

BARRICK GOLD CORPORATION

TECHNICAL REPORT ON THE TURQUOISE RIDGE MINE, STATE OF NEVADA, U.S.A.

NI 43-101 Report

Qualified Persons: Jason J. Cox, P.Eng. Wayne W. Valliant, P.Geo. Kathleen Ann Altman, Ph.D., P.E. Philip A. Geusebroek, P.Geo.



Report Control Form

Document Title	Technical Report on the Turquoise Ridge Joint Venture,

Nevada, USA

Client Name & Address Barrick Gold Corporation

10371 N. Oracle Road

Suite 201

Tucson, AZ 85737

Document Reference		Status &	FINAL	
	Project # 2893	Issue No.	Version	

Issue Date March 19, 2018

Lead AuthorJason J. Cox
Wayne W. Valliant(Signed)
(Signed)

Kathleen Ann Altman (Signed)
Philip A. Geusebroek (Signed)

Peer ReviewersDeborah A. McCombe(Signed)Luke Evans(Signed)

Project Manager Approval Jason J. Cox (Signed)

Project Director Approval

Richard J. Lambert (Signed)

Report Distribution Name No. of Copies

Name No. of Copies

Client

RPA Filing 1 (project box)

Roscoe Postle Associates Inc.

55 University Avenue, Suite 501 Toronto, ON M5J 2H7 Canada

Tel: +1 416 947 0907 Fax: +1 416 947 0395 mining@rpacan.com



FORWARD-LOOKING INFORMATION

This report contains forward-looking statements. All statements, other than statements of historical fact regarding Barrick Gold Corporation or the Turquoise Ridge Joint Venture (TRJV), are forwardlooking statements. The words "believe", "expect", "anticipate", "contemplate", "target", "plan", "intend", "project", "continue", "budget", "estimate", "potential", "may", "will", "can", "could" and similar expressions identify forward-looking statements. In particular, this report contains forwardlooking statements with respect to cash flow forecasts, projected capital, operating and exploration expenditure, targeted cost reductions, mine life and production rates, potential mineralization and metal or mineral recoveries, and information pertaining to potential improvements to financial and operating performance and mine life at the TRJV that may result from the shaft-sinking project. All forward-looking statements in this report are necessarily based on opinions and estimates made as of the date such statements are made and are subject to important risk factors and uncertainties, many of which cannot be controlled or predicted. Material assumptions regarding forward-looking statements are discussed in this report, where applicable. In addition to such assumptions, the forward-looking statements are inherently subject to significant business, economic and competitive uncertainties and contingencies. Known and unknown factors could cause actual results to differ materially from those projected in the forward-looking statements. Such factors include, but are not limited to: fluctuations in the spot and forward price of commodities (including gold, diesel fuel, natural gas and electricity); the speculative nature of mineral exploration and development; changes in mineral production performance, exploitation and exploration successes; diminishing quantities or grades of reserves; increased costs, delays, suspensions, and technical challenges associated with the construction of capital projects; operating or technical difficulties in connection with mining or development activities, including disruptions in the maintenance or provision of required infrastructure and information technology systems; damage to Barrick Gold Corporation's or the TRJV's reputation due to the actual or perceived occurrence of any number of events, including negative publicity with respect to the handling of environmental matters or dealings with community groups, whether true or not; risk of loss due to acts of war, terrorism, sabotage and civil disturbances; uncertainty whether the TRJV will meet Barrick Gold Corporation's capital allocation objectives; the impact of global liquidity and credit availability on the timing of cash flows and the values of assets and liabilities based on projected future cash flows; the impact of inflation; fluctuations in the currency markets; changes in interest rates; changes in national and local government legislation, taxation, controls or regulations and/or changes in the administration of laws, policies and practices, expropriation or nationalization of property and political or economic developments in USA; failure to comply with environmental and health and safety laws and regulations; timing of receipt of, or failure to comply with, necessary permits and approvals; litigation; contests over title to properties or over access to water, power and other required infrastructure; increased costs and physical risks including extreme weather events and resource shortages, related to climate change; and availability and increased costs associated with mining inputs and labor. In addition, there are risks and hazards associated with the business of mineral exploration, development and mining, including environmental hazards, industrial accidents, unusual or unexpected formations, pressures, cave-ins, flooding and gold ore losses (and the risk of inadequate insurance, or inability to obtain insurance, to cover these risks).

Many of these uncertainties and contingencies can affect Barrick Gold Corporation's actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, Barrick Gold Corporation. All of the forward-looking statements made in this report are qualified by these cautionary statements. Barrick Gold Corporation and RPA and the Qualified Persons who authored this report undertake no obligation to update publicly or otherwise revise any forward-looking statements whether as a result of new information or future events or otherwise, except as may be required by law.



TABLE OF CONTENTS

	PAGE
1 SUMMARY	1-1
Executive Summary	1-1
Economic Analysis	
Technical Summary	1-5
2 INTRODUCTION	2-1
3 RELIANCE ON OTHER EXPERTS	3-1
4 PROPERTY DESCRIPTION AND LOCATION	4-1
5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND	
PHYSIOGRAPHY	
Accessibility	
Climate	
Local Resources and Infrastructure	
Physiography	
6 HISTORY	
7 GEOLOGICAL SETTING AND MINERALIZATION	
Regional Geology	
Local and Property Geology	
Alteration	
Structure	
Mineralization	
8 DEPOSIT TYPES	
9 EXPLORATION	
Exploration Potential	9-1
10 DRILLING	10-1
Core Sampling	
RC Sampling	
Production Sampling	10-3
11 SAMPLE PREPARATION, ANALYSES AND SECURITY	11-1
Quality Assurance/Quality Control	11-2
12 DATA VERIFICATION	12-1
Database	12-1
13 MINERAL PROCESSING AND METALLURGICAL TESTING	13-1
Stockpile and Sampling	13-1
Metallurgical Accounting	13-3
Metallurgical Testing	13-4
Gold Production	13-6



14 MINERAL RESOURCE ESTIMATE	14-1
Summary	14-1
Resource Documentation	14-4
Resource Database	14-4
Exploratory Data Analysis	14-5
Topographic Surfaces	14-5
Geological Interpretation	14-6
Domain Modelling	14-7
Capping of High Grade Values	14-12
Density Testwork	14-13
Compositing	14-14
Variography	14-15
Block Model	14-19
Grade Interpolation	
Block Model Validation	14-27
RPA Validation	
Classification	14-32
Cut-off Grade	14-33
15 MINERAL RESERVE ESTIMATE	15-1
Summary	15-1
Cut-off Grade	15-3
Reserve Estimation	15-5
Dilution	15-6
Mineral Reserve Reconciliation	15-6
16 MINING METHODS	16-1
Underground Mining Operations	
Mine Design	
Mine Services and Infrastructure	16-8
Production Schedule	16-9
Mine Equipment	16-10
17 RECOVERY METHODS	17-1
18 PROJECT INFRASTRUCTURE	
Infrastructure and Services	
3 rd Shaft Project	
19 MARKET STUDIES AND CONTRACTS	
Markets Contracts	
20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL	
Tailings Storage Facility	
Environmental Studies	
Project Permitting	
Surface Disturbance	
Social or Community Requirements	



Mine Closure Requirements	20-3
21 CAPITAL AND OPERATING COSTS	21-1
Capital Costs	
Operating Costs	
22 ECONOMIC ANALYSIS	
23 ADJACENT PROPERTIES	
24 OTHER RELEVANT DATA AND INFORMATION	
25 INTERPRETATION AND CONCLUSIONS	
26 RECOMMENDATIONS	
27 REFERENCES	
28 DATE AND SIGNATURE PAGE	
29 CERTIFICATE OF QUALIFIED PERSON	
LIST OF TABLES	
	PAGE
Table 1-1 Mineral Resources – December 31, 2017	
Table 1-3 LOM Capital Cost Estimate	
Table 1-4 Operating Cost Summary	
Table 6-1 Summary of Gold Production	6-4
Table 10-1 Drilling by Year	
Table 14-1 Mineral Resources – December 31, 2017	
Table 14-2 Mineral Resources by Mining Region – December 31, 2017 Table 14-3 Lithologies Encoded in the Block Model	14-2 14.6
Table 14-3 Lithologies Efficuded in the Block Model	
Table 14-5 Mineralized Domains in Each Mining Region	
Table 14-6 Capping Summary	
Table 14-7 Raw Assay and Composite Databases	
Table 14-8 Variography Results	14-15
Table 14-9 Block Model Setup	
Table 14-10 Block Model Variables	
Table 14-11 Grade Estimation Min/Max Samples	
Table 14-12 Grade Estimation Searches	
Table 14-13 Resource Cut-off Grade Parameters	
Table 15-1 Mineral Reserves – December 31, 2017	
Table 15-2 Mineral Reserves By Mining Region	
Table 15-3 Reserve Cut-off Grade Parameters	
Table 15-5 2017 Grade Reconciliation	
Table 15-6 2017 Ounce Reconciliation	
Table 16-1 LOM Plan	
Table 16-2 Underground Equipment List	16-11
Table 20-1 Key Environmental Permits for TRJV	20.4



Table 21-1	LOM Capital Cost Estimate	21-1
	Operating Cost Summary	
Table 21-3	Summary of Personnel by Department	21-2

LIST OF FIGURES

	PAGE
Figure 4-1 Location Map	4-3
Figure 4-2 Property Map	
Figure 4-3 Site Plan	
Figure 7-1 Regional Geology	
Figure 7-2 Stratigraphic Column	
Figure 7-3 Local Geology	
Figure 7-4 Vertical Section Showing Generalized Mine Stratigraphy	
Figure 9-1 Exploration Targets	
Figure 10-1 Drill Hole Locations and Model Extents	
Figure 13-1 Recovery as a Function of COC and Gold Head Grade	
Figure 13-2 Range of Estimated Gold Recovery	
Figure 14-1 Mineralized Domains	
Figure 14-2 Mining Regions	14-11
Figure 14-3 Variogram Example (Vent_21)	
Figure 14-4 Example Swath Plots	
Figure 14-5 Visual Check of Drill Versus Block Grade Example	
Figure 15-1 Mineral Reserves – Breakdown by Mining Region	
Figure 15-2 2017 Tonnage Reconciliation	
Figure 15-3 2017 Grade Reconciliation	
Figure 15-4 2017 Ounce Reconciliation	15-10
Figure 16-1 Site Plan	16-2
Figure 16-2 Mining Method	16-4
Figure 16-3 Roadheader Cutting in South Zone	
Figure 17-1 Process Flow Sheet	
Figure 18-1 Site Infrastructure	
Figure 18-2 3 rd Shaft Project Schedule	



1 SUMMARY

EXECUTIVE SUMMARY

Roscoe Postle Associates Inc. (RPA) was retained by Barrick Gold Corporation (Barrick) to prepare an independent Technical Report on the Mineral Reserves and Mineral Resources of the Turquoise Ridge Joint Venture (TRJV) gold mine (the Mine) located in Humboldt County, Nevada, USA. The purpose of this report is to support disclosure of the Mineral Resources and Mineral Reserves for the TRJV gold deposit as of December 31, 2017. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects.

Barrick is a Canadian publicly traded mining company with a portfolio of operating mines and projects. The TRJV mine is located on Barrick's Getchell property on the eastern flank of the Osgood Mountains in the Potosi Mining District of northeastern Nevada. The TRJV mine is a joint venture between Barrick (75%) and Newmont Mining Corporation (Newmont, 25%), and is operated by Barrick. Information in this report is based on the TRJV as a whole and not only the 75% Barrick interest.

The TRJV consists of the Turquoise Ridge underground mine which produces high-grade refractory (carbonaceous/sulphide) gold ores that are processed off-site on a toll milling basis. The Mine is a long-life (21 years) underground operation, accessed via two shafts and a system of internal ramps, and utilizes underhand drift and fill mining methods with cemented rock fill. The Mine is currently producing 2,300 tons per day of ore with potential for increases from a planned 3rd Shaft and a new toll milling agreement.

Table 1-1 summarizes the TRJV Mineral Resources exclusive of Mineral Reserves as of December 31, 2017.



TABLE 1-1 MINERAL RESOURCES – DECEMBER 31, 2017 Barrick Gold Corporation - Turquoise Ridge Joint Venture

Category	Tonnage (000 tons)	Grade (oz/ton Au)	Contained Metal (000 oz Au)
Measured	4,327	0.264	1,140
Indicated	3,177	0.273	868
Total Measured and Indicated	7,504	0.268	2,009
Inferred	2,495	0.380	948

Notes:

- 1. CIM (2014) definitions were followed for Mineral Resources.
- 2. Mineral Resources are estimated at a cut-off grade of 0.23 oz/ton Au.
- 3. Mineral Resources are estimated using a long-term gold price of US\$1,500 per ounce.
- 4. A minimum mining width of 5 ft was used.
- 5. Mineral Resources are reported exclusive of Mineral Reserves.
- 6. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- 7. Numbers may not add due to rounding.
- 8. Bulk density used in model construction was 0.079 tons per cubic foot.
- 9. Mineral Resources are reported on a 100% basis. Barrick's and Newmont's attributable share of Mineral Resources are 75% and 25%, respectively.

Table 1-2 summarizes the Mineral Reserve estimate as of December 31, 2017.

TABLE 1-2 MINERAL RESERVES – DECEMBER 31, 2017
Barrick Gold Corporation – Turquoise Ridge Joint Venture

Category	Tonnage (000 tons)	Grade (oz/ton Au)	Contained Metal (000 oz Au)
Proven	10,408	0.454	4,726
Probable	6,892	0.452	3,112
Total	17,300	0.453	7,838

Notes:

- 1. CIM (2014) definitions were followed for Mineral Reserves.
- 2. Mineral Reserves are estimated at a cut-off grade of 0.29 oz/ton Au.
- 3. Mineral Reserves are estimated using a long-term gold price of US\$1,200 per ounce.
- 4. Numbers may not add due to rounding.
- 5. Mineral Reserves are reported on a 100% basis. Barrick's and Newmont's attributable share of Mineral Reserves are 75% and 25%, respectively.

CONCLUSIONS

The Mine has been in production for over 10 years and is a mature operation. In RPA's opinion, there are not any significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information, Mineral Resource or Mineral Reserve estimates, or projected economic outcomes.



Based on the site visit and subsequent review, RPA offers the following conclusions:

GEOLOGY AND MINERAL RESOURCES

- The Turquoise Ridge deposit is a typical Carlin-type deposit and is characterized by structurally and stratigraphically controlled, sediment-hosted, replacement deposits containing micron-sized gold.
- The drilling, sampling, and quality assurance/quality control is appropriate for the style of mineralization.
- The Mineral Resource estimate was completed by TRJV and was reviewed and accepted by RPA.
- RPA is of the opinion that the Mineral Resource estimate has been completed to industry standard and is suitable to support the disclosure of Mineral Resources and Mineral Reserves.
- RPA is not aware of any environmental, permitting, legal, title, taxation, socioeconomic, marketing, political, or other relevant factors which could materially affect the Mineral Resource estimate.
- Measured and Indicated Resources, effective December 31, 2017, total 7.5 million tons grading 0.268 oz/ton Au, containing 2.0 million ounces of gold, exclusive of Mineral Reserves.
- Inferred Resources, effective December 31, 2017, total 2.5 million tons grading 0.380 oz/ton Au, containing 0.9 million ounces of gold.
- Exploration potential remains considerable, and TRJV is pursuing an aggressive program on six targets.

MINING AND MINERAL RESERVES

- The Mineral Reserve estimate was completed by TRJV and was reviewed and accepted by RPA.
- RPA is of the opinion that the Mineral Reserve estimate has been completed to industry standard and is suitable for disclosure.
- Proven and Probable Mineral Reserves, effective December 31, 2017, total 17.3 million tons grading 0.453 oz/ton Au, containing 7.8 million ounces of gold.
- 2017 reconciliation results show that estimation of gold ounces is a reasonable match
 for subsequent production once all information is available, i.e., relative to the shortterm grade control model. Mineral Reserve estimates lack data when estimating more
 than a year in advance of mining significant quantities of Inferred Resources are
 drilled, re-estimated, and upgraded in classification before mining, rendering the
 Reserve estimates conservative. This is a long-standing pattern at TRJV, and not, in
 RPA's opinion, any cause for concern or change in estimation or operating practices.



- TRJV has started a pilot program to test mechanical mining via roadheader in softer ground. More continuous operation (in comparison to the cycle of activities in conventional drift advance) and less impact on the rockmass are expected to provide operating efficiency advantages.
- There is upside potential in higher mining rates, made possible by a new production shaft (sinking beginning in 2018), and a new toll milling agreement. This is not currently reflected in operating cost estimates, cut-off grades, or the reserve estimate.

PROCESSING

- The current sampling protocol for shipped ore is a laborious process but works well.
- The metallurgical accounting is complex but reasonable and consistent with typical industry standards.
- The gold recovery equation is based upon a relationship with the ratio between the gold feed grade and the organic carbon concentration, adjusted monthly based on process results at the Twin Creeks Plant. RPA's analysis, however, indicates that there is little correlation, and therefore the estimation methodology is not accurate.
- There is a concern that the quantity of gold that TRJV is being paid for may be inaccurate, as plant recoveries attributed to TRJV feed (10% of the total feed) are influenced to a much greater extent by Twin Creeks feed (90% of the total feed).

RECOMMENDATIONS

RPA has the following recommendations by area:

GEOLOGY AND MINERAL RESOURCES

Continue infill drilling and exploration.

MINING AND MINERAL RESERVES

- Review roadheader performance in 2018 and determine where gains can be made by changing from conventional drilling and blasting to mechanical mining.
- Now that production is less limited by milling constraints, review potential for higher mine production.

PROCESSING

 RPA recommends that evaluation of gold recovery estimates should continue to be assessed in order to improve the accuracy of the estimates.



ECONOMIC ANALYSIS

This section is not required as Barrick is a producing issuer, and the property is currently in production and there is no material expansion of current production. RPA has confirmed the economic viability of the Mineral Reserves through cash flow analysis.

TECHNICAL SUMMARY

PROPERTY DESCRIPTION AND LOCATION

The property is located in Humboldt County approximately 25 miles northeast of the village of Golconda, Nevada, and approximately 40 miles northeast of Winnemucca, Nevada. The Mine is located at approximately 5,300 FASL and centred near latitude 41° 12' 58" S and longitude 117° 14' 39" W.

LAND TENURE

The Turquoise Ridge property covers an area of 11,993 ha, which consists of 8,212 ha of unpatented mining and mill site claims and 3,781 ha of patented/fee land. The surface rights secured for the TRJV are sufficient to provide the necessary space required for all mining and quarrying activities.

As of the end of December 2017, all permits were in compliance or were in the process of renewal.

The TRJV is subject to a 2% net smelter return (NSR) royalty payable to Umetco Minerals Corporation.

HISTORY

Mining for copper, lead, and silver first began on the property in 1883. Tungsten was discovered in 1916 and mined sporadically until 1957. Gold was discovered at the present day Getchell mine site in 1933 and Getchell Mine Inc. operated the property from 1934 to 1945, producing a total of 788,875 ounces of gold. From 1960 to 2009, there was sporadic production at the Getchell mine including underground mining, open pit mining, and heap leaching of the dumps.



A deep drilling program began in 1993 in the Turquoise Ridge area. Planning and engineering for a new underground mine was completed in 1995. By mid-1998, a production shaft was completed at a depth of 1,820 ft below the surface. In February 2000, mining was suspended at the Getchell Main underground mine. Drilling continued on the Turquoise Ridge and North Zone deposits, but due to depressed gold prices, the entire property was shut down in February 2002. Production resumed in February 2003.

Since the inception of mining on the Getchell/TRJV property to the end of 2017, the Mine has produced approximately 6.0 million ounces of gold.

GEOLOGY AND MINERALIZATION

The Turquoise Ridge gold mine is situated within the Basin and Range province, near the northeast end of the Osgood Mountains.

The Getchell Fault, one of the most prominent structural features of the region, generally strikes north-south to north-northwest, and dips approximately 50° to the northeast in the vicinity of the mine site. The Turquoise Ridge North Zone mineralization largely mimics the orientation of the Getchell Fault, with complications from northeast and north-south structures.

The Turquoise Ridge deposit is a typical Carlin-type deposit and is characterized by structurally and stratigraphically controlled, sediment-hosted, replacement deposits containing disseminated micron sized gold. The gold occurs in arsenic-rich rims forming on pyrite, chiefly within decalcified, carbonaceous rocks. All gold bearing zones at TRJV are located in proximity to granodiorite dikes that splay from the Osgood stock.

Lithology and structure strongly influence the geometry of the mineralization. To the north, strataform mineralized domains exhibit strike lengths exceeding 1,000 ft with typical thicknesses in the 200 ft to 500 ft range. Down dip lengths of over 1,000 ft are common. Being dominantly stratigraphically controlled, the mineralized domains and bedding have a general north-northwest trending strike, and dip to the east (between 25° and 45°).

To the south, strataform domains tend to strike north and dip to the east at approximately 30° to 60°. This generalized orientation is slightly different from mineralization occurring in the northern part of the deposit.



The two zones are separated by the northeast trending Turquoise Ridge shear zone, which could have contributed to the difference in alignment of the two zones.

EXPLORATION STATUS

Since acquisition of the Project in 2006, Barrick has completed over 5,000 drill holes. The drilling programs from 2010 to 2017 were largely comprised of definition drilling to upgrade Mineral Resources and Mineral Reserves adjacent to and within gaps in the Proven and Probable Mineral Reserve shapes. In addition to the definition drilling in 2015, 2016, and 2017, TRJV drilled 30,726 ft in 21 step-out and advanced exploration holes.

The TRJV maintains an aggressive exploration program principally comprising diamond drilling. Exploration is being carried out over a number of exploration targets, including the TR Corridor Fault Zone, Upper Footwall Pond, the down dip and northeast extension of the Footwall Pond, the North Zone and South Zone Getchell Extensions, and the Powder Hill Extension.

MINERAL RESOURCES

The Mineral Resources as of December 31, 2017, are reported in Table 1-1 at a breakeven cut-off grade of 0.23 oz/ton Au based on operating costs, gold recoveries, and a gold price of US\$1,500/oz.

In metric units, the Mineral Resources consist of:

- Measured Resources totalling 3.93 million tonnes grading 9.03 g/t Au and containing 1.14 million ounces of gold.
- Indicated Resources totalling 2.88 million tonnes grading 9.37 g/t Au and containing 0.87 million ounces of gold.
- Inferred Mineral Resources totalling 2.3 million tonnes grading 13.0 g/t Au and contain 0.95 million ounces of gold.

The Mineral Resources were estimated by conventional 3D computer block modelling based on surface and underground diamond drilling and core assaying. Geologic interpretation of the drilling data was carried out and wireframes were constructed for 28 gold mineralized domains. Assays were composited to five foot intervals within the domains and statistical analysis was carried out to determine grade capping levels for each domain. Variography was



used to determine search parameters and inverse distance squared was employed for grade interpolation in the block model. Alternative interpolations by nearest neighbour methods were compared using swath plots for model validation. Variogram grade continuity ranges and the average distance to drill hole composites were used to classify resources into Measured, Indicated, and Inferred categories. Grade smoothing was examined, and reconciliation with 2016 production was carried out for further validation of the estimate.

RPA is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors which could materially affect the Mineral Resource estimate.

MINERAL RESERVES

The Mineral Reserves as of December 31, 2017, are presented in Table 1-2. Reserves are estimated at a cut-off grade of 0.29 oz/ton Au (in metric units, 9.9 g/t Au), based on 2017 operating costs, adjustments on processing costs related to the new Toll Milling Agreement, and an addition for operating margin. The methodology is appropriate for a process-capped operation, however, now that there is potential for higher production rates, the cut-off grade used may be conservative.

In metric units, Mineral Reserves consist of:

- Proven Reserves of 9.44 million tonnes, grading 15.57 g/t Au and containing 4.73 million ounces of gold.
- Probable Reserves of 6.25 million tonnes, grading 15.48 g/t Au and containing 3.11 million ounces of gold.

Dilution is estimated by expanding mining shapes by one foot on all sides, and adding a factor of 4% to account for backfill dilution. Mining extraction is estimated as 100%, as confirmed by reconciliation to production results.

The 2017 reconciliation results show production of higher tons (157%), lower grades, (79%) and higher ounces (125%) than estimated for Mineral Reserves, largely through identification of additional mineralization immediately before, and during mining. A closer match is obtained in short-term grade control modelling, with higher tons (121%), lower grades, (87%) and higher ounces (105%).



This is a long-standing pattern at TRJV, and not, in RPA's opinion, any cause for concern or change in estimation or operating practices. TRJV's practice of strategic planning based on cases including factored Inferred Resources therefore seems reasonable.

RPA is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

MINING METHODS

The mine is accessed via two shafts and a system of internal ramps, and utilizes underhand drift and fill mining methods with cemented rockfill. Ground conditions at Turquoise Ridge are poor, and the Rock Mass Rating (RMR) is typically less than 20, or very poor, in ore headings. The mine is currently producing 2,300 tons of ore per day.

Key challenges in attainment of production levels and costs are the development of sufficient stoping areas and the transition from top-cut development to undercut stoping. Completion of the infrastructure development in the North Zone is necessary to achieve and optimize higher production levels. Site preparation for a 3rd production shaft serving the North Zone is in progress, and shaft-sinking is scheduled to start in 2018.

MECHANICAL MINING

TRJV has a started a pilot program to test mechanical mining via roadheader. The roadheader has rotating cutter heads, which are programmed to excavate the desired shape of drift, replacing drill and blast as a method of advancing in soft ground. More continuous operation (in comparison to the cycle of activities in conventional drift advance) and less impact on the rockmass are expected to provide operating efficiency advantages.

At the time of RPA's site visit, the roadheader was commissioned and deployed in a test heading. The rock conditions were harder than is ideal for mechanical mining, and the machine was down due to excessive wear causing a need for replacement parts.

An area with more suitable ground conditions was being prepared for the roadheader, and results should be available in 2018.



PRODUCTION SCHEDULE

TRJV has prepared a production schedule based on Mineral Reserves, at a steady-state of approximately 850,000 tons per year. The mine life is 21 years.

The Life of Mine (LOM) plan includes a detailed monthly plan for the first two years with detailed mine designs in place for that period. The remainder of the mine life is based on the plans used in the development of the Mineral Reserve estimate.

RPA notes that there is an apparent production gap in 2018, which will be filled in by infill drilling in the active production areas (some of which has been completed after closing the database for year-end resource and reserve estimation). TRJV has a long history of success in short-term resource conversion and gains from infill drilling (between year-end reserve estimation and completing mining in an area).

Recent changes to the Toll Milling Agreement provide opportunities for higher production rates:

- 850,000 tons per year in 2018 and 2019
- 1.2 million tons per year in 2020 to 2024
- Flexibility to process ore elsewhere

These opportunities have not yet been part of reserve-level mine planning.

MINERAL PROCESSING

Virtually all of the ore mined at Turquoise Ridge is processed at Newmont's Twin Creeks Sage mill with the exception of a small tonnage of low grade material that was processed at Barrick's Goldstrike operation in 2010 and 75% of the non-conforming ore that was rejected by Newmont in 2017 that was also processed at Goldstrike. In the LOM plan, all of the ore will be processed at Twin Creeks, although the 2018 Toll Milling Agreement (TMA) between Barrick and Newmont provides terms for alternative processing options.

Ore produced from the Turquoise Ridge mine is stockpiled at TRJV throughout the month. The contracted processing limit for the agreement that expired at the end of 2017 was 730,000 dry tons per year. The new TMA increases the processing limit to 850,000 tons per year in 2018 and 2019, increasing to 1.2 million tons per year from 2020 through 2024.



The Sage mill capacity is 11,500 tons per day to 12,000 tons per day. The target grind size was reduced to 35 μ m in 2010 and additional Geho pumps were added to the circuit in 2010 to increase the plant feed rate that had previously been limited by the pump capacity.

The mill includes semi-autogenous grinding (SAG) mill followed by a ball mill. The cyclone overflow reports to a thickener. Thickener underflow reports to an acidification circuit where sulphuric acid is added as necessary to ensure adequate autoclave free acid solution levels. The free acid concentration for TRJV ore needs to be maintained greater than 30 g/L. Thickener overflow solution is returned to the milling circuit. After acidification, ore slurry is added to two identical autoclaves that are operated in parallel. Two stages of flash heat recovery are utilized. Autoclave discharge is cooled before reporting to the lime neutralization circuit. Autoclave waste gas is cooled and scrubbed before discharging to the atmosphere.

Oxide ore and acidic oxidized sulphide ore slurry are combined in the neutralization circuit. After neutralization with the carbonate oxide ore and supplemental lime, the ore slurry reports to a carbon-in-leach (CIL) circuit where the ore is leached in cyanide solution to extract the gold. Final tailings slurry is pumped to the tailings containment area. Tailings settle and decant solution is reclaimed and reused in the grinding circuit.

Loaded carbon from the CIL circuit is transferred to the recovery plant. After acid washing to remove inorganic contaminants, the carbon is transferred to the pressure Zadra stripping circuit. Gold is stripped from the carbon using caustic and cyanide solution at elevated temperature and pressure. Pregnant solution from the stripping circuit is pumped to an electrowinning circuit where precious metal is removed from the solution as sludge. The sludge is filtered, dried in a mercury retort, mixed with fluxes, and refined into doré bars.

After carbon stripping, the barren carbon reports to the kiln regeneration circuit and returns to the CIL circuit.

