
13 February 2024

Mineral Resources and Ore Reserves Statement as at 31 December 2023

Highlights

Simberi

- **Simberi Mineral Resources up 0.8 Moz (20%) to 4.8 Moz (net of depletion)**
 - Drill results for 2023/24 program not included – upgrade relates to resource definition drilling carried out in FY22 and FY23, revised mineralisation and oxidation models and updated economic inputs
 - FY24 Resource Definition drilling continues to target upgrade of 1 Moz from Inferred to Indicated
- **Simberi Ore Reserves stable at 2.0 Moz (net of depletion)**
 - Oxide depletion replaced through cut-off grade and other operational strategies to extend oxide life

Atlantic

- **Atlantic Mineral Resources stable at 2.0 Moz (net of depletion)**
 - **Atlantic Ore Reserves trimmed by 0.2 Moz to 1.4 Moz (net of depletion)**
 - 15-Mile Ore Reserves increased by 40 koz following Pre-Feasibility Study
 - Beaver Dam Ore Reserve reduced by 120 koz to reflect the smaller mine design selected to minimise surface disturbance footprint
 - 100 koz reduction at Touquoy from mining and processing depletion and write-off of remaining low grade stockpiles
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Managing Director and CEO Andrew Strelein said “We are pleased to provide this annual update to St Barbara’s Mineral Resource and Ore Reserve Statement showing overall Mineral Resources at Simberi and Atlantic has grown from 5.9 Moz to 6.7 Moz. This growth has primarily come from Simberi and this is before any inclusion of results from the ongoing FY24 program.”

“An updated Statement is planned for the end of FY24 and will incorporate results available from the resource definition program where we are targeting an upgrade of 1.0 Moz from Inferred to Indicated Mineral Resource.”

“Our Mineral Resource position of 6.7 Moz is incredible for a Company of our market capitalisation. We recognise that the value proposition for St Barbara lies in demonstrating the development potential of these projects and we are moving quickly on the respective work programs.”

St Barbara attaches the Mineral Resource and Ore Reserve position at 31 December 2023 confirming the following totals for the Company:

- Total Ore Reserves are estimated at 70.8 Mt @ 1.5 g/t Au for 3.3 Moz of contained gold, comprising:
 - Simberi Operations 32.5 Mt @ 1.9 g/t Au for 2.0 Moz of contained gold
 - Atlantic Operations 38.3 Mt @ 1.1 g/t Au for 1.4 Moz of contained gold
- Total Mineral Resources¹ are estimated at 154.9 Mt @ 1.4 g/t Au for 6.7 Moz of contained gold, comprising:
 - Simberi Operations 98.3 Mt @ 1.5 g/t Au for 4.8 Moz of contained gold
 - Atlantic Operations 56.5 Mt @ 1.1 g/t Au for 2.0 Moz of contained gold

During the 12 months since the last statement the Company sold the Leonora Assets including various deposits acquired from Bardoc Gold Limited comprising of the relevant Mineral Resources and Ore Reserves. The tables reflect that sale transaction.

Authorised by

Board of Directors

For more information

Investor Relations

David Cotterell
*General Manager Business
Development & Investor Relations*

info@stbarbara.com.au

T: +61 3 8660 1959

M: +61 447 644 648

Media Relations

Paul Ryan / Michael Weir
Citadel-MAGNUS
M: +61 409 296 511 / +61 402 347 032

¹ Mineral Resources are reported inclusive of Ore Reserves



Overview

St Barbara's Mineral Resources and Ore Reserves position at 31 December 2023 is summarised and compared with the 31 December 2022 statement in Tables 1 and 2.

The Company sold the Leonora Assets, including the Bardoc properties, to Genesis Minerals Limited on 30 June 2023. The tabulation reflects the removal of the respective Mineral Resources and Ore Reserves relating to that transaction.

