NATIONAL INSTRUMENT 43-101 TECHNICAL REPORT
TIMMINS WEST MINE
TIMMINS, ONTARIO, CANADA

NTS: 42-A-05,
Longitude: 81.55° West, Latitude: 48.32° North
UTM (NAD 83, Zone17): 458,915m East, 5,359,043 North

PREPARED FOR:

TAHOE RESOURCES INC.

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CAUTIONARY NOTE WITH RESPECT TO FORWARD LOOKING INFORMATION

Certain information and statements contained in this report are “forward looking” in nature. All information and statements in this report, other than statements of historical fact, that address events, results, outcomes, or developments are “forward-looking statements”. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by the use of terminology such as “plans”, “expects”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, “projects”, “potential”, “believes” or variations of such words and phrases or statements that certain actions, events or results “may”, “could”, “would”, “should”, “might” or “will be taken”, “occur” or “be achieved” or the negative connotation of such terms.

Forward-looking statements include, but are not limited to, statements with respect to anticipated production rates; grades; projected metallurgical recovery rates; infrastructure, capital, operating and sustaining costs; the projected life of mine; proposed development and potential impact on cash flow; estimates of Mineral Resources and Mineral Reserves; the future price of gold; government regulations; the maintenance or renewal of any permits or mineral tenures; estimates of reclamation obligations that may be assumed; timing of completion of facility expansion construction; requirements for additional capital; environmental risks; and general business and economic conditions.

Forward-looking statements are based on the reasonable assumptions, estimates, analyses and opinions of the authors made in light of their experience and perception of trends, current conditions and expected developments, as well as other factors that the authors believe to be relevant and reasonable in the circumstances at the date that such statements are made, but which may prove to be incorrect. The authors believe that the assumptions and expectations reflected in such forward-looking statements are reasonable; however, such statements made 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, and subject to, such specific assumptions discussed in more detail elsewhere in this report, the forward-looking statements in this report are subject to the following assumptions: (1) there being no signification disruptions affecting the operation of the mine; (2) the availability of certain consumables and services, and the prices for diesel, propane, cyanide, electricity and other key supplies being approximately consistent with current levels; (3) prices for key mining supplies, labour costs, and consumable and materials costs increasing on a basis consistent with current expectations; (4) that all environmental approvals, required permits, licenses and authorizations will continue to be held on the same or similar terms and obtained from the relevant governments and other relevant stakeholders within the expected timelines; (5) no significant changes will be made to tax rates and no new taxes, royalties or other fees will be levied by applicable governments; (6) the timelines for exploration activities will proceed in accordance with estimates; (7) assumptions made in Mineral Resource and Mineral Reserve estimates, including geological interpretation, grade, recovery rates, gold prices, foreign exchange rates, and operational and capital costs, will hold true; (8) general business and economic conditions will remain substantially the same; (9) the exchange rate between the Canadian dollar and US dollar remain consistent with current levels; (10) the price of gold, silver and other metals remain consistent with current prices; and (11) the success of consultations and negotiations with First Nations and royalty holders.

Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements to be materially different from any of the future results, performance or achievements expressed or implied by forward-looking statements. These risks, uncertainties and other factors include, but are not limited to: fluctuations in future gold prices; costs of labour, supplies, fuel and equipment rising; adverse changes in anticipated production, including discrepancies between actual and estimated production, Mineral Resources, Mineral Reserves and recoveries; exchange rate fluctuations; title risks; regulatory risks, and political or economic developments in Canada; changes to taxation and tax rates; risks and uncertainties with respect to obtaining necessary permits, land use rights and other tenure from the Crown and private landowners or delays in obtaining same; risks associated with maintaining and renewing permits and complying with permitting requirements; changes in national and local government legislation and controls or regulations; environmental and other governmental regulation compliance; and other risks involved in the gold exploration, development and mining industry; as well as those risk factors discussed elsewhere in this report, and in Tahoe Resources Inc.'s Management's Discussion and Analysis for the second quarter of 2017 filed on SEDAR and with the United States Securities and Exchange Commission SEC on August 8, 2017 and other public filings of Tahoe Resources Inc. available on SEDAR at www.sedar.com, on EDGAR at www.sec.gov or on the Company's website at www.tahoeresources.com. All forward-looking statements herein are qualified by this cautionary statement. Accordingly, readers should not place undue reliance on forward-looking statements. Tahoe Resources Inc., Lake Shore Gold Corporation/Tahoe Canada 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.

CAUTIONARY NOTE TO U.S. READERS CONCERNING ESTIMATES OF MEASURED, INDICATED, AND INFERRED MINERAL RESOURCES

Information concerning the Timmins West Mine has been prepared in accordance with Canadian standards under applicable Canadian securities laws, and may not be comparable to similar information for United States companies and uses terms that are not recognized by the United States Securities and Exchange Commission. The terms "Mineral Resource", "Measured Mineral Resource", "Indicated Mineral Resource" and "Inferred Mineral Resource" used in this report are defined in accordance with National Instrument 43-101 ("NI 43-101") under guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Standards on Mineral Resources and Mineral Reserves adopted by the CIM Council on May 10, 2014. U.S. reporting requirements are governed by the SEC Industry Guide

7 under the United States Securities Act of 1933, as amended. These reporting standards have similar goals in terms of conveying an appropriate level of confidence in the disclosures being reported, but embody difference approaches and definitions. For example, the terms “Mineral Reserve”, “Proven Mineral Reserve” and “Probable Mineral Reserve” are Canadian mining terms as defined in in NI 43-101, and these definitions differ from the definitions in Industry Guide 7. Under SEC Industry Guide 7 standards, a “final” or “bankable” feasibility study is required to report reserves and the primary environmental analysis or report must be filed with the appropriate governmental authority. Further, under SEC Industry Guide 7, mineralization may not be classified as "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made.

While the terms “Mineral Resource”, “Measured Mineral Resource”, “Indicated Mineral Resource” and “Inferred Mineral Resource” are defined in and required to be disclosed by NI 43-101, these terms are not defined terms under SEC Industry Guide 7 and are normally not permitted to be used in reports and registration statements filed with the SEC. United States readers are cautioned not to assume that any part or all of mineral deposits in these categories will ever be converted into reserves. In addition, “Inferred Mineral Resources” have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. A significant amount of exploration must be completed in order to determine whether an Inferred Mineral Resource may be upgraded to a higher category. Under Canadian regulations, estimates of Inferred Mineral Resources may not form the basis of feasibility or pre-feasibility studies, except in rare cases. U.S. readers are cautioned not to assume that all or any part of an Inferred Mineral Resource exists or is economically or legally mineable. Disclosure of “contained ounces” in a resource is permitted disclosure under Canadian regulations if such disclosure includes the grade or quality and the quantity for each category of Mineral Resource and Mineral Reserve; however, the SEC normally only permits issuers to report mineralization that does not constitute “reserves” by SEC standards as in place tonnage and grade without reference to unit measures.

As such, certain information contained in this report concerning descriptions of mineralization and resources under Canadian standards is not comparable to similar information made public by United States companies subject to the reporting and disclosure requirements of the United States Securities and Exchange Commission. Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration.

1.0 SUMMARY

1.1 Principal Findings

Tahoe Resources Inc. ("Tahoe" or the "Company"), through its wholly-owned subsidiary, Lake Shore Gold Corporation ("LSG"), *dba* Tahoe Canada, owns and operates the Timmins West Mine ("TWM") in Ontario, Canada. The TWM is comprised of three mineralized zones: the Timmins Deposit, Thunder Creek Deposit, and 144 Gap Deposit which are Archean-age gold deposits within the Abitibi subprovince of Canada that the Company is mining by underground longhole stoping methods. Ore from the TWM is processed at the Company's Bell Creek Mill facility to produce gold-rich doré for sale to bullion banks and metal traders.

LSG reached commercial production at the Timmins and Thunder Creek deposits in January 2011 and January 2012, respectively. In October 2014, LSG announced the discovery of the 144 Gap Deposit, followed by an initial Mineral Resource estimate in February 2016 and the commencement of production. The initial Mineral Reserve estimate for the 144 Gap Deposit is reported herein. Through the effective date of this report (May 15, 2017), the TWM had produced a total of 752,000 ounces of gold from 5.4 million tonnes of ore with an average gold grade of 4.3 grams per tonne (g/t).

This report provides an update of the TWM operations, supports the declaration of Mineral Resources and Mineral Reserves, and provides economic parametres from May 15, 2017 forward.

Highlights of this report for the TWM include:

- Measured and Indicated Mineral Resources of 7.9 million tonnes at an average gold grade of 4.03 g/t containing 1.02 million ounces of gold.
- Inferred Mineral Resources of 1.1 million tonnes at an average gold grade of 3.80 g/t containing 133,400 ounces of gold.
- Proven and Probable Mineral Reserves of 7.2 million tonnes at an average gold grade of 3.21 g/t containing 738 thousand ounces of gold.
- Average annual production of 112,000 ounces of gold over 6.5 year mine life.
- After tax net present value at a 5% discount rate of US $174.4 million at the base case gold price of US $1,250 per ounce.

Mineral Resource and Mineral Reserves stated in this report have an effective date of May 15, 2017. Unless noted otherwise, currency used in this report is in United States dollars.

1.2 Property Description and Location

The Timmins West Mine is located approximately 1.1 kilometres southeast of the intersection of Provincial Highways 101 and 144, approximately 19 kilometres west of the city of Timmins. The highways and a short site access road provide year-round access to the property. The Timmins area has a significant, well-established mining service/supply industry and local experienced labour to support the operation.

1.3 Mineral Tenure, Surface Rights, and Royalties

The TWM area includes the Timmins Deposit, Thunder Creek, and Highway-144 properties for a total area of approximately 17.1 square kilometres, or approximately 1,712 hectares. The majority of the property is situated within Bristol Township (1,340 ha), with approximately 336 hectares located in Thorneloe Township and 36 hectares in Carscallen Township.

The Timmins Deposit portion of the TWM consists of a block of 23 contiguous claims (totaling approximately 395 hectares) of which there are eleven (11) individual patented and surface rights claims, six (6) claims that hold a patent surface rights with leased mining rights, and six (6) claims that hold a 21-year Crown mining and surface rights lease. The Thunder Creek Deposit portion of the property consists of 20 staked mineral claims (35 units totaling approximately 629 hectares) of which two (2) claims hold a surface rights patent and three (3) claims hold a 21 year Crown mining and surface rights lease. The 144 Gap Deposit portion of the property consists of a contiguous block of 33 claims that hold a 21-year Crown mining and surface rights lease covering approximately 688 hectares. This lease is part of a larger lease covering 56 claims (1,083.32 hectares) which was obtained June 28, 2016. Surrounding the Timmins West Mine property are an additional 276 staked claims, 6 leases, and 33 patents also owned by Tahoe Canada.

Tahoe Canada owns a 100% interest in most of the property, subject to underlying royalties. The only exception is the Meunier-144 portion of the property with the Company holding a 50% interest in these ten patent claims. The claims and leases are all in good standing.

1.4 Permits

Currently, the TWM is operating under the following permits issued by the Ontario Ministry of the Environment:

- Permit To Take Water 6841-82UQ75 issued February 22, 2010.
- Environmental Compliance Approval for Sewage Works # 6086-992J6B issued January 16, 2015.
- Environmental Compliance Approval for Air and Noise # 7723-A8ZP76 issued April 19, 2016.
- Waste Generator # ON6594555.

The Company is currently renewing the existing Permit To Take Water 4667-AN2SF6. This permit is a renewal of the underground water takings for mine operations. No operational parametres have changed and the permit is expected before the end of 2017 or early 2018. The mine continues to maintain compliance by operating under the parametres issued under the existing permit. A Closure

Plan amendment is also ongoing relating to the sites infrastructure. All permits for the operation of TWM are in good standing.

1.5 Environmental Considerations

Operations at the TWM meet or exceed the standards of environmental management in accordance with Canadian federal and provincial regulatory requirements. The environmental management design includes:

- Waste rock with the potential to generate acid is held within a containment facility with runoff treated prior to release to the environment.
- Stormwater is monitored and treated, if necessary, prior to release to the environment.
- Mine water is captured in surface ponds and treated prior to discharge.

The Company has implemented a comprehensive environmental management plan to regularly and systematically monitor surface and groundwater quality, air quality, and stream sediment geochemistry, waste rock and tailings geochemistry (ARD monitoring and mitigation), waste disposal practices, reagent handling and storage, and reclamation and reforestation progress.

1.6 Geology and Mineralization

The TWM includes the Timmins, Thunder Creek, and 144 Gap Deposits, all of which occur along the 144 Trend, a broad and extensive structural corridor that extends to the southwest from the Timmins Deposit area. Clearly favourable as a host to gold mineralization, this trend generally coincides with the northeast trending contact zone between southeast facing mafic metavolcanic rocks of the Tisdale Assemblage (to the northwest) and dominantly southeasterly facing metasedimentary rocks of the Porcupine Assemblage (to the southeast). The contact dips steeply to the northwest, and is modified and locally deflected by folds and shear zones that are associated with gold mineralization.

Gold mineralization occurs in steep north-northwest plunging zones which occur within, or along favourable lithostructural settings in proximity (within hundreds of metres) to the 144 Trend and related structures (*i.e.*, Holmer and Rusk Shear Zones). Mineralization comprises multiple generations of quartz-carbonate-tourmaline ± albite veins, associated pyrite alteration envelopes, and disseminated pyrite mineralization. Textural evidence suggests that veining formed progressively through D3 and D4 deformation. All phases of gold-bearing veins cut and post-date the Alkalic Intrusive Complex (“AIC”) and syenitic to monzonitic intrusions, although mineralization is often spatially associated with ore preferentially developed within these intrusive suites (Rhys, 2010).

1.7 Exploration Status

Recent exploration at the Timmins West property has been focused on the down-plunge extension of the Timmins Deposit Fold Nose ("TDFN") and along the 144 Trend. Drilling at the Timmins Deposit involved testing from both surface and underground locations to evaluate extensions of the Timmins Deposit below the 1,315L to the 1,850L. Underground drilling focused on the area between the 1,315L and 1,465L and included 13 holes (6,034 metres). Surface targeted the area below the 1,465L and included 1 master hole and 3 wedge holes for a total of 3,839 metres to test the main structure near the 1,850m level. Results from the new drilling intersected the main fold nose as expected along with several local zones of alteration and shearing but obtained mostly low grade gold values. Surface drilling at the Timmins Deposit is expected to continue with the completion of a wedge hole currently in progress and a new master hole which will target approximately 350 to 400 metres below the resource (near the 1,700L). Drilling at the 144 Trend included 24 holes (17,202 metres) designed to continue testing of the 144 South target, approximately 1.6km southwest of the 144 Gap deposit, as well new areas up to 1km to the west-northwest which has been named the 144 Offset target. Results of the new drilling identified significant extensions of the 144 South Zone both east and west along strike and to depth (near the 875L) as well as a new structural zone with local significant gold assays at the 144 Offset. Work on these targets is now complete for 2017 but information is currently being reviewed for possible follow-up drilling in 2018.

1.8 Mineral Resource and Mineral Reserve Estimates

1.8.1 Mineral Resources

Tahoe Canada has prepared an updated Mineral Resource estimate for the TWM which includes mineralized zones from the Timmins, Thunder Creek and 144 Gap Deposits. The Mineral Resource estimate for the TWM is based on historical diamond drilling dating back to March 1984 and drilling completed by LSG and Tahoe Canada between July 2003 and May 2017. The database used to estimate the Mineral Resources at TWM includes data from 4,280 diamond drill holes totaling 757,986 metres. The drill hole database has been subjected to verification and is considered to be robust and of adequate quality for the estimation of resources.

The Mineral Resource estimate for the TWM contains 57,500 ounces of gold classified as Measured Resources, 966,500 ounces of gold classified as Indicated Resources, and 133,400 ounces of gold classified as Inferred Resources. All resources have been depleted for mining up to the effective date of this report, May 15, 2017. A summary of the TWM Mineral Resources is summarized in Table 1.1.

Table 1-1: TIMMINS WEST MINE MINERAL RESOURCES

In-Situ Resources Above 1.5 Au g/t Cut-Off Grade				
Deposit	**Classification**	**Tonnes**	**Au Grade (g/t)**	**Au Ounces**
Timmins	Indicated	1,428,000	4.66	213,800
	Inferred	358,000	4.32	49,700
Thunder Creek	Indicated	1,249,000	3.73	149,800
	Inferred	39,000	2.63	3,300
144 Gap	Measured	361,000	4.95	57,500
	Indicated	4,862,000	3.86	602,900
	Measured & Indicated	*5,223,000*	*3.93*	*660,400*
	Inferred	695,000	3.60	80,500
Total Timmins West Mine	Measured	361,000	4.95	57,500
	Indicated	7,539,000	3.99	966,500
	Measured & Indicated	*7,900,000*	*4.03*	*1,024,000*
	Inferred	1,092,000	3.80	133,400

1. The effective date of the Mineral Resource Estimate is May 15, 2017.
2. Mineral resource estimates have been classified according to CIM Definitions and Guidelines.
3. Mineral Resources are reported inclusive of Mineral Reserves.
4. Mineral resources have been estimated using Inverse Distance Squared estimation method and gold grades which have been capped between 15 and 120 grams per tonne based on statistical analysis of each zone.
5. Assumed minimum mining width is between two and ten metres depending on the zone.
6. Tonnes information is rounded to the nearest thousand and gold ounces to the nearest one hundred. As a result, totals may not add exactly due to rounding.
7. The mineral resources were prepared under the supervision of, and verified by, Kara Byrnes, P. Geo., Director of Technical Services, Tahoe Canada, who is a qualified person under NI 43-101.

The Mineral Resource for the Timmins Deposit is modeled as 71 sub-zones which refine the broader mineralized Ultramafic, Footwall and Vein Zones. The Thunder Creek Deposit is divided into 21 sub-zones which refine the broader Rusk and Porphyry Zones, while the 144 Gap Deposit is divided into 13 zones including five East Porphyry Zones and eight West Porphyry Zones.

Estimation was completed using the inverse distance squared interpolation method with an anisotropic search. All gold assays were capped with capping limits varying by zone between 15 and 120 g/t. A minimum width of between 2.0 and 10.0 metres was assumed, dependent on the zone, with only samples within a mineralized zone being used for estimation of the zone.

Several steps were taken in order to review and validate the current block model and reported results which included: comparison of solid and block model volumes, comparison of the block model against diamond drill results, checking with nearest neighbor methods and comparisons with recent production data with no significant issues identified.

1.8.2 Mineral Reserves

The estimated Proven and Probable Mineral Reserves (diluted and recovered) at the point of delivery to the Bell Creek mill are summarized in Table 1-2.

Table 1-2: TIMMINS WEST MINE PROVEN AND PROBABLE MINERAL RESERVES

Deposit	Classification	Tonnes	Au Grade (g/t)	Au Ounces
Timmins	Probable	1,247,000	3.62	145,100
Thunder Creek	Probable	668,000	3.13	67,200
144 Gap	Proven	407,000	3.61	47,200
	Probable	4,830,000	3.08	478,300
	Proven & Probable	*5,237,000*	*3.12*	*525,500*
Total Timmins West Mine	Proven	407,000	3.61	47,200
	Probable	6,745,000	3.18	690,600
	Proven & Probable	*7,152,000*	*3.21*	*737,800*

1. *The effective date of this report is May 15, 2017.*
2. *The mineral reserve estimates are classified in accordance with the Canadian Institute of Mining Metallurgy and Petroleum's "CIM Standards on Mineral Resources and Reserves, Definition and Guidelines" as per Canadian Securities Administrator's National Instrument 43-101 requirements.*
3. *Mineral reserves are based on a long-term gold price of US$1,250 per ounce and an exchange rate of 1.3 $CAD/$US.*
4. *Mineral reserves are supported by a mine plan that features variable stope thicknesses, depending on zone, and expected cost levels, depending on the mining methods utilized.*
5. *Mineral reserves incorporate a minimum cut-off grade of 2.0 grams per tonne. The cut-off grade includes estimated mining and site G&A costs of $US50.38 per tonne, surface haulage costs of $US5.97 per tonne, milling costs of $US16.23 per tonne, mining recovery of 95%, external dilution of 15.0% for TD, 13.0% for TC, and 9.0% for 144 Gap and a metallurgical recovery rate of 97%.*
6. *The mineral reserves were prepared under the supervision of, and verified by, Kara Byrnes, Director of Technical Services, Tahoe Canada, who is a qualified person under NI 43-101.*

To estimate the Mineral Reserves, the Measured and Indicated Mineral Resources were isolated from Inferred Mineral Resources and assessments were made of the geometry and continuity of each of the mineralized zones. Geomechanical evaluations were taken into account in the assessment and assignment of appropriate mining methods and stope sizes. Individual stope designs (wireframes) were then created in three dimensions. The stope wireframes were queried against the block models to determine the in-situ resource available for inclusion in the mine plan. This allowed for fair inclusion of internal dilution from both low grade and barren material. Additional factors were assigned for external dilution (with or without grade) dependent on the specific mining method and geometry of each stoping unit being evaluated. Finally, a recovery factor was assigned to the overall reserves to allow for in-stope and mining process losses. Stope cut-off grades were estimated to determine which stopes to include in the reserves. Detailed mine development layouts and construction activities were assigned to provide access to each of the stoping units. A detailed life of mine ("LOM") development and production schedule was prepared to estimate the annual tonnes, average grade, and ounces mined to surface. Development, construction, and production costs were estimated to allow an economic assessment to be made comparing the capital and operating expenses required for each area to the expected revenue stream to ensure economic viability.

1.9 Mining Operations

The TWM is accessed by a production shaft and portal/ramp system from the surface. Access ramps are driven from the main ramp system to establish sublevels on 20m vertical intervals at the Timmins Deposit and 35m intervals at the Thunder Creek and 144 Gap Deposit. Primary and secondary development headings are generally mined 5.0 metres wide by 5.0 metres high. Primary ramps are typically driven at a maximum inclination of -15%. Mining is currently being conducted by longhole stoping methods.

Ore is hauled to the surface by truck to the ore stockpile, where it is loaded into over-the-road trucks for haulage to the Bell Creek mill, located approximately 56 kilometres from the TWM. Development waste that is not used for backfill underground is hauled to the surface waste rock facility.

Tailings from the Bell Creek mill are back-hauled to the TWM where they are combined with cement and water to make a structural fill for use as backfill underground. A paste backfill plant located on the surface produces paste backfill for delivery via piping into the mine for placement in the mined out stopes.

Mining at the Timmins Deposit was initiated in the second half of 2009. From 2009 through May 15, 2017, 2.53 million tonnes at an average grade of 4.3 grams per tonne Au (349,523 ounces) have been mined from the Timmins Deposit.

Access to the Thunder Creek Deposit was gained by developing ramps from the Timmins Deposit 200 metre level and 650 metre level. The Rusk horizon was intersected in July of 2010 and the Porphyry Zone in November 2010. From 2009 through May 15, 2017, 2.68 million tonnes at an average grade of 4.4 grams per tonne Au (379,405 ounces) have been mined from the Thunder Creek Deposit.

The 144 Gap Deposit was initially discovered in late 2014 as part of a successful surface diamond drilling campaign. The 144 Gap Deposit is accessible via a 1,317 metre ramp and hanging wall exploration drift driven to the southwest from the 765 metre level at Thunder Creek. Development of the 144 Gap Deposit began in April 2016. A total of 184,389 tonnes at an average grade of 3.9 grams per tonne Au (23,264 ounces) have been mined from the 144 Gap deposit through to May 15, 2017.

The LOM plan as of May 15, 2017 forecasts the TWM to produce a total of 7.15 million tonnes of ore at an average gold grade of 3.21 g/t, delivering 737,800 ounces of gold to the Bell Creek mill for processing. Production from the TWM will average 3,075 tonnes per day from the remainder of 2017 through 2022 before ramping down and ending in 2023. The production profile is summarized in Table 1-3.

Table 1-3: ESTIMATED LOM PRODUCTION PROFILE

Item	2017*	2018	2019	2020	2021	2022	2023	Total
Tonnes	736,000	1,115,000	1,110,000	1,114,000	1,109,000	1,113,000	855,000	7,152,000
Grade (g/t)	3.75	3.42	3.10	3.20	3.23	3.14	2.68	3.21
Ounces	88,700	122,500	110,800	114,700	115,200	112,500	73,600	737,800
Average TPD	3,215	3,055	3,040	3,050	3,040	3,050	2,550	

*2017 includes only production from May 16th to Dec 31st

1.10 Processing

All ore mined from the TWM is processed at the Company's Bell Creek mill. The Bell Creek mill is located approximately 6.5 kilometres north of Highway 101 in South Porcupine, Ontario and approximately 56 kilometres from the TWM. The Bell Creek mill is a conventional gold processing plant utilizing cyanidation with gravity and CIP recovery. Mill throughput is approximately 3,075 tonnes per day and recovery is approximately 97% for the TWM ore.

1.11 Capital and Operating Costs

Several years of operating experience provides a solid basis for estimating the capital and operating costs for the TWM. The capital cost estimate includes all capital required for surface and underground facilities at TWM and relevant capital costs at the Bell Creek mill facility.

The estimated capital and operating costs have been based on operating experience at TWM and the Bell Creek Mill. The estimated LOM capital and operating costs are summarized in Table 1-4.

Table 1-4: ESTIMATED LOM CAPITAL AND OPERATING COSTS

Cost Item	Total Costs
Sustaining Capital	$109.5 M
Project Capital	$21.7 M
Operating Cost	$72.58 per tonne

1.12 Financial Analysis

An economic analysis was completed to forecast cash flow and estimate the Net Present Value ("NPV") for the TWM. Annual cash flow projections were estimated over the life of mine based on the estimated capital expenditures, production costs and gold sales revenue, as summarized in Table 1.5. The economic analysis indicates the TWM has an NPV at a 5% discount rate of $174.4 million.

Table 1-5: TIMMINS WEST MINE CASH FLOW (AFTER TAX)

Item	2017[(1)]	2018	2019	2020	2021	2022	2023	Total
Operating Income	$52,514	$62,403	$45,426	$46,925	$56,076	$55,555	$28,459	**$347,358**
Adjustments [(2)]	($2,934)	($3,722)	($904)	-	-	-	($1,415)	**($8,975)**
Project Capital	$7,075	$10,968	$3,631	-	-	-	-	**$21,674**
Sustaining Capital	$19,150	$32,397	$30,881	$18,425	$7,192	$1,271	$235	**$109,549**
Cash Flow	$23,356	$15,316	$10,011	$28,501	$48,884	$54,284	$26,809	**$207,161**
Cumulative Cash Flow	$23,356	$38,672	$48,683	$77,184	$126,067	$180,351	$207,161	**-**

(1) 2017 includes only production from May 16th to Dec 31st

(2) Working Capital Adjustments (leases) and Closure Costs

Sensitivity analysis was done using incremental changes to gold price, operating costs, capital expenditures and metallurgical recovery; the results of which are summarized in Table 1-6.

Table 1-6: SENSITIVITY ANALYSIS
(NPV after taxes)

Sensitivity	NPV @ 0% (‘000s)	NPV @ 5% (‘000s)	NPV @ 10% (‘000s)
Change in Gold Price			
+20%	$386,085	$330,238	$286,874
+10%	$296,623	$252,318	$218,034
Base Case	$207,161	$174,398	$149,194
-10%	$117,699	$96,478	$80,354
-20%	$28,237	$18,558	$11,514
Change in Operating Cost			
+20%	$97,708	$79,475	$65,694
+10%	$152,435	$126,937	$107,444
Base Case	$207,161	$174,398	$149,194
-10%	$261,887	$221,860	$190,943
-20%	$316,613	$269,321	$232,693
Change in Capital Expenditures			
+20%	$180,916	$150,032	$126,425
+10%	$194,038	$162,215	$137,809
Base Case	$207,161	$174,398	$149,194
-10%	$220,283	$186,581	$160,578
-20%	$233,405	$198,764	$171,963
Change in Recovery			
+2%	$225,053	$189,982	$162,962
+1%	$216,107	$182,190	$156,078
Base Case	$207,161	$174,398	$149,194
-1%	$198,215	$166,606	$142,310
-2%	$189,268	$158,814	$135,426

1.13 Conclusions and Recommendations

Proven and Probable Mineral Reserves for the Timmins West Mine are supported by the feasibility of the operation as demonstrated by the life of mine financial model. The costs and productivities used as the basis for estimating the reserves and formulating the life of mine plan are based on the actual performance metrics of the operation as experienced from 2011 through 2016. These factors are considered low risk to the reserve estimate. In addition, social, political, and environmental factors are all considered to be low risk factors for the continued operation of TWM and to the reserves estimate.

Based on recent work to complete the resource update, the following recommendations are made for resource estimation and resource development:

1. Implement definition and exploration drilling to refine shapes and grades for existing resources and to expand the overall resource base for the future. Review this program on an annual basis.

2. Complete exploration drilling at the Timmins West Complex in attempt to further increase the resource base. Suggested surface and underground diamond drilling programs are outlined as follows:

   Underground drilling at the Timmins West Mine Complex for the remainder for 2017 is proposed to be approximately 69,200 metres of combined operating, capital and exploration drilling for a total cost of $3.89M.

   Of this total, approximately 62,200 metres (for $3.35M) are for operations and capital drilling to support the 2017 Mine Plan as well as infill drill for future mining. The remaining 7,000 metres (for $0.54M) are planned for near mine exploration, primarily testing the down plunge extents of the Thunder Creek and Timmins Deposits. Future underground exploration should be focused on testing the down strike extents of the 144 Gap Deposit targeting the South-West Zone.

   Deep surface exploration totals $0.520M in 3,150 metres that involves the completion of a new master hole and one wedge cut from the existing master hole that will target the down-plunge extension of the Timmins Deposit fold nose mineralized structure around the 1850L. The option of expanding the program with multiple wedge (daughter) cuts will be considered if initial results are favourable.

2.0 INTRODUCTION

Tahoe Resources Inc.("Tahoe" or the "Company") is a publicly traded company listed on the Toronto Stock Exchange, under the symbol THO, and the New York Stock Exchange, under the symbol TAHO. Tahoe's head office is at 5310 Kietzke Lane, Suite 200, Reno, Nevada, United States, 89511. Tahoe is the parent company of Lake Shore Gold Corporation ("LSG"), *dba* Tahoe Canada, which was founded in 2002 to explore for precious and base metals hosted in the Quebec and Ontario portions of the Canadian Shield. In 2016, Lake Shore Gold Corp. was acquired by Tahoe and became a wholly-owned subsidiary of the Company.

The purpose of this report is to provide a summary of the total resource pool (comprised of the Timmins Deposit, Thunder Creek Deposit, and 144 Gap Deposit), current mine infrastructure, the life of mine (LOM) plan, and estimated mine capital and operating costs to substantiate an updated Mineral Reserve estimate for TWM. The work completed to support the updated Mineral Reserve estimate has been conducted on the Measured and Indicated Mineral Resources contained in the Timmins Deposit, Thunder Creek Deposit, and 144 Gap Deposit with mining, milling, and cost estimating based on actual operating experience at TWM and the Bell Creek Mill.