PROJECT INFRASTRUCTURE

Existing infrastructure comprises:

- Two shafts (24 ft and 20 ft diameters)
- Mobile equipment mining fleet
- Limestone backfill quarry and 250 stph backfill crushing facility



- Underground backfill plant (fed from surface silos)
- Underground shotcrete plant (fed from surface silo)
- Underground dewatering facility
- Surface compressor house
- Surface cement plant (can feed directly underground via slick line in Shaft #2)
- Multiple surface workshop facilities
- 120 kV electrical power line connection to the grid
- Office building
- Warehouse
- 3,500 gpm water treatment plant with three sets of Rapid Infiltration Basins (RIBS)
- Tailings facility
- New underground backfill and shotcrete plants being constructed near the North Zone

3RD SHAFT PROJECT

The 3rd Shaft Project consists of sinking and equipping a 24 ft diameter, concrete-lined shaft to 3,250 ft total depth. Shaft sinking will include two skipping levels, a water pressure break level, and a shaft bottom pump level. Shaft equipping will include a headframe and collar house; hoists and hoistroom; shaft steel; surface and underground material handling; and a shaft bottom pumping system.

The new shaft will serve as a second production shaft, and provide the following advantages:

- Improved ventilation
- Shorter hauls underground
- Provide a secondary escapeway for the north end of the mine
- Sustain productivity as working areas move away from #2 Shaft.

Site preparation for the 3rd Shaft started in 2017, and shaft sinking will begin in 2018. Production is expected in 2022.

ENVIRONMENTAL, PERMITTING AND SOCIAL CONSIDERATIONS

Over the years, many environmental studies have been completed, as required. Total permitted surface disturbance for the TRJV is approximately 1,957.5 acres, or 3.1 square miles.



The TRJV maintains a number of permits for the operation. TRJV tracks permits carefully to ensure ongoing compliance. Environmental staff carries out sampling, monitoring, and record keeping and are involved in permit applications and renewals as required.

There are no major challenges with respect to government relations, non-Governmental Organizations, social or legal issues, and community development. TRJV has a community and social relations policy that is consistent with Barrick core values and governance.

There are both ongoing and active reclamation and closure activities as well as historic or legacy activities.

Ongoing and active reclamation include the Turquoise Ridge and Getchell mine facilities; water treatment plant and infiltration system; potable water system; wastewater treatment system; tailings impoundment; and access and haul roads. These components will be reclaimed and closed at the end of the mine life. Reclamation of the historic Getchell processing facilities and legacy areas has essentially been completed.

The end-of-year (EOY) 2017 closure cost estimate was US\$36.3 million.

CAPITAL AND OPERATING COST ESTIMATES

Current LOM capital costs for the operation are estimated to be US\$723 million, as summarized in Table 1-3. Large capital items for 2018 include completion of site preparation for the 3rd Shaft, and beginning of shaft sinking.

TABLE 1-3 LOM CAPITAL COST ESTIMATE
Barrick Gold Corporation – Turquoise Ridge Joint Venture

Description	2018	LOM Total	
	(\$ millions)	(\$ millions)	
Capital Development	20.8	216.0	
3 rd Shaft Project	62.3	278.5	
Capital Equipment & Facilities	19.6	156.1	
Exploration Drilling	4.0	72.0	
Total	106.7	722.6	

Table 1-4 summarizes the reported unit operating costs for 2017, and the projected LOM costs.



TABLE 1-4 OPERATING COST SUMMARY Barrick Gold Corporation - Turquoise Ridge Joint Venture

Item	Units	2015	2016	2017	LOM
Mining	\$/ton	199.87	158.46	150.73	150.73
Processing	\$/ton	45.98	36.44	41.28	70.00
G & A	\$/ton	34.82	25.67	36.69	36.69
Total	\$/ton	280.67	220.57	228.70	257.42

Operating costs projected for the life of mine are based on 2017 actual costs, with an allowance for higher processing cost to account for terms in the new TMA.



2 INTRODUCTION

Roscoe Postle Associates Inc. (RPA) was retained by Barrick Gold Corporation (Barrick) to prepare an independent Technical Report on the Mineral Reserves and Mineral Resources of the Turquoise Ridge Joint Venture (TRJV) gold mine (the Mine) located in Humboldt County, Nevada, USA. The purpose of this report is to support disclosure of the Mineral Resources and Mineral Reserves for the TRJV gold deposit as of December 31, 2017. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects.

Barrick is a Canadian publicly traded mining company with a portfolio of operating mines and projects. The TRJV mine is located on Barrick's Getchell property on the eastern flank of the Osgood Mountains in the Potosi Mining District of northeastern Nevada. The TRJV mine is a joint venture between Barrick (75%) and Newmont Mining Corporation (Newmont, 25%), and is operated by Barrick. Information in this report is based on the TRJV as a whole and not only the 75% Barrick interest.

The TRJV consists of the Turquoise Ridge underground mine which produces high-grade refractory (carbonaceous/sulphide) gold ores that are processed off-site on a toll milling basis. The mine is a long-life (21 years) underground operation, accessed via two shafts and a system of internal ramps, and utilizes underhand drift and fill mining methods with cemented rock fill. The mine is currently producing 2,300 tons per day of ore with potential for increases from a planned 3rd Shaft and a new toll milling agreement.

Prior involvement by RPA consists of Mineral Reserve and Mineral Resource audits in 2007, 2010, 2013, and 2016.

SOURCES OF INFORMATION

This report was prepared by the following Qualified Persons (QPs):

- Mr. Jason J. Cox, P.Eng., Principal Mining Engineer
- Mr. Wayne W. Valliant, P.Geo., Principal Geologist
- Ms. Kathleen Altman, Ph.D., P.E., Principal Metallurgist
- Mr. Phillip A. Geusebroek, P.Geo., Senior Geologist



Site visits were carried out most recently by Messrs. Cox, Valliant, Geusebroek, and Dr. Altman on November 6 to 7, 2017.

Discussions were held with personnel from the Turquoise Ridge Joint Venture:

- Mr. Kevin Crawford, Chief Geologist
- Mr. Arun Rai, Chief Engineer
- Mr. Jon Carlson, Senior Resource Geologist
- Mr. Terry Knight, Resource Geologist
- Ms. Heather Casey, Production Geologist
- Mr. Joseph Seamons, Senior Mining Engineer
- Mr. Trey Williams, Mining Engineer
- Mr. Rory Howell, Senior Project Engineer
- Mr. Matthew Warnert, Chief Metallurgist

Mr. Cox is responsible Sections 15, 16, 18, 21, and 22 of the report and contributed to Sections 1, 2, 19, 24 through 26 and for the overall preparation of the report. Mr. Valliant is responsible for Sections 3 through 9, 11, and 23 and contributed to Sections 10, 12, 25, and 26. Dr. Altman is responsible for Sections 13, 17, and 20, and contributed to Sections 1, 19, and 24 through 26. Mr. Geusebroek is responsible for Section 14 and contributed to Sections 1, 10, 12, 25, and 26.

The documentation reviewed, and other sources of information, are listed at the end of this report in Section 27 References.



LIST OF ABBREVIATIONS

Units of measurement used in this report conform to the US standard system of weights and measures, except where metric units are noted. All currency in this report is US dollars (US\$) unless otherwise noted.

		1	
а	annum	kWh	kilowatt-hour
Α	ampere	L	litre
bbl	barrels	lb	pound
btu	British thermal units	L/s	litres per second
°C	degree Celsius	m	metre
C\$	Canadian dollars	M	mega (million); molar
cal	calorie	m ²	square metre
cfm	cubic feet per minute	m ³	cubic metre
cm	centimetre	μ	micron
cm ²	square centimetre	μg	microgram
d	day	Ma	million years ago
dia	diameter	m ³ /h	cubic metres per hour
dmt	dry metric tonne	mi	mile
dwt	dead-weight ton	min	minute
-			
°F	degree Fahrenheit	μ m	micrometre
FASL	feet above sea level	mm	millimetre
ft	foot	mph	miles per hour
ft ²	square foot	MVA	megavolt-amperes
ft ³	cubic foot	MW	megawatt
ft/s	foot per second	MWh	megawatt-hour
g	gram	OZ	Troy ounce (31.1035g)
G	giga (billion)	oz/ton	ounce per short ton
Gal	Imperial gallon	ppb	part per billion
g/L	gram per litre	ppm	part per million
Ğpm	Imperial gallons per minute	psia	pound per square inch absolute
g/t	gram per tonne	psig	pound per square inch gauge
gr/ft ³	grain per cubic foot	RL	relative elevation
gr/m ³	grain per cubic metre	S	second
ha	hectare	st or ton	short ton
hp	horsepower	stpa	short ton per year
hr	hour	stpd	short ton per day
Hz	hertz	stph	short ton per day
in.	inch	t	metric tonne
in ²			
	square inch	tpa	metric tonne per year
J	joule	tpd	metric tonne per day
k	kilo (thousand)	US\$	United States dollar
kcal	kilocalorie	USg	United States gallon
kg	kilogram	USgpm	US gallon per minute
km	kilometre	V	volt
km²	square kilometre	wmt	wet metric tonne
km/h	kilometre per hour	wt%	weight percent
kPa	kilopascal	yd ³	cubic yard
kVA	kilovolt-amperes	yr	year
kW	kilowatt		



3 RELIANCE ON OTHER EXPERTS

This report has been prepared by RPA for Barrick. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to RPA at the time of preparation of this report,
- Assumptions, conditions, and qualifications as set forth in this report, and
- Data, reports, and other information supplied by Barrick, TRJV, and other third party sources.

For the purpose of this report, RPA has relied on ownership information provided by Barrick. RPA has not researched property title or mineral rights for the TRJV and expresses no opinion as to the ownership status of the property.

RPA has relied on Barrick for guidance on applicable taxes, royalties, and other government levies or interests, applicable to revenue or income from TRJV.

Except for the purposes legislated under provincial securities laws, any use of this report by any third party is at that party's sole risk.



4 PROPERTY DESCRIPTION AND LOCATION

The property is located in Humboldt County approximately 25 mi northeast of the village of Golconda, Nevada, and approximately 40 mi northeast of Winnemucca, Nevada (Figure 4-1). The mine is located at approximately 5,300 feet above sea level (FASL) and centred near latitude 41° 12′ 58" S and longitude 117° 14′ 39" W.

LAND TENURE

The Turquoise Ridge property covers an area of 11,993 ha, which consists of 8,212 ha of unpatented mining and mill site claims and 3,781 ha of patented/fee land (Figure 4-2). This includes 3,684 ha (1,939 ha of unpatented claims and 1,745 ha of patented/fee land) that make up the area of influence for the TRJV. The surface projection of the mine workings can be seen on the site plan (Figure 4-3). Individual claims are outlined within the boundary. Blank areas without claims are administered by the Bureau of Land Management (BLM). Project boundaries are established along the Public Land Survey by section and subsection per the official BLM master title plan for T39N, R42E, MDM and T38N, R42E, MDM.

The 337 Unpatented Lode Mining Claims are located on public lands the paramount title to which is the United States. These claims require annual filing and payment of fees to the BLM (State Office) and to Humboldt County. Patented claims require annual payment of tax assessments to Humboldt County.

All pertinent permits have been received for the operation. An Exploration Plan of Operations is in place which allows the continued exploration of the property.

The TRJV maintains a number of permits for the operation. These compliance permits cover areas such as air quality, water rights, waste water treatment, tailings storage, hazardous materials storage, land reclamation, and community relations. The TRJV maintains a legal obligation register to track permitting and ensure on-going compliance. Environmental staff carry out sampling, monitoring, and record keeping and are involved in permit applications and renewals as required. As of the end of December 2017, all permits were in compliance or were in the process of renewal. Further details on permits can be found in Section 20.



ROYALTIES

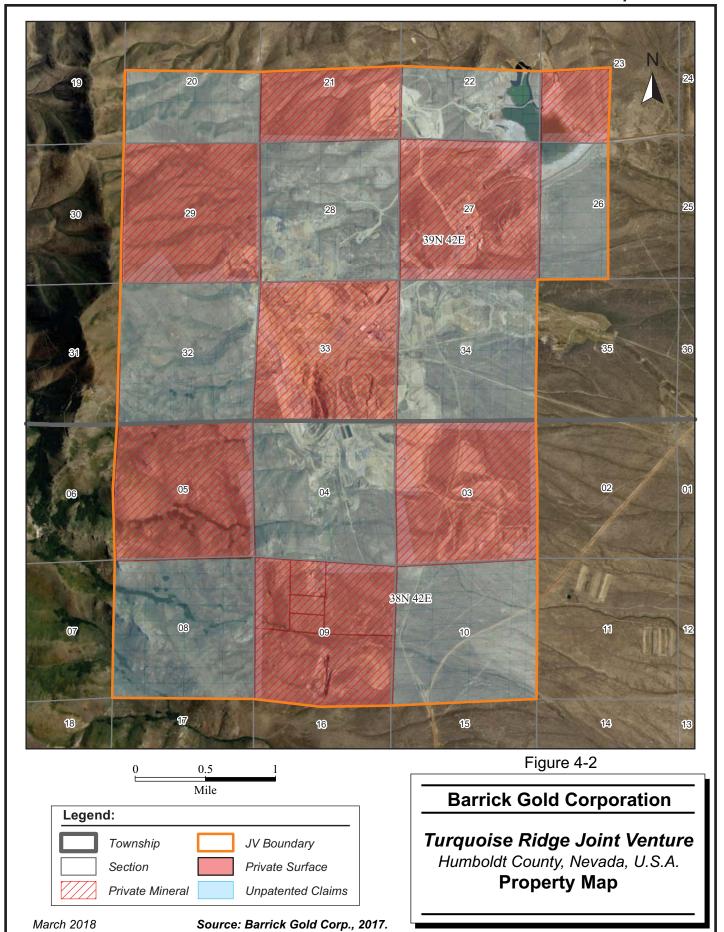
The TRJV is subject to a 2% net smelter return (NSR) royalty payable to Umetco Minerals Corporation.

RPA is not aware of any material environmental liabilities on the property. The TRJV has all required permits to conduct the proposed work on the property. RPA is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the property.

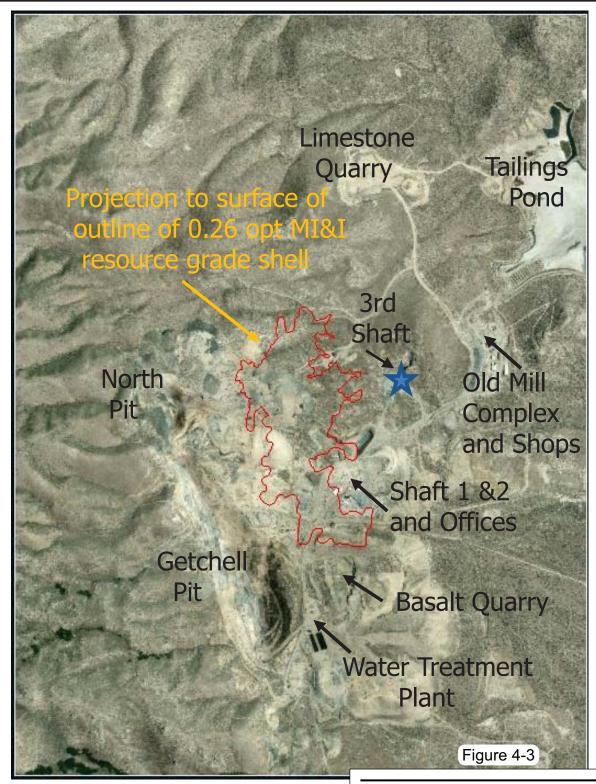












Barrick Gold Corporation

Turquoise Ridge Joint Venture Humboldt County, Nevada, U.S.A. Site Plan

March 2018

Source: Barrick Gold Corporation, 2017.



5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

ACCESSIBILITY

The TRJV is located in Humboldt County, Nevada, approximately 40 mi north and east of Winnemucca. The site can be accessed from Interstate 80 approximately 15 mi east of Winnemucca at the small town of Golconda. From Golconda, there is a paved road for 15 mi and then a 10 mi stretch of improved gravel road to the mine gate.

The nearest airfield is the Winnemucca Airport, which is 52 mi southwest of the mine site by road. The nearest regional airfield is the Elko Airport, which is 135 mi east of the mine site by road.

CLIMATE

The climate is a semi-arid, steppe climate characterized by dry, hot summers and cold winters. Average monthly temperatures range from a low of 23°F in December to a high of 85°F in July. The mine site receives an annual average of only three inches of precipitation, which falls primarily as snow in the winter months, though light seasonal rains commonly occur in April and September. The mine operates on a year-round basis and is not regularly affected by climatic conditions.

LOCAL RESOURCES AND INFRASTRUCTURE

Northern Nevada is a large underground and open pit mining area. Personnel and supplies for mining operations are relatively easily sourced from the local market, though some personnel, particularly professionals, are sourced from both out of state and foreign labour markets.

The surface rights secured for the TRJV are sufficient to provide the necessary space required for all mining and quarrying activities. Enough land area also exists on the property to



accommodate all foreseeable processing plants, tailings and waste storage areas, and waste disposal areas.

Water volumes necessary for mining operations are available both through reclamation of groundwater inflows into the mine as well as water pumped to surface from several water wells which have been drilled across the property. Electrical power is supplied by one 120 kV electrical transmission line which enters the property from the southeast.

PHYSIOGRAPHY

The TRJV property lies near the base of one of many typically north-south trending mountain ranges in the area. These ranges vary in height, from the valley floors at approximately 4,400 FASL to peaks at elevations between 5,900 FASL and 8,500 FASL.

Vegetation in the vicinity of the Mine is dominated by low dense shrubs and sage bush mixed with sparse native grasses and low flowering plants.



6 HISTORY

Mining for copper, lead, and silver first began on the mine property in 1883. Tungsten was discovered in 1916 and mined sporadically until 1957.

In 1933, Edward Knight and Emmett Chase, two Winnemucca prospectors, found gold at the present day Getchell mine site. In 1934, Noble H. Getchell purchased the mining claims and in 1935, approached George Wingfield to invest in his mining company.

Development of the mine began and a full-scale operation was planned, including construction of a mill. Mill construction required additional financial support so Mr. Bernard Baruch agreed to invest in the mine. In 1936, Newmont also agreed to help finance the construction of the Getchell mine as the third partner. The first gold was poured in 1938 and the company paid its first dividend in September of the same year.

Getchell Mine Inc. (Getchell) operated the mine from 1934 to 1945, producing and selling 788,875 ounces of gold. From 1939 to 1944, the Getchell mine paid out more than \$3 million in dividends. Even though mining was suspended in 1945 due to shortages of labour and materials, the mill continued to operate. A Cottrell precipitator was added to the plant to recover arsenic, however, mining of gold was discontinued during World War II. Getchell was allowed to continue operations as a producer of strategic arsenic. In 1942, a scheelite flotation plant was built and put into operation.

Under authorization from the Defense Production Act of 1950, the Defense Minerals Administration and the Defense Production Administration instituted measures providing for the purchase of a standard-grade (60% tungsten trioxide) concentrate at a ceiling price of \$69 per ton unit. The Getchell mine was one of the major tungsten producers in the United States. Tungsten production ceased in 1957 following the termination of the purchase program in 1956.

Getchell was purchased by Goldfield Consolidated Mines (Goldfield) in 1960. Goldfield modified the mill and a Dorr-Oliver fluidized solids reactor was installed to roast sulphide ores. The mine was closed in 1967 and the mill dismantled, because the tungsten deposit was mined out.



The Getchell mine was purchased by Conoco Inc. (Conoco) in the mid-late 1970s as the price of gold was on the rise. Extensive development drilling was completed, but production never restarted. E. I. du Pont de Nemours and Company (DuPont) purchased Conoco in 1982-1983 and instructed them to sell all mineral interests. Getchell mine was sold via closed bids.

First Mississippi Corporation and FRM Minerals Inc. purchased the property from Conoco in 1984 for \$5 million. Heap leaching of the dumps and a drilling program to verify gold deposits in the pit walls and below the pit floor began in 1986. A feasibility study was completed and identified the Property's reserves. In 1987, First Miss Gold Inc. (First Miss) was set up as a Nevada corporation and in October 1987, development of the open pit mine and construction of the processing facility began. The use of state-of-the-art pressure oxidation allowed First Miss to begin production in 1989.

Exploration drilling centred on the area around the original Getchell Main pit until 1992. In 1993, a multi-phase exploration project was started. The purpose of the project was to delineate high grade gold mineralization that had been discovered in the footwall of the Getchell Fault. At the conclusion of the exploration program, an economic evaluation was undertaken to determine the feasibility of an underground mine. Planning and engineering were completed and initial underground production started in July 1995 from the Getchell Main underground mine.

Meanwhile, a deep drilling program began in 1993 in the Turquoise Ridge area. A high grade mineralized zone was discovered at a depth of 1,400 ft to 2,000 ft below the surface. Based on the results of the drilling program, a feasibility study was initiated for a second underground mine at Turquoise Ridge. Planning and engineering for a new underground mine was completed in 1995. Sinking of the ventilation shaft for the Turquoise Ridge mine began in 1996. By mid-1998, a production shaft was completed at a depth of 1,820 ft below the surface.

Placer Dome Inc. (Placer) and Getchell Gold Corp. (Getchell) announced their intent to merge on December 13, 1998. Getchell stockholders approved the merger on May 29, 1999.

After initial evaluation of mining options, Placer shut down the mill and suspended operations in July 1999, amid a rapid drop in gold prices. In February 2000, it was determined that additional development was required and mining was suspended at the Getchell Main underground mine. Placer's development efforts focused on continued drilling of the Turquoise



Ridge and North Zone deposits. Due to depressed gold prices, the entire property was shut down in February 2002.

In June 2002, Placer staff defined a vision for the property, based on the concept of operating a low-tonnage, high-grade underground mine, in a safe and efficient manner. In August 2002, a start-up study was initiated to develop the defined vision into a mining plan and to assess economic impacts.

As gold prices rose in late 2002, the decision was made to restart the Getchell Main underground mine using contract mining. Production recommenced in February 2003.

On April 15, 2003, Placer announced commencement of construction and the subsequent start-up of the Turquoise Ridge mine. On December 23, 2003, a Joint Venture Agreement was signed with Newmont. Newmont contributed pre-existing royalties and at-cost processing at the nearby Twin Creek's Sage mill in exchange for a 25% share of the venture. In January 2006, Barrick acquired Placer's 75% interest in the property as part of its acquisition of Placer.

As a result of operational and safety issues, the Getchell underground mine was placed on care and maintenance in April 2008. Full closure of the Getchell underground mine occurred in the summer of 2009.

Since the inception of mining on the Getchell/TRJV property to the end of 2017, the Project produced approximately 6.0 million ounces of gold (Table 6-1).



TABLE 6-1 SUMMARY OF GOLD PRODUCTION Barrick Gold Corporation - Turquoise Ridge Joint Venture

Years	Gold Produced (Ounces)	Comments
1938 - 2003	2,890,948	Before Joint Venture
2004	162,637	Placer/Newmont JV
2005	208,492	
2006	233,127	Barrick Acquisition
2007	251,133	
2008	168,808	
2009	177,333	
2010	161,579	
2011	178,283	
2012	191,754	
2013	223,189	
2014	259,345	
2015	289,421	
2016	354,560	
2017	281,077	Pending final reconciliation
Total	6,031,686	



7 GEOLOGICAL SETTING AND MINERALIZATION

REGIONAL GEOLOGY

The Turquoise Ridge gold mine of northern central Nevada is situated within the Basin and Range province, near the northeast end of the Osgood Mountains. The Osgood Range is underlain by Cambrian Osgood Mountain Quartzite, Cambrian Preble Formation, Ordovician "Comus" Formation and the "upper plate" Valmy Formation. These units are unconformably overlain by the Permian Etchart Formation (Antler Peak Equivalent) of the Roberts Mountains Overlap assemblage, and by the Triassic Golconda allochthon. These uppermost units form a belt of outcrops flanking the western and northern sides of the Osgood Range. All of these units are intruded by two generations of felsic intrusive rocks – a set of 114 Ma dacite dikes and sills at Turquoise Ridge and Twin Creeks and the 92 Ma Osgood Stock and temporally related dikes and sills (Figure 7-1). To date, no Eocene intrusive rocks have been identified at the Getchell, Twin Creeks, or Pinson camps.

The Cambrian-Ordovician rocks were deposited on the platform and slope of the western margin of the North American Craton during the breakup of the Rodinia super-continent. The basal Osgood Quartzite and Preble formation are generally regarded to represent sourcing from a continental land mass and consist of quartz arenite (Osgood), siltstone, and shale with subordinate carbonate lenses (Preble). Carbonates of the Preble were deposited in an open shelf or upper slope marine environment and have undergone minor re-working (winnowed oolitic and algal pellet limestones, fragmented trilobites). Carbonates in the upper part of the Preble formation are time equivalent to rocks described as "Comus Formation" at Pinson and Twin Creeks. The Ordovician Comus Formation, as it is described in the deposits of the Getchell Trend represents a significant departure from the continental derived clastic and argillaceous sediments of the Osgood and Preble formations. The Comus Formation in the footwall of the Getchell Fault is characterized as thin to medium bedded carbonate turbidites, slumps, and debris flows with interlayered siliciclastic turbidites and argillaceous mudstone. The carbonate beds are interpreted to be derived from a carbonate sea-mount (Cook, internal reports and field notes) somewhere east of the Osgood Range. Algal pellets, fragmented coral, and crinoids have been observed as clasts in the carbonate debris flow conglomerates. The mine occupies the hanging wall of the Getchell Fault, which is a major, moderately east-

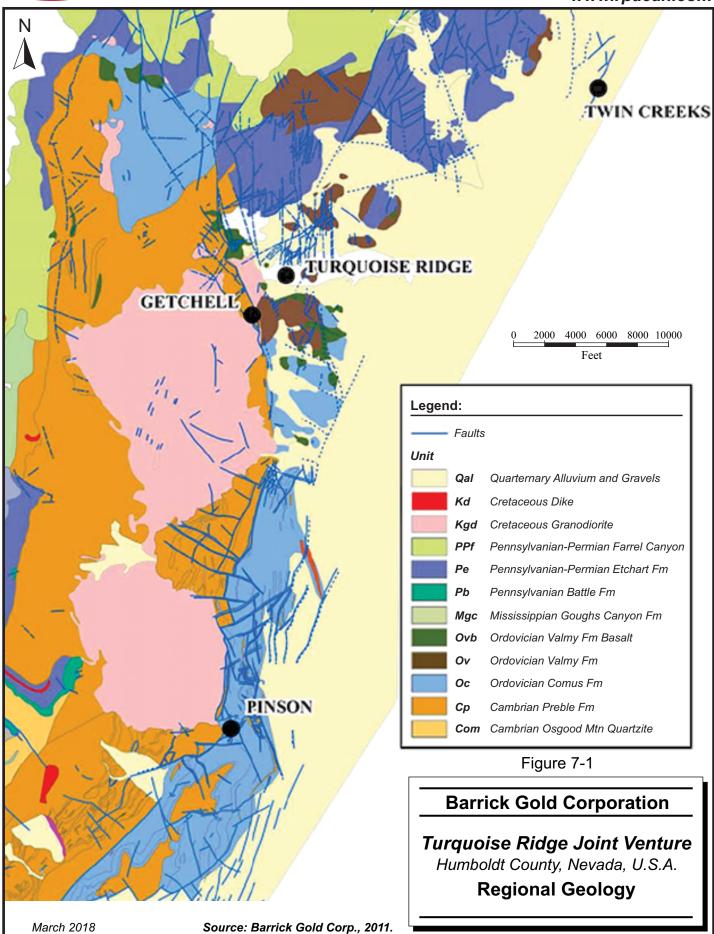


dipping range front structure bounding the east side of the Osgood Mountains. At Twin Creeks and Turquoise Ridge, the hanging wall of the Getchell Fault consists of Ordovician seafloor basalt and mafic sills interlayered with the carbonates and siliciclastic/argillaceous sediments.

The Getchell Fault is one of the most prominent structural features of the region and plays a significant role in controlling mineralization and the distribution of rock types. The Getchell Fault generally strikes north-south to north-northwest, and dips approximately 50° to the northeast in the vicinity of the mine site. Geophysical interpretations (mostly gravity and magnetic data), coupled with limited outcrop data, suggest that several footwall splays are present north of the Getchell underground workings, and that the fault continues to the north along several strands to the northern end of the Osgood Mountains.

The northern part of the mineralization trend largely mimics the orientation of the Getchell Fault, with complications from northeast and north-south structures. The mineralized domains in this area consist of several discrete bodies which generally strike north-northwest and dip moderately to the northeast.







LOCAL AND PROPERTY GEOLOGY

The stratigraphy at Turquoise Ridge consists of carbonaceous mudstones and limestones, tuffaceous mudstones and limestones, polylithic megaclastic debris flows, fine-grained debris flows, and basalts, all part of the Ordovician Comus Formation (denoted as sub-units OC0 to OC7). This formation is divided into several stratigraphic units in the vicinity of the Mine. The sedimentary members are commonly characterized by extensive soft-sediment deformation. The units are shown in Figure 7-2 and described from top to bottom as follows:

Upper Comus Basalt (also known as the Upper Pillow Basalt) - Pillow basalt, vesicular basalt, massive basalt, can be intermixed with medium beds of tuff (10 cm to 30 cm).

