be verified. Blackrock is using this data for exploration purposes only, and RESPEC used the pre-Coeur drilling for metal domain modeling, but not resource estimation. The drill hole database supporting the resource estimation contains a flag for unverified historical drill holes, and the data for those holes was not used in the interpolation of silver and gold grades in the estimate.

The early modern exploration data generated by HOM, Chevron and Eastfield from 1979 to 1997 are not supported by full sets of certified analytical results. Sampling procedures, analytical methods and sample security procedures are not known. Blackrock is using the data from these operators for exploration purposes only.

The drill hole database which supports the Tonopah West resource models and estimates was created by RESPEC by combining selected historical drill data with the original, digital database files obtained from Blackrock's drilling and sampling data through July 1, 2023. The information was subjected to various verification measures, primarily by comparing drill hole collar coordinates, hole orientations, and analytical information in RESPEC's compilation to the original historical paper records in the possession of Blackrock. Pre-Coeur and Blackrock's drilling data was verified against electronic files provided by Blackrock, and to analytical reports. Any errors found during the audit process were corrected in conjunction with Blackrock staff.

12.3.1 Drill Collar Verification

The Tonopah West database was subjected to a number of queries with the intent to identify potentially errant or suspect drill hole collars. Collars with missing depths, missing coordinates, and switched or duplicated coordinates were identified and fixed as needed. All drill hole-collar coordinates and hole orientations in the database were compared to original paper documentation where available, and no discrepancies were found. Drill hole collars were visually reviewed on screen relative to the topographic surface provided by Blackrock. Several collars representing all drill programs were observed to be higher than topography by more than 5 metres, one of which was in excess of 30 metres.

12.3.2 Down-Hole Survey Verification

No down-hole deviation survey data were available for the pre-Coeur drill holes. Blackrock provided digital certificates in Excel and .pdf formats for all Coeur and Blackrock down-hole deviation surveys. The surveys for both operators were performed by IDS located in Elko, Nevada. Comparison of Blackrock's down-hole survey database to the certificates revealed no errors or discrepancies.

12.3.3 Assay Data

Validation tests were conducted during the audit of the Tonopah West database, including identification of illogical or incorrect 'from' and 'to' intervals, excessively large or small assay or geologic intervals, and





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gaps and overlaps in assay intervals. Errors found during these tests were iteratively corrected in the database by Blackrock, or by RESPEC with input from Blackrock.

The assay database was also compared to laboratory certificates. A total of 302 certificates were imported for drill holes that were drilled from 2018 to 2022, which covers both Coeur and Blackrock drilling programs. Certificates for Blackrock drilling were obtained directly from the laboratory, whereas those for Coeur's 13 drill holes were provided to RESPEC by Blackrock. The pre-Coeur drilling was compared to data manually compiled by RESPEC from digital versions of geologic logs or certificates supplied by Blackrock. In all, 92% of the 46,192 data records with gold and silver assays were supported by digital certificates, and the remaining 8% of pre-Coeur data by digital scans of paper documents.

Issues found during the audit were mostly typographical errors, particularly in assay intervals. All discrepancies were iteratively corrected with Blackrock. The resulting database is considered by Mr. Bickel to be adequate for use in modeling and resource estimation.

12.3.4 Additional Data Verification

In addition to the more structured verification procedures discussed above, extensive verification of the project data, with an emphasis on the historical data, was undertaken throughout the process of the resource modeling. The careful work involved in the modeling of the silver and gold mineralization within the context of the project geology provided an ad-hoc checking of the accuracy of a variety of data, such as hole locations, hole orientations, drill hole lithologic attributes, and specific silver and/or gold assays.

12.4 SUMMARY STATEMENT ON DATA VERIFICATION

There were no limitations with respect to a lack of documentation or lack of access to data during the data verification process other than for pre-Coeur drill data as summarized in Section 10.2 and Section 11.1.1. In consideration of the information summarized in this report, the author has verified that the Tonopah West project collar and assay data generated by Coeur and Blackrock are adequately supported by documentation and are acceptable for use in mineral resource modeling and estimation. There was only a small amount of supporting documentation for pre-Coeur data, and associated drill data was therefore used for modeling, but not for resource estimation.

Some drill hole collars that were visually observed to be above the Tonopah West topographic surface. These discrepancies are assumed to be errors in the topographic surface provided by Blackrock. It is recommended that Blackrock obtain more accurate digital topographic files in future updates to the resource estimate and advanced studies.





13 MINERAL PROCESSING AND METALLURGICAL TESTING (ITEM 13)

13.1 Introduction

Blackrock has completed two rounds of metallurgical test work at Tonopah West. The first round of metallurgical work completed consisted of 12 bottle-roll cyanide leach analyses on RC and core composite drill samples. The samples were analyzed by Kappes, Cassiday & Associates and the results were completed in January 2022. A second round of metallurgical testing is in progress at KCA as of the date of this report. Any completed tests from the second ongoing round of test work are included in this report.

13.2 2022 KCA BOTTLE-ROLL CYANIDE LEACH ANALYSES

Bottle-roll cyanide leach tests were performed on 12 composite samples from 47 drill samples consisting of RC cuttings and crushed core from both low-grade (50-150 ppm Ag) and high-grade (greater than 200 ppm Ag) portions of six of the principal veins within the project area. The gold extractions in the bottle-roll leach tests ranged from 90% to 98% with an average of 95%. Silver extractions ranged between 81% and 94% with an average of 87%. Cyanide consumption ranged from 0.35 to 1.03 kilograms per tonne. The gold and silver bottle-roll leach test results for the 12 composite samples are shown in Table 13-1 and Table 13-2, respectively.

Table 13-1 2022 Bottle-Roll Leach Tests Gold Results

Table 13-1 2022 Bottle-Noil Leach Tests Gold Nesults								
KCA Sample No.	KCA Test No.	Client I.D.	Target p80 Size, mm	Calculated Head, gms Au/MT	Au Extracted, %	Leach Time, hours	Consumption NaCN, kg/MT	Addition Ca(OH) ₂ , kg/MT
92769 E	93505 A	Victor LG	0.045	1.184	96%	96	0.39	1.02
92770 E	93505 B	Denver LG	0.045	0.884	90%	96	0.35	1.02
92771 D	93505 C	Mule LG	0.045	1.349	96%	96	0.67	0.76
92772 E	93506 A	Paymaster LG	0.045	1.159	95%	96	0.53	0.76
92773 E	93506 B	Bermuda LG	0.045	0.938	91%	96	0.48	1.02
92774 E	93506 C	Merten LG	0.045	1.096	94%	96	0.47	1.02
92775 E	93506 D	Victor HG	0.045	3.709	98%	96	1.02	0.76
92776 E	93507 A	Denver HG	0.045	4.439	96%	96	0.94	1.02
92777 E	93507 B	Mule HG	0.045	7.202	98%	96	0.92	0.76
92778 E	93507 C	Paymaster HG	0.045	2.397	97%	96	0.97	0.76
92779 E	93507 D	Bermuda HG	0.045	5.862	96%	96	1.03	1.02
92780 E	93508 A	Merten HG	0.045	7.490	98%	96	0.89	0.76





Table 13-2 2022 Bottle-Roll Leach Tests Silver Results

KCA			Target	Calculated	۸۵	Loach	Consumption	Addition
Sample No.	KCA Test No.	Client I.D.	p80 Size, mm	Head, gms Ag/MT	Ag Extracted, %	Time, hours	Consumption NaCN, kg/MT	Ca(OH) ₂ , kg/MT
92769 E	93505 A	Victor LG	0.045	102.36	94%	96	0.39	1.02
92770 E	93505 B	Denver LG	0.045	106.84	88%	96	0.35	1.02
92771 D	93505 C	Mule LG	0.045	123.85	90%	96	0.67	0.76
92772 E	93506 A	Paymaster LG	0.045	128.02	89%	96	0.53	0.76
92773 E	93506 B	Bermuda LG	0.045	100.63	89%	96	0.48	1.02
92774 E	93506 C	Merten LG	0.045	104.19	91%	96	0.47	1.02
92775 E	93506 D	Victor HG	0.045	442.12	87%	96	1.02	0.76
92776 E	93507 A	Denver HG	0.045	448.01	81%	96	0.94	1.02
92777 E	93507 B	Mule HG	0.045	602.88	81%	96	0.92	0.76
92778 E	93507 C	Paymaster HG	0.045	210.33	89%	96	0.97	0.76
92779 E	93507 D	Bermuda HG	0.045	500.95	85%	96	1.03	1.02
92780 E	93508 A	Merten HG	0.045	495.93	81%	96	0.89	0.76

The bottle-roll test results indicate a recovery dependence on feed grade. The gold shows a higher recovery with higher grade, as seen in Figure 13-1. The silver shows the inverse relationship to recovery as a function of grade when compared to gold, as seen in Figure 13-2.

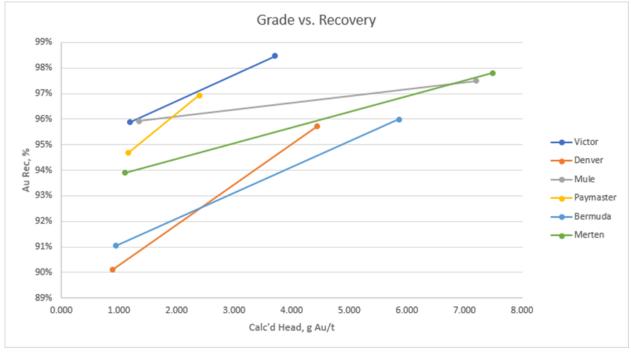


Figure 13-1 Gold Recovery vs. Grade





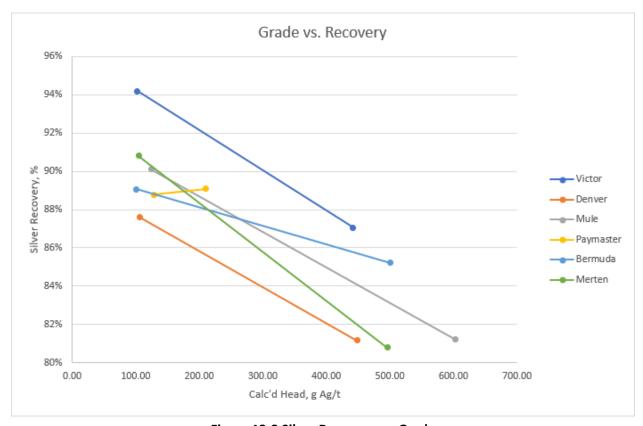


Figure 13-2 Silver Recovery vs. Grade

13.3 2024 KCA BOTTLE-ROLL TEST WORK

Composite samples for the 2024 test work program were based on 80 drill samples consisting of RC cuttings and crushed core from both low-grade (50-150 ppm Ag) and high-grade (greater than 200 ppm Ag) portions of seven of the principal veins within the project area. Several of the veins were composited together. This series of tests was designed to compare the effects of grind size and cyanide concentration on gold and silver extractions. Gold extractions in the bottle-roll leach tests ranged from 92% to 97% with an average of 95%. Silver extractions ranged between 65% and 93% with an average of 86%. Cyanide consumption ranged from 2.16 to 5.96 kilograms per tonne. The gold and silver bottle-roll test results for the four composite samples are shown in Table 13-3 and Table 13-4, respectively.





Table 13-3 2024 Bottle-Roll Leach Tests Gold Results

KCA Test No.	Description	Target p80 Size, mm	NaCN, gpL	Temperature °C	Calculated Head, gms Au/MT	Au Extracted, %	Leach Time, hours	Consumption NaCN, kg/MT	Addition Ca(OH) ₂ , kg/MT
99614A	Denver/Paymaster/Mule Composite	0.075	2	Ambient	2.338	92%	96	2.66	0.50
99614B	Bermuda/Merten Composite	0.075	2	Ambient	5.233	94%	96	2.94	0.50
99614C	Victor Composite	0.075	2	Ambient	3.041	96%	96	4.25	0.50
99614D	Northwest Composite	0.075	2	Ambient	2.402	94%	96	4.78	0.50
99615A	Denver/Paymaster/Mule Composite	0.053	2	Ambient	2.310	95%	96	4.20	0.50
99615B	Bermuda/Merten Composite	0.053	2	Ambient	5.516	95%	96	5.66	0.50
99615C	Victor Composite	0.053	2	Ambient	3.035	97%	96	5.96	0.50
99615D	Northwest Composite	0.053	2	Ambient	2.315	96%	96	5.77	0.50
99616A	Denver/Paymaster/Mule Composite	0.045	2	Ambient	2.459	96%	96	7.22	0.50
99616B	Bermuda/Merten Composite	0.045	2	Ambient	5.195	96%	96	5.47	0.50
99616C	Victor Composite	0.045	2	Ambient	2.790	97%	96	5.47	0.50
99616D	Northwest Composite	0.045	2	Ambient	2.275	96%	96	8.07	0.50

Table 13-4 2024 Bottle-Roll Leach Tests Silver Results

KCA Test No.	Description	Target p80 Size, mm	NaCN, gpL	Temperature °C	Calculated Head, gms Ag/MT	Ag Extracted, %	Leach Time, hours	Consumption NaCN, kg/MT	Addition Ca(OH) ₂ , kg/MT
99614A	Denver/Paymaster/Mule Composite	0.075	2	Ambient	184	83%	96	2.66	0.50
99614B	Bermuda/Merten Composite	0.075	2	Ambient	400	86%	96	2.94	0.50
99614C	Victor Composite	0.075	2	Ambient	307	89%	96	4.25	0.50
99614D	Northwest Composite	0.075	2	Ambient	256	88%	96	4.78	0.50
99615A	Denver/Paymaster/Mule Composite	0.053	2	Ambient	190	92%	96	4.20	0.50
99615B	Bermuda/Merten Composite	0.053	2	Ambient	425	93%	96	5.66	0.50
99615C	Victor Composite	0.053	2	Ambient	307	90%	96	5.96	0.50
99615D	Northwest Composite	0.053	2	Ambient	239	91%	96	5.77	0.50
99616A	Denver/Paymaster/Mule Composite	0.045	2	Ambient	199	95%	96	7.22	0.50
99616B	Bermuda/Merten Composite	0.045	2	Ambient	416	93%	96	5.47	0.50
99616C	Victor Composite	0.045	2	Ambient	302	89%	96	5.47	0.50
99616D	Northwest Composite	0.045	2	Ambient	249	93%	96	8.07	0.50

Each composite was leached at three different grind sizes. The test work shows that there is a recovery dependence on grind size for gold and silver, as seen in Figure 13-3 and Figure 13-4, respectively. Based on this comparison, a target grind size of 80% passing product (P80) target of 45 microns is considered for this report.





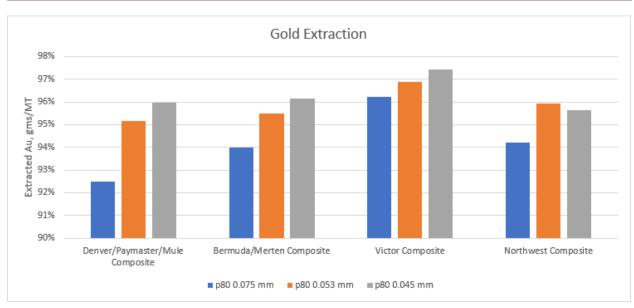


Figure 13-3 Gold Recovery vs. Grind Size

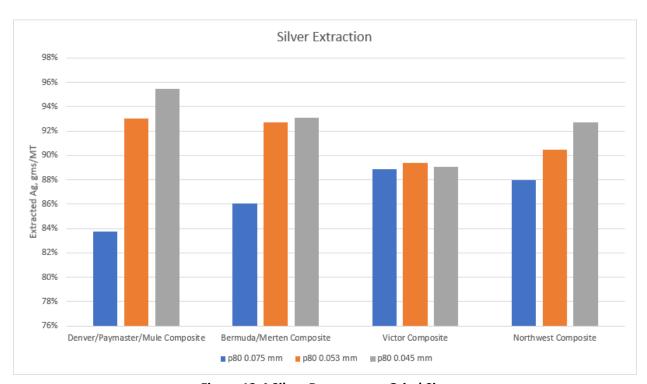


Figure 13-4 Silver Recovery vs. Grind Size

The composites were tested at 1 and 2 grams NaCN per liter in the leach tests. The gold shows a slight increase at the higher cyanide concentrations, as shown in Figure 13-5. The silver has a much more dramatic dependency on cyanide concentration, and it will be important to ensure sufficient cyanide is used. The silver results are presented in Figure 13-6. The average cyanide consumptions were 2.53 kg/T and 5.40 kg/T, for the 1, and 2 g/L tests.





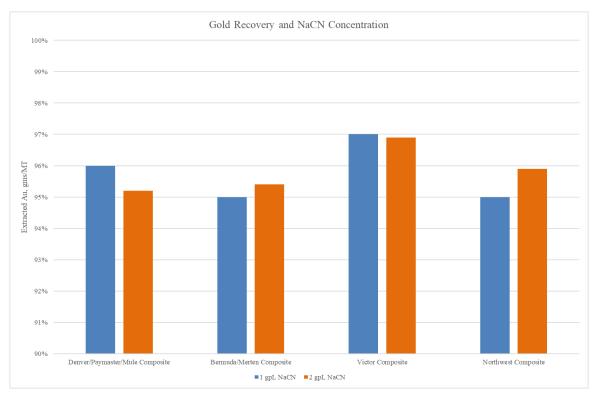


Figure 13-5 Gold Recovery vs. NaCN Concentration

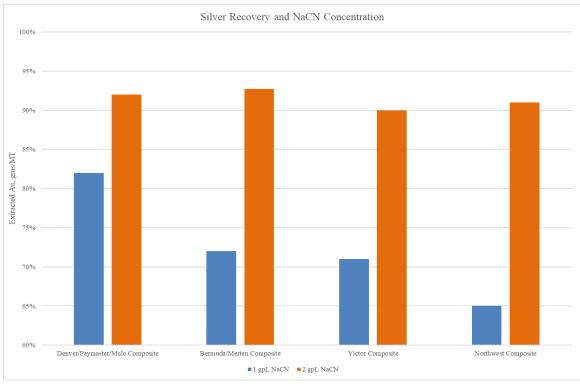


Figure 13-6 Silver Recovery vs. NaCN Concentration





13.4 ANALYSIS

Comparing the original 2022 test averages with the 2024 tests at the same grind size shows a consistent gold recovery between the two series of tests, as summarized in Table 13-5. The Bermuda/Merten composite has higher recovery, but also a higher grade. The others are within 1% gold recovery. The silver recovery, along with cyanide consumptions, on the 2024 composite tests were higher than the previous individual test averages. The silver recoveries are compared in Table 13-6.

Table 13-5 2022 and 2024 P80 0.045 Leach Test Gold Comparison

Description	Target p80 Size, mm	Calculated Head, gms Au/MT	Au Extracted, %
Original Denver/Paymaster/Mule Avg	0.045	2.9	95.1%
New Denver/Paymaster/Mule Composite	0.045	2.4	96.0%
Original Bermuda/Merten Avg	0.045	3.8	94.7%
New Bermuda/Merten Composite	0.045	5.2	96.1%
Original Victor Avg.	0.045	2.4	97.2%
New Victor Composite	0.045	2.8	97.4%

Table 13-6 2022 and 2024 P80 0.045 Leach Test Silver Comparison

Description	Target p80 Size, mm	Calculated Head, gms Au/MT	Ag Extracted, %
Original Denver/Paymaster/Mule Avg	0.045	267	86.3%
New Denver/Paymaster/Mule Composite	0.045	199	95.5%
Original Bermuda/Merten Avg	0.045	300	86.5%
New Bermuda/Merten Composite	0.045	417	93.1%
Original Victor Avg.	0.045	272	90.6%
New Victor Composite	0.045	303	89.1%

The 2024 bottle-roll tests were combined with the 2022 tests to develop estimated recoveries for this study. The Northwest Composite is not included in this study as no material from the vein is considered in the preliminary economic assessment. Most of the veins had similar metallurgical response and were combined together and the Victor vein was separated. The results for gold and silver are summarized in Table 13-7 and Table 13-8.

The average gold recovery for all of the veins excluding Victor is 95.1% and Victor is 97.2%.

The average silver recovery for all of the veins excluding Victor is 87.7% and Victor is 90.1%.





Table 13-7 Gold Recovery Averages

Description	Target p80 Size, mm	Calculated Head, gms Au/MT	Au Extracted, %					
Denver LG	0.045	0.88	90.1%					
Denver HG	0.045	4.44	95.7%					
Mule LG	0.045	1.35	95.9%					
Mule HG	0.045	7.20	97.5%					
Paymaster LG	0.045	1.16	94.7%					
Paymaster HG	0.045	2.40	96.9%					
New Denver/Paymaster/Mule Composite	0.045	2.46	96.0%					
Old Denver/Mule/Paymaster Average		2.90	95.1%					
O'all Denver/Mule/Paymaster Average		2.84	95.3%					
Bermuda LG	0.045	0.94	91.0%					
Bermuda HG	0.045	5.86	96.0%					
Merten LG	0.045	1.10	93.9%					
Merten HG	0.045	7.49	97.8%					
New Bermuda/Merten Composite	0.045	5.20	96.1%					
Old Bermuda/Merten Average		3.85	94.7%					
O'all Bermuda/Merten Average		4.12	94.9%					
Denver/Mule/Paymaster/Bermuda/Merten								
Avg			95.1%					
Victor LG	0.045	1.18	95.9%					
Victor HG	0.045	3.71	98.5%					
New Victor Composite	0.045	2.79	97.4%					
Old Victor Average		2.45	97.2%					
O'all Victor Average		2.56	97.2%					
New Northwest Composite	0.045	2.31	95.9%					
Old Average		3.14	95.2%					
O'all Average		3.21	95.6%					

Table 13-8 Silver Recovery Averages

	, ,						
Description	Target p80 Size, mm	Calculated Head, gms Ag/MT	Ag Extracted, %				
Denver LG	0.045	107	87.6%				
Denver HG	0.045	448	81.2%				
Mule LG	0.045	124	90.1%				
Mule HG	0.045	603	81.2%				
Paymaster LG	0.045	128	88.8%				
Paymaster HG	0.045	210	89.1%				
New Denver/Paymaster/Mule Composite	0.045	199	95.5%				
Old Denver/Mule/Paymaster Average		270	86.3%				
O'all Denver/Mule/Paymaster Average		260	87.6%				





Description	Target p80 Size, mm	Calculated Head, gms Ag/MT	Ag Extracted, %
Bermuda LG	0.045	101	89.1%
Bermuda HG	0.045	501	85.2%
Merten LG	0.045	104	90.8%
Merten HG	0.045	496	80.8%
New Bermuda/Merten Composite	0.045	417	93.1%
Old Bermuda/Merten Average		300	86.5%
O'all Bermuda/Merten Average		324	87.8%
Denver/Mule/Paymaster/Bermuda/Merten Avg			87.7%
Victor LG	0.045	102	94.2%
Victor HG	0.045	442	87.1%
New Victor Composite	0.045	303	89.1%
Old Victor Average		272	90.6%
O'all Victor Average		282	90.1%
New Northwest Composite		248	92.7%
Old Average		281	86.9%
O'all Average		286	88.5%

13.5 SUMMARY

The metallurgical studies completed are appropriate to support the results at a PEA level and indicates that the mineralized material is amenable to agitated leaching for the recovery of gold and silver.

The estimated gold recovery for all of the veins excluding Victor is 95.1% and Victor is 97.2%.

The estimated silver recovery for all of the veins excluding Victor is 87.7% and Victor is 90.1%. The average laboratory NaCN consumption at design parameters is 2.18 kg/T. KCA typically assumes that the consumption in operations is approximately 1/3rd of that seen in the laboratory and this study used 0.7 kg/T NaCN consumption.

Lime consumption is estimated at 0.9 kg/T.

There is opportunity to maximize recovery with an optimized cyanide dosage and minimize reagent use with pH control.





14 MINERAL RESOURCE ESTIMATES (ITEM 14)

14.1 INTRODUCTION

The mineral resource estimation for the Tonopah West project was completed for disclosure in accordance with Canadian NI 43-101. The modeling and estimation of the mineral resources were completed in October 2023 under the supervision of Mr. Bickel, a Qualified Person with respect to mineral resource estimations under NI 43-101. The Effective Date of the resource estimate is August 23, 2024. Mr. Bickel is independent of Blackrock by the definitions and criteria set forth in NI 43-101; there is no affiliation between Mr. Bickel and Blackrock except that of independent consultant/client relationships.

Mr. Bickel is not aware of any unusual environmental, permitting, legal, title, taxation, socio-economic, marketing, or political factors that may materially affect the Tonopah West mineral resources as of the date of this report.

This report presents gold and silver resources for the Tonopah West property (Bermuda, Denver and Paymaster, collectively known as "DP", Northwest known as "NW, and Victor) that have an Effective Date of August 23, 2024. No mineral reserves have been estimated for the Tonopah West project.

The Tonopah West resources are classified in order of increasing geological and quantitative confidence into Inferred, Indicated, and Measured categories in accordance with the "CIM Definition Standards – For Mineral Resources and Mineral Reserves" [2014] and therefore NI 43-101. CIM mineral resource definitions are given below, with CIM's explanatory text shown in italics:

Mineral Resource

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.

A Mineral Resource is a concentration or occurrence of solid 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 eventual economic extraction.

The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.





Material of economic interest refers to diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals.

The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of Modifying Factors. The phrase 'reasonable prospects for eventual economic extraction' implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. The Qualified Person should consider and clearly state the basis for determining that the material has reasonable prospects for eventual economic extraction. Assumptions should include estimates of cutoff grade and geological continuity at the selected cut off, metallurgical recovery, smelter payments, commodity price or product value, mining and processing method and mining, processing and general and administrative costs. The Qualified Person should state if the assessment is based on any direct evidence and testing.

Interpretation of the word 'eventual' in this context may vary depending on the commodity or mineral involved. For example, for some coal, iron, potash deposits and other bulk minerals or commodities, it may be reasonable to envisage 'eventual economic extraction' as covering time periods in excess of 50 years. However, for many gold deposits, application of the concept would normally be restricted to perhaps 10 to 15 years, and frequently to much shorter periods of time.

Inferred Mineral Resource

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.

An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.





There may be circumstances, where appropriate sampling, testing, and other measurements are sufficient to demonstrate data integrity, geological and grade/quality continuity of a Measured or Indicated Mineral Resource, however, quality assurance and quality control, or other information may not meet all industry norms for the disclosure of an Indicated or Measured Mineral Resource. Under these circumstances, it may be reasonable for the Qualified Person to report an Inferred Mineral Resource if the Qualified Person has taken steps to verify the information meets the requirements of an Inferred Mineral Resource.

Indicated Mineral Resource

An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.

An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Pre-Feasibility Study which can serve as the basis for major development decisions.

Measured Mineral Resource

A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.





A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade or quality of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability of the deposit. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.

Modifying Factors

Modifying Factors are considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.

The Tonopah West resources are reported at cutoffs that are reasonable for deposits of this nature given anticipated mining methods and plant processing costs, while also considering economic conditions, because of the regulatory requirements that a resource exists "in such form and quantity and of such a grade or quality that it has reasonable prospects for eventual economic extraction."

14.2 PROJECT DATA

The Tonopah West silver and gold resources were modeled and estimated using information provided by Blackrock under Mr. Bickel's supervision. These data, as well as digital topography of the project area, were provided to Mr. Bickel by Blackrock in a digital database in UTM grid coordinates, using NAD27, Zone 11.

In all, 241 holes totaling 130,067 metres have been drilled (Table 14-1). These drill holes, as well as Tonopah West's property limits are shown in Figure 10-1. All holes drilled prior to 2018 have been excluded from the resource estimate but were used to guide domain shapes.

Table 14-1 Summary of Drilling at Tonopah West

Type of Hole	Count	Drilled Metres
Core	19	12,490
RC	129	63,123
RC/Core Tail	94	54,828
Grand Total	242	130,441





14.3 PROPERTY GEOLOGY RELEVANT TO RESOURCE MODEL

The silver-gold mineralization at Tonopah West occurs in quartz veins primarily hosted in lower Miocene volcanic units, specifically the West End Rhyolite, Extension Breccia, Mizpah Andesite, and Tonopah Formation. Primary controls on mineralization include: quartz veining with associated zoned alteration; the upper contact of the West End Rhyolite with the overlying Mizpah Andesite; the intersection of quartz veins with important structures; and favorable volcanic units within geologic formations. Geologic factors critical to the grade domain modeling of Tonopah West silver-gold mineralization include veining, lithology, and structure. The higher-grade sulfide-bearing portions of the quartz veins generally range in thickness from 0.1 metres to 5 metres.

The Bermuda vein group includes both shallow—to moderate- angle (30° to 40°) north-dipping mineralized veins, such as the Merten vein, and more steeply-dipping (60° to 75°) mineralized veins, such as the Bermuda vein. The shallow-dipping veins occur within the southern half of the Bermuda area while the steeply-dipping veins occur in the northern half of the Bermuda area. The steep veins were the primary focus of the limited historical underground development and in general appear to contain higher concentrations of silver and gold than the shallow veins.