Project	31 December 2022 Mineral Resources			31 December 2023 Mineral Resources		
	Tonnes (Mt)	Grade (g/t Au)	Ounces ('000)	Tonnes ('000)	Grade (g/t Au)	Ounces ('000)
Gwalia Deeps (WA)	24.2	5.8	4,470	-	-	-
Gwalia Open Pit (WA)	9.0	2.2	630	-	-	-
Gwalia Shallows	3.4	3.5	390	-	-	-
Harbour Lights (WA)	13.7	1.7	750	-	-	-
Tower Hill (WA)	20.7	1.8	1,180	-	-	-
Total Leonora Operations	71.0	3.2	7,420	-	-	-
Aphrodite	25.5	2.0	1,660	-	-	-
Zoroastrian	7.0	2.3	520	-	-	-
Excelsior	11.3	1.0	350	-	-	-
Bardoc Satellite Open Pits	9.4	1.6	480	-	-	-
Total Bardoc Operations	53.2	1.8	3,010	-	-	-
Simberi Oxide (PNG)	15.6	1.1	540	23.3	1.1	790
Simberi Sulphide (PNG)	67.5	1.6	3,430	75.1	1.6	3,970
Total Simberi Operations	83.1	1.5	3,980	98.3	1.5	4,760
Touquoy	1.3	0.6	20	-	-	-
Beaver Dam	11.1	1.3	450	11.1	1.3	450
15-Mile	23.6	1.0	780	24.5	1.1	840
Cochrane Hill	21.0	1.0	690	21.0	1.0	690
Total Atlantic Operations	57.0	1.1	1,940	56.5	1.1	1,980
Grand Total	264.4	1.9	16,350	154.9	1.4	6,740

Table 1: St Barbara December 31 2023 and December 31 2022 Mineral Resources Comparison



Project	31 December 2022 Ore Reserves			Production	31 December 2023 Ore Reserves		
	Tonnes (Mt)	Grade (g/t Au)	Ounces ('000)		Ounces ('000)	Tonnes (Mt)	Grade (g/t Au)
Gwalia Deeps (WA)	12.6	5.0	2,040	61	-	-	-
Tower Hill (WA)	9.7	1.8	560		-	-	-
Total Leonora Operations	22.3	3.6	2,600		-	-	-
Aphrodite (WA)	2.8	3.6	320	-	-	-	-
Zoroastrian (WA)	0.8	3.8	100		-	-	-
Total Bardoc Operations	3.6	3.6	420		-	-	-
Simberi Oxide (PNG)	7.6	1.2	280	65	7.8	1.2	300
Simberi Sulphide (PNG)	26.6	2.0	1,680		23.8	2.2	1,640
Simberi Stockpile	0.7	1.3	30		0.9	1.2	40
Total Simberi Operations	34.8	1.8	1,990		32.5	1.9	1,980
Beaver Dam	7.8	1.4	350	29	4.5	1.5	220
15-Mile	16.8	1.1	580		18.5	1.0	620
Cochrane Hill	15.4	1.0	510		15.4	1.0	510
Touquoy	0.6	0.7	10		0.0	0.0	0
Atlantic Stockpiles	5.4	0.5	80		0.0	0.0	0
Total Atlantic Operations	46.0	1.0	1,530		38.3	1.1	1,350
Grand Total	106.7	1.9	6,540	155	70.8	1.5	3,330

Table 2: St Barbara December 31 2023 and December 31 2022 Ore Reserves Comparison

The company's Mineral Resources have increased above net mining depletion by 0.8 Moz (exclusive of the sale of Leonora and Bardoc properties). This includes:

- Simberi Operations increased by a net 780 koz due to incorporation of resource definition drilling that took place over FY22 and FY23, revised mineralisation and oxidation models and an updated optimal shell based on updated economic inputs based on most recent FY22 study findings including a larger mill throughput rate (3.7 vs 3.0 Mtpa).
- Atlantic Operation increased by 40 koz due to updated Resource model at 15-Mile (*refer ASX release 10 October 2023 – 'Strong 15 Mile Project Pre-feasibility Results'*)

Exclusive of the sale of Leonora and Bardoc assets there has been a modest overall reduction of 0.2 Moz to the Company Ore Reserves primarily relating to the selection of a smaller mine design for Beaver Dam but also because of depletion at Touquoy and the removal of remaining inventory as the project moves to closure.