Comus Unit 0 - Upper Comus mudstone, basalt, minor limey-dolomitic mudstone, abundant shearing.

Comus Unit 1 - Laminated mudstone, siltstone, and tuff. The upper contact is marked by the distinctive Gemini Tuff. This unit may include one or more thin, discontinuous fine-grained enriched mantle type I (EMI)-texture igneous units as well as ashy/gritty fine lapilli tuff. Tuff layers become thinner and can become fragmented towards the bottom of the section. Gemini Tuff is a coarse lapilli tuff unit at the top of OC1. Generally, it has light to medium brown colour and can be 200 ft to 300 ft thick.

Sage Basalt - Medium-coarse grained basaltic igneous unit. Locally split into two or more units $(481.6 \pm 2.4 \text{ Ma})$.

Comus Units 2 and 3 - Thinly laminated (<0.3 cm) mudstone and siltstone with laminated (< 1 cm) carbonates, including silty limestone and calcarenite. Local thin, discontinuous thin-bedded siltstone units. These units generally contain a tuffaceous component (higher percent titanium) and can contain thinly laminated ash beds (<3 mm). Bedding within this unit is generally disrupted and often contains soft sedimentary textures. Mafic sills/sill-like intrusives are present throughout the units, but are more abundant at the top of the section. Debris flows become more common towards the bottom of the units (close to the OC5 contact).

DACR- Rare Earth Dacite - Massive, fine grained, light grey to white, sodium rich dacite, generally silicified, sometimes argillized. Quartz eyes/augens 2-4 mm in size are commonly



observed with 1 mm to 3 mm bleached alteration halos. This unit occurs within the southern portions of the deposit (around the shafts and south of the shafts surfacing south of the dumps).

North Pillow Basalt - Green aphanitic pillow to massive basalt. This unit contains pillow margins that are altered to chlorite and sometimes contain epidote. Calcite > quartz > epidote veins are common throughout the body. Alters to a pale brown/tan and can contain disseminated pyrite which turns the rock a dark grey colour. In high grade zones, realgar is common.

Comus Unit 5 - Limestone dominant (> 60%) with thinly laminated (< 0.3 cm) to very thinly bedded (1-3 cm) mudstone. The contact with OC2/3 can be difficult to identify and is typically determined by limestone beds becoming dominant over mudstone beds. The "Powder Hill" subunit falls within this unit and is determined by very thinly bedded limestone interbedded with very thinly bedded mudstone. Drill core often breaks like "hockey pucks".

Turbidites: Dark grey thin bedded (3 cm to 10 cm) limestone with thinly laminated (< 0.3 cm), dark grey to black mudstones. These sections typically contain euhedral pyrite that is sporadic throughout the limestone beds, and generally will follow bedding within the mudstones.

Comus Unit 6 – 75% to 90% limestone with interbedded mudstones. Limestones consist of thick (greater than 6 inches) turbidites with thinly laminated, siliceous mudstone layers. These carbonates resemble a pure limestone with very little terrigenous material (low in chromium, zirconium, etc.). Limestones become marble (composed of calcite and wollastonite, and can contain diopside, tremolite, and red-brown garnet) and mudstones become hornfels due to the metasomatism of the Osgood Granodiorite stock.

Comus Unit 7 – 65% to 75% limestone with interbedded mudstones. Limestones consist of medium (-3 inches) turbidites with thinly laminated, black siliceous mudstone layers.

These Comus units are overlain by more basalts, mudstones, and cherts that may be part of the Ordovician-aged Valmy formation or a continuation of the Comus Formation. The thickness of this package ranges from approximately 1,200 ft to 1,500 ft.

Stratigraphy in the Mine is interpreted as having been formed in a passive continental midshelf setting with a carbonate source likely to the southeast. North-dipping monoclinal folding



at the north end of the mine may be related to deep-seated normal faulting associated with basin margin rifting. Northeast trending structures at the Mine are interpreted to be growth faults in an extensional setting where the northwest block of a northwest-southeast structure is down-dropped in a rapidly subsiding basin. Stratigraphic units are thickened on the down-dropped side and basalts ponded against the discontinuity. Slumping and debris flows along with local disruptions to stratigraphy are associated with scarp failures along the major structure. Thick basalts in the north appear to occupy a post-monoclinal submarine canyon that cut through existing stratigraphy prior to basaltic volcanism.

The local geology is illustrated in Figure 7-3 and the generalized mine stratigraphy is illustrated in Figure 7-4.



Qal: Alluvium - Younger Gravels

Colluvium - Older gravels and lacustrian sediments Tg/Ts:

Colluvium - Welded -non welded tuffs/flows, gravels lacustrian Tc.

Tv/Ts/Tg

MIPH: Havallah Sequence - Siliceous mudstone, silstone, calcareous quartz sandstone,

limestone, chert and greenstone

IPPeu Etchart Upper Unit (1800-2100') - Thin-bedded laminated to bioturbated, argillaceous silty

limestone with minor (10%) quartz sand poor calcarenite and bioclastic limestone.

IPPem: Etchart Middle Unit: (800-900') Poorly sorted, thin-bedded to massive carbonate sequence.

IPPel: Etchart Lower Unit (450-600') - Well sorted, thin to thick bedded carbonate sequence,

Valmy Siliciclastics - Mudstone, chert, quartzite, siltstone, tuffaceous mudstone. Ovs:

Ovb: Valmy Basalt - Pillow basalt. Generally green-grey or green-brown color.

Upper Comus Basalt (also known as the Upper Pillow Basalt) - Pillow basalt, vesicular Ocb:

basalt, massive basalt, can be intermixed with medium beds of tuff (10-30 cm).

Geochemistry: Enriched basalt - higher Nb/Y ration (> 0.3).

Comus Unit 0 - Upper Comus mudstone, basalt, minor limey-dolomitic mudstone, abundant Oc 0:

shearing.

Comus Unit 1 - Laminated mudstone, siltstone, and tuff. The upper contact is marked by the Oc 1: distinctive Gemini Tuff (described below).

"Sage Basalt" - Medium-coarse grained basaltic igneous unit. Locally split into two

or more units. (481.6 ± 2.4 Ma)

Oc 2/3: Comus Units 2 & 3 - Thinly laminated (<0.3 cm) mudstone and siltstone with laminated (< 1

cm) carbonates including silty 2/3' limestone and calcarenite.

DACR: Rare Earth Dacite - Massive, fine grained, light gray to white, sodium rich dacite, generally

silicified sometimes argillized.

NPB: North Pillow Basalt - Green aphanitic pillow to massive basalt.

Comus Unit 5 - Limestone dominant (> 60%) with thinly laminated (< 0.3 cm) to very thinly bedded (1-3 cm) mudstone. "Powder Hill" subunit falls within this Oc5:

Oc6: Comus Unit 6 - 75-90% limestone with interbedded mudstones.

Oc7: Comus Unit 7 - 65-75% limestone with interbedded mudstones.

Preble Unit 1 - Mudstone/phyllite, siltstone, sandstone, limey mudstone, meta-Cp1:

exposures: quartz hornfels. quartzite, and calc-silicate.

Preble Unit 2 - Thick- med- thin-bedded limestone Cp2:

with interbeds of mudstone/phyllite, siltstone, sandstone. Turbidites and debris flows.

Cp3: Preble Unit 3 - Mudstone/phyllites, siltstone,

sandstone with thin-bedded limestone with interbeds.

Com:

S-N Section View

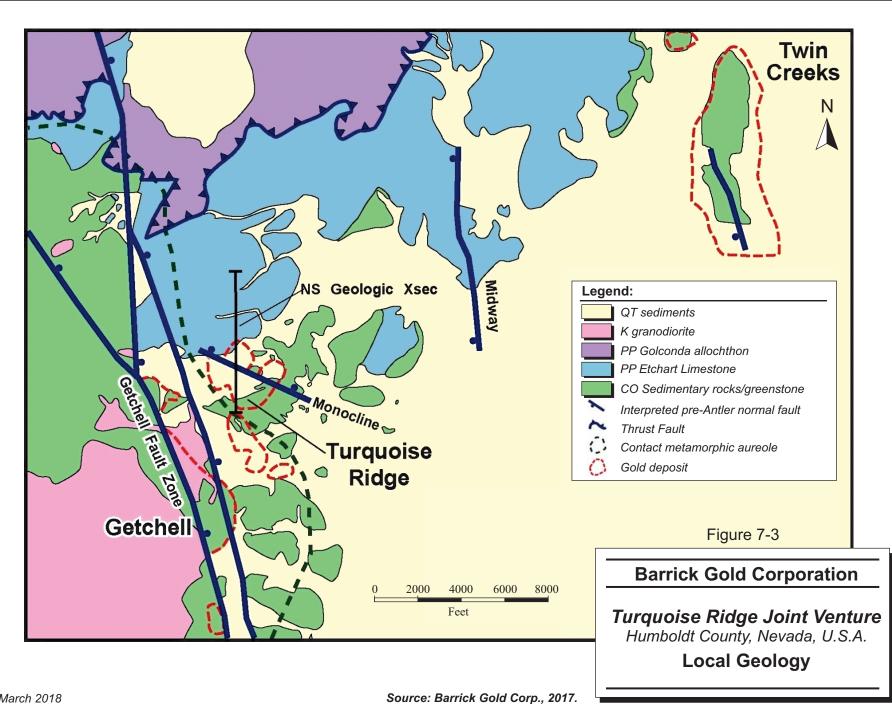
Source: RPA, 2018. March 2018

Figure 7-2

Barrick Gold Corporation

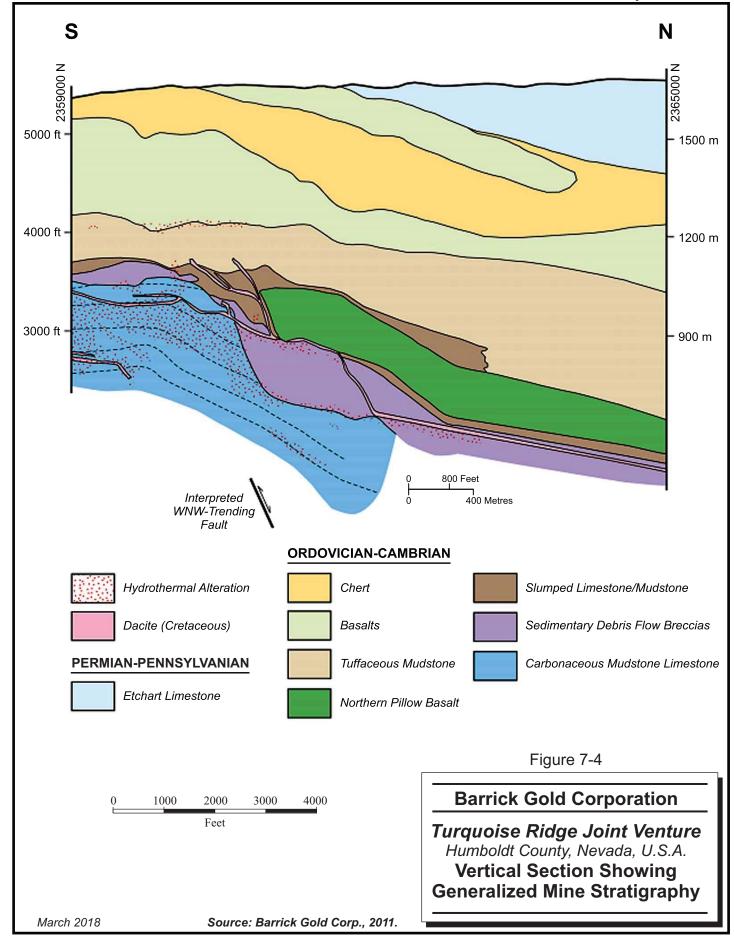
Turquoise Ridge Joint Venture State of Nevada, U.S.A.

Stratigraphic Column



March 2018







ALTERATION

Thermal metamorphism associated with the intrusion of the Cretaceous Osgood Stock at 92 Ma is characterized by ubiquitous development of biotite hornfels within the tuffaceous mudstones. Calc-silicate alteration within carbonates is especially prevalent in the southern portions, close to the Osgood stock. Thermal metamorphism associated with basalts has not been recognized.

Hydrothermal alteration consists of spotty silicification and locally extensive decalcification and argillization of all rock types. The addition of fine-grained, gold-bearing arsenic and iron sulphides comprise the main mineralizing event of the deposit. Hydrothermal alteration boundaries can be extremely sharp even where susceptible rocks are in direct, non-fault contact with altered rocks.

STRUCTURE

The four locally prominent structural fault features at the Mine are:

- 1. Getchell Fault Zone and related sub-parallel Getchell-like structures
- 2. Northeast-southwest faults
- 3. 'Better Be There' (BBT) Fault system
- 4. Roberts Mountain Thrust

The Getchell Fault Zone and related sub-parallel Getchell structures in the hanging wall of the Getchell Fault strike approximately north-northwest to south-southeast and dip 45° to 55° northeast. The Getchell Fault Zone shows a long, complex history of movement displaying reverse, strike-slip, and normal displacement characteristics.

Rocks of the Comus Formation in the hanging wall of the Getchell Fault Zone are offset by a series of sub-parallel Getchell Fault-like structures. Dips of these sub-parallel structures are generally shallow eastward away from the Getchell Fault Zone. It is understood that the Main Dike and other thin, low angle intrusive dikes were preferentially intruded along these sub-parallel Getchell faults.

A series of northeast-southwest striking, normal faults are also offsetting the rocks of the Comus Formation in the hanging wall. These faults dip northwest approximately 60° to 75°



and progressively displace the Comus Formation downward in that direction. These northeast-southwest faults occur at approximately 400 ft to 600 ft intervals through the deposit. Similar faults are observed cutting through the open-pit at the Twin Creeks Mine four miles to the northeast of the Turquoise Ridge Mine. Changes in stratigraphic thickness across at least one of the northeast-southwest faults at Turquoise Ridge suggests that it was active during the deposition of the Comus Formation.

The diffuse BBT Fault system strikes in variable directions northward in the hanging wall rocks. This fault system dips vertically to steeply to the west at 75°. There are indications that the BBT Fault system is normal, displacing rocks slightly to the west. The BBT Fault system offsets the Main Dike. A portion of the BBT Fault system is intruded by the dacite V-Dike which is in turn offset by a sub-parallel Getchell Fault.

The Roberts Mountains Thrust (RMT) is identified as a planar fault zone between the basal portions of the Valmy Formation and upper units of the Comus Formation.

Synformal and antiformal geometries within the stratigraphy are indicative of modest east to west compression, which probably occurred prior to intrusion of the undeformed Cretaceous dikes. Disharmonic soft-sediment slump folding is common, and is especially well developed in the BPH limestones and the limestones and mudstones of the Powder Hill unit.

MINERALIZATION

Lithology and structure strongly influence the geometry of the mineralization. Mineralization at Turquoise Ridge generally consists of disseminated, micron-sized gold occurring in arsenic-rich rims forming on pyrite, chiefly within decalcified, carbonaceous rocks. Many gold bearing zones are located close to granodiorite dikes and beneath basaltic intrusions. TRJV geologists recognize the ability of dikes, sills, and other intrusives to concentrate mineralization. Drilling actively targets these zones and the adjacent limestone and mudstone horizons.

The 2017 Mineral Resource was divided into 28 mineralized domains based on stratigraphic, structural, and analytical criteria. To the north, strataform mineralized domains exhibit strike lengths exceeding 1,000 ft with typical thicknesses in the 200 ft to 500 ft range. Down dip lengths of over 1,000 ft are common. Being dominantly stratigraphically controlled, the



mineralized domains and bedding have a general north-northwest trending strike, of approximately 330° to 340°, and dip to the east (between 25° and 45°).

To the south, strataform domains tend to strike north and dip to the east at approximately 30° to 60°. This generalized orientation is slightly different from mineralization occurring in the northern part of the deposit. The two zones are separated by the northeast trending Turquoise Ridge shear zone, which could have contributed to the difference in alignment of the two zones. Steeper dipping bodies (-58° east to -80° east) have an average strike length of 230 ft, average dip length of 160 ft, and average thickness of 40 ft. Moderately dipping bodies (-30° east to -50° east) range from 300 ft to 1,700 ft in strike. The average dip length is approximately 850 ft and thicknesses average 100 ft.

Cross-stratigraphic domains can occur at nearly perpendicular angles to the bedded domains. This style of mineralization cuts across bedding and is believed to be more structurally controlled. Mineralization may be controlled by low angle shearing, faulting, joint sets, or the intersection of these features. General trends of these domains are a north-northwest strike (340° to 360°) and steeply dipping. Widths of these domains may be in excess of 100 ft. To the south, cross-stratigraphic bodies strike north and are generally steeply dipping to the west or nearly vertical. Strike lengths vary from 100 ft to 650 ft with an average length of 400 ft. Dip lengths vary from 200 ft to 500 ft with an average dip length of 325 ft. Thicknesses average 65 ft.



8 DEPOSIT TYPES

The Turquoise Ridge deposit is a typical Carlin-type deposit and is characterized by structurally and stratigraphically controlled, sediment-hosted, replacement deposits containing micron-sized gold trapped in arsenopyrite.

Along with the Turquoise Ridge deposit, the Preble, Pinson, Getchell and Twin Creeks deposits collectively define the Getchell gold belt, which could be described as the northern end of the Battle Mountain - Eureka gold belt as currently defined. It is recognized that both the Carlin and Battle Mountain - Eureka gold belts are alignments of sediment hosted gold deposits within structural windows, where autochthonous, lower-plate rocks of the Roberts Mountains thrust are exposed through allochthonous, upper-plate rocks. The origin of these structural openings is thought to be the product of multiple deformation events beginning with middle-late Devonian Antler Orogeny and continuing through at least Cretaceous time.



9 EXPLORATION

The Turquoise Ridge deposit was discovered at a depth of 1,400 ft to 2,000 ft below the surface by a deep drilling program. While surface exploration has been completed on the property in the past, except for drilling, deep penetration geophysical surveys, and structural mapping to extend the known dimensions of the mineralized zones, very little of this exploration was directed at the Turquoise Ridge deposit.

TRJV has an extensive database of historic soil, rock chip geochemical sampling, and geophysical surveys (gravity, airborne electromagnetic, magnetic, controlled source audio magnetotellurics (CSAMT), magnetotellurics (MT), and seismic). Gold mineralization is not directly detectable by geophysical methods, however, surveys map subsurface properties that are useful in interpreting lithology, alteration, and structure as guides to gold mineralization.

EXPLORATION POTENTIAL

The TRJV maintains an aggressive exploration program principally comprising diamond drilling. A brief description of the main targets follows (and shown in Figure 9-1).

- TR Corridor Fault Zone (148 Shear) Prominent northeast striking fault system hoisting generally high angle mineralized zones. Mineralization is open to northeast direction below the North Pillow Basalt unit.
- Upper Footwall Pond Apparently continuous mineralization in the footwall of the Main Dike and to the west of the V-Dike and up-dip from the Footwall Pond Domain.
- Separate Fault Extension Down dip and northeast extension of the Footwall Pond.
- North Zone Getchell Extension Possible up-dip extension in the northern portion of the North Zone. Also possible connection with Getchell parallel mineralization with mineralization in the Getchell open pit.
- South Zone Getchell Extension Test for possible extensions of the South Zone mineralization including drill intercepts to the southwest of the Shaft Zone workings.
- Powder Hill Extension Test for possible extensions of mineralization in the Powder Hill Unit.



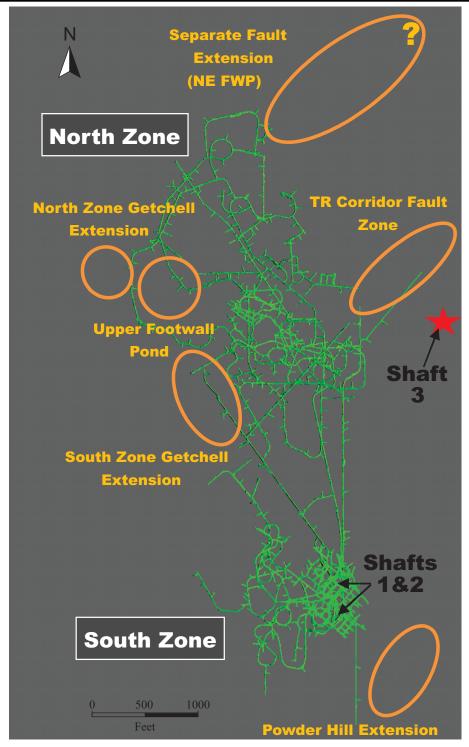


Figure 9-1

Barrick Gold Corporation

Turquoise Ridge Joint Venture
Humboldt County, Nevada, U.S.A.
Exploration Targets

March 2018

Source: RPA, 2018.



10 DRILLING

Table 10-1 lists all the drilling completed at the Project since 1930. Since acquisition of the Project in 2006, Barrick has completed over 5,000 drill holes.

TABLE 10-1 DRILLING BY YEAR
Barrick Gold Corporation – Turquoise Ridge Joint Venture

Year	Number of Holes
1992-2008	913
2009	1,872
2010	336
2011	241
2012	432
2013	648
2014	864
2015	262
2016	294
2017	280
Total	6,142

The cut-off date for the drill data for the EOY 2017 resource and reserve model was October 9, 2017. All 2017 drilling to October 9, 2017 was completed in the underground mine area.

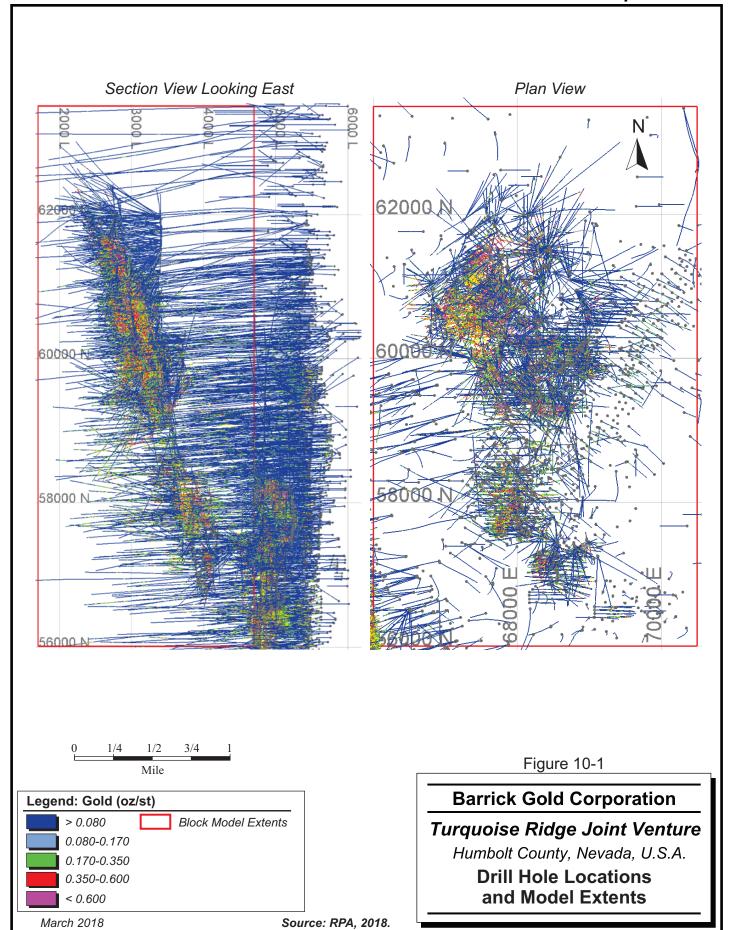
The database for the geologic and resource models resides in Elko, Nevada, and is maintained and administered by Barrick Exploration. Paper copies of the assay certificates are maintained on site at Turquoise Ridge.

The drilling programs from 2009 to until 2016 comprised mostly definition drilling to upgrade Mineral Resources and Mineral Reserves adjacent to and within gaps in the Proven and Probable Mineral Reserve shapes.

In addition to the definition drilling in 2015, 2016, and 2017, TRJV drilled 30,726 ft in 21 step out and advanced exploration holes. Exploration drill results indicated further potential for the targets noted in Section 9.

Drill hole locations relative to the model extents are shown in Figure 10-1.







CORE SAMPLING

TRJV follows conventional, industry standard practices for geologic and engineering data acquisition and sampling. Drill core is logged manually for geotechnical data and geology, and photographed in a modern facility. Drill holes are logged by the project geologist who describes the downhole lithology, structure, alteration, and mineralization. The entire length of the core is sampled. Split core samples are nominally five feet but can vary to a minimum of one foot to respect lithological contacts, at the discretion of the geologist. All mineralized intervals selected for split core assaying are bracketed on either end with a minimum of fifteen feet of visibly unaltered core.

RC SAMPLING

Reverse circulation drill holes are sampled on five foot intervals, designated by measured intervals on the drill's pull down apparatus (cables, chains). Drill cuttings are initially collected in a standard cyclone to reduce the sample's velocity to a safe speed, and then are dropped through a splitter. The splitter is actively managed to produce a sample of approximately five kilograms, but sample mass can vary from five to 15 kg. Standards, blanks, and duplicate samples are inserted/collected at the same prescribed rate as for diamond drill holes.

PRODUCTION SAMPLING

The ore stockpile is sampled by a sonic drill rig with four inch tooling. Samples are collected after two foot runs and placed in clear plastic bags. Samples are moved on palettes and stored in the core logging facility.

Production sampling underground consists of 12 lb (5 kg) samples collected by the load haul dump (LHD) unit operator during mucking of the round, at a rate of three to five samples per round. The objective is to standardize muck sampling at one per 35 tons. Due to low Rock Mass Rating (RMR) in ore, blasting results in well fragmented muck and samples are 95% sand size.

The waste stream is sampled before skipping to surface to confirm material routing. Waste round samples grading above 0.17 oz/ton Au are re-routed as ore.



RPA notes that core samples for assay are appropriately numbered to be blind to the assay laboratory. However, stockpile sonic drill samples are labelled according to hole number and footage. This is practical in view of driller responsibility for the labelling.

RPA further notes that core recovery in the mineralized zones can be poor (40% to 60%) and thus there is a risk of selective material loss that may impact on assay grade.



11 SAMPLE PREPARATION, ANALYSES AND SECURITY

All TRJV drill holes from 2009 to 2017 inclusive used for Mineral Resource estimation were assayed at the TRJV laboratory. Exploration drill hole samples followed a separate protocol, and were assayed off site in an accredited commercial laboratory.

TRJV LABORATORY

Samples are dried for a minimum of eight hours at 120°F and crushed to minus 3/8 in. The crusher is cleaned with compressed air following each sample. A weekly sieve analysis is performed to confirm the material fineness and adjustments are made accordingly.

The entire crushed sample is split with a Jones riffler to achieve a 150 g sub-sample which is pulverized to 90% minus 150 mesh using a ring and puck pulverizer. Daily sieve analyses are conducted to ensure the particle size. Every twentieth sample is pulverized separately as a separate QA/QC sample for analysis at an independent laboratory.

Samples are analyzed using fire assay with a gravity finish. Every batch of 20 samples contains a standard, blank, and duplicate sample for QA/QC. If any of the three QA/QC samples returns results outside the accepted range, the entire batch is re-run.

INDEPENDENT LABORATORY

ALS USA, Inc. (ALS) located in Reno, Nevada, is the primary independent analytical facility for analysis of pulp samples from core and RC drilling. This accredited laboratory conforms to requirements of CAN-P-1579 (Requirements for the Accreditation of Mineral Analysis Testing Laboratories) and CAN-P-4E (ISO/IEC 17025) (General Requirements for the Competence of Testing and Calibration Laboratories).

Samples are prepared on site as noted above.

ALS uses fire assay with an atomic absorption spectroscopic finish (FA/AAS) for low grade samples and fire assay with a gravimetric finish for AAS assays ≥10 g/t (0.292 oz/ton). A multi-element (51) analysis is performed on selected samples of interest for accessory metals and



trace elements. The ALS codes are PREP-31Y for preparation, Au-AA23 and Au-GRA21 for gold, and ME-MS41 for multi-element analysis:

- Au-AA23: Fire assay fusion and AAS on a 30 g aliquot (one assay ton) (0.005 g/t Au to 10 g/t Au)
- Au-GRA21: Fire assay fusion and gravimetric finish on a 30 g aliquot (0.05 g/t Au to 1,000 g/t Au)
- ME-MS41: Aqua regia (full to partial) digestion and inductively couple plasma mass spectrometry (ICP-MS) and atomic emission spectrometry (ICP-AES) analysis determination for 51 elements

SECURITY

Drill core in cardboard core boxes is currently stored in racks inside a recently built core storage facility. Pulps are stored indoors on the second floor of the re-purposed drill core laboratory and are secure.

RPA is of the opinion that the sample preparation, analysis, and security procedures are appropriate for use in Mineral Resource estimation.

QUALITY ASSURANCE/QUALITY CONTROL

The quality assurance/quality control (QA/QC) program for the core and production samples processed at the mine laboratory consists of the insertion of a certified reference material (CRM) or standard, blank, and pulp duplicate as internal laboratory checks in each batch of samples. Insertion rate is approximately 1:20 for standards, blanks, and duplicates. Duplicate samples are also sent to ALS for analysis.

CRM and blank samples are considered a failure if the assayed value is greater than three standard deviations from the expected value. The pulp duplicates are compared to the original results using the Sign Test which tests the number of positive and negative differences in sample pairs. The t-Test is used to compare the means. The results are also analyzed using regression analysis.