Statistical analysis of the drill data, and visual inspections of down-hole drill assay data, showed a consistent Ag:Au ratio of approximately 100:1 within the steeply-dipping veins within the central and northern portions of Bermuda and DP areas. Within the shallow veins, gold shows increased grades and thickness compared to silver. It is uncertain whether these increases represent a discrete gold mineralizing event or zoning of precious metals within the Tonopah West property.

The Victor vein lies approximately 350 metres northeast of DP and Bermuda areas. The Victor vein system contains a sequence of steeply north-dipping sheeted veins of which the Victor vein was the focus of historical development and mine production. The mineralization tenor and style of silver and gold mineralization within the Victor vein is similar to that in steeper veins in the DP vein group, an indication that there may be a connection between the two vein groups.

14.4 GEOLOGIC MODEL

RESPEC used geologic interpretations provided by Blackrock, which were updated in 2023 with newly interpreted vein orientations. The geologic interpretations included the solidified wireframes of veins, three-dimensional lithologic contact surfaces, and three-dimensional fault surfaces.

Blackrock's geologic interpretations generally matched their respective geological logging data in drilling. The interpretations were reasonable representations of the veins, volcanic stratigraphy, and faults as currently understood in the area, and flow of units between drill holes on section and between sections is reasonable.





The current geologic model includes a georeferenced mine stope that occurs along the Victor vein. The 3D stope is used to code the block model and the mined out tonnes represented by the solids are removed from mineral resource consideration.

14.5 MINERAL DOMAIN MODELING

A mineral domain encompasses a volume of rock that is ideally characterized by a single, natural population of metal grades that occurs within a specific geologic environment. Mineral domains were modeled to respect the vein and lithologic/structural interpretations within each of the vein groups. Following statistical evaluation of the drill hole data, low-, mid-, and high-grade mineral domains were modeled on cross sections for silver and gold and were numbered 100, 200, and 300, respectively using structural disks in Leapfrog which were solidified into three-dimensional shapes. Material outside the modeled domains was assigned to the 0 domain. The grade domains were based on assay data populations.

All modeling of the Tonopah West mineral domains and estimation of the mineral resources were performed using Leapfrog and GEOVIA Surpac mining software as well as complimentary software developed by RESPEC.

In order to define the mineral domains, the natural populations of silver and gold grades were identified on population-distribution graphs for all drill hole samples. The analysis resulted in identification of distinct populations for each metal which then could be used in conjunction with the geologic characteristics to interpret the bounds of each of the mineral domains. The similarity in mineralization tenor and style within all of the vein groups justified the use of similar mineral domain grade ranges. The approximate grade ranges of the silver and gold domains are listed in Table 14-2.

Table 14-2 Grade Domain Ranges – All Vein Groups

Domain	Silver (g Ag/t)	Gold (g Au/t)
100	~7 to ~35	~0.07 to ~0.35
200	~35 to ~150	~0.35 to ~2.0
300	>~150	>~2.0

Using these grade populations in conjunction with Blackrock's updated vein model and lithologic and structural interpretations, silver and gold grade domains were independently modeled by reviewing and interpreting mineral domains on a set of 50-metre-spaced, north-south oriented cross sections. Representative cross sections showing the geology and silver/gold mineral domains are shown in Figure 14-1 through Figure 14-4. Section locations are given in Figure 10-1.

The final cross-sectional mineral domain interpretations were snapped to the drill data and solidified into three-dimensional polygons.





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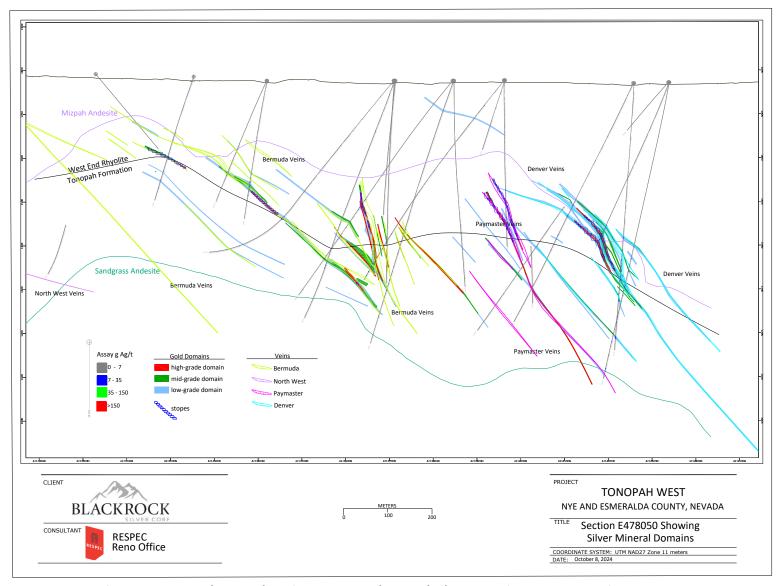


Figure 14-1 DP and Bermuda Vein Groups Geology and Silver Domains on Cross Section E478050





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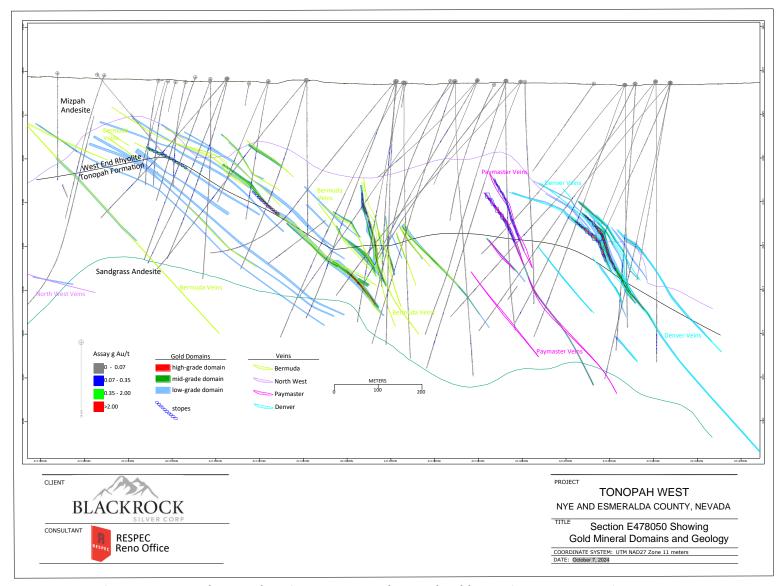


Figure 14-2 DP and Bermuda Vein Groups – Geology and Gold Domains on Cross Section E478050





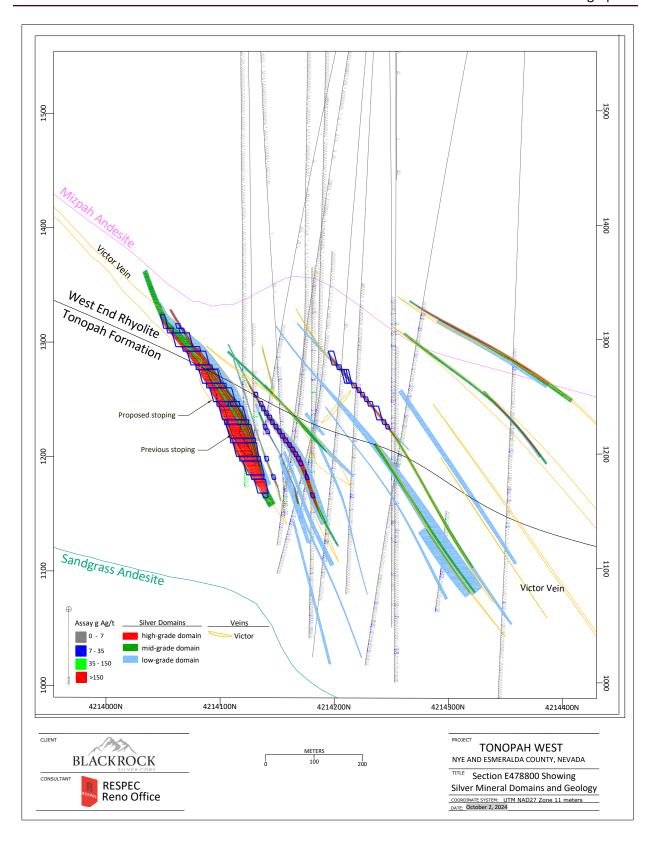


Figure 14-3 Victor Vein Group – Geology with Silver Mineral Domains on Cross Section E478800





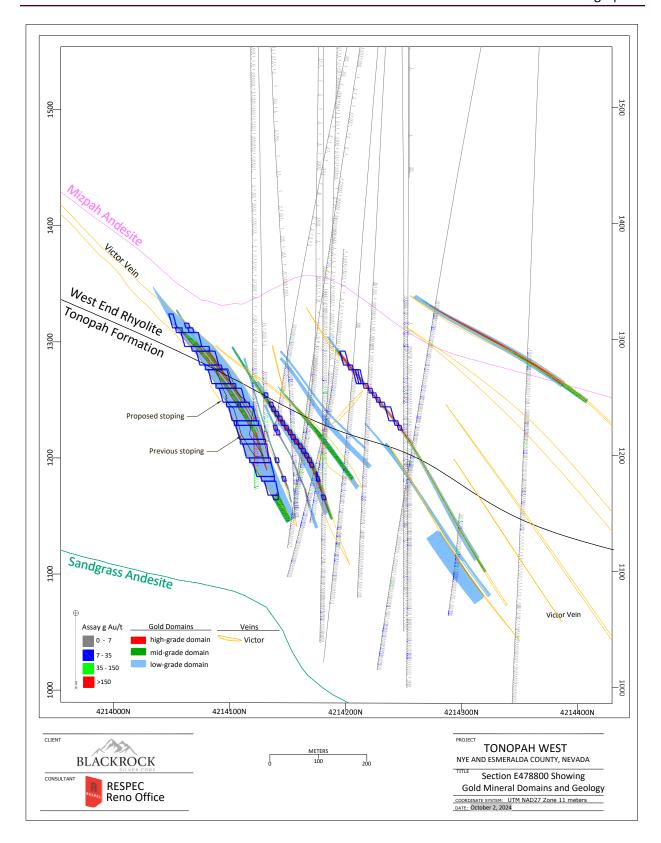


Figure 14-4 Victor Vein Group – Geology with Gold Mineral Domains on Cross Section E478800





14.6 Assay Coding, Capping, and Compositing

The mineral domain solids described in Section 14.5 were used to code drill hole assay intervals to their respective gold and silver mineral domains. Assay caps were determined by domain to identify high-grade outliers that might be appropriate for capping. Visual reviews of the spatial relationships of possible outliers and their potential impacts during grade interpolation were also considered in the assay cap definitions. Descriptive statistics of the coded assays of capped and uncapped silver and gold analyses are provided in Table 14-3 and Table 14-4. If the Ag Cap or Au Cap value in the 'Max.' column in the tables is different from the Ag or Au value, then a cap was applied to that metal domain.

Table 14-3 Coded Silver Assav Statistics – All Vein Groups

			ca Silvei /	1000, 010		VCIII GI	- C - C - C - C - C - C - C - C - C - C		
Domain	Assays	Count	Number Capped Samples	Mean (g Ag/t)	Median (g Ag/t)	Std. Dev.	cv	Min. (g Ag/t)	Max. (g Ag/t)
0	Ag	62,276		0.78	0.21	2.64	3.38	0	144
	Ag Cap	62,276	583	0.69	0.21	1.33	1.94	0	10
100	Ag	1,285		13.48	10.80	14.19	1.05	0.03	448
	Ag Cap	1,285	6	13.31	10.80	11.00	0.83	0.03	100
200	Ag	492		53.24	47.88	34.94	0.66	0.09	234
	Ag Cap	492		53.24	47.88	34.94	0.66	0.09	234
300	Ag	227	3	332.72	210	388.37	1.17	0.40	3007
	Ag Cap	227		324.26	210	343.24	1.06	0.40	1800
100+200+300	Ag	2,004		57.33	15.66	161.57	2.82	0.03	3007
	Ag Cap	2,004	9	56.30	15.66	148.36	2.63	0.03	1800

Table 14-4 Coded Gold Assay Statistics - All Vein Groups

		LT-T COUCL	. 00.07.00	a, otatio	7 111 1	CIII GI C	- P -		
Domain	Assays	Count	Number Capped Samples	Mean (g Au/t)	Median (g Au/t)	Std. Dev.	cv	Min. (g Au/t)	Max. (g Au/t)
0	Au	61,793		0.01	0.01	0.11	8.05	0.00	26.13
	Au Cap	61,793	1397	0.01	0.01	0.02	1.51	0.00	0.10
100	Au	1,800		0.15	0.11	0.17	1.15	0.00	3.07
	Au Cap	1,800	2	0.15	0.11	0.16	1.08	0.00	1.70
200	Au	498		0.66	0.54	0.55	0.84	0.01	8.51
	Au Cap	498	2	0.65	0.54	0.46	0.72	0.01	3.00
300	Au	190		3.95	2.69	4.45	1.13	0.00	37.87
	Au Cap	190	4	3.85	2.69	3.86	1.00	0.00	20.00
100+200+300	Au	2,488		0.51	0.14	1.55	3.02	0.00	37.87
	Au Cap	2,488	8	0.50	0.14	1.41	2.80	0.00	20.00

The capped assays were composited at 1.524 metre down-hole intervals, respecting the mineral domain boundaries. Descriptive statistics of the composites for each metal are given in Table 14-5 and Table 14-6.





Table 14-5 Coded Silver Composite Statistics – All Vein Groups

Domain	Count	Mean (g Ag/t)	Median (g Ag/t)	Std. Dev.	CV	Min. (g Ag/t)	Max. (g Ag/t)
0	63,455	0.69	0.21	1.29	1.87	0	10
100	1210	13.31	11.14	10.18	0.76	0.03	95.02
200	463	53.24	48.44	33.09	0.62	0.09	234
300	214	324.26	208	331.73	1.02	0.47	1800
100+200+300	1887	56.3	15.89	145.36	2.58	0.03	1800

Table 14-6 Coded Gold Composite Statistics – All Vein Groups

Domain	Count	Mean (g Au/t)	Median (g Au/t)	Std. Dev.	CV	Min. (g Au/t)	Max. (g Au/t)
0	62,916	0.01	0.01	0.02	1.47	0	0.1
100	1750	0.15	0.11	0.16	1.05	0.00	1.70
200	471	0.65	0.54	0.44	0.69	0.01	3.00
300	182	3.85	2.69	3.70	0.96	0.00	20.00
100+200+300	2403	0.50	0.14	1.38	2.73	0.00	20.00

14.7 DENSITY

The database contains 105 specific gravity measurements from core samples taken from Blackrock's 2021 drill program. The samples were sent to KCA for rock density analyses using ASTM Method C914 (water immersion with wax coating). The samples were collected from the various lithologies and from the mineralized veins within both the different areas of the deposit. Based on evaluation of the analyses, which was limited by the number of available samples, specific gravity values of 2.36 and 2.49 were assigned to unmineralized wall rock and mineralized veins (mineral domains 100, 200, and 300), respectively.

14.8 BLOCK MODEL CODING

The Tonopah West mineral resources were modeled and estimated in one block model for all vein/spatial areas. The block model extents and dimensions are provided in Table 14-7.





Table 14-7 Block Model Dimensions

Parameters	In Metres
X origin	476,500
Y origin	4,212,700
Z origin	900
X extents	2,922
Y extents	2,400
Z extents	1,113
X block size	1.5
Y block size	1.5
Z block size	1.5

The modeled domains extended outside the current Blackrock land holdings. However, only those model blocks within Blackrock's land position were included within the current mineral resource tabulation.

The mineral domain solids were used to code 1.5 m \times 1.5 m \times 1.5 m (x, y, z) blocks that comprised a digital model oriented orthogonally. The partial percentage volumes of each mineral domain as well as the portion of the block that lies outside of the modeled metal domains (domain 0) were coded directly by the solids and stored in each block. In other words, the partial percentage of each of the four domains for silver and gold were stored in every block.

The specific gravity values were assigned to the model blocks on a weighted average basis based on the mineral domain percentages in each model block.

The wireframe solid of the Victor vein georeferenced mine stope was used to code the block model on a partial percentage basis. Any block with a portion of the block within the wireframe was considered mined out and removed from mineral resource tabulation.

Estimation area wireframe solids were created to distinguish areas of the mineralization with different overall vein orientations in the block model. Coding of the block model by these solids is on a block-in/block-out basis. This coding was then used to control search-ellipse orientations during silver and gold interpolations. The estimation area orientations shown in Table 14-8 were applied to all domains for both silver and gold.





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Area	Bearing	Plunge	Tilt
10	115	-5	35
11	115	0	15
12	95	0	55
13	95	0	30
14	90	0	80
15	350	0	25

Table 14-8 Estimation Area Orientations

14.9 VARIOGRAPHY

A variography study was completed using all silver composites and additionally for all gold composites from the mineral domains, as well as the composites from each of the three domains individually in each estimation area. Strike and dip ranges of 50 to 60 metres were modeled with consistency for silver and gold, respectively, across domains and within estimation areas along major geological trends. It is possible that longer ranges could be obtained if sufficient composites lying within similarly oriented model areas were examined. Therefore, these ranges are considered to be minimums.

The global variogram models for both silver and gold are provided Figure 14-5 and Figure 14-6. Small variabilities in the orientations of controlling faults and the host lithologies led to variability ins discrete orientations of the gold and silver mineralization.

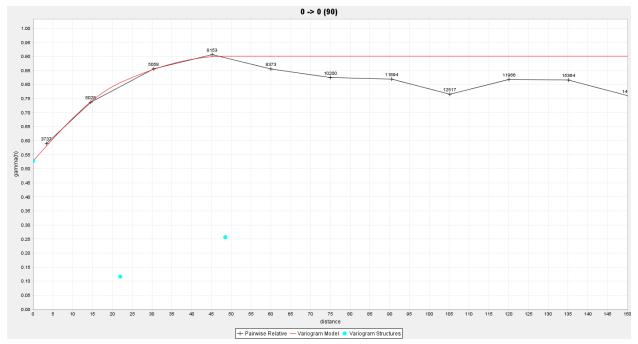


Figure 14-5 Silver Global Variogram





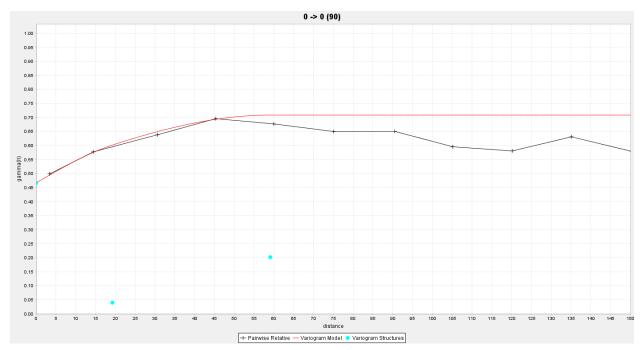


Figure 14-6 Gold Global Variogram

Variography for the respective mineral domains and estimation areas for both silver and gold were used to control RESPEC's kriged estimate for the deposit. However, after review, the kriged estimate was judged by the author to be an inferior representation of the deposit mineralization compared to a similar inverse distance interpolation, the details of which are outlined in 14.10. Therefore, the kriged estimate is only used for statistical comparisons during model validation.

14.10 GRADE INTERPOLATION

Silver and gold grades were interpolated using inverse distance, ordinary kriging, and nearest-neighbor methods. The mineral resources reported herein were estimated by inverse distance to the third power ("ID³") as this method produced results that most appropriately respected the drill data and geology of the resource. The kriged and nearest-neighbor estimations were completed for the purposes of statistical checking of the various estimation iterations. The parameters applied to the grade estimation is summarized in Table 14-9.

Table 14-9 Estimation Parameters

Estimation	Sea	arch Ranges (metres) Composite Constraints				Search Ranges (metres)			straints
Pass	Major	Semi-Major	Minor	Min	Max	Max/hole			
Pass 1	250	250	80	2	9	3			
Pass 2	600	600	300	1	9	3			
Pass 3	1000	1000	1000	1	9	3			





Grade interpolations were completed using 1.524-metre length-weighted composites. The estimation passes were performed independently for each of the mineral domains, so that only composites coded to a particular domain were used to estimate grade into respective partial blocks of the domain. Multiple grades were interpolated into blocks with partial percentages of more than one domain. A single volume-weighted grade of each of the metal species was calculated from estimated grades for each of the metal domains 0, 100, 200, and 300 in a given block. The total block grades in the resource were therefore diluted to the full block volumes.

14.11 MINERAL RESOURCES

The Tonopah West project mineral resources have been estimated to reflect potential underground extraction and processing by standard cyanide milling techniques. To meet the requirement of the resources having reasonable prospects for eventual economic extraction, only those model blocks occurring at or above a minimum silver equivalent cutoff grade amenable to underground extraction were included in the mineral resource tabulation. The cutoff grade was calculated using input costs and parameters. Silver equivalent ("AgEq") grades were calculated from silver and gold values interpolated in the block model. The AgEq grades were calculated using metal prices of \$23/oz silver and \$1,900/oz gold, and metal recoveries of 87% silver and 95% gold, the AgEq grade assigned to each model block is determined by the following formulas:

$$($23/$1900) \times (0.87/0.95) = 0.011086$$

and
g AgEq/t = g Ag/t + (g Au/t/0.011086)

The AgEq cutoff grade was calculated using assumed average mining costs which reflect the potential use of longhole stoping methods for the steeply-dipping veins, and cut-and-fill for the shallow-dipping veins. The estimated mining costs and other relevant input parameters were provided by Blackrock to RESPEC in September of 2023 and are shown in Table 14-10. In addition to these parameters, a 3.0% NSR royalty was applied to the cutoff grade.

Table 14-10 Input Parameters for AgEq Cutoff Grade Calculation

Units	USD	Parameters Used
\$/t Mined	82.6	UG Mining
\$/t Processed	36.3	Processing
\$/t Processed	9.7	G&A
\$/oz Ag Produced	0.20	Refining
\$/ounce	25	Silver Price
\$/t Processed	128.6	Total
g/t Ag	190	Effective AgEq Cut off





Mineral resources have been reported using an AgEq cutoff grade instead of optimized stopes, as were used in the 2023 estimate. This change has been implemented due to the uncertainty of exact mining methods and economic parameters in future advanced project studies. It is the author's opinion that the AgEq cutoff grade appropriately represents the definition of the inferred mineral resources with reasonable prospects for eventual economic extraction. The author has reviewed the spatial occurrence of blocks above cutoff and decided that none should be removed from the estimate. Minor amounts of isolated pods of mineralization are potentially expanded with further drilling and therefore should not be excluded from the inferred mineral resources.

Tabulations of mineral resources at the calculated cutoff grade are shown in Table 14-11.

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		TP W	est Total R	esource			
Cutoff Grade g AgEq/t	Tonnes	Ave. AgEq Grade g AgEq/t	Ave. Ag Grade g Ag/t	Ave. Au Grade g Au/t	Contained oz Ag	Contained oz Au	Contained oz AgEq
190	6,351,000	492.5	237.8	2.8	48,550,000	577,000	100,560,000

Table 14-11 Tonopah West Inferred Mineral Resources

- 9. The Effective Date of the Tonopah West mineral resources is August 23, 2024.
- 10. The project mineral resources are comprised of all complete or partial model blocks that have a grade equal to or greater than the cutoff grade of 190 g AgEq/tonne.
- 11. The cutoff grade was calculated using a \$25/oz Ag price, costs of \$82.6/tonne mining, \$36.3/tonne processing, and \$9.7/tonne G&A costs for a total cost of \$128.6/tonne. Metallurgical recovery for silver was assumed to be 87% and 95% recovery of gold was assumed. Refining costs of \$0.20/oz Ag produced and a 3% NSR royalty were also applied to the cutoff grade calculation.
- 12. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
- 13. The estimate of mineral resources may be materially affected by geology, environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
- 14. There are no known factors related to metallurgical, environmental, permitting, legal, title, taxation, socio-economic, marketing or political issues which could materially affect the mineral resource estimates contained in this Technical Report.
- 15. Rounding as required by reporting guidelines may result in apparent discrepancies between tons, grade, and contained metal content.
- 16. Mineral resources which are not mineral reserves do not have demonstrated economic viability. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

The Tonopah West mineral resources are categorized by the four separate spatial areas that make up the property (Bermuda, DP, NW, and Victor). The author does not consider the spatial areas to be significantly different geologically but could have separated them below for logistical purposes in future mining scenarios. The mineral resources are broken down by spatial area in Table 14-12.





Table 14-12 Inferred Mineral Resources by Are

					,		
						TP West Reso	ources by Area
Cutoff Grade g AgEq/t	Tonnes	Ave. AgEq Grade g AgEq/t	Ave. Ag Grade g Ag/t	Ave. Au Grade g Au/t	Contained oz Ag	Contained oz Au	Contained oz AgEq
						Berm	uda Resources
190	1,409,000	602.7	292	3.44	13,233,000	156,000	27,310,000
					·	<u> </u>	DP Resources
190	1,652,000	423	191.5	2.57	10,167,000	136,000	22,462,000
							NW Resources
190	1,035,000	365.5	193.8	1.9	6,452,000	63,000	12,168,000
						Vio	ctor Resources
190	2,255,000	532.8	258	3.05	18,698,000	221,000	38,621,000

- 1. The Effective Date of the Tonopah West mineral resources is August 23, 2024.
- 2. The project mineral resources are comprised of all complete or partial model blocks that have a grade equal to or greater than the cutoff grade of 190 g AgEq/tonne.
- 3. The cutoff grade was calculated using a \$25/oz Ag price, costs of \$82.6/tonne mining, \$36.3/tonne processing, and \$9.7/tonne G&A costs for a total cost of \$128.6/tonne. Metallurgical recovery for silver was assumed to be 87% and 95% recovery of gold was assumed. Refining costs of \$0.20/oz Ag produced and a 3% NSR royalty were also applied to the cutoff grade calculation.
- 4. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
- 5. The estimate of mineral resources may be materially affected by geology, environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
- 6. There are no known factors related to metallurgical, environmental, permitting, legal, title, taxation, socio-economic, marketing or political issues which could materially affect the mineral resource estimates contained in this Technical Report.
- 7. Rounding as required by reporting guidelines may result in apparent discrepancies between tons, grade, and contained metal content.
- 8. Mineral resources which are not mineral reserves do not have demonstrated economic viability. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Resource. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

Table 14-13 presents the Tonopah West mineral resources compared to subsets of mineralized material tabulated with increasing cutoff grades. This is presented to provide grade distribution data that allows for detailed assessment of the project mineral resources. All of the tabulations at cutoff grades greater than or equal to 190 g AgEq/tonne represent subsets of the current mineral resources.





	All TP West Mineralization at Various Cutoff Grades											
Cutoff Grade g AgEq/t	Ave. AgEq Tonnes Grade g AgEq/t		Ave. Ag Grade g Ag/t	Ave. Au Grade g Au/t	Contained oz Ag	Contained oz Au	Contained oz AgEq					
190	6,351,000	492.5	237.8	2.8	48,550,000	577,000	100,560,000					
195	6,211,000	499.2	240.8	2.9	48,092,000	572,000	99,696,000					
200	6,074,000	506.0	243.9	2.9	47,625,000	568,000	98,824,000					
210	5,791,000	520.8	250.4	3.0	46,626,000	558,000	96,957,000					
220	5,464,000	539.1	258.3	3.1	45,378,000	547,000	94,701,000					
230	5,194,000	555.4	265.4	3.2	44,326,000	537,000	92,748,000					
240	4,971,000	569.8	271.9	3.3	43,449,000	528,000	91,063,000					
250	4,763,000	584.0	278.1	3.4	42,597,000	519,000	89,431,000					
275	4,298,000	618.8	293.4	3.6	40,547,000	498,000	85,507,000					

- 1. The project mineral resources are shown in bold and are comprised of all model blocks with grades greater than or equal to a 190 g AgEq/tonne cutoff grade.
- 2. Tabulations at higher cutoffs than used to define the mineral resources represent subsets of the mineral resource.
- 3. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
- 4. Rounding as required by reporting guidelines may result in apparent discrepancies between tons, grade, and contained metal content.

The Tonopah mineral resources are entirely classified as Inferred. This classification is based on the generally wide spaced drilling and the variability in extent and metal grade of the interpreted high-grade veins. Pre-Coeur drill holes lack down-hole surveys, so their locations of samples, particularly at depth, is of lower confidence. Additional drilling and sampling, and/or initial underground exploration/development, would be required to allow for higher classification of the estimated resources. Figure 14-7 through Figure 14-10 are cross sections through the block model.