Historical work in the TWM area was reviewed by referencing assessment reports filed at the Ministry of Northern Development and Mines' office at the Ontario Government Complex, Highway 101 East, Timmins (Porcupine), Ontario; and the online Assessment File Research Imaging. Option and legal agreements were reviewed at the Company's exploration office.

2.1 List of Qualified Persons

This TWM Technical Report has been prepared under the supervision of Kara Byrnes (P. Geo), Eric Kallio (P. Geo.) and Natasha Vaz (P. Eng.) on behalf of Tahoe and conforms to NI 43-101 Standards of Disclosure for Mineral Projects. These individuals are employees of the Company and considered Qualified Persons ("QP") under 43-101 definitions.

Kara Byrnes (P. Geo), Director of Technical Services for Tahoe Canada is responsible for Items 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, and 24 and parts of Items 1, 2, 3, 10, 11 and 25, 27, 28, and 29.

Natasha Vaz (P. Eng.), Vice President, Technical Services for Tahoe Canada is responsible for Items 13 and 17.

Eric Kallio (P. Geo.), Vice President, Exploration for Tahoe Canada is responsible for Items: 4, 5, 6, 7, 8, 9, and 26 and parts of Items 1, 2, 3, 10, 11, 24, 25, 27, 28, and 29.

These individuals are intimately aware of the work going on at the Timmins West Mine and have visited and worked at the TWM on numerous occasions.

2.2 Units and Currency

Metric and Imperial units are used throughout this report. US dollars is the currency used unless otherwise noted.

Common conversions used include converting one troy ounce of gold to grams of gold with a factor of 31.104 grams/troy ounce; and one troy ounce gold per ton with a conversion factor of 34.29 grams gold per tonne.

2.3 List of Abbreviations

Table 2.1 lists the common abbreviations that may be used in the report.

Table 2-1: LIST OF ABBREVIATIONS

Unit or Term	Abbreviation or Symbol
Above mean sea level	amsl
Advanced Exploration Project	AEP
Atomic Absorption	AA
Arsenic	As
Arsenopyrite	aspy
Azimuth	AZ
Billion years ago	Ga
British thermal unit	Btu
Carbon in leach	CIL
Carbon in pulp	CIP
Centimetre	cm
Copper	Cu
Cubic centimetre	cm^3
Cubic feet per second	ft^3/s, cfs
Cubic foot	ft^3
Cubic inch	in^3
Cubic metre	m^3
Cubic yard	yd^3
Day	d
Days per week	d/wk
Days per year (annum)	d/a
Dead weight tonnes	DWT
Degree	°
Degree Celsius	°C
Degrees Fahrenheit	°F
Diamond bore hole	dbh, DBH
Diamond drill hole	ddh, DDH
Dollars Canadian	$C

Unit or Term	Abbreviation or Symbol
Dry metric ton	dmt
Foot	ft
Gallon	gal
Gallon per minute	gpm
Gold	Au
Gold equivalent grade	AuEq
Gram	g
Gram metres	m.g/t
Grams per litre	g/l
Grams per tonne	g/t, gpt
Greater than	>
Hectare (10,000m^2)	ha
Hour	h (not hr)
Inch	in, “
Kilo (1,000)	k
Kilogram	kg
Kilograms per cubic metre	kg/m^3
Kilograms per hour	kg/h
Kilograms per square metre	kg/m^2
Kilometre	km
Kilometres per hour	km/h
Less than	<
Lead	Pb
Life of mine	LOM
Litre	L
Litres per minute	L/m
Metre	M
Metres above sea level	masl
Metres per minute	m/min
Metres per second	m/s
Metric ton (tonne) (2,000 kg) (2,204.6 pounds)	t
Micrometre (micron)	µm
Miles per hour	mph
Milligram	mg
Milligrams per litre	mg/L
Milliliter	mL
Millimetre	mm
Million	M
Million grams	M g
Million tonnes	Mt
Million Troy ounces	M oz
Million Years	Ma
Minute (plane angle)	min, ‘

Unit or Term	Abbreviation or Symbol
Minute (time)	min
Month	mo
National Instrument 43-101 (Canadian)	NI 43-101
No Personal Liability	N.P.L.
Troy ounces	oz
Page	p, pg
Parts per billion	ppb
Parts per million	ppm
Percent	%
Percent moisture (relative humidity)	% RH
Potassium	K
Pound(s)	lb
Pounds per square inch	psi
Preliminary Economic Assessment	PEA
Pyrite	py
Pyrrhotite	po
Quality Assurance/Quality Control	QA/QC
Quart	qt
Revolutions per minute	rpm
Rock Quality Designation	RQD
Second (plane angle)	sec, “
Second (time)	s
Short ton (2,000 lb)	st
Short ton (US)	t (US)
Short tons per day (US)	tpd (US)
Short tons per hour (US)	tph (US)
Short tons per year (US)	tpy (US)
Silver	Ag
Sodium	Na
Specific gravity	SG
Square centimetre	cm^2
Square foot	ft^2
Square inch	in^2
Square kilometre	km^2
Square metre	m^2
Thousand tonnes	kt
Tonne (1,000 kg)	t
Tonnes per day	t/d, tpd
Tonnes per hour	t/h
Tonnes per year	t/a
Volt	V
Week	wk
Weight/weight	w/w

Unit or Term	Abbreviation or Symbol
Wet metric ton	wmt
Yard	yd
Year (annum)	a
Year (US)	yr

2.4 Definitions

The following definitions of Mineral Resources and Mineral Reserves have been prepared by the CIM Standing Committee on Reserve Definitions and Adopted by the CIM Council on May 10, 2014.

2.4.1 Mineral Resource

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

A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction.

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

2.4.2 Inferred Mineral Resource

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

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

2.4.3 Indicated Mineral Resource

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

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

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

2.4.4 Measured Mineral Resource

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

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

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

2.4.5 Mineral Reserve

A Mineral Reserve is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

The reference point at which Mineral Reserves are defined, usually the point of where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.

The public disclosure of a Mineral Reserve must be demonstrated by a Pre-Feasibility Study or Feasibility Study.

2.4.6 Probable Mineral Reserve

A "Probable Mineral Reserve" is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proven Mineral Reserve.

2.4.7 Proven Mineral Reserve

A "Proven Mineral Reserve" is the economically mineable part of a Measured Mineral Resource. A Proven Mineral Reserve implies a high degree of confidence in the Modifying Factors.

2.4.8 Modifying Factors

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

2.5 Glossary

2.5.1 General Glossary

Table 2.2 is a summary table of common technical words accompanied by a simple explanation of the term or word as the term pertains to this report.

Table 2-2: GLOSSARY

Term	Explanation
Assay	The chemical analysis of mineral samples to determine the metal content.
Capital Expenditure	All other expenditures not classified as operating costs.
Composite	Combining more than one sample result to give an average result over a larger distance.
Concentrate	A metal-rich product resulting from a mineral enrichment process such as gravity concentration or floatation, in which most of the desired mineral has been separated from waste material in the ore.
Crushing	Initial process of reducing ore particle size to render it more amenable for further processing.
Cut-off Grade (COG)	The grade of mineralized rock, which determines whether or not it is economic to recover its gold content by further concentration.
Dilution	Unwanted waste, which is mined with ore.
Dip	Angle of inclination of a geological feature / rock from the horizontal.
Fault	The surface of a fracture along which movement has occurred.
Footwall	The underlying side of an orebody or stope.
Gangue	Non-valuable components of the ore.
Grade	The measure of concentration of "gold" within mineralized rock.
Hanging wall	The overlying side of an orebody or stope.

Term	Explanation
Haulage	A horizontal underground excavation which is used to transport mined material.
Igneous	Primary crystalline rock formed by the solidification of magma.
Level	Horizontal tunnel with the primary purpose to transport personnel and materials.
Lithological	Geological description pertaining to different rock types.
LOM Plans	Life of mine plans.
Material Properties	Mining properties.
Metamorphism	Process by which consolidated rock is altered in composition, texture, or internal structure by conditions and forces of heat and pressure.
Milling	A general term used to describe the process in which the ore is crushed, ground and subjected to physical or chemical treatment to extract the valuable metals to a concentrate or finished product.
Mineral/Mining Lease	A lease area for which mineral rights are held.
Mining Asset	Material Properties and Significant Exploration Properties.
Ongoing Capital	Capital estimates of a routine nature, which is necessary for sustaining operations.
Ore Reserve	See Mineral Reserve
RoM	Run of Mine
Sedimentary	Pertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks.
Shaft	An opening cut downwards from the surface for transporting personnel, equipment, supplies, ore and waste.
Smelting	A high temperature pyrometallurgical operation conducted in a furnace, in which the valuable metal is collected to a molten matte or doré phase and separated from gangue components that accumulate in a less dense molten slag phase.
Stope	Underground void created by mining.
Stratigraphy	The study of stratified rocks in terms of time and space.
Strike	Direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction.
Sulphide	A sulphur bearing mineral.
Tailings	Finely ground waste rock from which valuable minerals or metals have been extracted.
Thickening	The process of concentrating solid particles in suspension.
Total Expenditure	All expenditures including those of an operation and capital nature.

2.5.2 Lake Shore Gold Terminology

Timmins West Complex: The Company's entire land package on the west side of the city, extending through Bristol, Thorneloe, Carscallen, and Denton townships.

Timmins West Mine (TWM): The combined areas that are currently being mined using the shared infrastructure, namely the Timmins Deposit, Thunder Creek Deposit, and 144 Gap Deposit.

Timmins Deposit: The deposit formerly known as the Timmins Mine (one of the deposits currently being mined in the Timmins West Mine).

Thunder Creek Deposit: A second deposit being mined in the Timmins West Mine.

144 Gap Deposit: A new deposit included in the Timmins West Mine Mineral Resources as of March 2016. This technical report includes the initial Mineral Reserve estimate for the 144 Gap Deposit. Production from the 144 Gap Deposit began in April 2016.

3.0 RELIANCE ON OTHER EXPERTS

The authors have sourced a portion of the information for this technical report from an amalgamation of several reports listed in Item 27. These references include government geological reports, press releases, company annual reports, assessment reports filed with the Ministry of Northern Development and Mines, previously filed NI 43-101 Technical Reports, and reports both public and in-house information and data provided by LSG/Tahoe Canada.

Exploration at the Timmins West Mine has continuously been overseen and planned by professional geologists and Qualified Persons. From 2003 to the present, contributions to geology by outside consultants include petrography, ore microscopy and scanning electron microscope investigations by Dr. Miller of Miller and Associates of Ottawa, mineralization and structural studies comparing Thunder Creek and the Timmins Mine by Mr. David Rhys, of Panterra Geoservices Inc., petrology studies of the Timmins Mine and Thunder Creek area by Katherina Ross, Panterra Geoservices Inc., geological mapping of a 5 square kilometre area surrounding the Rusk surface showing by Mr. John Camier, P. Geo, and petrography, SEM study and geochemical work done by Dr. Bob Linnen, consultant/professor at the University of Western Ontario. Mr. Camier's report includes petrographic analysis of thin sections examined by Mr. Camier and Dr. Bob Springer, Professor Emeritus at Brandon University, Manitoba.

Several reports have been submitted to SEDAR describing in detail and outlining the exploration history of the Timmins Mine Complex (formerly known as the Timmins West Gold Project and the Holmer Mine Property) as well as the Thunder Creek Property. The reader is invited to review the detailed summaries and source material outlined in the following documents:

- 2002: Holmer Gold Mines Limited, Annual Information Form.
- 2003: Holmer Gold Mines Limited, Annual Information Form.
- 2004: A Technical Review of Holmer Gold Property, In Bristol Township, Timmins Area, Ontario, Canada for Lake Shore Gold Corp. prepared by E. Neczkar, M.W. Kociumbas, J.R. Sullivan September 07, 2004, Watts, Griffis and McQuat Limited.
- 2004: National Instrument 43-101 Technical Report, Timmins Gold Project, Timmins, Ontario, Lake Shore Gold Corp., L.D.S. Winter September 24, 2004.
- 2004: National Instrument 43-101 Technical Report, Timmins Gold Project, Timmins, Ontario, Lake Shore Gold Corp., L.D.S. Winter November 26, 2004.
- 2006: National Instrument 43-101 Technical Report, Timmins West Gold Project, Timmins, Ontario, Lake Shore Gold Corp., L.D.S. Winter January 25, 2006.
- 2007: A Technical Review of the Timmins West Gold Project In Bristol Township, Timmins Area, Ontario, for Lake Shore Gold Corp., J.R. Sullivan, J.G. Lavigne, M.W. Kociumbas, January 03, 2007, Watts, Griffis and McQuat Limited.
- 2007: National Instrument 43-101 Technical Report, Lake Shore Gold Corp. Timmins West Project, Timmins, Ontario, G. Darling et al. SRK Consulting, October 12, 2007.

2008: Technical Report of the Thunder Creek Gold Property, Bristol Township, Timmins, Ontario, Canada, D. Wagner, June 27, 2008.

2009: Updated NI 43-101 Technical Report on the Timmins Mine Property, Ontario, Canada, prepared for Lake Shore Gold Corp., G. Darling et al. October 01, 2009.

2009: Amended Technical Review and Report of the "Thunder Creek Property" Bristol And Carscallen Townships, Porcupine Mining Division, Ontario, Canada prepared for Lake Shore Gold Corp. and West Timmins Mining Inc. July 29, 2009.

2011: Technical Report on the Initial Mineral Resource Estimate for the Thunder Creek Property Bristol Township, West of Timmins, Ontario, Canada, Prepared for Lake Shore Gold Corp. and West Timmins Mining Inc., D. Crick, R. Kusins, D. Powers, December 23, 2011.

2012: 43-101 Technical Report, Preliminary Economic Assessment and Updated Mineral Resource Estimate for Timmins West Mine Timmins, Ontario, Canada, prepared by Dean Crick, (P. Geo.), Ralph Kock (P. Geo.), Robert Kusins (P. Geo.), Brian Buss (P. Eng.) and David Powers (P. Geo.) on behalf of Lake Shore Gold Corp., March 29, 2012.

2012: 43-101 Technical Report, Pre-feasibility Study and Mineral Reserve Estimate for Timmins West Mine, Timmins, Ontario, Canada, prepared by Dean Crick (P. Geo.), Ralph Koch (P. Geo.), Robert Kusins (P. Geo.), David Powers (P. Geo.), Brian Buss (P. Eng.). May 14, 2012.

2014: 43-101 Technical Report, Updated Mineral Reserve Estimate for Timmins West Mine, Timmins, Ontario, Canada, prepared by Eric Kallio (P. Geo.) and Natasha Vaz (P. Eng.), March 31, 2014.

2016: 43-101 Technical Report, Updated Mineral Reserve Estimate for Timmins West Mine and Initial Resource Estimate for The 144 Gap Deposit, Timmins, Ontario, Canada, prepared by Eric Kallio (P. Geo.) and Natasha Vaz (P. Eng.), February 29, 2016.

The authors rely on the professional integrity of the designated project QPs to maintain and provide true and accurate reporting of the facts throughout the project history. Where possible, the internal documents have been checked against public records filed for assessment purposes.

The authors have also relied on internal experts within the organization for input to certain sections of this report. The authors have reviewed and endorsed the contributions of these experts.

Marcel Cardinal, Manager of Environmental Affairs, Tahoe Canada, contributed to Items 1, 4 and 20.

Dave Felsher, Mill Superintendent, Tahoe Canada, contributed to Items 13 and 17.

Ryan Wilson, P. Geo., Senior Geologist, Tahoe Canada, contributed to Items 2, 3, 4, 5, 6, 7, 8, 9, 10, and 23 and to the Appendix.

Keith Green, P.Geo., Director of Exploration, Tahoe Canada, contributed to Items 2, 3, 4, 5, 6, 7, 8, 9, 10, and 23 and to the Appendix.

Morgan Verge, GIT, an employee of Tahoe Canada, contributed to Items 11 and 12.

Ivan Langlois, P. Geo., Chief Mine Geologist (Timmins West Mine), Tahoe Canada, contributed to Items 7 and 11.

The authors have also relied on external experts for input to certain sections of this report. The authors have reviewed and endorsed the contributions of these experts.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Description

The TWM property includes the Timmins Deposit, Thunder Creek, and Highway-144 properties for a total area of approximately 17.1 square kilometres, or approximately 1,712 hectares. The majority of the property is situated within Bristol Township (1,340 ha), with approximately 336 hectares located in Thorneloe Township and 36 hectares in Carscallen Township. The Mining Land Tenure Map references for the Highway-144 project (incl. the 144 Gap deposit) include: Bristol Township (Plan G-3998) and Thorneloe Township (Plan G-3229), Porcupine Mining Division, Land Titles/Registry Division of Cochrane, and; Timmins, Ministry of Natural Resources District, Ontario, Canada.

The Timmins Deposit portion of the TWM consists of a block of 23 contiguous claims (totaling approximately 395 hectares) of which there are 11 individual patented and surface rights claims, six claims that hold a patent surface rights with leased mining rights, and six claims that hold a 21-year Crown mining and surface rights lease. The Thunder Creek Deposit portion of the property consists of 20 staked mineral claims (35 units totaling approximately 629 hectares) of which two claims hold a surface rights patent and three claims hold a 21-year Crown mining and surface rights lease. The Highway-144 property consists of a contiguous block of 33 claims that hold a 21-year Crown mining and surface rights lease covering an area of approximately 688 hectares.

Tahoe Canada owns a 100% interest in all but a small portion of the TWM property, subject to underlying royalties. The key exception is the Meunier-144 portion of the property with Tahoe Canada holding a 50% interest in these ten patent claims. The claims and leases are all in good standing.

Figure 4-1 illustrates the TWM property relative to local topographic and cultural features as well as provincial highways. Table 4.1 contains the details of staked claims, numbers, ownership, size, and expiry dates for the TWM property; Table 4.2 contains leased lands information, and Table 4.3 contains patent lands information.

Figure 4-1: TIMMINS WEST MINE PROPERTY

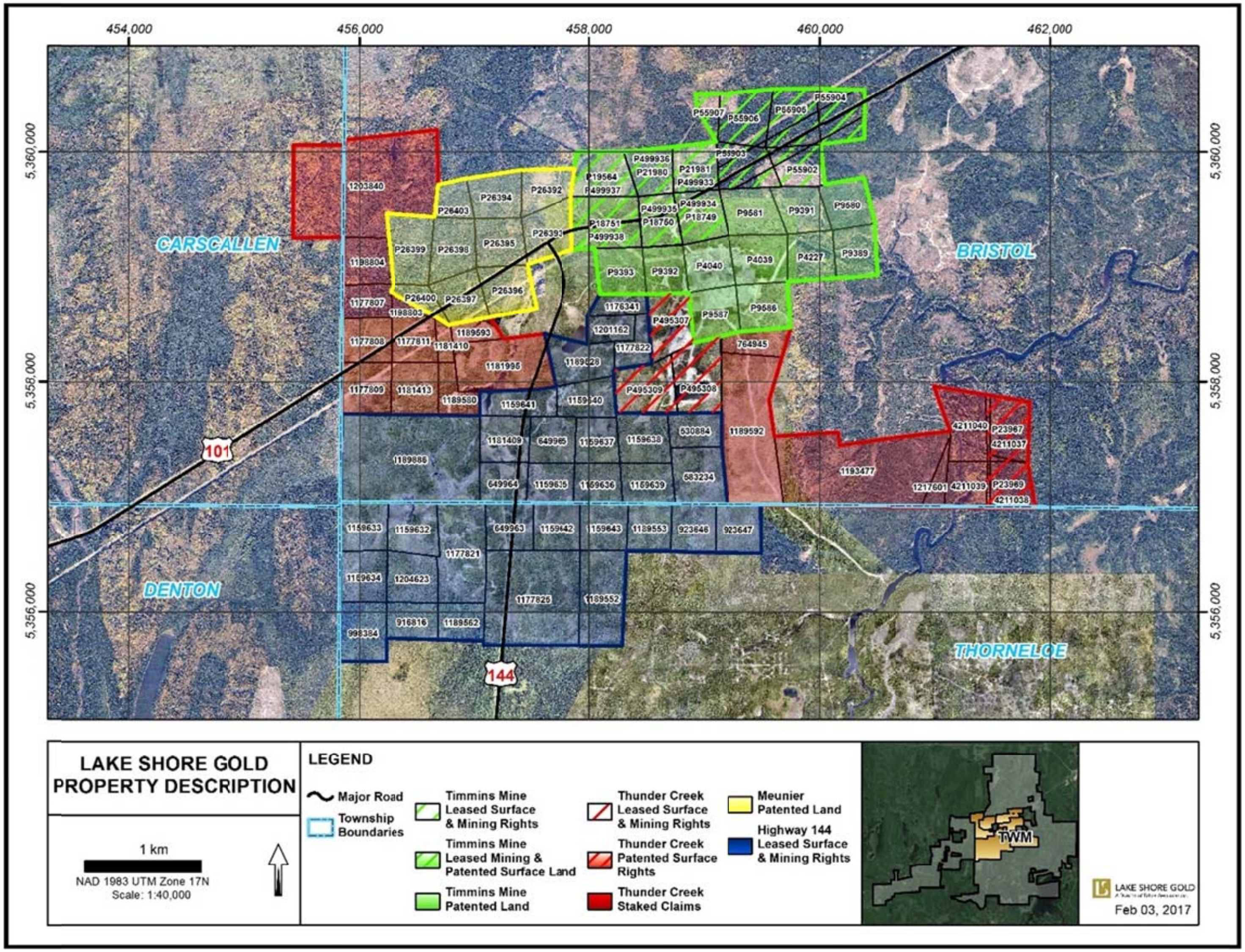


Table 4-1: TIMMINS WEST MINE STAKED CLAIMS

STAKED CLAIMS								
Claim No.	Township	Owner	No. of Units	Recording Date	Assessment Due Date	Assessment Due ($)	Banked Credits	Royalty To
P1177807	Bristol	LSG	1	1991-May-13	2019-May-13	400	13,602	Kangas;FNV
P1177808	Bristol	LSG	1	1991-May-13	2019-May-13	400	13,314	Kangas;FNV
P1177809	Bristol	LSG	1	1991-May-13	2019-May-13	400	15,239	Kangas;FNV
P1177811	Bristol	LSG	1	1991-May-13	2019-May-13	400	15,005	Kangas;FNV
P1181410	Bristol	LSG	1	1994-Feb-14	2017-Feb-14	400	14,942	Kangas;FNV
P1181413	Bristol	LSG	1	1994-Feb-14	2017-Feb-14	400	15,395	Kangas;FNV
P1181995	Bristol	LSG	2	1992-Jun-22	2017-Jun-22	800	19,867	Durham;
P1189580	Bristol	LSG	1	1993-Jan-08	2017-Jan-08	400	14,615	Durham;
P1189592	Bristol	LSG	3	1992-Jun-19	2017-Jun-19	1,200	31,168	Durham;
P1189593	Bristol	LSG	1	1992-Jun-22	2017-Jun-22	400	16,438	Durham;
P1193477	Bristol	LSG	6	1994-May-04	2017-May-04	2,400	1,793	FNV
P1198803	Bristol	LSG	1	1994-Feb-14	2017-Feb-14	400	13,602	Kangas;FNV
P1198804	Bristol	LSG	1	1994-Feb-14	2017-Feb-14	400	8,121	Kangas'FNV
P1203840	Bristol	LSG	6	1995-Jul-21	2019-Jul-21	2,400	0	FNV
P1217601	Bristol	LSG	1	1996-Nov-26	2019-Nov-26	400	0	FNV
P764945	Bristol	LSG	1	1984-Apr-19	2017-Apr-19	400	1,092	Sandstorm Gold
P4211037	Bristol	LSG	2	2-Jun-2006	2019-Jun-2	800	0	FNV
P4211038	Bristol	LSG	1	2-Jun-2006	2019-Jun-2	400	0	FNV
P4211039	Bristol	LSG	1	2-Jun-2006	2019-Jun-2	400	0	FNV
P4211040	Bristol	LSG	1	2-Jun-2006	2019-Jun-2	400	0	FNV

Note: FNV – Franco Nevada

Table 4-2: TIMMINS WEST MINE LEASED LANDS

LEASED LANDS									
Claim No.	Township	Owner	Rights	Lease No.	Area (ha)	PIN	Lease Due	Banked	Royalty To
P499933	Bristol	LSG	MRO	107874	108.792	65440-0118	2027-Jul-31		FNV
P499934	Bristol	LSG	MRO						FNV
P499935	Bristol	LSG	MRO						FNV
P499936	Bristol	LSG	MRO						FNV
P499937	Bristol	LSG	MRO						FNV
P499938	Bristol	LSG	MRO						FNV
P55902	Bristol	LSG	MRO & SRO	109356	99.779	65440-0052	2034-Jul-31		FNV
P55903	Bristol	LSG	MRO & SRO						FNV
P55904	Bristol	LSG	MRO & SRO						FNV
P55905	Bristol	LSG	MRO & SRO						FNV
P55906	Bristol	LSG	MRO & SRO						FNV
P55907	Bristol	LSG	MRO & SRO						FNV
P495307	Bristol	LSG	MRO	108773	68.898	65440-0120	2032-Jun-30	1,386,179	Sandstorm Gold Ltd; FNV

LEASED LANDS									
Claim No.	**Township**	**Owner**	**Rights**	**Lease No.**	**Area (ha)**	**PIN**	**Lease Due**	**Banked**	**Royalty To**
P495308	Bristol	LSG	MRO						Sandstorm Gold Ltd; FNV
P495309	Bristol	LSG	MRO						Sandstorm Gold Ltd; FNV
P495307	Bristol	LSG	SRO	108774		65440-0132	2032-Jun-30		
P495308	Bristol	LSG	SRO						
P495309	Bristol	LSG	SRO						
P1159635	Bristol	LSG	MRO & SRO	109619	512.00	65440-0137 to 65440-0140	2037-May-31	779,429	Sandstorm
P1159636	Bristol	LSG	MRO & SRO						Sandstorm
P1159637	Bristol	LSG	MRO & SRO						Sandstorm
P1159638	Bristol	LSG	MRO & SRO						Sandstorm
P1159639	Bristol	LSG	MRO & SRO						Sandstorm
P1159640	Bristol	LSG	MRO & SRO						Sandstorm
P1159641	Bristol	LSG	MRO & SRO						Sandstorm
P1176341	Bristol	LSG	MRO & SRO						Sandstorm
P1177822	Bristol	LSG	MRO & SRO						Sandstorm
P1181409	Bristol	LSG	MRO & SRO						Sandstorm
P1189528	Bristol	LSG	MRO & SRO						FNV
P1189886	Bristol	LSG	MRO & SRO						Hutteri; FNV
P1201162	Bristol	LSG	MRO & SRO						Sandstorm
P530884	Bristol	LSG	MRO & SRO						Sandstorm
P583234	Bristol	LSG	MRO & SRO						Sandstorm
P649964	Bristol	LSG	MRO & SRO						Sandstorm
P649965	Bristol	LSG	MRO & SRO						Sandstorm
P1159632	Thorneloe	LSG	MRO & SRO						Sandstorm
P1159633	Thorneloe	LSG	MRO & SRO						Sandstorm
P1159634	Thorneloe	LSG	MRO & SRO						Sandstorm
P1159642	Thorneloe	LSG	MRO & SRO						Sandstorm
P1177821	Thorneloe	LSG	MRO & SRO						Sandstorm
P1177825	Thorneloe	LSG	MRO & SRO						Sandstorm
P1189562	Thorneloe	LSG	MRO & SRO	109619	176.00	65440-0137	203-May-31	33,996	Sandstorm
P1204623	Thorneloe	LSG	MRO & SRO						Sandstorm
P649963	Thorneloe	LSG	MRO & SRO						Sandstorm
P916816	Thorneloe	LSG	MRO & SRO						Sandstorm
P998384	Thorneloe	LSG	MRO & SRO						Sandstorm
P1159643	Thorneloe	LSG	MRO & SRO						Sandstorm
P1189553	Thorneloe	LSG	MRO & SRO						Durham; FNV
P1189552	Thorneloe	LSG	MRO & SRO						Durham; FNV
P923646	Thorneloe	LSG	MRO & SRO						Royal Gold & Torogold; FNV
923647	Thorneloe	LSG	MRO & SRO						

Note: FNV – Franco Nevada

Table 4-3: TIMMINS WEST MINE PATENTED LANDS

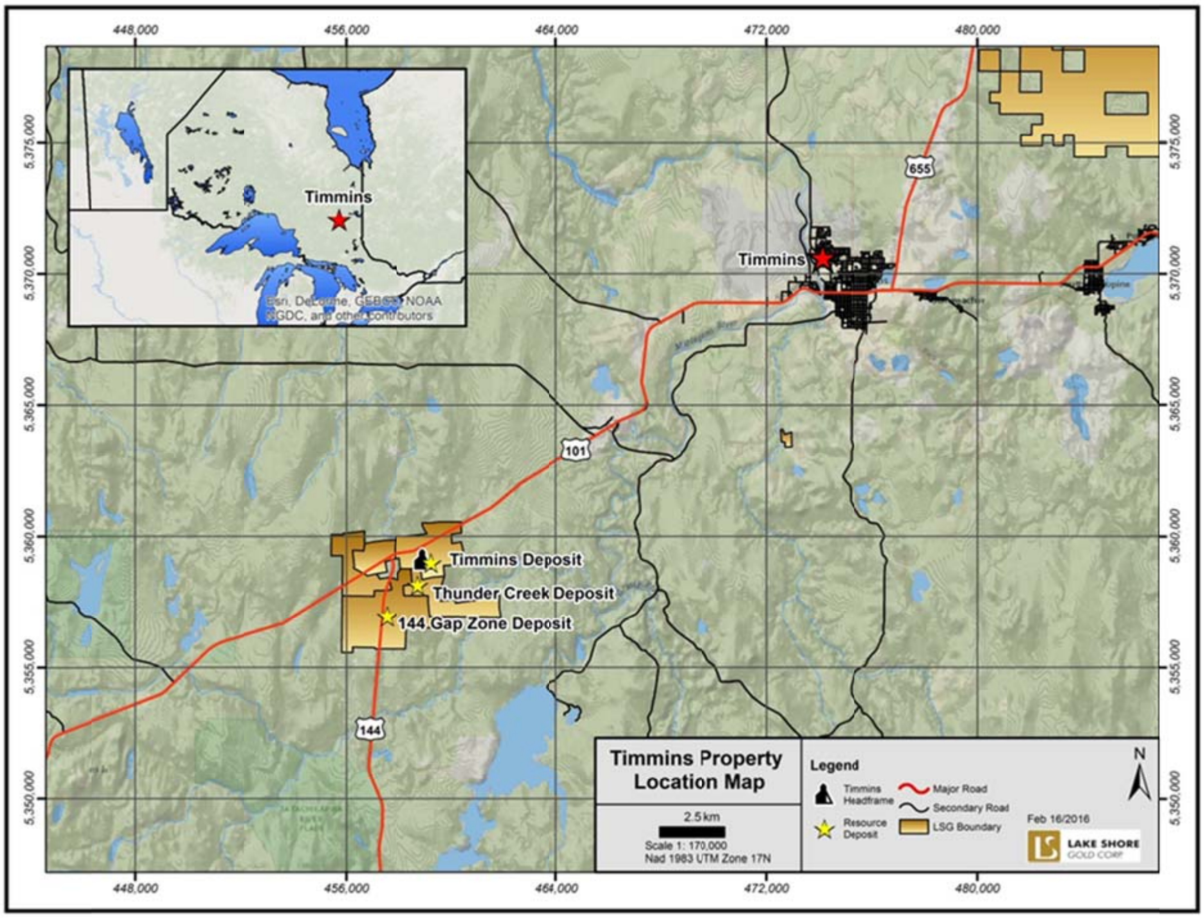
PATENTED LANDS						
Claim No.	**Township**	**Owner**	**Rights**	**PIN**	**Area (ha)**	**Royalty To**
P.19564	Bristol	LSG	SRO	65440-0038	16	
P.21980	Bristol	LSG	SRO	65440-0041	16	
P.21981	Bristol	LSG	SRO	65440-0044	16	
P.18751	Bristol	LSG	SRO	65440-0039	16	
P.18750	Bristol	LSG	SRO	65440-0042	16	
P.18749	Bristol	LSG	SRO	65440-0045	16	
P.9581	Bristol	LSG	MR & SR	65440-0051	16	FNV
P.9391	Bristol	LSG	MR & SR	65440-0053	16	FNV
P.9580	Bristol	LSG	MR & SR	65440-0059	16	FNV
P.9393	Bristol	LSG	MR & SR	65440-0040	16	FNV
P.9392	Bristol	LSG	MR & SR	65440-0043	16	FNV
P.4039 T.C. 613	Bristol	LSG	MR & SR	65440-0050	16	FNV
P.4227 T.C. 612	Bristol	LSG	MRO	65440-0086	16	Labrash;FNV
	Bristol	LSG	SRO	65440-0054		
P.9389	Bristol	LSG	MR & SR	65440-0060	16	FNV
P.9587	Bristol	LSG	MR & SR	65440-0047	16	FNV
P.9586	Bristol	LSG	MR & SR	65440-0049	16	FNV
P.4040 T.C. 614	Bristol	LSG	MR & SR	65440-0046	16	FNV
P23967	Bristol	LSG	SRO	65440-0073	16	
P23969	Bristol	LSG	SRO	65440-0072	16	
P26392	Bristol	LSG & AG	MR & SR	65440-0033	1	Meunier; FNV
P26393	Bristol	LSG & AG	MR & SR	65440-0029	1	Meunier; FNV
P26394	Bristol	LSG & AG	MR & SR	65440-0036	1	Meunier; FNV
P26395	Bristol	LSG & AG	MR & SR	65440-0035	1	Meunier; FNV
P26396	Bristol	LSG & AG	MR & SR	65440-0032	1	Meunier; FNV
P26397	Bristol	LSG & AG	MR & SR	65440-0031	1	Meunier; FNV
P26398	Bristol	LSG & AG	MR & SR	65440-0028	1	Meunier; FNV
P26399	Bristol	LSG & AG	MR & SR	65440-0027	1	Meunier; FNV
P26400	Bristol	LSG & AG	MR & SR	65440-0034	1	Meunier; FNV
P26403	Bristol	LSG & AG	MR & SR	65440-0030	1	Meunier; FNV

Note: FNV – Franco-Nevada

4.2 Location

The headframe of the TWM is collared at National Topography Series ("NTS") map reference 42-A-05; at 458,917 metres east and 5,359,046 metres north. Universal Transverse Mercator ("UTM") co-ordinates for the project centre utilizing projection North American Datum ("NAD") 83, Zone 17 are approximately 458,915 metres east and 5,358,043 metres north. This location is approximately 19 kilometres west-southwest of the Timmins city centre and 552 kilometres north-northwest of the City of Toronto. The junction of Highways 101 and 144 is situated 1.1 kilometres northwest of the property centre. The location map in Figure 4-2 illustrates the headframe and deposits of the TWM relative to the provincial highways and the City of Timmins.