Ongoing monitoring of QA/QC results is completed as assay data are received from the laboratory before uploading into the TRJV master database. Monthly and quarterly review and comprehensive analysis of the QA/QC results are carried out. The QA/QC program is



monitored closely and all issues identified with assay results are resolved before approval of data and its importation into the mine database.

RPA also notes that coarse crush duplicate samples (rejects) are not used by the TRJV. Coarse crush duplicates would show contamination at the sample preparation stage that would not otherwise be evident. RPA recommends that coarse crush duplicates are analyzed on a regular basis.

RPA reviewed the results for mine geology samples analyzed at the TRJV assay laboratory between January 1 and September 30, 2017. A total of 3,097 in-house standards, 3,139 blanks, and 3,644 laboratory pulp duplicates were inserted into the sample stream during this period. There were 25 standard failures and two blank failures during this period. The pulp duplicates showed no systematic bias.

During the period from January 1 to June 30, 1,315 pulp duplicates were analyzed at the ALS laboratory. The Sign Test, t-Test, and regression analysis indicate that there is no systematic bias in the two sets of data.

These failure rates are acceptable and in RPA's opinion the QA/QC results indicate that the data is acceptable for Mineral Resource estimation.



12 DATA VERIFICATION

RPA checked previous Turquoise Ridge estimates and external data reviews, and has conducted independent reviews in 2011, 2013, 2016, and again in the preparation of this Technical Report. RPA completed a variety of validation queries and routines in Vulcan to identify any remaining data entry errors. A validity check for data errors such as out of range values, missing intervals, and overlapping intervals was carried out. The database was found to be acceptable and no significant problems were noted. RPA did not collect independent samples as the historical production clearly demonstrates the presence of economic mineralization.

DATABASE

The Turquoise Ridge technical database is being managed by the acQuire system implemented in 2004, replacing an earlier database system. Exploration data from a variety of sources are imported into acQuire using a variety of techniques and procedures to check the integrity of the data entered. Data that are logged on paper are subject to validation using built-in program triggers that automatically check manually entered data upon upload to the database. In May 2000, Second Door Industries performed a data verification project comparing pre-2000 certificates and assay data. A total of 327,222 assays of the 343,069 records passed the verification process. Analytical data are uploaded from digital sources. Survey data is uploaded by the project geologist from digital survey files. Verification is performed on all digitally collected data upon upload to the main database, and includes checks on surveys, collar co-ordinates, lithology data, and assay data.

Database security and integrity is accomplished by restricting access and user level permissions that are set by the Database Manager. Once data entry and validation are completed for a drill hole, access is locked. There are procedures for updates that retain all the original information and prioritize use of the updates.

Due to the historic nature of the assay data, several different assay laboratories have been used. Several negative values below 0.00 ounce per ton were in the database. Generally, laboratories have reported assays with different detection limits. It is apparent that assays returning values below detection limits have been seeded with a negative value. Through the



years, this value may have changed depending on the people or company in charge. TRJV has therefore set all historic negative assay values to a 0.000 value.

There are now only two negative values residing in the dataset. They are '-99' and '-66'. A negative 99 value represents an interval that was purposely not sampled whereas the negative 66 value indicates an interval of lost core, a lost sample, non-recovered interval, or shotcrete or backfill.

Reports are available for QA/QC programs dating from 2002 to present, which suggests any drilling performed by Placer has been verified and validated. Drilling data prior to Placer are included in the datasets, and the validity is assumed to be good.

The data, which has now been used extensively for the last ten years, has been corrected for location and orientation. Suspect holes are flagged and will not export. A visual examination of the drill holes, in Vulcan, show spatially valid drill hole collar locations.

Based on RPA's past evaluations and current review, it is RPA's opinion that the data are acceptable for the purposes of overall resource and reserve estimation and economic assessments. Some of the data may result in minor inaccuracies in local estimates.



13 MINERAL PROCESSING AND METALLURGICAL TESTING

Turquoise Ridge ore has been processed at Newmont's Twin Creeks operation since establishing a joint venture agreement between the previous owner of Turquoise Ridge (now a wholly owned subsidiary of Barrick) and Newmont on January 1, 2004. Initially, ore was sold by the TRJV to Newmont and subsequently processed at Twin Creeks, however, this was amended to a Toll Milling Agreement (TMA) on July 1, 2006. This agreement contained specifications that the ore must meet in order to be "Conforming Ore," including a specification that the ore must have a composite organic carbon (COC) concentration of 0.60% or less. In April 2017 Newmont rejected an ore lot that had a COC concentration greater than 0.60%. Subsequently, the parties agreed to a "Non-Conforming Ore Agreement" that provided terms for Newmont to process non-conforming ore at Twin Creeks. The agreement expired at the end of the previous TMA on December 31, 2017. A new TMA was executed in January 2018. It is effective from January 1, 2018 until December 31, 2024. The new agreement increases the maximum specification for COC to 1.0%, although higher processing costs are incurred if the COC concentration is higher than 0.60%.

Virtually all of the ore mined at Turquoise Ridge is processed at Twin Creeks with the exception of a small tonnage of low grade material that was processed at Barrick's Goldstrike operation in 2010 and 75% of the non-conforming ore that was rejected by Newmont in 2017 that was also processed at Goldstrike. In the Life of Mine (LOM) plan, all of the ore will be processed at Twin Creeks, although the 2018 TMA provides terms for alternative processing options.

Ore produced from the Turquoise Ridge mine is stockpiled at TRJV throughout the month. The contracted processing limit for the agreement that expired at the end of 2017 was 730,000 dry tons per year. The new TMA increases the processing limit to 850,000 tons per year in 2018 and 2019, increasing to 1.2 million tons per year from 2020 through 2024.

STOCKPILE AND SAMPLING

At the start of every month, the ore stockpiled the previous month undergoes a rigorous program to determine the quantity of contained gold. A sonic drill is used to drill vertical holes,



15 ft deep on a 20 ft grid. Angled holes are drilled around the perimeter of the stockpile. Samples are taken from each two feet of the hole and split in thirds. One sample is assayed by Barrick, one is assayed by Newmont, and the third is reserved. Averages of the two assays are used unless the assays conducted by each company are outside the splitting limit. If this happens a sample goes to an umpire laboratory and the settlement is based on the assay that was closest to the umpire assay unless the difference is too great. If this is the case the umpire assay is used for the settlement.

In addition to gold, the samples are assayed for organic carbon since the gold recovery formula is dependent upon the organic carbon content of the ore.

Between 600 and 800 samples are collected from each stockpile. The locations of the holes are surveyed and the assay data is used to create a block model of the stockpile using Inverse Distance to the fourth power (ID⁴). The quantity of gold is based on the results from the modeling.

In RPA's opinion, the current sampling is thorough and appropriate. In comparison to the value of the high-grade material (i.e., approximately 0.5 oz/ton Au) that is processed the cost of drilling, sampling, and assaying is not significant.

TONNAGE DETERMINATION

Trucks, containing on average 45 tons of ore, are weighed twice, first on the Turquoise Ridge scale, and then on the official TRJV scale located at Twin Creeks. Care is taken to reconcile the truck count. A Shipping Report is produced monthly which details the truck ticket number by the trucking contractor, the truck ticket information when it leaves the Turquoise Ridge site, as well as the recorded data at both truck scales. This data is all reconciled monthly and, if there are any errors, an adjustment is made.

MOISTURE DETERMINATION

In order to obtain a moisture determination for the calculation of a dry weight, samples are taken as the trucks dump at the run-of-mine (ROM) stockpile at Twin Creeks. The TMA stipulates that the ore is placed in a small pile which is allowed to grow to at least two truckloads. The face of the pile is sampled three times during each shift, generating two 5-gal



buckets of sample per shift. The dry tons for each truckload delivered during the shift are calculated from this one moisture determination.

GOLD RECOVERY

The agreed gold recovery is calculated at month end according to the following formula:

% Au Recovery =
$$a \times \left(\frac{COC}{Au}\right) + b$$

where:

a and b are constants determined each month by Twin Creeks from operating data
COC is the agreed organic carbon content in weight percent
Au is the agreed gold content in oz/ton from the stockpile

Typical recovery values for TRJV ore are in the 90% to 94% range, although monthly values have been as low as 85%. The weighted average recovery was 92.9% in 2017.

METALLURGICAL ACCOUNTING

The metallurgical accounting process is monitored by the TRJV Process Committee on a monthly basis. The Process Committee is made up of two people appointed by Barrick and two members appointed by Newmont. A Newmont metallurgist monitors the metallurgical accounting on a daily basis. The ore is shipped in individual lots, is commingled with other ores, and then the allocated gold is back calculated by Newmont based on the gold recovery formula and various empirical relationships. The metallurgical accounting process is described below.

The recovery formula provided above calculates the "amenable ounces" in the metallurgical accounting documentation. The amenable ounces are then normalized at month end to "indicated ounces" based on Twin Creeks' month-end production and an inventory survey of the Sage mill using the TRJV percentage of total amenable ounces processed. The "theoretical ounces" in the Sage mill attributable to TRJV can then be calculated from this based on the current month's production and the change in inventory month to month. Finally, an allocation of "poured ounces" attributable to TRJV for the month from the overall ounces of gold produced in the month can be made based on the percentage of theoretical ounces attributable to TRJV ore compared to the overall theoretical ounces from all ore sources.



Generally, the poured/sold gold ounces in a month, after factoring in the refinery month over month change in inventory, is very close to the "indicated ounces", although there are small metallurgical discrepancies month to month and year to year. On an annual basis, these discrepancies are less than one percent of the total gold produced.

In RPA's opinion, metallurgical accounting is reasonable and consistent with typical industry standards.

For the 2018 LOM plan, a gold recovery of 92% has been used throughout. RPA agrees with the use of this value.

METALLURGICAL TESTING

Historically, Barrick metallurgists took monthly composite samples from the TRJV stockpiles and performed bench top autoclave tests to validate the plant performance. In general the difference in recovery was less than one percent.

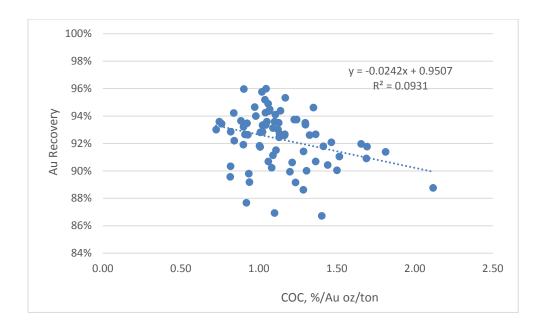
In 2017, Hazen Research Inc. completed a series of six tests using a sample from Turquoise Ridge that had a head grade of 0.5 oz/ton Au and 0.6% COC and variable testing conditions. The results were consistent with the historical results.

For operating mines, unless new ore that will be fed to the mill is expected to change appreciably, RPA considers historical data to be most representative of the recoveries that will be achieved going forward.

Figure 13-1 shows the recovery as a function of COC/Au Head Grade from January 2012 to December 2017.



FIGURE 13-1 RECOVERY AS A FUNCTION OF COC AND GOLD HEAD GRADE



This graph shows that based on the very low coefficient of correlation (i.e., R²), there does not appear to be a relationship between gold recovery and the organic carbon concentration divided by the gold head grade in oz/ton as assumed by the gold recovery equation.

Finally, Figure 13-2 demonstrates the range of gold recoveries estimated using the gold recovery equation and the monthly equations (i.e., linear intercept and slope) established by Twin Creeks. The calculation methodology assumes that the gold grade and COC concentration are approximately the same as the average over the six years from January 2012 through December 2017 (i.e., 0.5 oz/ton Au and 0.6% COC).



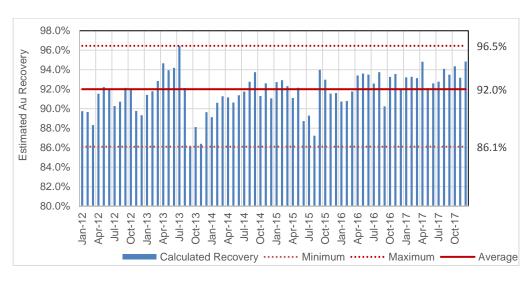


FIGURE 13-2 RANGE OF ESTIMATED GOLD RECOVERY

This graph shows that the actual gold recovery is quite variable over time. Using the same input of 0.5 oz/ton Au and 0.6% COC in the recovery equation and varying the intercept and slope of the linear equations using the information provided by Twin Creeks, results in an average estimated gold recovery of 92.0% ranging from a minimum of 86.1% to a maximum of 96.5%. In RPA's opinion, this wide range of results using constant input data indicates that the recovery estimate is not particularly reliable for the Turquoise Ridge ore. Therefore, efforts should be made to develop a more accurate estimation methodology.

GOLD PRODUCTION

Total gold production by TRJV for 2017 was estimated to be 281,077 ounces. The average grade processed in the Sage mill for 2017 was estimated to be 0.441 oz/ton Au, 0.619% COC, and mill recovery was approximately 92.6%. Final production data for 2017 will be available after settlement is reached with Newmont. Due to the terms of the TMA, the settlement takes several months after the ore is processed and the ore is processed the month after it is mined due to the stockpiling, sampling, assaying, and other procedures that are agreed upon by Newmont and the TRJV.



14 MINERAL RESOURCE ESTIMATE

SUMMARY

Table 14-1 summarizes the underground Mineral Resources, exclusive of Mineral Reserves, at TRJV. The Mineral Resource estimate has an effective date of December 31, 2017. The resource estimates are based on an October 2017 block model. RPA examined the EOY2017 Mineral Resource estimate and is of the opinion that it meets or exceeds industry standards and is acceptable to support reserve work.

The Mineral Resources were estimated by conventional 3D computer block modelling based on surface and underground diamond drilling and core assaying. Geologic interpretation of the drilling data was carried out and wireframes were constructed for 28 gold mineralized domains. Assays were composited to five foot intervals within the domains and statistical analysis was carried out to determine grade capping levels for each domain. Variography was used to determine search parameters and inverse distance squared (ID²) was employed for grade interpolation in the block model. Alternative interpolations by nearest neighbour (NN) methods were compared using swath plots for model validation. Variogram grade continuity ranges and the average distance to drill hole composites were used to classify resources into Measured, Indicated, and Inferred categories. Grade smoothing was examined, and reconciliation with 2016 production was carried out for further validation of the estimate.

The underground Mineral Resources in Table 14-1 are reported at a breakeven cut-off grade of 0.23 oz/ton Au based on operating costs, gold recoveries, and a gold price of US\$1,500/oz.

Measured plus Indicated Mineral Resources total 7.50 million tons grading 0.268 oz/ton Au and contain 2.01 million ounces of gold (exclusive of Mineral Reserves). In addition, Inferred Mineral Resources total 2.5 million tons grading 0.38 oz/ton Au and contain 0.95 million ounces of gold. Mineral Resources are broken down by ten mining regions as listed in Table 14-2.

In metric units, the Mineral Resources consist of:

 Measured Resources totalling 3.93 million tonnes grading 9.03 g/t Au and containing 1.14 million ounces of gold.



- Indicated Resources totalling 2.88 million tonnes grading 9.37 g/t Au and containing 0.87 million ounces of gold.
- Inferred Mineral Resources totalling 2.3 million tonnes grading 13.0 g/t Au and contain 0.95 million ounces of gold.

TABLE 14-1 MINERAL RESOURCES – DECEMBER 31, 2017
Barrick Gold Corporation - Turquoise Ridge Joint Venture

Resource Classification	Tonnage (000 tons)	Grade (oz/ton Au)	Contained Metal (000 oz Au)
Measured	4,327	0.264	1,140
Indicated	3,177	0.273	868
Total Measured and Indicated	7,504	0.268	2,009
Inferred	2,495	0.380	948

Notes:

- 1. CIM (2014) definitions were followed for Mineral Resources.
- 2. Mineral Resources are estimated at a cut-off grade of 0.23 oz/ton Au.
- 3. Mineral Resources are estimated using a long-term gold price of US\$1,500 per ounce.
- 4. A minimum mining width of 5 ft was used.
- 5. Mineral Resources are reported exclusive of Mineral Reserves.
- 6. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- 7. Numbers may not add due to rounding.
- 8. Bulk density used in model construction was 0.079 tons per cubic foot.
- 9. Mineral Resources are reported on a 100% basis. Barrick's and Newmont's attributable share of Mineral Resources are 75% and 25%, respectively.

TABLE 14-2 MINERAL RESOURCES BY MINING REGION – DECEMBER 31, 2017

Barrick Gold Corporation - Turquoise Ridge Joint Venture

Resource Classification	Mining Region	Tons (000)	Grade (oz/ton Au)	Ounces (000 oz Au)
Measured				_
	fwp	182	0.240	44
	get	201	0.286	57
	hgb	727	0.283	206
	mas	156	0.268	42
	mbd	177	0.252	45
	mmx	1,600	0.253	405
	nhw	447	0.266	119
	pdh	37	0.446	16
	tnb	143	0.259	37
	trw	657	0.258	169
Indicated		•		
	fwp	262	0.251	66
	get	413	0.318	131



Resource Classification	Mining Region	Tons (000)	Grade (oz/ton Au)	Ounces (000 oz Au)
	hgb	380	0.273	104
	mas	131	0.275	36
	mbd	153	0.313	48
	mmx	772	0.254	196
	nhw	239	0.248	59
	pdh	69	0.458	32
	tnb	346	0.265	92
	trw	412	0.254	105
Total Measured and Indicated		7,504	0.268	2,009
Inferred				
	fwp	127	0.399	51
	get	403	0.382	154
	hgb	268	0.340	91
	mas	278	0.315	88
	mbd	358	0.502	180
	mmx	189	0.345	65
	nhw	123	0.309	38
	pdh	24	0.485	12
	tnb	454	0.375	170
	trw	271	0.370	100
Total Inferred		2,495	0.380	948

Notes:

- 1. CIM (2014) definitions were followed for Mineral Resources.
- 2. Mineral Resources are estimated at a cut-off grade of 0.23 oz/ton Au.
- 3. Mineral Resources are estimated using a long-term gold price of US\$1,500 per ounce.
- 4. A minimum mining width of 5 ft was used.
- 5. Mineral Resources are reported exclusive of Mineral Reserves.
- 6. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- 7. Numbers may not add due to rounding.
- 8. Bulk density used in model construction was 0.079 tons per cubic foot.
- 9. Mineral Resources are reported on a 100% basis. Barrick's and Newmont's attributable share of Mineral Resources are 75% and 25%, respectively.

RPA is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors which could materially affect the Mineral Resource estimates. Definitions for resource categories used in this report are consistent with Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM (2014) definitions) as incorporated by reference into NI 43-101.



RESOURCE DOCUMENTATION

The following information in support of the Mineral Resource estimate was provided by TRJV:

- A 2017 mid-year model and associated working files to review the block modelling workflow.
- A paper copy of the modelling procedure.
- An updated 2017 year-end model with all supporting database files and scripts used in its construction.
- Wireframes of grade shells, domains, lithology, alteration, topography, pit designs, model limits, underground workings, and faults.
- Excel workbooks and Word files documenting the block modelling procedure and parameters utilized, variography, and QA/QC examples.
- An Excel workbook used to derive the final Mineral Resource table.

The 2018 Mineral Resource estimate is described in a comprehensive report entitled "Turquoise Ridge Mine, 2017 End Of Year Resource Model", covering all aspects of data collection, verification, assaying, QA/QC, data analysis, and resource estimation. The final resource files have access limited to the TRJV resource group and are backed up in the Barrick central office in Elko.

RPA performed all of its geological and resource model reviews and validation in Maptek Vulcan software. Exploratory Data Analysis (EDA) and database work was completed using SQL and Phinar x10 software interrogation of exported comma separated value (CSV) files from the Vulcan databases and block model used in the Mineral Resource estimate.

RESOURCE DATABASE

TRJV maintains the database in AcQuire software which generates CSV text file exports for Mineral Resource and Mineral Reserve estimation. RPA received the Mineral Resource data from TRJV in CSV format along with a native Vulcan database and associated composite files derived from the database.

The Mineral Resource database provided contains drill hole information available as of October 9, 2017. The TRJV database comprises a total of 16,326 drill holes containing



6,623,987.72 ft of gold assays. A summary of records in the TRJV drill database is listed below.

Drill holes: 16,326Channels: 0

Surveys: 220,148Gold Assays: 1,131,663Lithology: 488,804

The underground Mineral Resource estimate is based on 6,142 underground holes in the extents of the 2017 Mineral Resource. An additional 146 drill holes have been added to the underground database at the time of this report but are not included in the Mineral Resource database.

Methods and results to verify the historic drill hole data are provided in Section 10 Drilling of this Technical Report. Section 12, Data Verification, describes the resource database verification steps carried out by RPA.

RPA completed a variety of validation routines in Vulcan software and exploratory database queries. RPA notes that the data provided is of sufficient quality to facilitate the Mineral Resource estimate. RPA is of the opinion that the information provided meets industry standards.

EXPLORATORY DATA ANALYSIS

TRJV analyzed the drill hole database using histograms and box plots of uncapped gold assays. TRJV also performed a drill hole spacing study and stored interpolated values into the block model. RPA performed its own high-level EDA on CSV exports of the Vulcan database and composite files, based on the mineralized domains. RPA is of the opinion that the TRJV Mineral Resource database is suitable for the purpose of grade estimation.

TOPOGRAPHIC SURFACES

TRJV has updated the surface topography every few years, with the latest Light Detection and Ranging (LiDAR) survey data obtained in 2012. The Mineral Resource model data did not utilize a topographic surface since it is entirely underground, however, a small proportion of the drill holes used in the Mineral Resource estimate were surface holes. RPA compared an



older simplified topographic surface to the drill collars (in Vulcan software) and found that they coincided except where later excavation occurred. RPA is of the opinion that the surface holes are positioned accurately and appropriate for inclusion in the Mineral Resource estimate.

GEOLOGICAL INTERPRETATION

Lithological models first created were based on 50 ft sectional (east/west) data interpreted by TRJV Senior Geologists. An extensive re-logging of core photos was undertaken to identify stratigraphic contacts. The geological data previously residing in the database were either overly complex or too broad and non-descript to model contacts. Lines were drawn in Vulcan and meshed together to create new surfaces. The surfaces were 'booleaned' against a triangulation covering the model extents to create closed, valid three-dimensional lithological/stratigraphic units. A refinement of this process occurred in 2010, and another update was done in 2013. This interpretation is the basis for the 2017 end of year geologic model.

TRJV carried out an extensive re-interpretation/re-logging of down-hole geology by examining the library of core photos on the Turquoise Ridge property, and generated 16 lithological triangulations within the lithologic model extents and flagged them into the Mineral Resource model using codes with values over 100. Some lithologies occur in multiple units (argillaceous mudstone, soft-sediment slumped micrite), so TRJV defined model units according to distinct lithologic characteristic in these mixed populations of rock types. TRJV geological staff created solids by linking wireframe surface meshes between 3D polylines, and then truncating the surfaces against a triangulation covering the model extents to create closed, valid three-dimensional lithological/stratigraphic units. Table 14-3 outlines the lithological solids and corresponding numerical codes in the block model domain field.

TABLE 14-3 LITHOLOGIES ENCODED IN THE BLOCK MODEL Barrick Gold Corporation - Turquoise Ridge Joint Venture

Lithology	Domain Number
Ordovician Comus 2-3	222
Ordovician Comus 5	333
Ordovician Comus 6	444
North pillow basalt	555
Upper basalt	666
Hanging wall Cretaceous granodiorite	888



STRUCTURAL INTERPRETATION

TRJV geological staff constructed wireframe surfaces representing five major fault groups: the Getchell group, the TR group, the near-surface RMT group, the BBT group, and the Giant fault. Known mineralization often coincides with the intersection of major fault groups and previously established mineral domains. Mineralization also frequently extends away from known fault traces and into favourable stratigraphy, following porous, decalcified layers.

DOMAIN MODELLING

MINERALIZED DOMAINS

Three-dimensional mineralized domains were generated from sectional polygons digitized directly into Maptek Vulcan software, taking mineralization trends, stratigraphy, and structural controls into account. Polygons were created at nominal 25 ft spacing, striking 230° (northeast-southwest normal to the Getchell Fault), snapping to drill hole intercepts whenever possible. Polygons were linked together to create mineralized domain triangulated solids. The domains modelled were constructed to an approximately 0.07 oz/ton Au cut-off grade, based upon diamond drill data, underground channel sampling data, underground geological mapping, and underground mine excavations. Domains reflect hard boundaries used to constrain grade interpolation to areas of defined mineralization. A total of 28 mineralized domains were modelled for the deposit. For 2017, TRJV staff used Vulcan's 3D Geologic Sculpting Tool to move and add vertices to pre-existing domains. Table 14-4 shows the domain names as well as the numerical codes for each domain flagged in the block model (domain) and composite databases (bound). Figure 14-1 shows a plan view example with the locations of the domains as well as the underground workings.

RPA reviewed the wireframe models with respect to drilling. RPA notes that the mineralized envelopes are well-designed and snapped to assay boundaries on drill holes, except where locally modified by Vulcan's new wireframe 'push-pull' techniques to alter solid topology without constructing polylines.

For 2017, TRJV has elected to simplify the nomenclature regarding North and South zones (mentioned in Section 7) which comprise the mineralized domains and mining regions, as further drilling has shown north-south mineralization continuity. The North Zone/South Zone nomenclature now represents an unnecessary third layer of complication. Going forward,

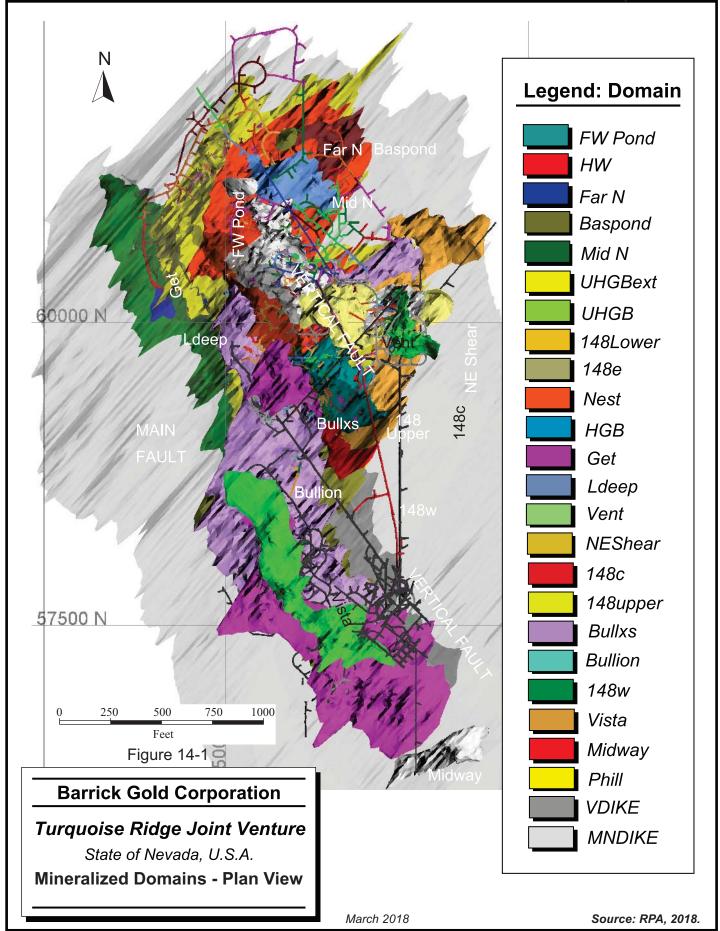


Mineral Resources and Mineral Reserves will be estimated by mineralized domain and disclosed according to mining region.

TABLE 14-4 MINERALIZED DOMAINS AND CORRESPONDING CODES
Barrick Gold Corporation - Turquoise Ridge Joint Venture

Domain name	Block Domain Code	Composite Bound Code
mndike	11	11
vdike	12	12
get	13	13
ldeep	14	14
farnorth	15	15
midnorth	16	16
ughbext	17	17
148e	18	18
nest	19	19
bulxs	20	20
vent	21	21
148lower	22	22
148w	23	23
148c	24	24
uhgb	25	25
fwpond	26	26
hw	27	27
neshear	28	28
bullion	29	29
hgb	30	30
vista	31	31
148upper	32	32
baspond	33	33
midway	51	51
stairway	55	55
phill	58	58
cellar	59	59
base	61	61







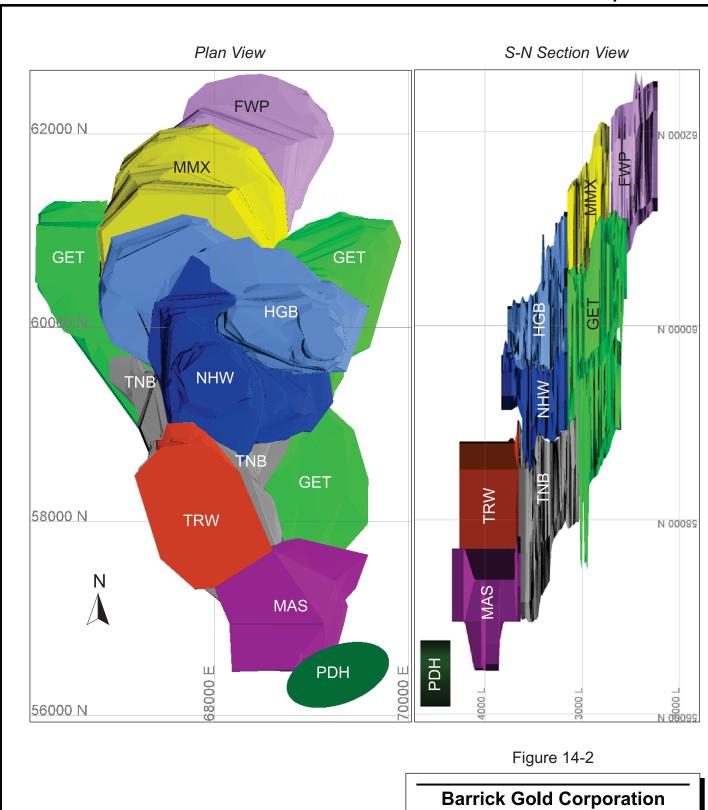
MINING REGIONS IN CONTEXT OF MINERALIZED DOMAINS

For 2017, TRJV has elected to subdivide the Mineral Resources and Mineral Reserves into mining regions rather than by mineralized domains. Table 14-5 shows mining regions and mineralized domains included in them. The geographic locations of the mining regions are shown in Figure 14-2.