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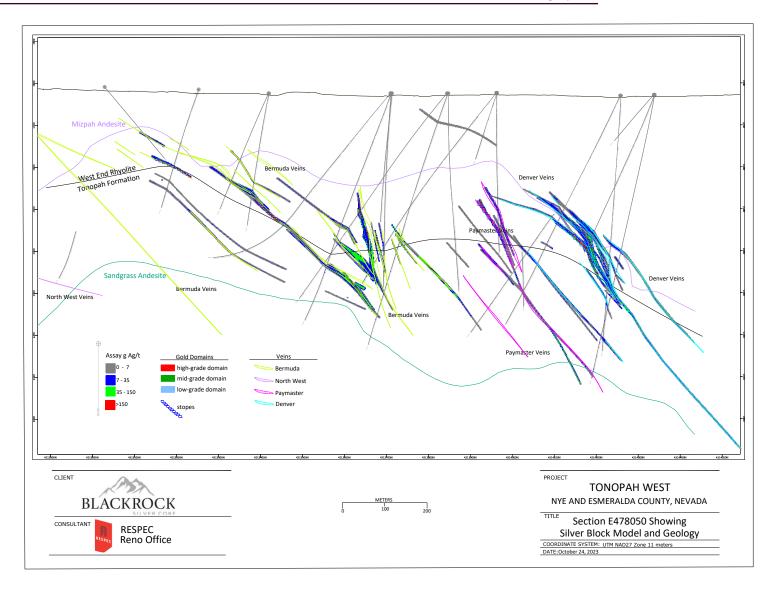


Figure 14-7 DP and Bermuda Vein Groups – Geology and Silver Block Model on Cross Section E478050





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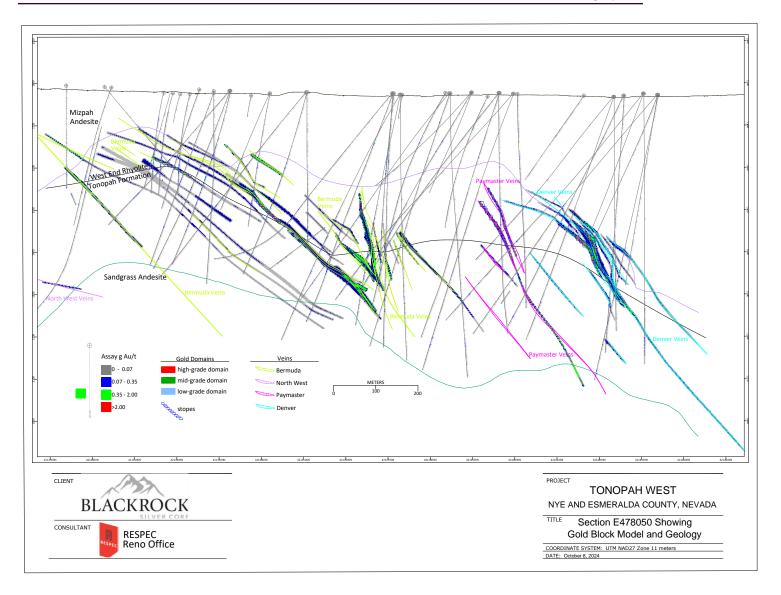


Figure 14-8 DP and Bermuda Vein Groups – Geology and Gold Block Model on Cross Section E478050





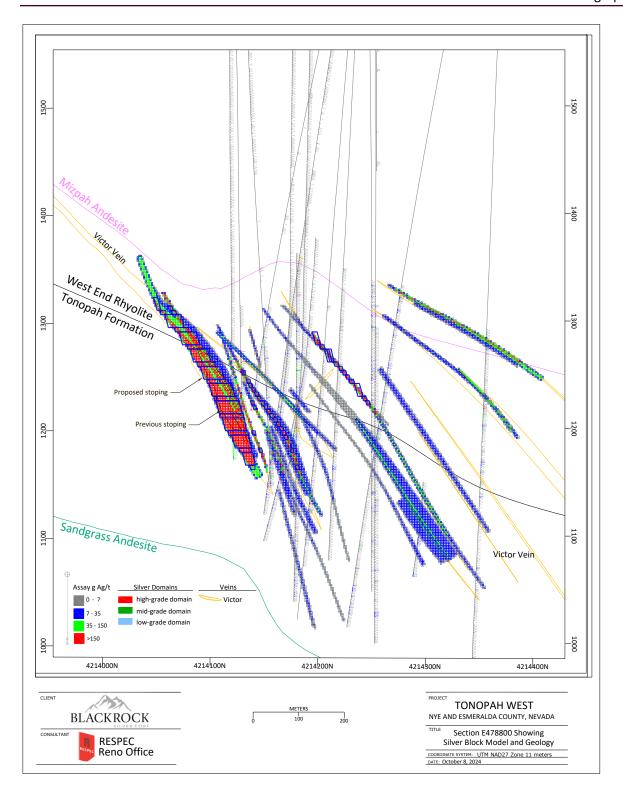


Figure 14-9 Victor Vein Group – Geology with Silver Mineral Domains on Cross Section E478800





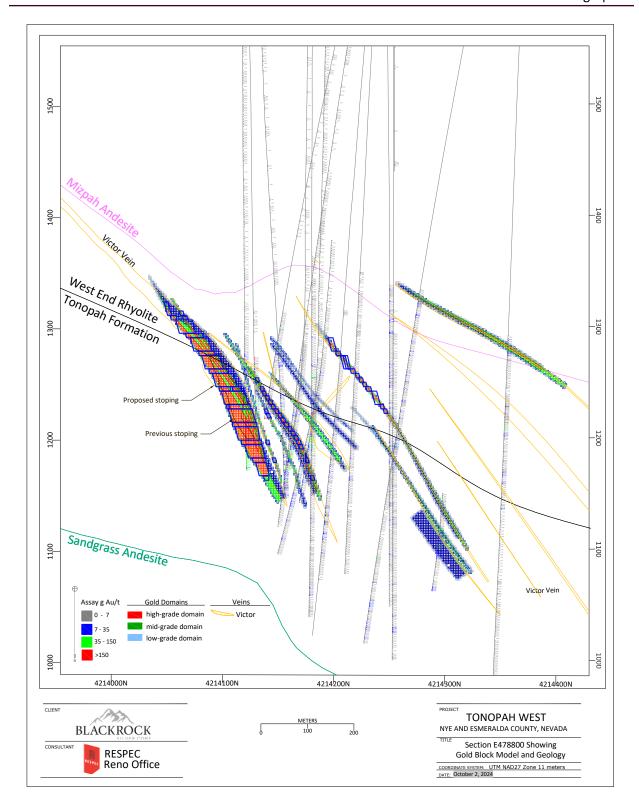


Figure 14-10 Victor Vein Group – Geology with Gold Mineral Domains on Cross Section E478800





14.12 MODEL VALIDATION

All block model coding, including topography, lithology, estimation areas, and mineral domains, was checked visually. Volumes derived from the mineral domain solids were compared to the coded block model volumes derived from the partial percentages, to assure close agreement. Neighbor and ordinary krige estimates, were used as a check on the inverse distance results. No unexpected relationships between the check estimates and the inverse distance estimate were indicated in the final model. Various grade distribution plots of assays and composites, along with the nearest-neighbor, ordinary krige, and inverse distance block grades were also evaluated as a check on both the global and local estimation results which led to additional grade interpolation iterations. Statistical comparisons of block grade values of the inverse distance ("ID") and nearest neighbor ("NN") were compared to composited drill hole intersection grades from coincident blocks, known as "Block Composites", in Figure 14.9 and Figure 14.10. Finally, the estimated grades were visually compared to the drill hole assay data in detail to assure that reasonable results were obtained.

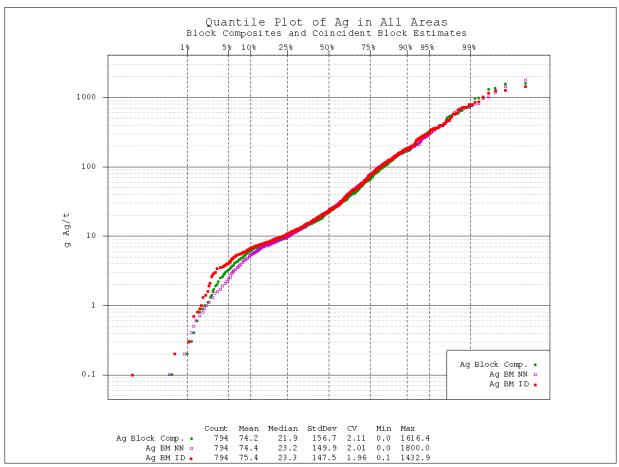


Figure 14-11 Quantile Plot Block Composites and Coincident Block Estimates for all Silver Domains





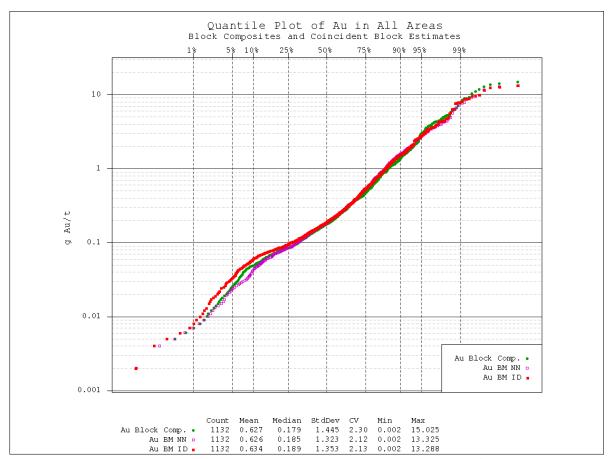


Figure 14-12 Quantile Plot Block Composites and Coincident Block Estimates for all Gold Domains

14.13 DISCUSSION OF RESOURCES - RISKS AND RECOMMENDATIONS

Mr. Bickel is not an expert regarding environmental, permitting, legal, title, taxation, socio-economic, marketing, or political factors. As of the date of this report, Mr. Bickel is not aware of any issues related to these factors that may materially affect the Tonopah West mineral resources that are not otherwise discussed in this report.

The risks to the reported mineral resources are primarily associated with the wide spaced drilling, and the assumed continuity and spatial extent of the high-grade veins. The geologic model created by Blackrock has provided a satisfactory representation of the primary quartz vein locations and orientations. Because of the wide spaced nature of the drilling pattern, the geometry, continuity and thickness of the high-grade mineralization that occurs within the quartz vein envelopes is uncertain.

There is also some uncertainty about the location and full extent of the historical underground development and the corresponding impact on the current statement of resources is unknown. There are historical development drifts on four levels within the DP area, but there is no known production





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from these workings. Accordingly, no model tonnes have been removed from the reported resource at DP. Conversely at Victor, there is a record of past production which is represented by a wireframe solid of a historical stope. Mineralized material in the current Victor model that is located within this stope is considered mined out and has been removed from the tabulation of mineral resources. There is a risk in that the full extent and location of past mining is not known and that 1) there could be isolated areas of minor production within the DP, Bermuda, and NW vein areas, and 2) at Victor, the current stope volume is not accurate, either in location or size, to adequately inform the tabulation of resources.

The lack of down-hole surveys associated with pre-Coeur drilling would generally lower the level of confidence in deep sample locations. However, the Coeur drilling targeted the vein system at relatively shallow levels, some of the drilling was vertical, and many of the holes did not intercept mineralization. Also, the associated data was used in modeling but not estimation. Therefore, the author does not consider the lack of pre-Coeur down-hole surveys to be a significant risk.

Future drilling, exploration, and resource definition at Tonopah West should focus on improving understanding of the distribution of high-grade mineralization. Infill drilling in key areas to increase drill density is recommended, however this may be difficult to accomplish with surface drilling due to the significant depths to mineralization and the imprecision of drill targeting due to down-hole drill deviation. Additional drilling is recommended to test the unconstrained limits of the deposit, particularly down-dip from known mineralization and along trend to the west. The author recommends collection of more structural data in order to increase the current geological understanding of the deposit and mineralization controls.

Due to the difficulty in upgrading the current mineral resource classification with surface drilling, initial scoping studies should be considered for exploring and developing the two resources via underground access. Without underground access, which allows for tighter-spaced drilling and a better vein definition, it is not likely that a determination of potential mineable reserves could be attained for the Tonopah West mineral resources.





15 MINERAL RESERVE ESTIMATES (ITEM 15)

There are no current mineral reserves estimated for the Tonopah West project.





16 MINING METHODS (ITEM 16)

16.1 Introduction

The Tonopah West project is located on a well consolidated group of historic producing patented and unpatented claim blocks. The PEA mine plan is based on the Victor Vein, and the Denver, Paymaster and Bermuda Vein groups ("DPB") inferred Mineral Resources only. Maptek's Vulcan ™ software and Stope Optimization module was used to estimate the mineralized mined material and development requirements. The Northwest Step Out vein group ("NW Zone") is included in the Mineral Resources, but not in the mine plan. Alluvium cover is thin, and ground conditions appear to be very good. Several existing shafts and workings are evident on the surface, including the Tonopah West, McKane and Victor shafts which are open at the surface. Remote video inspections of these shafts show good ground conditions, although blockages are present in the McKane and Victor shafts. These historic shafts are of small cross section. The mine plan envisions rehabilitating the shafts for ventilation and emergency egress only in a staged progression with the mining advance. The mine as proposed is portal access utilizing rubber tire equipment for overhand cut-and-fill and longitudinal open stoping, with fill, mining methods. Backfill includes a Cemented Rock Fill ("CRF") plant and an engineered tailing-based Hydraulic Fill plant and infrastructure. Figure 16-1 is an isometric view of the underground plan looking to the north. Level-to-level ventilation and egress raises are not shown for clarity.

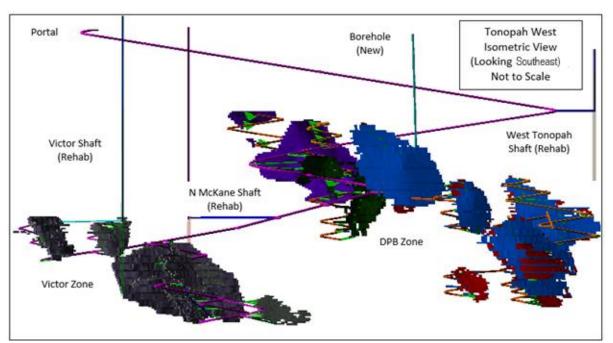


Figure 16-1 Isometric View of the Mine Plan Looking Southeast





16.2 OVERHAND CUT-AND-FILL MINING

Overhand cut-and-fill ("C&F") mining is a selective method that can maintain grade and minimize dilution. Overhand mining is a bottom-up method to mine successive stope cuts between main mining levels. Typical cut dimensions are estimated at 3.0 m wide by 4.0 m high. The 3.0 m wide is the minimum. Actual width can be greater to match vein widths where ground conditions warrant, or two subsequent parallel level cuts with fill if width exceeds ground support limitations. Ground support is installed as required during each cut. As each cut is completed, it is filled with an engineered hydraulic fill or CRF. Then the next stope cut is taken on top of the placed fill and the process repeated until the mining panel between main mine levels is extracted (Figure 16-2 and Figure 16.3).

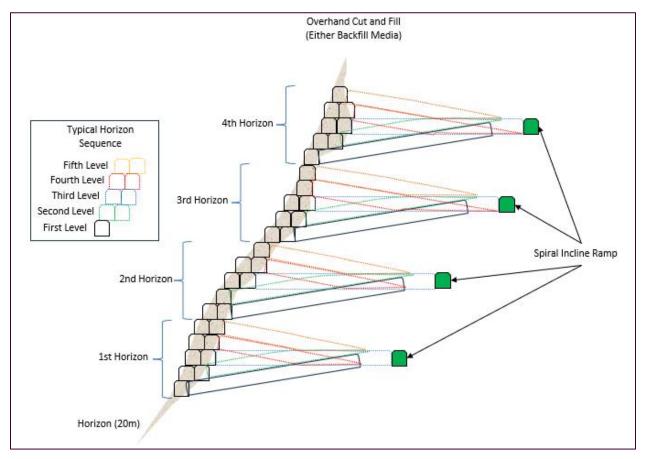


Figure 16-2 Overhand Cut & Fill Mining Sequence





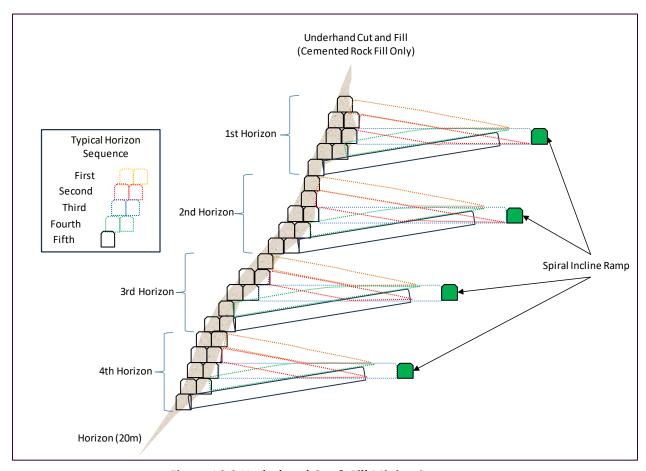


Figure 16-3 Underhand Cut & Fill Mining Sequence

16.3 LONGITUDINAL OPEN STOPE MINING

Longitudinal open stope ("LOS") mining with delayed fill (sublevel retreat or longhole stoping) will be used in the thicker vein structures due to its greater labor efficiencies and reduced primary ground support requirements. Access sublevels will be established along the strike of the vein at 15 m sill to sill vertical intervals. Sublevels have nominal 4 m height and will be driven at vein width. This will leave a nominal 11 m panel between the sublevels which will be mined in a retreat fashion back to the common access points located at 80m horizontal spacing. Both CRF and engineered hydraulic fill will be available for backfilling the completed stope panels. This allows for either a Top – Down or Bottom – Up sequencing of the longitudinal panels. Figure 16-4 and Figure 16-5 shows long sections and cross sections for both sequencing methods.





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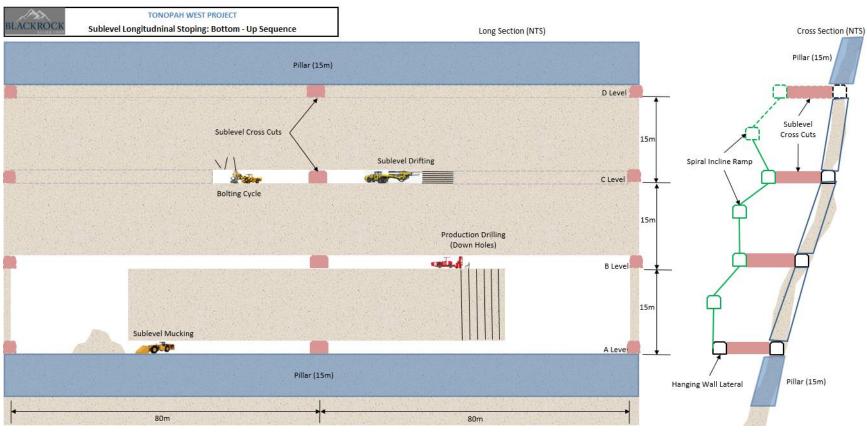


Figure 16-4 Sublevel Longitudinal Stoping Bottom – Up





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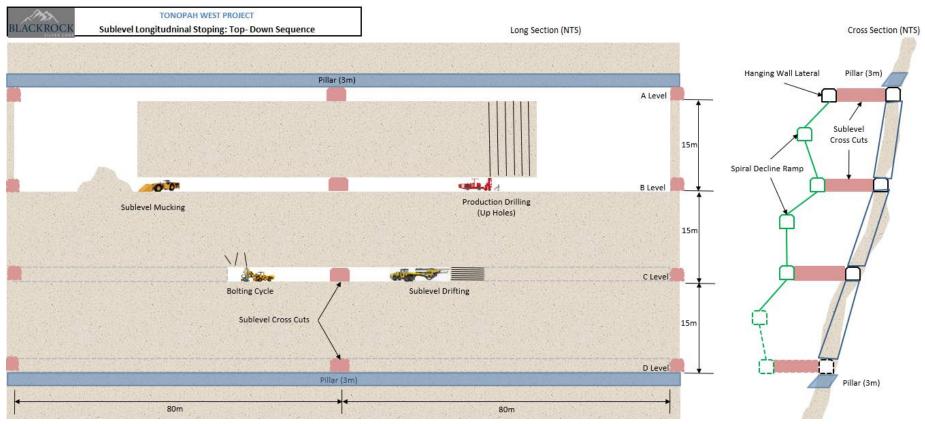


Figure 16-5 Sublevel Longitudinal Stoping Top – Down





CRF backfill is envisioned to be utilized for 80% of the fill requirements with engineered hydraulic fill being used in areas where high backfill strength is not required. CRF will be truck placed once the panel is fully mined out, or from an adjacent sublevel cross cut in an AVOCA fashion fill is placed as the panel is retreated.

16.4 MINE STOPE OPTIMIZATION

The Maptek Vulcan [™] Stope Optimizer (stope optimizer) was used as a tool to determine the best arrangement of stope geometries and mining methods for the Report. The optimum stope arrangement was found by determining and value of extracted material based on varying geometric input parameters at a given cutoff grade. Although the stope optimizer maximizes the value of extracted material for a given set of input parameters, it is not truly optimizing; optimization must be done by the user.

Two sets of stope optimization runs were carried out on slightly different block models representing the Tonopah West mineralization. The only difference between the two block model investigations was the Ag equivalent and mining method (stope geometry). The March optimization runs were based on cut-and-fill mining scenarios only, while the final June/July runs looked at Longitudinal Sublevel stoping and cut-and-fill to produce the best extraction ratio. Table 16-1 shows values used for Au and Ag and the AgEq cutoff grades used for stope optimization runs for both scenarios. The Report uses the June/July stope optimization runs for mine planning.

Table 16-1 Initial and Final Stope Optimization Runs

Stope Runs	Au Price \$US	Ag Price \$US	Cutoff Grade ag_eq_id (g/t)	Mining Method	Notes
March 2024 Initial Scoping Runs	\$1,900.00	\$23.00	230	Cut & Fill	Not broken down by Resource Class
March 2024 Initial Scoping Runs	\$1,900.00	\$23.00	300	Cut & Fill	Not broken down by Resource Class
June/July 2024 Final Resource Runs	\$1,900.00	\$23.00	200	Sublevel	Broken down by resource class
June/July 2024 Final Resource Runs	\$1,900.00	\$23.00	235	Cut & Fill	Broken down by resource class

Gold and Silver \$US per Troy Ounce

The block model, $tp_west_client_export.csv$, supplied by RESPEC was imported into Vulcan. This regular block model had approximately 2.3 trillion blocks, measuring 1.5 m x 1.5 m x 1.5 m. The large amount of data contained in the block model, along with the need to subblock the model to run the stope optimizer, necessitated creating several smaller block models. The model was divided into four areas, NW Zone, North Central DBP, South Central DBP, and Victor. Mineralization geometry dictated the division between the different zones (Figure 16-6):





The North Central DBP and South Central DPB block models have overlapping boundaries, but the overlaps are handled by separating the mineralization by geometry and manually defining which stopes belong to each respective area. The optimizer was run on the NW Zone; however, it is not included in the mine plan due to its remote location and grades relative to the rest of the zones.

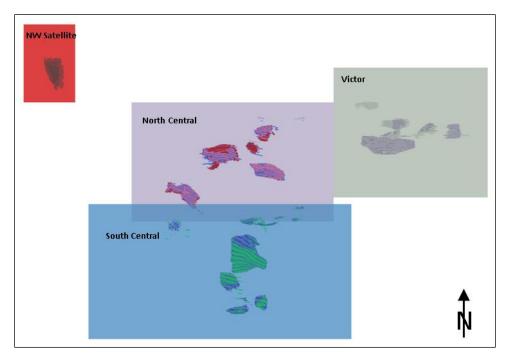


Figure 16-6 The Four Areas Used for Stope Optimization

Although the drilling density does not support the block sizes used, block sizes of $1.5 \, \text{m} \times 1.5 \, \text{m} \times 1.5 \, \text{m}$ were necessary to model the narrow veins and provide a high-level estimate for stoping areas within the mineralization. The regular block model was sub-blocked to allow the stope optimization to run more efficiently. Sub-blocking around areas of abrupt changes in mineral resource grades helps the optimizer define where to start and stop forming stopes, calculate grades and determine whether the stope meets the input requirements. The resultant sub-blocked Blackrock model had parent block sizes of $3.0 \, \text{m} \times 3.0 \, \text{m}$ in known zero grade areas with child block sizes of either $1.5 \times 1.5 \times 1.5 \, \text{m}$ or $0.5 \times 0.5 \times 0.5 \, \text{m}$ in and around the vein structures for finer resolution at the edges of mineralization.

Once the four block models were created, they were checked to make sure that all data was properly transferred. Statistics were run on the block models to determine whether they contained negative grade or density, zero density in blocks below the surface, nonexistent values, and whether the values in the model made sense. These checks enable the optimizer to generate accurate results. Block model cleanup is generally necessary and constitutes a best practice for stope optimization.





Optimizer input dip was varied between 70 and 90 degrees. In addition to variations in dip, the optimizer allows for setting an initial strike value and then allowing it to vary from a minimum to maximum value in user-defined increments. Because the geometry of the mineralization has a highly variable strike, each area was evaluated by visually defining the trend of the deposit and then varying the initial strike ± 40 degrees. Initial runs quickly showed which strikes within ± 15 degrees produced the best values. The final result was achieved by refining these runs and strike changes were allowed every 6 m.

To optimize the stope geometry and contained planned dilution, it is best to set up runs that vary strike, dip, and contained dilution (called "waste fraction" in Vulcan). There are many other parameters that can be varied; however, some of the variables will be dictated by rock mechanics and operational limitations, as well as historical data and experience in similar mines.

The optimization process takes planned dilution into account. Planned dilution is defined as anything below the set cutoff grade that is planned to be mined within the stope boundaries. Mineralized material with values below cutoff can therefore be added to the stope shape provided it does not degrade the average stope value per tonne. The optimization process does not take unplanned dilution from overbreak or backfill sloughing into account. An additional unplanned dilution factor of 5% tonnes at zero grade was added to the mine plan prior to mine scheduling. Table 16-2 shows the material above cutoff grade, the planned internal dilution and the unplanned external dilution used in the mine plan.

Table 16-2 Mineral Inventory with Dilution

Tonopah		D	esigned Stop	pe (Neat Line	Ex	ternal Diluti	Total Diluted Inventory					
West	Abov	Above Cutoff (210 g/t)			Internal Dilution P			nned Overbr	eak	Total Dilute	u ilivelitory	
	Tonnage	AgEq (g/t)	%	Tonnage	AgEq (g/t)	%	Tonnage	AgEq (g/t)	%	Tonnage	AgEq (g/t)	
DPB - CS	681,572	981	81.8%	152,040	80	18.2%	41,681	-	5.0%	875,293	778	
DPB - CN	799,275	608	71.5%	303,596	72	27.2%	55,105	-	5.0%	1,157,975	438	
Victor	1,545,133	727	79.5%	436,733	79	22.5%	99,192	-	5.0%	2,081,058	556	
Total	3,025,980	753	73.5%	892,368	77	21.7%	195,978	-	5.0%	4,114,326	570	

16.5 MINE PLANNING AND SCHEDULING

Blackrock will purchase equipment and self-perform lateral underground development and production mining. Contractors will be used to establish the initial portal and all new and rehabilitation vertical development. Primary mining equipment will include 4.8m³ and 3.1m³ loaders, 30 tonne haul trucks and electric/hydraulic drilling and bolting jumbos. Table 16-3 shows the average labor requirements by year. Table 16-4 is the capital equipment requirements and rebuild schedule and Table 16-5 the production schedule with Table 16-6 the planned underground infrastructure.





Table 16-3 Blackrock Labor Requirements

Tonopah West Labor		Average	Number of Wo	rkers Require	d Per Day	Two 12-Hour Shifts per Day					
Tollopali West Labor	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8		
Miner 1	3	14	16	18	16	14	12	10	10		
Miner 2	2	10	14	14	12	10	8	6	6		
Miner 3	2	6	10	10	9	8	6	4	4		
Bull Gang	0	4	4	4	4	4	4	4	4		
Master Mech./Elect.	1	3	3	3	3	3	3	3	2		
Mechanic 1	2	5	5	5	5	5	5	5	2		
Mechanic 2	2	2	2	2	2	2	2	2	1		
Fuel Lube	0	2	2	2	2	2	2	2	1		
Electrician	1	2	2	2	2	2	2	2	2		

Note: These are the miners required to be working. Actual total employment could be 5-10% greater to account for absentee, vacations, training, etc.