Figure 4-2: TIMMINS WEST MINE LOCATION MAP



4.3 Recent Ownership History and Underlying Agreements

In May 2003, LSG and Holmer Gold Mines Limited ("Holmer") entered into an option agreement whereby LSG earned a 50% interest in the Holmer Property (the present Timmins Deposit property) by March 24, 2006. The agreement was subject to the following terms: incurring cumulative expenditures of $2,500,000 on the property by May 24, 2006; making staged cash payments totaling $250,000 to Holmer by May 24, 2006; issuing 150,000 common shares of LSG to Holmer by May 24, 2005; and confirming, by means of a report by a Qualified Person, that the property contains an Indicated Mineral Resource of at least 500,000 ounces of gold. This portion of the property consists of 11 Freehold Patents with surface and mining rights; Lease 106634 (formerly lease 102611) a group of six Leasehold Patents with surface and mining rights; and Lease 107874 (formerly Lease 104075) a group of six Freehold Patents with mining rights as well as six Leasehold Patents of surface rights for the same area.

LSG completed the requirements to earn 50% of the Holmer property in September 2004. On December 31, 2004 a business combination agreement between LSG, their wholly owned subsidiary LSG Holdings Corp. and Holmer Gold Mines Limited came into effect, where Holmer became a wholly-owned subsidiary of LSG. A 1.5% NSR royalty is assigned to claim P-4227 payable to Mr. Lorne Labrash. This royalty may be purchased for $1 million. The current resource model for mineralization does not extend to claim P 4227.

LSG optioned a 60% interest in the Thunder Creek property from Band-Ore Resources Limited ("Band-Ore") in November 2003. Under the terms of that agreement LSG could earn a 60% interest in the project by completing in excess of $1,705,000 in expenditures, $370,000 in cash payments and the issuing of 100,000 shares within a four year period. In September 2006, Band-Ore and Sydney Resources Corporation merged into the new company West Timmins Mining Inc. ("WTM"). The terms of the LSG - Band-Ore option agreement succeeded to WTM. In May 2008, LSG informed WTM that the obligations to earn a 60% interest in the Thunder Creek property had been fulfilled. On November 6, 2009, LSG and WTM completed a business combination agreement resulting in WTM becoming a wholly owned subsidiary of LSG. On January 1, 2012, WTM was amalgamated into LSG, which now holds the 100% interest.

Brief summaries of the underlying agreements and royalties are stated below. Figure 4-3 illustrates the applicable royalties on each claim.

Mineral claims 4211037, 4211038, 4211039, and 4211040 were staked by LSG and have no underlying royalties, but were subject to the option agreement with WTM dated November 07, 2003. Because the claims were within the area of influence for the agreement, they became part of the joint venture. LSG has received the surface rights for mineral claims 4211037 (P23967, PCL23749, PIN 65440-0073) and 4211038 (P23969, PCL 23750, PIN 65440-0072).

Claims 1189528, 1193477, 1203840, and 1217601 were staked by Band-Ore and are not subject to any underlying royalty agreements.

Mineral claims optioned originally from Mr. Jim Croxall were subject to a 2% Net Smelter Return ("NSR") royalty. These claims were also subject to an advanced annual royalty payment of $5,000 until commercial production begins. LSG purchased 1% of the NSR in November 2010 in exchange for approximately $1,500,000 equivalent in LSG stock. The other 1% NSR was purchased from Jim Croxall by Premier Royalty in 2012. Sandstorm Gold Ltd. has since acquired Premier Royalty Corp as of October 2013. The surface rights for leased claims P495307, P495308, and P495309 (mineral rights only lease number 108773) have been acquired by LSG (surface lease number 108774), with both leases to remain in good standing until June 30, 2032.

The claim with number 1189886 was optioned from Mr. Bruce Durham and has a 3.0% royalty attached.

Eight claims optioned from the late Mr. Matt Kangas and Mr. Jim Croxall (1177807, 1177808, 1177809, 1177811, 1181410, 1181413, 1198803, and 1198804) are subject to a 2% NSR royalty of which 1% may be purchased for $1,000,000. An advanced royalty payment of $5,000 (indexed for inflation) is paid annually to the estate of Mr. Kangas and to Mr. Croxall in equal portions. After the signing of the original agreement, mineral claims came open and were re-staked: claim 1181410 was former claim 1177813, claim 1181413 was former claim 1177810, claim 1198803 was former claim 1177812, and claim 1198804 was former claim 1177806.

Four claims (1189593, 1181995, 1189580, and 1189592) were purchased by Bruce Durham, Robert Duess, Ken Krug, and Henry Hutteri from Ray Meikle and Steve Anderson and then optioned to Band-Ore. A 3% NSR royalty is payable, 1.5% to Durham et al., and 1.5% to Meikle and Anderson. There is not a buy down of this royalty.

Claims 1189552 and 1189553 were optioned from Mr. Bruce Durham and partners ("Durham") and has a 3.0% royalty attached.

Claims 923646 and 923647 are subject to a 3% NSR, payable to Royal Gold and Torogold.

The surface rights for claims P18913, P18916, P18917, P18918, P10920, and P10921 are held by Timmins Forest Products.

As of March 1, 2012, Franco-Nevada Corporation ("Franco-Nevada") entered into an agreement with LSG through which Franco-Nevada paid LSG US$35 million for a 2.25% NSR royalty on the sale of minerals from the Timmins West Mine.

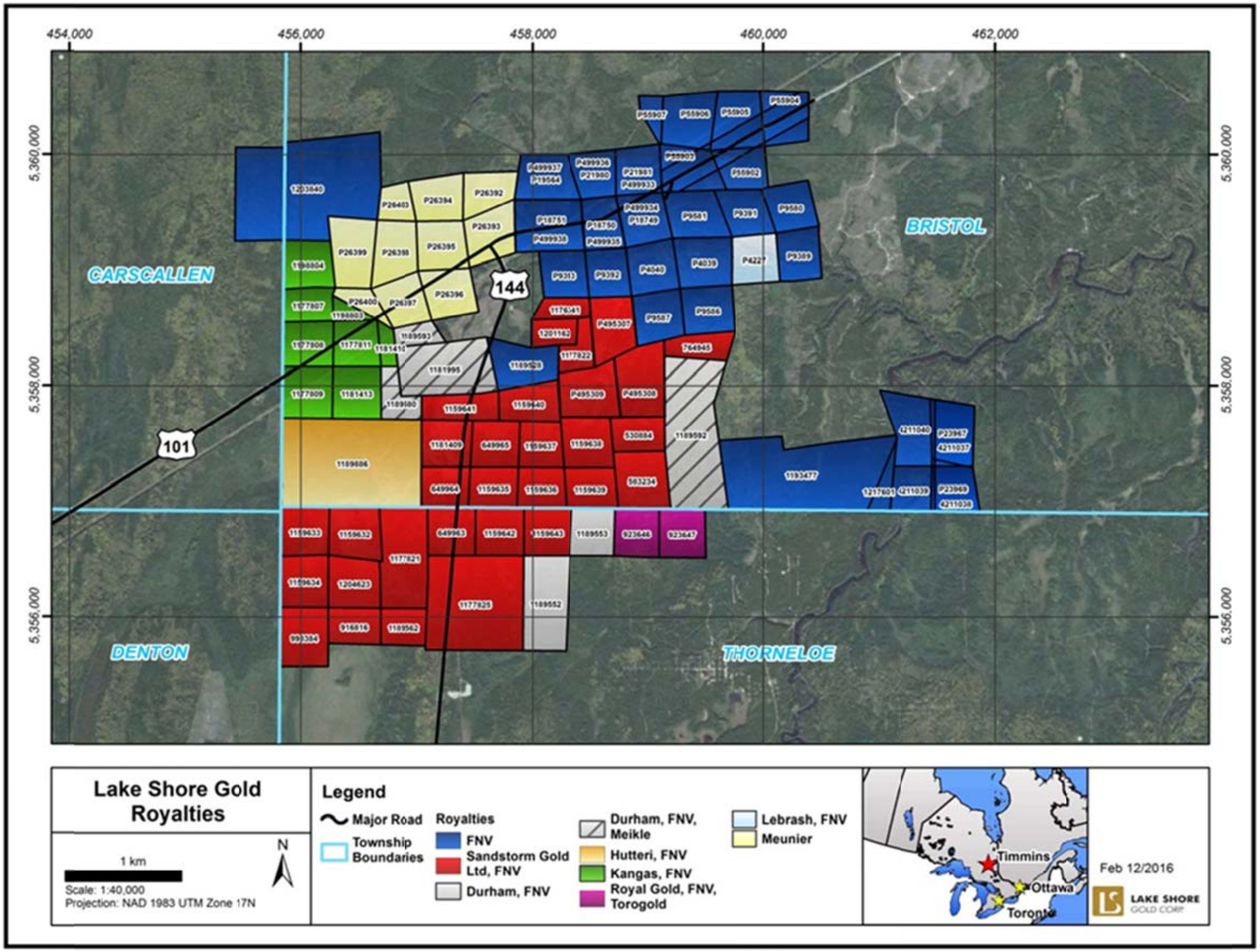
The surface and mining rights for claims P26392, P26393, P26394, P26395, P26396, P26397, P26398, P26399, P26400, P26403, known as the Meunier 144 Property, are currently held by LSG and Adventure Gold Inc. (each with a 50% interest). There is a 2.5% NSR royalty payable to David Meunier, with an option to purchase 1 percent.

All claims and leases are in good standing as of the Effective Date of this report.

In addition to the royalties, the properties comprising TWM were temporarily pledged as security against the outstanding debt obligations of LSG under an agreement with Sprott Resource Lending Partnership for a credit facility (the "Facility") totaling up to $70 million. The obligations for this senior secured facility, first arranged in the summer of 2012 to help finance the expansion of the Bell Creek Mill, were met in full with the final payment made by LSG in May 2015.

A land survey was completed in late 2015 in order to bring a boundary of 56 mining claims to lease (Figure 4-3). The lease was issued by the Ministry of Northern Development and Mines ("MNDM") in June 2016 (Mining Lease No. 109619) for surface and mining rights.

Figure 4-3: TIMMINS WEST MINE ROYALTIES MAP



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

5.1 Accessibility

The TWM is located 1.1 kilometres southeast of the junction of provincial Highways 101 and 144. All season road access to the property is provided by provincial Highways 101 and 144, and the site access road. Bush roads, trails suitable for all-terrain vehicles, and foot paths provide access throughout the property and other locations within the claim boundaries. A major power transmission line traverses the northwest portion of the property. The location map previously presented in Figure 4-2 illustrates the project area relative to the highways and the City of Timmins.

Recent drilling and geophysical work have provided extensive access to the 144 Gap Deposit area of the Highway 144 portion of the property. All areas of drilling in the vicinity are accessible by motor vehicle and all-terrain vehicles. The 144 Gap Deposit area has three main access points located on both the east and west sides of Highway 144. Line cutting for a 2015 geophysical survey has also provided easy walk-in access to much of the field area.

5.2 Climate

The Timmins West Mine area and the City of Timmins experience a continental climate with an average mean temperature range of -16.8°C (January) to +17.5° (July) and an annual precipitation of approximately 835 mm. Table 5-1 summarizes the average temperatures and precipitation values at the Timmins Victor M. Power Airport for the 30 year period between 1981 and 2010.

Table 5-1: AVERAGE TEMPERATURES, PRECIPITATION, AND SNOW DEPTHS FOR THE TIMMINS AREA (1981 TO 2010)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature												
Daily Ave (°C)	-16.8	-14.0	-7.4	1.8	9.6	14.9	17.5	16.0	11.1	4.4	-3.4	-11.9
Daily Max (°C)	-10.6	-7.2	-0.6	8.0	16.6	21.9	24.2	22.5	17.1	9.0	0.6	-6.9
Daily Min (°C)	-23.0	-20.7	-14.2	-4.5	2.5	7.8	10.7	9.4	5.2	-0.3	-7.4	-17
Precipitation												
Rainfall (mm)	3.2	1.7	14.1	30.1	62.3	83.4	90.9	81.6	83.7	68.1	30.9	8.5
Snowfall (cm)	57.8	45.9	44.8	27.2	5.0	0.2	0.0	0.0	1.0	15.1	49.0	65.2
Precipitation (mm)	51.8	41.3	54.5	56.2	67.4	83.4	90.9	81.6	84.7	82.5	75.9	64.5
Snow Depth (cm)	53	64	54	18	1	0	0	0	0	0	7	28

Annually, ice will start to form on lakes in approximately mid-November, and ice breakup will take place in early to mid-May. Work can be carried out on the property twelve months a year.

5.3 Local Resources and Infrastructure

The City of Timmins, with an area of approximately 2,979 square kilometres and a population of 43,165 (2011 Census), has an economic base dominated by the mining and logging industries. The area is serviced from Toronto via Highways 400/69 to Sudbury and Highway 144 from Sudbury to Timmins, or Highway 400/11 to Matheson and Highway 101 westward to Timmins. The Timmins Victor M. Power Airport has scheduled service provided by Air Canada Jazz, Bearskin Airlines, and Air Creebec. Porter Airways also provides air service between Timmins and the Toronto Billy Bishop Airport. The Timmins and District Hospital is a major referral health care centre for northeastern Ontario.

The property is accessible by Highways 101 and 144 and is in close proximity to the main hydro grid transmission line. An experienced mining labour pool is accessible in the Timmins area.

To the best of the author's knowledge, there are sufficient surface rights, a willing and skilled labour pool, and readily available infrastructure to carry on a mining operation.

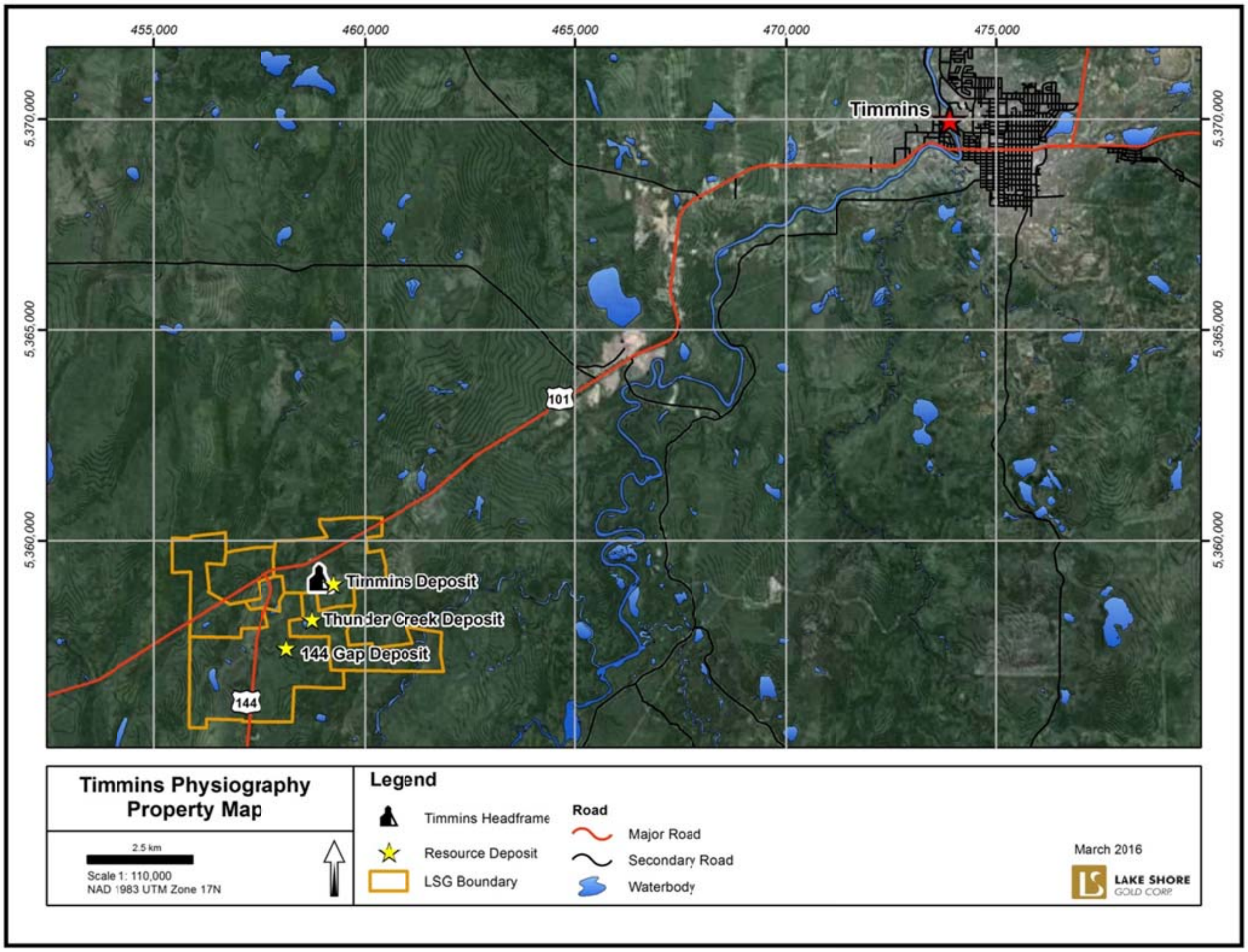
5.4 Physiography

The TWM property generally exhibits low to moderate relief. The elevation of Highway 101 as it traverses the property varies from 308 metres in the east to 320 metres in the west; at the junction of Highways 144 and 101, the elevation is approximately 312 metres. The peak height of land on the property is 353 metres located at UTM co-ordinate 458,879.9m east and 5,357,321.5m north. The elevation of the Tatachikapika River (historically known as the Lost and/or Redsucker River) ranges from 300 to 292m as it flows east-northeast to the northerly flowing Mattagami River. Outcrop exposure varies between five (5) to fifteen (15) percent. Figure 5-1 illustrates the claim boundary of the TWM property relative to the City of Timmins and draped over a landsat panchromatic image of the area.

The continental climate and the location on the Canadian Shield give rise to a plant hardiness zone 2a which supports the following boreal forest tree species and a timber, pulp and paper industry. In no particular order of significance local trees species include: American Mountain-Ash (Sorbus Americana), Balsam Fir (Abies Balsamea), Black Spruce (Pincea Mariana), Eastern White Cedar (Thuja Occidentalis), Eastern White Pine (Pinus Strobus), Jack Pine (Pinus Banksiana), Pin Cherry (Prunus Pensylvanica), Red Pine (Pinus Resinosa), Tamarack (Larix Laricina), Trembling Aspen (Populus Tremuloides), White Birch (Betula Papyrifera) and White Spruce (Pincea Glauca).

Hawley, J.E., (1926) points out that a large part of Ogden, Bristol and Carscallen Townships were swept by several forest fires dating back to 1911. Darling et al. (2007) state the Provincial Forest Resources Inventory stand numbers provided by TEMBEC indicated that most of the forestry related disturbance to the TWM Complex are occurred approximately 20 years ago, and that the forest communities are composed of poplar, jack pine, white birch, black spruce, and white spruce.

Figure 5-1: PHYSIOGRAPHY



6.0 HISTORY

6.1 Prior Ownership

LSG acquired the TWM property by fulfilling the earn-in requirements as set out in option agreements with Holmer Gold Mines Limited and West Timmins Mining Inc. (formerly Band-Ore Resources Limited and Sydney Resources Ltd., respectively) and by completing business combination agreements with those companies. Holmer Gold Mines Limited became a wholly-owned subsidiary of LSG in December 2004, and West Timmins Mining Inc. became a wholly-owned subsidiary in November 2009.

6.2 General History

The discovery of gold in Bristol Township on the McAuley-Brydge property (currently Tahoe Canada's Timmins West Mine) occurred in 1911. At the time, only a few claims were staked within the Bristol Township area. The 1912 geology map (ARM-21a) by A.G. Burrows and W.R. Rogers illustrated three claims (TC612, TC613, and TC614) at the McAuley-Brydge occurrence plus four claims in the vicinity of the Rusk occurrence (HR1187, HR1188, HR1189, and HR1191). Map ARM-21a illustrates only one patented claim in the Gold River mineralized trend area. Claim HR 1257, straddles the Tatachikapika River which divides the Gold River West from the Gold River East mineralized zones on the Company's Gold River property. At that time, a small cluster of claims surrounded the power dam at Wawaitin Falls. The building of the power dam resulted in flooding the Mattagami River and forming of Kenogamissi Lake. Access to the Tatachikapika River was via a couple of portages west from Kenogamissi Lake.

The 1911 fire storms swept large parts of Carscallen, Bristol and Ogden Townships. The surface plants at Hollinger, Dome, West Dome, Vipond, Standard, Preston, East Dome, and North Dome mines were completely destroyed. South Porcupine, parts of Pottsville and the north part of Porcupine were also destroyed (Burrows, A.G., 1915, Hawley, J.E., 1926).

The following table (Table 6.1) highlights the chronology of significant exploration and provincial geological survey mapping events, surveys, and reports carried out over and surrounding the Timmins West Mine area.

Table 6-1: CHRONOLOGY OF EVENTS FOR THE TIMMINS WEST MINE AREA

Date	Description
1911 – 1914	Gold was discovered on the McAuley-Brydge property and two shafts were sunk; the deepest was 12 metres deep (Timmins Mine original surface showing - Main Zone and Hanging wall Veins).
1912	Ontario Bureau of Mines published map ARM-21a Map of the Porcupine Gold Area, District of Timiskaming, A.G. Burrows and W.R. Rogers.
1926	Ontario Bureau of Mines published map ARM35G, The Townships of Carscallen, Bristol, Ogden, District of Cochrane, Ontario, Annual Report Map, J. E. Hawley.
1927	Ontario Department of Mines published Annual Report Volume ARM35-06.001, Geology of Ogden, Bristol, and Carscallen Townships, Cochrane District, J. E. Hawley.

Date	Description
1938 – 1944	Orpit Mines Limited acquired the claims and completed 7,620 metres of diamond drilling.
1941	Rusk Porcupine Mines excavated several pits and trenches across a 150 metre to 200 metre area of the Thunder Creek portion of the property. The gold discovery pit was 1.2 metres x 1.2 metres and returned values of $24.85 over 121.9 cm, $15.05 over 76.2 cm and $8.41 over 91.4 cm (T-File 542). The 1941 London Fix average price for gold was $33.85 (US) an ounce. Eighteen diamond drill holes totalling 1,981 metres were also completed.
1945	Piccadilly Porcupine Mines acquired the property and completed 4,983m of diamond drilling.
1946	Gold is reported from a diamond drill hole to the northwest of the Timmins West Mine on the O'Shea claim group (now referred to as the Meunier-144 property).
1953	Standwell Oil and Gas Ltd. acquired the property.
1957	Ontario Department of Mines published map 1957-07, Bristol Township, District of Cochrane, S.A. Ferguson.
1958	Hollinger Mines Ltd. completed seven diamond drill holes in the northern portion of the Thunder Creek property area. No assays were reported.
1959	Ontario Department of Mines published Annual Report Volume ARV66-07, Geology of Bristol Township, Annual Report Volume S.A. Ferguson.
1959	Ontario Department of Mines published preliminary map P0029, Thorneloe Township, S.A. Ferguson, W.D. Harding.
1959	Paul Meredith purchased the "Standwell Oil" property.
1963	The property is transferred to Holmer Gold Mines Ltd.
1964	United Buffadisson Mines Limited optioned the property from Holmer; constructed a road from Highway 101 to the Main Showing, and completed ten boreholes (2,116 metres). United Buffadison Mines Limited interpreted the gold mineralization to be associated with stacked north dipping en-echelon quartz veins. The property was returned to Holmer Gold Mines Ltd.
1968 – 1981	Holmer diamond drilled 45 boreholes totalling 10,512 metres. The geological interpretation of the day indicated two mineralized zones: the "Main" Zone (also referred to as the "Western Zone") and the "Shaft" Zone (also referred to as the "Eastern Zone"). A historically significant, but non 43-101 compliant "probable reserve" of 720,000 tons grading 0.124 oz. per ton gold (653,000 tonnes grading 4.25 grams per tonne gold) was estimated. Additional surface exploration included ground geophysical surveys (magnetometre and VLF) and limited diamond drilling.
1980	Falconbridge Nickel Mines Ltd. carried out metallurgical analysis of samples provided by Jim Croxall for the Thunder Creek property.
1980	Ontario Geological Survey published preliminary map P2360, Quaternary geology of the Timmins Area, District of Cochrane, C.M Tucker, D. Sharpe.
1981	Preussag Canada Limited completed geophysical surveys in Bristol and Thorneloe Townships including magnetometre, VLF-EM, HLEM and Induced Polarization ("IP"). Ten diamond drill holes (613.9 metres) were bored. Adjacent holes, 64 metres apart, intersected 2.57 grams gold per tonne over 2.43 metres, and 4.46 g/tonne gold over 4.6 metres in an area of the Rusk Showing.
1982	Ontario Geological Survey published map, M2455, Timmins, Precambrian Geology, Map, D. R. Pyke.
1982	Ontario Geological Survey published preliminary map P2502, Precambrian geology of Thorneloe Township, District of Cochrane, A. G. Choudhry.
1984	Noranda Exploration Company Limited ("N.P.L."), (Norex) optioned the Holmer property and completed a "regional" airborne magnetic and electromagnetic survey, follow-up ground geophysics, and drilled four boreholes totalling 1,465 metres. Norex interpreted a historically significant, non 43-101 compliant, resource estimate of 785,000 tonnes grading 2.4 grams per tonne gold. This included a core of better grade mineralized material estimated to be 159,000 tonnes grading 4.46 grams per tonne gold. The property was returned to Holmer.