TABLE 14-5 MINERALIZED DOMAINS IN EACH MINING REGION Barrick Gold Corporation - Turquoise Ridge Joint Venture

Minera	lized Domain					Mining	Region	1			
	Code	1	2	3	4	5	6	7	8	9	10
Code	Name	FWP	GET	HGB	MAS	MBD	MMX	NHW	PDH	TNB	TRW
11	mndike	Х	Х	Х		Χ	Х	Х		Х	
12	vdike		X	Χ	Χ		Χ	Χ		Χ	
13	get		X							Χ	
14	ldeep		X				Χ			Χ	
16	midnorth						Χ				
15	farnorth										
17	uhgbext			Χ							
18	148e					Χ					
19	nest			Χ							
20	bulxs							Χ			
21	vent			Χ				Χ			
22	1481					Χ	Χ				
23	148w		Χ	Χ		Χ		Χ		Χ	
24	148c			Χ		Χ	Χ	Χ			
25	uhgb			Χ			Χ	Χ			
26	fwpond	Х	Χ	Χ		Χ	Χ	Χ		Χ	
27	hw	Х		Χ		Χ	Χ	Χ			
28	neshear			Χ							
29	bullion			Χ	Χ			Χ		Χ	Χ
30	hgb			Χ		Χ	Χ	Χ			
31	vista				Χ						Χ
32	148u			Χ				Χ			
33	baspond	Х					Χ				
51	midway				Χ						Χ
55	stairway		Χ							Χ	Χ
58	phill								X		
59	cellar		X								
61	base				Χ			Χ		Χ	X







March 2018 Source: RPA, 2018.

Turquoise Ridge Joint Venture
Humbolt County Nevada U S.A.
Mining Regions



CAPPING OF HIGH GRADE VALUES

TRJV applied a capping grade according to inflections on log probability plots, and tails on histograms in conjunction with decile analysis. TRJV applied capping thresholds to the raw assays. This approach is less likely to allow inordinately high grade to be composited into adjacent low grades, which then fall below the capping threshold. RPA reviewed TRJV's capping analysis and is of the opinion that the thresholds applied are generally appropriate to each domain and reasonable for grade interpolation. Table 14-6 summarizes capping thresholds for the EOY 2017 resource estimation.

TABLE 14-6 CAPPING SUMMARY
Barrick Gold Corporation – Turquoise Ridge Joint Venture

Domain Name	Cap (Au oz/ton)	% Metal Cut	Uncapped CV	Capped CV
Mndike_11	0.90	6.3	1.75	1.31
Vdike_12	0.80	5.6	1.86	1.40
Get_13	1.90	2.0	1.27	1.11
Ldeep_14	1.42	2.4	1.30	1.12
Farnorth_15	0.14	19.2	1.29	0.64
Midnorth_16	0.90	10.3	1.45	1.02
Uhgbext_17	0.53	11.1	1.52	0.99
148e_18	2.40	4.5	1.35	1.12
Nest_19	0.90	6.4	1.31	1.04
Bulxs_20	0.78	7.5	1.27	0.93
Vent_21	2.20	4.8	1.70	1.45
148lower_22	2.30	3.6	1.52	1.31
148w_23	0.90	1.6	1.00	0.90
148c_24	2.90	3.0	1.73	1.56
Uhgb_25	2.15	2.5	1.40	1.25
Fwpond_26	2.30	3.0	1.45	1.22
Hw_27	2.50	2.2	1.40	1.28
Neshear_28	1.55	5.0	1.31	1.12
Bullion_29	2.10	1.4	1.45	1.35
Hgb_30	3.00	3.4	1.51	1.33
Vista_31	1.30	4.2	1.49	1.29
148upper_32	2.00	5.2	1.46	1.22
Bas_pond_33	1.65	5.4	1.61	1.32
Midway_51	2.00	4.4	1.60	1.29
Stairway_55	0.35	6.6	1.15	0.90
Phill_58	2.10	3.3	1.54	1.32
Cellar_59	0.36	19.0	1.28	0.68
Base_61	0.75	4.0	1.10	0.88
Oc2/3_222	1.00	6.1	3.29	2.33



Domain Name	Cap (Au oz/ton)	% Metal Cut	Uncapped CV	Capped CV
Oc5_333	0.75	5.5	2.59	1.92
Oc6_444	0.50	2.2	1.59	1.42
Npbas_555	0.43	4.3	2.07	1.63
Upbas_666	0.35	18.1	3.40	1.35
Hwkgd_888	0.10	14.5	1.51	0.94

DENSITY TESTWORK

Prior to 2004, densities assigned to models ranged between 0.071 tons/ft³ and 0.082 tons/ft³. Underground samples were collected for density determinations throughout the last half of 2004 and the beginning of 2005. A total of 161 samples were collected from the Turquoise Ridge mine. Sample locations (or rock types) were not noted; therefore, an average density was used for all rock types. Of the 161 samples, 153 were used to determine the average density. TRJV personnel removed eight samples from the dataset because they were not consistent with the density values measured historically for those rock types. Although this is a very small number of determinations, it was the only documented dataset available. Based on this dataset, an average density of 0.075 tons/ft³ was determined.

In 2009, TRJV completed a study to examine the validity of the in situ material density assumption (0.075 tons/ft³). Density is the mass of a substance per unit volume, and can be measured if the volume is easily measured (as in a length of drill core). For TRJV's underground drilling, the core is HQ size with a nominal core diameter of 2.5 in. and a volume of 58.9 in.³/ft of core length. The TRJV study involved weighing of full core boxes of a single rock type and measuring the total length of core in each box. Every fourth core box was weighed unless it contained multiple rock types or contained significant core loss. Rock type and alteration was also noted, but box weights, sample tags, and core blocks were subtracted from the box weight before the calculations. A total of 558 core boxes were weighed, comprised of six rock types: mud dominated (0.0781, the primary ore host), carbonate dominated (0.0810), dacite (0.0789), silica dominated (0.0770), basalt (0.0870), and all ore (0.0779). The six rock types were further subdivided according to alteration intensity.

TRJV concluded that the weighted average of all rock types, except basalt, regardless of alteration intensity, is 0.078 tons/ft³. Basalt is denser, averaging 0.087 tons/ft³. These results agree well with the historically used 0.075 tons/ft³ for rock type other than basalt, however, for the 2009 and 2010 reports, the density for all rock types was changed to 0.077 tons/ft³. The



two domains composed of basalt were assigned a density of 0.087 tons/ft³. The 2013 Mineral Resource estimates are based on a bulk density of 0.076 tons/ft³.

In 2015, an exhaustive reconciliation analysis strongly implied that the mineral domain density of 0.077 tons/ft³ was too light. The study reasoned that ore usually contained mixed proportions of altered and unaltered rock, and that production since 2011 averaged 6% more ounces than predicted in the Mineral Resource models. TRJV thus increased the density for mineralized domains from 0.077 tons/ft³ to 0.079 tons/ft³ for the EOY 2016 model to bring predicted gold content more in line with realized gold production.

RPA is of the opinion that TRJV has taken reasonable steps in density determinations over the life of the operation and that the density used for Mineral Resource estimation is valid. RPA recommends that TRJV continue to take density measurements over the life of the mine.

COMPOSITING

TRJV composited drilling information to five foot lengths in mineralized domains and 20 ft lengths in the surrounding lithologies. TRJV generated an additional 10 ft composite database for additional Sequential Gaussian Simulations and a 'straight' desurveyed (XYZ coordinate sample centroids derived from original FROM and TO values logged) assay composite file for comparative statistics. Composites were split at domain boundaries and flagged with the domain code in a 'bound' field which corresponds to the 'domain' field in the block model. TRJV then analyzed raw assay, capped grades, and composite statistics by domain. Table 14-7 summarizes the drill and composite databases.

RPA performed independent statistical analyses of the raw assay and composite data and agrees with TRJV's approach.

TABLE 14-7 RAW ASSAY AND COMPOSITE DATABASES
Barrick Gold Corporation – Turquoise Ridge Joint Venture

Dataset	No. Drill Holes	No. Samples	Avg Length (ft)	Total Length (ft)
Raw drill database (mineralized domains)	6,142	180,286	4.25	767,007
5ft composites (mineralized domains)	6,142	158,236	4.84	766,007
20 ft composites (lithological domains)	6,142	102,238	18.12	1,852,420



VARIOGRAPHY

TRJV completed variographic analyses by domain, using the five foot or 20 ft composited data. Sage 2001 software was used to determine the major, semi-major, and minor directional axes of greatest continuity. TRJV modelled experimental variograms using two nested spherical or exponential (practical range) structures. Isotropic, omni-directional variograms were generated for domains with sparse or poorly correlated data. Ellipses were visually checked in Vulcan using the view search ellipse function.

RPA performed spot checks of search parameters in the block estimation parameter files and found that they correspond with the search distances and orientations in the variography results.

TABLE 14-8 VARIOGRAPHY RESULTS
Barrick Gold Corporation - Turquoise Ridge Joint Venture

	Mineral Domain					Range (ft)	Ellipse	Orientati	on	Lag	Specs	Bandwi	dths (ft)	Toler	ances
#	name	# samps	nug	% sill	maj	semi - maj	min	bearing	plunge	dip	dist (ft)	# lags	horz	vert	lag (%)	ang (0)
11	mndike	10162	0.1	80	37	29	19	193	35	15	30	20	25	30	0.45	22.5
				90	63	47	30									
				100	280	210	140									
12	vdike	3965	0.1	80	44	27	25	335	59	19	30	20	25	30	0.45	22.5
				90	100	41	50									
				100	220	92	110									
13	get	4425	0.1	80	72	49	25	314	10	-12	30	20	25	30	0.45	22.5
				90	88	60	31									
				100	240	100	63									
14	Ideep	2868	0.17	80	40	29	17	342	76	13	30	20	50	60	0.45	45
				90	81	38	30									
				100	166	80	60									
15	farnorth	38	0.35	80	14	14	14	0	0	0	10	20	99999	99999	0.45	90
				90	17	17	17									
				100	26	26	26									
16	midnorth	701	0.1	80	28	26	18	193	2	-83	30	20	100	120	0.45	60
				90	34	30	23									
				100	75	60	35									
17	uhgbext	239	0.2	80	17	17	17	0	0	0	30	20	99999	99999	0.45	90
				90	22	22	22									
				100	35	35	35									
18	148e	1040	0.1	80	72	43	28	35	-38	26	30	20	50	60	0.45	45
				90	126	52	41									
				100	280	90	90									
19	nest	158	0.1	80	24	18	16	84	-37	-24	20	10	100	120	0.3	60
				90	31	21	20									
				100	46	28	25									
20	bulxs	652	0.15	80	47	39	21	306	47	27	30	20	100	120	0.45	60



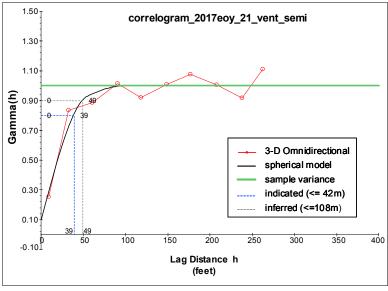
	Mineral Domain					Range (ft)	Ellipse	Orientati	on	Lag	Specs	Bandwi	dths (ft)	Toler	ances
#	name	# samps	nug	% sill	maj	semi - maj	min	bearing	plunge	dip	dist (ft)	# lags	horz	vert	lag (%)	ang (0)
				90	57	47	27									
0.1		00.45	0.4	100	105	75	76	200		40			0.5		0.45	
21	vent	3645	0.1	80 90	50 62	39 49	26 31	263	26	19	30	20	25	30	0.45	22.5
				100	125	100	50									
22	148lower	5203	0.1	80	50	34	27	278	16	8	30	20	25	30	0.45	22.5
				90	109	70	33									
				100	230	150	66									
23	148w	2216	0.18	80	69	38	34	349	-6	-24	30	20	25	30	0.45	22.5
				90	123	66	60									
24	148c	3435	0.1	100 80	240	125 27	115 18	289	10	-5	30	20	25	20	0.45	22.5
24	1460	3435	0.1	90	37 46	34	22	269	10	-5	30	20	25	30	0.45	22.5
				100	160	210	45									
25	uhgb	3846	0.12	80	44	34	34	108	-4	-76	30	20	25	30	0.45	22.5
	Ü			90	84	66	42									
				100	170	130	70									
26	fwpond	40279	0.1	80	79	49	47	71	-8	6	30	20	12	15	0.45	22.5
				90	170	106	108									
07	h	45004	0.4	100	370	230	230	220	20		20	20	25	20	0.45	20.5
27	hw	15031	0.1	80 90	85 116	55 75	36 52	238	39	9	30	20	25	30	0.45	22.5
				100	190	120	80									
28	neshear	2774	0.1	80	56	29	18	27	-65	47	20	10	25	30	0.45	22.5
				90	96	40	28									
				100	180	75	50									
29	bullion	19235	0.1	80	64	64	25	251	44	13	30	20	12	15	0.45	22.5
				90	112	109	34									
30	hah	7987	0.17	100 80	210 49	210 33	64 24	71	-9	34	30	20	25	30	0.45	22.5
30	hgb	1961	0.17	90	73	33 43	24 37	/ 1	-9	34	30	20	25	30	0.45	22.5
				100	130	75	65									
31	vista	1528	0.15	80	33	32	31	261	49	83	30	20	100	120	0.45	60
				90	41	39	38									
				100	80	90	70									
32	148upper	6650	0.1	80	42	31	23	53	-16	42	30	20	25	30	0.45	22.5
				90	51	37	28									
22	haa nand	1117	0.10	100	140	160	49	222	20	10	20	20	F0	60	0.45	45
33	bas_pond	1147	0.19	80 90	38 47	27 32	17 22	222	20	19	30	20	50	60	0.45	45
				100	110	68	35									
51	midway	9408	0.1	80	48	43	27	20	1	-16	30	20	25	30	0.45	22.5
				90	113	84	38			-		•				_
				100	340	250	110									
55	stairway	723	0.15	80	32	26	18	208	20	78	30	20	100	120	0.45	60
				90	40	32	22									
F.C.	1. 99	504	0.1	100	215	99	35	470			00		400	400	0.45	00
58	phill	521	0.1	80 90	50 61	43 52	24 29	176	59	-85	30	20	100	120	0.45	60
				100	111	80	43									
59	cellar	150	0.1	80	18	18	18	0	0	0	30	20	99999	99999	0.45	90
	,			90	22	22	22		-	-		_,				- •

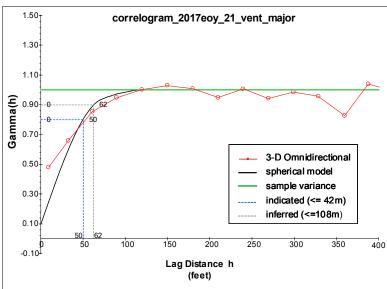


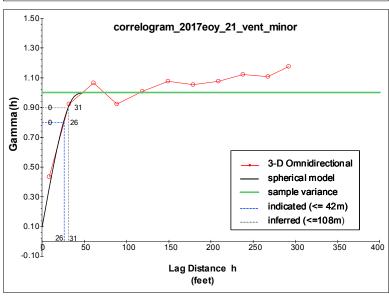
	lineral omain		Range (ft) Ellipse Orientation		on	Lag	Specs	Bandwi	dths (ft)	Tolerances						
#	name	# samps	nug	% sill	maj	semi - maj	min	bearing	plunge	dip	dist (ft)	# lags	horz	vert	lag (%)	ang (0)
				100	35	35	35									
61	base	10209	0.1	80 90	65 123	44 82	34 45	7	-10	-87	30	20	25	30	0.45	22.5
		10=00		100	240	160	90									
222	oc2_3	13529	0.25	80 90 100	46 72 410	34 46 220	33 44 155	200	7	63	30	20	25	30	0.45	22.5
333	oc5	68190	0.4	80	46	37	34	4	33	-62	30	20	12	15	0.45	11
000	000	00.00	0	90	62	52	44	·		-		_0			00	
				100	215	240	230									
444	oc6	3598	0.33	80 90 100	188 265 440	168 240 400	70 100 165	339	2	-37	30	20	50	60	0.45	45
555	npbas	10996	0.4	80	52	33	19	212	52	51	30	20	25	30	0.45	22.5
	·			90 100	69 280	44 120	25 65									
666	upbas	5704	0.4	80	48	34	24	344	-52	28	30	20	50	60	0.45	45
				90	69	50	36									
				100	400	315	200									
888	hwkgd	220	0.18	80 90 100	56 72 222	56 72 222	56 72 222	0	0	0	30	20	99999	99999	0.45	90



FIGURE 14-3 VARIOGRAM EXAMPLE (VENT_21)









BLOCK MODEL

TRJV performed block modelling and grade estimation in Maptek's Vulcan Version 10.1.2 software. The unrotated block model extents are shown in Table 14-9. The model is limited to a block size of 5 ft x 5 ft inside the mineralized domains. Mined blocks in the model were flagged with an integer representing the year that the block was mined. A description of the main block model attributes is given in Table 14-10. There are additional flag, distance, and other variables for each metal that are not shown.

In RPA's opinion, the block sizes are appropriate for the drill hole spacing and proposed mining method, and are suitable to support the estimation of Mineral Resources. Comparisons between wireframe and block model volumes are reasonable.

TABLE 14-9 BLOCK MODEL SETUP
Barrick Gold Corporation – Turquoise Ridge Joint Venture

	Start	Start	Start				Block	Block	Block	Blocking	Blocking	Blocking
	Χ	Υ	Z	End X	End Y	End Z	Χ	Υ	Z	Χ	Υ	Z
Scheme	Offset	Offset	Offset	Offset	Offset	Offset	Size	Size	Size	Maximum	Maximum	Maximum
parent	66000	56000	1700	70500	63500	4700	20	20	20			
sub-blocking	66000	56000	1700	70500	63500	4700	5	5	5	20	20	20

TABLE 14-10 BLOCK MODEL VARIABLES
Barrick Gold Corporation – Turquoise Ridge Joint Venture

76.	Description
oat	ID ² gold estimate
hort	domain = bound in composites
oat	nearest neighbour estimate
oat	estimated gold for engineering
hort	resource category
oat	will be defaulted to 0.077 tons/ft ³
oat	distance from excavated block centroid to nearest sample
oat	number of composites
nteger	flag with pass number when estimated
ouble	distance to nearest comp
oat	tons
oat	positive value indicates the block was within a 30' radius of 2 samples
oat	percent probability that block will exceed 0.30 opt
ouble	dataspacing
oat	simulated mean
oat	equals dspac/(aueng*100); sort of a proxy for prob300
oat	excavated blocks sent as ore
	pat



Variable	Туре	Description
excav	float	excavated blocks
steril	float	sterilized material
minreg	double	mining region
stm	float	short term model extents
tcm	float	total carbonaceous material. TOC
rmrok	float	rock mass rating using ordinary kriging
rmrnn	float	rock mass rating nearest neighbour estimation
rmrid	double	rock mass rating using inverse distance
co3	double	total carbonate %
ctot	double	total carbon %
ss2	double	sulphur/sulphide %
stot	double	total sulphur %
resv17_des	double	deswic derived reserve blocks for EOY 2017; 0.29 cog; mi
resv_17eoy	double	maptek derived reserve blocks for EOY 2017; 0.29 cog; mi
rres_17eoy	double	remaining resources for 2017eoy; 0.23 cog; mii

GRADE INTERPOLATION

TRJV interpolated grades into blocks on a parent cell basis using ID² in nine separate estimation passes according to relatively standard Barrick grade estimation practice. Gold estimates are not density weighted. Density is assigned at 0.079 tons/ft³ for mineralized domains. No high grade indicators, dynamic anisotropy, or high yield restrictions were used in the 2017 block model grade interpolation. Table 14-11 shows the minimum and maximum samples used in each estimation pass. All passes were limited to one sample per drill hole. Table 14-12 shows the search orientations and distances used in each pass, for each domain.

RPA reviewed the 2017 mid-year and 2017 end of year Vulcan projects provided by TRJV, visually inspected the databases and block estimates, reviewed the estimation parameter files, flagging, block calculation scripts, and run scripts. RPA is of the opinion that the grade interpolation strategy is reasonable and conforms to industry standards.



TABLE 14-11 GRADE ESTIMATION MIN/MAX SAMPLES
Barrick Gold Corporation – Turquoise Ridge Joint Venture

Estimation Pass	Min Samples Per Estimate	Max Samples Per Estimate
1	1	5
2	2	3
3	1	3
4	2	3
5	1	3
6	2	3
7	1	3
8	2	3
9	1	3

TABLE 14-12 GRADE ESTIMATION SEARCHES Barrick Gold Corporation – Turquoise Ridge Joint Venture

		Orienta	ntion (degre	es)	Search Distance (ft)			
Domain	Pass No.	Bearing Z	Plunge Y	Dip X	Major Axis	Semi Major Axis	Minor Axis	
all	1	0	0	0	5	5	5	
11	2	193	35	15	37	29	19	
11	3	193	35	15	23	19	13	
11	4	193	35	15	63	47	30	
11	5	193	35	15	36	28	20	
11	6	193	35	15	280	210	140	
11	7	193	35	15	145	110	75	
11	8	193	35	15	560	420	280	
11	9	193	35	15	285	215	145	
12	2	331	59	19	44	27	25	
12	3	331	59	19	27	18	17	
12	4	331	59	19	100	41	50	
12	5	331	59	19	55	25	30	
12	6	331	59	19	220	92	110	
12	7	331	59	19	115	46	60	
12	8	331	59	19	440	184	220	
12	9	331	59	19	225	97	115	
13	2	314	10	-12	72	49	25	
13	3	314	10	-12	41	29	17	
13	4	314	10	-12	88	60	31	
13	5	314	10	-12	49	35	20	
13	6	314	10	-12	240	100	63	
13	7	314	10	-12	125	55	36	
13	8	314	10	-12	480	200	126	
13	9	314	10	-12	245	105	68	
14	2	342	76	13	40	29	17	



	Orientation (degrees)					Search Distance (ft)			
Domain	Pass No.	Bearing Z	Plunge Y	Dip X	Major Axis	Semi Major Axis	Minor Axis		
14	3	342	76	13	25	19	12		
14	4	342	76	13	81	38	30		
14	5	342	76	13	45	24	20		
14	6	342	76	13	166	80	60		
14	7	342	76	13	88	45	353		
14	8	342	76	13	332	160	120		
14	9	342	76	13	171	85	65		
15	2	0	0	0	14	14	14		
15	3	0	0	0	10	10	10		
15	4	0	0	0	17	17	17		
15	5	0	0	0	13	13	13		
15	6	0	0	0	26	26	26		
15	7	0	0	0	18	18	18		
15	8	0	0	0	52	52	52		
15	9	0	0	0	31	31	31		
16	2	193	2	-83	28	26	18		
16	3	193	2	-83	19	18	14		
16	4	193	2	-83	34	30	23		
16	5	193	2	-83	22	20	16		
16	6	193	2	-83	75	60	35		
16	7	193	2	-83	42	35	22		
16	8	193	2	-83	150	120	70		
16	9	193	2	-83	80	65	40		
17	2	0	0	0	17	17	17		
17	3	0	0	0	12	12	12		
17	4	0	0	0	22	22	22		
17	5	0	0	0	16	16	16		
17	6	0	0	0	35	35	35		
17	7	0	0	0	21	21	21		
17	8	0	0	0	70	70	70		
17	9	0	0	0	40	40	40		
18 18	2 3	35 35	-38 -38	26 26	73 41	43 26	28 19		
18	3 4		-36 -38			52	41		
18	4 5	35 35	-36 -38	26 26	126 68	31	25		
18	6	35 35	-36 -38	26	280	90	90		
18	7	35 35	-36 -38	26	145	50 50	50 50		
18	8	35	-38	26	560	180	180		
18	9	35	-38 -38	26	285	95	95		
19	2	84	-36 -37	-24	263	18	16		
19	3	84	-37 -37	-24	17	14	13		
19	4	84	-37 -37	-24	31	21	20		
19	5	84	-37 -37	-24	20	15	15		
19	6	84	-37 -37	-24	46	30	35		
13	J	04	-51	-Z+	40	30	33		



		Orienta	ation (degre	es)	Search Distance (ft)			
Domain	Pass No.	Bearing Z	Plunge Y	Dip X	Major Axis	Semi Major Axis	Minor Axis	
19	7	84	-37	-24	28	20	22	
19	8	84	-37	-24	92	60	70	
19	9	84	-37	-24	51	35	40	
20	2	306	46	36	47	39	21	
20	3	306	46	36	28	25	16	
20	4	306	46	36	57	47	27	
20	5	306	46	36	32	28	18	
20	6	306	46	36	105	75	76	
20	7	306	46	36	57	42	42	
20	8	306	46	36	210	150	152	
20	9	306	46	36	110	80	81	
21	2	263	26	19	50	39	26	
21	3	263	26	19	30	24	18	
21	4	263	26	19	62	49	31	
21	5	263	26	19	36	29	20	
21	6	263	26	19	125	100	50	
21	7	263	26	19	67	55	30	
21	8	263	26	19	250	200	100	
21	9	263	26	19	130	105	55	
22	2	278	16	8	50	34	27	
22	3	278	16	8	30	22	18	
22	4	278	16	8	109	70	33	
22	5	278	16	8	59	40	21	
22	6	278	16	8	230	150	66	
22	7	278	16	8	120	80	38	
22	8	278	16	8	460	300	132	
22	9	278	16	8	125	155	71	
222	2	200	7	63	46	34	33	
222	3	200	7	63	28	22	21	
222	4	200	7	63	72	46	44	
222	5	200	7	63	41	28	27	
222	6	200	7	63	410	220	155	
222	7	200	7	63	210	115	82	
222	8	200	7	63	820	440	310	
222	9	200	7	63	415	225	160	
23	2	349	-6	-24	69	38	34	
23	3	349	-6	-24	39	24	22	
23	4	349	-6	-24	123	66	60	
23	5	349	-6	-24	66	38	35	
23	6	349	-6	-24	240	125	115	
23	7	349	-6	-24	125	67	62	
23	8	349	-6	-24	480	250	230	
23	9	349	-6	-24	245	130	120	
24	2	289	10	-5	37	27	18	



	Orientation (degrees)					Search Distance (ft)			
Domain	Pass No.	Bearing Z	Plunge Y	Dip X	Major Axis	Semi Major Axis	Minor Axis		
24	3	289	10	-5	23	18	12		
24	4	289	10	-5	46	34	22		
24	5	289	10	-5	28	22	16		
24	6	289	10	-5	160	210	45		
24	7	289	10	-5	85	110	27		
24	8	289	10	-5	320	420	90		
24	9	289	10	-5	165	215	50		
25	2	108	-4	-76	44	34	34		
25	3	108	-4	-76	27	22	22		
25	4	108	-4	-76	84	66	42		
25	5	108	-4	-76	47	38	26		
25	6	108	-4	-76	170	130	70		
25	7	108	-4	-76	90	70	40		
25	8	108	-4	-76	340	260	140		
25	9	108	-4	-76	175	135	75		
26	2	71	-8	6	79	49	47		
26	3	71	-8	6	44	30	28		
26	4	71	-8	6	170	106	108		
26	5	71	-8	6	90	58	59		
26	6	71	-8	6	370	230	230		
26	7	71	-8	6	190	120	120		
26	8	71	-8	6	740	460	460		
26	9	71	-8	6	375	235	235		
27	2	238	39	9	85	55	36		
27	3	238	39	9	47	32	23		
27	4	238	39	9	116	78	52		
27	5	238	39	9	63	44	31		
27	6	238	39	9	190	120	80		
27	7	238	39	9	100	65	45		
27	8	238	39	9	380	240	160		
27	9	238	39	9	195	125	85		
28	2	27	-65	47	56	29	18		
28	3	27	-65	47	33	20	14		
28	4	27	-65	47	96	40	28		
28	5	27	-65	47	53	25	19		
28	6	27	-65	47	180	75	50		
28	7	27	-65	47	95	42	30		
28	8	27	-65	47	360	150	100		
28	9	27	-65	47	185	80	55 05		
29	2	251	44	13	64	64	25		
29	3	251	44	13	37	37	18		
29	4	251	44	13	112	109	34		
29	5	251	44	13	61	59	22		
29	6	251	44	13	210	210	64		