Table 16-4 Blackrock Equipment Requirements

	Idu	ле 10-4 ы	ackiock E	.quipiliei	it nequire	HILEHILS			
Tonopah West Mine Equipment	Total	Cost per	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5
Tonopan West Mine Equipment	Quantity	Unit US\$		Expenditure	Schedule - US\$	- Contingency	Separate		
Surface Telehandler	1	\$125,000	\$125,000						
Light Vehicles	3	\$50,000	\$50,000		\$100,000				
UG Personnel Transport	2	\$50,000			\$100,000				
UG Boss Buggies	3	\$40,000	\$40,000		\$80,000				
UG LHD -4.8m	3	\$1,130,000	\$1,130,000	\$1,130,000	\$1,130,000				
Capital Rebuild	2	\$678,000						\$678,000	\$678,000
UG LHD - 3.1m	3	\$950,000		\$950,000	\$1,900,000				
Capital Rebuild	2	\$570,000						\$570,000	\$570,000
UG Haul Truck (30 tonne)	6	\$1,080,000	\$1,080,000	\$1,080,000	\$3,240,000	\$1,080,000			
Capital Rebuild	2	\$648,000					\$648,000	\$648,000	
UG Jumbo - Two Boom	3	\$1,354,000	\$1,354,000		\$2,708,000				
Capital Rebuild	2	\$880,100						\$880,100	\$880,100
UG Jumbo - Single Boom	3	\$1,100,000		\$1,100,000	\$2,200,000				
Capital Rebuild	1	\$715,000						\$715,000	
UG Bolter	3	\$1,100,000	\$1,100,000		\$2,200,000				
Capital Rebuild	2	\$715,000					\$715,000	\$715,000	
Stope Drill	2	\$1,600,000			\$1,600,000		\$1,600,000		
Capital Rebuild	1	\$880,000						\$880,000	
Powder Truck	2	\$150,000	\$150,000		\$150,000				
Scissor Deck	2	\$350,000	\$350,000		\$350,000				
UG Grader	1	\$450,000			\$450,000				
UG Water Truck	1	\$400,000			\$400,000				
Total Capital Equipment W/Rebuilds		\$37,504,200	\$5,379,000	\$4,260,000	\$16,608,000	\$1,080,000	\$2,963,000	\$5,086,100	\$2,128,100





Table 16-5 Blackrock Production Schedule

Mill Production and Waste	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Total
Production Schedule	Preproduction									
LOS - Tonnes Mined	0	215,913	324,613	392,617	454,820	457,971	457,862	457,646	374,016	3,135,459
Contained Ag Oz	0	1,394,819	2,472,010	3,197,107	4,119,132	4,164,702	3,748,469	3,530,781	2,400,544	25,027,564
Contained Au Oz	0	18,969	36,683	42,947	50,109	50,681	47,777	48,806	27,477	323,449
C&F - Tonnes Mined	0	148,827	221,902	153,608	91,312	88,160	88,268	88,484	98,306	978,867
Contained Ag Oz	0	2,313,828	3,276,600	1,210,841	641,979	685,364	778,942	828,916	1,081,299	10,817,770
Contained Au Oz	0	23,754	33,156	14,986	8,107	8,244	9,353	9,063	11,465	118,129
Total - Tonnes Mined	0	364,741	546,515	546,225	546,132	546,131	546,130	546,130	472,322	4,114,326
Contained Ag Oz	0	3,708,648	5,748,611	4,407,947	4,761,111	4,850,066	4,527,411	4,359,697	3,481,843	35,845,333
Contained Au Oz	0	42,723	69,840	57,934	58,216	58,925	57,130	57,869	38,942	441,578
Capital and Expensed										
Waste Development										
Lateral Meters	2,064	4,600	5,142	5,577	5,147	4,052	1,848			28,431
Vertical Meters	149	560	623	216	657	216	216			2,637
Total Waste Tonnes	109,184	242,319	267,336	288,182	270,831	210,342	97,882			1,486,075

Note: The mill has a 50,000 tonne surge stockpile. Actual mine production leads mill production.

Table 16-6 Blackrock Underground Infrastructure

Tonopah West Underground	Total	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
Infrastructure	Expenditure Schedule - US\$- Contingency Separate										
Portal	\$500,000	\$415,000	\$85,000								
Primary Fans	\$320,000	\$40,000	\$40,000	\$120,000	\$80,000		\$40,000				
Cemented Rock Fill Plant	\$1,500,000			\$1,500,000							
Sand Plant	\$2,000,000		\$1,000,000	\$1,000,000							
Sand Plant Distribution System	\$1,875,000			\$1,500,000	\$125,000		\$125,000		\$125,000		
Secondary Escape Hoist	\$350,000		\$350,000								
Load Centers	\$361,000	105000	\$25,000	\$141,000			\$90,000				
Compressor	\$400,000	\$180,000	\$20,000				\$200,000				
Compressor House	\$60,000	\$60,000									
Equip UG Shop	\$200,000		\$200,000								
Communication	\$21,500	\$10,000		\$1,500	\$2,500	\$2,500	\$2,500	\$2,500			
Refuge Chamber	\$80,000				\$40,000		\$40,000				
Total Capital Infrastructure	\$7,667,500	\$810,000	\$1,720,000	\$4,262,500	\$247,500	\$2,500	\$497,500	\$2,500	\$125,000		

Note 1: Secondary fans, electrical cable, communications cable, pumps and pipe are included in ramp development direct costs

Note 2: Non-contracted labor costs are tabulated separately in development costs

16.6 VENTILATION

The primary ventilation system will be the access and interconnecting declines, three existing shafts to be rehabilitated and a new borehole to the surface. Mining areas will be connected to this system via access ramps and interconnecting ventilation and escape raises. The decline will be driven with secondary fans and fanline and connected to each subsequent rehabbed shaft to advance the fresh air base to support the advancing ramp faces. The Tonopah West shaft will be the first to be connected. The Tonopah West shaft is in relatively good shape and will flow air once connected. Rehab of this shaft could be concurrent with the ramp and access drives. A borehole is planned between the Tonopah West and McKane shafts. The McKane and Victor shafts have obstructions. Rehabilitating them may be best accomplished once the decline intersects the shaft bottom stations where clearing the obstructions can be supported from the top and bottom of the shafts. Initial mine operations will utilize the borehole, Tonopah West shaft and the access ramps for main ventilation. The McKane shaft will be added in production year 2 and the Victor shaft in production year 4 as mining advances to the north and east. The ventilation plan will change, but generally air will be drawn down the eastern most airways and be exhausted out the decline, Tonopah West and the borehole.





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16.7 OTHER MINE RELEVANT CONDITIONS

The water table at Tonopah West varies between 250 m to 300 m below the surface, or generally the 1,500 m elevation. The mine plan targets mineralization between the 1,150 m and 1,620 m elevations. Historic underground workings in the footprint of Tonopah West are known to communicate hydraulically. These historic workings were advanced below the elevation of the current mine plan. Regional pumping wells are envisioned with localized pumping required as the mine is developed and operated.





17 RECOVERY METHODS (ITEM 17)

17.1 INTRODUCTION

The report considers a processing plant with a design capacity to treat 1,500 metric tonnes per day. The design for the project is based on a conventional metallurgical flowsheet. Extraction of gold and silver from the crushed and finely ground whole mineral will be carried out by agitated cyanide leaching to produce a pregnant leach solution. The precious metal pregnant leach solution is separated from the solid material in counter-current decantation thickeners. Process tailings will be dewatered by pressure filtration. Solid tailings waste material from pressure filtration will be transported by dump truck to a lined dry-stack tailings storage area. For this evaluation, 20% of the tails were assumed to be used for backfill in the underground mine. Precious metal values will be recovered from the pregnant solution by Merrill-Crowe zinc precipitation, followed by precipitate smelting. Precipitate smelting will produce gold and silver doré bars. The key process design criteria for the process plant are listed below:

- / Throughput of 1,500 tonnes per day of material.
- / Crushing plant availability of 75%.
- / Grinding and leaching circuits availability of 92%.
- / Filtered tailings availability of 85%.
- / Comminution circuit to produce a particle size of 80% passing (P80) of 45 microns.
- / Equipment selection based on suitability for the required duty, reliability and ease of maintenance.

Processed material will be ground to an 80-percent passing 0.045 mm using a 2-stage crushing circuit followed by a closed circuit ball mill. The material for this study was assumed at an average grade of 2.5 grams per tonne (gpt) gold and 208 gpt silver.

The general arrangement for the process plant area is presented in Figure 17-1.

An overall simplified process flowsheet of the crushing and mill circuit is presented in Figure 17-2.





PRELIMINARY ECONOMIC ASSESSMENT TONOPAH WEST SILVER-GOLD PROJECT BLACKROCK SILVER CORP.

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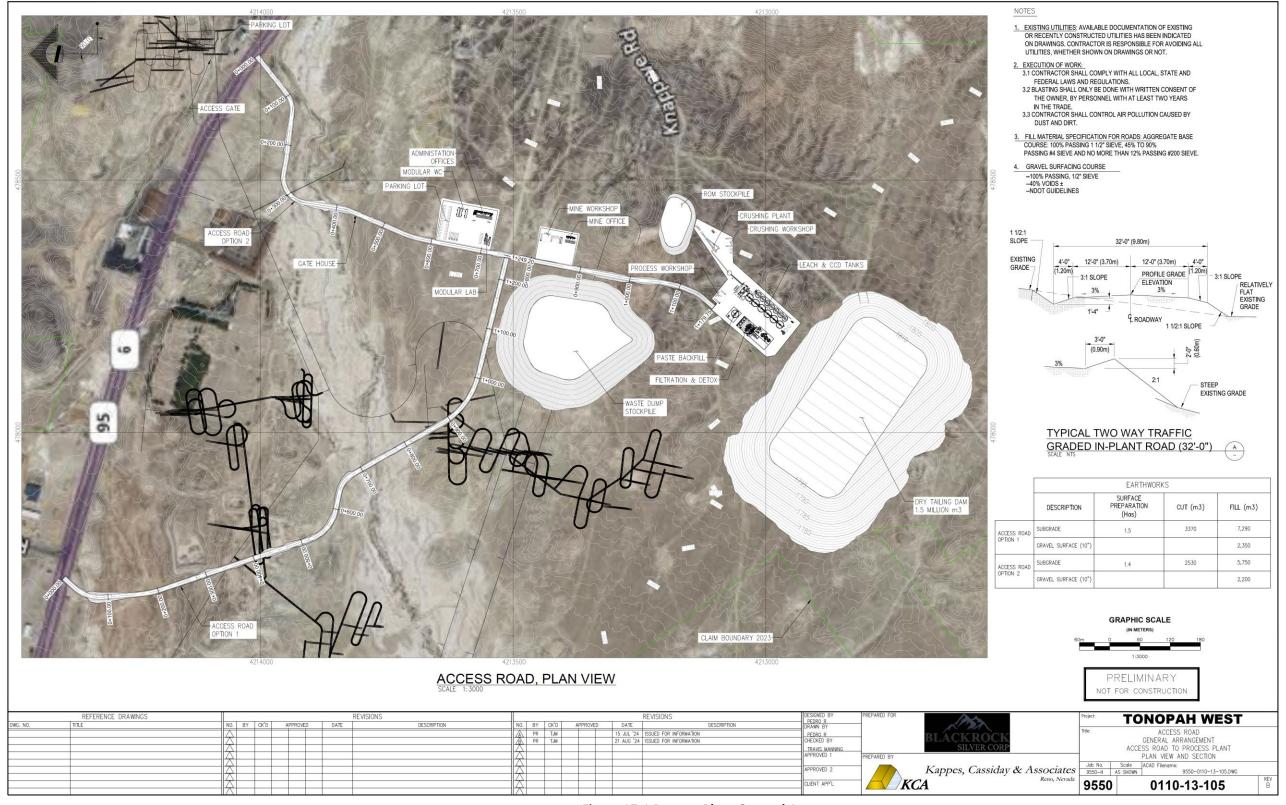


Figure 17-1 Process Plant General Arrangement





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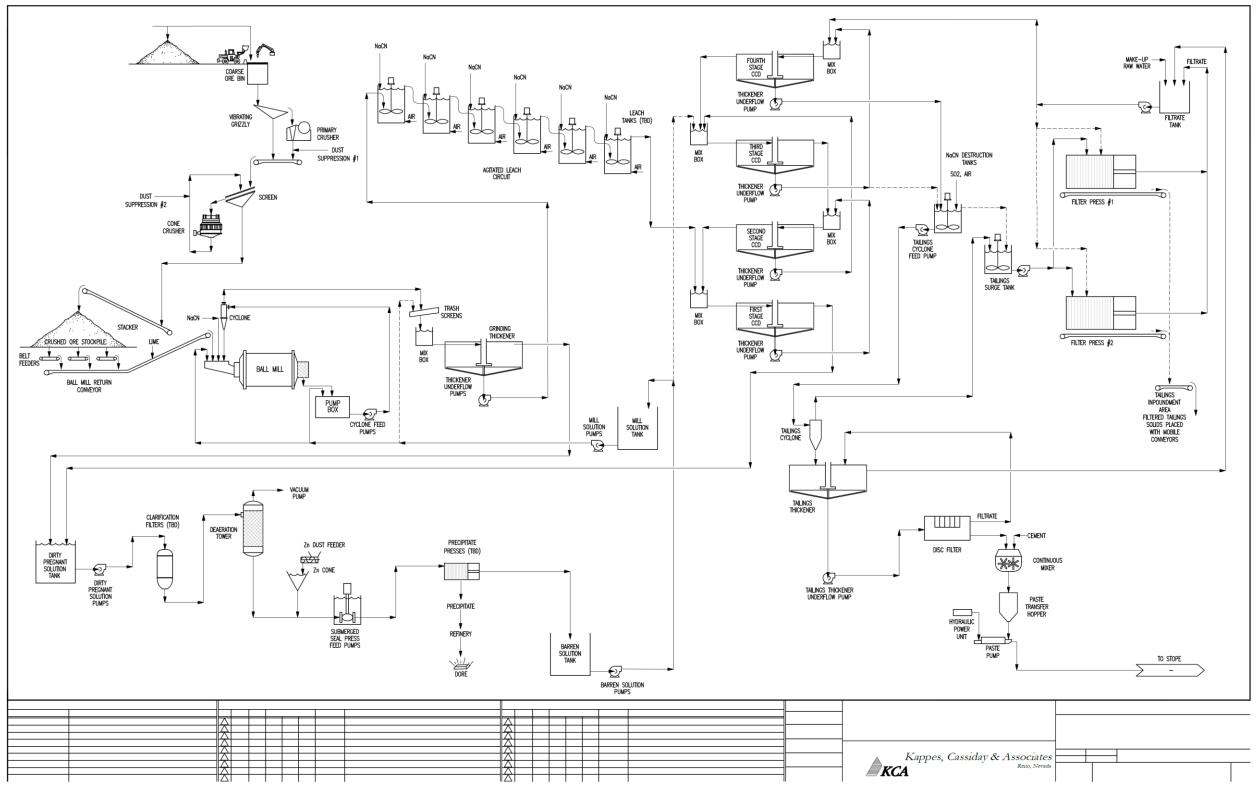


Figure 17-2 Simplified Process Flowsheet





17.2 PROCESS DESIGN CRITERIA

The proposed process plant will consist of the following operating units:

- / Primary crushing of the Run of Mine mineral (ROM).
- / Secondary crushing of the primary crushed mineral.
- / Grinding circuit consisting of a ball mill with hydrocyclones producing a final product of P80 45 microns.
- / Carbon in Leach (CIL) tanks with a retention time of 96 hours.
- / Counter-current decantation thickeners to collect pregnant solution and wash tailings.
- / Tailings dewatering consisting of a thickener, cyclones and filter presses with filter cake stored in a tailings management facility.
- / Paste backfill plant to mix sized tailings with cement and pump thickened tails underground.
- / Merrill-Crowe circuit with a deaeration tower, filtration and a refinery to precipitate the precious metals and smelt to produce doré.
- / Reagent storage and makeup systems.
- Water systems (potable water, fresh water, gland seal water and process water).

Key process design criteria are summarized in Table 17-1.

Table 17-1 Key Process Design Criteria

140	ie 17-1 Key Flocess Design Citteri	u	
	<u>Description</u>	<u>Metric</u>	<u>Units</u>
	General Site Conditions		
Location			
Country	USA		
State	Nevada		
County	Esmeralda		
Elevation		1,700	m
Power Source	Line Power, Potential Upgrade		
Water Source	Existing Wells/ Mine Dewatering		
Process			
General			
Operation, d/a	365		
Operation, h/d	24		
Throughput, Daily		1,500	tpd
Throughput, Annual		547,500	tpa
Gold Recovery for Non-Victor Material		95%	
Silver Recovery for Non-Victor Material		88%	
Gold Recovery for Victor Material		97%	





PRELIMINARY ECONOMIC ASSESSMENT TONOPAH WEST SILVER-GOLD PROJECT BLACKROCK SILVER CORP.

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	<u>Description</u>	<u>Metric</u>	<u>Units</u>
Silver Recovery for Victor Material		90%	
Laboratory Cyanide (CN) Consumption		2.18	kg/t
Laboratory Lime Consumption		0.89	kg/t
Lab to Field CN Design Factor	0.33		
Lab to Field Lime Design Factor	1		
Field Cyanide Consumption		0.72	kg/t
Filed Lime Consumption		0.89	kg/t
Crushing			
Crusher Availability	75%		
Crushing Rate		2,000	tpd
Crusher Configuration	Modular 2 Stage Conventional		
Crusher Feed	Loader Reclaim/ Truck Dump		
ROM Feed, F80		400.00	mm
Primary Crusher	Metso C106 or Equiv.		
Attached Power		120.00	kW
Secondary Crushing	Closed Circuit		
Secondary Screen	Metso Compact CVB1540-2 or Equiv		
Deck 1		14.00	mm
Deck 2		7.00	mm
Secondary Crusher	Metso HP300 std Fine or Equiv.		
Attached Power		220.00	kW
CSS		14.00	mm
Final Crushed Product Size, P80		4.12	mm
Grinding	One Stage Closed Circuit Ball Mill		
Mill Availability	95%		
Grinding Rate		1,579	tpd
Grinding Rate		66	tph
Bond Work Index Estimated		18.00	kWh/
Feed Size, F80		4,120	um
Product Size, P80		45.0	um
Mill Lime Addition		0.89	kg/t
Total Attached Power		1,800	kW
Leaching and Recovery			
Circuit Type	Agitated Tank Leaching		
Slurry Leach Time, hours	96		
Number of Leach Tanks	6		
Tank Type	Agitated Tank with Sparged Aeration		
Recovery Plant Type	Merrill-Crowe		
Annual Au Production		1,301.68	kg
Annual Ag Production		99,872.76	kg
Annual Metal Production (Au+Ag)		101,174.44	kg





	<u>Description</u>	Metric	<u>Units</u>
Make-Up Water Requirement			
Plant		10.2	m3/h
Tailings Dust Control		3.9	m3/h
Road Dust Control		0.9	m3/h
Personnel		0.5	m3/h
Total		15.5	m3/h
Tailings Management			
Circuit Type	Filtered Tailings		
Number of Filters	2		
Filter Type	Filter Press		
Tailings Impoundment Type	Dry-Stacked Tailings and Paste Backfill		
Dry-Stacked Tailings Facility Annual Tonnes	80%	438,000	tonnes
Paste Backfill Annual Tonnes	20%	109,500	tonnes
Paste Backfill Binder Type	Cement		
Estimated binder requirement	3%		
Annual Cement Consumption		3,285	tonnes

17.3 PROCESS PLANT DESCRIPTION

17.3.1 Crushing and Grinding

Mineralized material from the underground mine will be transported to the plant and will be stockpiled. A loader will feed material from the stockpile into a ROM bin. Material will be withdrawn from the ROM bin by a vibrating grizzly. Oversize material from the grizzly will report directly to the jaw crusher, which will operate in open circuit. A rock breaker will be installed to assist in breaking down oversize material retained above the jaw crusher.

A primary crusher discharge conveyor will collect the undersize from the grizzly as well as the jaw crusher and transport the combined product to a double decked inclined vibrating screen. The screen will operate in closed circuit with a cone crusher, reporting the undersize to a crushed material stockpile. The product from the secondary crushing circuit will be approximately 80% passing 4.5 mm.

Belt feeders will reclaim material from the crushed material stock pile and a conveyor will feed the crushed material to a ball mill. Ball mill discharge will report to the cyclone feed pump box. Slurry from the cyclone feed pump box will be pumped to a cluster of hydrocylones for size classification. The cyclone overflow, at a final target product P80 of 45 microns, will feed a trash screen and then flow via gravity to the grinding thickener.





17.3.2 Leaching and Counter-Current Decantation

The slurry will be thickened to 50% solids and the grinding thickener underflow pump will transfer the slurry to the six carbon in leach (CIL) tanks in series with a total leach time of 96 hours. After the gold and silver are leached, the slurry will be thickened in a series of counter-current decantation (CCD) thickeners. Underflow pumps will advance the thickened slurry through the series of thickeners. Water from the tailings filtration will be added to the last thickener and solutions from each thickener will be pumped to the previous thickener in the series. This washing will minimize gold, silver and cyanide losses to tailings.

17.3.3 Cyanide Destruction and Tailings Handling

The underflow from the final thickener will be pumped to an Inco SO_2 cyanide destruction circuit. A sodium metabisulfite solution preparation system with variable speed peristaltic dosing pumps will feed the tanks. Air will be sparged into the reactor tanks. Copper sulfate ($CuSO_4 \cdot 5H_2O$), which is used as a catalyst to precipitate ferrocyanide, will also be added. Hydrated lime will be added as needed to control pH. The copper sulfate and lime will be prepared as solutions and added via variable speed peristaltic pumps.

After cyanide destruction, the slurry can be sent directly to the tailings filters surge tank or to the paste plant for backfilling underground. The paste plant will utilize hydrocyclones to give a size separation of tailings particles. This report assumed that 20% of the tailings material will meet the size requirements for structural fill underground. The underflow from the cyclones will feed a thickener and subsequent disk filter for dewatering. After dewatering, the filter cake will be mixed with cement in a continuous mixer and pumped underground for backfill. The overflow from the hydrocyclones will be fed to the tailings filter surge tank.

The tailings will be dewatered in press filters and stacked by trucks in a dry-stacked tailings storage area.

17.3.4 Merrill-Crowe and Refinery

The solution from the first CCD thickener will be pumped to the dirty pregnant solution tank at the Merrill-Crowe plant. The dirty pregnant solution will be pumped through clarification filters to remove solids before the solution is deaerated in a vacuum tower. Zinc dust will be added to the deaerated solution, which precipitates the gold and silver. The precipitate will be captured in filter presses and then refined into doré bars.

17.3.5 Reagents

Reagents consumed within the process plant will be prepared on site and distributed via various reagent handling and makeup systems. These reagents include sodium cyanide, sulfur dioxide, copper sulfate, hydrated lime, flocculant and zinc dust.





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For the management of unexpected reagent spills, the reagent preparation and storage facilities will be located within containment areas deigned to accommodate volumes that exceed the maximum content capacity of the largest tank. Where required, each reagent system will be located within its own containment area to facilitate its return to its respective storage vessel and to avoid mixing of incompatible reagents. Storage tanks will be equipped with level indicator, instrumentation, and alarms to ensure spills do not occur during normal operation. Appropriate ventilation, fire and safety protection, eye wash stations and showers, and material safety data sheets stations will be located throughout the facilities. Sumps and sump pumps will be provided for spillage control.

Sodium Cyanide (NaCN)

Cyanide will be used for leaching and will be mixed onsite using an SLS (Solid to Liquid) Cyanide mix system. Cyanide will be delivered in certified containers in solid form. At site, process solution will be added to a dissolution tank and circulated through the delivery container back to the dissolution tank at ambient temperatures. Once the cyanide is completely dissolved, the connecting hoses and pipes will be cleared pneumatically to ensure there is no remaining cyanide solution in the delivery container or piping. The concentrated cyanide solution (25% NaCN by weight) will then be transferred to a Cyanide storage tank for delivery to the process by metering pumps.

Hydrated Lime

Hydrated Lime will be used as a pH modifier and will be supplied in bulk to be stored in a silo. Hydrated lime will be added into a mix tank to prepare a milk of lime slurry with fresh water before addition to the process.

Sodium Metabisulfite (NaS₂O₅)

Sodium Metabisulfite will be delivered in 1000 kg super-sacks. It will be utilized to destroy cyanide compounds in tailings before filtration. The sodium metabisulfite will be prepared as a solution and added via metering pumps.

Copper Sulfate

Copper sulfate ($CuSO_4 \cdot 5H_2O$) will be delivered in 1000 kg super-sacks. It will be added as a catalyst to precipitate ferrocyanide in the cyanide destruct circuit. The copper sulfate will be prepared as a solution and added via metering pumps.

Flocculant

Flocculant will be used to aid settling in the thickeners and filtration. Flocculant will be received in 50 lb bags on pallets.





Zinc

Merrillite zinc dust (or similar) will be added to the zinc cone every shift and consumption is at an assumed rate of three times the metal precipitated.

Lead Nitrate

Lead Nitrate will be delivered in 25 kg sacks, mixed at site and metered to the zinc cone at a rate of 10% of the zinc addition rate, if needed.

Diatomaceous Earth

Diatomaceous earth will be used for pre-coating the filters in the Merrill-Crowe plant.

Fluxes

Various fluxes will be used in the smelting process to remove impurities from the bullion in the form of a glass slag. The normal flux components will be a mix of silica sand, niter, borax, and sodium carbonate (soda ash). The flux mix composition is variable and will be adjusted to meet individual project smelting needs. Dry fluxes will be delivered in 25-kg or 50-kg bags. Average consumption of fluxes has been estimated at 1.75 kilograms per kg of gold and silver produced.

17.3.6 Process Water Balance

The makeup water requirement for the mill is low due to the re-use of water after tailings filtration. The makeup water requirement for the process plant is estimated at 10.2 m³/h.

17.3.7 Process Power Requirement

The raw/fire water tank will have the bottom dedicated to fire water use while the remaining volume will provide raw water to the process facilities. From the raw/fire water tank, the raw water needs in the process area will be met. A dedicated set of fire water pumps, one electric and one diesel powered, will deliver fire water should a fire event occur.





18 PROJECT INFRASTRUCTURE (ITEM 18)

The overall site plan includes an underground mine, waste rock dump, mine shop, crushing plant, process plant and the main access road.

18.1 ROADS

The Project is located adjacent to Tonopah, Nevada in Nye and Esmeralda Counties. The site is accessed via US Route 95 which is a paved, two-lane highway. US Route 95 is a major corridor for truck traffic between southern and northern Nevada. Turn lanes to facilitate traffic at the turnoff to the mine are not expected to be required. Internal roads will provide access between the process plant, crusher and mine facilities. In general, the site roads will be constructed on fill and can be maintained with a motor grader.

18.2 PROJECT BUILDINGS

Site buildings for the Tonopah West Project will generally be modular buildings. Site buildings include:

- / Administration Building;
- / Security Building (Gatehouse);
- / Process Office;
- / Process Maintenance Shop;
- / Mine Maintenance Shop;
- / Portable Restrooms.

18.2.1 Administration Building

The Administration Building will be a 64 ft x 36 ft modular building located on a platform adjacent to the main access road and to the west of the Process Plant platform.

The platform includes parking for the office.

18.2.2 Process Office

The Process Office will be a 40 ft x 8 ft modular building located on the Process platform.

18.2.3 Mine Office

The Mine Office Building will be a 24 ft x 64 ft modular building located on a platform adjacent to the waste rock dump.





18.2.4 Process Maintenance Shop

The Process Maintenance Shop will be constructed from two sea containers placed on either side of an open courtyard. The sea containers and courtyard will be covered by a steel roof. The Process Maintenance Shop is located on the same platform as the Crusher.

The sea containers will provide space for parts storage. The center courtyard will provide a work area that is protected from the rain or sun.

18.2.5 Mine Maintenance Shop

The Mine Maintenance Shop will be located on the same platform as the Mine Office.

18.2.6 Restrooms

Modular restrooms will be located on the Process Plant platform, the Crusher Platform and adjacent to the Mine Office Building.

18.2.7 Security Building

A small gate house will be located on the entry road to the mine.

18.2.8 Fenced Area

Accessible property boundaries will be protected by a three strand, barbed wire fence.

18.2.9 Reagent Storage

Cyanide will be stored in dedicated areas of the process facilities. There is no specific area for storing virgin carbon, which can be stored on the ground.

18.3 Power

The project is located adjacent to the Tonopah West Substation. The station has a current capacity of 7MW. The process plant and infrastructure portion of the project installed power is estimated at 5.67 MW with an average draw of 4.50MW. To serve the load required by Tonopah West, the 60kV system at the Tonopah West Substation is insufficient and a new 120 kV switching station will be required. NV Energy plans to upgrade the station to 14MW in 2025, but this project has been pushed back multiple times. There could be some opportunity to work with NV Energy in combining the upgrade for the plant with the planned upgrade.

18.4 COMMUNICATIONS

A local utility will provide high speed internet access onsite. The internet connection will be used to provide Voice over Internet Protocol phone service.

A handheld radio system will also be supplied for process and mining personnel.





18.5 WATER

Water will be supplied from existing or future wells and underground dewatering. The estimated makeup water for operations is presented in Table 18-1.

Table 18-1 Process Water Requirements

Make-Up Water Requirement		
Plant	10.2	m3/h
Tailings Dust Control	3.9	m3/h
Road Dust Control	0.9	m3/h
Personnel	0.5	m3/h
Total	15.5	m3/h

Any excess water from dewatering underground will need to be returned to the ground through a Rapid Infiltration Basin (RIB). A 16 acre-ft pond is considered to accommodate a 72-hour spike in solution flow from underground dewatering, as has been observed in previous operations in the area. The RIB will be located across the highway as presented in Figure 18-1.