Date	Description
1984 – 1985	Noranda Exploration Company Ltd. ("N.P.L.") also completed geological mapping, humus geochemical sampling, and outcrop mechanical stripping and trenching in the Thunder Creek property area. The best assays returned in the trenching were 2.86 g/tonne Au and 5.54 g/tonne Au. Nine overburden, reverse circulation drilling and three diamond drill holes (332.3 metres) were also completed with no assay results reported.
1987	Chevron Minerals Ltd. optioned the Holmer property and completed line cutting, ground geophysics (magnetic, VLF, IP surveys), and geological mapping. A large area of the Main Zone and Hanging wall Veins was stripped, channel sampled and mapped. Twenty-nine (29) diamond drill holes (totalling 6,115 metres) were completed, testing the mineralization to a vertical depth of 360 metres. The property was subsequently returned to Holmer.
1987	Highwood Resources Ltd. optioned a portion of the Thunder Creek property from J. Croxall. Four diamond drill holes (400 metres) testing geophysical targets were bored. No assay results are reported.
1989	Ontario Geological Survey published open file report OFR5699, The Geology of Keefer, Denton and Thorneloe Townships, District of Cochrane, A. G. Choudhry.
1992	Ontario Geological Survey published open file report OFR5829, Geology of the Kamiskotia Area, C.T. Barrie.
1994	Noranda Exploration Company Ltd. ("N.P.L.") carried-out line cutting, IP and ground magnetometre surveys in the Thunder Creek and Highway-144 property areas. A single diamond drill hole (totalling 302 metres) was completed with no assay results reported.
1995	Hemlo Gold Mines Inc. funded work carried out by Norex on the Thunder Creek and Highway-144 project areas. Surveys include line cutting, magnetometre and IP. Seven diamond drill holes (95-2 to 95-8; 1,581 metres) were drilled with no significant assays reported.
1996	Band-Ore Resources Ltd. makes gold discoveries on their Thorneloe property and renewed gold exploration in Bristol and Thorneloe townships.
1996 – 1997	Holmer carried out an exploration program which included ground geophysics (VLF, magnetometre, and IP), humus sampling, geological mapping and rock sampling. A total of 66 drill holes (25,380 metres) were completed, 54 of which were directed to expand "resources" in the "Main" Zone area; 12 holes were drilled to test geophysical anomalies elsewhere on the property.
1997	Battle Mountain Canada Limited continued to explore the Thunder Creek – Mahoney Creek area. Fourteen diamond drill holes (3,547 metres) tested stratigraphy and geophysical targets. Drill hole MC 97-20 returned an assay value of 5.9 g/tonne Au over 1 metre. Hole MC 97-26 intersected a few anomalies, including 1.28 g/tonne Au over 2 metres. The property was returned to Band-Ore.
1998	Holmer Gold Mines Ltd. drilled 22 boreholes (3,923 metres) to test the continuity of mineralization at shallow depths.
1999	St. Andrew Goldfields Ltd. ("St. Andrew") drilled ten boreholes (1,341 metres) exploring the potential for an open pit deposit.
2000	Ontario Geological Survey published preliminary map P3396, Geology of the Kamiskotia Area, C.T. Barrie.
2000	Ontario Geological Survey published geological circular study S059, Geology of the Kamiskotia Area, C.T. Barrie.
2001	Ontario Geological Survey published preliminary map P2582 Quaternary Geology of the Dana, Lake Area, Cochrane, Timiskaming area, C. M. Tucker, J. A. Richard; Map M2660, Quaternary Geology of Dana Lake Area, Map, C. M. Tucker, J. A. Richard; Map M2662 Quaternary Geology of Timmins Area, C. M. Tucker, J. A. Richard; and Preliminary map P3436, Precambrian Geology, Timmins West, Bristol and Ogden Townships, C. Vaillancourt, C.L. Pickett, E. R. Dinel.
2002	Ontario Geological Survey published open file report OFR6101, Toward a New Metamorphic

Date	Description
	Framework for Gold Exploration in the Timmins Area, Central Abitibi Greenstone Belt, P. H. Thompson.
2002	Holmer completed a closely spaced (25m centers) 22 hole diamond drill program totalling 5,220 metres. A Mineral Resource estimate was produced which was audited and revisited by Watts, Griffis and McOuat as 422,000 tonnes grading 13.68 grams per tonne gold in the Indicated category and 270,000 tonnes grading 9.0 grams per tonne gold in the Inferred category.
2003	Lake Shore Gold Corp. entered into an option agreement with Holmer Gold Mines Limited that allows Lake Shore to earn 50% of the Holmer property by May 26, 2006. In November 2003 Lake Shore enters into an agreement with Band-Ore Resources Ltd. to earn a 60% interest in the Thunder Creek property.
2003	Fugro completed an airborne magnetic survey (237 km) over the Timmins Mine claims for LSG (Soltanzadeh & Griffith, 2003).
2004	LSG completed outcrop stripping, geological mapping, and grab/channel sampling (103 samples collected) on the Thunder Creek property (Hocking and Marsden, 2004).
2004	LSG completed Mobile-Metal-Ion ("MMI") soil geochemical survey (830 samples collected) on the Thunder Creek property (Hocking and Marsden, 2004).
2004	In September, LSG released an updated resource estimate (see Item 6.3) and thereby completed its earn-in option agreement with Holmer. In December, LSG acquired all outstanding shares of Holmer, giving it 100% ownership of the property, then referred to as the Timmins Gold Project (currently hosting the "Timmins Deposit").
2005	Ontario Geological Survey published open file report OFR6155, Geological Setting of Volcanogenic Massive Sulphide Mineralization in the Kamiskotia Area, Discover Abitibi Initiative, B. Hathway, G. Hudak, M. A. Hamilton; OFR6154, Overview of Results from the Greenstone Architecture Project, Discover Abitibi Initiative, J. Ayer et al.; and miscellaneous release – data MRD186, Integrated GIS Compilation of Geospatial Data for the Abitibi Greenstone Belt, North-eastern Ontario, Discover Abitibi Initiative.
2005	Abitibi Geophysics completed airborne magnetic (60km) and IP (45km) geophysical surveys over the Thorneloe, Denton and Carscallen townships for the Porcupine Joint Venture. A few diamond drill holes containing values between 0.5-3.0 g/t over narrow intervals were completed.
2006	LSG completed outcrop stripping, geological mapping, and grab/channel sampling (135 samples collected) in three target areas on the Thunder Creek property (J. Samson, 2008).
2006	In May, the company initiated the application permit process for advanced underground exploration programs. In December, LSG released another updated resource estimate for the Timmins Gold Project (see Item 6.3).
2007	In April 2007, the Company received government approval of the closure plan application and receipt of related permits required to proceed with the program. In August, LSG reported mineral reserves and a positive pre-feasibility study for the Timmins West Project (formerly named the "Timmins Gold Project"). In December, LSG also completed the requirements to vest a 60% interest in the Thunder Creek property from West Timmins Mining (formerly Band-Ore Resources Limited and Sydney Resources Corporation).
2008 (- 2013)	Lithogeochemical and stable isotope study (with emphasis on correlation to gold mineralization) initiated in Bristol and Thorneloe Townships as part of M.Sc thesis (Z. Stevenson and Dr. E.H. van Hees, Wayne State University, 2013).
2009	Adventure Gold Inc. completed three shallow drill holes (1,229 metres) on the Meunier-144 property. No significant results were reported.
2009	LSG completed geological mapping over a 5 km2 area surrounding the Rusk surface showing on the Thunder Creek property (Internal memorandum and maps; Camier, 2009).
2009	In November, LSG acquired the outstanding shares of West Timmins Mining Inc., thereby acquiring 100% of the Thunder Creek property. This business combination triggered an update to

Date	Description
	the Mineral Resource and Mineral Reserve for the Timmins Deposit. The exploration emphasis of the Thunder Creek project changed from anomaly testing to systematic definition drilling.
2010	In-depth regional compilation (including analysis and interpretation of available government and private geophysical surveys) for project generation and targeting initiatives completed by consultants on behalf of LSG (Internal memorandum and catalog of occurrences; L. Reed and D. Power, June 2010).
2010	Abitibi Geophysics completed resistivity/pole-dipole IP (45 km), and ground magnetic (82 km) surveys over the Thunder Creek area for LSG as part of the Tailings Site condemnation program.
2010	JVX Geophysics completed 3-D downhole spectral IP survey in 9 drill holes on the Timmins Mine and Thunder Creek properties for LSG (Internal report, 2010).
2010	LSG and RT Minerals Corp. ("RTM") entered into an option agreement with Adventure Gold Inc. for each to earn-in 25% interest in the Meunier-144 property. A "deep drilling exploration program" targeting the extension at depth of the Timmins Deposit was completed (4,038 metres). Mineralization was weak and most significant results included 1.46 g/t Au over 1.60 metres, 2.26 g/t Au over 0.60 metres, and 1.34 g/t Au over 1.00 metre (see Item 9). Through some business arrangements in 2013, LSG now has a 50% vested interest in the property (see Item 4). LSG also has an option to increase its interest to 60% by completing a PEA.
2011	Ontario Geological Survey published miscellaneous data – release MRD282 Geological Compilation of the Abitibi Greenstone Belt, J. A. Ayer, J. E. Chartrand; miscellaneous release – data MRD285 Lithogeochemical Data for Abitibi Subprovince Intermediate to Felsic Intrusive Rocks, G. P. Beakhouse; and open file report OFR6268 The Abitibi Subprovince Plutonic Record: Tectonic and Metallogenic Implications, G. P. Beakhouse.
2011	In January, commercial production was declared for the Timmins Deposit. In November, LSG released an initial resource estimate for the Thunder Creek Project.
2012	In January, commercial production was declared for the Thunder Creek Deposit. Subsequently, the Timmins and Thunder Creek Deposits were combined into a single operation called the Timmins West Mine. In March, LSG filed an updated mineral resource estimate for the Timmins Deposit, including a Preliminary Economic Assessment ("PEA") for the Timmins West Mine. In May, LSG released a Pre-feasibility Study and Mineral Reserves (see Item 6.3).
2012	JVX Geophysics completed Clarity3D DSIP/Resistivity survey in 6 drill holes on the Thunder Creek and Highway-144 properties for LSG (Internal report, 2012).
2013	In March, LSG reported updated reserve and resource estimates for the Timmins West Mine (see Item 6.3).
2013	Updated compilation, re-processing, and interpretation of regional and property-scale geophysical data completed by consultant on behalf of LSG (Internal memorandum; L. Reed, 2013).
2014	In March, LSG reported updated reserve and resource estimates for the Timmins West Mine (see Item 6.3).
2014	LSG announced the discovery of the 144 Gap Deposit with the intersection of wide, high-grade gold mineralization (HWY-14-48: 5.37 gpt over 46.0 metres) confirming anomalous results from earlier (2012) diamond drilling at the Highway-144 property (Press Release dated October 07, 2014).
2015	LSG reported significant expansion of the 144 Gap Deposit through continued surface diamond drilling. With the completion of an underground exploration drift driven to the southwest from the Thunder Creek deposit, the focus of exploration efforts at the Highway-144 property was changed to systematic definition drilling of the new 144 Gap Deposit.
2016	LSG announced an initial resource using a 2.6 g/t cutoff grade of 301,700 ounces in Indicated category (1,734,000 tonnes at average grade of 5.41 gpt) and 319,200 ounces in Inferred category (1,914,000 tonnes at average grade of 5.19 gpt) at the 144 Gap Deposit (Press Release dated February 08, 2016).

Date	Description
2016	In March, LSG reported updated resource and reserve estimates for the Timmins West Mine (see Item 6.3).
2016	Tahoe Resources Inc. acquired LSG in April, with LSG *dba* Tahoe Canada becoming a wholly-owned subsidiary of Tahoe.

6.3 Historical Resource Estimates

6.3.1 Historically Significant Mineral Resource Estimates

The following mineralization estimates were not reported in accordance with NI 43-101 or estimated by a Qualified Person, but are considered historically significant in keeping exploration interest active and continuing to entice companies to explore, better define, and outline the gold bearing system at the Timmins West Mine. These estimates have not been validated, are not considered to be current, and are quoted from the documents referenced.

1946: The earliest record found to attempt a mineralization estimate is stated in Ontario Department of Mines, Mineral Resource Circular No. 13, p. 50, which references Survey of mines 1946, p 152. Describes the Orpit property: "Results of drill holes 32, 41, 42, 45, and 46 indicated a zone of 200 feet in length, 50 feet in width, which averaged 0.16 ounces of gold per ton. Indicated reserves were estimated at 300,000 tons between a depth of 400 feet and 800 feet."

1968-1981: Holmer Gold Mines Ltd. estimated a "probable reserve" of 720,000 tons grading 0.124 oz. per ton gold (653,000 tonnes grading 4.25 grams per tonne gold) (Watts, Griffis and McOuat Limited, 2004).

1984: Norex interpreted a resource estimate of 785,000 tonnes grading 2.4 grams per tonne gold. This includes a core of better grade mineralized material estimated to be 159,000 tonnes grading 4.46 grams per tonne gold (Watts, Griffis and McOuat Limited, 2004).

6.3.2 Mineral Resource Estimates Reported in Accordance with NI 43-101

In 2002, a Mineral Resource estimate completed by Holmer and audited and revised by Watts, Griffis and McOuat Limited ("WGM") included 422,000 tonnes grading 13.7 grams gold per tonne (g/t) in the Indicated category and 207,000 tonnes grading 9.0 g/t in the Inferred category (WGM, 2004)

In 2004, WGM audited a Mineral Resource estimate prepared by LSG. WGM revised the resource estimate by lowering the cap on high assays in the Footwall Zone and transferring some Indicated Resource blocks into the Inferred category. The estimate used a 6.0 g/t Au cut-off, and a 50 g/t cap (except in the Footwall Zone where a 30 g/t Au cap was used). The estimate included an Indicated Resource of 1,369,000 tonnes grading 10.9 g/t gold (cut grade) and 16.5 g/t gold (uncut grade), with an

Inferred Resource of 200,000 tonnes grading 8.7 g/t gold (cut grade) and 12.4 g/t gold (uncut grade), and an additional Inferred Resource grading between 3.0 and 6.0 g/t is 1.0 Mt at 4.1 g/t gold. Total contained ounces with a cut grade of 6.0 g/t Au in the Inferred and Indicated categories was estimated to be 538,000 ounces gold (804,000 ounces gold uncut), (WGM, 2004).

In November 2006 WGM audited an updated Mineral Resource estimate prepared by LSG. The audit validated the assay data, the construction of polygons, and the resulting tonnages and grade. The estimated Indicated and Inferred Mineral Resources for the TWM on October 31, 2006, are summarized in Table 6.2.

Table 6-2: WGM MINERAL MINERAL RESOURCE ESTIMATE, OCTOBER 31, 2006

Classification / Zone	Grade Cut to 3.0 g/t Au		Contained Gold (ounces)	Uncut Grade (g/t)	Top Cut Grade (g/t)
	Tonnes	Grade (g/t)			
Indicated					
Vein Zone	346,000	9.9	110,000	17.6	50
Footwall Zone	1,185,000	7.3	277,100	7.6	30
Ultramafic Zone	1,737,000	9.3	517,600	14.5	50
Total Indicated	3,268,000	8.6	905,000	12.3	
Inferred					
Vein Zone	543,000	5.7	99,100	7.3	50
Footwall Zone	340,000	5.9	65,000	6.3	50
Ultramafic Zone	85,000	3.9	10,600	3.9	50
Total Inferred	968,000	5.5	174,700	5.8	

Note: Inferred Mineral Resources are reported in addition to Indicated Mineral resources (WGM, 2007).

In 2007, SRK Consulting Canada Inc. estimated the Probable Mineral Reserve at 3,387,000 tonnes grading an average 7.6 g/t Au, containing 826,000 oz. gold.

In August 2009 LSG and West Timmins Mining Inc. agreed to a business combination which triggered an update to the NI 43-101 Technical Report on the project. The 2009 update is summarized inTable 6.3.

Table 6-3: LSG UPDATED MINERAL RESOURCE OF SRK POLYGONAL RESOURCE AND STANTEC MINERAL RESERVE, AUGUST 2009 (DARLING ET AL., 2009)

Classification	Grade Cut to 3.0 g/t Au		Contained Gold (ounces)	Uncut Grade (g/t)
	Tonnes	Grade (g/t)		
Indicated Resource	3,200,000	8.6	893,000	12.2
Inferred Resource	890,000	5.7	165,000	
Probable Mineral Reserve	3,358,000	7.5	812,006	

In November 2011, LSG completed the first Mineral Resource estimate for the Thunder Creek Deposit of the TWM and is summarized in Table 6.4.

Table 6-4: LSG INITIAL MINERAL RESOURCE ESTIMATE FOR THE THUNDER CREEK DEPOSIT (CRICK ET AL., 2011)

Deposit	Resource Classification	Grade Cut to 2.0 g/t Au		Contained Gold (ounces)
		Tonnes	Grade (g/t)	
Thunder Creek	Indicated	2,877,000	5.6	521,600
	Inferred	2,693,000	5.9	510,000

In February 2012, LSG released a PEA and updated Mineral Resource estimate for the TWM, combining the Timmins and Thunder Creek Deposits as summarized inTable 6.5.

Table 6-5: LSG UPDATED MINERAL RESOURCE ESTIMATE FOR TIMMINS WEST MINE (CRICK ET AL., 2012A)

Deposit	Resource Classification	Capped Grade		Contained Gold (ounces)
		Tonnes	Grade (g/t)	
Timmins	Indicated	2,949,000	6.3	600,900
	Inferred	1,579,000	5.5	281,500
Thunder Creek	Indicated	2,877,000	5.6	521,600
	Inferred	2,693,000	5.9	510,000
Total Timmins West Mine	Total Indicated	5,826,000	6.0	1,122,500
	Total Inferred	4,272,000	5.8	791,500

Notes:

1. *Cut-off grade of 1.5 g/t Au for the Timmins Deposit, and 2.0 g/t Au for the Thunder Creek Deposit.*
2. *Effective Date of October 28, 2011 for Thunder Creek Deposit, and January 31, 2012 for the Timmins Deposit.*

In May 2012, a Pre-feasibility Study and Mineral Reserve estimate was released. The Mineral Reserves were based on Indicated Mineral Resources included in revised block models prepared by LSG and validated by SGS Geostat. The mineral reserve estimate is summarized in Table 6.6.

Table 6-6: LSG MINERAL RESERVE AND INDICATED RESOURCE ESTIMATE FOR TIMMINS WEST MINE (CRICK ET AL., 2012B)

Deposit	Classification	Capped Grade		Contained Gold (ounces)
		Tonnes	Grade (g/t)	
Timmins Deposit	Probable Reserve	2,249,658	5.6	405,885
Thunder Creek	Probable Reserve	2,672,522	4.9	417,963
Total Timmins West Mine	Total Probable Reserve	4,922,180	5.2	823,848
Timmins Deposit	Indicated Resource	2,124,000	7.9	541,700
Thunder Creek	Indicated Resource	2,053,000	7.0	463,000
Total Timmins West Mine	Total Indicated Resource	4,177,000	7.5	1,004,700

Notes:

1. *Cut-off grade of 3.0 g/t Au.*
2. *Effective Date of October 28, 2011 for Thunder Creek Deposit, and January 31, 2012 for the Timmins Deposit.*
3. *Indicated Resources are inclusive of Reserves.*

In March 2013, LSG published another updated Mineral Resource and Mineral Reserve estimate in connection with the filing of its 2012 Annual Information Form. The results are summarized in Table 6.7.

Table 6-7: LSG MINERAL RESERVE AND RESOURCE ESTIMATE FOR TIMMINS WEST MINE, AT YEAR-END 2012 (AIF 2012; PRESS RELEASE DATED MARCH 18, 2013)

Deposit	Classification	Capped Grade		Contained Gold (ounces)
		Tonnes	Grade (g/t)	
Total Timmins West Mine	Probable Reserve	4,811,000	5.2	798,000
	Indicated Resource	5,978,000	5.5	1,061,000
	Inferred Resource	3,549,000	5.4	615,000

Notes:

1. *Mineral reserves are estimated at a cut-off grade of 3.0 g/t Au.*
2. *Mineral resources are estimated at a cut-off grade of 1.5 g/t Au.*
3. *Indicated Resources are inclusive of Reserves.*
4. *Reserves account for a depletion of 64,177 ounces in 2012.*

In March 2014, LSG released an updated Mineral Resource and Mineral Reserve estimate in conjunction with the filing of an updated NI 43-101 report for the TWM. The results are summarized in Table 6.8.

Table 6-8: TIMMINS WEST MINE MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES, MARCH 2014

Deposit	Classification	Capped Grade		Contained Gold (ounces)
		Tonnes	Grade (g/t)	
Timmins Deposit	Probable Reserve	1,540,344	4.6	227,707
	Indicated Resource	1,893,497	5.16	314,153
	Inferred Resource	2,075,079	5.67	378,516
Thunder Creek	Probable Reserve	1,791,821	4.6	264,539
	Indicated Resource	2,470,674	5.02	400,480
	Inferred Resource	863,633	5.02	137,823
Total Timmins West Mine	Probable Reserve	3,332,164	4.6	492,246
	Indicated Resource	4,364,171	5.09	714,633
	Inferred Resource	2,938,712	5.46	516,339

Notes:

1. *Sums may not add due to rounding.*
2. *CIM definitions were followed for classification of Mineral Resources.*
3. *Capped gold grades are used in estimating the Mineral Resource average grade.*
4. *The estimate includes low grade material which is not in the current mine plan.*
5. *Mineral Reserves are estimated at a cut-off grade of 2.8 g/t Au.*
6. *Mineral Resources are estimated at a cut-off grade of 1.5 g/t Au.*
7. *Indicated Resources are inclusive of Reserves.*
8. *Weighted average gold price was assumed at US$1,000 per ounce (approx. CAD$1,150).*
9. *Metallurgical recoveries are assumed to average 96.0 percent.*

In February 2016, LSG released an updated Mineral Resource and Mineral Reserve estimate in conjunction with the filing of an updated NI 43-101 report for the TWM. The results are summarized in Table 6.9.

Table 6-9: TIMMINS WEST MINE MINERAL RESOURCE & MINERAL RESERVE ESTIMATES, FEBRUARY 2016

Deposit	Classification	Capped Grade		Contained Gold (ounces)
		Tonnes	Grade (g/t)	
Timmins Deposit	Probable Reserve	1,397,000	4.4	195,500
	Indicated Resource	1,816,000	5.1	296,000
	Inferred Resource	606,000	4.8	92,600
Thunder Creek	Probable Reserve	1,498,000	4.1	196,300
	Indicated Resource	2,225,000	4.3	305,700
	Inferred Resource	151,000	3.6	17,500
Highway - 144	Indicated Resource	1,734,000	5.4	301,700
	Inferred Resource	1,914,000	5.2	319,200
Total Timmins West Mine	Probable Reserve	2,895,000	4.2	391,800
	Indicated Resource	5,775,000	4.9	903,400
	Inferred Resource	2,671,000	5.0	429,300

Notes:
1. *Sums may not add due to rounding.*
2. *CIM definitions were followed for classification of Mineral Resources.*
3. *Capped gold grades are used in estimating the Mineral Resource average grade.*
4. *The estimate includes low grade material which is not in the current mine plan.*
5. *Mineral Reserves are estimated at a cut-off grade of 2.3 g/t Au*
6. *Mineral Resources are estimated at a cut-off grade of 1.5 g/t Au for Timmins and Thunder Creek Deposits and 2.6 g/t Au for Highway – 144 Deposit and include internal dilution to maintain zone continuity.*
7. *Indicated Resources are inclusive of Reserves.*
8. *Mineral reserves are based on a long-term gold price of US$1,000 per ounce and an exchange rate of 0.80 $US/$CAD.*
9. *Metallurgical recoveries are assumed to average 97.0 percent.*

On January 1, 2017, Tahoe Canada released an updated Mineral Resource and Mineral Reserve estimate in conjunction for the TWM. The results are summarized in Table 6-10.

Table 6-10 TIMMINS WEST MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES, JANUARY 2017

Indicated Mineral Resources

Deposit	Tonnes (M)	Gold (g/t)	Gold (koz)
Timmins	1.3	4.82	200
Thunder Creek	1.3	3.76	163
144 Gap	5.3	3.89	661
Total Indicated	7.9	4.02	1,023

Inferred Mineral Resources

Deposit	Tonnes (M)	Gold (g/t)	Gold (koz)
Timmins	0.5	4.71	83
Thunder Creek	0.1	4.03	17
144 Gap	0.7	3.72	80
Total Indicated	1.3	4.15	179

Probable Mineral Reserves

Deposit	Tonnes (M)	Gold (g/t)	Gold (koz)
Timmins	1.2	3.89	145
Thunder Creek	0.8	3.42	88
144 Gap	-	-	-
Total Indicated	2.0	4.15	233

1. The basis of the Mineral Resource and Mineral Reserve estimates is from *43-101 Technical Report, Updated Mineral Reserve Estimate for Timmins West Mine and Initial Resource Estimate for the 144 Gap Deposit, Timmins Ontario, Canada* dated February 29, 2016. Mineral Resources and Mineral Reserves at January 1, 2017 calculated by subtracting June through October 2016 mine depletion volumes and November through December 2016 forecasted production from an updated Mineral Resource estimate effective June 1, 2016
2. Mineral Resources are reported using a gold cut-off grade of 1.5 g/t.
3. Mineral Reserves are reported using a gold cut-off grade of 2.0 g/t and a gold price of $1250/oz.
4. Mineral Reserves are inclusive of Mineral Resources.

6.4 Historic Production

Prior to March 2009 there was no production activity at the TWM. Annual production figures for the TWM from March 2009 to May 15, 2017 (including the Timmins, Thunder Creek and 144 Gap Deposits) are summarized in Table 6-11 and Table 6-12. Production from the 144 Gap Deposit began in April 2016 and is summarized in Table 6-13

Table 6-11: TIMMINS DEPOSIT ANNUAL PRODUCTION FIGURES

Year	Deposit	Milled Tonnes	Grade (g/t)	Contained Ounces
2009	Timmins	72,899	3.3	7,745
2010	Timmins	261,294	5.3	44,492
2011	Timmins	337,582	3.8	41,673
2012	Timmins	264,545	3.8	32,564
2013	Timmins	313,679	5.0	50,170
2014	Timmins	401,937	4.5	58,414
2015	Timmins	433,913	4.5	63,419
2016	Timmins	298,007	3.6	34,948
Jan 1-May 15, 2017	Timmins	148,554	3.4	16,098
Totals	**Timmins**	**2,532,410**	**4.3**	**349,523**

Table 6-12: THUNDER CREEK ANNUAL PRODUCTION FIGURES

Years	Deposit	Milled Tonnes	Grade (g/t)	Contained Ounces
2010	Thunder Creek	2,824	5.4	490
2011	Thunder Creek	154,141	3.9	19,549
2012	Thunder Creek	272,402	3.9	33,748
2013	Thunder Creek	433,810	4.4	61,141
2014	Thunder Creek	569,294	4.8	88,192
2015	Thunder Creek	577,043	4.3	79,978
2016	Thunder Creek	505,660	4.3	69,910
Jan 1-May 15, 2017	Thunder Creek	169,478	4.8	26,397
Totals	**Thunder Creek**	**2,684,652**	**4.4**	**379,405**

Table 6-13: 144 GAP DEPOSIT ANNUAL PRODUCTION FIGURES

Years	Deposit	Milled Tonnes	Grade (g/t)	Contained Ounces
2016	HWY 144	120,840	4.0	15,548
Jan 1-May 15, 2017	HWY 144	65,549	3.8	7,716
Totals	**HWY 144**	**184,389**	**3.9**	**23,264**

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology and Structure

Supracrustal rocks in the Timmins region are assigned as members of nine tectonic assemblages within the Western Abitibi Subprovince, of the Superior Province. The seven volcanic and two sedimentary assemblages are of Archean age. Intrusions were emplaced during Archean and Proterozoic times. Tectonic assemblages of the Abitibi Subprovince, east of the Kapuskasing Structural Zone, are illustrated in Figure 7-1 (after Ayer J.A., Dubé, B., and Trowell, N.F., 2009). Table 7.1 is modified after Ayer (1999, 2000, 2003, 2005, 2011) and summarizes the characteristics of the assemblages from youngest to oldest.

There is a time span of 80 Ma between the volcanic eruption of the lower Pacaud assemblage (2750 Ma) and the sedimentation and volcanism of the upper Timiskaming Assemblage (2670 Ma). Each of the assemblages demonstrates a melt evolution from komatiitic or tholeiitic basalt, to felsic or calc-alkaline volcanics. In the Timmins West Mine area, only the Deloro [2730-2724 Ma (6 Ma)], Kidd-Munro [2719-2711 Ma (8 Ma)], Tisdale [2710-2704 Ma (6 Ma)], Porcupine [2690-2685 Ma (5 Ma)], and Timiskaming Assemblages [2676-2670 Ma (6 Ma)] are present. Revised age dates for the Porcupine Assemblage indicate that the felsic volcanism of the Krist Formation is coeval with emplacement of calc-alkalic felsic porphyries in Timmins (2692 ±3 to 2688 ±2 Ma).

Figure 7-2 shows the location of the property relative to the regional geology.

Regionally, deformation in the Timmins area is characterized by a sequence of early, pre-metamorphic folds lacking axial planar cleavage (D_1 and D_2) to a series of syn-metamorphic, fabric–forming events, which overprint the earlier folds (D_3 and D_4 events) and a later crenulation cleavage (D_5) (Rhys, 2010). The multi-phase Destor-Porcupine fault system passes approximately 5 kilometres to the south of the property. The fault system is a composite corridor of shear zones and faults that records at least two main stages of displacement: syn-Timiskaming (2680-2677 Ma) brittle faulting associated with truncation of early D_1 and D_2 folds, apparent sinistral displacement, and formation of half grabens that are locally filled with Timiskaming clastic sedimentary rocks; and the formation of syn-metamorphic D_3-D_4 high strain zones over a broad corridor generally several hundred metres wide. These shear zones record variable kinematic increments but are regionally dominated by sinistral with north side up displacement (Rhys, 2010).