	Orientation (degrees)					Search Distance (ft)			
Domain	Pass No.	Bearing Z	Plunge Y	Dip X	Major Axis	Semi Major Axis	Minor Axis		
29	7	251	44	13	110	110	38		
29	8	251	44	13	420	420	128		
29	9	251	44	13	215	215	69		
30	2	71	-9	34	49	33	24		
30	3	71	-9	34	29	21	17		
30	4	71	-9	34	73	43	37		
30	5	71	-9	34	41	26	23		
30	6	71	-9	34	130	75	65		
30	7	71	-9	34	70	42	37		
30	8	71	-9	34	260	150	130		
30	9	71	-9	34	135	80	70		
31	2	261	49	83	33	32	31		
31	3	261	49	83	21	21	20		
31	4	261	49	83	41	39	38		
31	5	261	49	83	25	24	24		
31	6	261	49	83	80	90	70		
31	7	261	49	83	45	50	40		
31	8	261	49	83	160	180	140		
31	9	261	49	83	85	95	75		
32	2	53	-16	42	42	31	23		
32	3	53	-16	42	26	20	17		
32	4	53	-16	42	51	37	28		
32	5	53	-16	42	30	23	19		
32	6	53	-16	42	140	160	49		
32	7	53	-16	42	75	85	29		
32	8	53	-16	42	280	320	98		
32	9	53	-16	42	145	165	54		
33	2	222	20	19	38	27	17		
33	3	222	20	19	24	18	13		
33	4	222	20	19	47	32	22		
33	5	222	20	19	28	21	16		
33	6	222	20	19	110	68	35		
33	7	222	20	19	60	39	22		
33	8	222	20	19	220	136	70		
33	9	222	20	19	115	73	40		
333	2	4	33	-62	46	37	34		
333	3	4	33	-62	28	23	22		
333	4	4	33	-62	62	52	44		
333	5	4	33	-62	36	31	27		
333	6	4	33	-62	215	240	230		
333	7	4	33	-62	112	125	120		
333	8	4	33	-62	430	480	460		
333	9	4	33	-62	220	245	235		
444	2	339	2	-37	188	168	70		



	Orientation (degrees)					Search Distance (ft)			
Domain	Pass No.	Bearing Z		Dip X	Major Axis	Semi Major Axis	Minor Axis		
444	3	339	2	-37	99	89	40		
444	4	339	2	-37	265	240	100		
444	5	339	2	-37	137	125	55		
444	6	339	2	-37	440	400	165		
444	7	339	2	-37	225	205	87		
444	8	339	2	-37	880	800	330		
444	9	339	2	-37	445	405	170		
51	2	20	1	-16	48	43	27		
51	3	20	1	-16	29	26	18		
51	4	20	1	-16	113	84	38		
51	5	20	1	-16	62	47	24		
51	6	20	1	-16	340	250	110		
51	7	20	1	-16	175	130	60		
51	8	20	1	-16	680	500	220		
51	9	20	1	-16	345	255	115		
55	2	208	20	78	32	26	18		
55	3	208	20	78	21	18	13		
55	4	208	20	78	40	32	22		
55	5	208	20	78	25	21	16		
55	6	208	20	78	215	99	35		
55	7	208	20	78	112	54	22		
55	8	208	20	78	430	198	70		
55	9	208	20	78	220	104	40		
555	2	212	52	51	52	33	19		
555	3	212	52	51	31	21	14		
555	4	212	52	51	69	44	25		
555	5	212	52	51	39	27	17		
555	6	212	52	51	280	120	65		
555	7	212	52	51	145	65	37		
555	8	212	52	51	560	240	130		
555	9	212	52	51	285	125	70		
58	2	176	59	-85	50	43	24		
58	3	176	59	-85	30	26	17		
58	4	176	59	-85	61	52	29		
58	5	176	59	-85	36	31	20		
58	6	176	59	-85	111	80	43		
58	7	176	59	-85	60	45	26		
58	8	176	59	-85	222	160	86		
58	9	176	59	-85	116	85	48		
59	2	0	0	0	18	18	18		
59	3	0	0	0	13	13	13		
59	4	0	0	0	22	22	22		
59	5	0	0	0	16	16	16		
59	6	0	0	0	35	35	35		
	-	Ŭ	ŭ	Ü					



		Orienta	ation (degre	es)	Search Distance (ft)			
Domain	Pass No.	Bearing Z	Plunge Y	Dip X	Major Axis	Semi Major Axis	Minor Axis	
59	7	0	0	0	22	22	22	
59	8	0	0	0	70	70	70	
59	9	0	0	0	40	40	40	
61	2	7	-10	-87	65	44	34	
61	3	7	-10	-87	38	27	22	
61	4	7	-10	-87	123	82	45	
61	5	7	-10	-87	67	47	28	
61	6	7	-10	-87	240	160	90	
61	7	7	-10	-87	125	85	50	
61	8	7	-10	-87	480	320	180	
61	9	7	-10	-87	245	165	95	
666	2	344	-52	28	48	34	24	
666	3	344	-52	28	29	22	17	
666	4	344	-52	28	69	50	36	
666	5	344	-52	28	39	30	23	
666	6	344	-52	28	400	315	200	
666	7	344	-52	28	205	162	105	
666	8	344	-52	28	800	630	400	
666	9	344	-52	28	405	320	205	
888	2	0	0	0	56	56	56	
888	3	0	0	0	32	32	32	
888	4	0	0	0	72	72	72	
888	5	0	0	0	41	41	41	
888	6	0	0	0	222	222	222	
888	7	0	0	0	116	116	116	
888	8	0	0	0	444	444	444	
888	9	0	0	0	227	227	227	

BLOCK MODEL VALIDATION

TRJV validated the block model using a combination of comparative histograms, statistical comparisons, and a Nearest Neighbour check estimate. TRJV also performed a Sequential Gaussian Simulation using the average of 100 unique estimation realizations and stored the average value into the block model to quantify the degree of uncertainty in the model. TRJV also maintains a separate block for these simulations. Further, the 'risk' variable in the block model is used to weight grade against the drill spacing at the block location for a qualitative visualization of uncertainty.



RPA VALIDATION

The December 31, 2017 resource estimation is appropriate for the style of gold mineralization, in RPA's opinion. The following is a list of some of the checks performed on the resource model by RPA:

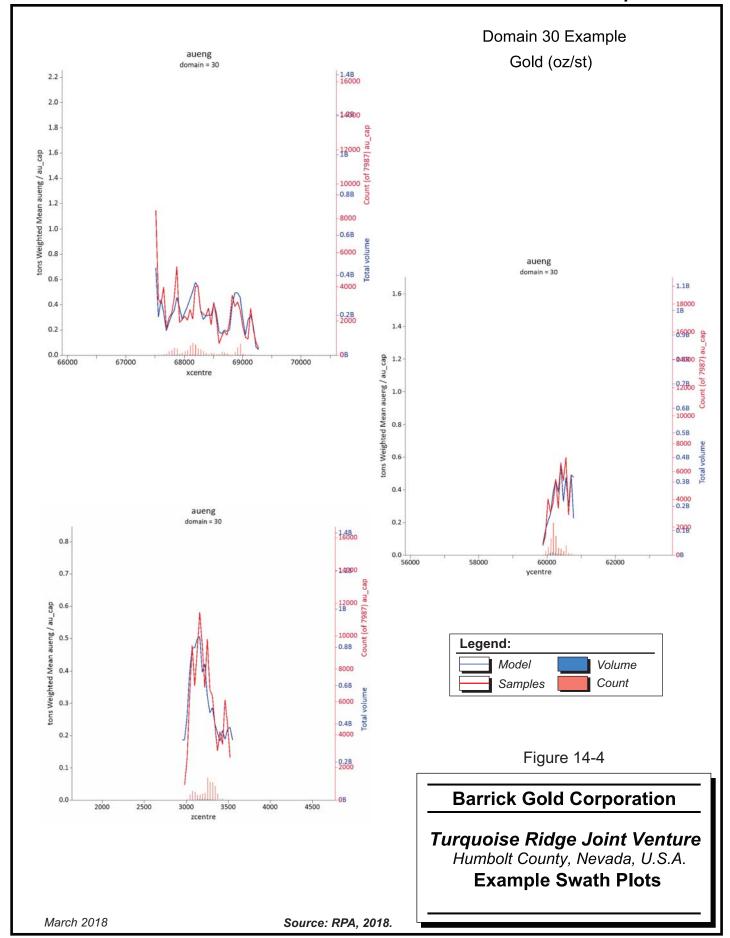
- Checked for duplicate drill hole traces, twinned holes.
- Checked collar locations for zero/extreme values.
- Checked assays in database for:
 - missing intervals
 - long intervals
 - o extreme high values
 - o blank/zero values
 - o reasonable minimum/maximum values
- Ran validity report to check for:
 - o out of range values
 - missing interval
 - o overlapping intervals, etc.
- Checked for overlapping wireframes to determine possible double counting.
 - Solids have priority levels in block definition file.
 - o Diamond drill hole domains are likewise flagged by priority.
- Checked orebody/wireframe extensions beyond last holes to see if they are reasonable and consistent.
- Compared basic statistics of assays within wireframes with basic statistics of composites within wireframes for both uncut and cut values.
- Checked for capping of extreme values.
- Checked for reasonable compositing intervals.
- Checked that composite intervals start and stop at wireframe boundaries.
- Checked that assigned composite rock type coding is consistent with intersected wireframe coding.
- Checked if block model size and orientation is appropriate to drilling density, mineralization, and mining method.
- Checked search volume radii and orientations against available variography.
- Checked interpolation parameters against available variography.
- Visually checked block resource classification coding for isolated blocks.



- Generation of an independent Mineral Resource report to match with the TRJV estimate.
- Compared block statistics (zero grade cut-off) with assay/composite basic statistics.
- Swath plots of composites versus blocks and drilling (e.g., Figure 14-4).
- Visually compared block grades to drill hole composite values on sections and/or plans (e.g., Figure 14-5).
- Visually checked for grade banding, smearing of high grades, plumes of high grades, etc., on sections and/or plans.

RPA is of the opinion that the block model is suitable to support Mineral Resource and Mineral Reserve estimation.









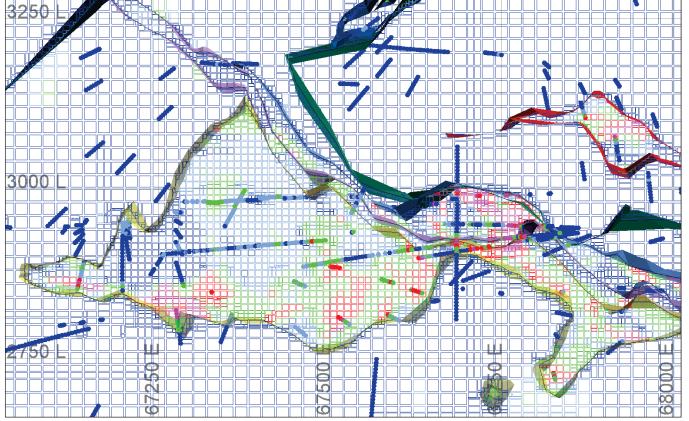
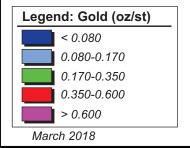




Figure 14-5



Source: RPA, 2018.

Barrick Gold Corporation

Turquoise Ridge Joint Venture Humbolt County, Nevada, U.S.A.

Visual Check of Drill Versus
Block Grade Example



CLASSIFICATION

Definitions for resource categories used in this report are consistent with those used in the CIM (2014) definitions and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as "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". Mineral Resources are classified into Measured, Indicated, and Inferred categories. A Mineral Reserve is defined as the "economically mineable part of a Measured and/or Indicated Mineral Resource" demonstrated by studies at Pre-Feasibility or Feasibility level as appropriate. Mineral Reserves are classified into Proven and Probable categories.

Barrick's Mineral Resource classification scheme uses a combination of factors including the search pass iteration, distances to samples, and number of holes. TRJV used the following criteria for Measured Mineral Resources:

- 1. If any part of a block was pierced by a drill hole it was deemed Measured, using a 5 ft box search emanating from the block centroid.
- 2. If a block centroid lay within a 10 ft radius of any block that was mined out, it was deemed Measured.
- 3. If a block centroid lay within two samples from two different drill holes within a 30 ft radius, it was deemed Measured.

Indicated Resource block criteria are based on finding a minimum of two composites, from two different drill holes being found within 80% of the variogram range, within a mineralized domain. These criteria are satisfied during the second and third estimation passes.

Inferred Resource block criteria are based on finding a minimum of two composites, from two different drill holes, being found within 90% of the variogram range, within a mineralized domain. The criteria are satisfied during the fourth and fifth estimation passes.

Passes 6, 7, 8, and 9 are used for estimation and validation purposes, however, the estimations remain unclassified.

TRJV geological staff then run a post-processing script which eliminates un-estimated blocks and mined blocks, upgrades blocks within 10 ft of a block centroid that is mined out to



Measured Resource category, and upgrade blocks within 30 ft radius of two composites to Measured Resource category.

RPA reviewed these criteria and performed a visual inspection of the results on cross sections. RPA is of the opinion that the classification technique is appropriate.

CUT-OFF GRADE

Cut-off grade inputs for TRJV are based on recent operating experience, projected costs, and Barrick corporate guidance. Separate Mineral Resource and Mineral Reserve cut-off grades, based on the Mineral Resource and Mineral Reserve gold prices, are used to report the Mineral Resources and Mineral Reserves. All blocks that fail to meet the cut-off grade are classified as waste. The inputs used to determine the Mineral Resource cut-off grade of 0.23 oz/ton Au are shown in Table 14-13. The principal difference between the Mineral Reserve and Mineral Resource cut-off grade calculation is the gold price of \$1,200/oz Au and \$1,500/oz Au, respectively.

TABLE 14-13 RESOURCE CUT-OFF GRADE PARAMETERS
Barrick Gold Corporation – Turquoise Ridge Joint Venture

Description	Units	Value
Mining cost	\$/ton	150.73
Processing cost	\$/ton	70.00
General and Administrative costs	\$/ton	76.69
Sustaining Capital costs	\$/ton	20.06
Total costs	\$/ton	317.48
Gold Metal Recovery	%	92
Gold Selling Price	US\$/oz	1,500
Resource Cut-off Grade	oz/ton Au	0.23

RPA notes that the inputs to the cut-off grade do not account for upcoming changes to the operation, including higher production rates, installation of the 3rd Shaft, and use of roadheaders for mining softer ores. There is potential for cut-off grades to be reduced over time, as discussed further in Sections 15 and 16.



15 MINERAL RESERVE ESTIMATE

SUMMARY

The Mineral Reserves as of December 31, 2017, are presented in Table 15-1. In metric units, Mineral Reserves consist of:

- Proven Reserves of 9.44 million tonnes grading 15.57 g/t Au and containing 4.73 million oz Au.
- Probable Reserves of 6.25 million tonnes, grading 15.48 g/t Au and containing 3.11 million oz Au.

TABLE 15-1 MINERAL RESERVES – DECEMBER 31, 2017
Barrick Gold Corporation – Turquoise Ridge Joint Venture

Category	Tonnage (000 tons)	Grade (oz/ton Au)	Contained Metal (000 oz Au)
Proven	10,408	0.454	4,726
Probable	6,892	0.452	3,112
Total	17,300	0.453	7,838

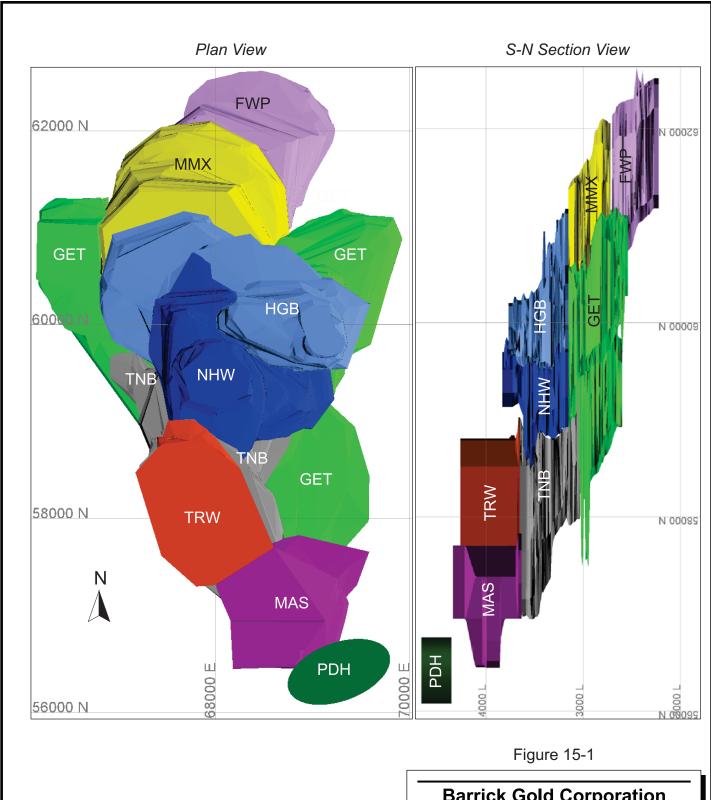
Notes:

- 1. CIM (2014) definitions were followed for Mineral Reserves.
- 2. Mineral Reserves are estimated at a cut-off grade of 0.29 oz/ton Au.
- 3. Mineral Reserves are estimated using a long-term gold price of US\$1,200 per ounce.
- 4. Numbers may not add due to rounding.
- 5. Mineral Reserves are reported on a 100% basis. Barrick's and Newmont's attributable share of Mineral Resources are 75% and 25%, respectively.

RPA is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

Mineral Reserves are defined for ten different regions of the Mine, as shown in Figure 15-1.







March 2018 Source: RPA, 2018.

Barrick Gold Corporation

Turquoise Ridge Joint Venture Humbolt County Nevada U S.A. **Mineral Reserves Breakdown by Area**



Mineral Reserves by mining region are summarized in Table 15-2.

TABLE 15-2 MINERAL RESERVES BY MINING REGION

Barrick Gold Corporation – Turquoise Ridge Joint Venture

Area	Tonnage (000 tons)	Grade (g/t Au)	Contained Metal (000 oz Au)
PDH	-	-	-
MAS	721	0.484	349
TRW	1,662	0.377	627
NHW	1,196	0.429	513
HGB	2,079	0.433	899
MBD	1,574	0.559	880
MMX	5,886	0.445	2,620
GET	1,622	0.451	732
FWP	1,887	0.512	966
TNB	822	0.403	331
Depletion	(149)	0.539	(80)
Total	17,300	0.453	7,838

RPA notes that depletion in Table 15-2 accounts for material mined in Q4 2017. Some of this material remains in stockpile, and some has been processed at Twin Creeks, although none of it has been through final reconciliation.

CUT-OFF GRADE

TRJV documents updated cut-off grade inputs and calculations twice a year. Cut-off grade inputs are based on recent operating experience, projected costs, and Barrick corporate guidance. Several different cut-off grades are determined, including:

- Break-Even Cut-Off Grade (BCOG) often used for reserve estimation.
- Incremental Cut-Off Grade (ICOG) based on variable mining and processing costs, not used at TRJV due to milling constraints.
- Mill Cut-Off Grade (MCOG) a set value based on the Toll Milling Agreement.
- Resource Cut-Off Grade (RCOG) used for resource estimation, parameters as described above.
- Operating Cut-Off Grade (OCOG) incorporates adjustments to the BCOG. Used for the current Mineral Reserve estimate, includes a margin for increased profitability.



All blocks that fail to meet the cut-off grade are classified as waste. The inputs used to determine the Mineral Reserve OCOG of 0.29 oz/ton Au are shown in Table 15-3.

TABLE 15-3 RESERVE CUT-OFF GRADE PARAMETERS
Barrick Gold Corporation – Turquoise Ridge Joint Venture

Description	Units	Value
Mining cost	\$/ton	150.73
Processing cost	\$/ton	70.00
General and Administrative costs	\$/ton	36.69
Sustaining Capital costs	\$/ton	20.06
Margin	\$/ton	40.00
Total costs	\$/ton	317.48
Gold Metal Recovery	%	92
Gold Selling Price	US\$/oz	1,200
Reserve Cut-off Grade	oz/ton Au	0.29

A cut-off grade of 0.324 oz/ton was applied to areas near the Getchell fault, due to higher mining costs incurred in more difficult ground conditions.

RPA notes that the inputs to the cut-off grade do not account for upcoming changes to the operation, including variable terms in the new Toll Milling Agreement (TMA), higher production rates, installation of the 3rd Shaft, and use of roadheaders for mining softer ores.

- TMA: the new agreement includes some terms indexed to gold prices, and a variable component based on organic carbon content.
 - The carbon adjustment is based on average reserve values. For the next reserve update, this could be applied with greater resolution, where significant impacts to costs/cut-off grades exist.
- Higher Production Rates: the new TMA allows for an increase to 850,000 tons per year in 2018 and 2019, and to 1.2 million tons per year in 2020 to 2024. There is also some opportunity to consider alternate processing options.
 - Higher rates allow fixed costs (a portion of mining costs, and all G&A costs) to be spread over more tons, at lower unit rates. Cut-off grades would therefore be reduced.
- 3rd Shaft: the impact of the new shaft on operating costs has yet to be determined.
- Mechanical Mining: the cost impact of mining by roadheader has yet to be determined.
 Continuous operation in 2018 should provide useful data.

In RPA's opinion, the net effect of the above is a potential reduction in cut-off grades over time.



RESERVE ESTIMATION

The 2017 Mineral Reserve was estimated by the construction of mineable stope shapes using the modelled distribution of grade. These were then queried against the respective resource model to determine tonnage and grade estimates by excavation. Stope shapes include estimated planned dilution and exclude resource loss where the geometry and grade do not warrant inclusion. The Mineral Reserve estimate also includes allowances for unplanned dilution.

For the stope shapes constructed for the reserve estimate, grade shells were constructed at the reserve COG using Measured and Indicated Mineral Resource material. Stope shapes were designed to be consistent with existing excavations.

Panel by panel resolution was constructed for near-term (within a two-year period) stope shapes, and broader level by level stope shapes for longer-term (beyond two-year period). Development designs were generated concurrently for each stope shape. The design engineer used his/her judgment to avoid incorporating low grade or isolated resource blocks. The stope shapes were expanded by one foot on all sides as an allowance for planned dilution of the Mineral Reserves. The grade of this planned dilution was taken from the block model resulting in the addition of some gold.

Stope shapes were validated against the resource model to generate grade/tonnage estimates. These estimates were imported to a spreadsheet for tabulation for further validation and the application of unplanned dilution. Subsequent design iterations or optimizations were undertaken as necessary to ensure that stope designs honour the requisite design criteria.

Over the course of the Mineral Reserve estimation, the planning engineer reviews different stope shapes to obtain the highest value. Small isolated zones were considered individually and must generate sufficient return to cover the costs of waste development to the zone.

After the stope shapes were completed and reviewed, the details of the stope materials (tons, grades, classifications) were exported to MS Excel and tabulated. Finally, a provision for unplanned dilution in the form of 4% additional tonnage at zero grade to account for backfill dilution was added to the totals to generate the Mineral Reserve estimate.



DILUTION

Internal dilution was included in the mining shapes and is shown as material below the cut-off grade, unclassified or unknown. The stope shapes were expanded by one foot on all sides as an allowance for planned dilution of the Mineral Reserves. The grade of this material was taken from the block model resulting in the addition of tons and some gold.

In addition to the planned dilution, 4% was added to the tonnage at zero grade representing backfill dilution.

MINERAL RESERVE RECONCILIATION

TRJV completes and maintains a monthly reconciliation of ore milled compared to the face sampling, the grade control sampling, and the Mineral Reserves. For the reconciliation, TRJV has defined four categories for comparison:

- Declared Ore Mined (DOM) tons are derived from weights of trucks shipped to Newmont. Grades are derived from the average grade of the sonic drill samples. As this information is not immediately available at month end, preliminary numbers are drawn from the tons and grade entered into the AcQuire system. Numbers are then updated as final numbers become available (usually one to three months later).
- Grade Control (GC) tons and grade are derived from evaluation of as-built survey triangulations against the most up-to-date block model. Only volumes sent for ore are considered in this evaluation. No dilution factor is applied.
- Mineral Reserve (MR) tons and grade are derived from evaluation of as-built survey shapes adjusted within reserve blocks against the year-end block model, with dilution criteria applied in an arithmetic treatment to reflect expected results from any ore block. Material mined outside of ore blocks is not considered as this is separately considered as Ore Gain.
- Face Grade (FG) tons are estimated by Ore Control Geologists who measure the length, width, and height of each round blasted using a distomat laser measuring device. Grades are derived from grab samples from each individual blast. Grades are weighted by blast size.

The reconciliation is completed on a monthly basis and reported in the geology department monthly report. The results of the 2017 reconciliation are shown in Tables 15-4 to 15-6 and Figures 15-2 to 15-4. The reconciliation of the DOM to the MR is poor. The DOM tonnage exceeds the MR in every month, while the DOM grade is consistently less than the MR grade and the result is that the reconciliation for ounces is favourable.



The reconciliation indicates that the Mineral Reserve model continues to understate the ore available for mining. This is consistent with management's comments that the level of infill drilling has been low and that ore grade material is regularly encountered in areas where it is unexpected and in extensions to known ore reserve blocks. The DOM exceeds the Mineral Reserve resulting in consistent gains. RPA is of the opinion that the reconciliation between the DOM and the Mineral Reserve has improved since the previous audit when the DOM:OR comparison was 248%.

An evaluation of the reconciliation based upon the resource block model but including Inferred Resources in the "ore" category would be useful to determine if the problem lies in the block model or if infill drilling may resolve the issue. The amount of infill drilling undertaken will be an economic balance between the cost and time required for drilling and the need to have work places ready for production. However, considering that mine development is generally halted when unexpected ore grade material is encountered, there is an argument that infill drilling may assist in meeting the planned mining schedule.

TABLE 15-4 2017 TONNAGE RECONCILIATION
Barrick Gold Corporation - Turquoise Ridge Joint Venture

Month	DOM	GC	MR	FACE	DOM:GC	DOM:MR
January	59,495	53,210	31,424	57,796	111.8%	189.3%
February	63,577*	50,615	27,419	55,595	125.6%	231.9%
March	69,295	56,912	31,610	60,677	121.8%	219.2%
April	60,442	46,674	32,176	51,560	129.5%	187.8%
May	63,716	55,185	44,418	61,855	115.5%	143.4%
June	64,882	58,578	50,428	64,560	110.8%	128.7%
July	67,783	50,577	47,721	56,989	134.0%	142.0%
August	73,122	60,654	53,950	65,895	120.6%	135.5%
September	66,598	56,408	45,312	60,064	118.1%	147.0%
October	69,984	62,604	52,321	67,050	111.8%	133.8%
November	80,132*	61,118	54,192	65,125	131.1%	147.9%
December	68,433*	55,944	42,093	62,132	122.3%	162.6%
Annual	807,459	688,478	513,084	729,478	120.8%	157.4%

Notes:

- 1. * denotes that reconciliation is not final.
- 2. May-Dec MR figures are based on a mid-year update.





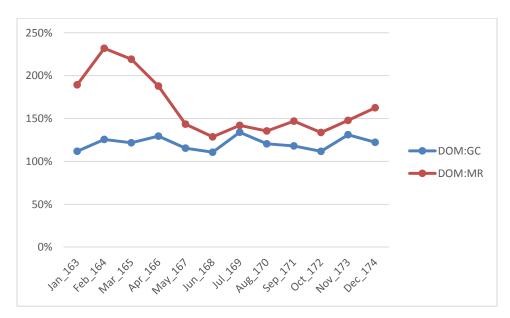


TABLE 15-5 2017 GRADE RECONCILIATION

Barrick Gold Corporation - Turquoise Ridge Joint Venture

Month	DOM	GC	MR	FACE	DOM:GC	DOM:MR
January	0.435	0.488	0.511	0.480	89.2%	85.2%
February	0.394	0.470	0.499	0.489	83.8%	78.9%
March	0.533	0.575	0.596	0.653	92.7%	89.5%
April	0.438	0.527	0.578	0.603	83.0%	75.7%
May	0.404	0.455	0.540	0.477	88.7%	74.8%
June	0.430	0.509	0.578	0.552	84.5%	74.4%
July	0.433	0.508	0.538	0.500	85.3%	80.6%
August	0.447	0.526	0.593	0.545	85.0%	75.4%
September	0.433	0.531	0.603	0.532	81.5%	71.8%
October	0.473*	0.511	0.529	0.592	92.6%	89.4%
November	0.458*	0.494	0.543	0.549	92.7%	84.3%
December	0.403*	0.480	0.549	0.461	84.0%	73.4%
YTD	0.441	0.506	0.556	0.536	87.2%	79.3%

Notes:

- 1. * denotes that reconciliation is not final.
- 2. May-Dec MR figures are based on a mid-year update.