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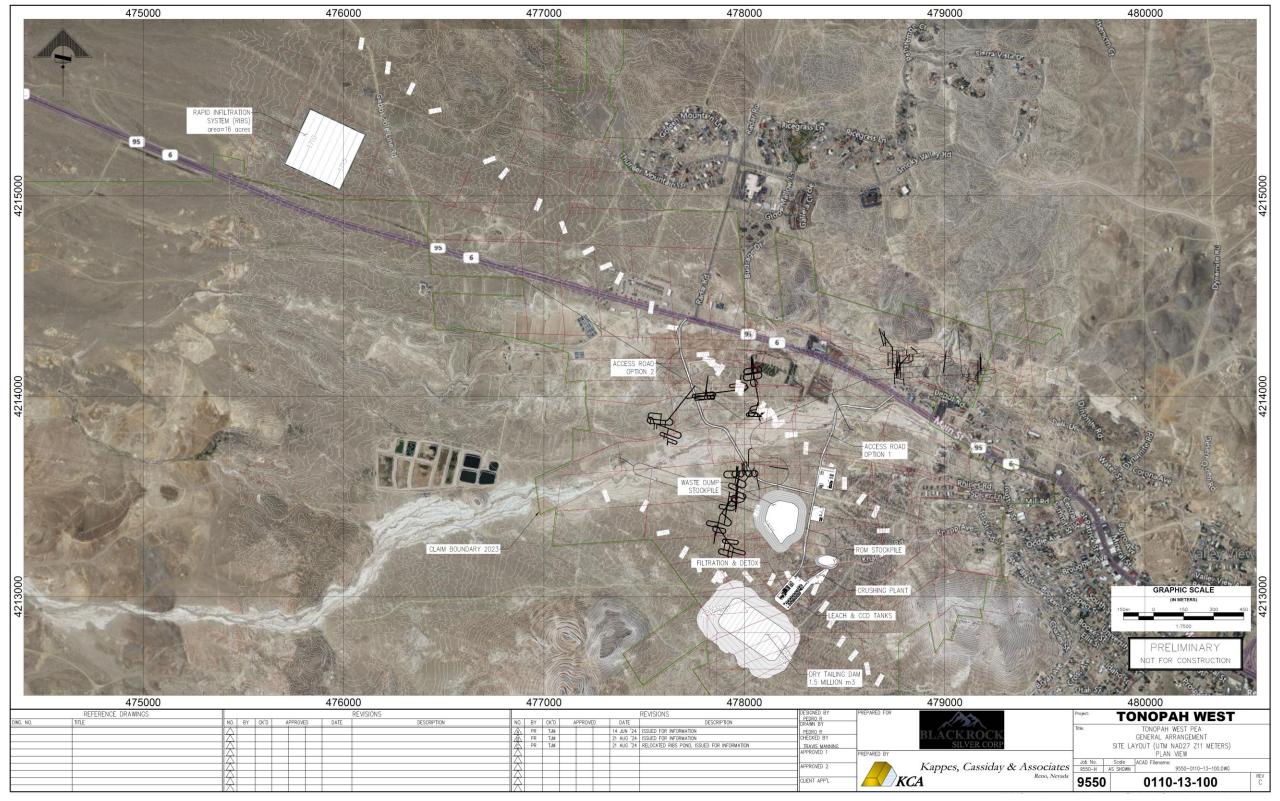


Figure 18-1 Overall Site Layout





19 Market Studies and Contracts (ITEM 19)

This Section is not applicable to the Tonopah West project.





20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT (ITEM 20)

Blackrock currently has a permit to conduct exploration activities at the Tonopah West Project with the Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) (Nevada Reclamation Permit No. 0410). Those permits allow 65.8 acres of surface disturbance on the private land.

20.1 Permitting and Baseline Studies

This section of the Technical Report summarizes the permits that will likely be required to conduct mining activities at the Tonopah West Project. The details of the mine area and activities are not well defined at this time. However, some general design criteria are known. The Tonopah West Project will be an underground mining operation with associated surface facilities including, a waste rock dump, a mill, tailings facility, paste backfill plant, rapid infiltration basins, and administrative facilities.

20.2 PROJECT DESIGN

Access to the Project is from US Route 95 on the west side of the Town of Tonopah. In general, the proposed mine operations will consist of a mine portal and underground mine, waste rock storage area, the processing of the material will use a floating mill, and a dry-stack tailings facility. Blackrock plans the construction, operation, reclamation, and closing of this mining operation. Major components include:

- / Mine portal;
- / Waste rock storage area;
- / Backfill plant;
- / Crushing and conveying system;
- / Leach mill and Merrill-Crowe precipitation plant;
- / Refinery;
- / Reagent area;
- / Laydown areas;
- / A water delivery and distribution system;
- / Power supply from the regional power grid;
- / A power delivery and distribution system;
- / Rapid infiltration basin water management;
- / Storm water diversion ditches and storm water sediment basins;
- / Haul roads;
- / Access road to the project; and
- / Truck shop, warehouse, fuel storage, and laboratory.





Blackrock proposes to mine approximately 1,500 tonnes per day of mill-grade mineralized material and waste rock. The life of the operation will be 10 years, including construction and processing. A 1.4 million tonne waste rock storage area and a 2.9 million tonne tailings storage area would be created by the end of operations. A portion of the waste rock and tailings would be used for backfilling the underground workings.

The mineralized material and waste rock would be extracted from the underground mine using conventional stoping mining methods of drilling, blasting, mucking, and hauling. Blackrock would use hydraulic loaders to load the blasted mineralized material and waste into the haul trucks. The haul trucks would transport the waste rock to the rock storage area near the portal. The haul trucks would also transport the mineralized material to a load-out location, where a loader would transfer the material to the crushing system where the mineralized material would be crushed and delivered to the mill for processing. A Merrill-Crowe process would be used to precipitate the precious metals. The precipitate would then be treated in a retort and then refined in a furnace to produce doré bars for shipment off site. The project facilities would disturb over 95.3 acres.

Water management for the Project includes the following:

- 1. Water from the mine portal would be minimal and all would be used in the milling process.
- 2. Approximately 200 gpm would be consumptively used by the Project, including fire water supply.
- 3. Domestic water used for the Project would come from the Town of Tonopah water system.
- Dewatering wells would produce an average of 800 gpm, with occasional peak flows of 2,000 gpm.
- 5. RIBs would be designed to handle 600 gpm, and assumed to cover 15 acres, based on an assumed infiltration rate of 0.10 inches per hour.
- 6. A fresh water pond, design to hold 16 acre-feet of water, would handle the occasional peak flows (2000 gpm, less 200 gpm, less 600 gpm) for a 72-hour period.

20.3 Environmental Baseline Data Needs

Blackrock's current baseline characterization activities have been focused on geochemical characterization for resource and reserve assessments. Blackrock has not initiated the environmental baseline data collection studies that are necessary to support the permit application submittals. Environmental baseline data collection that will be necessary to complete permit applications includes; a groundwater characterization, a geochemical characterization of the waste rock, backfill materials and tailings, and a botanical assessment of the reclamation standards. The scheduling of this work needs to be coordinated with the overall Project development schedule.





Geochemical characterization of waste rock, backfill materials, and tailings will include both static and kinetic testing. The static testing includes Meteoric Water Mobility Procedure (MWMP) chemical analysis, net acid generation (NAG) testing and Acid-Base Accounting (ABA) testing. Results of the static testing will be used to guide the kinetic testing, which are humidity cell test (HCT) analyses.

The hydrologic characterization testing would include the installation of ground water wells and piezometers. One or more groundwater pump tests would be conducted to better understand the groundwater system and the overall dewatering and water supply requirements. Collection of water quality data would begin once the groundwater wells are installed.

The baseline condition of the vegetation within the project area needs to be documented to establish metrics for the reclamation standards.

In addition, an evaluation of the rapid infiltration basin (RIB) location would be completed to determine the infiltration rates, adsorption capacity, depth to groundwater and the groundwater quality. Geotechnical evaluations will be completed to support the engineering design for the Project facilities.

20.4 PROJECT PERMITS

In order to conduct mining and processing activities, the Project will need specific permits from the State of Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR), as well as other state agencies. The following is a list of the major permits that will be required followed by a brief discussion of each. None of the permits are currently in the application stage.

- / Nevada Reclamation Permit;
- / Water Pollution Control Permits;
- / Air Quality Operating Permit;
- / Water Rights;
- / Industrial Artificial Pond Permit; and
- / Encroachment Permit.

20.4.1 Nevada Reclamation Permit Application

The Nevada Reclamation Permit (NRP) application will describe the operational procedures for the construction, operation and closure of the Project. As required by the BMRR, the NRP application will include a waste rock management plan, a storm water spill contingency plan, reclamation plan, a monitoring plan and an interim management plan. In addition, the NRP application includes a Reclamation Cost Estimate for the closure of the Project. The mine design must be completed prior to submittal of the NRP application.





20.4.2 Water Pollution Control Permit Applications

Two Water Pollution Control Permit (WPCP) applications will be required for this project. One will be for the mining operation and must address the underground mine, waste rock dump, heap leach pad, mining activities and the water management system, as well as the potential for these facilities to degrade waters of the state. The other will address the management of the dewatering water. The application includes an engineering design for the mill, tailings storage area, and waste rock dump. A waste characterization report and a modeling report for the closure of the tailing storage facility and waste rock dump. In addition, an engineering design for the water management system is required.

The second WPCP application is for the water filtration system. This application requires an evaluation of the subsurface conditions and depth to, and chemical characteristics of, the groundwater. Also, a design for the RIBs needs to be included in the application.

A Tentative Permanent Closure Plan must also be completed and submitted to the NDEP-BMRR in conjunction with the WPCP. A Final Permanent Closure Plan will need to be developed two years prior to Project closure.

20.4.3 Air Quality Operating Permits

An Application for a Class II Air Quality Permit for those portions of the stationary source that have the potential to emit pollutants must be prepared using Bureau of Air Pollution Control (BAPC) forms. The Application includes a description of the facility, a detailed emission inventory, and an air quality modeling report. The Application also includes locations, plot plans and process flow diagrams. The Application must also include a fugitive dust control Plan to be used during construction and operation of the Project.

In addition, the facility will be processing Merrill-Crowe precipitate, and a Mercury Operating Permit application will be necessary, which will have to address the necessary state mercury control requirements.

20.4.4 Water Rights

Water rights will need to be obtained from the Nevada Division of Water Resources (NDWR) to consumptively use groundwater for the mining and processing operation and to provide water for the public water system. An additional water right will be needed for the dewatering operation, which will require the return of that water to the groundwater system in the same basin.

20.4.5 Industrial Artificial Pond Permit

The development of the water storage pond, which is part of the water management system, will require an Industrial Artificial Pond Permit (IAPP) from the Nevada Department of Wildlife, if the water has the potential to be detrimental to wildlife.





20.4.6 ENCROACHMENT PERMIT

In order to complete the Project access roads and connect them to US Highway 95, an Encroachment Permit from the Nevada Department of Transportation (NDOT) will be required. Initial meetings with NDOT would confirm the required designs for the intersections. The application would include design drawings and a description of the intersections and use.

20.4.7 Minor Permits and Applications

In addition to the above noted permits, Table 20.1 lists potential other notifications or ministerial permits that will likely be necessary to conduct the mining operations.

Notification/Permit Agency Mine Registry **Nevada Division of Minerals** Mine Opening Notification State Inspector of Mines Solid Waste Landfill Nevada Bureau of Waste Management Hazardous Waste Identification Number **US Environmental Protection Agency** Hazardous Waste Management Permit Nevada Bureau of Waste Management Hazardous Materials Permit State Fire Marshall Fire and Life Safety State Fire Marshall Bureau of Alcohol, Tobacco, Firearms and Explosives **Explosives Permit** Notification of Commencement of Mine Safety and Health Administration Operation Radio License **Federal Communications Commission** MSHA Identification Number and MSHA U.S. Department of Labor Mine Safety and Health Coordination Administration (MSHA) Septic Tank NDEP - Bureau of Water Pollution Control Petroleum Contaminated Soils NV Division of Environmental Protection

Table 20-1 Required Minor Permits and Notifications.

20.5 EXISTING ENVIRONMENTAL CONDITIONS

There are currently no known environmental issues have been identified at the Tonopah West Project site that would materially affect the current mine design or scope of the needed environmental permits. Future testing to determine the geochemical characteristics, as discussed below, of the waste rock will be able to address the potential for acid generation and metals leaching.

Mill tailings from the early 1900s were deposited in the drainage that crosses the project area in an east to west direction, south of the highway. The tailings are very fine-grained and support limited vegetation. Thay are highly susceptible to erosion. However, due to the very limited precipitation in the area, erosional events appear to be infrequent, and no leaching of constituents in the tailings is apparent.





20.6 SOCIAL AND COMMUNITY

The project is located partially within the Town of Tonopah and to the west of the town. The project straddles the boundary between Nye and Esmeralda counties. US Highway 95 cuts through the northern portion of the project area. To date, Blackrock has not completed the development of a community engagement plan; however, Blackrock has attended the Nye County commission meetings and the Tonopah Town Board meetings. In addition, Blackrock has also contributed to the Tonopah school district, UNR extension, and the Tonopah Mining Park, as well as other community events. Blackrock has not initiated discussion with the federal or state regulatory agencies.

20.7 WASTE CHARACTERIZATION

Blackrock will need to complete a mine waste characterization program as part of the planning and impact assessment for the project. Geochemical testing of mine waste materials provides a basis for assessment of the potential for metal leaching ("ML") or acid rock drainage ("ARD"), prediction of contact water quality, and evaluation of options for design, construction, and closure of the mine facilities. This work also supports the next phase of the project's potential advancement, including permitting. The characterization effort focuses on the assessment of waste rock geochemistry and evaluation of tailing material from mineral benefaction processes.

Geochemical characterization is an iterative process and sample collection for the project is being completed in phases. The first phase involves the collection of samples from core generated during the exploration drilling activities and conducting static geochemical testing. Subsequent phases of the characterization program would focus on improving the spatial representation of the dataset as drill core from the ongoing exploration and geotechnical drilling becomes available, as well as completed additional static testing and completed kinetic testing.

20.8 CLOSURE AND RECLAMATION STRATEGY

A comprehensive reclamation and closure plan would be developed for all disturbances and infrastructure associated with the project. Reclamation objective standards established by industry best practices and regulatory requirements for reclamation would be fulfilled. Blackrock would seek to develop an economic mine plan and closure/reclamation strategy that integrates habitats and restoration components. It is anticipated that the reclamation and closure of the tailings facility would consist of fluid management through first active and then passive evaporation and then discharge of any long-term discharge in a leach field, either with or without treatment. The reclaimed facilities will be covered with growth media, and then revegetating. The estimated reclamation costs for the project, which establish the reclamation bond amount, using the Nevada Standardized Reclamation Cost Estimator, is approximately \$8.8 million. Assuming a five percent annual cost for surety to place the reclamation bond and no matching equity, the annual cost for the reclamation bond is \$440,000. The





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costs for Blackrock to reclaim and close the Project once operations are completed are estimated at \$3.9 million dollars.

The goals of this reclamation and closure plan are expected to evolve based on cooperative discussions, and public and regulatory input; however, the initial goals include:

- / Protecting water quality;
- / Restricting or eliminating the migration of potential contaminants of concern from all sources based on the proposed mine plan;
- / Restricting or eliminating potential public safety risks associated with the potential decommissioned and reclaimed mine site;
- / Restoring the property, to the extent possible, to the current pre-mining conditions; and
- / Improving the property by incorporating environmental mitigation projects as identified through the permitting process.





21 CAPITAL AND OPERATING COSTS (ITEM 21)

21.1 UNDERGROUND MINING CAPITAL INFRASTRUCTURE AND OPERATING COSTS

Blackrock plans to self-perform the majority of the lateral development and level-to-level drop raises. They will use contracted assistance for the initial portal development. Ventilation boreholes and the rehabilitation of the existing shafts will be contracted. New ramp access is planned to the Victor and DPB veins. The existing Tonopah West, McKane and Victor shaft will be repaired and connect to the new ramp system for ventilation and emergency egress. The Tonopah West shaft is the shallowest and appears to be open down to the level where the new decline will intercept it for the first ventilation tiein. A top-town Alimak with an underslung work deck was estimated for rehabilitating this shaft. The decline intersection point of the McKane shaft is below the current water table as is the connection to the Victor shaft. Both of these shafts are relatively open, however there is evidence of blockages. A full depth remote inspection has not been completed for these shafts; therefore, a conventional top-down set-up is planned with a work deck, winches, headframe, hoist and service cage. The McKane is scheduled first followed by the Victor. Equipment such as the work deck, hoist and winch ropes should be able to be reused for the Victor. A vertical ventilation borehole is planned from the surface between the McKane and Victor shafts. All this vertical development will be contracted, and contractor labor and equipment rental rates were used in the estimates. Labor costs and bottom-line contingency costs are calculated and itemized separately. Material, equipment and labor and contract labor costs are based on other like/kind operations and represent current Nevada operating conditions. Major capital expenses are itemized. Installation and supply costs for air, water, and discharge pipelines; secondary fans and ventilation lines; electrical and communications cables; face and booster pumps are included in the mining cycle costs. Dedicated exploration access ramps and diamond drilling is also included in capital.

The underground development detail and schedule is shown in Table 21-1 and Table 21-2 shows the capital summary.





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Table 21-1 Tonopah West Underground Development Detail and Schedule

Tonopah West Underground		Total	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Development Summar	ν .		Develo	opment Ex	penditure	Schedule -	Continger	ncy Include	ed - US\$(0	00's)
Blackrock Development	Meters									
Primary Declines	3,563	\$16,655		\$8,978	\$5,511	\$2,165				
Victor Decline	2,513	\$10,171				\$1,393	\$3,752	\$3,274	\$1,752	
DPB Decline	7,738	\$31,569			\$7,662	\$7,309	\$7,503	\$5,877	\$3,217	
Victor Cross Cuts	1,989	\$8,053				\$546	\$2,251	\$2,212	\$2,185	\$859
DPB Cross Cuts	7,036	\$28,629			\$3,065	\$5,116	\$5,252	\$5,161	\$5,081	\$4,953
Primary Ventilation Cross Cuts	2,275	\$9,406		\$863	\$1,492	\$1,443	\$1,476	\$1,456	\$1,437	\$1,238
UG Work Stations (shop)	90	\$967		\$516				\$451		
Miscellaneous - (Note 1)		\$1,610		\$539	\$331	\$213	\$225	\$196	\$105	
Exploration Development	2,858	\$11,653			\$1,387	\$2,403	\$2,467	\$2,424	\$2,395	\$578
Sub-Total Blackrock Developm	nent	\$118,712	\$0	\$10,896	\$19,449	\$20,587	\$22,926	\$21,052	\$16,173	\$7,628
Contactor Vertical Developme	nt									
Internal Drop Vent Raises	1,312	\$3,621		\$44	\$596	\$596	\$596	\$596	\$596	\$596
Bore Hole	344	\$6,725			\$6,725					
Shaft Rehabilitation										
Tonopah West	133	\$994		\$994						
McKane	407	\$11,982				\$11,982				
Victor - (Note 2)	441	\$11,157						\$11,157		
Sub-Total Vertical Developmen	nt	\$34,480	\$0	\$1,038	\$7,321	\$12,578	\$596	\$11,753	\$596	\$596
Total Mine Development - \$U	SD (000's)	\$153,192	\$0	\$11,935	\$26,770	\$33,166	\$23,522	\$32,806	\$16,769	\$8,224
Other Capex										
Diamond Drilling		\$6,29 7	\$0	\$0	\$1, 7 99	\$1,000	\$1,000	\$1,000	\$1,000	\$500
Mobile Equipment		\$43,130	\$6,296	\$4,789	\$19,099	\$1,242	\$3,407	\$5,849	\$2,447	
Mine Infrastructure		\$8,818	\$810	\$2,100	\$4,902	\$285	\$3	\$572	\$3	\$144
Mining G&A		\$1,506		\$1,046	\$460					
Mine Power		\$1,258		\$874	\$384					
Sub-Total Other Capex		\$61,009	\$7,106	\$8,808	\$26,645	\$2,526	\$4,410	\$7,421	\$3,450	\$644
Total Mine Development - \$U	SD	\$214,201	\$7,106	\$20,743	\$53,415	\$35,692	\$27,932	\$40,227	\$20,219	\$8,867

Note 1: Miscellaneous includes muck bays, sumps, vent XC's, power bays, etc.





Note 2: Reuses some of McKane Rehab Gear

Note 3: Contingency on Diamond Drilling 5%; Mining G&A and Mine Power is 10%; all other Capital is 15%

Note 4: Columns may not total due to rounding

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Table 21-2 Tonopah West Underground Capital Summary

	rable 21 2 ronopan west onacistodia capital sammary								
Tonopah West Underground	Total	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Capital Summary		Direct D	evelopment l	Expenditure S	chedule - Con	tingency Incl	uded - US\$ (0	00's)	
Mine Development	\$133,210		\$10,378	\$23,279	\$28,840	\$20,454	\$28,527	\$14,582	\$7,151
Contingency 15%	\$19,982		\$1,557	\$3,492	\$4,326	\$3,068	\$4,279	\$2,187	\$1,073
Equipment	\$37,504	\$5,475	\$4,164	\$16,608	\$1,080	\$2,963	\$5,086	\$2,128	\$0
Contingency 15%	\$5,626	\$821	\$625	\$2,491	\$162	\$444	<i>\$763</i>	\$319	\$0
U/G Infrastructure	\$7,668	\$704	\$1,826	\$4,263	\$248	\$3	\$498	\$3	\$125
Contingency 15%	\$1,150	\$106	<i>\$274</i>	\$639	<i>\$37</i>	\$0	<i>\$75</i>	\$0	\$19
U/G Diamond Drilling	\$5,998			\$1,714	\$952	\$952	\$952	\$952	\$476
Contingency 5%	\$300			<i>\$86</i>	\$48	\$48	\$48	\$48	\$24
Mining G&A	\$1,369		\$951	\$418					
Contingency 10%	\$137		<i>\$95</i>	<i>\$42</i>					
Mine Power	\$1,144		\$794	\$349					
Contingency 10%	\$114		<i>\$79</i>	\$35					
Total	\$214,201	\$7,106	\$20,743	\$53,415	\$35,692	\$27,932	\$40,227	\$20,219	\$8,867





The labor rates used are slightly greater than other Nevada underground mines to attract the best miners. Work schedules will be rotating 12-hour shifts with seven consecutive days off in each 28-day rotation with a maximum of 4-days consecutively worked. Staff and hourly labor are scheduled to meet the overall production requirements of capital development and mine operating task for a given period. Capex and Opex was allocated accordingly for the cash flow statements. Crew total requirements per shift were based on estimated labor-per-task efficiencies to determine actual miners required as listed in Section 16 Mining Methods. Training, vacation and other paid time off is estimated at 10.1 %. This is the amount of volunteer overtime listed in the estimate. Increasing the total payroll personnel could reduce this slightly. Both hourly and salary staffing ramps up during the preproduction period as required until the mine reaches full production. Hourly labor is shown in Table 21-3 and salaried labor is shown in Table 21-4.

Table 21-3 Labor Hourly Pay Summary

					•		
Tonopah West Labor	Bonus %	Base	Burden	Overtime	Bonus	Final Cost	Average Wage
Pay Assumptions	_	Wage	40%	1.5 x Base		Blackrock	Employee
Rotating 12-Hour Shifts			USŞ	per hour p	er Base 12	2-hours Worke	d
Miner 1	100%	\$62.00	\$24.80	\$6.26	\$62.00	\$155.06	\$130.26
Miner 2	90%	\$52.00	\$20.80	\$5.25	\$46.80	\$124.85	\$104.05
Miner 3	70%	\$38.00	\$15.20	\$3.84	\$26.60	\$83.64	\$68.44
Bull Gang	30%	\$32.00	\$12.80	\$3.23	\$9.60	\$57.63	\$44.83
Master Mech./Elect.	100%	\$50.00	\$20.00	\$5.05	\$50.00	\$125.05	\$105.05
Mechanic 1	90%	\$42.00	\$16.80	\$4.24	\$37.80	\$100.84	\$84.04
Electrician	90%	\$45.00	\$18.00	\$4.55	\$40.50	\$108.05	\$90.05
Mechanic 2	70%	\$34.00	\$13.60	\$3.43	\$23.80	\$74.83	\$61.23
Fuel Lube	30%	\$30.00	\$12.00	\$3.03	\$9.00	\$54.03	\$42.03

Note 1: Average Burden of 40% applied to base wage only and includes payroll taxes on Overtime and Bonus Payments

Note 2: Overtime includes 9.5% Scheduled plus 10.1% Volunteer 19.1% Total





Table 21-4 Project Management Staffing

Tonopah West Staffing	Quantity	Salary	Burden 35.0%	Subtotal	Total
Technical Services					
Technical Srvcs Manager	1	\$135,000	\$47,250	\$182,250	\$182,250
Sr Engineer	1	\$125,000	\$43,750	\$168,750	\$168,750
Mine Engineer	1	\$90,000	\$31,500	\$121,500	\$121,500
Surveyor	1	\$75,000	\$26,250	\$101,250	\$101,250
Survey Assistant	1	\$65,000	\$22,750	\$87,750	\$87,750
Sr Geologist	1	\$110,000	\$38,500	\$148,500	\$148,500
Mine Geologist	3	\$80,000	\$28,000	\$108,000	\$324,000
Geology Techs	1	\$65,000	\$22,750	\$87,750	\$87,750
UG Mine Staff					
Mine Manager	1	\$175,000	\$61,250	\$236,250	\$236,250
Safety & Enviromental Supv.	1	\$125,000	\$43,750	\$168,750	\$168,750
UG General Foreman	1	\$145,000	\$50,750	\$195,750	\$195,750
UG Crew Foreman	4	\$115,000	\$40,250	\$155,250	\$621,000
Safety Trainer	1	\$66,000	\$23,100	\$89,100	\$89,100
Maintenance Staff					
Maintenance Manager	1	\$125,000	\$43,750	\$168,750	\$168,750
Maintenance Planner	1	\$95,000	\$33,250	\$128,250	\$128,250
Maintenance Foreman	4	\$115,000	\$40,250	\$155,250	\$621,000
Annual Payroll					\$3,450,600
Cost per Month					\$287,550
Cost per Day - Applied					\$9,454

Mining cycle costs have been calculated for all planned development and operating methods assuming Tonopah West owned equipment. Costs include all permanent and consumable materials and equipment operating costs. Waste development costs (Table 21-5) and mine operating costs (Table 21-6) were estimated using discrete task cycle times. The muck and haul cycles were calculated using haul distances based on the centroid of each vein structure. All direct costs are included. Equipment capital costs and labor are scheduled separately. Contingency is not included and is allocated in the bottom -line summaries.

Table 21-5 Waste Development Cycle Costs per Metre

Blackrock Waste	Waste Development based on Average Vein Haul Distance							
Development Rates	Portal to DPB	Portal to DPB	Portal to DPB	Portal to Victor	Portal to Victor			
US\$ per meter	Vein 1	Vein 2	Vein 3	Vein 1	Vein 2			
Drill	\$181.40	\$181.40	\$181.40	\$181.40	\$181.40			
Blast	\$291.25	\$291.25	\$291.25	\$291.25	\$291.25			
Muck & Haul	\$170.01	\$190.09	\$190.09	\$196.79	\$203.48			
Ground Support	\$197.78	\$197.78	\$197.78	\$197.78	\$197.78			
Utilities	\$425.25	\$425.25	\$425.25	\$425.25	\$425.25			
Total Cost/Meter	\$1,265.71	\$1,285.78	\$1,285.78	\$1,292.48	\$1,299.17			

Note 1:No allowance was taken for short hauling waste as GOB fill UG.

Note 2:These are all direct component costs except labor. Labor is tabulated separately

Note 3: Blackrock owned equipment. Maintenance parts and fuel are included.

Note 4: 15% Contingency **not included** above is included in final Capex Cash Flow Estimates

Note 4: Utilities is pipe, electric & comms cables, pumps, secondary ventilation, J-bolts, messenger cable etc.





Table 21-6 Sublevel Mining and Cut & Fill Mining Costs

Blackrock Sublevel	LOS Sublevel Mining based on Average Vein Haul Distance							
Mining Rates US\$ per Tonne	DPB Vein 1 to Stockpile	DPB Vein 2 to Stockpile	DPB Vein 3 to Stockpile	Victor Vein 1 to Stockpile	Victor Vein 2 to Stockpile			
Drill	\$3.31	\$3.31	\$3.31	\$3.31	\$3.31			
Blast	\$4.37	\$4.37	\$4.37	\$4.37	\$4.37			
Muck & Haul	\$3.30	\$3.51	\$3.51	\$3.72	\$3.72			
Ground Support	\$4.15	\$4.15	\$4.15	\$4.15	\$4.15			
Total Cost/Tonne	\$15.13	\$15.33	\$15.33	\$15.54	\$15.54			

Blackrock Panel	LOS Panel (Bench) Mining based on Average Vein Haul Distance							
Mining Rates US\$ per Tonne	DPB Vein 1 to Stockpile	DPB Vein 2 to Stockpile	DPB Vein 3 to Stockpile	Victor Vein 1 to Stockpile	Victor Vein 2 to Stockpile			
Drill	\$2.16	\$2.16	\$2.16	\$2.16	\$2.16			
Blast	\$6.65	\$6.65	\$6.65	\$6.65	\$6.65			
Muck & Haul	\$2.75	\$3.03	\$3.10	\$3.17	\$3.31			
Ground Support	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
Total Cost/Tonne	\$11.55	\$11.83	\$11.90	\$11.97	\$12.11			

Blackrock C&F Mining	Cut & Fill Mining based on Average Vein Haul Distance							
Rates US\$ per Tonne	DPB Vein 1 to Stockpile	DPB Vein 2 to Stockpile	DPB Vein 3 to Stockpile	Victor Vein 1 to Stockpile	Victor Vein 2 to Stockpile			
Drill	\$3.31	\$3.31	\$3.31	\$3.31	\$3.31			
Blast	\$4.37	\$4.37	\$4.37	\$4.37	\$4.37			
Muck & Haul	\$3.30	\$3.51	\$3.51	\$3.72	\$3.72			
Ground Support	\$4.15	\$4.15	\$4.15	\$4.15	\$4.15			
Total Cost/Tonne	\$15.13	\$15.33	\$15.33	\$15.54	\$15.54			

Note 1:These are all direct component costs except labor. Labor is tabulated separately

Note 2: Blackrock owned equipment. Maintenance parts and fuel are included.