Figure 7-1: TECTONIC ASSEMBLAGES OF THE ABITIBI SUBPROVINCE EAST OF THE KAPUSKASING STRUCTURAL ZONE (AFTER AYER, J.A., DUBÉ, B., TROWELL, N.F.; NE ONTARIO MINES AND MINERALS SYMPOSIUM, APRIL 16, 2009)

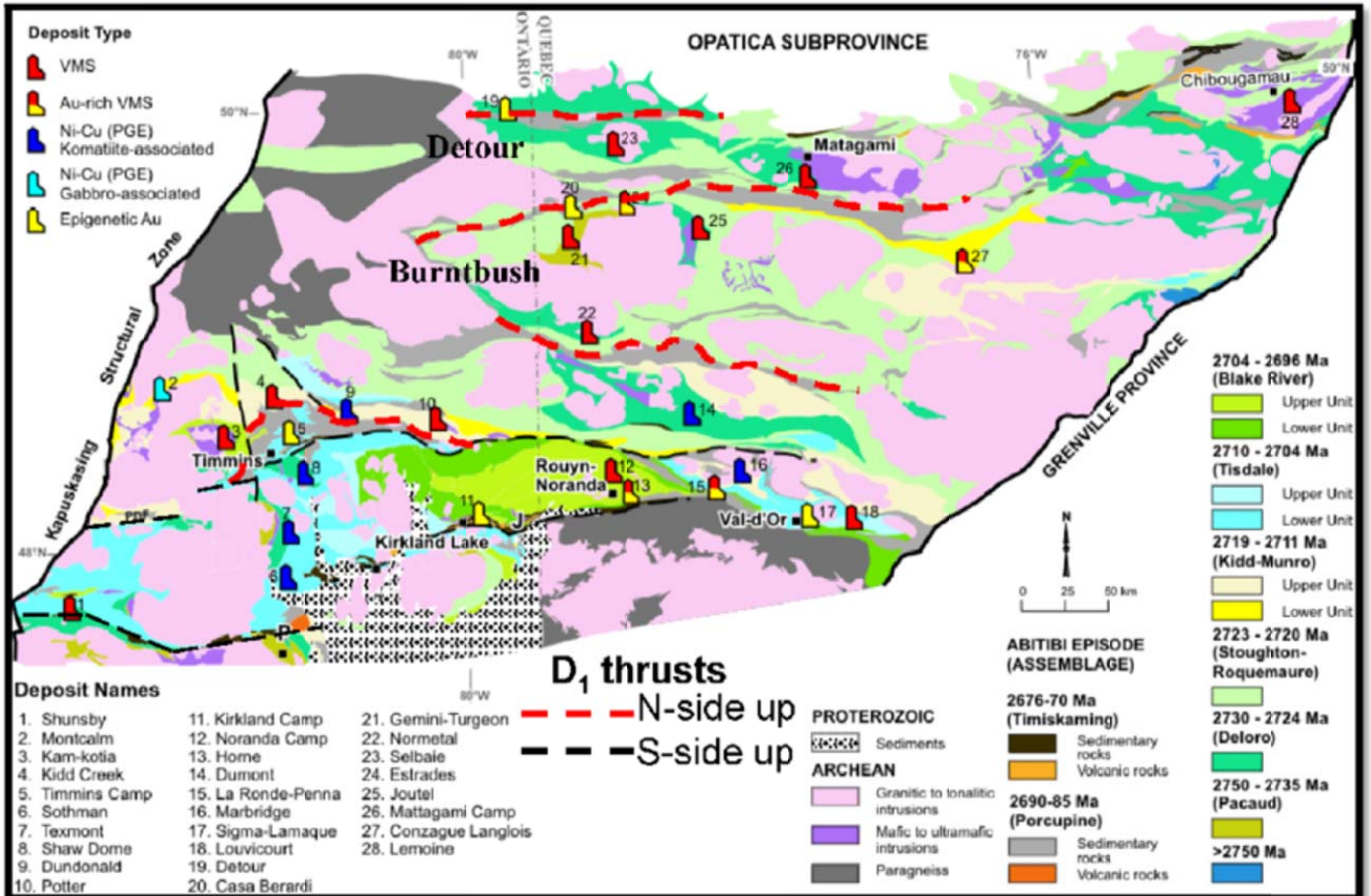
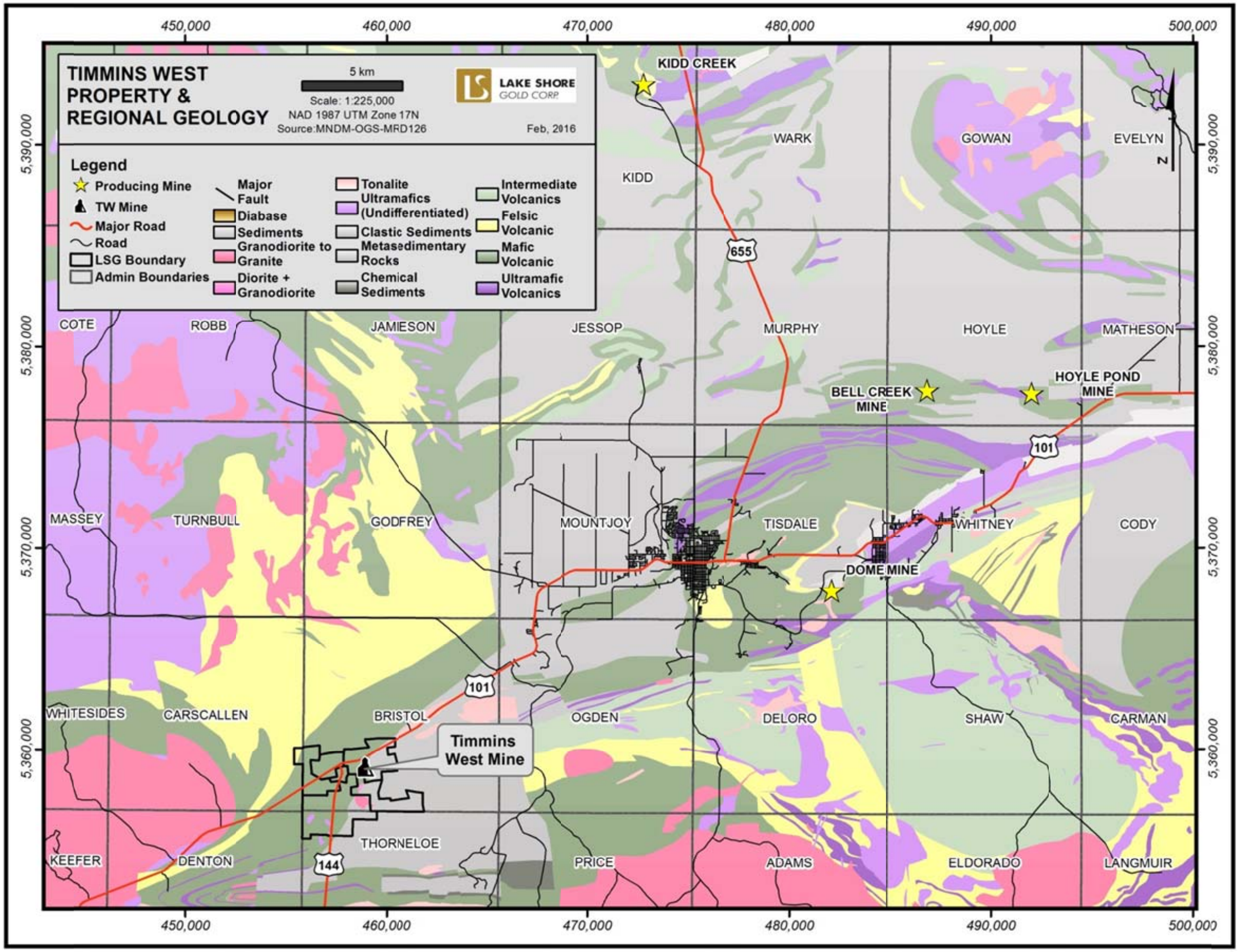


Table 7-1: TECTONIC ASSEMBLAGES

Assemblages	Description
Timiskaming Assemblage	Unconformably deposited from 2676- 2670 Ma (6 Ma) Conglomerate, sandstone, and alkalic volcanics Coeval Gold mineralization occurs near regional fault zones (PDF & CLLF) Two end member types Quartz veins (Timmins & Val d'Or) Sulphide rich Stockworks (Holloway Twp., Kirkland Lake, Matachewan Alkali Intrusive Complex (Thunder Creek) 2687 ±3Ma (Barrie, 1992)
Porcupine Assemblage	Age of 2690 – 2685 Ma (5 Ma) Turbidites with minor conglomerates & iron formation locally Krist Formation is coeval with calc-alkalic felsic porphyries 2691 ±3 to 2688 ±2 Ma
Blake River Assemblage	Upper and Lower Units Age of 2703 – 2696 Ma (7 Ma) Tholeiitic & Calc-alkaline mafic to felsic volcanics VMS deposits associated with F3 felsic volcanics at Noranda Syngenetic gold & base metals (Horne, Thompson Bousquet)
Tisdale Assemblage	Age of 2710 – 2704 Ma (6 Ma) Tholeiitic to komatiite suite Calc-alkaline suite VMS Deposit: Kamiskotia – tholeiitic volcanics, gabbros & F3 felsics Val d'Or – calc-alkaline volcanics & F2 felsics Sheraton Township area – intermediate-felsic calc-alkaline volcanics Ni-Cu-PGE: Shaw Dome, Texmont, Bannockburn
Kidd-Munro Assemblage	Age of 2719 – 2711 Ma (8 Ma) Tholeiitic to komatiitic Calc-alkaline suite VMS deposit: F3 felsic volcanics & komatiites (Kidd Creek) Tholeiitic-Komatiitic volcanism (Potter) Ni-Cu-PGE (Alexo)
Stoughton-Roquemaure Assemblage	Age of about 2723 – 2720 Ma (3 Ma) Magnesium and iron rich tholeiitic basalts Localized komatiites and felsic volcanics PGE mineralization in mafic-ultramafic intrusions and komatiites (Mann & Boston Townships)
Deloro Assemblage	Age of about 2730 – 2724 Ma (6 Ma) Mafic to felsic calc-alkaline volcanics Commonly capped by regionally extensive chemical sediments Two different types of VMS deposits F2 felsic volcanics and synvolcanic intrusion (Normetal) Localized sulphide-rich facies in regional oxide facies iron formations (Shunsby)
Pacaud Assemblage	Age of 2750 – 2735 Ma (15 Ma) Magnesium and iron rich tholeiitic basalt Localized komatiites and felsic volcanics

Figure 7-2: REGIONAL GEOLOGY MAP



7.2 Property Geology

The Timmins West Complex is dominated by mafic volcanic and sedimentary rocks which are interpreted to be from the Tisdale, Deloro and Porcupine Groups and occurring within a broad basin like feature which opens to the east (Figure 7-3). Rocks within the basin generally strike in an easterly direction and dip moderately to steeply northwards. Crosscutting the earlier rock units are a series of ultramafic to felsic intrusions including diabase dykes of several orientations. The most prominent are a northeasterly set of alkaline intrusives located on the north side of the metavolcanic-metasedimentary contact which are collectively termed the Alkaline Intrusive Complex ("AIC"). Key structural features of the property include the Destor Porcupine Fault Zone ("DPFZ") which passes through the south portion of the interpreted basin and as well as the 144 and Gold River Trends which occur on the north and south limbs. These two trends represent intense zones of alteration and deformation and are the host to all of the main gold occurrences identified on the property to date including the Timmins Deposit, Thunder Creek Deposit and 144 Gap Deposit.

7.2.1 Timmins Deposit Portion of the Timmins West Mine

The Timmins Deposit occurs at the northeast tip of the 144 Trend and interpreted to overlie an overturned fold nose formed at the contact between mafic metavolcanic rocks of the Tisdale assemblage and metasedimentary of the Porcupine assemblage (Figure 7-3 and Figure 7-4). The fold nose has a steep northwesterly plunge and been defined by drilling from surface to a minimum depth of 1,475 metres below surface. All gold mineralization identified and mined to date at the Timmins Deposit is located within or immediately adjacent to this structure.

The mafic volcanic rocks underlie the west portion of the mine area and include mainly fine-grained extrusive rocks which are massive in nature, but with local pillowed, vesicular, and flow breccia textures. Composed mainly of chlorite-feldspar ± calcite assemblages, these rocks are commonly dark green in colour, except where affected (bleached) by sericite-Fe-carbonate ± albite alteration and veining (*e.g.*, mineralized footwall-style zones proximal to the AIC). It is notable that these mafic volcanic rocks are often strongly magnetic, which has significant implications on tracking of drill hole orientations (see Items 11 and 12).

The metasedimentary rocks occur in the easterly portions of the deposit including the core of the Timmins Mine Fold Nose. The main sedimentary sequence is generally comprised of thinly to thickly bedded turbiditic greywacke, siltstone, and mudstone.

Poorly exposed at surface, the multi-phase AIC intrudes the Timmins Deposit stratigraphy at depth near the core of the Timmins Mine fold nose (Figure 7-4). The most common and texturally/mineralogically distinct phases include: 1) a fine- to coarse-grained pyroxenite; 2) a biotite-rich pyroxenite; 3) a porphyritic garnet-rich pyroxenite; 4) a fine-grained calcareous syenite; 5) fine-grained dykes with disseminated mafic minerals in a pinkish-brown matrix, often termed hornblende syenite, and; 6) a fine- to medium-grained equigranular monzonitic phase which appears to cut earlier phases. It is unclear whether these various phases are co-magmatic or form suites of significantly different ages. The main pyroxenite body is largely massive and only weakly foliated, but is cut in areas of high strain up to several metres wide. Within and in proximity to mineralized veins and structures (*i.e.*, UM-style zones), the various phases of pyroxenite are frequently bleached to greyish and/or buff (tan) brown colours with pervasive fine-grained Fe-carbonate and sericite (+ albite) alteration and abundant disseminated magnetite. In areas of moderate to high strain, finely laminated biotite-(chlorite)-calcite and selective hematite are the dominant alteration assemblage. The AIC in the Timmins Deposit is commonly intermingled with a highly deformed, fine-grained talc-chlorite altered komatiite in the fold closure area. At depth, this komatiitic unit separates the AIC into two lobes of dominantly pyroxenite with the main Ultramafic ("UM") Zones hosted in the western lobe and a series of smaller UM-style zones ("Sediment Sub-Zones") located in the eastern lobe (Figure 7-4 and Figure 7-5). Zones of high strain in the relatively incompetent komatiite unit, coupled with similar shear sense indicators in proximal sediments to the east within the "core" of the fold nose, are interpreted as defining the down-plunge position of the Holmer Shear Zone (Rhys, 2015; Figure 7-4), which was an important gold-related set of structures in both surface exposures and shallow mine levels.

Figure 7-3: PROPERTY GEOLOGY

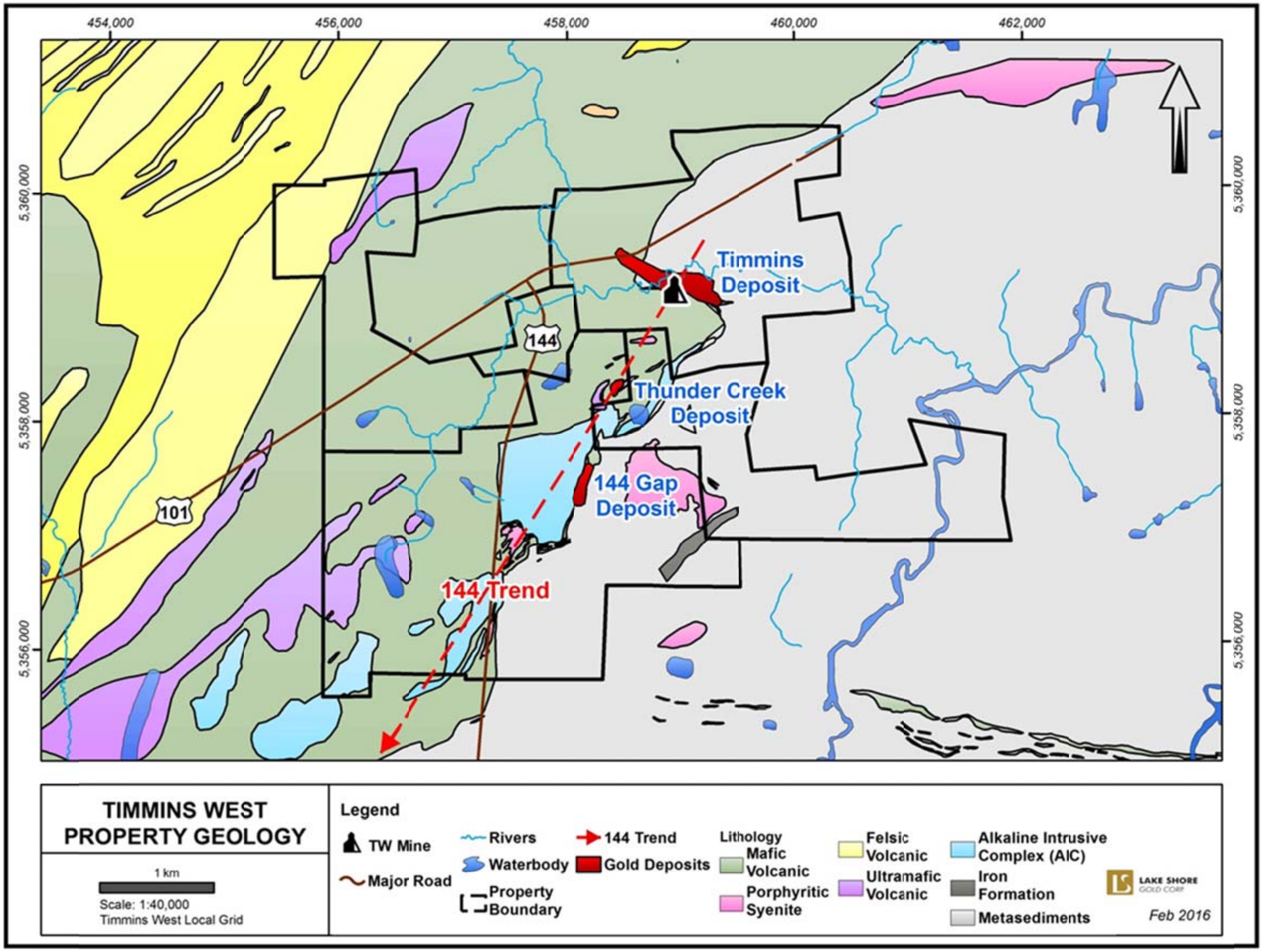


Figure 7-4: TIMMINS DEPOSIT UNDERGROUND GEOLOGY 790 M LEVEL (LOWER MINE)

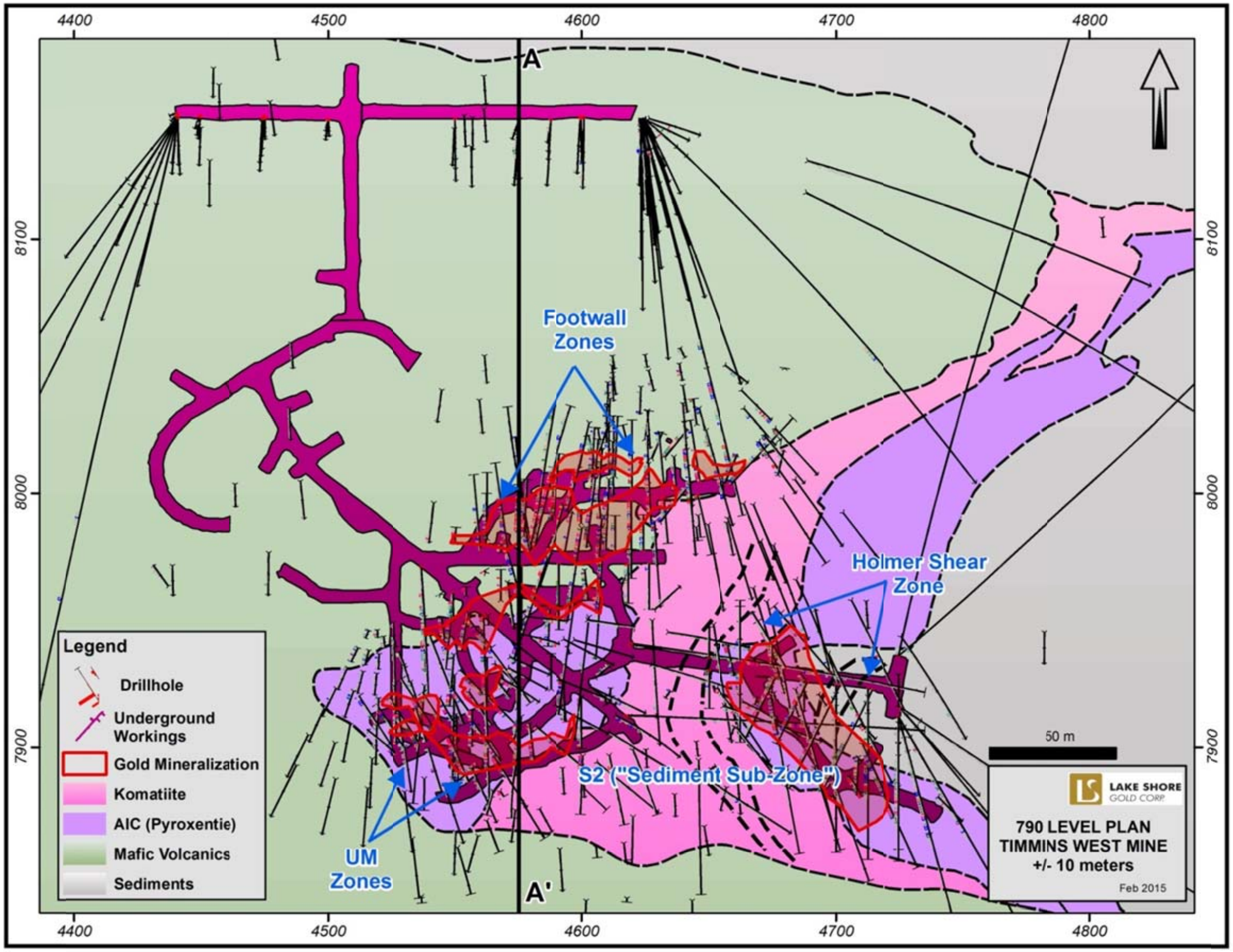
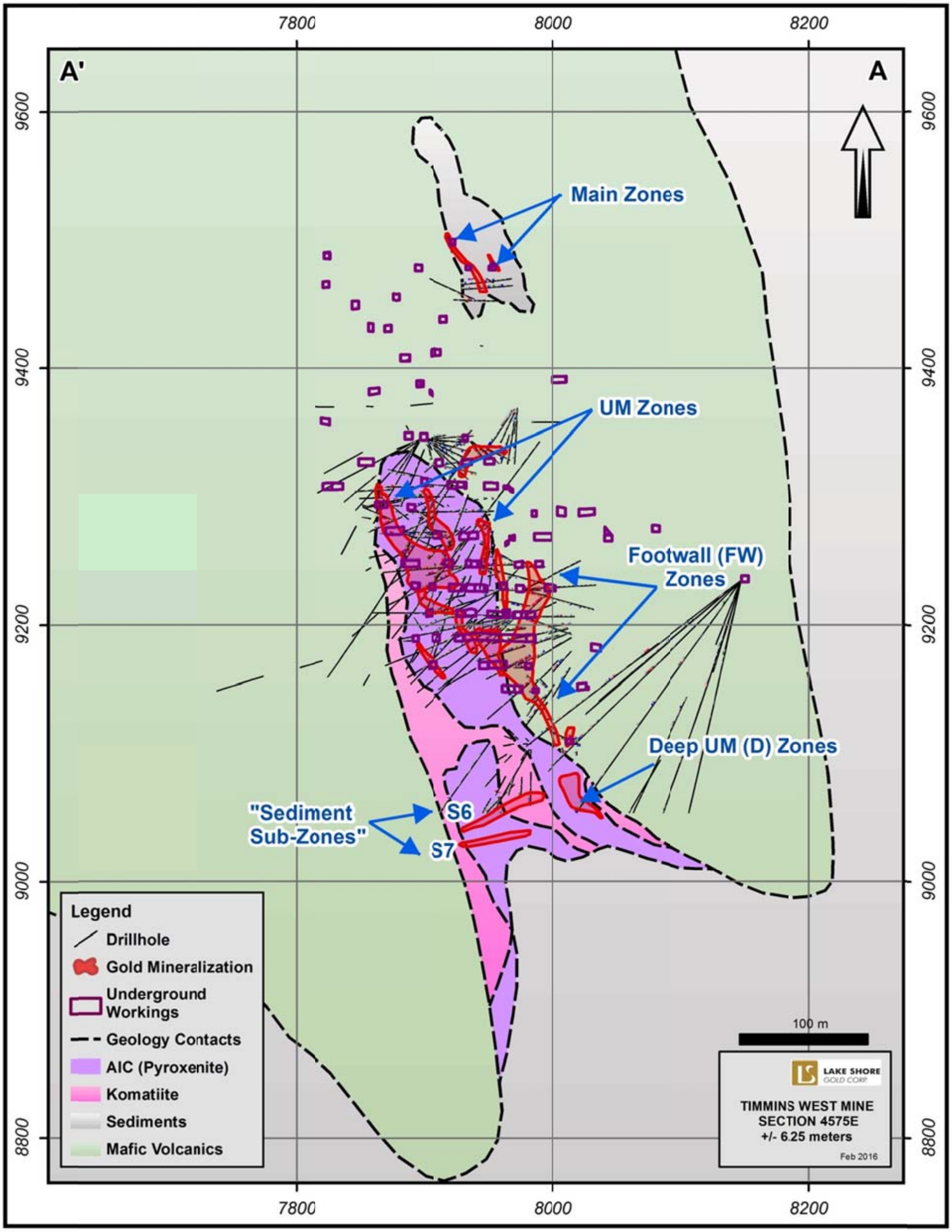


Figure 7-5: TIMMINS DEPOSIT GENERALIZED CROSS-SECTION 4575E (TIMMINS WEST MINE GRID)



7.2.2 Thunder Creek Portion of the Timmins West Mine

The Thunder Creek Deposit lies approximately 800 to 900 metres south-southwest of the Timmins Deposit, along the same mafic metavolcanic metasedimentary contact hosting the Timmins Deposit, where it has been intruded by a syenite and transected by the northeast trending Rusk Shear Zone (Figure 7-3).

The west portion of the deposit is underlain by mafic metavolcanic rocks interpreted to belong to the Tisdale Assemblage (Table 7.1). These rocks are fine-grained, green in colour and exhibit massive, pillowed or flow breccia textures locally. Metamorphism varies from mid-greenschist to lower-amphibolite facies. In proximity to the AIC, pervasive chlorite, abundant disseminated fine-grained magnetite, and localized hematite alterations are also common (Camier, 2009).

The east portion of the deposit is overlain, perhaps uncomformably, by a succession of metasedimentary rocks belonging to the Porcupine Assemblage (Table 7.1; Figure 7-3). In the Thunder Creek area, this unit presents as a discontinuous sequence of biotite-rich meta-greywacke, metamorphosed siltstones, metamorphosed argillite, fine- to medium-grained clastic tuff, and laminated chemical metasediments containing magnetite (Camier, 2009; Samson, 2008). These metasedimentary units occur in the footwall to the AIC and along the Rusk Shear Zone. Within the shear zone, sediments are strongly deformed to a quartz-sericite-carbonate (± hematite) mylonite. The most common alteration assemblage comprises sericite, weak hematite and silicification.

Cutting through the metavolcanics and metasediments are a northeast trending set of intrusions with the most significant being the Thunder Creek Porphyry which is a 200 metre long monzonitic body which hosts the Porphyry Zone in the Thunder Creek Deposit. The top of the main Thunder Creek Porphyry occurs approximately 400 metres below surface and intrudes mafic volcanic rocks in the footwall to the AIC and the Rusk Shear Zone immediately northwest of the key volcanic-sediment contact (Figure 7-6 and Figure 7-7).

Occurring in the central to southern portion of the property is a nearly circular intrusion greater than 500 metres in diametre which is referred to as the Thunder Creek Stock (Figure 7-3), representing an area of high topographic relief. The composition of the intrusion varies with 10-40% quartz eyes and 10-20% tabular feldspars contained within a fine-grained pinkish-grey groundmass. Owing to significant variation in quartz and feldspar content, multiple names have been used to describe this rock type, including quartz monzonite, monzonite, syenite, and peralkaline syenite. The characteristic pink to brick-red colour is interpreted as the result of variable albitic, potassic, and hematitic alteration intensities. Camier (2009) noted the presence of riebeckite in the eastern half of the intrusive, which may suggest an alkaline magmatic source. Although no age dating has been completed, it is speculated that the intrusions at Thunder Creek may be part of the Timiskaming Assemblage (2676-2670 Ma).