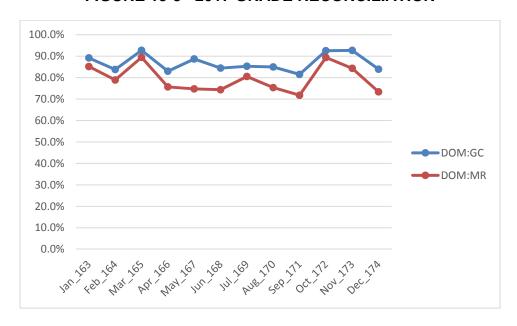


TABLE 15-6 2017 OUNCE RECONCILIATION
Barrick Gold Corporation - Turquoise Ridge Joint Venture

Month	DOM	GC	MR	FACE	DOM:GC	DOM:MR
January	25,898	25,955	16,051	27,727	99.8%	161.3%
February	25,037*	23,792	13,687	27,188	105.2%	182.9%
March	36,955	32,735	18,836	39,635	112.9%	196.2%
April	26,443	24,577	18,611	31,096	107.6%	142.1%
May	25,722	25,097	23,969	29,491	102.5%	107.3%
June	27,893	29,792	29,141	35,639	93.6%	95.7%
July	29,377	25,695	25,662	28,474	114.3%	114.5%
August	32,686	31,913	31,993	35,912	102.4%	102.2%
September	28,837	29,958	27,311	31,947	96.3%	105.6%
October	33,102*	31,986	27,663	39,716	103.5%	119.7%
November	36,700*	30,212	29,437	35,757	121.5%	124.7%
December	27,578*	26,833	23,097	28,705	102.8%	119.4%
YTD	356,229	338,544	285,458	391,288	105.2%	124.8%



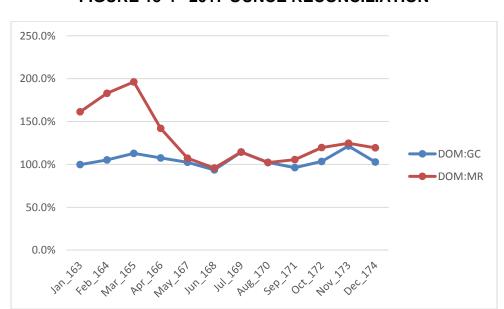


FIGURE 15-4 2017 OUNCE RECONCILIATION

Reconciliation results show that estimation of gold ounces is a reasonable match for production once all information is available, as can be seen in the DOM:GC comparisons. Mineral Reserve estimates lack data when estimating more than a year in advance of mining – significant quantities of Inferred Resources are drilled, re-estimated, and upgraded in classification before mining, rendering the Reserve estimates conservative. This is a long-standing pattern at TRJV, and not, in RPA's opinion, any cause for concern or change in estimation or operating practices.

TRJV's practice of strategic planning based on cases including factored Inferred Resources therefore seems reasonable.

RPA is of the opinion that the Mineral Reserves as stated by TRJV are estimated in accordance with CIM (2014) definition standards.

RPA is not aware of any mining, metallurgical, infrastructure, permitting, and other relevant factors that could materially affect the Mineral Reserve estimates.



TRJV's practice of strategic planning based on cases including factored Inferred Resources therefore seems reasonable.

RPA is of the opinion that the Mineral Reserves as stated by TRJV are estimated in accordance with CIM (2014) definition standards.

RPA is not aware of any mining, metallurgical, infrastructure, permitting, and other relevant factors that could materially affect the Mineral Reserve estimates.

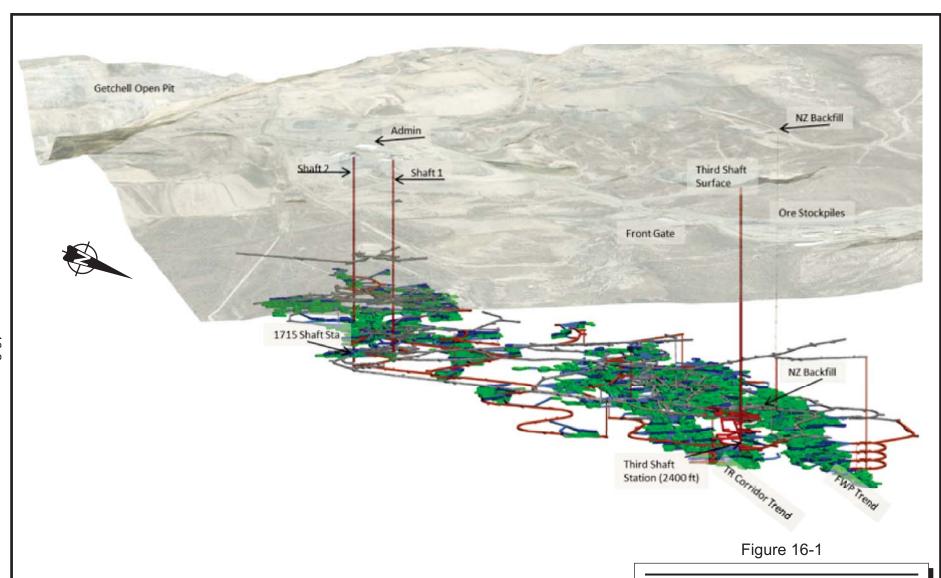


16 MINING METHODS

The TRJV consists of the Turquoise Ridge underground mine which produces refractory (carbonaceous/sulphide) gold ores that are processed off-site on a toll milling basis. An isometric view of the underground workings is shown in Figure 16-1. The mine is accessed via two shafts and a system of internal ramps, and utilizes underhand drift and fill mining methods with cemented rockfill. Ground conditions at Turquoise Ridge are poor, and the RMR is typically less than 20, or very poor, in ore headings. The mine is currently producing 2,300 tons of ore per day.

Key challenges in attainment of production levels and costs are the development of sufficient stoping areas and the transition from topcut development to undercut stoping. Completion of the infrastructure development in the North Zone is necessary to achieve and optimize higher production levels. Site preparation for a 3rd production shaft serving the North Zone is in progress, and shaft-sinking is scheduled to start in 2018.

The adjacent Getchell mine has ceased operations and is not considered in this report.



Barrick Gold Corporation

Turquoise Ridge Joint Venture Humboldt County, Nevada, U.S.A. Site Plan

0 250 500 750 1000 Feet

March 2018 Source: RPA, 2018.



UNDERGROUND MINING OPERATIONS

The TRJV mine is a shaft access, mechanized mine, with an extensive system of ramps connecting the North and South zones to the shafts. Mining started in the upper areas of the South Zone and is now moving to the more distant and lower North Zone. New infrastructure for back fill and shotcrete has been installed near the North Zone.

The majority of the ore zones have a RMR of 20 or less, indicating that the rock is weak and ground conditions are very poor. To deal with the poor ground conditions, the mining method is underhand drift and fill. The key to the success of the method is the safe mining and backfilling of the topcut, which must take place in virgin ground without backfill protection. Experience has shown that the specific dimensions of the topcut are critical to the safe mining of additional drifts below this first backfilled zone. The topcut headings at 15 ft high by 15 ft wide are driven with jumbos and mucked by LHDs. The back and walls are supported with mesh and inflatable rock bolts.

The topcuts are backfilled with a cemented rock fill which is placed by haul trucks and then jammed with a modified LHD to provide a tight backfill. Undercuts are driven at 15 ft high by 15 ft to 30 ft wide beneath the backfill with one- and two-boom jumbos. The walls are supported with mesh and inflatable rock bolts from the back to about four feet from the floor. The cemented rock backfill requires no support.

Work is underway to determine whether the heading width in the undercuts can be increased to 35 ft to improve productivity.

Mining may be by successive undercuts parallel to and below the topcut or the undercuts may be driven at an angle to the topcut. The latter method has the benefit of allowing the topcut backfill to provide more of a beam over the undercuts. Undercuts are tight filled with cemented rock fill after mining.

The mining sequence consists of multiple topcuts in an orebody at various elevations, followed by undercuts that will eventually come down to one of the original topcut accesses (Figure 16-2).

Underhand Drift and Fill Method

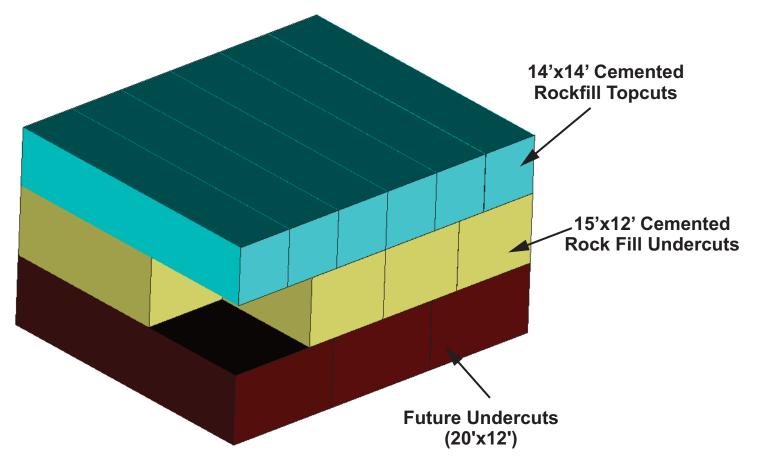


Figure 16-2

Barrick Gold Corporation

Turquoise Ridge Joint Venture
Humboldt County, Nevada, U.S.A.
Mining Methods

March 2018

Source: RPA, 2018.



MECHANICAL MINING

TRJV has a started a pilot program to test mechanical mining via roadheader. The roadheader has rotating cutter heads, which are programmed to excavate the desired shape of drift, replacing drill and blast as a method of advancing in soft ground (Figure 16-2). More continuous operation (in comparison to the cycle of activities in conventional drift advance) and less impact on the rockmass are expected to provide operating efficiency advantages.

At the time of RPA's site visit, the roadheader was commissioned and deployed in a test heading. The rock conditions were harder than is ideal for mechanical mining, and the machine was down due to excessive wear causing a need for replacement parts.

An area with more suitable ground conditions was being prepared for the roadheader, and results should be available in 2018.



FIGURE 16-3 ROADHEADER CUTTING IN SOUTH ZONE



GEOMECHANICS

The ground conditions within the ore zone at the Turquoise Ridge deposit are poor, the ground is soft, and the RMR is low. Due to the ground conditions, the underhand cut and fill method with tightly-placed fill using cemented rock fill is utilized.

The RMR is 25 or less for the ore zones. In extreme cases, the ground is so soft that the face can be mucked for advance. There are areas within topcut levels where ground conditions are worse than average and topcuts can begin to squeeze in which case the practice is to stop development advance, backfill the cut with cemented fill, and then recommence development adjacent to the backfill. At times, this process must be repeated several times before the advance across an ore zone is completed.

The mine enforces the policy that all work is done under a supported back or under backfill. Backs and walls are screened and bolted and all primary development is shotcreted as well. Near the ore zones, the access development can encounter poor ground and structures that require additional support such as longer 12 ft to 20 ft inflatable bolts.

The geotechnical risk for encountering major structures that could slow production is considered to be low, because areas are drilled and assessed by the geology department and geotechnical personnel before mining. Smaller structures can cause local ground problems, requiring backup headings to maintain production levels.

The risk for encountering significant water flow in drifts is considered to be low, and there is excess pumping capacity. Water drainage from production areas is facilitated by probing ahead of the face. Local inflows are pumped out from sump areas. The mine is most vulnerable to introducing water to the system from above the ore body, mostly from overlying basalts.

At Turquoise Ridge the mining will continue to be hampered by the poor ground conditions. Although the drilling and blasting is easy, it is necessary to support virgin backs and walls to the face and to maintain small headings in the topcuts. Efficiency is further hampered when additional support is required (more shotcrete or longer bolts) and by the distance between the shaft services, backfill plant, shotcrete batch plant, and the developing faces.

RPA considers the mining method and operations to be appropriate for the deposit.



MINE DESIGN

Reserve shapes were designed based on the Measured, Indicated, and Inferred blocks within the grade shell, however, only those blocks within the reserve shapes that were largely Measured or Indicated were reported in the Mineral Reserve summary. This practice allows for more realistic mining shapes and more efficient mining of the deposit.

The long term planning engineer develops the mine plans for the LOM plan and Mineral Reserve estimation. Grade shells are generated in Vulcan software based on the current OCOG. Sections are cut at the mid-rib elevation. The mine planning is based on 15 ft heights

Using the sections, mining shapes are drawn based on the Measured, Indicated, and Inferred (MI & I) Resources. There is a strict naming convention to maintain order in the LOM plan. Manual calculations are used to evaluate small, isolated areas of material that exceed the OCOG to ensure that these isolated areas can be economically extracted.

For complex shapes, the planning engineer will examine the impact of different shapes. Internal waste is included in the reserve estimate. After mining is complete, an outline of the stoped area is drawn and resources, which are now mined out, are removed from the block model.

The LOM shapes (MI & I) and main developments are then sent to the geology department for visual validation.

The perimeter of each reserve shape is then expanded by one foot to account for overbreak, or planned dilution. Internal waste is added into the total and the reserves are then tallied in a spreadsheet. Finally, 4% at zero grade is added for backfill dilution.

Polygons are triangulated to generate tons and grades which are then exported to spreadsheets. Unclassified material has a grade in the model, but for Mineral Reserve reporting, the grade is taken as zero. Unknown material has no grade.

Extraction of Mineral Reserves is estimated at 100%, as the Mineral Reserves are based on a designed shape that is to be extracted.



Stopes were designed based on MI & I material. Stopes included in the LOM plan meet economic requirements and extraction sequencing has been established. Development requirements are also based on detailed design. Only material inside engineering designs is included into the LOM.

RPA considers the mine design procedures to be appropriate for the deposit.

MINE SERVICES AND INFRASTRUCTURE

BACKFILL

Backfill is essential to the success of the mining at Turquoise Ridge. Aggregate is mined on surface and crushed before being delivered to a borehole, near the main shaft, to the batch plant on the 1250 level. From the batch plant, fill is trucked approximately 200 ft to the borehole to 1715 level. From the 1715 level the fill is hauled to locations in the mine. This fill system is distant from the workings in the North Zone.

A new backfill plant is located in the North Zone and its commissioning has reduced the backfill transport time.

In the open pit, which is being mined for backfill, the material is now limestone (previously basalt), which has reduced the binder requirements and the fill is less abrasive.

MINE VENTILATION

Mine ventilation improvements are being implemented with a planned ventilation drift which will bring improved airflow to the lower extents of the mine and also reduce dust (generated by the roadheader) in the primary airflow. With the completion of the 3rd Shaft, ventilation will improve and allow the addition of another surface fan to increase the primary ventilation flows.

Ventilation planning includes modelling of the heat in the mine.

DEWATERING AND WATER TREATMENT

Dewatering and water treatment are discussed in Section 18.



PRODUCTION SCHEDULE

The LOM plan (Table 16-1) is based upon the Proven and Probable Mineral Reserves.

The mine schedule is developed on the basis of a number of feet per year per zone, with targets considered by management to be achievable. The total footage to be developed is considered along with the blend of topcut and undercut production.

TABLE 16-1 LOM PLAN
Barrick Gold Corporation - Turquoise Ridge Joint Venture

Year	Tons Mined	Grade (oz/ton)	Contained Ounces	Organic Carbon (%)
2018	556,125	0.409	227,568	0.66
2019	852,615	0.438	373,607	0.62
2020	843,252	0.485	408,693	0.64
2021	853,465	0.481	410,272	0.66
2022	855,581	0.469	401,313	0.62
2023	852,469	0.473	403,350	0.65
2024	854,611	0.449	383,321	0.62
2025	852,933	0.463	394,821	0.66
2026	852,567	0.448	381,544	0.67
2027	852,403	0.421	358,464	0.63
2028	854,483	0.441	376,929	0.63
2029	852,955	0.448	381,899	0.64
2030	852,430	0.448	381,581	0.70
2031	851,042	0.478	407,169	0.66
2032	855,007	0.464	396,614	0.67
2033	852,397	0.446	379,779	0.67
2034	857,094	0.469	401,610	0.69
2035	704,665	0.406	286,220	0.77
2036	838,878	0.455	381,661	0.71
2037	756,567	0.460	347,704	0.70
2038	798,583	0.443	353,425	0.68
Total	17,300,122	0.453	7,837,544	0.66

The LOM plan includes a detailed monthly plan for the first two years with detailed mine designs in place for that period. The remainder of the mine life is based on the plans used in the development of the Mineral Reserve estimate.

RPA notes that the apparent production gap in 2018 is planned to be filled in by infill drilling of within the production areas (some of which has already been completed after the database



was closed for year-end estimation). TRJV has a long history of success in short-term resource conversion and realizing gains from infill drilling (between YE reserve estimation and completing mining in an area).

Recent changes to the Toll Milling Agreement provide opportunities for higher production rates:

- 850,000 tons per year in 2018 and 2019
- 1.2 million tons per year in 2020 to 2024
- Flexibility to process ore elsewhere

These opportunities have not yet been part of reserve-level mine planning.

MINE EQUIPMENT

There is a large fleet of rubber tired mobile equipment for personnel and materials movement, utility work, muck loading and hauling, drilling and ground support. The wide spread nature of the mine demands a large fleet of equipment, so that work can continue in any given area without waiting for equipment to arrive.

Given the poor ground conditions, a key factor in the mine development is the shortening of the stand-up time between opening ground and the installation of ground support. This means that a crew must have access to the equipment to do the work as soon as the face is free of muck. As a result, many units are seen sitting apparently idle but ready for the crew when needed.

A summary of the key underground units is included in Table 16-2.



TABLE 16-2 UNDERGROUND EQUIPMENT LIST Barrick Gold Corporation - Turquoise Joint Venture

Machine	No.
Tractor	27
Jumbo - 1 boom	3
Jumbo - 2 boom	7
LHD	22
Dump truck	11
Service trucks	13
Rock bolter	11
Mix carrier	2
Shotcrete Spray	4
Other	30
Total	130

In recent years, TRJV has made an effort to standardize the mobile equipment fleet. LHDs are generally 3 yd³ and 6 yd³ units, while the haul trucks are 20 st to 30 st capacity haul trucks. The other equipment includes two graders, a dozer, and a variety of forklifts. Tractors also include several small utility vehicles, but the bulk of the group are modified agricultural or industrial tractors.



17 RECOVERY METHODS

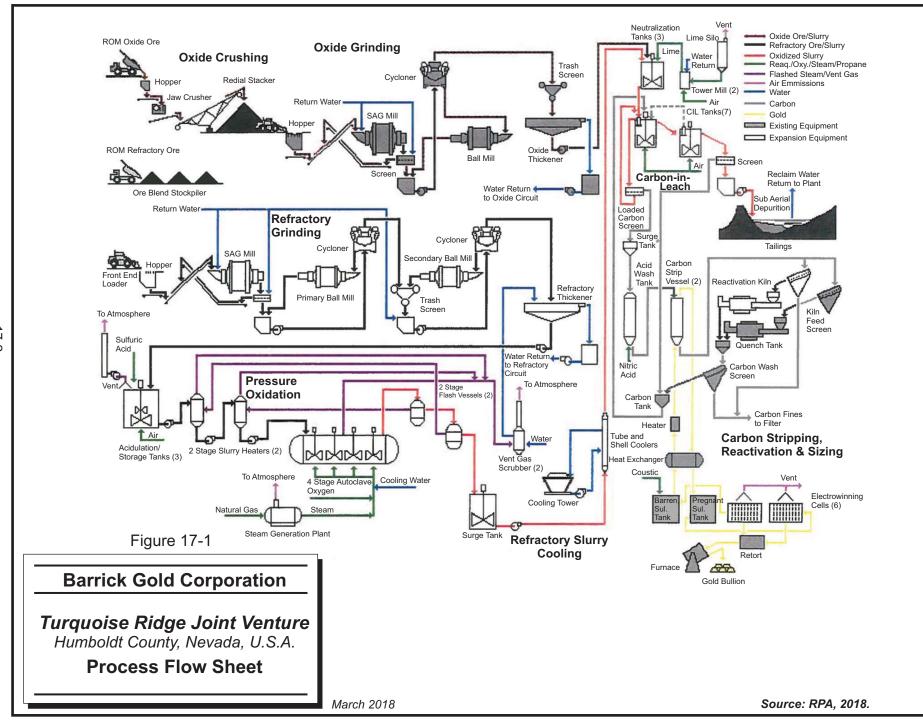
The Sage mill capacity is 11,500 tons per day to 12,000 tons per day. The target grind size was reduced to 35 μ m in 2010 and additional Geho pumps were added to the circuit in 2010 to increase the plant feed rate that had previously been limited by the pump capacity.

The mill includes semi-autogenous grinding (SAG) mill followed by a ball mill. The cyclone overflow reports to a thickener. Thickener underflow reports to an acidification circuit where sulphuric acid is added as necessary to ensure adequate autoclave free acid solution levels. The free acid concentration for TRJV ore needs to be maintained greater than 30 g/L. Thickener overflow solution is returned to the milling circuit. After acidification, ore slurry is added to two identical autoclaves that are operated in parallel. Two stages of flash heat recovery are utilized. Autoclave discharge is cooled before reporting to the lime neutralization circuit. Autoclave waste gas is cooled and scrubbed before discharging to the atmosphere.

Oxide ore and acidic oxidized sulphide ore slurry are combined in the neutralization circuit. After neutralization with the carbonate oxide ore and supplemental lime, the ore slurry reports to a carbon-in-leach (CIL) circuit where the ore is leached in cyanide solution to extract the gold. Final tailings slurry is pumped to the tailings containment area. Tailings settle and decant solution is reclaimed and reused in the grinding circuit.

Loaded carbon from the CIL circuit is transferred to the recovery plant. After acid washing to remove inorganic contaminants, the carbon is transferred to the pressure Zadra stripping circuit. Gold is stripped from the carbon using caustic and cyanide solution at elevated temperature and pressure. Pregnant solution from the stripping circuit is pumped to an electrowinning circuit where precious metal is removed from the solution as sludge. The sludge is filtered, dried in a mercury retort, mixed with fluxes, and refined into doré bars.

After carbon stripping, the barren carbon reports to the kiln regeneration circuit and returns to the CIL circuit. An overall process flow sheet is shown in Figure 17-1.





18 PROJECT INFRASTRUCTURE

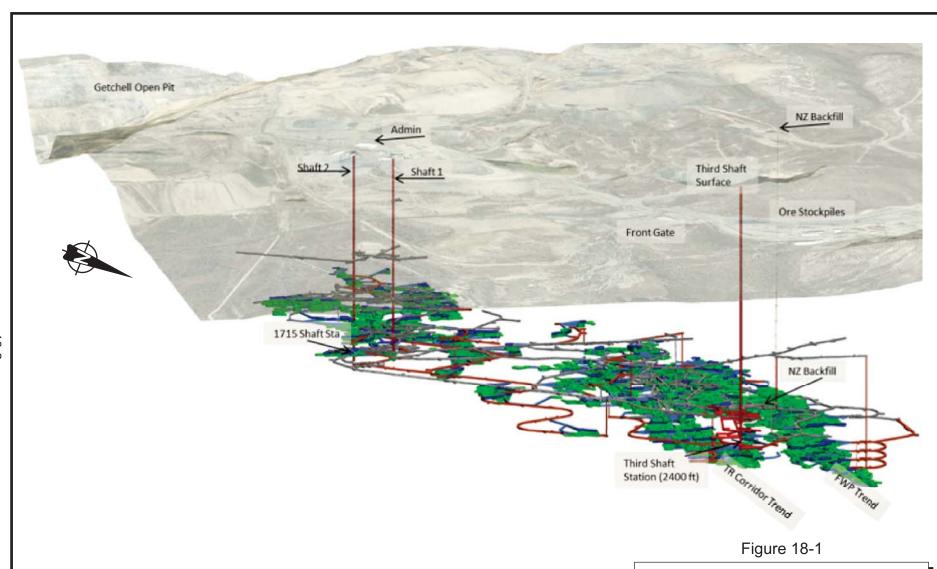
Project Infrastructure consists of existing facilities and a major project to sink a third production shaft.

INFRASTRUCTURE AND SERVICES

Existing infrastructure comprises:

- Two shafts (24 ft and 20 ft diameters)
- Mobile equipment mining fleet
- Limestone backfill quarry and 250 stph backfill crushing facility
- Underground backfill plant (fed from surface silos)
- Underground shotcrete plant (fed from surface silo)
- Underground dewatering facility
- Surface compressor house
- Surface cement plant (can feed directly underground via slick line in Shaft #2)
- Multiple surface workshop facilities
- 120 kV electrical power line connection to the grid
- Office building
- Warehouse
- 3,500 gpm water treatment plant with three sets of Rapid Infiltration Basins (RIBS)
- Tailings facility
- New underground backfill and shotcrete plants being constructed near the North Zone

Figure 18-1 provides an isometric view of the surface facility locations in relation to the underground workings.



Barrick Gold Corporation

Turquoise Ridge Joint Venture Humboldt County, Nevada, U.S.A. Site Infastructure

0 250 500 750 1000 Feet

March 2018 Source: RPA, 2018.



MINE ACCESS

TRJV currently operates two shafts which were driven approximately 900 ft apart into the original primary ore sources. Shaft #1 has a diameter of 20 ft and is used for both exhaust ventilation and as a secondary egress. This shaft reaches to the 1550 level of the mine (1,783 ft below surface).

Shaft #2 has a diameter of 24 ft and is used as the ventilation intake and primary access to the mine. The shaft extends to 1,818 ft below surface and is the sole means of bringing equipment into or out of the mine (nominal hoist capacity of 20,000 lb), and for skipping ore and waste (nominal capacity of 3,500 tons per day with 10 ton skips). Skips can be loaded at a mid-shaft pocket or at the bottom loading pocket. There is an 80 man capacity cage with a removable deck. Both the service and skipping hoists are double drum hoists.

There is an extensive system of ramps within the mine, with long access ramps from the shafts to the deposits, which were discovered after shaft sinking and which are well away from the shaft location. All of the mining and development is done with mechanized rubber-tired equipment.

MATERIAL HANDLING

Materials and personnel are transported into and out of the mine via the main cage. There is a large fleet of mobile equipment for the movement of men and materials throughout the mine. Crushed rock and cement for backfill are delivered to an underground batch plant by boreholes. Pre-mixed shotcrete is delivered by borehole to the underground shotcrete plant.

Ore and waste may be re-handled a number of times between the face and surface, as the material is mucked from the face to a re-muck bay where it is held for a period of time while awaiting assays and a determination as to whether the material is ore or waste. From the remuck the rock is hauled by truck to the material handling drift (MHD) where it is re-handled by LHD to the skip loading dump. The MHD consists of four short drifts where ore and waste are dumped by truck before being re-handled by loader. The loader further dumps them to the feeder breaker and on the skip loading.

The MHD is necessary as the ore is so soft that it will pack and plug if stored in a vertical pass. There is no storage except for the loading pocket feeder belt between the MHD and the shaft.



Skipping is done with a skip tender at the pocket as there can be problems with material sticking in the skip.

Waste rock which is to be hoisted to surface may be mucked to a short waste pass for loading into the skip or it will be hauled to an MHD for subsequent movement to the shaft.

BACKFILL

Cemented rock fill is used for stoping and is prepared in two underground batch plants, located near the shaft on the 1250 level, and near the North Zone. Rock is quarried on surface and crushed before being delivered by borehole to the batch plant. Cement powder and fly ash are delivered from surface silos to the batch plant by borehole. At the batch plant, an operator oversees the preparation of backfill, which is done in approximately eleven ton batches that are loaded into a truck. From the batch plant the backfill is hauled to a nearby raise and is delivered to the lower levels of the mine where it is loaded into trucks or LHDs for delivery to the stope. In the stope, the backfill is rammed tight to the back and walls.

Backfill delivery holes have suffered failures and the original 24 in. diameter lined borehole required liner replacements until the hole diameter was only seven inches. At this size, a replaceable liner was devised and the liner is replaced rather than simply having a smaller liner installed. The smaller borehole had led to a reduction in the size of backfill from minus three inches to minus two inches. There were also delays incurred in the delivery of backfill and in some areas cemented waste fill was being used in order to get fill into headings in a timely fashion.

Six inch diameter concrete test cylinders are filled at the batch plant, so that the backfill can be tested to determine the unconfined compressive strength (UCS). Backfill at Turquoise Ridge typically has a UCS of 8.3 MPa.

In the mine, the cemented backfill provides a good back under which men can work without supporting the cemented fill.



VENTILATION

Fresh air is delivered through the main shaft which is downcast, and after being passed through the mine with a series of ramps and raises, the air is exhausted up the ventilation raise.

At the time of the site visit, mine ventilation was generally good though some of the ramps were dusty, however, watering of the ramps is ill advised due to the mud that develops very quickly in the soft material.

MINE DEWATERING AND WATER TREATMENT

Mine water is diverted to sumps and then to main pumping stations for settling and pumping to surface. The mine has developed such that the main dewatering sump is in the lower part of mine but not at the bottom any more. At the main pump station, there is a clarifier, three clear water pumps, and a piston pump for pumping slimes. All material is pumped to surface in a single stage via the #2 shaft.

The clear water pumping capacity is 3,500 gpm, but the pumps operate at a rate of approximately 700 gpm. Slimes are pumped on a daily basis. Water is recycled for reuse in the mine and excess water is treated in the water treatment plant before discharge to infiltration ponds.

Water is treated for arsenic and manganese removal with a ferric sulphate precipitation circuit followed by clarification and discharge. The arsenic limit was recently reduced from 50 ppm to 10 ppm, and a new water treatment plant was commissioned in 2017 in order to comply with the lower limit.

When water is non-compliant, it is diverted to the Turquoise Ridge tailings impoundment and eliminated by evaporation in the summer months. The tailings impoundment was used when the Getchell mill was operational, however, the mill has now been dismantled.

Slimes are recovered, dried, and added to the mill feed stockpiles.



MAINTENANCE AND COMMUNICATIONS

Mobile equipment maintenance shops and service bays are located within the mine, and service trucks and tractors are used to access remote areas or provide repair and maintenance services away from the shops.

There are both radio and telephone communications in the mine. The radio system is a mine wide system and telephones are available at central locations.