Note 3: 10% Contingency **not included** above is included in final Opex Cash Flow Estimates

The primary (80%) backfilling method is CRF using the ejector bed 30-tonne trucks to back-haul and place the product. CRF will be mixed in a surface twin paddle Siemens CRF batch plant near the portal. Since mill tails will be dry-stacked on surface, the mine has included capital for a remix plant and engineered hydraulic fill reticulation system. All mined stopes will be backfilled. Additional test work may demonstrate that more engineered hydraulic may be placed than what is assumed. However, CRF will still be preferred where higher strength pillars are required. A 6% binder (cement) by weight addition was assumed for all backfill although some likely will be placed with less, or zero binder, depending on location and surrounding production activities. A backfill cost of \$12.00 per tonne mined was applied to all production tonnes (Table 21-7).





Table 21-7 Backfill Cost Calculation

Blackrock Backfill	Aggregate	Product	Fill Ratio	Cement	Agg, Admix	Percent
	S.G.	S.G.		Price	& wear parts	Cement
Fill Parameters	2.49	1.80	72%	\$167.00	\$5.00	6.0%
Cost per Tonne BF Product		\$16.56				
Cost per Production Tonne		\$12.00				

Note 1: Fill Ratio is Fill Product Specific Gravity divided Aggregate Specific Gravity

Note 2: Cement Price FOB Tonopah West

21.2 Surface Process Plant Capital, Infrastructure and Operating Costs

21.2.1 Capital Costs

The estimated required capital costs have been based on the process design introduced in this report. The scope of the costs includes all expenditures for process plant, infrastructure, construction indirect cost and owner's costs for the Project. The costs presented have primarily been estimated by KCA. The cost for earthworks, concrete, structural steel and major piping have been estimated by KCA from similar projects in the Western United States.

21.2.1.1 Process and Infrastructure Cost

All equipment is sized based on the design information as described in this report. The budgetary costs have been estimated primarily based on similar projects KCA has completed in the Western United States, with certain escalation factors applied to 2024 US\$.

Each area in the process cost has been separated into the following disciplines, as applicable:

- / Major Earthworks and Liners.
- / Civil (concrete).
- / Structural Steel.
- / Platework.
- / Mechanical Equipment.
- / Piping.
- / Electrical.
- / Instrumentation.
- / Infrastructure and Buildings.
- / Spare Parts.

The total direct capital costs by discipline are presented in Table 21-8.





Table 21-8 Process and Infrastructure Capital by Discipline

Discipline	Cost @ Source	Freight	Sales Tax	Total Supply Cost	Install	Grand Total
	US\$,000	US\$,000	US\$,000	US\$,000	US\$,000	US\$,000
Major Earthworks & Liner	\$299	incl.	\$0	\$299	\$2,417	\$2,476
Civils (Supply & Install)	\$3,627	incl.	incl.	\$3,627	incl.	\$3,627
Structural Steelwork (Supply & Install)	\$1,373	incl.	incl.	\$1,373	incl.	\$3,400
Platework (Supply & Install)	\$1,715	incl.	incl.	\$1,714	\$2,686	\$4,651
Mechanical Equipment	\$29,331	\$1,959	\$2,229	\$33,519	\$9,422	\$42,940
Piping	\$3,027	\$212	\$230	\$3,469	\$3,270	\$6,739
Electrical	\$6,127	\$429	\$466	\$7,021	\$3,727	\$10,748
Instrumentation	\$602	\$42	\$46	\$689	\$874	\$1,563
Infrastructure	\$4,640	-\$81	\$353	\$4,911	\$0	\$4,911
Spare Parts	\$2,013			\$2,013		\$2,013
Contingency	\$15,957			\$15,957		\$15,957
Plant Total Direct Costs	\$68,710	\$2,560	\$3,323	\$74,594	\$22,395	\$99,025

Freight, customs fees and duties, and installation costs are also considered for each discipline. Freight has been estimated at 7% of the equipment cost. Local sales tax is assumed at 7.60% of the equipment cost. Installation costs are based on the installation hours multiplied with a unit installation rate at \$86/hour. Whenever applicable, the installation cost of similar items from recent KCA projects was used.

21.2.1.2 Capital Costs by Discipline

Unit rates for the major earthworks, liners and civils have been estimated by KCA based on recent projects in Nevada, which were applied to material take off quantities. Material take-offs are a combination of measured and factored values based on similar installations.

Structural steel includes steel grating, structural steel, and handrails. The costs for each area were calculated as a percentage of the supplied mechanical equipment cost.

The platework includes tanks, chutes, transfer bins and dump hopper The costs for each area were calculated as a percentage of the supplied mechanical equipment cost.

Costs for mechanical equipment are based on the equipment list developed for all major areas of the process. The equipment cost is estimated based on recent KCA projects with similar process and throughput, cost guides and recent supplier quotes.





Piping includes slurry piping, air piping, water distribution pipes and all other piping in the mill areas and in other facilities. The costs are estimated on a percentage basis of the mechanical equipment supply.

Electrical includes transformers, cables, substations, site powerlines and motor control centers equipment. The electrical costs are estimated as percentages of the mechanical equipment supply cost for each area.

Instrumentation costs are estimated as percentage of equipment cost, which varies based on different process areas.

Infrastructure and buildings for the Tonopah West Project include a new 120kV switching station at Tonopah West, a rapid infiltration basin, an administration building, a process maintenance and warehouse facility, reagent storage and the process plant. The costs are based on KCA's recent projects with a similar process in Nevada and a quote from NV energy for a similar upgrade, inflated to 2024 US\$.

Spare parts costs are estimated at an average 6.9% of the mechanical equipment costs.

Mobile support equipment considered for the project capital cost estimate are summarized in Table 21-9.

Quantity Description 2 Forklift Dozer 1 1 Telehandler Mechanical Service Truck 1 1 Loader 1 Flatbed Truck 5 Pickup Truck 1 Skidsteer

Table 21-9 Process Mobile Equipment

21.2.1.3 Contingency

Contingency for the process plant and infrastructure has been applied to the total direct costs by discipline. Contingency has been applied from 15 to 25% as listed in Table 21-10. The overall contingency for the process and infrastructure is estimated at 21.8% of the direct costs. A global contingency of 15% was applied to the Project. The credit for the global contingency was applied to the total direct process plant and infrastructure cost contingency.





Table 21-10 Process and Infrastructure Contingency

Direct Plant and Infrastructure Costs Contingency	%	Total Costs (\$,000)
Major Earthworks	25	\$619
Civils (Supply & Install)	25	\$907
Structural Steelwork (Supply & Install)	25	\$850
Platework (Supply & Install)	25	\$1,163
Mechanical Equipment	15	\$6,441
Piping	20	\$1,348
Electrical	25	\$2,687
Instrumentation	20	\$312
Infrastructure	25	\$1,228
Spare Parts	20	\$402
Total Direct Plant & Infrastructure Costs Contingency	19	\$15,957

21.2.1.4 Indirect and Owner's Costs

Indirect field costs include temporary construction facilities, construction services, quality control, survey support, warehouse and fenced yards, support equipment, etc. these costs have been estimated based a 22-month schedule for engineering and construction, and reasonable allowance based on KCA's recent experience. The total indirect cost is estimated at \$2.9M.

The owner's cost will cover labor, offices, home office support, vehicle and travel, consultants during construction. The total owner's cost is estimated at \$2.7M.

21.2.1.5 EPCM, Initial Fills and Working Capital

The estimated cost for engineering, procurement and construction management ("EPCM") for the development, construction and commissioning are based on a percentage of the total direct capital cost. The EPCM costs cover services and expenses for the following areas:

- / Project Management.
- / Detailed Engineering.
- / Engineering Support.
- / Procurement.
- / Construction Management.
- / Commissioning.
- / Vendors' Reps.

The total EPCM cost is estimated at 12.0% of the total direct capital cost, approximately \$11.9M.

Initial fills consist of consumable items stored onsite at the outset of operations, which includes grinding media, leaching reagents and filter cloths. The total cost for initial fills is estimated at \$0.45M.





Working capital is used to cover operating costs from start-up until a positive cash flow is achieved, once a positive cash flow is attained, Project expenses will be paid from the earnings. Working capital for this Project is estimated to be \$3.7M based on 60 days of operation process operating costs.

21.2.1.6 Sustaining Capital Costs

Sustaining capital includes expansion to the tailings facility after 2 years and replacement of a pickup truck over the life of the mine. Sustaining costs are estimated at \$0.39M.

21.2.1.7 Reclamation and Closure

An allowance of \$0.50 per tonne of material processed has been included for removal of processing equipment and general site grading at the end of the project. This allowance total is \$1.46M.

21.2.2 Operating Costs

Total Opex for processing at the Project is estimated \$43.37/T processed, including \$5.92/T for G&A. No provision has been included in the operating cost for future escalation. No contingency is applied to operating costs. Costs are provided using Q3 2024 US dollars.

Process plant operating costs have been estimated based on the information extracted from metallurgical tests and experience from KCA's recent projects with similar process in the Western United States. The average annual process costs and unit costs are presented in Table 21-11.

Table 21-11 Process Operating Costs

			Annual	US\$ per
			Costs,	OSŞ Per
	Units	Cost Type	US\$,000	Tonne
Labor - All Process Areas	J.III.S	cost type	004,000	Tomic
Process Labor	persons	Fixed	\$4,542	\$8.296
Laboratory Labor	persons	Fixed	\$ 736	\$1.344
SUBTOTAL			\$5,278	\$9.640
Area 13 - Crushing				
Power	kWh/t	Variable	\$402	\$0.735
966 Loader	h/mo	Fixed	\$279	\$0.509
Wear	\$/t	Variable	\$110	\$0.200
Overhaul / Maintenance	\$/t	Variable	\$110	\$0.200
SUBTOTAL			\$900	\$1.644
Area 20 - Grinding & Thickening				
Power	kWh/t	Variable	\$2,151	\$3.929
Liners (Ball Mill)	kg/t	Variable	\$505	\$0.922
Balls (Ball Mill)	kg/t	Variable	\$961	\$1.756
Overhaul / Maintenance	\$/t	Variable	\$27	\$0.050
SUBTOTAL			\$3,644	\$6.657
Area 30 - Agitated Leach				
Power	kWh/t	Variable	\$338	\$0.618
Wear	\$/t	Variable	\$27	\$0.050
Overhaul / Maintenance	\$/t	Variable	\$27	\$0.050
SUBTOTAL			\$393	\$0.718
Area 25 - CCD Wash Circuit				
Power	kWh/t	Variable	\$476	\$0.869





			Annual Costs,	US\$ per
	Units	Cost Type	US\$,000	Tonne
Wear & Maintenance Supplies	\$/ton ore	Variable	\$55	\$0.100
SUBTOTAL			\$530	\$0.969
Area 21 - Filtration, Clarification				
Power	kWh/t	Variable	\$630	\$1.151
Filter Cloths	\$/t	Variable	\$274	\$0.500
Dozer (Tailings)	h/mo	Fixed	\$141	\$0.258
Wear & Maintenance Supplies	\$/t ore	Variable	\$178	\$0.325
SUBTOTAL			\$1,223	\$2.234
Area 70 - Tailings Paste Backfill				
Power	kWh/t	Variable	\$209,047	\$0.382
Cement Addition (Binder)	\$/annual	Variable	\$1,662,210	\$3.036
Misc. Operating Supplies	\$/t	Variable	\$2,738	\$0.005
Maintenance Supplies	\$/t	Variable	\$2,738	\$0.005
SUBTOTAL			\$1,876,732	\$3.428
Area 31 - Merrill-Crowe and				
Refinery				
Power	kWh/t	Variable	\$227	\$0.415
Misc. Operating Supplies	\$/t	Variable	\$3	\$0.005
Maintenance Supplies	\$/t	Variable	\$3	\$0.005
SUBTOTAL			\$233	\$0.425
Area 34 - Reagents				1.
Power	kWh/t	Variable	\$17	\$0.032
Cyanide (Ore)	kg/t	Variable	\$1,608	\$2.938
Lead Nitrate	kg/t	Variable	\$87	\$0.158
Diatomaceous Earth	kg/t	Variable	\$94	\$0.172
Antiscalant	kg/year	Variable	\$1	\$0.001
Flocculant	kg/t	Variable	\$241	\$0.441
Lime	kg/t	Variable	\$148	\$0.271
Zinc Addition	kg/t	Variable	\$792	\$1.446
Flux	kg/t	Variable	\$230	\$0.420
Maintenance Supplies	\$/t	Variable	\$5	\$0.010
SUBTOTAL			\$3,224	\$5.889
Area 38 - Laboratory				
Power	kWh/t	Variable	\$195	\$0.355
Assays, Solids	No./day	Fixed	\$164	\$0.300
Assays, Solutions	No./day	Fixed	\$27	\$0.050
Miscellaneous Supplies	\$/t	Variable	\$5	\$0.010
SUBTOTAL			\$392	\$0.715
Area 60 - Power	1344 /-		4.5	40.000
Power	kWh/t	Variable	\$0	\$0.000
Overhaul / Maintenance	\$/t	Variable	\$11	\$0.020
SUBTOTAL	<u> </u>		\$11	\$0.020
Area 62 - Dewatering, Water Supply,			A.F.	60.024
Power	kWh/t	Variable	\$451	\$0.824
Maintenance Supplies	\$/t	Variable	\$8	\$0.015
SUBTOTAL Area 65 - Compressed Air &			\$460	\$0.839
Ventalation				
Power	kWh/t	Variable	\$1,888	\$3.448
Maintonanae Cumplies	\$/t	Variable	\$5	\$0.010
Maintenance Supplies	7/ 0			
SUBTOTAL SUPPLIES	Ψ/ τ		\$1,893	\$3.458





	Units	Cost Type	Annual Costs, US\$,000	US\$ per Tonne
Power - Buildings/Misc.	kWh/t	Variable	\$48	\$0.088
Maintenance Supplies	\$/t	Variable	\$5	\$0.010
SUBTOTAL			\$53	\$0.098
Area 08 - Plant Mobile Equipment				
Fork Lift	h/mo	Fixed	\$19	\$0.035
Mechanic Service Truck	h/mo	Fixed	\$119	\$0.218
Pickup Truck	h/mo	Fixed	\$175	\$0.320
Telehandler	h/mo	Fixed	\$26	\$0.048
Flatbed Truck	h/mo	Fixed	\$46	\$0.085
Skid Steer / Bobcat Loader	h/mo	Fixed	\$8	\$0.014
SUBTOTAL			\$394	\$0.720
G&A				
General and Administrative			\$3,241	\$5.919
SUBTOTAL			\$3,241	\$5.919
Total Processing Costs	•	•	\$23,747	\$43.373

21.2.3 Process Plant Labor Cost

Staffing requirement for process has been estimated by KCA based on a similar size operation. Staffing will be primarily by the regional workforce with the emphasis of hiring as many workers from the local community as possible. Total process personnel are estimated at 50 persons. Personnel requirements and costs are estimated at \$5.3M per year and are summarized in Table 21-12.

Table 21-12 Process Plant Personnel

Description	Number of Personnel	Annual Cost (\$M)
Process Supervision	5	0.79
Crushing	12	1.29
Mill	10	0.98
Recovery Plant	6	0.54
Process Maintenance	9	0.94
Laboratory	8	0.74
Total	50	5.28

21.2.4 Electrical Power

Electrical power usage for the process and process related infrastructure was derived from estimated connected loads assigned to powered equipment from the mechanical equipment list. Equipment electrical power demands under normal operation were assigned and coupled with estimated on-stream times to determine the average energy usage and cost. Electrical power requirements for the Project are presented in Table 21-13. The total attached electrical power for the process plant and infrastructure is estimated at 5.67 MW, with an average draw of 4.50 MW.





Table 21-13 Power Demand

Area/Description	Total Connected Load (kW)	Average Demand (kW)
Crushing	464	262
Grinding & Thickening	1809	1330
Agitated Leach	391	220
CCD Wash Circuit	550	309
Filtration, Clarification	729	410
Tailings Paste Backfill	443	133
Merrill-Crowe	263	148
Reagents	20	11
Laboratory	225	127
Dewatering, Water Supply, Storage & Distribution	607	294
Compressed Air & Ventilation	2183	1228
Facilities	285	160
Total	5671	4499

The total electrical power consumption is estimated 51.3M kW/yr. The power will be sourced from the substation located at the Project site. Based on published commercial power costs the unit cost of the power is estimated at \$0.117/kWh.

21.2.5 Consumables

Consumables include steel wear, mill balls, mill liners, mobile equipment wear and spare parts, piping, filter cloths for filter presses, laboratory consumables, and other miscellaneous operating consumables. The total cost for consumables per year is estimated at \$1.7M.

21.2.6 Maintenance

Labor associated with maintenance is included in the process plant labor cost. The maintenance cost mainly includes the maintenance supplies for process. The estimated maintenance cost per year is \$0.55M.

21.2.7 Reagents

Reagents include cyanide, lime, flocculant and other miscellaneous reagents in the process. The total reagents cost per year is estimated at \$3.2M.

21.2.8 General and Administrative

G&A costs are estimated at \$3.2M/year, or \$5.92/t processed. Costs have been estimated for a team of 16 managers, technicians and support staff to run the operation over the life of mine (LOM), including safety and security. Costs include office expenses, environmental expenses, insurance, community services, IT and maintenance of the site buildings.





22 ECONOMIC ANALYSIS (ITEM 22)

22.1 FORWARD-LOOKING INFORMATION CAUTIONARY STATEMENTS

This preliminary economic assessment and associated economic analysis is forward-looking and preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that this preliminary economic assessment and associated economic analysis will be realized because mineral resources that are not mineral reserves do not have demonstrated economic viability.

22.2 Principal Assumptions

The economic analysis of the Tonopah West project was undertaken using a discounted cash flow (DCF) model in Microsoft Excel. Cash flows in the model were based on costs estimated as of the effective date of this report in US dollars with no escalation. Revenues were based on the base case and constant metals prices of US\$23.00 per Troy ounce for silver and US\$1,900 per Troy ounce for gold in doré.

For the purposes of this report, all cash flows were presented as annual project expenditures or receipts during the life of the project with no assumptions as to actual dates. The beginning of project Year -2 marks the milestone where project construction activities commence. Underground mine development commences at the beginning of project Year -1, and the beginning of production from the underground mine to a surface run-of-mine (ROM) stockpile occurs 15 months later in project Year 1. Mill production begins with underground production concurrent with the buildup of a 50,000 tonne ROM stockpile on surface by the beginning of Year 2.

The DCF model used annual end-of-period discounting of cash flows at a base case discount rate of 5% and a valuation date at the beginning of project Year -2. All cash flows prior to the beginning of project Year -2 were considered sunk and were not used in the valuation except for tax analysis purposes and for determining advance minimum royalty credits when production commences. Project financing costs were excluded from the valuation and all expenditures are treated as cash expenditures with no associated financing or interest costs. Internal Rate of Return calculations were also based on annual end-of-period cash flows with a valuation date at the beginning of project Year -2.

Expenditures prior to the beginning of underground production are capitalized and funded with 100% equity, and expenditures after the beginning of underground production are expensed and funded from production revenues. Capital and operating cost estimates developed for this project are presented in Section 21 of this report.





Mill production is taken solely from the ROM stockpile at the mined grades in Year 1 concurrent with the mine building up the ROM stockpile to 50,000 tonnes, and at the average silver and gold grades of the stockpile after Year 1. Revenues are received during the same period as mill production.

Silver equivalent ounces and grades have been calculated from silver and gold ounces and grades using the following formula:

AgEq = Ag + (Au x AgEq factor)

AgEq Factor = [(Au met recovery x Au payable %) / (Ag met recovery x Ag payable %)] x (Au price / Ag price)

Table 22-1 shows the parameters used to determine silver equivalency.

Silver Equivalency PEA AgEq **Determination** PEA Parameters Used **Factors** AgEq Au Ag 87.7% 87.7% 89.71 DPB Met Recovery: 95.1% 89.25 Victor Met Recovery: 90.1% 97.2% 90.1% Metal Price: (\$US/g) \$ 0.74 | \$ 61.09 0.74 Metal Price: (\$US/Troy oz) | \$ 23.00 | \$ 1,900.00 | \$ 23.00 Payables: 99.75% 99.90% 99.75%

Table 22-1 Silver Equivalency Determination Parameters

Transport and refining charges are levied on Troy ounces produced and were assumed at US\$0.40/Troy ounce for silver and US\$5.00/Troy ounce for gold in doré.

Gold and silver revenues were calculated on payable quantities of gold and silver revenues and were assumed at 99.90% of gold ounces produced and 99.75% of silver ounces produced.

The project is subject to a production royalty payable to Nevada Select Royalty, Inc. at the rate of 3.0% on Net Smelter Returns (NSR), which are calculated as Gross Proceeds less allowable deductions. Allowable deductions include transportation and refinery charges. Minimum advance annual royalty payments of US\$50,000 are required but are credited against the production royalty when production commences.

22.3 PRODUCTION SCHEDULES

Table 22-2 shows the annual production profile for the project that was used to generate the cash flows and economic analysis.





Table 22-2 Annual Production Profile

Production Profile	Units	Total	Yr-2	Yr-1	Y1	Y2	Y3	Y4	Y5	Υ6	Y7	Y8
Beginning Mill ROM Stockpile												
Tonnes Mineralized Material	ktonne		-	-	-	50.0	49.0	47.7	46.4	45.0	43.6	42.3
Au Grade	g/tonne		-	-	-	3.64	3.95	3.35	3.32	3.35	3.26	3.29
Ag Grade	g/tonne		-	-	-	316	326	257	270	276	259	249
AgEq Grade	g/tonne		-	-	-	643	680	557	567	575	551	543
Contained Au	koz Troy		-	-	-	5.9	6.2	5.1	4.9	4.9	4.6	4.5
Contained Ag	koz Troy		-	-	-	508.4	514.1	394.8	402.6	399.0	363.6	338.5
Contained AgEq	koz Troy		-	-	-	1,033.8	1,072.1	855.4	844.8	832.5	772.5	738.4
Mining to ROM Stockpile												
Tonnes Mineralized Material Mined	ktonne	4,114.3	-	-	364.7	546.5	546.2	546.1	546.1	546.1	546.1	472.3
Au Grade	g/tonne	3.34	-	-	3.64	3.97	3.30	3.32	3.36	3.25	3.30	2.56
Ag Grade	g/tonne	271	-	-	316	327	251	271	276	258	248	229
AgEq Grade	g/tonne	570	-	-	643	684	546	567	576	549	543	459
Contained Au	koz Troy	441.6	-	-	42.7	69.8	57.9	58.2	58.9	57.1	57.9	38.9
Contained Ag	koz Troy	35,845	-	-	3,709	5,749	4,408	4,761	4,850	4,527	4,360	3,482
Contained AgEq (1)	koz Troy	75,360	-	-	7,541	12,014	9,593	9,963	10,116	9,633	9,531	6,967
Beginning Mill ROM Stockpile + Mining												
Tonnes Mineralized Material	ktonne		-	-	364.7	596.5	595.2	593.9	592.5	591.1	589.8	514.6
Au Grade	g/tonne		-	-	3.64	3.95	3.35	3.32	3.35	3.26	3.29	2.62
Ag Grade	g/tonne		-	-	316	326	257	270	276	259	249	231
AgEq Grade	g/tonne		-	-	643	680	557	567	575	551	543	466
Contained Au	koz Troy		-	-	42.7	75.7	64.2	63.4	63.9	62.0	62.4	43.4
Contained Ag	koz Troy		-	-	3,709	6,257	4,922	5,156	5,253	4,926	4,723	3,820
Contained AgEq	koz Troy		-	-	7,541	13,048	10,666	10,819	10,960	10,466	10,304	7,705
Mill Feed from ROM Stockpile												
Tonnes Mineralized Material	ktonne	4,114.3	-	-	314.7	547.5	547.5	547.5	547.5	547.5	547.5	514.6
Au Grade	g/tonne	3.34	-	-	3.64	3.95	3.35	3.32	3.35	3.26	3.29	2.62
Ag Grade	g/tonne	271	-	-	316	326	257	270	276	259	249	231
AgEq Grade	g/tonne	570	-	-	643	680	557	567	575	551	543	466
Contained Au	koz Troy	441.6	-	-	36.9	69.5	59.0	58.4	59.0	57.4	58.0	43.4
Contained Ag	koz Troy	35,845	-	-	3,200	5,743	4,527	4,753	4,854	4,563	4,385	3,820
Contained AgEq	koz Troy	75,360	-	-	6,508	11,976	9,810	9,974	10,128	9,693	9,566	7,705
Mine Life Counter	Years	7.8	-	-	0.8	1.0	1.0	1.0	1.0	1.0	1.0	0.9
Wtd Avg Recovery to Doré												
Au	%	96.1%	-	-	96.1%	96.1%	96.1%	96.1%	96.1%	96.1%	96.1%	96.1%
Ag	%	88.9%	-	-	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%
Metal Produced in Doré												
Au	koz Troy	424.6	-	-	35.4	66.8	56.7	56.2	56.7	55.2	55.7	41.7
Ag	koz Troy	31,859	-	-	2,844	5,104	4,024	4,225	4,314	4,055	3,897	3,395
AgEq	koz Troy	66,984	-	-	5,784	10,645	8,720	8,865	9,002	8,616	8,502	6,849
Metal Payable												
Au	koz Troy	424.1	-	-	35.4	66.7	56.7	56.1	56.7	55.1	55.7	41.7
Ag	koz Troy	31,780	-	-	2,837	5,091	4,014	4,214	4,303	4,045	3,887	3,387
AgEq	koz Troy	66,816	-	-	5,770	10,618	8,698	8,843	8,980	8,594	8,481	6,832

¹ All production in Year 1 is from the DPB area.





22.4 CASH FLOW FORECASTS

Table 22-3 shows the annual revenue and cost forecasts for the project. Table 22-4 shows the annual cash flow.

Table 22-3 Annual Revenue and Cost Forecast

Revenue & Costs	Units	Total	Yr-2	Yr-1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
Revenue															
Au	US\$M	806	-	-	67.3	126.8	107.7	106.6	107.7	104.8	105.8	79.2	-	-	-
Ag	US\$M	731	-	-	65.3	117.1	92.3	96.9	99.0	93.0	89.4	77.9	-	-	-
Total Gross Revenue	US\$M	1,537	-	-	132.5	243.9	200.0	203.5	206.7	197.8	195.2	157.1	-	-	-
Transport & Refining Charges	US\$M	15	-	-	1.31	2.3	1.8	2.0	2.0	1.9	1.8	1.4	-	-	-
Net Revenue	US\$M	1,522	-	-	131.2	241.5	198.2	201.5	204.7	195.9	193.4	155.7	-	-	-
Royalties (2)															
Earned	US\$M	45.7	-	-	4.5	7.2	5.8	6.1	6.2	5.9	5.8	4.2	-	-	-
Advance Royalties Paid (Credited) (3)	US\$M	(0.2)	0.1	0.1	(0.3)	-	-	-	-	-	-	-	-	-	-
Net Cash Royalties	US\$M	45.5	0.1	0.1	4.3	7.2	5.8	6.1	6.2	5.9	5.8	4.2	-	-	-
Operating Costs															
On-Site G&A	US\$M	24	-	-	1.9	3.2	3.2	3.2	3.2	3.2	3.2	3.0	-	-	-
Mining	US\$M	328	-	-	30.1	45.1	43.9	42.8	42.8	42.8	42.8	37.4	-	-	-
Processing	US\$M	154	-	-	11.8	20.5	20.5	20.5	20.5	20.5	20.5	19.3	-	-	-
Total Operating Costs	US\$M	506	-	-	43.8	68.9	67.7	66.6	66.5	66.5	66.5	59.7	-	-	-
Other Cash Costs															
Reclamation Bond Premiums	US\$M	4	-	-	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-	-
Production Taxes															
Nevada Gold & Silver Excise Tax	US\$M	13	-	-	1.0	2.2	1.7	1.7	1.7	1.7	1.6	1.2	-	-	-
Nevada Net Proceeds of Minerals	US\$M	37	-	-	2.2	6.1	4.5	4.2	5.2	5.2	5.5	4.1	-	-	-
Total Other Cash Costs	US\$M	54	0.0	0.0	3.6	8.7	6.6	6.4	7.4	7.3	7.6	5.7	0.4	-	-
Total Cash Costs Summary															
Operating Costs	US\$M	506	-	-	43.8	68.9	67.7	66.6	66.5	66.5	66.5	59.7	-	-	-
Other Cash Costs	US\$M	54	0.0	0.0	3.6	8.7	6.6	6.4	7.4	7.3	7.6	5.7	0.4	-	-
Transport & Refining Charges	US\$M	15	-	-	1.3	2.3	1.8	2.0	2.0	1.9	1.8	1.4	-	-	-
Royalties Earned	US\$M	46	-	-	4.5	7.2	5.8	6.1	6.2	5.9	5.8	4.2	-	-	-
Total Cash Costs	US\$M	620	0.0	0.0	53.2	87.1	81.9	81.0	82.1	81.6	81.8	71.0	0.4	-	-
Capital Expenditures (cash)															
Initial Capital	US\$M	177.8	17.9	126.0	34.0	-	-	-	-	-	-	-	-	-	-
Sustaining Capital (4)	US\$M	178.2	-	-	39.5	35.7	28.3	40.2	20.2	8.9	-	-	2.8	1.3	1.3
Total Capital	US\$M	356.0	17.9	126.0	73.5	35.7	28.3	40.2	20.2	8.9	-	-	2.8	1.3	1.3
All-In Sustaining Costs (AISC)															
Total Cash Costs	US\$M	620	-	-	53.2	87.1	81.9	81.0	82.1	81.6	81.8	71.0	0.4	-	-
Sustaining Capital (5)	US\$M	178.4	-	-	40.2	36.5	29.0	40.9	20.9	9.6	0.7	0.5	-	-	-
Total AISC	US\$M	799	-	-	93.4	123.6	111.0	122.0	103.0	91.1	82.4	71.6	0.4	-	-
Unit Costs per Payable Ounce (Co-product Basis)															
Total Cash Costs	\$/oz AgEq	\$ 9.30	-	-	\$ 9.23	\$ 8.20	\$ 9.42	\$ 9.16	\$ 9.14	\$ 9.49	\$ 9.64	\$ 10.40	-	-	-
All-in Sustaining Costs		\$ 11.96	-	-					\$ 11.47		\$ 9.72	\$ 10.48	-	-	-
Notes:															





Advance royalty payments prior to Yr-2 assumed at US\$150k
 Advance royalties are capitalized
 Includes US\$5.4M in cash reclamation expenditures.
 Includes US\$5.4M in reclamation acruals.