Mineral Resources Revisions

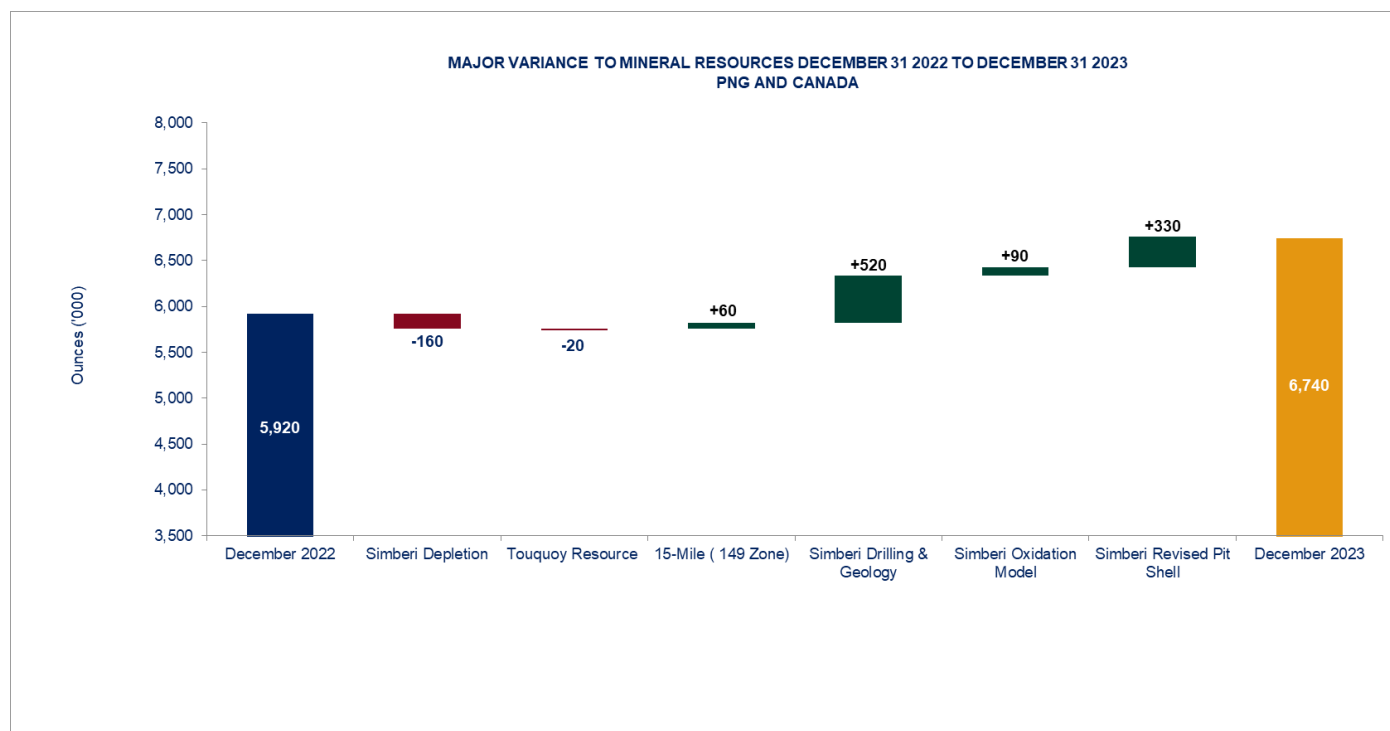


Figure 1: Waterfall chart illustrating variations in Mineral Resources 31 December 2022 to 31 December 2023, excluding Leonora assets which were sold on 30 June 2023.

Simberi Operations

The Simberi Mineral Resources increased in 2023 by 780 koz above net mining depletion of 160 koz. Approximately 520 koz were added through the finalisation of an updated Resource model incorporating an additional 9,000 metres of resource definition drilling and 51,000 metres of grade control drilling completed since the model was previously updated in 2021. A further 90 koz are estimated to have been added as a result of increasing the lower sulphur threshold for oxide ore from 0.4% to 1.0% and reducing the sulphur/iron ratio threshold from 3.0 to 1.7 to reflect the operational successes in processing greater proportions of partially oxidised material.

Finally, an increase of 330 koz arose from changes to the processing rate assumptions for the Mineral Resource shell. The previous Mineral Resource was reported constrained by an US\$1875/oz optimal pit shell with economic parameters derived from a mill throughput rate of 3.0 Mtpa whereas this latest US\$1875/oz shell was revised based on the 2022 study work derived from a mill throughput rate of 3.7 Mtpa producing a larger optimal shell.

Atlantic Operations

The Atlantic Operations Mineral Resources increased in 2023 by 40 koz overall.

An updated Resource for 15-Mile was reported during 2023 which included the previously unreported 149 Zone pit (+60 koz) (refer ASX release 10 October 2023 – ‘Strong 15 Mile Project Pre-feasibility Results’). The Beaver Dam and Cochrane Hill Mineral Resources are unchanged.

Lastly, the remnant Touquoy Mineral Resource is no longer reported following the completion of mining and planned closure of the site, resulting in a reduction of 20 koz.