POWER SUPPLY

Electrical power is currently purchased from Sierra Pacific Power Company. The power available is more than enough to meet planned operational schedules and any reasonable expansion. Planning is in place to begin taking power from outside of the Sierra Pacific Power Company system under open access provisions. Power will be purchased on the open market or from the Western 102 plant, whichever is cheaper. Power requirements average 8.5 MW.

3RD SHAFT PROJECT

The 3rd Shaft Project consists of sinking and equipping a 24 ft diameter, concrete-lined shaft to 3,250 ft total depth. Shaft sinking will include two skipping levels, a water pressure break level, and a shaft bottom pump level. Shaft equipping will include a headframe and collar house; hoists and hoistroom; shaft steel; surface and underground material handling; and a shaft bottom pumping system.

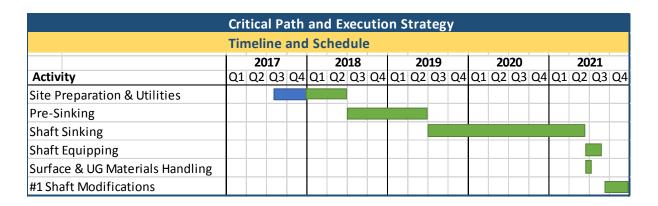
The new shaft will serve as a second production shaft, and provide the following advantages:

- Improved ventilation
- Shorter hauls underground
- Provide a secondary escapeway for the north end of the mine
- Sustain productivity as working areas move away from #2 Shaft

Figure 18-2 summarizes the project schedule. Site preparation started in 2017, and shaft-sinking will begin in 2018. Production is expected in 2022.



FIGURE 18-2 3RD SHAFT PROJECT SCHEDULE





19 MARKET STUDIES AND CONTRACTS

MARKETS

Gold is the principal commodity extracted at the Turquoise Ridge Joint Venture and is freely traded, at prices that are widely known, so that prospects for sale of any production are virtually assured. Prices are usually quoted in US dollars per troy ounce.

CONTRACTS

The mine is a joint venture and operates under a Joint Venture Agreement between Barrick Turquoise Ridge Inc. (BTRI) and Newmont GTR LLC (Newmont LLC) operating at the Turquoise Ridge Joint Venture (TRJV). The ore mined at Turquoise Ridge is processed at the Twin Creeks Mine that is owned and operated by Newmont USA Limited (Newmont) under Toll Milling Agreements (TMA) between BTRI and Newmont and Newmont LLC and Newmont. The two TMAs are separate but the terms are similar. In addition to the TMAs, there is an Administration of Toll Milling Agreement between BTRI and Newmont LLC. The previous agreements expired on December 31, 2017, and new agreements that commenced on January 1, 2018 were negotiated and executed.

The Administration of Toll Milling Agreement appoints BTRI as Newmont LLC's agent to administer certain provisions of Newmont LLC's TMA and to delegate to BTRI certain rights and powers under the agreement including:

- Negotiate all milling of Excess Conforming Ore, Non-Conforming Ore, and other ore that BTRI have a right to have milled.
- Dispute Newmont's determination of the Milling Fee.
- Determine whether a dispute exists and, if so, to institute, conduct, resolve, and settle the dispute.
- Determine whether to suspend deliveries of ore and/or to terminate the Newmont LLC TMA.
- Enforce all indemnity obligations of Newmont LLC TMA.
- Conduct inspections and audits authorized by the TMA.



- Give all notices to Newmont required or permitted by the Newmont LLC TMA.
- Make any waiver to or amendment to the Newmont LLC TMA that is consistent with the BTRI TMA.
- Take all other actions that are reasonable and necessary, appropriate or incidental to any of the foregoing to provide for consistent and unified administration of the Newmont LLC TMA and the BTRI TMA.

In 2017, Newmont rejected some Non-Conforming ore due to high organic carbon content, so significant changes were implemented with the new TMAs. Key changes include:

- Term runs to December 31, 2024.
- Ability to process up to 850,000 tons per year in 2018 and 2019.
- Ability to process up to 1.2 million tons per year in 2020 to 2024.
- New process cost terms, some of which are indexed to the price of gold, and accounting for organic carbon content.
- Some opportunity to consider alternate processing options.

Since BTRI is responsible for shipping ore from Turquoise Ridge to the Sage Mill in the new TMA and it is not feasible for them to commence ore transport as of January 1, 2018, an Interim Ore Transport Agreement was made between Newmont and TRJV.

The 2018 TMA includes a provision for an Optimization Committee which includes technical experts with equal representation from both companies. The purpose of the committee is to study preg-robbing effects of carbon in the ore and other technical and blending issues related to ore from Turquoise Ridge.



20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

TAILINGS STORAGE FACILITY

No tailings are generated at Turquoise Ridge, however, the historic tailings facility is maintained for storage and disposal of non-compliant treated mine water.

ENVIRONMENTAL STUDIES

Over the years, many environmental studies have been completed, as required, which were sufficient for the granting of various permits required for operations.

PROJECT PERMITTING

The TRJV maintains a number of permits for the operation. A list of the key permits and the status of the permits is shown in Table 20-1. TRJV tracks permits carefully for ongoing compliance. In RPA's opinion, TRJV is meeting Barrick's high standards for environmental awareness and compliance. Environmental staff carries out sampling, monitoring, and record keeping and are involved in permit applications and renewals as required.

TABLE 20-1 KEY ENVIRONMENTAL PERMITS FOR TRJV Barrick Gold Corporation - Turquoise Ridge Joint Venture

Permit	Status		
EIS	N/A		
Water Pollution Control Permit NEV96009 - Sewage Treatment	Expires January 16, 2019		
Water Pollution Control Permit NEV86014 - Mining Operation	Permit Renewed October 2016 Expires 2021		
Water Pollution Control Permit NEV95113 - Infiltration	Permit Renewed February 2017, Expires December 2021		
Water Pollution Control PCS Plan (NEV86014/NEV95113)	Required in NEV0086014; approved by State 2012		
Waste Rock Management Plan (WPCP 86014)	NEV0086014; approved by State with renewal		
Water Pollution Control Closure - Tailings (NEV 95113)	Approved with renewal		
Hazardous Materials Storage Permit	February 28, 2019		
Radioactive Material License #08-11-0257-01	Annual Renewal		
Radiation Safety Officer Certification	Annual Renewal		



Permit	Status
Stormwater General Permit NVR300000	Annual Renewal by NDEP
Mine Plan of Operations NVN-064093	Modification Approved by State/Fed in July 2016
Exploration Plan of Operations N-89715	Handled by Elko Division
Reclamation Permit 0105 - Barrick Turquoise Ridge Mine Operations	Modification Approved by State/Fed in July 2016; Next 3-Yr update due July 2019
Reclamation Permit 0148 - Barrick Turquoise Ridge Exploration	Handled by Elko Division
Solid Waste Management - Class III Landfill Waiver	Expires February 2019
Public Water System Permit HU2528-12NCNT & HU2528-TP03	Annual Renewal
Certified Operator - Public Water System Permit HU2528-12NCNT	Annual Renewal
Water Resources Dam Permit J-456 Tailings	Annual Renewal
Industrial Artificial Pond Permit # S33004 (Tails)	Annual Renewal
LPG Class 5 License #5-4562-01 through 05	Annual Renewal
Nevada Water Conservation Plan	Approved 2012
Water Consumption Report (Water Rights Permits Requirement)	Quarterly Reported
Water Rights Permit No. 82229	Annual Extension of Time
Water Rights Permit No. 82228	Annual Extension of Time
Water Rights Permit No. 82230	Annual Extension of Time
Water Rights Permit No. 74099	Annual Extension of Time
Water Rights Permit No. 65913	Annual Extension of Time
Water Rights Permit No. 65909	Annual Extension of Time
Water Rights Permit No. 65907	Annual Extension of Time
Water Rights Permit No. 65912	Annual Extension of Time
Water Rights Permit No. 65914	Annual Extension of Time
Water Rights Permit No. 65903	Annual Extension of Time
Water Rights Permit No. 65904	Annual Extension of Time
Water Rights Permit No. 65905	Annual Extension of Time
Water Rights Permit No. 65906	Annual Extension of Time
Water Rights Permit No. 65901	Annual Extension of Time
Water Rights Permit No. 65902	Annual Extension of Time
Water Rights Permit No. 65908	Annual Extension of Time
Water Rights Permit No. 65900	Annual Extension of Time
Water Rights Permit No. 65910	Annual Extension of Time
Water Rights Permit No. 58406	Annual Extension of Time
Water Rights Permit No. 9771	Annual Extension of Time
Water Rights Permit No. 9812	Annual Extension of Time
Water Rights Permit No. 61602	Annual Extension of Time
Water Rights Permit No. 61688	Annual Extension of Time
Water Rights Permit No. 61546	Annual Extension of Time
Water Rights Permit No. 58408	Annual Extension of Time
Water Rights Permit No. 61686	Annual Extension of Time
Water Rights Permit No. 63109	Annual Extension of Time
Water Rights Permit No. 68058	Annual Extension of Time
Water Rights Permit No. 28758	Annual Extension of Time
Water Rights Permit No. 76920	Annual Extension of Time
Air Pollution Control Permit - AP1041-0292.2	Expires June 2018
Air Pollution Control - Fugitive dust control plan AP1041-0292.2	Expires June 2019
Method 9 Opacity Certification	Biennial Renewal
Public Land Right-of-Way Permit # N-19811	Annual Fee
Nevada Mercury Air Emission Control Program	Expires June 2019



Permit	Status		
40 CRF 112 Spill Prevention, Control, and Countermeasure Plan & Oil Pollution Prevention	State Approved in 2012		
RCRA EPA ID No. NVD986774735	Valid for Life of Mine		
RCRA - Solid and Hazardous Waste Management Plan	Annual Review		
Toxic Release Inventory ID #NVV986774735	Annual Report		
DOT Certifications	Annual and every three year certifications		
Toxic Substance Control Act	Reporting due in 2021		
Waters of the United States - Jurisdictional Waters Determination	Reviewed every 5 years - 2018 submission		

SURFACE DISTURBANCE

Total permitted surface disturbance for the TRJV is approximately 1,957.5 acres, or 3.1 square miles. In previous years, TRJV reclaimed areas that had the potential to be removed from active mining plans, and will continue to do so as necessary, without requesting release of bonds for these areas.

SOCIAL OR COMMUNITY REQUIREMENTS

There are no major challenges with respect to government relations, non-Governmental Organizations (NGOs), social or legal issues, and community development. TRJV has a community and social relations policy that is consistent with Barrick core values and governance.

TRJV currently has a representative group of employees that serves as a Community Relations Team reporting to the Human Resources Superintendent. The operation is an active member of and supports the Mining Industry Foundation for Lowry High School. It also supports the Humboldt Development Authority and provides financial and in-kind support to the community. Barrick supplies water to area ranchers for their cattle. Contacts are sustained with the City of Winnemucca and Humboldt County officials.

MINE CLOSURE REQUIREMENTS

There are both ongoing and active reclamation and closure activities as well as historic or legacy activities.



Ongoing and active reclamation include the Turquoise Ridge and Getchell mine facilities; water treatment plant and infiltration system; potable water system; wastewater treatment system; tailings impoundment; and access and haul roads. These components will be reclaimed and closed at the end of the mine life.

Reclamation of the historic Getchell processing facilities and legacy areas has essentially been completed.

Closure plans for this long-life operation are updated regularly.

CLOSURE COSTS

The Barrick Reclamation Cost Estimator is used to calculate closure costs. The Q4 2017 estimate was \$36.3 million.



21 CAPITAL AND OPERATING COSTS

The TRJV is an operating underground gold mine. There is major capital project involving a new production shaft and sustaining capital requirements, however, there are no preproduction requirements.

CAPITAL COSTS

Current LOM capital costs for the operation are estimated to be \$723 million, as summarized in Table 21-1. Large capital items for 2018 include completion of site preparation for the 3rd Shaft, and beginning of shaft sinking.

TABLE 21-1 LOM CAPITAL COST ESTIMATE
Barrick Gold Corporation – Turquoise Ridge Joint Venture

Description	2018	LOM Total	
	(\$ millions)	(\$ millions)	
Capital Development	20.8	216.0	
3 rd Shaft Project	62.3	278.5	
Capital Equipment & Facilities	19.6	156.1	
Exploration Drilling	4.0	72.0	
Total	106.7	722.6	

RPA is of the opinion that the projected capital costs appear to be reasonable.

OPERATING COSTS

Table 21-2 summarizes recent unit operating costs, and the projected LOM costs.

TABLE 21-2 OPERATING COST SUMMARY
Barrick Gold Corporation - Turquoise Ridge Joint Venture

ltem	Units	2015	2016	2017	LOM
Mining	\$/ton	199.87	158.46	150.73	150.73
Processing	\$/ton	45.98	36.44	41.28	70.00
G & A	\$/ton	34.82	25.67	36.69	36.69
Total	\$/ton	280.67	220.57	228.70	257.42



RPA notes that the operating costs projected for the LOM are based on 2017 actual costs, with an allowance for higher processing cost to account for the new Toll Milling Agreement (TMA). The impacts of variable processing terms, higher production rates, installation of the 3rd Shaft, and use of roadheaders for mining softer ores are not estimated.

- TMA: the new agreement includes some terms indexed to gold prices, and a variable component based on organic carbon content.
- Higher Production Rates: the new TMA allows for an increase to 850,000 tons per year in 2018 and 2019, and 1.2 million tons per year in 2020 to 2024. There is also the possibility of processing ore at Goldstrike.
 - Higher rates allow fixed costs (a portion of mining costs, and all G&A costs) to be spread over more tons, at lower unit rates.
- 3rd Shaft: the impact of the new shaft on operating costs has yet to be determined.
- Mechanical Mining: the cost impact of mining by roadheader has yet to be determined.
 Continuous operation in 2018 should provide useful data.

In RPA's opinion, the net effect of the above is a potential reduction in unit operating costs over time.

WORKFORCE

The mine personnel as of the end of 2017 is shown in Table 21-3.

TABLE 21-3 SUMMARY OF PERSONNEL BY DEPARTMENT Barrick Gold Corporation - Turquoise Ridge Joint Venture

Department	Employees
Mine Operations	220
Maintenance	146
Geology & Engineering	44
Process Laboratory	14
General and Administration	49
Total	473

In addition to employees, approximately 90 contractors work at TRJV.



22 ECONOMIC ANALYSIS

This section is not required as Barrick is a producing issuer, and the property is currently in production and there is no material expansion of current production. RPA has confirmed the economic viability of the Mineral Reserves through cash flow analysis.



23 ADJACENT PROPERTIES

This section is not applicable.



24 OTHER RELEVANT DATA AND INFORMATION

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.



25 INTERPRETATION AND CONCLUSIONS

The mine has been in production for over 10 years and is a mature operation. In RPA's opinion, there are not any significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information, Mineral Resource or Mineral Reserve estimates, or projected economic outcomes.

Based on the site visit and subsequent review, RPA offers the following conclusions:

GEOLOGY AND MINERAL RESOURCES

- The Turquoise Ridge deposit is a typical Carlin-type deposit and is characterized by structurally and stratigraphically controlled, sediment-hosted, replacement deposits containing micron-sized gold.
- The drilling, sampling, and quality assurance/quality control is appropriate for the style of mineralization.
- The Mineral Resource estimate was completed by TRJV and was reviewed and accepted by RPA.
- RPA is of the opinion that the Mineral Resource estimate has been completed to industry standard and is suitable to support the disclosure of Mineral Resources and Mineral Reserves.
- RPA is not aware of any environmental, permitting, legal, title, taxation, socioeconomic, marketing, political, or other relevant factors which could materially affect the Mineral Resource estimate.
- Measured and Indicated Resources, effective December 31, 2017, total 7.5 million tons grading 0.268 oz/ton Au, containing 2.0 million ounces of gold, exclusive of Mineral Reserves.
- Inferred Resources, effective December 31, 2017, total 2.5 million tons grading 0.380 oz/ton Au, containing 0.9 million ounces of gold.
- Exploration potential remains considerable, and TRJV is pursuing an aggressive program on six targets.

MINING AND MINERAL RESERVES

- The Mineral Reserve estimate was completed by TRJV and was reviewed and accepted by RPA.
- RPA is of the opinion that the Mineral Reserve estimate has been completed to industry standard and is suitable for disclosure.



- Proven and Probable Mineral Reserves, effective December 31, 2017, total 17.3 million tons grading 0.453 oz/ton Au, containing 7.8 million ounces of gold.
- 2017 reconciliation results show that estimation of gold ounces is a reasonable match for subsequent production once all information is available, i.e., relative to the short-term grade control model. Mineral Reserve estimates lack data when estimating more than a year in advance of mining significant quantities of Inferred Resources are drilled, re-estimated, and upgrade in classification before mining, rendering the Reserve estimates conservative. This is a long-standing pattern at TRJV, and not, in RPA's opinion, any cause for concern or change in estimation or operating practices.
- TRJV has a started a pilot program to test mechanical mining via roadheader in softer ground. More continuous operation (in comparison to the cycle of activities in conventional drift advance) and less impact on the rockmass are expected to provide operating efficiency advantages.
- There is upside potential in higher mining rates, made possible by a new production shaft (sinking beginning in 2018), and a new toll milling agreement. This is not currently reflected in operating cost estimates, cut-off grades, or the reserve estimate.

PROCESSING

- The current sampling protocol for shipped ore is a laborious process but works well.
- The metallurgical accounting is complex but reasonable and consistent with typical industry standards.
- The gold recovery equation is based upon a relationship with the ratio between the gold feed grade and COC concentration, adjusted monthly based on process results at the Twin Creeks Plant. RPA's analysis, however, indicates that there is little correlation, and therefore the estimation methodology is not accurate.
- There is a concern that the quantity of gold that TRJV is being paid for may be inaccurate, as plant recoveries attributed to TRJV feed (10% of the total feed) are influenced to a much greater extent by Twin Creeks feed (90% of the total feed).



26 RECOMMENDATIONS

RPA has the following recommendations by area:

GEOLOGY AND MINERAL RESOURCES

Continue infill drilling and exploration.

MINING AND MINERAL RESERVES

- Review roadheader performance in 2018 and determine where gains can be made by changing from conventional drilling and blasting to mechanical mining.
- Now that production is less limited by milling constraints, review potential for higher mine production.

PROCESSING

 RPA recommends that evaluation of gold recovery estimates should continue to be assessed in order to improve the accuracy of the estimates.



27 REFERENCES

Agreement for Administration of Toll Milling Agreement, 2018, January 1, 2018

Amendment to Toll Milling Agreements, 2006, agreement between Placer Turquoise Ridge Inc., Newmont GTR LLC, and Newmont USA Limited, July 21, 2014.

Newmont, 2015, 2015 Sage PR TRJV.xlsx, January 6, 2016.

Newmont, 2016, 2016 Final Sage PR TRJV.xlsx, May 5, 2017.

Newmont, 2016, TR 159-101016 Processing Summary Final,

Newmont, 2016, TR 159-101016 Processing Summary Final. Xlsx,

Newmont, 2017, SAGE OZ TRJV.xlsx, November 6, 2017.

Newmont, 2017, 2017 SAGE PR TRJV.xlsx, February 2, 2018.

Hazen Research, Inc., 2017, Metallurgical Test Program for Turquoise Ridge and Goldstrike Ores, September 21, 2018.

Non-Conforming Ore Agreement, 2017, agreement between Barrick Turquoise Ridge Inc., as successor to the interests of Placer Turquoise Ridge Inc. ("BTRI"), Newmont GTR LLC, a Nevada limited liability company ("Newmont LLC"), and Newmont USA, May 22, 2017.

Roscoe Postle Associates Inc. 2011, Technical Report on the Turquoise Ridge Joint Venture, Nevada, USA, Prepared for Barrick Gold Corporation, September 2011.

Roscoe Postle Associates Inc. 2014, Technical Report on the Turquoise Ridge Joint Venture, Nevada, USA, Prepared for Barrick Gold Corporation, March 14, 2014.

Toll Milling Agreement between Newmont LLC (a member of the Turquoise Ridge Joint Venture) and Newmont USA Limited, 2006.

Toll Milling Agreement, 2018, agreement between Barrick Turquoise Ridge and Newmont USA Limited, January 1, 2018.

Toll Milling Agreement, 2018, agreement between Newmont GTR LLC and Newmont USA Ltd., January 1, 2018.

TRJV, Monthly QA/QC Reports, 2016 and 2017.

TRJV, Quarterly Independent Laboratory Reports, 2016 and 2017.

TRJV, TR Geology, Minex Drill Programs, and Mineral Resources & Reserves, Power Point presentation by TRJV staff, December 12, 2016.

TRJV, General Introduction Geology, Mining, Processing, Two Part Power Point presentation by TRJV staff, December 12, 2016.



TRJV, 2016, 159-101016 Processing Summary Final.xlsx, October 10, 2016

TRJV, 2016, 160-110716 Processing Summary Final.xlsx, November 7, 2016

TRJV, 2016, 161-120816 Processing Summary Final.xlsx, December 9, 2016

TRJV, 2017, 162-010917 Processing Summary Final.xlsx, January 9, 2017

TRJV, 2017, 163-021317 Processing Summary Final.xlsx, February 13, 2017

TRJV, 2017, 165-Aug Processing Summary Final.xlsx, 2017

TRJV, 2017, 165-June Processing Summary Final.xlsx, 2017

TRJV, 2017, 166-052217 Processing Summary Final.xlsx, May 22, 2017

TRJV, 2017, 167-062117 Processing Summary Final.xlsx, June 21, 2017

TRJV, 2017, 170-091417 Processing Summary Final.xlsx, September 14, 2017

TRJV, 2017, Reconcile check off.xlsx, 2017

TRJV, 2017 Year-End Cut-Off Grade Report, January 2018

TRJV, 2018 Tier 1 Plan Print.xlsx, February 15, 2018



28 DATE AND SIGNATURE PAGE

This report titled "Technical Report on the Turquoise Ridge Joint Venture, Nevada, USA" and dated March 19, 2018 was prepared and signed by the following authors:

(Signed and Sealed) "Jason J. Cox"

Dated at Toronto, ON March 19, 2018

Jason J. Cox, P.Eng. Principal Mining Engineer

(Signed and Sealed) "Wayne W. Valliant"

Dated at Toronto, ON March 19, 2018

Wayne W. Valliant, P.Geo. Principal Geologist

(Signed and Sealed) "Kathleen Ann Altman"

Dated at Lakewood, CO March 19, 2018

Kathleen Ann Altman, Ph.D., P.E.

Principal Metallurgist

(Signed and Sealed) "Philip A. Geusebroek"

Dated at Toronto, ON March 19, 2018

Philip A. Geusebroek, P.Geo.

Senior Geologist



29 CERTIFICATE OF QUALIFIED PERSON

JASON J. COX

I, Jason J. Cox, P.Eng., as an author of this report entitled "Technical Report on the Turquoise Ridge Joint Venture, Nevada, U.S.A." prepared for Barrick Gold Corporation and dated March 19, 2018 do hereby certify that:

- 1. I am a Principal Mining Engineer and Executive Vice President, Mine Engineering, with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave Toronto, ON, M5J 2H7.
- 2. I am a graduate of the Queen's University, Kingston, Ontario, Canada, in 1996 with a Bachelor of Science degree in Mining Engineering.
- 3. I am registered as a Professional Engineer in the Province of Ontario (Reg. #90487158). I have worked as a Mining Engineer for more than 20 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Review and report as a consultant on many mining operations and projects around the world for due diligence and regulatory requirements
 - Feasibility Study project work on several mining projects, including five North American mines
 - Operational experience as Planning Engineer and Senior Mine Engineer at three North American mines
 - Contract Co-ordinator for underground construction at an American mine
- 4. 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.
- 5. I visited the Turquoise Ridge Mine on October 18-19, 2016 and November 6-7, 2017.
- 6. I am responsible for Sections 15, 16, 18, 21, and 22 and contributed to Sections 1, 2, 19, 24 thorough 26 and for the overall preparation of the Technical Report.
- 7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
- 8. I have previously prepared audits on the property that is the subject of the Technical Report.
- 9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.



10. At 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 19th day of March, 2018

(Signed and Sealed) "Jason J. Cox"

Jason J. Cox, P.Eng.



WAYNE W. VALLIANT

- I, Wayne W. Valliant, P.Geo., as an author of this report entitled "Technical Report on the Turquoise Ridge Joint Venture, Nevada, U.S.A." prepared for Barrick Gold Corporation and dated March 19, 2018 do hereby certify that:
 - 1. I am a Principal Geologist with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave Toronto, ON, M5J 2H7.
 - 2. I am a graduate of Carleton University, Ottawa, Ontario, Canada in 1973 with a Bachelor of Science degree in Geology.
 - 3. I am registered as a Geologist in the Province of Ontario (Reg. #1175). I have worked as a geologist for more than 40 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Review and report as a consultant on more than fifty mining operations and projects around the world for due diligence and resource/reserve estimation
 - General Manager of Technical Services for corporation with operations and mine development projects in Canada and Latin America
 - Superintendent of Technical Services at three mines in Canada and Mexico
 - Chief Geologist at three Canadian mines, including two gold mines
 - 4. 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.
 - 5. I visited the Turquoise Ridge Mine on November 6-7, 2017.
 - 6. I am responsible for Sections 3 through 9, 11, and 23 and share responsibility with my co-authors for Sections 1, 10, 12, 25, and 26 of the Technical Report.
 - 7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
 - 8. I have had no prior involvement with the property that is the subject of the Technical Report.
 - 9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
 - 10. At 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 19th day of March, 2018.

(Signed and Sealed) "Wayne W. Valliant"

Wayne W. Valliant, P. Geo.



KATHLEEN ANN ALTMAN

I Kathleen Ann Altman, Ph.D., P.E., as an author of this report entitled "Technical Report on the Turquoise Ridge Joint Venture, Nevada, U.S.A." prepared for Barrick Gold Corporation and dated March 19, 2018 do hereby certify that:

- 1. I am a Principal Metallurgist with RPA (USA) Ltd. of Suite 505, 143 Union Boulevard, Lakewood, Co., USA 80228.
- 2. I am a graduate of the Colorado School of Mines in 1980 with a B.S. in Metallurgical Engineering. I am a graduate of the University of Nevada, Reno Mackay School of Mines with an M.S. in Metallurgical Engineering in 1994 and a Ph.D. in Metallurgical Engineering in 1999.
- 3. I am registered as a Professional Engineer in the State of Colorado (Reg. #37556) and a Qualified Professional Member of the Mining and Metallurgical Society of America (Member #01321QP). I have worked as a metallurgical engineer for a total of 37 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Review and report as a metallurgical consultant on numerous mining operations and projects around the world for due diligence and regulatory requirements.
 - I have worked for operating companies, including the Climax Molybdenum Company, Barrick Goldstrike, and FMC Gold in a series of positions of increasing responsibility.
 - I have worked as a consulting engineer on mining projects for approximately 20 years in roles such a process engineer, process manager, project engineer, area manager, study manager, and project manager. Projects have included scoping, prefeasibility and feasibility studies, basic engineering, detailed engineering and start-up and commissioning of new projects.
 - I was the Newmont Professor for Extractive Mineral Process Engineering in the Mining Engineering Department of the Mackay School of Earth Sciences and Engineering at the University of Nevada, Reno from 2005 to 2009.
- 4. 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.
- 5. I have visited the Turquoise Ridge Mine several times, most recently on October 18-19, 2016 and November 6-7, 2017.
- 6. I am responsible for Sections 13, 17, and 20, and contributed to Sections 1, 19, and 24 through 26 of the Technical Report.
- 7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
- 8. I have previously prepared audits on the property that is the subject of the Technical Report.
- 9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.



10. At 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 19th day of March, 2018

(Signed and Sealed) "Kathleen Ann Altman"

Kathleen Ann Altman, Ph.D., P.E.



PHILIP A GEUSEBROEK

- I, Philip A Geusebroek, P.Geo., as an author of this report entitled "Technical Report on the Turquoise Ridge Joint Venture, Nevada, U.S.A." prepared for Barrick Gold Corporation and dated March 19, 2018 do hereby certify that:
 - 1. I am a Senior Geologist with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave Toronto, ON, M5J 2H7.
 - 2. I am a graduate of University of Alberta, Edmonton, Alberta, Canada in 1995 with a Bachelor of Science degree in Geology, and a graduate of the University of Western Ontario, London, Ontario, Canada in 2008 with a Master of Science degree in Geology.
 - 3. I am registered as a Geologist in the Province of Ontario (Reg. #1938) and in the Province of Alberta (Reg. #57911). I have worked as a geologist for more than 20 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Review and report as a consultant on mining operations and exploration projects around the world for due diligence and resource/reserve estimation since 2011, including Carlin style mineralization.
 - Senior Geology Database Manager for an intermediate mining company implementing and auditing industry best practice geological workflow, data capture and utilisation.
 - Underground and Open Pit Mine Geologist at two operating gold mines over ten years.
 - 4. 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.
 - 5. I visited the Turquoise Ridge Mine on November 6-7, 2017.
 - 6. I am responsible for Section 14, and share responsibility with my co-authors for Sections 1, 10, 12, 25, and 26 of the Technical Report.
 - 7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
 - 8. I have had no prior involvement with the property that is the subject of the Technical Report.
 - 9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.



10. At 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 19th day of March, 2018.

(Signed and Sealed) "Philip A. Geusebroek"

Philip A. Geusebroek, P. Geo.