Cash Flow Forecasts	Units	Total	Yr-2	Yr-1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
re-Tax Unlevered Operating Cash Flow															
Gross Revenue	US\$M	1,536.8	-	-	133	244	200	204	207	198	195	157	-	-	-
Less Operating Costs	US\$M	506.2	-	-	43.8	68.9	67.7	66.6	66.5	66.5	66.5	59.7	-	- 1	-
Less Royalties Earned	US\$M	45.7	-	-	4.5	7.2	5.8	6.1	6.2	5.9	5.8	4.2	-	-	-
Less Transport & Refining Charges	US\$M	14.7	-	-	1.3	2.3	1.8	2.0	2.0	1.9	1.8	1.4	-	- 1	-
Lesss Production Taxes	US\$M	49.7	-	-	3.2	8.2	6.2	5.9	6.9	6.8	7.1	5.3	-	-	-
Less Reclamation Bond Premiums	US\$M	4.0	-	-	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-	-
Pre-Tax Unlevered Operating Cash Flow	US\$M	916.6	-	-	79.3	156.8	118.1	122.5	124.6	116.2	113.4	86.1	(0.4)	-	-
Pre-Tax Unlevered Free Cash Flow															
Pre-Tax Operating Cash Flow	US\$M	916.6	-	-	79.3	156.8	118.1	122.5	124.6	116.2	113.4	86.1	(0.4)	-	-
Less Capital Expenditures	US\$M	356.0	17.9	126.0	73.5	35.7	28.3	40.2	20.2	8.9	0.0	0.0	2.8	1.3	1.3
Pre-Tax Unlevered Free Cash Flow	US\$M	560.6	(17.9)	(126.0)	5.8	121.1	89.7	82.3	104.4	107.3	113.4	86.1	(3.2)	(1.3)	(1.3
Cumulative Pre-Tax Unlevered Free Cash Flow	US\$M		(17.9)	(143.8)	(138.0)	(16.9)	72.8	155.1	259.5	366.8	480.3	566.4	563.2	561.9	560.6
Payback Counter from Start of Mine Production	Years	2.0			0.8	1.0	0.2	-	-	-	-	-		-	-
Discount Factor	5.0%		0.9524	0.9070	0.8638	0.8227	0.7835	0.7462	0.7107	0.6768	0.6446	0.6139	0.5847	0.5568	0.5303
NPV of Pre-Tax Unlevered Free Cash Flow	US\$M	374.6	(17.0)	(114.2)	5.0	99.6	70.3	61.4	74.2	72.7	73.1	52.9	(1.9)	(0.7)	(0.7
Pre-Tax Unlevered Internal Rate of Return		45%													
fter-Tax Unlevered Free Cash Flow															
Net Revenue	US\$M	1,522	-	-	131.2	241.5	198.2	201.5	204.7	195.9	193.4	155.7	-	-	-
Net Cash Royalties	US\$M	45.5	0.1	0.1	4.3	7.2	5.8	6.1	6.2	5.9	5.8	4.2	-	- 1	-
Operating Costs	US\$M	506	-	-	43.8	68.9	67.7	66.6	66.5	66.5	66.5	59.7	-	- 1	-
Other Cash Costs	US\$M	54	-	-	3.6	8.7	6.6	6.4	7.4	7.3	7.6	5.7	0.4	- 1	-
Initial Capital	US\$M	177.8	17.9	126.0	34.0	-	-	-	-	-	-	-	-	-	-
Sustaining Capital (4)	US\$M	178.2	-	-	39.5	35.7	28.3	40.2	20.2	8.9	-	-	2.8	1.3	1.3
Federal Income Tax	US\$M	65	-	-	8.4	16.0	9.0	8.0	7.0	5.7	5.9	4.6	-	- 1	-
Annual After-Tax Unlevered Free Cash Flow	US\$M	496.1	(17.9)	(126.0)	(2.3)	105.1	80.7	74.3	97.4	101.6	107.6	81.5	(3.2)	(1.3)	(1.3
Cumulative After-Tax Unlevered Free Cash Flow	US\$M		(17.9)	(143.9)	(146.2)	(41.1)	39.6	113.9	211.3	312.9	420.5	501.9	498.7	497.4	496.1
Payback Counter from Start of Mine Production	Years	2.3			0.8	1.0	0.5	-	-	-	-	-	-	- 1	-
Discount Factor	5.0%		0.9524	0.9070	0.8638	0.8227	0.7835	0.7462	0.7107	0.6768	0.6446	0.6139	0.5847	0.5568	0.5303
NPV of After-Tax Unlevered Free Cash Flow	US\$M	325.9	(17.1)	(114.3)	(2.0)	86.5	63.3	55.4	69.2	68.8	69.3	50.0	(1.9)	(0.7)	(0.7
After-Tax Unlevered Internal Rate of Return		39.2%													

Figure 22-1 shows the annual vs cumulative cash flows for the project.

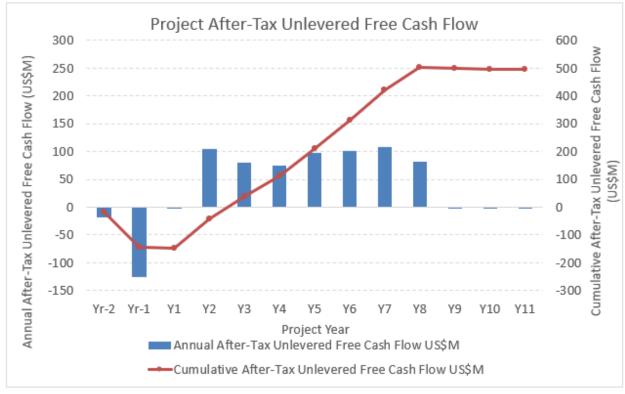


Figure 22-1 Annual vs Cumulative Cash Flow





22.5 SUMMARY OF RESULTS

- / Pre-tax unlevered net present value at a 5% discount rate (NPV5%) of US\$374.6M and pre-tax unlevered Internal Rate of Return (IRR) of 45% based on base case metals prices of US\$23.00 per Troy ounce silver and US\$1900 per Troy ounce gold.
- / After-tax unlevered net present value at a 5% discount rate (NPV5%) of US\$325.9M and after-tax unlevered Internal (IRR) of 39.2% based on base case metals prices of US\$23.00 per Troy ounce silver and US\$1,900 per Troy ounce gold.
- / Life of Mine (LOM) pre-tax unlevered and undiscounted free cash flow of US\$560.6M.
- / LOM after-tax unlevered and undiscounted free cash flow of US\$496.1M.
- / Pre-tax payback period of 2.0 years from the start of underground production.
- / After-tax payback period of 2.3 years from the start of underground production.
- / LOM production (mining and processing) of 4,114k tonnes of diluted mineralized material over a mine life of 7.8 years, at an average diluted grade of 271 g Ag/tonne and 3.34 g Au/tonne, containing 35,845k Troy ounces of silver and 441.6k Troy ounces of gold, and equivalent to mining and processing of 4,114k tonnes of diluted material at an average grade of 570 g AgEq/tonne containing 75,360k Troy ounces of silver equivalent.
- / Weighted average LOM metallurgical recoveries of 88.9% for silver and 96.1% for gold to doré.
- / LOM production of doré containing 31,859k Troy ounces of silver and 424.6k Troy ounces of gold, equivalent to 66,984k Troy ounces of silver equivalent.
- / LOM payables of 31,780k Troy ounces of silver and 424.1k Troy ounces of gold, equivalent to 66,816k Troy ounces of silver equivalent.
- / Average LOM annual production of 8596k Troy ounces of silver equivalent.
- / LOM gross revenue of US\$731M from silver payable Troy ounces and US\$806M from gold payable Troy ounces for a total of US\$1537M.
- / LOM net revenue of US\$1522M after transport and refinery charges of US\$15M.
- / LOM royalties payable are estimated at US\$45.7M, which are assessed on an estimated LOM NSR of US\$1,522M.
- / Preproduction capital expenditures of US\$178M including US\$22M in contingency.
- / LOM sustaining capital expenditures of US\$178M.
- / LOM cash costs of US\$620M, equivalent to US\$9.30 per silver equivalent Troy ounce.
- / All-in Sustaining Costs of US\$799M, equivalent to US\$11.96 per silver equivalent Troy ounce.
- / LOM taxes paid include US\$13M for the Nevada Gold and Silver Excise Tax, US\$37M for the Nevada Net Proceeds of Minerals Tax, and US\$65M in Federal Income Taxes.
- / Maximum estimated unlevered cash draw-down for the project is -US\$190M.
- / At elevated metal prices of US\$27.60 per Troy ounce of silver and US\$2280 per Troy ounce of gold, (20% higher than the base case metals prices), after-tax unlevered NPV5% increases to US\$495M and after-tax unlevered IRR increases to 54%.





22.6 TAXATION

Production of gold and silver in the State of Nevada is subject to the Nevada Gold and Silver Excise Tax, a form of production tax on revenues, and the Nevada Net Proceeds of Minerals Tax (NNPMT), an ad valorem property tax which is also assessed on minerals production, but subject to certain allowable deductions when computing the tax. Income from the production of gold and silver in the State of Nevada is not subject to a state corporate income tax but is subject to the Federal Income Tax (FIT) on corporations. These taxes are in addition to property taxes paid on land, equipment and other assets.

Nevada Gold and Silver Excise Tax:

Excise Taxes are assessed for businesses that extract gold, silver or both in Nevada at the following rates:

- / 0.75% tax on taxable revenue exceeding \$20 million up to \$150 million.
- / 1.1% tax on any revenue exceeding \$150 million.

Total Nevada Gold and Silver Excise Taxes paid for the project are estimated at US\$13M.

Nevada Net Proceeds of Minerals Tax:

Allowable deductions from the US\$1,537M in gross proceeds in calculating the NNPMT included the following operational costs:

Operating Costs: US\$506M
 Royalties: US\$ 46M
 Transport and Refining Charges: US\$ 15M
 Total: US\$567M

Additional deductions included depreciable assets, which required the separation of assets into five different asset classes:

- 1) Assets that are deductible only in the year incurred, for example, capitalized mine development expenses.
- 2) Class A assets which are leasehold improvements or buildings depreciated on a straight-line (SL) basis with a 20-year recovery period.
- 3) Class B assets which are fixed machinery and equipment depreciated on a SL basis with a 20year recovery period.
- 1) Class C assets which are mobile machinery and equipment depreciated on a SL basis with a 10-year recovery period.
- 2) Class D assets which are light vehicles depreciated on a SL basis with a 5-year recovery period.





Total LOM capitalized and depreciable assets included the US\$178M in initial capital, the US\$178M in sustaining capital, and an additional US\$33M in project development expenditures that were estimated to be incurred prior to commencement of project construction, for a total of US\$389M in depreciable assets.

For the NNPMT, the following is a summary of the total estimated depreciable assets by class:

1)	Deductible in the year incurred:	US\$215.8M
2)	Class A:	US\$ 86.1M
3)	Class B:	US\$ 43.5M
4)	Class C:	US\$ 42.8M
5)	Class D:	US\$ 0.6M
	Total:	US\$388.8M

In calculating the NNPMT not all of the depreciable assets could be utilized as deductions due to depreciation schedules running beyond the revenue periods. After subtracting the above deductions from the gross proceeds, an estimated US\$581M in net proceeds were subject to the NNPMT calculations, which resulted in an estimated US\$37M in NNPMT paid.

Federal Income Tax:

The project is subject to US Federal Income Taxes which were calculated on taxable income at the current rate of 21% for the life of the project. Deductions applied to gross income to calculate taxable income included operating costs, percentage depletion allowance, depreciation of plant and equipment, and amortization of capitalized development. The Alternative Minimum Tax (AMT) rate of 15% did not apply because the current AMT threshold is US\$1,000M in annual taxable income which was never exceeded by the project.

The depletion allowance was calculated by multiplying the value of metal in doré (net of transportation refining charges and royalties) by 15%, subject to a 50% limit of taxable income. For the purposes of the depletion allowance, taxable income was calculated by subtracting operating costs, other cash costs, and depreciation from the value of metal in doré (net of transportation and refining charges and royalties). The LOM percentage depletion allowance was US\$221.8M.

For depreciation and amortization deductions, the US\$389M in depreciable assets as mentioned above in the NNPMT section were separated into the following asset classes:

- 1) Underground Machinery and Equipment which were depreciated using the General Depreciation System (GDS) of the Modified Accelerated Cost Recovery System (MACRS), a half-year convention, and straight-line depreciation with a 5-year recovery period.
- 2) Mill and Infrastructure Construction which was depreciated using MACRS-GDS, a half-year convention, and straight-line depreciation with a 7-year recovery period.





3) Underground and Project Development expenditures, which were depreciated using Units-of-Production.

The following is a summary of the estimated depreciable assets by class for the FIT:

Underground Machinery and Equipment: US\$ 43.1M
 Mill and Infrastructure Construction: US\$121.1M
 Underground and Project Development: US\$224.6M
 Total: US\$388.8M

LOM taxable income for the FIT was US\$307.6M, and the LOM FIT was US\$64.6M.

Estimated Cash Taxes Payment Schedules:

Taxes were assumed to be paid in the same period as when assessed, although in practice tax payments are not due until after the assessment period.

The Nevada Gold and Silver Excise tax is payable either annually or quarterly. In this PEA, these taxes are assumed to be paid quarterly in Year 1, and annually in subsequent years.

The Nevada Net Proceeds of Minerals Tax is payable annually and assumed to be paid at the end of each year.

The Federal Income Tax is payable quarterly. The FIT estimated quarterly payments for the first production year are prorated based on payable silver equivalent ounces each quarter divided by the estimated total Year 1 silver equivalent ounces. For the remainder of the mine life, the tax payments are assumed to be paid at the end of each year.





22.7 SENSITIVITY ANALYSES

A sensitivity analysis was conducted on the base case after-tax NPV and after-tax IRR of the project. Table 22-5 and Figure 22-2 and Figure 22-3 shows the results of the sensitivity analyses using the following variables: silver price, gold price, initial capital cost, and operating costs. As shown in Table 22-5, Figure 22-2 and Figure 22-3, the sensitivity analysis revealed that the project NPV at a 5% discount rate is most sensitive to changes in metal prices and least sensitive to changes in initial capital cost, while the project IRR is most sensitive to changes in metal prices and initial capital cost and least sensitive to changes in operating costs.

Table 22-5 Sensitivity to Silver & Gold Price and Capital and Operating Cost

			•					. ,	•		
After-Tax NPV 5% Sensitivity to Metal Prices (US\$M)						Afte	er-Tax IRR	Sensitivity 1	to Metal Pri	ces	
	Silver Price (\$US/Troy Oz.)						Silver P	rice (\$US/T	roy Oz.)		
		-20%	-10%	23.00	10%	20%	-20%	-10%	23.00	10%	20%
ž.)	20%	334	374	414	454	495	40%	44%	47%	51%	54%
rice y Oz	10%	289	330	370	410	450	36%	40%	43%	47%	50%
ФÓ	1900	243	285	326	366	406	31%	35%	39%	43%	47%
Gold US/Ti	-10%	197	239	281	322	362	27%	31%	35%	39%	43%
ິ ອ	-20%	149	192	235	277	317	22%	26%	31%	35%	38%

	After-Tax NPV 5% Sensitivity to Costs (US\$M)							After-Tax IRR Sensitivity to Costs						
		Initial Capex						Initial Capex						
		-20%	-10%	0%	10%	20%	-20%	-10%	0%	10%	20%			
	20%	296	284	272	259	247	42%	38%	34%	31%	29%			
×	10%	323	311	299	287	275	45%	40%	37%	34%	31%			
Opex	0%	349	337	326	314	303	47%	43%	39%	36%	33%			
	-10%	375	363	352	340	329	50%	45%	42%	38%	35%			
	-20%	401	389	378	366	355	53%	48%	44%	40%	37%			





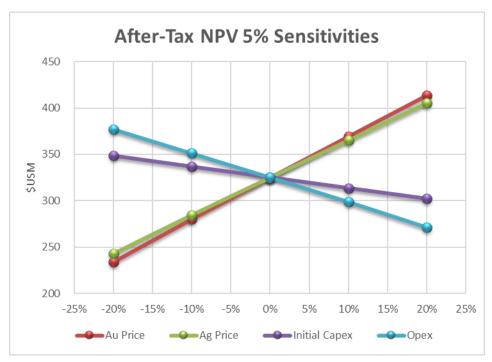


Figure 22-2 After-Tax NPV @ 5%

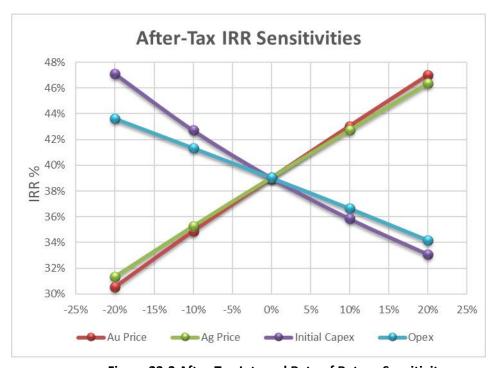


Figure 22-3 After-Tax Internal Rate of Return Sensitivity





23 ADJACENT PROPERTIES (ITEM 23)

The author does not have any data from adjacent properties to report.

24 OTHER RELEVANT DATA AND INFORMATION (ITEM 24)

The author is not aware of other relevant data and information regarding the Tonopah West project.





25 Interpretation and Conclusions (ITEM 25)

The authors have reviewed the project data, including the Tonopah West drill hole database, and visited the project site. RESPEC believes that the data provided by Blackrock, as well as the geological interpretations Blackrock has derived from the data, are generally an accurate and reasonable representation of the Tonopah West project.

The Tonopah West area of the Tonopah mining district became active in 1902-1903 and some of the mines produced until the 1940s. Carpenter et al., [1953] estimated that 2,305,192 tonnes of ore were reported to have been mined in the vicinity where the Tonopah West property is located. However, details of the specific mining operations are not well known. RESPEC's model of underground workings contains approximately 257,000 tonnes of mined out mineralization which occurs within rectified threedimensional shapes of historical stopes and has been excluded from the resource estimate. The majority of this material is in the area of Victor. Additional rectified historical stope shapes have been modeled south of Victor, near Blackrock claim boundaries and away from and modeled mineralization at Tonopah West. These stopes could account for some of the historical tonnage estimates as well as unmodeled stope shapes outside of Blackrock's land position to the southeast. It is currently unclear to the author where the remainder of the production occurred and there is some risk that the extent of the underground workings has not been fully documented within the Tonopah West resource area. Although there is some question as to the location and extent of underground development, the drilling by Blackrock does indicate, and has been used to estimate, the significant, current Inferred silver-gold resources remaining within the known vein structures defined in this report. Importantly, the Blackrock drilling has discovered mineralization in previously unknown veins.

RESPEC concludes that, overall, exploration potential for additional mineralization at the Tonopah West project remains significant within the historical veins and the new veins discovered by Blackrock. Most of the modeled mineralization is open at depth, and, in several areas, along strike. There is a significant opportunity to expand the current resources with further drilling, both down-dip and laterally. In particular, the area between Victor and estimated resources to the west at DP and Bermuda is poorly explored by drilling and further drilling has the potential to connect these resources.

The Tonopah West vein system contains intermediate-sulfidation epithermal precious metal mineralization that likely extends west from the central part of the Tonopah district. The mineralization is silver-rich, relatively base metal-poor and consists of west- to northwest-striking sub-parallel sets of veins and vein stockworks with generally steep dips, except for the Merten vein system within the Bermuda resource area, which dips moderately to the north-northeast.

The high-angle Victor vein comprises high-grade silver and gold mineralization within several adjacent steeply-dipping sheeted veins occurring along, and sub-parallel with, the Pittsburgh-Monarch fault. Higher grades reach a maximum thickness of 10 metres along the Victor vein.





The 2020 through 2022 drilling by Blackrock totaled 120,973 metres of RC and core. This drilling intersected at least eleven principal veins as well as vein splays and related breccias that are mineralized to varying degrees with silver and gold. Potentially underground-mineable silver and gold resources at the Tonopah West project are constrained using a 190 g AgEq/t cutoff grade. This was calculated using a mining cost per tonne of \$128.6/tonne. These costs reflect the potential use of longhole stoping methods for the moderately- to steeply-dipping veins, which are dominant at Tonopah West, and cut-and-fill for the shallow-dipping veins. Project-wide Inferred resources total 6,351,000 tonnes at an average grade of 237.8 g Ag/t (48,550,000 ounces of silver) and 2.8 g Au/t (577,000 ounces of gold).

It is the opinion of the author that the project data are overall of sufficient quality for the modeling and estimation of the silver and gold resources disclosed in this report, although there are a few risks that have been identified and considered. Apparent risks include:

- / The location and extent of historical mining is not fully known, and the wireframes that exclude material from the tabulated resources may not adequately represent the mined out areas in the deposits, particularly along the Victor vein; and
- / Drill spacing along strike is generally at 100-metre centers in the deposit. Despite the current geological understanding of vein continuity, upgrades in resource classification and advanced studies for the project will require infill drilling to confirm grade continuity and distribution as they currently have been modeled. As with many epithermal-type deposits, grade distribution can be erratic, even along connected geologic structures.

The lack of down-hole surveys associated with pre-Coeur drilling would generally lower the level of confidence in deep sample locations. However, the drilling targeted the vein system at relatively shallow levels, some of the drilling was vertical, and many of the holes did not intercept mineralization. Also, the associated data was used in modeling but not estimation. Therefore, the author does not consider the lack of pre-Coeur down-hole surveys to be a significant risk.

The Inferred classification of mineral resources reflects the above identified issues and risks. Tonopah West is in a relatively early stage of exploration and delineation. As the project advances, drill spacing and general knowledge of geology and mineralization can improve, which will help mitigate these risks. Higher classification will require infill drilling in order to test the current silver and gold models as has been recommended in section 26. Exploration and development from underground may be necessary to efficiently perform infill drilling for resource delineation, expand the known resource, and may also aid in locating past development associated with historical mining activities.

Blackrock's drilling has intersected new mineralized veins, which attests to the potential for discovery of new precious metal deposits in the Tonopah West project area. Although significant mineralization has been encountered, continuity with known veins has not been established and the nature and extent of the isolated high-grade intercepts is not known. Further work is warranted, both to enhance the geologic understanding of the precious metal mineralization of known veins, but also to determine the context of new veins encountered in recent drilling.





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25.1 MINERAL PROCESSING AND METALLURGICAL CONCLUSIONS

The metallurgical testing results indicate that the Tonopah West material is amenable to processing by conventional milling methods. The estimated gold recovery for all of the veins excluding Victor is 95.1% and Victor is 97.2%. The estimated silver recovery for all of the veins excluding Victor is 87.7% and Victor is 90.1%. The metallurgical projections have been based on results from a limited number of samples and tests. With increased testwork, there are opportunities to improve on these results. With the current data, KCA believes that the capital and operating costs developed are comparable with similar size projects that KCA has previously worked on.





26 RECOMMENDATIONS (ITEM 26)

The author recommends that Blackrock initiate a targeted exploration and infill drilling program at the Tonopah West project to include the following activities:

- / Continue property-wide prospecting and geologic mapping, which would include identifying structures related to mineralization and the possibility of new host units;
- / Drill test the area between NW and DP veins for continuity;
- / Infill drilling in the Bermuda vein area to upgrade resource classification to Measured and Indicated and understand the periodicity and orientation of high-grade shoots;
- / Identify select areas for geophysical and geochemical surveys; and
- / Obtain more accurate topographic data;
- / Conduct hydrologic and environmental geochemical evaluations.

The recommended work has an estimated total cost of approximately \$8.7 million (approximately CAD\$11.7 million) as summarized in Table 26-1. A follow-up program would be contingent upon the results of these activities.

Table 26-1 Blackrock Cost Estimate for the Recommended Infill and Exploration Program

Item	Estimated Cost (USD)
Exploration RC Pre-Collar Drilling – 3,500m (@ ~\$230/metre)*	\$800,000
Exploration Core Drilling – 4,500m (@ ~\$550.00/metre)*	\$2,500,000
Infill RC Pre-Collar Drilling – 5,000m (@ ~\$230/metre)*	1,150,000
Infill Core Drilling – 7,000m (@ ~\$550.00/metre)*	3,850,000
Exploration Overhead**	\$275,000
Resource Update	\$125,000
Total	\$8,700,000

^{*} Includes all assaying, dirt work, reclamation, and drilling consumables

Under the recommended work program, Blackrock would complete a combined 20,000 metres of RC and core drilling at Bermuda, DP, Victor, and the NW areas of the deposit. The proposed approximate cost of the RC drilling is expected to be in the range of \$230/metre, including assaying, logging, and dirt work/reclamation costs. Core drilling costs would likely be in the range of \$550/metre including assaying, logging, and dirt work/reclamation costs. The author notes that exploration and development from underground may be necessary to efficiently perform infill drilling for resource delineation, and costs for such development have not been included in these recommendations.





^{**} Includes all payroll, consultants, travel and meals, computer software, storage rental, various supplies.

26.1 MINERAL PROCESSING AND METALLURGICAL RECOMMENDATIONS:

The following is recommended:

- Variability testing to help further improve the knowledge of the deposit.
- Comminution testing for wear, equipment sizing and power requirements;
- Solid-liquid separation testing for thickener and filter sizing.

It is the author's opinion that the Tonopah West project is a project of merit that warrants the proposed infill and exploration program and level of expenditures outlined above.





27 REFERENCES (ITEM 27)

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28 DATE AND SIGNATURE PAGE (ITEM 28)

September 4, 2024

Completion Date of report: October 11, 2024

"Jeffrey Bickel"

Jeffrey Bickel, C.P.G.

"Robert Todd"

Robert Todd, P.E.

"Travis Manning"

Travis Manning, P.E.

"Thomas Bagan"

Thomas Bagan, P.E., MBA

"Richard DeLong"

Richard DeLong, C. F.G., MMSA

Effective Date of report:





29 QUALIFICATIONS OF CONSULTANTS (ITEM 29)

The Consultants preparing this Technical Report are specialists in the fields of geology, exploration, mineral resource and mineral reserve estimation and classification, underground mining, geotechnical, environmental, permitting, metallurgical testing, mineral processing, processing design, capital and operating cost estimation, and mineral economics.

None of the Consultants or any associates employed in the preparation of this report has any beneficial interest in Vista. The Consultants are not insiders, associates, or affiliates of Blackrock Silver. The results of this Technical Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Blackrock Silver and the Consultants. The Consultants are being paid a fee for their work in accordance with normal professional consulting practice.

The following individuals, by virtue of their education, experience and professional association, are considered QPs as defined in the NI 43-101 standard, for this report, and are members in good standing of appropriate professional institutions.