Figure 7-6: THUNDER CREEK UNDERGROUND GEOLOGY, 765L (LOWER MINE)

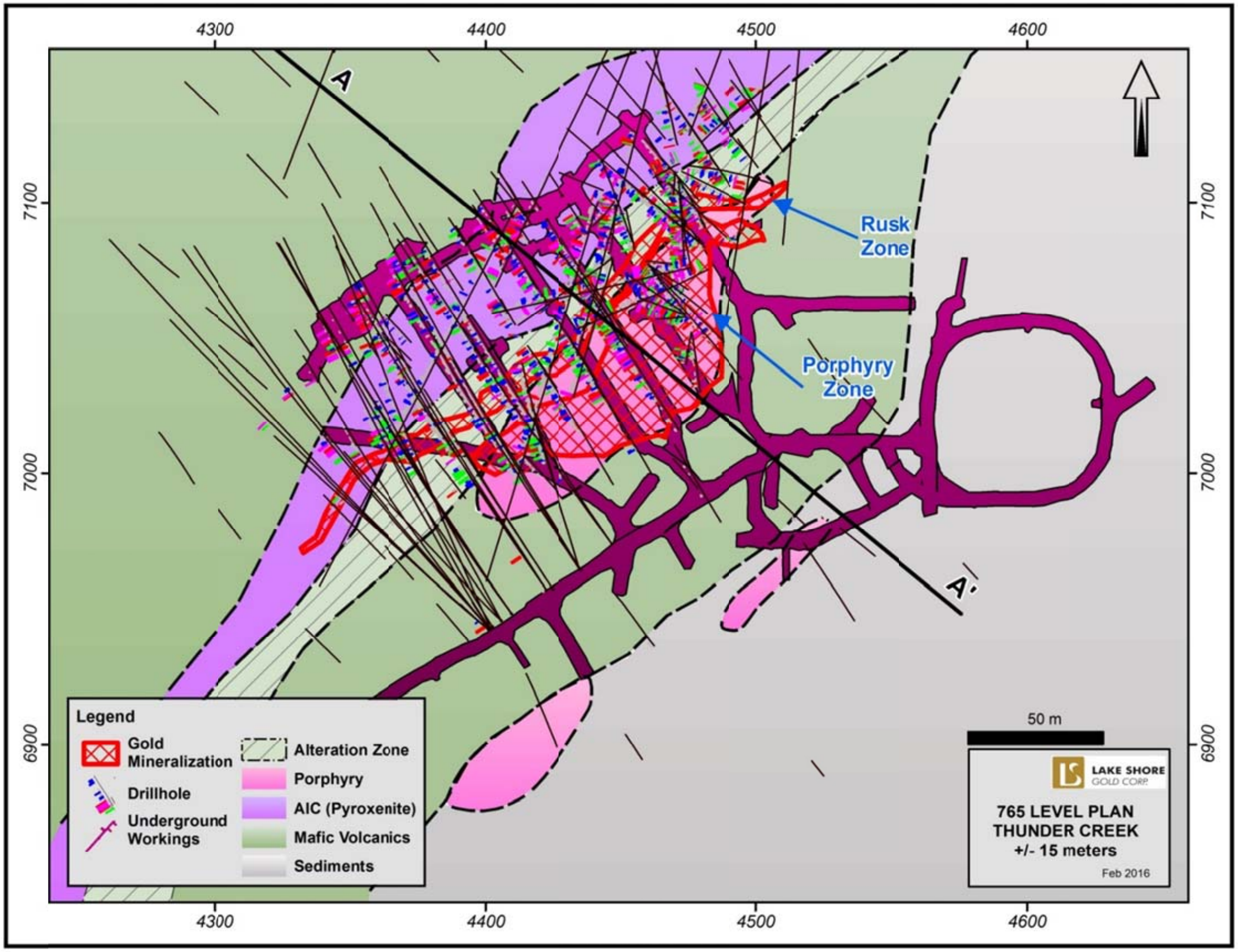
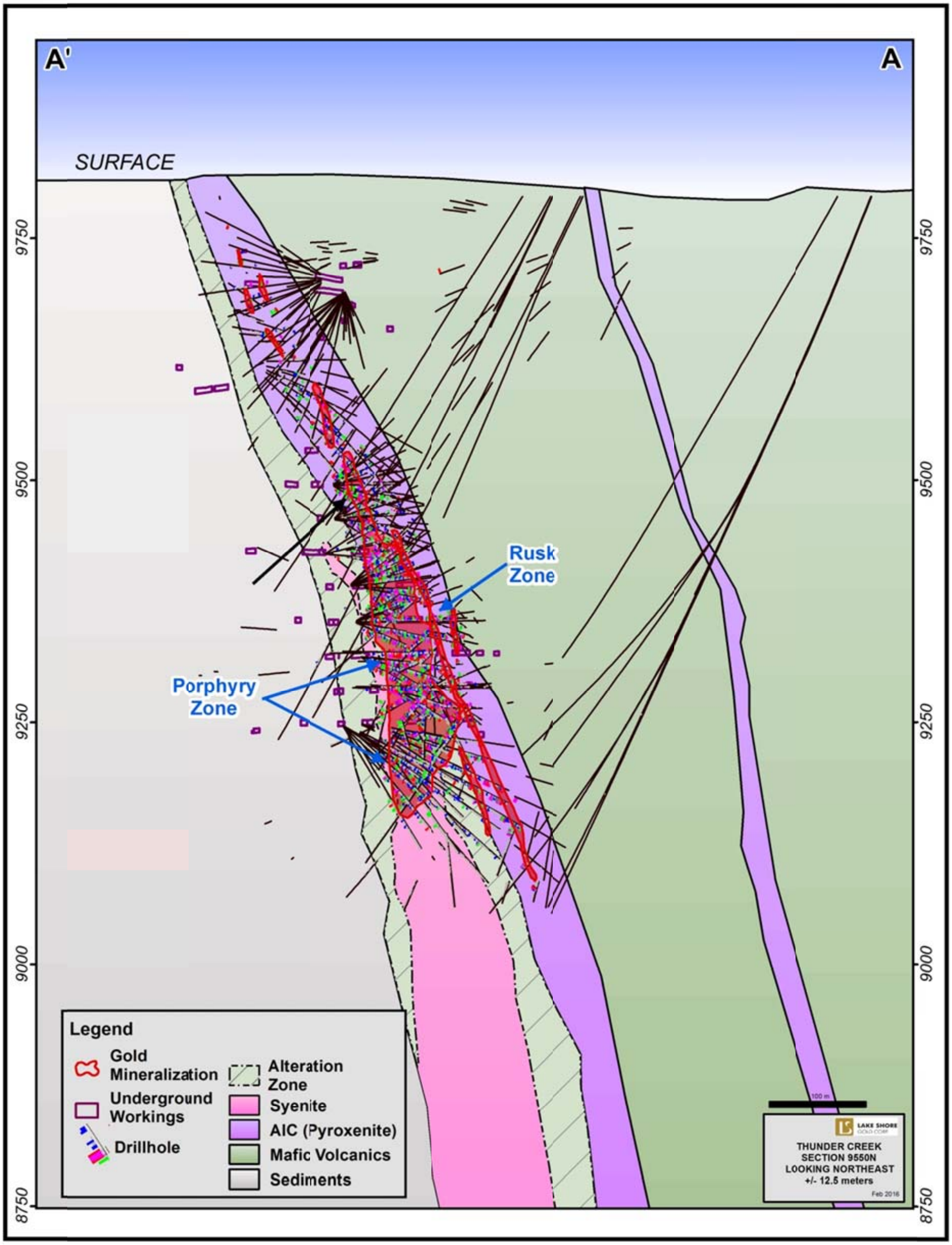


Figure 7-7: THUNDER CREEK GENERALIZED CROSS-SECTION, 9550N (THUNDER CREEK ROTATED SURFACE GRID)



7.2.3 144 Gap Deposit Portion of the Timmins West Mine

The 144 Gap Deposit, discovered by LSG in 2014, occurs along the 144 Trend, approximately 750 metres to the southwest of the Thunder Creek Deposit and between 600 and 1,000 metres below surface. Continued drilling following the 2014 discovery hole (HWY-14-48: 5.37 gpt over 46.0 metres including 21.87 gpt over 6.0 metres and 12.54 gpt over 4.4 metres (*Press Release dated October 07, 2014*) has outlined a mineral deposit similar in style and setting to the nearby Thunder Creek Deposit. Multiple internal studies, combined with the expertise of external consultants have helped to better understand the geological, structural, and geochemical controls on the new deposit. The interpreted results and supporting observations of these studies are summarized in the following deposit description.

Similar to the Thunder Creek Deposit, the 144 Gap Deposit is located immediately northwest of the northeast trending contact between the metavolcanic and metasedimentary rocks where it has been intruded and cut by a prominent northeast trending high strain zone (Figure 7-8). This high strain zone comprises an intense northeast trending, steep northwest dipping mylonitic to phyllonitic shear zone that varies between 5 and 20 metres thick (Rhys, 2015). The high strain zone varies in style from hanging wall to footwall as it spans variations in host-rock unit and associated alteration across its width. In the hanging wall where it is generally developed within the mafic volcanic-pyroxenite sequence, the structure is a dark grey laminated biotite-magnetite-chlorite-calcite shear zone with intense phyllonitic foliation, and which may contain variable amounts of apatite and K-feldspar (Ross and Rhys, 2015). The shear zone typically grades into more sericite (-carbonate)-rich components in its footwall, likely denoting a change in primary protolith and overprinting alteration from the mafic volcanic-pyroxenite sequence to altered Porcupine sediments. Carbonate in the contact zone is appreciably more iron-rich (dolomite-ankerite) and indicates a younger alteration phase that overprints the biotite-magnetite-calcite portions of the shear zone (Ross and Rhys, 2015). Highly deformed, boudinaged, and folded pink syenite dykelets are also spatially associated with the sericite-rich portions of the structure. Lithological contacts are highly obscured (and considered gradational) due to the intense nature of alteration and deformation in this central part of the shear zone. In the footwall to the structure, sediments exhibit strong sericite-carbonate (dolomite) alteration and may be intensely foliated up to tens of metres away (Ross and Rhys, 2015).

Work to date suggests that gold mineralization at the 144 Gap Deposit is concentrated dominantly in the footwall to the high strain zone where mineralized syenite bodies intrude an upward-tapering lobe of mafic volcanic rocks (Figure 7-8 and Figure 7-9). The mafic volcanic lobe extends upward to elevations of approximately 500 to 700 metres below surface with an approximate thickness of 150 metres in its upper portions and widens downward to greater than 300 metres thick at the lower limits of current drilling depths. This mafic lobe is separated in its upper portions from the high strain zone and the hanging wall volcanic sequence by a wedge of altered Porcupine sediments as depicted in Figure 7-9. This wedge appears to extend from the main body of sediments that occur to the southeast and tapers downward along the immediate footwall of the high strain zone. At depth, these highly strained and altered sediments are intercalated with and increasingly difficult to distinguish from the adjacent altered mafic volcanic rocks. The lack of a clearly identifiable structure at the contact between the mafic lobe and the adjacent sediment wedge, coupled with the southeasterly facing of the bedded sediments, suggests this may be a primary basal contact of the unconformity between the Tisdale volcanic sequence and overlying Porcupine sediments (Rhys, 2015). Rhys (2015) also suggests that the wrapping of sediments around the top of the mafic lobe may represent the hinge zone of an antiformal fold which has been truncated along its northwestern limb by the high strain zone (Figure 7-9).

Syenite intrusions account for approximately 15 to 25% of the mafic lobe (by volume) and are most abundant within 50 to 200 metres of the footwall to the high strain zone as lenticular sill-like bodies that locally exceed 100 metres in thickness within and below the main mineralized areas (Rhys, 2015). Smaller/thinner syenite dykes and sills are also noted locally in the hanging wall. Syenite in the 144 Gap Deposit area is typically K-feldspar porphyritic, with blocky to tabular phenocrysts and megacrysts (often exhibiting oscillatory zoning) set in a fine-grained matrix. Multiple phases of syenite are evident with early K-feldspar megacrystic varieties cut by later finely porphyritic varieties that resemble the monzonitic intrusion which is host to the Porphyry Zone at the Thunder Creek Deposit. Matrices range in colour from dark grey or grey-brown in least-altered syenite to salmon pink, reddish-orange, or brick-red in phases affected by a combination of K-feldspar-quartz-albite-hematite alterations (Ross and Rhys, 2015; Linnen and Campbell, 2015).

Hanging wall rocks to the deposit include mafic volcanics of the Tisdale Assemblage similar in nature to those described above for the Timmins and Thunder Creek portions of the TWM. These rocks, as well as those within the mafic volcanic lobe that hosts the 144 Gap Deposit mineralization, are generally massive and dark green-grey in colour with pillowed and vesicular textures locally. Patchy selective epidote-calcite-magnetite are the main alteration phases present with pinkish-brown biotite (phlogopite) appearing in proximity to syenite dykes, possibly the result of contact metamorphism. Though typically massive to weakly foliated, strong fabrics are observed within narrow intervals associated with the high strain zone and related structures.

Figure 7-8: 144 GAP DEPOSIT GEOLOGICAL LEVEL PLAN, 820L (EXPLORATION DRIFT)

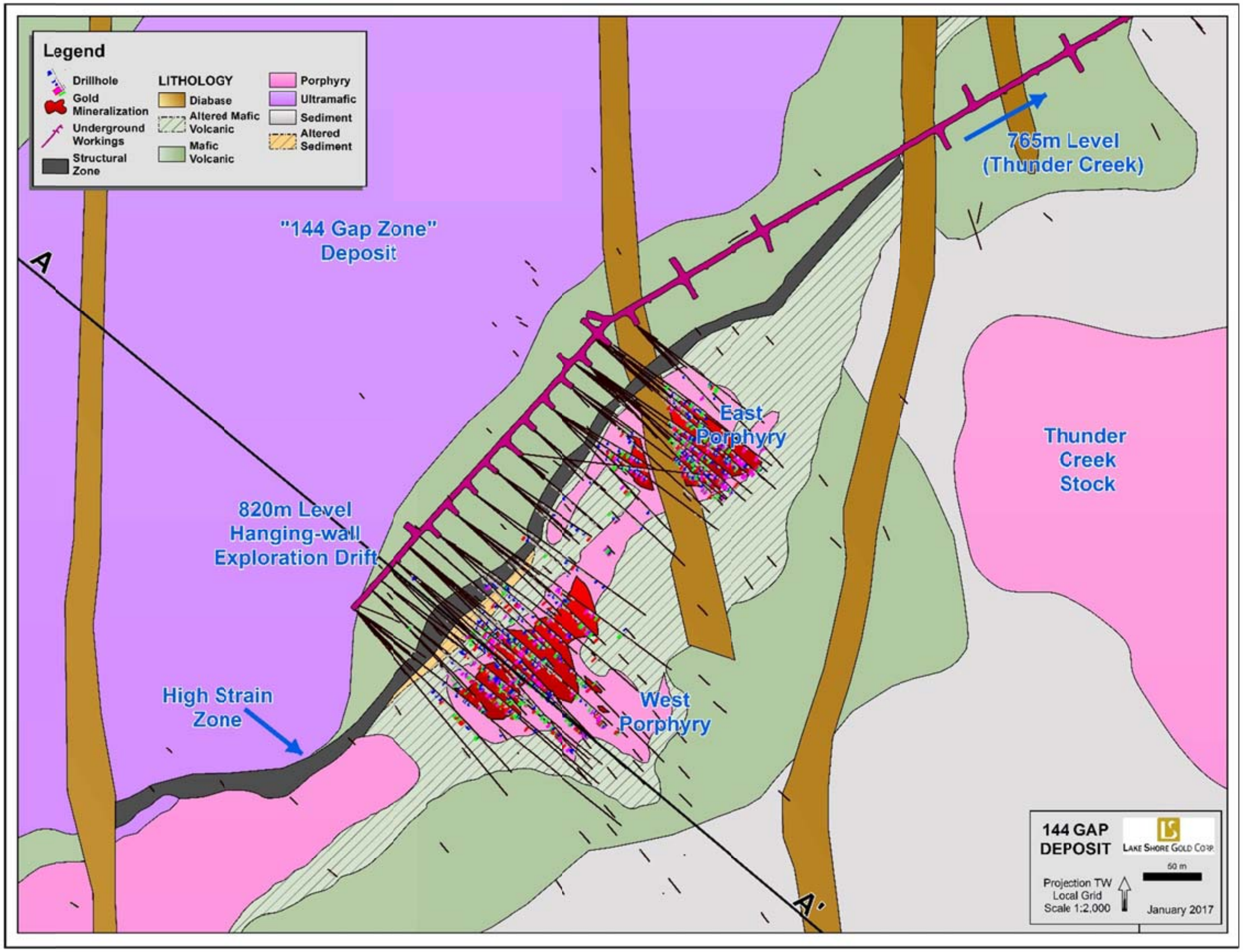
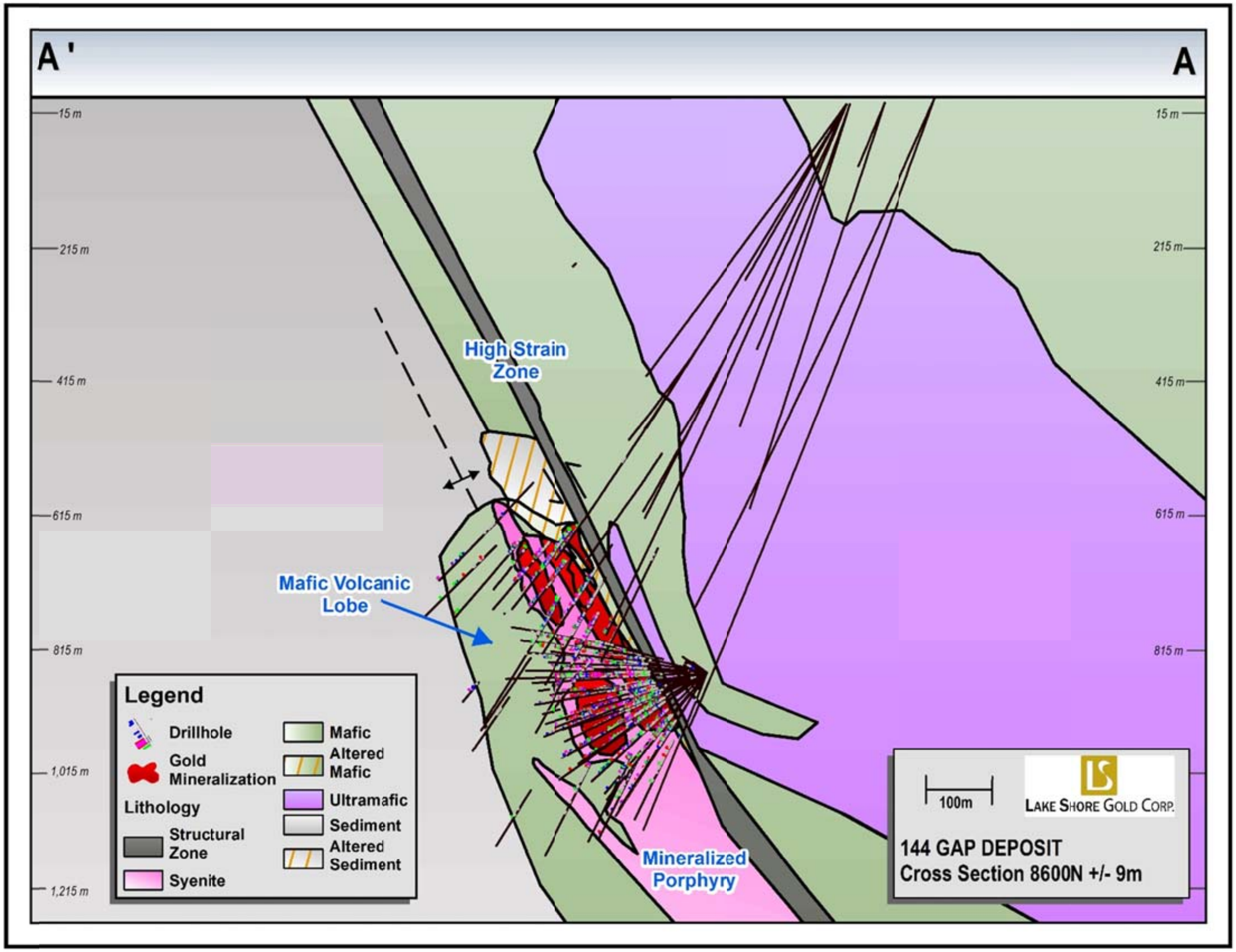


Figure 7-9: 144 GAP DEPOSIT GENERALIZED CROSS-SECTION, 8600N (HIGHWAY 144 ROTATED SURFACE GRID)



7.3 Structural Geology

Regionally, deformation in the Timmins area is characterized by a sequence of early, pre-metamorphic folds lacking axial planar cleavage (D_1 and D_2 events) to a series of syn-metamorphic, fabric–forming events which overprint the earlier folds (D_3 and D_4 events) and a later crenulation cleavage (D_5) (Rhys, 2010). The multi-phase Destor-Porcupine fault system passes approximately 5 kilometres to the south of the property. This fault system is a composite corridor of shear zones and faults that record at least two main stages of displacement: 1) syn-Timiskaming (2680-2677 Ma) brittle faulting associated with truncation of early D_1 and D_2 folds, apparent sinistral displacement, and formation of half grabens that are locally filled with Timiskaming clastic sedimentary rocks, and; 2) syn-metamorphic D_3-D_4 formation of high strain zones over a broad corridor generally several hundred metres wide and corresponding with, or developed south of, the trace of the older faults. These shear zones record variable kinematic increments but are regionally dominated by sinistral, north side up displacements (Rhys, 2010).

At least three areas of high strain reflecting probable intense S_3 shear zones have been recognized in the Timmins Deposit, Thunder Creek, and 144 Gap Deposit areas: the west-northwest trending, but significantly folded Holmer Shear Zone (Timmins Deposit); the northeast trending Rusk Shear Zone (Thunder Creek), and; the high strain zone in the 144 Gap Deposit area, interpreted as a possible southwest extension of the Rusk Shear Zone, or related structure. Shear zones may also be significantly folded, as occurs in the Main Zone in upper portions of the Timmins Deposit. These closures have localized gold mineralization which plunge parallel to them, suggesting the definition of additional F_4 fold closures (Rhys, 2010).

Shear sense indicators in the Holmer Shear Zone surface outcrops, coupled with the oblique (clockwise) nature of the S_3 foliation in the Rusk Shear Zone, suggest that both of these dominant structures in the Timmins West Mine area accommodated sinistral displacement during D_3. Subsequent D_4 shear zone development in narrower, generally east-west trending and steeply dipping structures with dominantly reverse kinematic indicators in the Timmins Deposit would then imply a change in kinematics later in the deformation history to a more contractional setting associated with development of the stretching lineation. Such variations in kinematics are also suggested in other deposits in the Timmins area and imply changing patterns of far field stress and regional transpression between D_3 and D_4 (Rhys, 2010).

A post-mineral deformation event (D_5) has also been recorded at the Timmins Deposit, evidenced by the folding of shear zones (F_5 folds) in the upper parts of the deposit, particularly near surface, thereby causing variation in dip of the sequence and associated mineralization.

7.4 Mineralization

Gold mineralization in the Timmins, Thunder Creek, and 144 Gap Deposits occurs in steep north-northwest plunging mineralized zones which plunge parallel to the local orientations of the L_4 lineation features which also plunge parallel to the lineation, including folds and elongate lithologies. Mineralization occurs within, or along favourable lithostructural settings within 100 metres of the Holmer and Rusk Shear Zones. Mineralization comprises multiple generations of quartz-carbonate-tourmaline ±albite veins, associated pyrite alteration envelopes, and disseminated pyrite mineralization. Textural evidence suggests that veining formed progressively through D_3 and D_4 deformation. All phases of gold-bearing veins cut and postdate the AIC and syenitic to monzonitic intrusions, although mineralization is often spatially associated with ore preferentially developed within these intrusive suites (Rhys, 2010).

The Appendix contains a number of photographs (Plates 1-15) illustrating the various styles of mineralization in each of the Timmins West Mine deposits, taken from Rhys (2011 and 2015).

7.4.1 Timmins Deposit

At the Timmins Deposit, the character and sequence of veining in the Main, V1 and V2 veins is similar in all exposures. Rhys (2003) defined three phases of veining in the Timmins Deposit surface showings, all of which were also apparent in his recent observations (Rhys, 2010 and 2011), although an additional phase of shallow dipping quartz extension veins was also recognized during this field work (Rhys, 2010). The sequence of veining observed is as follows, with most veins in the upper Timmins Deposit mineralization forming composite veins which have this paragenetic sequence.

1. Early tourmaline-rich phase: Early, tourmaline-quartz vein material forms the earliest veining phase, and comprises both dilation veins and wall rock replacement in tabular replacement vein-style zones along strike from, or parallel to dilation veins. The veins have tan carbonate ±sericite alteration envelopes. Tourmaline can comprise the majority of the vein material in these veins, forming a black matrix cross cut by later phases of veining. These veins vary from a few centimetres to more than 2 metres wide, and may be significantly boudinaged or folded, with S_4 axial planar to the folds. Boudins, where developed are linear and shallow plunging, at high angle to the L_4 stretching lineation. Dilational veins have sharp contacts and massive central fill consistent with formation as void fill. Replacement tourmaline comprises 5 to 40 centimetre wide replacement veins which unlike the dilational veins have gradational contacts over 0.5 to 2 centimetres and preserves relic textures of the wallrock, including relic fragmental textures in deformed potential clastic sedimentary or fragmental tuffaceous units which occur in the Holmer Shear Zone. These may laterally grade into more dilational quartz-tourmaline veins which have sharp contacts; both vein styles are spatially associated and close in timing, with the replacement style locally enveloping dilational tourmaline veins. Dilational tourmaline-rich veins locally form en echelon, moderate to

steeply north dipping extension veins separate from the main veins. Broad zones of veining with multiple dilational and parallel, sheeted replacement tourmaline veins may alternate with slivers of carbonate-quartz-sericite altered wall rock. Tourmaline veins may contain disseminated pyrite and arsenopyrite.

2. Quartz-rich second phase: Exploiting the earlier tourmaline-rich veins, this phase of veining forms white quartz ± tourmaline ± sericite ± pyrite ± arsenopyrite vein material which overprints, but occurs along and parallel to the earlier tourmaline vein material, which with wallrock slivers create a banded appearance to the quartz-tourmaline veins. Tourmaline coeval with this phase may occur with sulphides and carbonate as stylolites in the vein material. Earlier tourmaline may occur as slivers, lenses and fragments in the younger white quartz, or the younger white quartz may occur on the margins of earlier tourmaline veins. This style of quartz may also occur independent of the tourmaline veins as a separate vein generation and locally occupies minor reverse, north-side up D_4 Shear Zones. Sampling and local presence of visible gold in this veins phase indicate that it is auriferous. This veining is the intermediate stage of veining discussed by Rhys (2003). When occurring as independent shear veins, it may be joined by quartz-carbonate extension veins which are variably deformed. Like the tourmaline veins this stage of veining is affected by folding, and this generation of quartz also occurs with early tourmaline as composite folded veins which trend northwest along the southwestern margins of the Main Zone.

3. Quartz extension veins, variably deformed: Shallow to moderate southeast dipping quartz greater than tourmaline + carbonate extension veinlets form ladder-like stacked arrays which preferentially occur in, and cut across the earlier quartz-tourmaline and banded quartz-rich veins phase. The extension veins may either terminate at the margins of the older veins, or nucleate in the early tourmaline and extend outward into surrounding wallrock. The extension veins are often closely spaced and may occur at intervals of a few centimetres to tens of centimetres apart. They range from hairline up to 10 centimetres thick. This set of extension veins locally occurs as en echelon, locally sigmoidal arrays which record apparent northwest side up displacement internal to the older quartz-tourmaline veining, and which also record , reverse north side up displacements. Where not folded in sigmoidal sets, these extension veins are developed approximately orthogonal to the steep northwest plunging L_4 stretching / intersection lineation, suggesting that they formed during stretching of the lithology sequence parallel to L_4 in response to north-south D_4 shortening – consistent with the relatively late structural timing as suggested by the generally low strain state.

4. Late quartz extension veinlets: A late set of shallow dipping (generally to the southeast) quartz extension veinlets frequently occurs within the quartz-tourmaline veins, and cuts at low angles across the earlier set of extension veinlets described above, especially where they are folded into sigmoidal sets. These late veinlets are typically narrow (1 to 10 millimetres thick) and are volumetrically minor, although they can be locally very abundant. Their similar orientation with

respect to L_4 as the preceding extension veins set, but generally undeformed state suggest that they represent a second, structurally late increment of extension veining late during D_4.

Textural and timing relationships of the different, but spatially related veining generations listed above suggest that they formed incrementally spanning deformation during D_3 and D_4. The early quartz-tourmaline veins, including the second phase quartz greater than tourmaline vein phase are affected by all D_4 strain, exhibiting folding when development oblique to or at high angles to S_4 foliation, and boudinaged in response to the stretching parallel to L_4. However, these veins also cross S_3 foliation as planar veins where they trend northeast at high angles to S_3 suggesting that they were affected by only minor D_3 strain. In addition, tourmaline replacement veins where they overprint potential fragmental units contain less strain relic fragments than the surrounding wallrock suggesting that they formed part way through D_3 where the wallrocks were already deformed, but prior to the accommodation of all strains in the rocks. These field relationships are consistent with the quartz-tourmaline veins and the next generation of banded quartz which is parallel to them forming extensional veins and shear veins during D_3 in response to sinistral displacement along, and shortening across the Holmer Shear Zone. During later potentially progressive D_4 deformation, additional phases of veining mainly as quartz extension vein arrays have formed exploiting the earlier rheologically competent quartz-tourmaline, and forming a high angle to the L_4 lineation, suggesting vein formation in response to the stretching parallel to L_4. These extension veins and the very late set of extension veinlets may also form along the adjacent to minor east-west trending D_4 Shear Zones which accommodate north side up displacement, and overprint the transposed fabrics associated with D_3 (S_3), (Rhys, 2010).

Systematic underground drilling and mapping have led to an improved interpretation of the internal lithological correlations within the AIC, which hosts the Ultramafic Zone in proximity to the “fold nose” (Rhys, 2012, J. Samson, personal communication). Figure 7-4 is a geological level plan on the 790m level and illustrates a core of dominantly serpentinized, chloritized and locally talc-altered komatiite ultramafic unit that lies in the centre of the “fold nose” in the AIC (dominantly pyroxenite). Mineralization in the altered pyroxenite in the Ultramafic Zone terminates against the altered komatiitic unit, with non-mineralized quartz-tourmaline veining extending into the komatiitic unit. Recognition of this allows for limiting the projection of the mineralization away from drill holes towards holes that intersected the komatiite, thus tightening up the mineralization shapes. This komatiitic unit also separates the AIC into two lobes of dominantly pyroxenite with the main part of the Ultramafic Zone being hosted within the western lobe and a series of smaller, generally shallow-dipping Ultramafic Zones, termed here as “Sediment Sub-Zones” (*e.g.*, S_2, S_6, S_7), being located in the eastern lobe (Figure 7-4). Here these zones are folded within the eastern pyroxenite around the core of the pyroxenite / sediment contact (Figure 7-5). Recent underground drill hole intersections show the potential for additional zones of mineralization within this eastern lobe of pyroxenite at depth.

7.4.2 Thunder Creek Deposit

In the Thunder Creek area, there are two main styles of mineralization: 1) the Rusk Shear Zone adjacent to and in the footwall of the pyroxenite unit, and; 2) the Porphyry Zone which is hosted by the quartz monzonite intrusion which lies to the southeast in the immediate footwall to the Rusk Shear Zone below an elevation of approximately 500 metres below surface (Figure 7-6 and Figure 7-7). Both of these zones are spatially related and occur in the same steep north-northwest plunging mineralization area which has been traced over a vertical dip length of more than 1 kilometre to date, and within which better intercepts occur along a strike length of 100 to 600 metres (Rhys, 2010).

Mineralization in the Rusk Shear Zone comprises areas of either higher quartz-carbonate-pyrite vein density, and/or areas of elevated medium- to coarse-grained disseminated pyrite and associated pyrite-quartz veinlets. Both of these styles were observed to occur in the intensely foliated, often compositionally laminated carbonate-albite-quartz-magnetite portions of the shear zone. Mineralization also locally preferentially overprints pink, K-feldspar-rich syenite dykes and local plagioclase-dominant probable diorite dykes in the shear zone, with clots and aggregates of coarse pyrite, often associated with quartz-albite-carbonate veinlets. Areas of gold mineralization occur in portions of the Rusk Shear Zone in which the shear zone matrix is variably Fe-carbonate altered.

The most common style of veining comprises deformed quartz-pink carbonate/albite veins with varying pyrite content and coarse-grained pyrite envelopes/selvages, which correspond generally with higher and more continuous grade. These early deformed veins are very similar in style and texture to the earliest phases of veining seen underground in the 650m level Ultramafic Zone which are also deformed and could be coeval with the set (Rhys, 2010). Veins in the Rusk Shear Zone also include a younger phase of quartz-pyrite veins that cut the deformed veins and which have carbonate-pyrite envelopes that overprint the shear zone matrix. The coarse pyrite in vein envelopes also overgrows the dominant shear zone foliation, which is preserved texturally as inclusion trails in the pyrite (Ross, 2010). This younger set of veinlets is likely coeval with the main stage extension vein sets on the 650m level (Rhys, 2010). Both of these veining phases are auriferous and contain high gold grades. Gold in both phases was observed in a petrographic study in association with pyrite. Gold was present as inclusions in pyrite, associated with chalcopyrite and galena, on fractures in pyrite, and free in gangue minerals adjacent to pyrite grains (Ross, 2010).

“Porphyry Zone” mineralization is developed in the quartz monzonite intrusion that occurs at depth in the footwall to the Rusk Shear Zone immediately adjacent to mineralized areas in the shear zone. Mineralization is associated with sheeted sets of quartz extension veins which occur in abundance of up to several veins per metre within the intrusion. Most veins are less than 3 centimetres thick and comprise white quartz with pyrite. Disseminated pyrite also occurs locally in the wall rock adjacent to the veins. Free visible gold can be locally observed in association with pyrite both in veins and disseminated in the host rock. The intrusion is generally massive in areas of veining. Veins have variable core axis angles, but angles are most commonly high (>70 degrees to core axis) consistent with a shallow dip to extension veinlets, supported by geological underground mapping in development headings. Local irregularities in vein shapes and orientations, particularly in areas of the highest vein abundance, suggests some degree of deformation, possibly in the cores of sigmoidal vein arrays. These veins are of compatible style and probable orientation as the main stage Ultramafic Zone veins in the Timmins Mine which they may be coeval with, and consequently they may also form areas of higher grade continuity which are dictated by the morphology of the extension vein arrays. These veins may have formed preferentially in the upper, thinner portions of the intrusion, in response to brittle behavior of the intrusive body during shear zone deformation. More isolated narrower intercepts deeper in the intrusion where it is thicker may reflect more rigid behavior, as is seen in many other Timmins area deposits, where an optimal thickness of the host unit is common for most abundant vein development. Modeling of the morphology and thickness of the host intrusion may as a result aid in definition of the distribution of best developed mineralization (Rhys, 2010).