Mining cost estimates are built up from first principles. Equipment and operations productivity is based on historical production at the nearby Touquoy gold mine, and simulated hauler cycle times for all planned Beaver Dam sources and destinations. Equipment fuel, lube, tire, equipment parts, explosives and labour usages rates have also been estimated based on experience from the nearby Touquoy gold mine as well as supplier recommendations. Costs inputs are based on supplier quotations in Q4 2023.

Processing method and assumptions

Ore from the Beaver Dam pit will be mined and transported to the St Barbara proposed 15-Mile Gold project 61km's East. The 15-Mile processing facility consists of a 3 stage crushing and ball mill comminution circuit. The process facility uses is conventional gravity concentration with an intensive leach reactor and a Carbon-in-leach (CIL) circuit with Pressure Zadra Elution. Tailings are treated through cyanide destruction and deposited in the proposed 15-Mile tailings facility. Tailings capacity will be provided by an additional tailings dam lift at 15-Mile.

Metallurgical performance of the Beaver Dam ore at the proposed 15-Mile process facility has been well studied since 2015. Beaver Dam has been proven to be amendable to gravity and CIL recovery with a grind product size of 150um with a Bond Ball Mill work index (BWi) of 15.3 kWh/t and an Axb of 42.4. Beaver Dam ore is free-milling with quick leach kinetics which has shown an average recovery of 95.8% with low cyanide consumption.

Approvals and Infrastructure

The Beaver Dam project assumes Provincial Approvals prior to development. The project is still subject to Federal permitting such as Fisheries Authorization, and Species at Risk.

The Beaver Dam project as proposed has taken into consideration environmental limitations and opportunities to reduce impacts. This has resulted in a decrease in environmental impacts compared to previous designs. This includes a smaller pit design, less mined waste, better management of potentially acid generating material, no requirement for a new haul road, minimized trucking frequency and reduced water consumption.

The project footprint has largely reduced as a result of the smaller pit design. This resulted in reduced waste rock stockpiles. The potential acid generating (PAG) material will be separated from the non-acid generating (NAG) material. The PAG will be re-handled back into the vacant pit rather compared to stockpiling long term on surface to help mitigate acid generation. Additionally, the project no longer requires the construction of a 12.3 km haul road to the Touquoy processing facility to reduce disturbance.

Site infrastructure including buildings, water treatment and auxiliary support equipment has been updated and estimated as per the 2024 Pre-Feasibility Study.