This Technical Report was prepared by the following QPs, Certificates and consents of which are contained herein:

Name	Title, Company	Responsible for Sections
Robert Todd, P.E.	Mining Engineer MineTech	Sections 16 and mining relevant subsections in Sections 1, 2, 21.1, 25, 27, 25 and 26.
Jeffrey Bickel, C. P. G.	Senior Geologist RESPEC	Sections 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 23, and geology relevant subsections of sections 1, 25, 26.
Travis Manning, P.E.	Senior Engineer Kappes Cassiday & Associates	Sections 1.5, 1.8, 1.10.2, 13, 17, 18, 21.2, 25.1, and 26.1.
Richard DeLong, C.F.G., MMSA	Mining Technical Advisor Westland Engineering and Environmental Inc.	Sections 20, 4.3, 4.4.
Thomas Bagan, P.E., MBA	Thomas H Bagan LLC	Section 22.





Table 29-1 Table of Responsibility

QPs are responsible for all subsections listed beneath headings unless subsections are detailed below.

Section		
No	Section Name	QP
1	SUMMARY – Introduction	Bickel, Jeffrey
1.1	Preliminary Economic Assessment	Todd, Robert
1.2	Property Description and Ownership	Bickel, Jeffrey
1.3	Exploration and Mining History	Bickel, Jeffrey
1.4	Geology and Mineralization	Bickel, Jeffrey
1.5	Metallurgical Testing and Mineral Processing	Manning, Travis
1.6	Mineral Resource Estimate	Bickel, Jeffrey
1.7	Mining Methods	Todd, Robert
1.8	Recovery Methods	Manning, Travis
1.9	Environmental Studies and Permitting	Bickel, Jeffrey
1.10	Capital and Operating Cost Estimates	Todd & Manning
1.10.1	Mine Capital and Operating Costs	Todd, Robert
1.10.2	Processing and Surface Infrastructure Capital and Operating Cost	Manning, Travis
1.11	Economic Analysis	Bagan, Tom
1.12	Conclusions and Recommendations	Bickel, Jeff
2	INTRODUCTION	Bickel, Jeff
3	RELIANCE ON OTHER EXPERTS	Bickel, Jeff
4	PROPERTY DESCRIPTION AND LOCATION	Bickel, Jeff
4.1	Location	Bickel, Jeff
4.2	Land Area	Bickel, Jeff
4.3	Agreements and Encumbrances	Bickel, Jeff
4.4	Environmental Liabilities	DeLong, Richard
4.5	Environmental Permitting	DeLong, Richard
5	ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND	Bickel, Jeff
	PHYSIOGRAPHY	
5.1	Access to Property	Bickel, Jeff
5.2	Climate	Bickel, Jeff
5.3	Physiography	Bickel, Jeff
5.4	Local Resources and Infrastructure	Bickel, Jeff
5.5	Infrastructure Availability and Sources	Manning, Travis
6	HISTORY	Bickel, Jeff
7	GEOLOGICAL SETTING AND MINERALIZATION	Bickel, Jeff
8	DEPOSIT TYPES	Bickel, Jeff





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Section		
No	Section Name	QP
9	EXPLORATION	Bickel, Jeff
10	DRILLING	Bickel, Jeff
11	SAMPLE PREPARATION, ANALYSES AND SECURITY	Bickel, Jeff
12	DATA VERIFICATION	Bickel, Jeff
13	MINERAL PROCESSING AND METALLURGICAL TESTING	Manning, Travis
14	MINERAL RESOURCE ESTIMATES	Bickel, Jeff
15	MINERAL RESERVES	N/A
16	MINING METHODS	Todd, Robert
17	RECOVERY METHODS	Manning, Travis
18	PROJECT INFRASTRUCTURE	Manning, Travis
19	MARKET STUDIES AND CONTRACTS	N/A
20	ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR	DeLong, Richard
	COMMUNITY IMPACT	
21	CAPITAL AND OPERATING COSTS	
21.1	Underground Mining Capital Infrastructure and Operating Costs	Todd, Robert
21.2	Surface Process Plant Capital, Infrastructure and Operating Costs	Manning, Travis
22	ECONOMIC ANALYSIS	Bagan, Thomas
23	ADJACENT PROPERTIES	Bickel, Jeffrey
24	OTHER RELEVANT DATA AND INFORMATION	Bickel, Jeffrey
25	INTERPRETATION AND CONCLUSIONS	Bickel, Jeff
25.1	Mineral Processing and Metallurgical Conclusions	Manning, Travis
26	RECOMMENDATIONS	Bickel, Jeff
26.1	Mineral Processing and Metallurgical Conclusions	Manning, Travis
27	REFERENCES	N/A
28	CERTIFICATE OF QUALIFIED PERSON	N/A
28.1	Qualifications of Consultants	N/A
28.2	Table of Responsibility	N/A





Certificate of Qualified Persons

I, Jeffrey Bickel, C.P.G. (AIPG) and Registered Geologist (Arizona), do hereby certify that:

- 1. I am currently employed as a Senior Geologist at RESPEC Company LLC ("RESPEC"), at 210 South Rock Blvd, Reno, Nevada, 89502.
- This certificate applies to the technical report titled "Preliminary Economic Assessment of Mineral Resources, Tonopah West Silver-Gold Project, Nye and Esmeralda Counties, Nevada, USA", with an Effective Date of September 4, 2024 (the "Technical Report") prepared for Blackrock Silver Corp. ("Blackrock").
- I graduated with a Bachelor of Science degree in Geological Sciences from Arizona State University in 2010. I am a Certified Professional Geologist (#12050) with the American Institute of Professional Geologists. I am also a Registered Geologist in the state of Arizona (#60863).
- 2. I have worked as a geologist continuously for over 14 years since graduation from university. During that time, I have been engaged in the exploration, definition, and modeling of precious and base metal mineral deposits in North America and have estimated the mineral resources for such deposits.
- 3. I have read the definition of "Qualified Person" set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
- 4. I have visited the Tonopah West Silver-Gold Project site on multiple occasions, most recently on May 16 and 17. 2024.
- 5. I am responsible Sections 1.0, 1.2, 1.3, 1.4, 1.6, 1.9, 1.12, 2, 3, 4.1, 4.2, 4.3, 5.1, 5.2, 5.3, 5.4, 6, 7, 8, 9, 10, 11, 12, 14, 23, 24, 25 and 26 of the Technical Report.
- 6. I am independent of Blackrock and all its subsidiaries as described in Section 1.5 of NI 43-101.
- 7. I authored the technical report titled "Technical Report for Updated Estimate of Mineral Resources,
 Tonopah West Silver-Gold Project, Nye and Esmeralda Counties, Nevada, USA", with an Effective Date of
 April 28, 2023, as well as co-authored the technical report titled "Technical Report and Estimate of
 Resources for the Tonopah West Silver-Gold Project, Nye and Esmeralda Counties, Nevada, USA" with an
 Effective Date of April 23, 2022 prepared for Blackrock Silver Corp. ("Blackrock")
- 8. I have read National Instrument 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance with that instrument and form.
- 9. As of the Effective Date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 11 th	day of	October,	2024
-----------------------------	--------	----------	------

"Jeffrey Bickel" (signed/sealed)

Jeffrey Bickel, C.P.G. (#12050)

Certificate of Qualified Person





Robert H. Todd, P.E., do hereby certify:

- 1. I am currently a principal and co-owner of Minetech, LLC, located at 129 Denali Ln, Butte Montana, 59701.
- 2. This certificate applies to the technical report titled "Preliminary Economic Assessment of Mineral Resources, Tonopah West Silver-Gold Project, Nye and Esmeralda Counties, Nevada, USA", with an Effective Date of September 4, 2024 (the "Technical Report") prepared for Blackrock Silver Corp. ("Blackrock").
- 3. I graduated with a Bachelor of Science degree in Mining Engineering from the University of Idaho, School of Mines, Moscow Idaho.
- 4. I am a Registered Professional Engineer in the States of Idaho (5327), Nevada (007779) and Montana (10095).
- 5. I have worked in mining operations, consulting engineering and engineering construction contracting for over 45 years. Prior to forming Minetech my consulting career included serving as General Manager of Engineering for Cementation USA in Sandy Utah, Vice President and Area Manager for Knight-Piesold in Elko, Nevada, and managing numerous independent engineering and construction projects. Mine operations and technical experience include Technical Services Manager and then General Manager of the Jerritt Canyon Operations in Elko, Nevada, Supervising Engineer for Newmont Mining Corporation in Elko, Nevada, Project Engineer and Project Administrator for Noranda Minerals in Libby, Missoula and Cooke City Montana and Production Supervisor, Chief Engineer and Mine Manager for Echo Bay Minerals at Round Mountain and Hawthorne Nevada.
- 6. I have visited the Tonopah West Silver-Gold Project site on multiple occasions, most recently on May 16 and 17 2024.
- 7. I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
- 8. I have made a personal inspection of the Tonopah West Project in May 2024.
- 9. I am responsible for the preparation of Sections 1.1, 1.7, 1.10.1, 16, and 21.1.
- 10. I am independent of the Issuer as independence is described in Section 1.5 of NI 43-101.
- 11. Prior to being retained by the Issuer, I have not had prior involvement with the property that is the subject of the Technical Report.
- 12. I have read NI 43-101 and Form 43-101F1, and this Technical Report was prepared in compliance with NI 43-101.
- 13. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the portions of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Dated: October 11, 2024

(signed/sealed) Robert H. Todd

Robert H. Todd, P.E. (#007779 Expires 6/30/2026)





To accompany the report entitled: "Preliminary Economic Assessment of Mineral Resources, Tonopah West Silver-Gold Project Nye and Esmeralda Counties, Nevada, USA" (the "Technical Report") prepared for Blackrock Silver Corporation dated October 11, 2024 with effective date 04 September 2024 (the "Technical Report").

- I, Thomas H Bagan, PE, MBA, residing in Sparks, Nevada, USA do hereby certify that:
 - 1. I am a self-employed Principal Consultant with Thomas H Bagan LLC, with an office at 4401 Cobra Drive, Sparks, NV USA 89436.
 - 2. I am a graduate of the Mackay School of Mines, University of Nevada, Reno, USA with a Bachelor of Science in Mining Engineering in 1978. In addition, I obtained a Master's in Business Administration from the University of Nevada, Reno, USA in 2001. I have worked in mining and mining engineering for over 46 years since my graduation from the University of Nevada, Reno, USA in 1978, including experience in mine engineering, mine operations and project management, mine project development and construction, and evaluation of precious metals mineral deposits in North, Central and South America, Australasia, and Africa. I have extensive experience preparing economic analyses including seven years' experience in mining corporate development and executive management.
 - 3. I am a registered Professional Engineer, Mining, #6883 with the Nevada Board of Professional Engineers and Land Surveyors, and a registered Professional Engineer, Mining Engineering, #7486 with the Idaho Board of Licensure of Professional Engineers and Professional Land Surveyors. I am a Registered Member, #00120580, of the Society for Mining, Metallurgy & Exploration of Englewood, Colorado, USA.
 - 4. For the purposes of this Technical Report, I visited the Tonopah West Property on May 15-16, 2024.
 - 5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of National Instrument 43-101 and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.
 - 6. I am independent of the Issuer as defined in Section 1.5 of National Instrument 43-101.
 - 7. I accept professional responsibility for section 1.11, and 22.
 - 8. I have had prior involvement with the subject property from March 2022 through May 2022, in July 2022, in November 2022, from January 2023 through February 2023, from April 2023 through June 2023, from September 2023 through October 2023, in December 2023, and from February 2024 through March 2024 as an advisor to Blackrock Gold Corporation.
 - 9. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the portion of the Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the portion of the Technical Report for which I am responsible not misleading.





PRELIMINARY ECONOMIC ASSESSMENT TONOPAH WEST SILVER-GOLD PROJECT BLACKROCK SILVER CORP.

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10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated 11 October 2024 at Reno, USA

Thomas H Bagan, PE, MBA Principal Mining Engineer Thomas H Bagan LLC





Certificate of Qualified Person

I, Richard DeLong, Registered Geologist (California and Idaho) and QP (MMSA-01471QP), do hereby certify that:

- 1. I am currently employed as a Senior Mining Technical Advisor at WestLand Environmental and Engineering Services, Inc. ("WestLand"), at 5401 Longley Lane, A5, Reno, Nevada, 89502.
- This certificate applies to the technical report titled "Preliminary Economic Assessment of Mineral Resources, Tonopah West Silver-Gold Project, Nye and Esmeralda Counties, Nevada, USA", with an Effective Date of September 4, 2024 (the "Technical Report") prepared for Blackrock Silver Corp. ("Blackrock").
- 3. I graduated with a Bachelor of Science degree in Geology from California State University, Chico in 1980 and a Master's degree in Geology and a Master's degree in Resource Management from the University of Idaho in 1984 and 1986, respectively. I am a Registered Geologist in the states of California (#5570) and Idaho (#727). I am also recognized as a Qualified Professional (QP) Member of the Mining and Metallurgical Society of America (MMSA) with special expertise in Environmental Permitting and Compliance (01471QP).
- 4. I have worked as a geologist and a mine permitting specialist for over 40 years since graduation from university. During that time, I have been engaged in the exploration, exploration permitting, Mine permitting, property evaluations and environmental audits of precious and base metal mineral deposits in North America.
- 5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
- 6. I have visited the Tonopah West Silver-Gold Project site on multiple occasions, most recently on May 7, 2024.
- 7. I am responsible Section 1.9, 4.4, 4.5 and 20 of the Technical Report.
- 8. I am independent of Blackrock and all its subsidiaries as described in Section 1.5 of NI 43-101.
- 9. I co-authored the technical report titled "Technical Report and Estimate of Mineral Resources, Tonopah West Silver-Gold Project, Nye and Esmeralda Counties, Nevada, USA", with an Effective Date of April 28, 2023, prepared for Blackrock Silver Corp. ("Blackrock")
- 10. I have read National Instrument 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance with that instrument and form.





PRELIMINARY ECONOMIC ASSESSMENT TONOPAH WEST SILVER-GOLD PROJECT BLACKROCK SILVER CORP.

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

Dated this 11th day of October, 2024.

"Richard DeLong" (signed/sealed)
Richard DeLong, QP (MMSA-01471QP)





Travis J. Manning, P. Eng.

I, Travis J. Manning, P.E., as an author of this report entitled "Preliminary Economic Assessment on Mineral Resources, Tonopah West Silver-Gold Project, Nye and Esmeralda Counties, Nevada, USA" and dated 11 October 2024 with an Effective Date of 04 September 2024, do hereby certify that:

- 1. I am Senior Engineer for Kappes, Cassiday & Associates located at 7950 Security Circle, Reno, Nevada 89506;
- 2. I graduated with a Bachelor of Science degree in Metallurgical Engineering from the University of Nevada in 2002;
- 3. I am a Registered Member of the Society for Mining, Metallurgy and Exploration (4138289 RM);
- 4. I am a Professional Engineer in the State of Utah (No. 6880159-2202);
- 5. I have worked as a Metallurgical Engineer for 21 years;
- 6. I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101. I am independent of Blackrock Silver Corporation and related companies applying all of the tests in section 1.5 of National Instrument 43-101. I have had no prior involvement with the Tonopah West Silver-Gold Project;
- 7. I am responsible for Sections 1.5, 1.8, 1.10.2, 13, 17, 18, 21.2, 25.1, and 26.1;
- 8. I visited the Tonopah West Site on 16 May 2024;
- As of the effective date of this report, to the best of my knowledge, information and belief, the part of this Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make this Technical Report not misleading;
- 10. I have read National Instrument 43-101 and Form 43-101F1, and this Technical Report has been prepared in compliance with that Instrument and Form.

Dated 11 th day of October 2024								
'Travis J. Manning" (signed/sealed)								
Fravis J. Manning								





APPENDIX A LODE MINING CLAIMS

Table A-1. List of 101 Patented Lode Mining Claims, Tonopah West Property

Count	Name of Claim(s) or Site(s)	Mineral Survey No(s).				
1	Birds Eye	4450				
2	Birds Eye Extension	4450				
3	Bank	4450				
4	Durham	4450				
5	Seventy-Nine Fraction	4450				
6	Colorado	2047				
7	Oregon Mine	2106				
8	Montana	3473				
9	WI/2California	2041				
10	W ½ Rambler	2087				
11	Taft	2087				
12	Hart	4088				
13	Moonlight Fraction	4468				
14	Arizona	2088				
15	Utah	2107				
16	West Tonopah Fraction	4467				
17	Sunrise	4089				
18	Seventy-Six Fraction	4089				
19	Wonder	4089				
20	Pactolus	4089				
21	Red Rose	4466				
22	Protection	4556				
23	76	2669				
24	Accidental	3167				
25	Admiral Schley	2400				
26	Admiral Dewey	2400				
27	Clara A	2400				
28	Doctor	2400				
29	Estella	2400				
30	Ferris Baby	2400				
31	General Miles	2400				
32	Merry X	2400				
33	Tommy	2400				
34	White Swan	2400				
35	Baby Fraction	2782				
36	Good Enough Fraction	2782				
37	Grace	2782				
38	Nilson	2782				
39	Pensilvania	2782				
40	Quineseck	2782				
41	Rich and Rare	2782				
42	Rost Fraction	2782				
43	Stella	2782				

Appendix A-2

Carrat	Name of Claims(a) an Cita(a)	Apj				
Count 44	Name of Claim(s) or Site(s)	Mineral Survey No(s).				
44	Bass	2189				
	Bear	2484				
46 47	Georgia	2484				
	Lottery	2484				
48	New Jersey	2484				
49	Panther	2484				
50	Pharo	2484				
51	Tiger	2484				
52	Bermuda	2188				
53	Broad	4245				
54	I.X.L.	4245				
55	I.X.L. NO. 1	4245				
56	I.X.L. NO. 2	4245				
57	I.X.L. NO. 4	4245				
58	Cat's Paw	2187				
59	C.B. & Q	2193				
60	Denver	2191				
61	Denver	2521				
62	Lucky Dog Fraction	2521				
63	Wall Street	2521				
64	Oro	4607				
65	Oro No. 1	4607				
66	Oro No. 2	4607				
67	Oro No. 3	4607				
68	Oro Fraction	4607				
69	Parker Fraction	2877				
70	Paymaster	2190				
71	Pittsburg Fraction	2878				
72	Red Rock	2295				
73	Red Rock No. 1	2295				
74	Red Rock No. 2	2295				
75	ZZZ	2295				
76	Ruth No. 3	4624				
77	Ruth No. 4	4624				
78	Ruth No. 5	4624				
79	Short	2185				
80	Trenton	2186				
81	Triplet	2179				
82	Sagebrush	2400				
83	Bob Tail	3861				
84	Golden Anchor	2177				
85	Black Mascot	2178				
86	Cabin Wedge	2400				
87	Roulette Wheel	2400				
88	Homestead	2400				
	Homesteau	2400				

Count	Name of Claim(s) or Site(s)	Mineral Survey No(s).				
89	Cash Boy	2170				
90	Egyptian	2295				
91	7777	2295				
92	Ok Fraction	4397				
93	Burlington	2194				
94	Cabin	2131				
95	Grand Trunk	2129				
96	Deming 2192					
97	ОК	2130				
98	Hypatia	2506				
99	Monarch	2506				
100	Pittsburg	2506				

 Table A-2. List of 289 Unpatented Lode Mining Claims, Tonopah West Property

Count	Claim Name	BLM Legacy Serial Nos.
1	ACCIDENTAL FRACTION	1148062
2	ARIZONA FRACTION	1148064
3	FLAG	1174886
4	KEYSTONE FRACTION	1148060
5	MRW	1148061
6	PANTHER FRACTION	1148063
7	SURPRISE # 1	148057
8	SURPRISE # 2	1148059
9	TRIANGLE FRACTION	1148056
10	TRIANGLE FRACTION #2	1148057
11	WEDGE	1174887
12	WT 1	1116089
13	WT 2	1116090
14	WT 3	1116091
15	WT 4	1116092
16	WT 5	1116093
17	WT 6	1116094
18	WT 7	1116095
19	WT 8	1116096

Unpatented Mining Claims (the TN Claims)

#	Claim Name	Claim Name Location Date		Esmeralda County Document No.	BLM Serial No.	
1	TN 191	6/24/2021	N/A	2021-226296	NV105263919	
2	TN 192	6/24/2021	N/A	2021-226297	NV105263920	
3	TN 193	6/24/2021	N/A	2021-226298	NV105263921	
4	TN 194	6/24/2021	N/A 2021-226299		NV105263922	
5	TN 195	6/24/2021	N/A	2021-226300	NV105263923	
6	TN 196	6/24/2021	N/A	2021-226301	NV105263924	
7	TN 197	6/24/2021	N/A	2021-226302	NV105263925	
8	TN 198	6/24/2021	N/A	2021-226303	NV105263926	
9	TN 199	6/24/2021	N/A	2021-226304	NV105263927	
10	TN 200	6/24/2021	N/A	2021-226305	NV105263928	
11	TN 201	6/24/2021	964733	2021-226306	NV105263929	
12	TN 202	6/24/2021	N/A	2021-226307	NV105263930	
13	TN 203	6/24/2021	964734	2021-226308	NV105263931	
14	TN 204	6/24/2021	N/A	2021-226309	NV105263932	
15	TN 205	6/24/2021	964735	2021-226310	NV105263933	
16	TN 206	6/24/2021	964736	2021-226311	NV105263934	
17	TN 207	6/24/2021	964737	N/A	NV105263935	
18	TN 208	6/24/2021	964738	2021-226312	NV105263936	
19	TN 209	6/24/2021	964739	N/A	NV105263937	
20	TN 210	6/24/2021	964740	2021-226313	NV105263938	
21	TN 211	6/24/2021	964741	N/A	NV105263939	
22	TN 212	6/24/2021	964742	2021-226314	NV105263940	
23	TN 213	6/24/2021	964743	N/A	NV105263941	
24	TN 214	6/24/2021	964744	N/A	NV105263942	
25	TN 215	6/24/2021	964745	N/A	NV105263943	
26	TN 216	6/24/2021	964746	N/A	NV105263944	
27	TN 217	6/24/2021	964747	N/A	NV105263945	
28	TN 218	6/24/2021	964748	N/A	NV105263946	
29	TN 219	6/25/2021	N/A	2021-226315	NV105263947	
30	TN 220	6/25/2021	N/A	2021-226316	NV105263948	
31	TN 221	6/25/2021	N/A	2021-226317	NV105263949	
32	TN 222	6/25/2021	N/A	2021-226318	NV105263950	
33	TN 223	6/25/2021	N/A	2021-226319	NV105263951	
34	TN 224	6/25/2021	N/A	2021-226320	NV105263952	
35	TN 225	6/25/2021	N/A	2021-226321	NV105263953	
36	TN 226	6/25/2021	N/A	2021-226322	NV105263954	
37	TN 227	6/25/2021	N/A	2021-226323	NV105263955	
38	TN 228	6/25/2021	N/A	2021-226324	NV105263956	
39	TN 229	6/25/2021	N/A	2021-226325	NV105263957	
40	TN 230	6/25/2021	N/A	N/A 2021-226326 NV		
41	TN 231	6/25/2021	<i>N/A</i> 2021-226327 NV1		NV105263959	
42	TN 232	6/25/2021	N/A	2021-226328	NV105263960	

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			Nye County	Esmeralda	BLM	
#	Claim Name	Location Date	Document No.	County Document	Serial No.	
				No.		
43	TN 233	6/25/2021	N/A	2021-226329	NV105263961	
44	TN 234	6/25/2021	N/A	2021-226330	NV105263962	
45	TN 235	6/25/2021	N/A	2021-226331	NV105263963	
46	TN 236	6/25/2021	N/A	2021-226332	NV105263964	
47	TN 237	6/25/2021	N/A	2021-226333	NV105263965	
48	TN 238	6/25/2021	N/A	2021-226334	NV105263966	
49	TN 239	6/25/2021	N/A	2021-226335	NV105263967	
50	TN 240	6/25/2021	N/A	2021-226336	NV105263968	
51	TN 241	6/25/2021	N/A	2021-226337	NV105263969	
52	TN 242	6/25/2021	N/A	2021-226338	NV105263970	
53	TN 243	6/25/2021	N/A	2021-226339	NV105263971	
54	TN 244	6/25/2021	N/A	2021-226340	NV105263972	
55	TN 245	6/25/2021	N/A	2021-226341	NV105263973	
56	TN 246	6/25/2021	N/A	2021-226342	NV105263974	
57	TN 247	6/25/2021	964749	2021-226343	NV105263975	
58	TN 248	6/25/2021	N/A	2021-226344	NV105263976	
59	TN 249	6/25/2021	964750	2021-226345	NV105263977	
60	TN 250	6/25/2021	N/A	2021-226346	NV105263978	
61	TN 251	6/25/2021	964751	2021-226347	NV105263979	
62	TN 252	6/25/2021	964752	2021-226348	NV105263980	
63	TN 253	6/25/2021	964753	N/A	NV105263981	
64	TN 254	6/25/2021	964754	2021-226349	NV105263982	

APPENDIX B HISTORICAL DRILL HOLES





Table B-1. Listing of Historical Drill Holes

Table 6.1 Tonopah West; Historic Drill Holes, Collar Data											
					TOTAL	TOTAL					
			ELEV	ELEV	DEPTH	DEPTH					
HOLE ID	E NAD27	N NAD27	(M)	(FT)	(M)	(FT)	DIP	AZIMUTH	HOLE TYPE	YEAR	COMPANY
DDH33-01	477282	4214252	1747	5732	659	2162	-90	0	RC/Core Tail	1984	CHEVRON
HT-15	478730	4212974	1843	6047	376.4	1235	-75	340	Rotary/Core Tail	1979	HOUSTON
HT-16	478733	4212957	1843	6047	342.6	1124	-75	210	Rotary/Core Tail	1979	HOUSTON
HT-17	478636	4212952	1833	6013	421.5	1383	-90	0	Rotary/Core Tail	1979?	HOUSTON
HT-18	478733	4212931	1843	6045	422.2	1385	-90	0	Rotary/Core Tail	1979?	HOUSTON
HT-19	478391	4213151	1789	5871	193.9	636	-90	0	Rotary/Core Tail	1980	HOUSTON
HT-20	478268	4213167	1792	5880	184.7	606	-90	0	Rotary/Core Tail	1980	HOUSTON
HT-21	478721	4212961	1885	6185	389.5	1278	-90	0	Rotary/Core Tail	1980	HOUSTON
HT-22	478292	4213128	1796	5892	295.1	968	-90	0	Rotary/Core Tail	1980	HOUSTON
HT-23	478322	4213161	1797	5896	307.5	1009	-90	0	Rotary/Core Tail	1980	HOUSTON
HT-24	478144	4212600	1783	5850	334.1	1096	-90	0	Rotary/Core Tail	1980	HOUSTON
TH96-18	477459	4212726	1770	5806	121.9	400	-45	305	RC	1996	EASTFIELD
TH96-43	478191	4213184	1770	5806	176.8	580	-70	65	RC	1996	EASTFIELD
TH96-44	478160	4213069	1770	5806	152.4	500	-60	90	RC	1996	EASTFIELD
TH97-02	478520	4213326	1795	5890	152.4	500	-70	200	RC	1997	EASTFIELD
TH97-14	478229	4213275	1797	5895	172.2	565	-60	163	RC	1997	EASTFIELD
TH97-15	478151	4213186	1783	5850	243.8	800	-70	220	RC	1997	EASTFIELD
Th97-16	477965	4213208	1780	5840	243.8	800	-68	221.3	RC	1997	EASTFIELD
TH97-21	477868	4212677	1768	5800	30.5	100	-90	0	RC	1997	EASTFIELD
TH97-22	478076	4212938	1795	5890	243.8	800	-90	0	RC	1997	EASTFIELD
TH97-23	478070	4213029	1792	5880	243.8	800	-50	2	RC	1997	EASTFIELD
TH97-24	478533	4212955	1811	5940	62.5	205	-70	152	RC	1997	EASTFIELD
TH97-25	478100	4212563	1803	5915	61	200	-50	198	RC	1997	EASTFIELD
TW18-001	477944	4213222	1784	5852	243.8	800	-68	221.3	RC	2018	COEUR
TW18-002	477998	4213191	1786	5858	243.8	800	-69	219.4	RC	2018	COEUR
TW18-003	478023	4213169	1788	5867	243.8	800	-69	226.3	RC	2018	COEUR
TW18-004	477942	4213185	1783	5851	243.8	800	-68	214.7	RC	2018	COEUR
TW18-005	477892	4213191	1779	5836	243.8	800	-70	222.7	RC	2018	COEUR
TW18-006	477992	4213231	1785	5856	243.8	800	-69	226.3	RC	2018	COEUR
TW18-007	477702	4212852	1768	5801	228.6	750	-58	18.3	RC	2018	COEUR
TW18-008	477793	4212817	1773	5817	259.1	850	-60	22.9	RC	2018	COEUR
TW18-009	477873	4212813	1774	5821	313.9	1030	-50	25.5	RC	2018	COEUR
TW18-010	477966	4213376	1772	5813	259.1	850	-69	239.7	RC	2018	COEUR
TW18-011	478272	4213669	1771	5811	304.8	1000	-60	237.6	RC	2018	COEUR
TX18-001	477898	4214393	1768	5802	233.2	765	-67	198.6	RC	2018	COEUR
TX18-002	478002	4213936	1769	5805	330.7	1085	-59	205.7	RC	2018	COEUR

HOUSTON=Houston Oil and Minerals EASTFIELD=Eastfield Resources Ltd.

COEUR=Coeur Mining Inc.