Areas of veining are frequently associated with more intensely altered wallrock, obscuring the primary igneous textures. A systematic series of samples from drill hole TC09-69a across the host monzonite intrusion was stained using Na-cobaltinitrate. Intense yellow staining proximal to quartz veining confirmed that the reddish-orange alteration commonly observed adjacent to quartz veins is secondary k-feldspar (Rhys, 2010). Within the Porphyry Zone, systematic sampling of different vein generations confirms that there is a positive correlation between gold grade and quartz vein density (Campbell, 2014).

7.4.3 144 Gap Deposit

Gold mineralization in the 144 Gap Deposit occurs generally between 600 and 1,000 metres below surface in the footwall of the high strain zone within and adjacent to syenite bodies in the footwall mafic volcanic lobe (Figure 7-8 and Figure 7-9). The main mineralized areas occur between approximately 20 to 120 metres into the footwall of the high strain zone; however, mineralization also occurs locally within the shear zone itself. There are two main styles of mineralization identified in the 144 Gap Deposit area: 1) syenite-hosted quartz-pyrite extension vein sets and associated mineralization, and; 2) disseminated and vein-controlled pyrite in carbonate-sericite altered areas of higher strain in the shear zone and in altered mafic units along and within dyke margins.

The highest syenite-hosted gold grades in the 144 Gap Deposit are associated with areas of quartz extension vein development. These extensional quartz veinlets are typically 2 to 30 millimetres in diametre (although locally can reach up to greater than 15 centimetres in width), exhibit sharp unfoliated margins, and are filled with blocky to prismatic quartz (Ross and Rhys, 2015). Vein densities seldom comprise more than 5% of the host syenite by volume. Though there is no apparent direct relationship between gold grade and quartz vein abundance, areas lacking quartz vein development altogether also typically lack significant gold grades. Instead, the highest gold grades are more directly linked to development of coarse-grained, often cubic pyrite occurring as individual grains, or locally as grain aggregates, along quartz veinlets and sometimes in wallrock within vein halos (Rhys, 2015). Vein-hosted pyrite is poly-generational and overgrows early Au-poor cores, which may suggest multiple incremental gold depositional pulses within an ongoing mineralizing event (Linnen and Campbell, 2015). Areas of gold-rich veining in syenite occur both with or without the reddish K-feldspar-albite-quartz (-hematite) alteration and associated local fine-grained in-situ brecciation which often affect the syenite matrix. Consistent with this alteration being earlier than main-stage mineralization, these gold-bearing veinlets also clearly cut the altered areas and breccia zones (Rhys, 2015). Despite this relationship, mineralized areas are seldom unaltered and typically exhibit pale orange-reddish colours in proximity to Au-bearing vein arrays, which may suggest a lower intensity, feldspar-stable alteration accompanies vein development (Rhys, 2015). Extensional quartz veins in the 144 Gap Deposit area are preferentially developed in the syenite and typically terminate at dyke/sill margins. Similar to Thunder Creek, this vein distribution highlights the importance of rheologically more competent units (*i.e.*, syenite or monzonite) which can accommodate brittle fracturing and subsequent vein development. Extensional quartz veinlets in mineralized areas of the 144 Gap Deposit area exhibit variable, but generally moderate core axis angles, consistent with shallow, often southeasterly dipping extension vein sets. Veinlets with different orientations, as well as localized areas of more abundant and thicker quartz veining may suggest the development of sigmoidal quartz extension vein arrays and local shear veins, similar to the Porphyry Zone at Thunder Creek (Rhys, 2015). Although multiple vein generations may be present, most veins are likely the result of one protracted veining event during which veins formed in multiple pulses as sigmoidal vein arrays developed, with earlier veins progressively deformed and overprinted by younger vein generations (Rhys, 2015). Late steeply dipping veinlets occur locally and are interpreted to post-date the mineralized extension vein sets.

Despite a clear spatial relationship with syenite in the 144 Gap Deposit, gold mineralization also occurs outside of the syenite bodies in three general settings, each of which is associated with disseminated pyrite in dominantly carbonate (dolomite-ankerite; Ross and Rhys, 2015) altered mafic, pyroxenite, and locally sediment host-rocks:

1. In footwall portions of the high strain zone, where intercalated altered mafic volcanic rocks and sediments occur with deformed syenite dyke lenses, disseminated medium- to coarse-grained pyrite and local deformed quartz veinlets are developed in association with tan-brown carbonate-sericite alteration of mafic domains and reddish-orange syenite dykelets. Unlike at Thunder Creek, these mineralized areas are not continuous but do indicate the potential for steeply plunging mineralized zones localized along the shear (Rhys, 2015).
2. In the mafic volcanic lobe, disseminated fine- to medium-grained pyrite occurs in association with brown to tan carbonate altered mafic volcanics in areas of increased foliation between and proximal (typically within 3 metres) to syenite bodies. This style of mineralization is estimated to contribute up to 30% of the gold content in the main mineralized areas of the 144 Gap Deposit. The

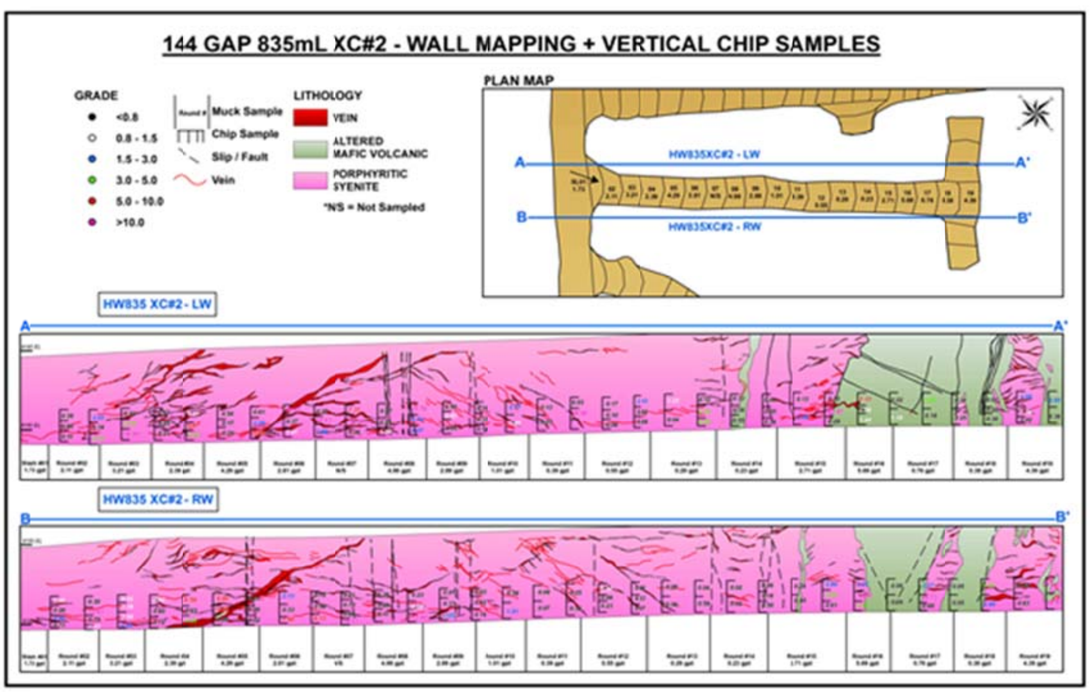
disseminated pyrite and associated carbonate alteration are shown to overgrow the foliation commonly developed in these disseminated zones, consistent with a structurally late timing for gold mineralization. Earlier biotite-calcite-magnetite-K-feldspar-albite alteration is also overprinted by the gold-related pyritic carbonate assemblage adjacent to syenite dykes, although K-feldspar appears to remain stable in these areas (Ross and Rhys, 2015).

3. Patchy disseminated pyrite associated with varying intensities of carbonate-sericite alteration of mafic volcanic rocks and turbiditic sediments also occurs along or proximal to the southeastern contact between the volcanic lobe and the Porcupine Assemblage (Rhys, 2015).

The close spatial association of the different alteration styles described herein with mineralization in the syenite bodies suggests that all mineralization styles are linked to the same event and simply reflect different manifestations of gold deposition related to contrasting host-rock composition and rheology (Rhys, 2015).

Some of the most detailed information regarding mineralization at the 144 Gap Deposit is from mapping and sampling of new crosscuts developed on the 835 metre level (Figure 7-10). Results of the work confirm previous observations from drilling and indicate complex patterns in geology and gold distribution with the bulk of gold being hosted by syenite and closely associated with narrow extensional veins with relatively short strike length or coarse cubic pyrite surrounding the veins. Locally truncating mineralization are narrow lenses of mafic metavolcanic rocks.

Figure 7-10: 144 GAP 835L CROSSCUT SAMPLING AND WALL MAPPING



8.0 DEPOSIT TYPES

The Porcupine area is well known for hosting two mineral deposit types: 1) volcanogenic massive sulphide deposits (*i.e.*, Glencore's Kidd Creek Mine), and; 2) numerous mesothermal Archean shear-hosted gold deposits. Historic production to the end of 2006, from some 50 mining operations is reported to be 2,028,140 kilograms (65,206,222 ounces) of gold. Table 8-1 highlights the 21 mining operations that exceeded 3,110 kilograms (100,000 ounces) of gold production.

The setting of the TWM is characteristic of mesothermal Archean shear-hosted gold deposits. Dube and Gosselin (2007) have summarized the general consensus that greenstone-hosted quartz-carbonate vein deposits are related to metamorphism, partial melting, and thermal re-equilibration of subducted volcano-sedimentary terrains. Deep-seated, Au-transporting fluids were channeled to higher crustal levels through major crustal faults or deformation zones, similar to the Destor-Porcupine Fault Zone located about 5 kilometres south of the TWM. Enrichment of these mineralizing hydrothermal fluids was likely derived from the leaching of various components, most notably gold, from the volcano-sedimentary country rocks during fluid transport and ascension. The fluids then precipitated as vein material or wall-rock replacement in second and third order structures at higher crustal levels through fluid-pressure cycling processes and other physicochemical reactions (temperature, pH, fS2, and fO2 changes).

Mineralization style at the TWM is typical of the Timmins and Kirkland Lake gold camps. There are detailed differences for each deposit with respect to individual structural controls, vein density, gold tenor, gold/silver ratio, and size, but they still maintain commonalities. In his 1997 PhD thesis titled "Geological Setting of Gold Deposits in the Porcupine Gold Camp, Timmins, Ontario", Brisbin generalizes the ore bodies as typified by single or multiple quartz-carbonate veins with or without albite, tourmaline, sericite, pyrite + various sulphides, and native gold hosted in carbonatized, sericitized, albitized and pyritized host wallrock. Gold occurs both in the veins and the wallrock. The most significant gold deposits are spatially associated with quartz-feldspar porphyry stocks and dykes and with albitite dykes, both of which intrude the folded Archean supracrustal rocks. The supracrustal rocks, porphyry intrusions, albitite dykes, and gold mineralization were affected by metamorphism and penetrative deformation during the Kenoran Orogeny (Brisbin, 1997). Brisbin further compares gold production with lithology. Over 75% of gold production from the Porcupine Camp (1997) was mined from orebodies in the Tisdale Group rocks (which are thus considered the most important rocks in the camp). Approximately 15% of the gold from the Porcupine Camp has been hosted by Timiskaming Group rocks, making them the second most important host. Porphyritic intrusions, heterolithic breccia bodies, and albitite dykes host nearly 10% of the gold produced in the camp.

Gold mineralization in the TWM occurs in steep north-northwest plunging mineralized zones which are also parallel to the local L4 stretching lineation. Mineralization occurs within, or adjacent to zones of strong deformation such as the Holmer and Rusk Shear Zones. Mineralization at the Timmins Deposit is hosted in multiple generations of quartz-carbonate-tourmaline (± albite) veins, associated pyrite alteration envelopes, and disseminated pyrite mineralization. Textural evidence suggests that veining formed progressively through D3 and D4 deformation events. Mineralization at the Thunder Creek and 144 Gap Deposits postdates the AIC, with two main generations of quartz-pyrite (± scheelite, galena, molybdenite) veins. Veining is almost exclusively hosted in syenite-monzonite intrusions adjacent to the Rusk Shear Zone and related structures (Rhys, 2010).

Table 8-1: OPERATIONS WITH GREATER THAN 100,000 OUNCES OF GOLD PRODUCTION IN THE PORCUPINE GOLD CAMP (AS OF 2006)

Mine	Kilograms Gold Produced	Ounces Gold Produced
Hollinger	601,158	19,327,691
Dome	487,558	15,675,367
McIntyre Pamour Schumacher	334,423	10,751,941
Pamour #1 (Pits 3, 4, 7, Hoyle)	131,393	4,224,377
Aunor Pamour (#3)	77,828	2,502,214
Hoyle Pond	72,046	2,316,346
Hallnor (Pamour #2)	52,582	1,690,560
Preston	47,879	1,539,355
Paymaster	37,082	1,192,206
Coniarum/Carium	34,512	1,109,574
Buffalo Ankerite	29,775	957,292
Delnite (Open Pit)	28,740	924,006
Pamour (Other Sources)	21,046	676,645
Broulan Reef Mine	15,519	498,932
Broulan Porcupine	7,485	240,660
Owl Creek	7,368	236,880
Hollinger Pamour Timmins	5,663	182,058
Nighthawk	5,468	175,803
Moneta	4,642	149,250
Crown	4,303	138,330
Bell Creek	3,507	112,739
21 Site Totals	2,009,976	64,622,226
The Porcupine Camp Total (50 Sites)	2,028,140	65,206,222

source: http://www.mndm.gov.on.ca/mines/ogs/resgeol/office

9.0 EXPLORATION

9.1 General Overview

Prior to 2003, all exploration on the TWM area was carried-out by previous operators (as summarized in Item 6). Since then, exploration on the Timmins, Thunder Creek, and Highway-144 Gap Deposits by LSG and Tahoe Canada has consisted primarily of diamond drilling (refer to Item 10).

Other exploration activities from 2003 to present include basic geological and structural mapping, prospecting, outcrop stripping, lithogeochemical sampling, and MMI soil geochemical surveys. Geophysical surveys including airborne magnetics as well as surface and downhole IP were also completed, along with various research projects. The most recent of these exploration activities (2013 to present) are summarized in Table 9-1. Some of the work has been contracted out to consultants, while other work has been done in tandem with universities in the form of sponsored academic studies. These campaigns have helped solidify the current level of geological understanding and have provided the necessary framework in order to generate useful drill targets for advanced exploration of the TWM area.

Table 9-1: SUMMARY OF SIGNIFICANT EXPLORATION ACTIVITIES CONDUCTED BY LSG/TAHOE CANADA AT THE TIMMINS WEST MINE, 2013 – PRESENT (EXCLUDES DRILLING)

Year	Activity	Description	Comments
2013-2014	Sponsorship of MSc Thesis Work: Characteristics of Syenite-Hosted Au Mineralization in the Western Timmins Camp	Analysis of ~200 core & grab samples (Thunder Creek and Highway-144 Projects)	Completed thesis (R. Campbell, University of Western Ontario, 2014)
2015	High-Resolution Aerial Survey over the Thunder Creek/Highway-144 Trend	10 flights by UAV (drone) over 7.8 square kilometre survey block.	Geo-referenced TIFF & JPEG digital ortho-photographs, 8cm resolution (Terrane Aerial Surveys, July 2015)
2015	Petrographic Study of the Highway-144 Gap Deposit: *Petrography of Representative Samples of Mineralization, Alteration and Shear Zones in the 144-Gap Deposit, Exclusive of Syenites, with Comparison to the Thunder Creek Rusk Zone*	On-site core examinations. Thin section microscopy and analysis of ~30 core and underground grab samples.	Highway-144 Gap Deposit and Thunder Creek Deposits Finalized internal report received Dec/15 (K. Ross and D. Rhys, 2015)
2015	Mapping & Drill Core Study of the Highway-144 Gap Deposit: *Structural Setting and Style of the 144 Gap Deposit and Other Areas: Observations from Drill Core, and Underground Exposures with Exploration Recommendations*	On-site core examinations & underground mapping.	Highway-144 Gap Deposit, Thunder Creek, and Timmins Deposits Finalized internal report received Dec/15 (D. Rhys, 2015)

Year	Activity	Description	Comments
2015-2016	Geophysical Surveys (Thunder Creek/Highway-144 Trend)	185km line-cutting 184km MAG 169km *IPower* 3D IP 8km Gravity 15 core samples for baseline signatures	Internal reports and maps-sections for each of the work phases (Abitibi Geophysics, Initial Report 15N037, 2015, Finalized report 15N049, 2016.)
2015-2016	Lithogeochemical Investigation of the Highway-144 Gap Deposit: *Report on the Alteration and Geochemistry of the Gap Deposit, Timmins West Mine, Timmins, Ontario*	On-site core examinations. Thin-section microscopy & major/trace element geochemistry for ~100 core samples from 8 drill holes	Progress report (Dr. R. Linnen and R. Campbell, Oct/2015) Finalized internal report received Jan/16 (Dr. R. Linnen, 2016)
2016	SGS Corescan Analysis of the 144 Gap Deposit	Hyperspectral mineralogical analysis of 2 representative sections of core from the 144 Gap Deposit	Highway-144 Gap Deposit Finalized internal report received Sep/16 (Brian Bennett, SGS and Ronell Carey, Corescan)
2016-Present	Sponsorship of M.Sc Thesis Work: Mineralogical and Geochemical Characterization of Gold Mineralization at the Highway-144 Gap Deposit	Petrographic and SEM microscopic studies on a suite of samples collected from 20 drill holes from 5 representative sections through the 144 Gap	In progress (L. Howitt, University of Western Ontario) Internal progress presentation received Jul/16 (Dr. R. Linnen)

Note: All drilling activities and relevant statistics are summarized in Item 10.

10.0 DRILLING

10.1 Historical Drilling on the Timmins West Mine Property

Between 1938 and 1980, 145 diamond drill holes totaling 27,622 metres were drilled on the TWM property. The information from this work is either missing or unreliable/incomplete and has not been considered in the LSG or Tahoe Canada Mineral Resource estimates.

Between 1984 and 2002, diamond drilling on the TWM property was carried out by four operators, including Norex, Chevron, St. Andrew and Holmer Gold. All holes were drilled from surface and in reference to the same cut grid, oriented north-south, which was refurbished as required. Bradley Bros. Limited of Timmins contracted most of the drilling, using a variety of drill rigs. Most holes were NQ-size (47.6 mm diametre core), except for 37 holes which were drilled using BQ rods (36.5 mm diametre core). Core recoveries were consistently excellent and close to 100 percent. Drill hole direction and dips were monitored at regular intervals (mostly 50 metre spacing) using Sperry-Sun and EZ-Shot Reflex instruments. Casings were generally left in place and capped. The hole number was stamped on the cap or indicated by a labeled steel bar emplaced at the collar. All collars were subsequently surveyed by a qualified surveyor.

A total of 47,420 metres in 159 holes were completed during this period. The majority of this drilling was directed towards initial resource definition of the Timmins Deposit and is considered to be of sufficient quality to be used in the Mineral Resource estimates for the property. Details regarding collar and downhole surveys, core handling and logging protocols for the historical drill programs are noted in Item 11 and are further discussed in previous NI 43-101 reports (Darling et al, 2009; Powers, 2009). These reports are referenced in Item 27 and are filed on SEDAR.

Drilling on the Thunder Creek Deposit portion of the property by previous operators (1942 to 1996) was sparse and very limited in nature. With missing or unreliable/incomplete information detailing the scope of work, these drill programs are considered insignificant to the current Resource estimate.

The drilling completed between 1984 and 2002 is summarized in Table 10-1. The table only includes drilling by previous operators which has been considered in the LSG/Tahoe Canada Mineral Resource estimates.

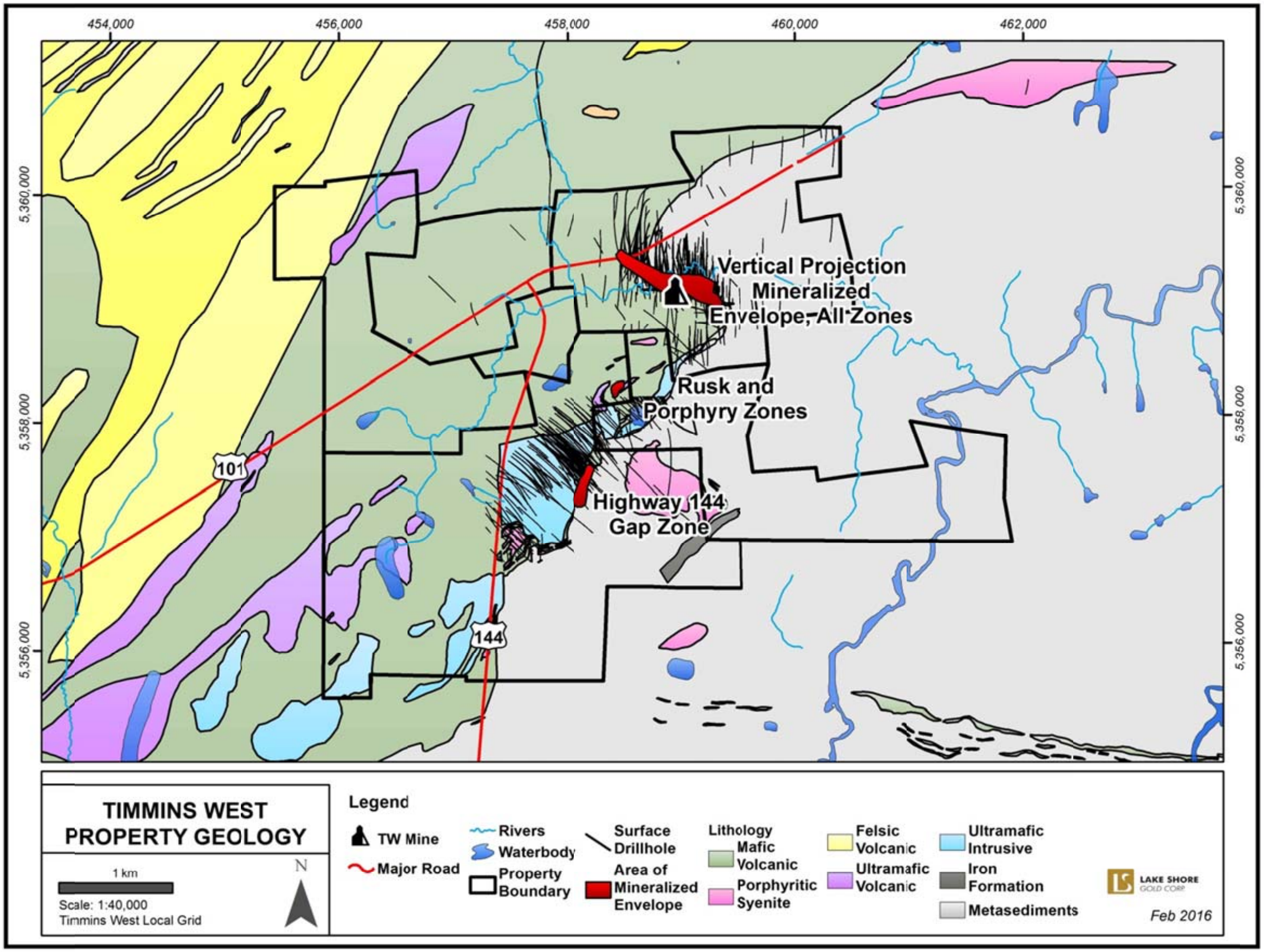
Table 10-1: DIAMOND DRILLING BY PREVIOUS OPERATORS ON THE TIMMINS WEST MINE PROPERTY (1984-2002)

Company	Year	Holes	Metres	# Samples
Norex	1984	4	1,465	644
Chevron	1987 – 1989	31	7,870	3,620
Holmer	1996 – 2002	114	36,745	13,679
St. Andrew	1999	10	1,340	667
Total:		**159**	**47,420**	**18,610**

Note: Table only includes drilling by previous operators which has been considered in the LSG and Tahoe Canada Mineral Resource estimates.

Refer to Figure 10-1 for surface diamond drill hole collar locations and traces plotted with respect to the surface projection of the mineralized resource.

Figure 10-1: SURFACE DIAMOND DRILLING RELATIVE TO VERTICAL PROJECTION OF GENERALIZED RESOURCE ENVELOPES



10.2 Drilling on the Timmins Deposit Property by Lake Shore Gold/Tahoe Canada

Procedures for surface diamond drill holes completed by LSG and Tahoe Canada are similar to those described above for previous operators. Drilling was mostly contracted to Bradley Bros. Limited, and a minor portion was contracted to Orbit Garant Drilling Services of Val-d'Or. NQ-size holes were standard, except where it was necessary to reduce to BQ rods due to difficult ground conditions. Drill core recoveries were consistently excellent. For deep drilling, numerous branches off the pilot holes were completed using steel wedges. Drill hole orientations were closely monitored using EZ-Shot tests at 30 to 50 metre intervals, and downhole gyro surveys were regularly done for deep holes. Most of the holes were initially not cemented, but in 2007 and 2008, cement grout was pumped down all of the casings which were relatively easy to access. Further details are discussed in Item 11.

Underground diamond drilling on the Timmins Deposit started in October 2008, and was initially carried out by Forage Azimuth Inc. of Rouyn-Noranda, followed by Boart-Longyear from April 2009 to April 2013, and has since been contracted to Orbit Garant of Val-d'Or. Various electric drills are being used and the majority of underground holes are BQ in diametre (36.5 mm diametre core), NQ-sized rods are occasionally used on deeper holes, and HQ-sized rods are typically used for service holes. LTK-48 and AQTK core is provided when air-powered drills are used. Further details are discussed in Item 11.

When LSG optioned the property from Holmer Gold Mines in 2003, the initial main focus of the surface exploration program was diamond drilling the down-plunge and along-strike extensions of the Footwall and Ultramafic Zones. As underground access became available (starting in 2008), the priorities gradually shifted towards infill drilling and stope definition drilling. This work led to the preparation of a Mineral Resource estimate in 2004, reported in accordance with NI 43-101 standards for disclosure, followed by updates in 2006, 2009, 2011, 2012, and 2014 (also NI 43-101 compliant).

For highlights of prior (2003 – 2013) surface and underground drill programs completed by LSG on the Timmins Deposit portion of the TWM property please refer to LSG'sprevious technical report dated March 31, 2014. Recent drill campaigns are summarized as follows:

2014 to November 20, 2015: No surface exploration drilling was carried out on the TWM property during this period. The primary focus of all underground drilling during this span (846 holes totaling 115,780 metres) remained directed towards upgrading the resource base and stope definition. Similar to the 790L Exploration drift (described above), 502 metres of development were completed to establish a two-phase (Phase 1 = 271 metres, Phase 2 = 231 metres) drill platform on the 910L to allow for infill drilling of the Timmins Deposit down to approximately the 1,310L. Some holes drilled from this key platform extend beyond or outside of the current resource model to test for new mineralized zones. An important drill drift was also developed in the upper part of the Timmins Deposit on the 480L in order to complete stope definition drilling and improve confidence in large Reserve blocks that reside in footwall-style mineralized zones (*e.g.*, FW2A) for future detailed mine planning. A small number of holes were also collared from this platform and directed to the north to test the down-plunge projection of vein-style zones from the Upper Mine. By the end of 2015, the ramp in the Lower Mine was advancing towards the 1000L.

Of the total underground drilling, a modest portion (17,036 metres) was allocated to test several exploration targets, including: 1) the up- and down-plunge extensions of the "Sediment Sub-Zones" (*e.g.*, S1 and S2) as well as new targets along the northern limb of the "fold nose" structure at depth from the 790L East Exploration Drift (5,181 metres); 2) the down-plunge projection of the Main Zone from the 790L West Exploration Drift (4,167 metres); 3) east-west trending structures to the north, similar and sub-parallel to the gold-bearing Holmer Shear from the 790L S2 Access (1,848 metres), and; 4) the key volcanic-sediment contact and associated structures between, and host to, the Timmins and Thunder Creek Deposits from the 830L Exploration Drift (5,840 metres). Results of the underground exploration program were mixed with important alteration types and/or structures intersected in proximity to all intended targets, but few significant assays were returned. The most successful of these brief programs included the identification of several stacked shallow-dipping "Sediment Sub-Zones" (*e.g.*, S6 and S7; refer to Figure 7-5) to the east of the main UM mineralized zones and immediately above the ultramafic-sediment contact in the fold nose structure (refer to Figure 7-4). These zones are interpreted to represent the down-plunge extension of the S1 and S2 type zones between the 890L and 970L, and are included in the present Mineral Resource estimate.

November 21, 2015 to May 15th 2017: The primary focus of underground drilling conducted at the Timmins Deposit during this period remained directed towards upgrading the current resource base while concurrently completing stope definition drilling in support of the mine plan. The second objective was to test the down-plunge projection of the Timmins Deposit mineralized fold nose structure to the west and beneaththe current resource. The bulk of this drilling was completed with two electric drills; infill and definition drilling was completed by one drill which operated from various drill platforms as level development was established while the second drill remained stationary in the 910L Exploration Drift.

Key platforms for the infill drilling included diamond drill bays positioned at regular intervals off the west and east sides of the main ramp at the 950L, 970L, 1030L, 1070L, 1090L and 1110L. The main objective of these infill programs was to achieve a tight drill hole density sufficient for stope definition to support future mine planning.

Extensive drilling from the 910L Exploration Drift continued targeting: 1) Inferred Mineral Resources within various FW, UM and D Zones down to the 1350L, and; 2) the down plunge projection of the main Timmins Deposit fold nose structure to the west and beneath the current Mineral Resource (13 holes for 6,034 metres). Some of the holes drilled from this platform were also extended beyond the projected lithological models to test for new mineralized zones along trend.

Several smaller scale on-level programs were also completed during this period. While the majority of this drilling focused on infill and definition of stope blocks, programs were also implemented to evaluate and upgrade more recently identified styles and zones of mineralization (*e.g.*, the S4 "Sediment Sub-Zone"). The S4 Zone is interpreted as part of a series of stacked shallow-dipping mineralized lenses which occur east of the main UM mineralized zones in close proximity to the ultramafic-sediment contact in the fold nose structure. Drilling completed from platforms on the 910L and 950L great improved definition of the S4 Zone and provided additional lithological information to help support the 2017 mine plan between the 970L and 910L horizons, with possible carryover into 2018.