**JORC Table 1 Checklist of Assessment and Reporting Criteria
Section 1 Sampling Techniques and Data – Beaver Dam**

Criteria	Comments
Sampling Techniques	<ul style="list-style-type: none"> 2005 – 2007: Core initially sampled with using a mechanical splitter over 1m intervals. Subsequently ½ core using a core saw. 2009 – 2015: Sawn to half core over nominal 1m intervals
Drilling Techniques	<ul style="list-style-type: none"> Drilling has used primarily NQ (47.6 mm diameter) core. Core is not orientated
Drill Sample Recovery	<ul style="list-style-type: none"> Diamond drilling recovery percentages were measured by comparing actual metres recovered per drill run versus metres measured on the core blocks. Recoveries averaged over >90% with increased core loss associated with faults, shear zones and proximal to underground workings. There is no relationship between sample recovery and gold grade
Logging	<ul style="list-style-type: none"> Drill core logging procedures are described on a metre-by-metre basis with regards to lithology, texture, sulphide mineralisation, alteration, quartz veining, structure, and in some cases magnetic susceptibility. All drill core has been photographed both wet and dry. Core recovery and rock quality designation (RQD) were measured for each hole at the same metre-by-metre intervals. Information was initially captured using logging sheets; later programs used direct computer entry.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 2005 – 2009: ½ core samples were crushed, pulverised and sieved through a 150 mesh Tyler screen. The + 150µm fraction was analysed in its entirety by fire assay with a gravimetric finish. The- 105µm fraction was homogenised and two sub-samples were analysed by fire assay (25g) with AAS finish. The average of the two AAS results was weight averaged with the + 150µm assay to yield the average head grade of the sample. 2014 – 2015: Entire holes sampled. Each sample was dried then weighed, with sample generally weighing in the order of 2.4kg, before jaw-crushing to nominally 70% passing 6mm. The entire sample was then pulverised to 85% passing 75 µm initially using a LM5 ringmill. Later in the program smaller capacity (1kg) bowls were used and the pulverised sample recombined before screen fire assay.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 2005-2009: Samples sieved with 150 mesh screen. Coarse fraction analysed in its entirety by fire assay with gravimetric finish. The- 105µm fraction was homogenised and two sub-samples were analysed by fire assay (25g) with AAS finish. The average of the two AAS results was weight averaged with the + 150µm assay to yield the average head grade of the sample. QAQC for the 2005 - 2007 program was restricted to 1:20 insertion of blanks, with the source of blank material unknown. 89% of blanks were BLD. For the 2009 program, blanks (massive anhydrite drill core) were inserted at a rate of 1:50. Assays were at or below limit of detection. SRMs were also inserted at 1:50 and indicate no issues. 2014 – 2015: Samples identified as potentially mineralised were assayed via screen fire assay. The entire pulverised sample was screened using 106µm screen. Coarse fraction was fire assayed with a gravimetric finish. Two sub-samples were taken from the fine fraction and assayed using fire assay (50g) with an AAS finish. The results were averaged and then the head grade of the sample determined as a weighted average of the coarse and fine fractions. QAQC for the 2014 and 2015 program included insertion of blanks and SRMs at a rate of 1:14. The use of “barren” Touquoy core presented problems as some of this material was likely mineralised.
Verification of sampling and assay	<ul style="list-style-type: none"> Prior to 2016 data capture was completed manually on hard copy logs, which was transferred to Excel spreadsheets and then loaded to MS Access databases. The data was then validated and transferred to an SQL server database using DataShed software. Since 2016 data has been captured electronically either using Excel spreadsheets or LogChief. A selection of sample data has been cross-checked against logs from annual reports with no issues detected.
Location of data points	<ul style="list-style-type: none"> Between 2005 and 2007, hole collars were surveyed using a theodolite. In 2009, collars were surveyed using a Trimble differential GPS system. In 2014, licenced surveyors from WSP Canada Inc, resurveyed the three control points established by Acadian and several hole collars. Holes were down-hole surveyed using a FlexIT tool at 30m intervals.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing is approximately on 25m spaced sections. Drilling data is sufficient to establish continuity for all lodes.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Mineralisation is sub-vertical. The inclined holes have not introduced any sampling bias.
Sample security	<ul style="list-style-type: none"> Core was kept in a secure and locked area with limited access. Samples are typically conveyed from the Project site to the laboratory using commercial transport firms.
Audits or reviews	<ul style="list-style-type: none"> No external audits or reviews of sampling techniques and data have been completed.



Section 2 Reporting of Exploration Results – Beaver Dam

Criteria	Comments
Mineral Tenement and Land Tenure Status	<ul style="list-style-type: none"> Atlantic Mining NS Inc (AMNS) has 100% ownership of the tenements over Beaver Dam (EL50421). The tenement is in good standing at the time of reporting.
Exploration Done by Other Parties	<ul style="list-style-type: none"> No recent Mineral Resource drilling has been completed by AMNS. Work completed by other parties is covered in the previous section.
Geology	<ul style="list-style-type: none"> Gold mineralization at Beaver Dam occurs in the rocks of the Meguma Terrane, consisting of a folded succession of Cambrian-Ordovician aged metasedimentary rocks. The Meguma Terrane sedimentary package is divided into two distinct formations: the Goldenville Group and the younger Halifax Group, both of which have been subject to greenschist to amphibolite grade regional metamorphism. The majority of the Meguma gold deposits are found within the Goldenville Group. Gold at Beaver Dam occurs both within tabular, bedding-parallel and cross-cutting quartz veins, as well as within the argillite and greywacke host rocks. It is hosted within the overturned, southern limb, of the Touquoy-15-Mile Anticline, dipping to the North at approximately 60-65°. The mineralized zone zone is a tabular body which is up to 100 m wide in some areas, however the most prospective areas (>0.5 g/t) occur in zones 5-40m wide. Mineralization is associated with sulphides, including arsenopyrite, pyrite and pyrrhotite. Lesser chalcopyrite, galena, and sphalerite have been observed. The mineralized zone is bounded to the east and west by two northwest-southeast trending regional faults.
Drill Hole Information	<ul style="list-style-type: none"> No exploration results are presented.
Data Aggregation Methods	<ul style="list-style-type: none"> No exploration results are presented.
Relationship Between Mineralisation Widths and Intercept Lengths	<ul style="list-style-type: none"> No exploration results are presented.
Diagrams	<ul style="list-style-type: none"> No exploration results are presented
Balanced Reporting	<ul style="list-style-type: none"> No exploration results are presented
Other Substantive Exploration Data	<ul style="list-style-type: none"> No exploration results are presented
Further Work	<ul style="list-style-type: none"> No further resource definition drilling is planned at this stage

Section 3 Estimation and Reporting of Mineral Resources – Beaver Dam

Criteria	Comments
Database integrity	<ul style="list-style-type: none"> Internal data verification programs have included review of QA/QC data, re-sampling and sample re-analysis programs, and database verification for issues such as overlapping sample intervals, duplicate sample numbers, or lack of information for certain intervals. Validation checks are performed on data used to support estimation, and comprise checks on surveys, collar co-ordinates, lithology data, and assay data.
Site visits	<ul style="list-style-type: none"> The Competent Person most recently visited site in September 2023.
Geological interpretation	<ul style="list-style-type: none"> The approach to resource estimation described for Beaver Dam uses mineralized domains to report the grade properties of areas of mineralization where the statistical properties of the composites appear consistent in terms of their histogram and spatial continuity. The domains attempt to identify areas of consistent mineralization style based primarily on the statistical properties of the drill hole composite grades. For the Beaver Dam resource model, a single mineralization domain has been used.
Dimensions	<ul style="list-style-type: none"> strike extent = 1400m ; width = variable up to 100m, but better grade between 5m-40m; vertical extent = 225m
Estimation and modelling techniques	<ul style="list-style-type: none"> Model completed in 2019. Multiple indicator kriging (MIK) was used to estimate the Mineral Resources based on an anticipated approach to mill feed material selection in mining. The basic unit of estimation is a panel with horizontal dimensions equal to the average drill hole spacing (25m * 10m * 5m) Samples were composited to 2 m intervals. Statistical properties of the composites were reviewed in terms of histogram and spatial continuity to identify areas of consistent mineralization style. Directional sample variograms and variogram models were generated for the domains, and the resulting data



Criteria	Comments
	<p>used to inform estimation search criteria.</p> <ul style="list-style-type: none"> The resource estimates assume mining ore selection will take place on 5m flitches with a minimum mining width of around 5 m. Following variance adjustment, the resultant block histograms were assumed to be log-normal in shape. The variance included an adjustment for the information effect introduced by grade control sampling. A grade control drill hole pattern of 5 m by 5 m with a downhole sampling interval of 2.5 m was assumed for Beaver Dam.
Moisture	<ul style="list-style-type: none"> Tonnages are estimated on a dry basis.
Cut-off parameters	<ul style="list-style-type: none"> The deposits are reported at a 0.3g/t cut-off. The cut-off grade includes the following considerations: Gold Price US\$1,800/oz; Exchange rate of 0.77 US\$:CAD\$; Process recovery of 92% Mining cost CAD\$2.90/t Processing Cost CAD\$18.01/t General/Administration Cost CAD \$2.50/t Variable overall pit slope angles
Mining factors or assumptions	<ul style="list-style-type: none"> The mining method is conventional open pit.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> Conventional gravity and carbon in leach cyanidation utilising the Touquoy/15-Mile processing equipment.
Environmental factors or assumptions	<ul style="list-style-type: none"> The Beaver Dam project as proposed has taken into consideration environmental limitations and opportunities within the project area. Storage of site materials follows most environmentally responsible guidelines and every opportunity to mitigate disturbance has been considered. This has resulted in a decrease in environmental impacts compared to previous designs. Project Footprint: The Beaver Dam footprint has decreased compared to previous designs largely due to a reduction in pit size and reduced mining rate. This resulted in a reduction of stockpile sizes and overall disturbance. The project no longer relies on the construction and environmental disturbance of a 12.3km haul road to Touquoy facility but rather leverages existing roads to 15-Mile. The design also reduces fresh water intake, administrative infrastructure and includes re-handling of potentially acid generating material back into the vacant pit to mitigate potential impacts. It is assumed that Provincial approvals will be granted for Beaver Dam ahead of operations. The project is still subject to Federal permitting approvals such as Fisheries Authorization and Species at Risk.
Bulk density	<ul style="list-style-type: none"> A global bulk density of 2.73g/cm³ was assumed
Classification	<ul style="list-style-type: none"> The resource estimate for each panel was initially classified as Category 1, 2 or 3 based on the results of the data search in the panel neighbourhood: Category 1: uses search radii (25m * 8m * 25m), and an octant search. If the data found in this search satisfy these criteria (at least 16 samples found in at least four octants), the panel is given a Category 1 flag. Category 2: If the first search criteria are not satisfied, search radii (37.5m * 12m * 37.5m) are used with an octant search. If the data found in this search satisfy these criteria (at least 16 samples found in at least four octants), the panel is given a Category 2 flag. Category 3: If the second search criteria are not satisfied, search radii (37.5m * 12m * 37.5m) are used with an octant search. . If the data found in this search satisfy these criteria (at least 8 samples found in at least two octants). If these criteria are satisfied, a Category 3 flag is applied. If not, no estimate for the panel is generated. In reporting the resource estimates, Category 1 panel estimates were assigned to Measured Mineral Resources, Category 2 to Indicated Mineral Resources and Category 3 to Inferred Mineral Resources.
Audits or reviews	<ul style="list-style-type: none"> The resource model was reviewed internally.
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> The resource estimates are global estimates. Grade control drilling will be completed in advance of mining to improve local estimates of grade.



Section 4 Estimation and Reporting of Ore Reserves – Beaver Dam

Criteria	Comments
Mineral Resource Estimate for Conversion to Ore Reserves	<ul style="list-style-type: none"> The Ore Reserves estimate is based on the Mineral Resources estimates carried out by Neil Schofield of FSSI Consulting (Australia) Pty Ltd in 2019. Gold grade was estimated using multiple indicator kriging (MIK). The Mineral Resources are reported inclusive of the Ore Reserves.
Site Visits	<ul style="list-style-type: none"> The Competent Person most recently visited site in October 2023
Study Status	<ul style="list-style-type: none"> Beaver Dam is at Pre-Feasibility stage following the completion of the February 2024 study
Cut-off Parameters	<ul style="list-style-type: none"> Cut-off grade assumes: <ul style="list-style-type: none"> US\$1,500/oz gold at a currency exchange rate of 0.78 C\$ per US\$ 99.9% payable gold \$2.13/oz offsite costs (refining and transport) 1.6% royalty 94% metallurgical recovery at cutoff Processing costs of \$25.85/t (inclusive of \$13.96/t ore transport costs to processing facilities) General and administrative (G&A) costs of \$5.03/t. A breakeven incremental cut-off grade of 0.50 g/t Au is used for reporting.
Mining Factors or Assumptions	<ul style="list-style-type: none"> Lerchs-Grossman (L-G) analysis, pit designs, and mine production scheduling have been completed to enable the conversion of Measured and Indicated Mineral Resources to Proved and Probable Ore Reserves. Inferred Mineral Resources are set to waste. The project will be mined with conventional drill, blast, load and haul setup. Primary production equipment includes 4.5 m³ bucket production excavators and 64 tonne payload off highway mining trucks. The overall slopes used for the pit optimisation and design work were sourced from reports carried out by independent geotechnical consultants and range from 36 to 50 degrees in various geotechnical zones. Grade control drilling will be carried out in advance of mining and the information obtained from this drilling will be made available for decision making in advance of mining. Mining recovery of 98.4% and external mining dilution of 1.6% at 0.30 g/t Au grade is applied in addition to the modelled in-block dilution.
Metallurgical Factors or Assumptions	<ul style="list-style-type: none"> Metallurgical performance is based on the Beaver Dam ore being processed at the proposed 15-Mile process facility. Metallurgical testing confirmed the Beaver Dam ore is free-milling and highly amenable to conventional recovery methods of gravity and carbon in leach cyanidation. The process review undertaken by Ausenco confirmed the 15-Mile processing equipment is suitable for recovering gold from Beaver Dam ore. The process flowsheet for 15-Mile has been designed to maximize repurposing of Touquoy equipment at 15-Mile and reduce initial capital costs. The Beaver Dam ore is planned to be blended with the 15-Mile ore at the 15-Mile processing facility. Previously completed test work indicates the ore is medium hardness with bond work index approximately 15.3 kWh/t and a final product size of 150um achieving an overall average recovery of 95.8%.
Environmental	<ul style="list-style-type: none"> The Beaver Dam project as proposed has taken into consideration environmental limitations and opportunities within the project area. Storage of site materials follows most environmentally responsible guidelines and every opportunity to mitigate disturbance has been considered. This has resulted in a decrease in environmental impacts compared to previous designs. Project Footprint: The Beaver Dam footprint has decreased compared to previous designs largely due to a reduction in pit size and reduced mining rate. This resulted in a reduction of stockpile sizes and overall disturbance. The project no longer relies on the construction and environmental disturbance of a new 12.3km haul road to Touquoy facility but rather leverages existing roads to 15-Mile. The design also reduces fresh water intake, administrative infrastructure and includes re-handling of potentially acid generating material back into the vacant pit to mitigate potential impacts. It is assumed that Provincial approvals will be granted for Beaver Dam ahead of operations. The project is still subject to Federal permitting approvals such as Fisheries Authorization and Species at Risk.
Infrastructure	<ul style="list-style-type: none"> Site infrastructure including buildings, water treatment and auxiliary support equipment has been updated and estimated as per the 2024 Pre-Feasibility Study.
Costs	<ul style="list-style-type: none"> Capital and sustaining costs were compiled by Ausenco from the following sources: <ul style="list-style-type: none"> Mining initial capital costs were developed by Moose Mountain Technical Services (MMTS). Costs include the owner's mine fleet, which utilizes fleet purchased for the nearby 15-Mile project; open pit, stockpile, haul road development costs and mine operations infrastructure required for Beaver Dam. Mining sustaining capital costs were developed by MMTS and include mine fleet replacement units and ongoing pit and stockpile expansion development. Infrastructure, project delivery, project indirects and contingency were developed by Ausenco. This includes power, buildings and tailings. Beaver Dam leverages the proposed 15-Mile project for



Criteria	Comments
	<p>processing but includes an additional tailings lift to the 15-Mile facility to accommodate Beaver Dam ore.</p> <ul style="list-style-type: none"> • Operating costs have been compiled based on the following sources and assumptions: <ul style="list-style-type: none"> ○ Mining unit costs have been estimated by MMTS, built up from first principles, and utilizing 2023 vendor quotes and include consumption of fuels, lubes, tires, undercarriage, GET, running parts, major component replacements, operating and maintenance labour and overheads for management and technical serves including ore grade control. ○ Transportation costs were developed by MMTS, assuming a contractor run operation, which include fleet purchase, lease payments, fuel consumption, maintenance, distance/cycle times, admin, labour and profit. ○ Processing unit costs have been estimated by Ausenco using first principles and 2023 prices for major reagents and steel media. Process costs are based on the Beaver Dam ore being processed at the proposed 15-Mile project. ○ G&A costs are based on The Atlantic Operations Touquoy project.
Revenue Factors	<ul style="list-style-type: none"> • A gold price of US\$1500/oz has been used in revenue calculations based on guidance provided by the company's Mineral Resources and Ore Reserves Steering Committee.
Market Assessment	<ul style="list-style-type: none"> • A contract was entered into for the transportation, security, insurance, and refining of doré gold bars from Touquoy. It is expected that doré produced from Beaver Dam would be subject to similar contracts to that in place for Touquoy.
Economic	<ul style="list-style-type: none"> • The Ore Reserve estimate is based on a Pre-feasibility Study level of accuracy with inputs from open-pit, processing, transportation, sustaining capital and contingencies scheduled and costed to generate the initial Ore Reserve cost model. • A sensitivity analysis was completed on the base-case after-tax NPV(5%) using the following variables: <ul style="list-style-type: none"> ○ Gold Price ○ Initial Capital Expenditure ○ Total Operating Cost ○ US\$:C\$ exchange rate • The sensitivity analysis demonstrates the project is financially robust and therefore economic extraction of the deposit can be reasonably justified.
Social	<ul style="list-style-type: none"> • In addition to applicable regulations, the Beaver Dam project will require social acceptance. Early information and consultation meetings have been held with local communities, First Nations communities, local, provincial, and federal governmental authorities to initiate collaborative work to obtain social acceptability of the project. • The project will be subject to the regulations under the Nova Scotia Environmental Assessment Act and environmental baseline studies are well advanced which will support the initiation of the environmental impact studies.
Other	<ul style="list-style-type: none"> • AMNS has not identified any material naturally occurring risks. • The company is committed to early engagement with all relevant stakeholders.
Classification	<ul style="list-style-type: none"> • The economically minable component of the Measured Mineral Resource has been classified as a Proved Ore Reserve. • The economically minable component of the Indicated Mineral Resource has been classified as a Probable Ore Reserve.
Audits or reviews	<ul style="list-style-type: none"> • No audits or reviews of Ore Reserves have been completed.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> • The Ore Reserves are based on global estimates of Mineral Resources. Grade control drilling will be completed in advance of mining to improve local estimates of grade.