A short program was also completed in the upper portion of the Timmins Deposit to evaluate the V3BL/V3BU Zones which contain gold-bearing quartz/tourmaline stock work veining. Two platforms were utilized on the 450L and 420L. Short holes oriented north into the sediment contact generated encouraging results improving the overall grade and confidence in the V3 series of zones in the Upper Mine.

By May 15th 2017, the ramp in the Lower Mine had been advanced past the 1100L Access down the 1130L Ramp Decline and development of the 1130L West Ramp Diamond Drill Bay was just underway.

Additional surface exploration on the property included a total of 3,839 metres (4 holes) of drilling targeting the down-plunge extension of the Timmins Deposit Fold Nose ("TDFN") where prior results from underground proved mineralization extending at least 150 metres below the prior resource limit (Tahoe Press Release dated January 09, 2017). One deep master (parent) surface hole and one up-dip wedge (daughter) hole were successfully completed with a second up-dip wedge cut in progress to test the structure approximately near the 1,850L. One failed down-dip wedge cut was abandoned due to technical difficulties. Results to date from this program indicate significant alteration, local veining and sulphides on both the north and south limbs of the fold but with mostly low grade gold values. Additional possible follow-up drilling is being planned to improve the geological model and better constrain mineralization potential at depth.

Since the database cutoff date of the last technical report on the Timmins Deposit (November 20th, 2015), a total of 677 new holes (77,696 metres) have been drilled and 43,465 assays have been received as of the effective date of this report. An annual breakdown of the number of diamond drill holes and metres drilled is provided in Table 10-2 and additional drilling statistics are included in Table 10-3.

10.3 Drilling on the Thunder Creek Property by Lake Shore Gold/Tahoe Canada

Diamond drilling on the Thunder Creek Deposit initially focused on testing a historic showing and various structures interpreted from geophysics, as well as following up on Mobile Metal Ion ("MMI") and grab sample anomalies. This led to the discovery of the Rusk and Porphyry Zones, which quickly became the main focus of all diamond drilling on the property.

Surface drilling on the Thunder Creek Deposit by LSG began in 2003 and amounts to a total of 115,837 metres completed in 209 holes to date. This figure includes pastefill holes, service holes, and ten grout holes completed in order to minimize underground water infiltration. The work was mostly contracted to Bradley Bros. Ltd. (Timmins), with shorter stints also contracted to Norex Drilling (Porcupine) and Orbit Garant (Val d'Or). All drilling protocols were the same as those implemented by LSG and described for the Timmins Deposit property (see Item 10.2). The only difference is that the cut grid lines are rotated, with the predominant drilling direction at an azimuth of 130 degrees. Further details are included in Item 11.

Underground drilling on the Thunder Creek Deposit began in 2010 and remains ongoing. Access is provided via ramp as well as the Timmins Mine shaft and by connecting ramps on two separate levels. Operations are combined with the Timmins Mine, and drilling contractors, drill specifications, and protocols are therefore the same at both locations.

For highlights of prior (2003-2013) surface and underground drill programs completed by LSG on the Thunder Creek Deposit portion of the TWM property, please refer to the previous technical report dated March 31, 2014. Recent drill campaigns are summarized as follows:

2014 to November 23, 2015: No surface exploration drilling has been carried out on the Thunder Creek property since late 2012. The main focus of all underground drilling during this period (466 holes totaling 49,454 metres) was aimed towards upgrading the resource and stope definition. Drill holes are occasionally extended beyond and outside of the resource envelopes in order to test for new mineralization. Because platforms for infill and stope definition drilling at Thunder Creek are highly dependent on level access development in order to achieve appropriate drill densities (~10 to 12 metre centers), the majority of this drilling is intimately linked with the mine operations. By the end of 2015, the ramp in the Lower Mine had advanced down to the 785L; meanwhile the ramp in the Upper Mine had reached the 485L.

Of the total underground drilling, a minor portion (5,350 metres) was allocated to test two main exploration targets, including: 1) the potential expansion of the Porphyry Zone resource to depth (below the 815 metre level) from the 765L Main Access and 710L Exploration Drift (2,891 metres), and; 2) the key volcanic-sedimentary contact and Rusk Shear Zone structure to the southwest of the Thunder Creek Deposit from the 710L Exploration Drift (2,459 metres). The former program returned favourable results but drill angles limited the depth to which drilling could reach, and only narrow resource expansion along the southern margin of the Porphyry Zone was plausible. The latter program identified intermittent areas of intense alteration with localized pyrite mineralization associated with sporadic syenite dykes and quartz-carbonate veining, but did not return any significant assays.

November 24, 2015 to May 15th 2017: The primary focus of underground drilling at Thunder Creek during this period was directed towards stope definition drilling down to the 850L and up to the 370L. The second objective was to test the Porphyry and Rusk Zones below the 850L.

Drilling at Thunder Creek in early 2016 focused on testing the potential down-dip extensions of both the Porphyry and Rusk Zones, from various crosscuts on the 785L. This drill campaign confirmed the continuity of the Rusk Shear Zone down to the 850L and based upon these results supplemental programs were initiated out of the 850L Ramp and the 850L in 2017. The objective of this additional drilling was to further investigate the potential for down-dip extensions below the 850L. Select drill holes were extended beyond and outside of current resource shapes in an effort to test for ancillary ore along the margins of the deposit and to identify potential new gold bearing structures.

The 850L program indicated the potential for small lenses of gold mineralization within the Rusk Shear Zone down to the 970L. While the porphyry appears to increase in size with depth, limited drilling with isolated high grade intersections make it difficult to establish continuity without further testing.

Three large on-level infill programs were initiated from the 450L, 415L and 395L during the reported period. Using various level accesses and crosscuts as drill platforms, these programs were designed to infill and define the Rusk and Porphyry Resource Shapes between the 485L and 370L and test the potential for extensions along the eastern and western flanks. A total of 234 holes (13,098 metres) were drilled during these campaigns to improve drill density and better define potential mining blocks up to the 370L.

By the end of 2016, the down ramp at Thunder Creek had advanced to the 850L where it has remained until present. In 2017, development commenced on the 850L Exploration Drift which is centrally located within the Thunder Creek Deposit and 100 metres to the north of the Rusk hanging wall structure and scheduled to be completed by mid to late Q3 2017. Designed to provide favorable drill angles and permit drilling down to approximately the 1,250L, the drift will be used primarily to target the down-dip extensions of the Rusk and Porphyry Zones and explore for potential new mineralized structures at depth. As of May 15th 2017, 91.8 metres of the planned 165 metre Exploration Drift had been developed.

Since the database cutoff date of the last technical report on the Thunder Creek Deposit (November 23, 2015), a total of 615 new holes (44,420 metres) have been drilled and 37,859 assays have been received as of the effective date of this report.

An annual breakdown of the number of surface and underground diamond drill holes and metres drilled is provided in Table 10-2, and additional statistics are compiled in Table 10-3.

10.4 Drilling on the 144 Gap Property by Lake Shore Gold/Tahoe Canada

Diamond drilling on the Highway-144 ("HWY-144") property initially focused on testing the southwestern strike extension of the Thunder Creek Rusk Zone, interpreted from regional geology and geophysical signatures. This led to the discovery of the 144 Gap Deposit, which quickly became the central focus of all diamond drilling efforts on the property.

Surface drilling on the HWY-144 property by LSG began in 2010 and amounts to a total of 248,284 metres completed in 306 holes to date. The work was largely contracted to Bradley Bros. Ltd. (eventually Major Drilling, Timmins) and Norex Drilling (Porcupine). All drilling protocols were the same as those implemented by LSG and described for the Timmins Deposit property (see Item 10.2). Similar to Thunder Creek, the only difference is that the cut grid lines are rotated, with the predominant drilling direction at an azimuth of 130 degrees. Further details are included in Item 11.

Underground drilling at the 144 Gap Deposit began in 2015 and remains ongoing. Access is provided from a 1,317 metre ramp and exploration drift developed to the southwest from the 765 metre level at Thunder Creek. The exploration drift is established in the hanging wall to the Gap Deposit mineralization at an approximate elevation of 820 metres below surface (820L). Operations are combined with the Timmins and Thunder Creek Deposits, and drilling contractors, drill specifications, and protocols are therefore consistent with these locations.

Highlights of the various surface and underground drill programs completed on the 144 Gap property by LSG and Tahoe Canada are summarized as follows:

2010: Nine surface diamond drill holes (totaling 4,693m) were completed, targeting a 500 metre southwestern strike extension of the Thunder Creek Rusk Zone. A broad 'step-out' hole (TC10-85A) intersected a 20 metre alteration zone containing porphyry dykes, quartz veining, and increased pyrite mineralization similar in nature to the Thunder Creek Deposit. Favourable assay results were returned, including 8.07 gpt over 2.0 metres (LSG Press Release dated July 26, 2011), affirming the possibility of continued gold mineralization along the interpreted southwest extension of the Rusk Shear Zone along the Thunder Creek-144 Trend.

2011-12: LSG initiated a surface exploration program in 2011 to continue assessing the mineralization potential of the southwestern strike extension to the Thunder Creek Deposit. Three prospective targets (144 Gap, 144 North, and 144 South areas) were selected within a broad alteration/deformation corridor that is traceable by interpreted regional geophysical surveys over approximately 6 kilometres to the south-southwest from Thunder Creek. A total of 39 holes, wedge cuts, and extensions (totaling 28,929 metres) were completed in these areas by the end of 2012. Six of these holes (including 1 extension) were collared within 1.6 kilometres of the Thunder Creek Deposit. Drill hole HWY-12-40 returned significant gold intercepts, including 13.54 gpt over 2.0 metres and 6.07 gpt over 3.0 metres (LSG Press Release dated January 21, 2013). This intersection, coupled with earlier hole TC10-85A, illustrated the potential extension of the favourable volcanic-sedimentary contact and associated structures through the largely unexplored 144 Gap area.

2013: No surface exploration drilling was carried out during this period.

2014-15: Surface drilling resumed in early September with the primary intention of following up on the encouraging results from the 2012 campaign. The first hole in the program (HWY-14-48), designed as a 125 metre undercut (down-dip) to drill hole HWY-12-40, intersected 5.37 gpt over 46.0 metres (LSG Press Release dated October 7, 2014) and became known as the discovery hole to the Highway-144 Gap Deposit. A total of 158 holes and wedge cuts (totaling 149,841 metres) were quickly completed by the end of 2015 with up to 6 or 7 drills operating for much of the period. This drilling quickly extended the 144 Gap Deposit dimensions to a minimum of 400 metres along strike and 400 metres of vertical height (LSG Press Release dated April 27, 2015). In addition, drilling up to 250 metres further southwest along the Thunder Creek-144 Trend identified another mineralized zone, here termed the HWY-144 Gap Southwest ("SW") Zone (HWY-15-116: 3.30 gpt over 40.8 metres, including 6.12 gpt over 9.5 metres; LSG Press Release dated June 25, 2015). More work is required to better constrain this new discovery, which could be easily accessible by extending the 144 underground exploration drift. Late in the year, surface drilling in the 144 Gap area focused on assisting with the resource definition portion of the program, targeting the upper parts of the 144 Gap Deposit which could not be properly tested from the underground drift due to poor drilling angles.

New gold mineralization was also identified with surface drilling in the 144 South target area, which occurs approximately 1.6 kilometres to the southwest of the 144 Gap Deposit (HWY-15-142: 3.11 gpt over 19.1 metres and 5.38 gpt over 3.6 metres; HWY-15-142W2: 4.27 gpt over 7.3 metres; HWY-15-148: 9.59 gpt over 3.0 metres; LSG Press Release dated October 28, 2015). These key intercepts are located approximately 100 to 200 metres northeast and 450 metres below previously reported results from HWY-12-45 and HWY-11-28 (LSG Press Release dated January 21, 2013).

An underground exploration program was initiated in late May 2015 from drill cutouts in the 144 Ramp, driven to the southwest from the 765L at Thunder Creek. A total of 3,033 metres were completed in 3 drill holes, targeting the largely untested "Thunder Creek Stock", which lies between the Thunder Creek and 144 Gap Deposits, to the southeast of the main mineralized trend. Each of the holes intersected varying widths of the thick porphyry unit with localized zones of increased alteration, veining, and mineralization. A follow-up program was highly recommended in order to complete a fourth planned flat hole extending across the eastern portion of the syenite intrusion towards a possible iron formation (projected from surface magnetic data) and test for mineralized flat-lying to shallow vein sets in proximity to anomalous assay results returned during the 2015 campaign.

The 144 underground drilling quickly shifted focus to the resource definition portion of the program as soon as platforms became available in the hanging wall drift (820 metre level) in mid to late July 2015. With the exploration drift completed in early October, a total of 40,488 metres of infill drilling was completed by year end, towards an initial Mineral Resource estimate for the 144 Gap Deposit released by LSG in a previous technical report filed on SEDAR as of March 9, 2016.

January 11th 2016 to May 15th 2017: Drilling at the 144 Gap Deposit continued throughout 2016 and early 2017 from both surface and the 144 underground drill drift (820L) with the key objective being to convert as much of the resource to the Indicated category as possible.

Surface drilling at the 144 Gap Deposit included a total of 14,935 metres of infill drilling (26 holes) and 1,907 metres of extensional drilling (2 holes). The infill program was focused on resource conversion mainly in the upper portions of the deposit which cannot be reached from the underground platform with a few holes testing the bottom of zones to the east. Exploration drilling tested a potential easterly mineralized plunge with wide step out holes targeting approximately 50 to 100 metres to the east and to depth.

Underground drilling at the 144 Gap Deposit carried into 2016 with six electric drills operating from various cutouts along the 144 Exploration Drift on the 820L. The majority of drilling targeted the East Porphyry Zone, where the first production stopes were planned, and was designed to achieve a minimum drill spacing of 7-15 metres. The remainder of drilling was completed in the west and central areas of the deposit and completed at 12.5-25 metre centers. The 2017 program was reduced to one to two drills and focused mainly on resource conversion in the western portion of the deposit as well as definition of stope blocks within the East Porphyry Zone that are included in the 2017-2018 mine plan.

A total of 23 holes (totaling 1,161 metres) was also completed from the HW805 metre Level Access as part of a short on-level definition drill program which tested the 805 #7 FW Uppers and #1 HW stope blocks to help guide and support the mine plan in the short term.

Infill and definition drilling completed at the 144 Gap Deposit during this period generally conformed to the previous results but indicates a high degree of variability for gold grades over short distances. This variability is considered to be the result of gold being hosted within multiple small scale structures with varying orientation, limited continuity and containing coarse free gold.

Underground exploration drilling was also executed from the 820L Exploration Drift with a total of 4,269 metres (7 holes) completed during the period. Three holes (totaling 1,752 metres) were drilled to follow-up on anomalous results in the Thunder Creek Stock target area from the 2015 campaign. Varying widths of porphyry were intersected with localized alteration, veining and sulphides but mainly low gold values. Four holes (totaling 2,517 metres) were also completed to test stratigraphic contacts and structural features between the 144 Gap and South West Zones. The overall program was highly beneficial in terms of advancing the geological model near the 820L but returned mostly low grade assay values.

Since the database cutoff date of the prior technical report on the 144 Gap Deposit (January 11, 2016), a total of 493 new holes (126,735 metres) have been drilled and 76,515 assays have been received as of the effective date of this report.

Additional surface exploration on the property included a total of 17,202 metres (24 holes). Of this total, 13,638 metres (20 holes) targeted the 144 South Zone, located approximately 1.6 kilometres southwest of the 144 Gap Deposit, with exploration designed to extend mineralization surrounding a syenite porphyry previously identified from drilling in 2015 (described above). This campaign was successful in extending mineralization approximately 65 metres to the east and to depth as well as 50 to 150 metres to the west. Significant drill results reported at depth include 5.87 gpt over 8.6m (incl. 10.78 gpt over 4.0m) near the 875L and new intercepts defining extensions of mineralization to the west include 7.1 gpt over 2.0m, 3.5 gpt over 3.2m, 27.53 gpt over 1.8m and 4.06 gpt over 7.7m (Tahoe Press Release dated January 9, 2017). Four additional wide step out holes for 3,564 metres were also completed to test regional trends towards the new 144 Offset target area which is located up to 1km to the west-northwest of the 144 South Zone. Results to date indicate broad zones of intermittent deformation with locally intense alteration, veining and sulphides but low gold values.

An annual breakdown of the number of surface and underground diamond drill holes and metres drilled is provided in Table 10-2 and additional drilling statistics are compiled in Table 10-3.

Table 10-2: STATISTICS ON DIAMOND DRILLING FOR TIMMINS WEST MINE AREA BY LSG AND TAHOE CANADA (2003 TO MAY 15, 2017)

PROPERTY	YEAR	SURFACE HOLES	METRES (m)	U/G HOLES	METRES (m)
TIMMINS DEPOSIT	2003	52	17,145	0	0
	2004	37	17,959	0	0
	2005	58	28,876	0	0
	2006	54	28,099	0	0
	2007	18	11,493	0	0
	2008	68	7,729	67	5,496
	2009	12	9,829	296	26,006
	2010	3	1,737	350	46,315
	2011	3	1,022	295	40,878
	2012	0	0	455	64,134
	2013	0	0	462	47,677
	2014	0	0	379	50,729
	2015	0	0	484	65,432
	2016	0	0	453	43,134
	Jan 1 - May 15, 2017	4	3,839	202	24,848
	Subtotal	**309**	**127,728**	**3,443**	**414,650**
144-GAP	2010	7	3,812	0	0
	2011	24	16,461	0	0
	2012	17	13,348	0	0
	2013	0	0	0	0
	2014	22	22,527	0	0
	2015	136	127,314	172	41,458

PROPERTY	YEAR	SURFACE HOLES	METRES (m)	U/G HOLES	METRES (m)
144-GAP	2016	47	29,902	366	81,951
(continued)	Jan 1 - May 15, 2017	53	34,920	87	12,689
	Subtotal	**306**	**248,284**	**625**	**136,098**
THUNDER CREEK	2003	6	1,667	0	0
	2004	13	4,370	0	0
	2005	6	2,359	0	0
	2007	22	10,650	0	0
	2008	16	7,921	0	0
	2009	35	25,860	0	0
	2010	18	11,071	183	24,123
	2011	56	34,425	244	51,774
	2012	33	15,839	382	61,513
	2013	4	1,675	238	21,349
	2014	0	0	298	35,403
	2015	0	0	203	16,662
	2016	0	0	338	24,411
	Jan 1 - May 15, 2017	0	0	242	17,390
	Subtotal	**209**	**115,837**	**2,128**	**252,625**
MEUNIER	2010-2012	**4**	**4,038**	0	0
TIMMINS WEST MINE AREA	**TOTAL**	**828**	**495,887**	**6,196**	**803,373**
Includes all pilot holes, wedge holes and extended holes completed within the period indicated. Includes 28 geotechnical holes (2008 RC holes; 487 m), 12 mine service holes (PF and RAR holes; 5586 m), and 10 grout holes (GRT holes; 2296 m).					

Table 10-3: DRILLING AND SAMPLING STATISTICS TO CUT-OFF DATES FROM DATABASE

TIMMINS DEPOSIT PROPERTY	# HOLES	# METRES	#SAMPLES	COMMENTS
Previous Operators (1938 - 2002)	304	75,042	21,035	159 holes "considered" in the resource estimate.
LSG (2003 to 31 January 2012)				
New Drilling Info:	1,344	249,664	62,003	
LSG (1 February 2012 - 26 November 2013)				
New Drilling Info:	843	101,160	67,622	
LSG (27 November 2013 - 20 November 2015)				
New Drilling Info:	888	118,901	68,289	One hole was completed after 20-Nov-2015
LSG/Tahoe Canada (21 November 2015 - 15 May 2017)	677	77,696	43,465	
Total Holes on Timmins Mine Property:	**4,056**	**622,463**	**262,414**	
Total Info to Cutoff Date:	**4,056**	**622,463**	**262,414**	
Total New Info to Cutoff Date:	**677**	**77,696**	**43,465**	
Total Holes in Model:	**3,411**	**582,000**	**270,559**	
Total Holes Having Sol_Int:	**1,732**	**275,196**	**162,726**	

144-GAP PROPERTY	# HOLES	# METRES	# SAMPLES	COMMENTS
Previous Operators (1942 - 1996)	9	1,689	526	Not considered in the resource estimate.
LSG (2010 to 2013)	48	33,621	19,660	
LSG (2014)	22	22,527	5,749	
LSG (2015)	308	168,772	62,075	Includes Surface and Underground holes.
LSG (01 January 2016 - 11 January 2016)	13	2,824	1,957	
LSG/Tahoe Canada (12 January 2016 - 15 May 2017)	493	126,735	76,515	
Total Holes on 144-GAP Property:	**893**	**356,169**	**166,482**	
Total Info to Cutoff Date:	**893**	**356,169**	**166,482**	
Total New Info to Cutoff Date:	**493**	**126,735**	**76,515**	
Total Holes in Model:	**786**	**328,617**	**138,188**	
Total Holes Having Sol_Int:	**579**	**199,696**	**100,243**	
THUNDER CREEK PROPERTY	**# HOLES**	**# METRES**	**# SAMPLES**	**COMMENTS**
Previous Operators (1942 - 1996)	262	47,384	981	Not considered in the resource estimate. Some historic holes added to database since last 43-101.
LSG (2003 to 28 October 2011)				
Previous Drilling Old Info:	520	149,543	74,657	
Previous Drilling New Info:	42	15,124	8,540	
LSG (29 October 2011 - 8 January 2014)				
New Drilling Info:	694	109,928	69,387	
LSG (9 January 2014 - 23 November 2015)	466	49,446	39,520	
LSG/Tahoe Canada (24 November 2015 - 15 May 2017)	615	44,420	37,859	
Total Holes on Thunder Creek Property:	**2,599**	**415,845**	**230,944**	
Total Info to Cutoff Date:	**2,599**	**415,845**	**230,944**	
Total New Info to Cutoff Date:	**615**	**44,420**	**37,859**	
Total Holes in Model:	**1,744**	**307,129**	**192,393**	
Total Holes Having Sol_Int:	**1,223**	**168,592**	**130,763**	
TIMMINS WEST MINE	**# HOLES**	**# METRES**	**# SAMPLES**	
Total Holes TM-144-TC Combined:	**7,548**	**1,394,478**	**659,840**	
Total Info to Cutoff Date TM-144-TC Combined:	**7,548**	**1,394,478**	**659,840**	
Total New Info TM-144-TC Combined:	**1,785**	**248,852**	**157,839**	
Total Holes in Model TM-144-TC Combined:	**5,941**	**1,217,746**	**601,140**	
Total Holes Having Sol_Int TM-144-TC Combined:	**3,534**	**643,484**	**393,732**	

Note: Number of holes reported to current effective dates are holes actually completed

11.0 SAMPLING PREPARATION, ANALYSIS, AND SECURITY

The sampling preparation, analysis, and security for the period of 1998 to 2009 are described in the NI 43-101 Technical Report on the TWM Property by Darling et al (2009); by Powers (2009) in the Amended Technical Review and Report of the "Thunder Creek Property" Bristol and Carscallen Townships; and by Crick et al (2011) in the Technical Report on the Initial Mineral Resource Estimate for the Thunder Creek Property, Bristol Township. A Preliminary Economic Assessment Report and Updated Mineral Resource Estimate for the TWM was released in March 2009 and provided updated protocols up to October 28, 2011 for Thunder Creek, and up to January 31, 2012 for the Timmins Mine property (Crick et al., 2012a). An updated mineral reserve estimate for TWM was released in March 2014 and provided updated protocols up to February 21, 2014. An updated NI 43-101 Technical Report for the Mineral Resource and Reserve Estimate for the TWM was released in March 2016 and provided updated protocols up to December 31, 2015. All of these reports are referenced in Item 27 and are filed on SEDAR.

11.1 Surface Diamond Drill Programs

11.1.1 General Statement

Described herein are the protocols used for the surface exploration programs during the period from the last technical report to the current effective date.

11.1.2 Core Handling and Logging Protocols

For the surface drill programs, the diamond drill contractors secure the drill core boxes with fibre tape at the drill site and deliver them directly to the core logging facilities located at Lake Shore Gold's exploration office at 1515 Government Road South, or at a second facility at 216 Jaguar Drive, Timmins, Ontario. Under the direct supervision of Qualified Persons, Lake Shore personnel open the boxes, measure and check the metre markers for accuracy, and label the boxes with metals tags noting hole number, box number, and metreage. A geologist prepares a summary log or "quick log", and the core is racked until it can be further processed. The core is then logged in detail by a geologist, with data entered directly into custom logging software developed by Geovia GEMS. Captured data include detailed descriptions of key geological, structural, alteration, and mineralization controls. Intervals to be sampled are indicated by the geologist, sample tags are inserted, rock quality designation ("RQD") measurements and photographs are taken, and the log is printed, reviewed, and edited if required. The core is then given to a trained and supervised technician to be cut (half core) and sampled. Once the sampling is completed, all remaining drill core is stored in racks or square piled in a secure compound at the core logging facilities or at the TWM compound.

11.1.3 Property Grids, Hole Collar, and Downhole Attitude Surveys

All drill holes are planned in reference to a local field grid. On the Timmins Deposit portion of the property, the grid lines are spaced at 100 metre intervals and are oriented due north, with pickets at every 25 metre spacing. The origin of the Timmins Deposit grid is the number one claim post of patented Claim P4040, which was assigned an arbitrary coordinate of 5000 east and 8000 north with an elevation of 1,000 metres. This point is actually 300.25 metres above Mean Sea level and has been reassigned an elevation of 10,000 metres to ensure that underground elevations are not reported as negative numbers. By contrast, the Thunder Creek Deposit field grid is rotated by 40° with respect to the Timmins Deposit field grid. It also consists of cut lines at 50 to 100 metre spacing with labeled pickets every 25 metres. The "false origin" of the Thunder Creek grid is coincident with the number three post of the same patented claim P4040 (458,854m east, 5,358,786m north, NAD 83, Zone 17). The surveyed post is the departure point for the baseline coordinate 65+00E / 100+25N and corresponds to Timmins Deposit co-ordinate 4646 east by 7508 north. The azimuth of the base line is 40° from true north. Grid line designation decreases southward and extends through the HWY-144 portion of the property.

An in-house grid transformation equation allows for the easy conversion between Timmins Mine, Thunder Creek, and UTM coordinates.

For surface drill programs, all drill hole locations are pegged on the ground in reference to the existing cut field grid or using a handheld GPS. The drill rig alignment is determined by placing front and back sights using a regular compass, or by using a north-seeking gyroscope device referred to as an azimuth aligner or gyrocompass (Reflex TN14 Gyrocompass). With much improved accuracy, precision, and ease of use, this technology replaced the formerly used differential GPS aligning device referred to as an APS (Reflex North Finder Azimuth Pointing System) for all surface drill programs as of Fall 2014. As the holes are being drilled, changes in azimuth and inclination are monitored at 30 to 50 metre intervals using an EZ-Shot Reflex instrument. Upon completion of a relatively deep hole (500+ metres), it is common practice to have the holes resurveyed using a MEMS gyro system by Reflex Instruments Ltd. of Porcupine, Ontario. Occasionally, selected holes are also surveyed using a north-seeking gyro system by Halliburton/Sperry Drilling Services of North Bay, Ontario, as a means of validation and for comparison purposes. All drill collars are also surveyed by L. Labelle Surveys of Timmins, Ontario, before collar locations are considered finalized and imported into the database.

11.1.4 Security

The secure chain of custody for diamond drill core and samples starts at the drill and is completed with the safe return of sample pulps in a locked storage facility on site. Unscheduled visits to the diamond drill sites are made to ensure safety, good working practices, and drill core security.

The core from surface drill programs is transported from the field to the core logging facility by the drill foreman. Core reception, logging, and sample preparation procedures are followed as previously described in Item 11.1.2. The samples are enclosed within sealed shipping bags, are transferred into larger shipping bins, and are directly delivered to the selected analytical labs by Company employees. The lab employee that receives the sample shipment signs a chain of custody document that is returned to the Tahoe Canada Exploration office for reference and filing. The return assay results are currently processed by database manager Morgan Verge, GIT, and are reviewed by Anthony Camuti, P. Geo., and Kara Byrnes, P. Geo for underground drilling, and reviewed by Ryan Wilson, P. Geo., for surface drilling. Data is made available for viewing by selected members of the Company's geological and management staff on a need to know basis.

11.1.5 Drill Core Sampling Method and Approach, Sample Preparation, Analysis, and Analytical Procedures

Holmer 1996 to 2002:

All core was delivered by the contractor to a secure location at the Holmer core shack. The core was logged and samples marked on the basis of geological divisions. All core to be sampled, except for the quartz-tourmaline veins of the Main Zone and Hanging Wall Zone mineralization in which visible gold was observed, was split mechanically. The suspected higher grade intercepts with visible gold were sent for assay as whole core.

During the period from 1998 to 2002, sample lengths averaged 1.2 metres but were typically shorter in the well-mineralized sections. Prior to 1998, sample lengths ranged from 0.14 to 4 metres. The entire drill core was split, and half the core was submitted to the laboratory for holes 96-01 to 96-10 and 97-01 to 97-06. Sample intervals for holes 97-07 to 97-57 ranged between 0.14 and 1.75 metres in length. The samples remained at the secure site until delivery to the shipping company. The samples were then transported to Accurassay Laboratories (Div. of Assay Laboratory Services Inc.) in Thunder Bay by BPX.

Analytical procedures used during this time are documented in a Summary of Work Report by Dave Beilhartz (2002), as follows:

For samples analyzed by Regular Fire Assay:

- Jaw crush/cone crush samples to -10 mesh.
- -10 mesh material split.
- Rejects stored.
- Pulverize 200-300 gram sample to -150 mesh.
- Mix samples to produce a homogenous sample.
- Take ½ assay ton (15 grams) of pulverized material put in a crucible for fire assay.

For samples analyzed by Pulp Metallics Method:

Owing to the coarse nature of gold in the main mineralized and Hanging Wall Zones, it was decided to use a pulp metallics assay method for those samples. The procedure followed is described below:

- The sample is jaw crush/cone crush samples to -10 mesh, then a 750 gram to 1.0 kilogram sub-sample is riffled off. After weighing, sample is "stage" pulverized through a 150 mesh screen until about 20 to 40 grams of +150 mesh material is left on the screen.
- All of this +150 mesh material left on the screen is fire assayed to determine the weight of gold in that fraction.
- Two, 20 or 30 gram samples of the -150 mesh material are then assayed using standard fire assay procedure.
- The gold content of the total sample is then mathematically calculated.

Lake Shore Gold Corp. 2003 to Present:

Intervals to be sampled are determined by the geologist, and are based upon lithology, alteration, sulphide abundance, the presence of visible gold, and geological contacts. Sample lengths within the well-mineralized sections of core were generally 0.5 metres with minor variations determined on the basis of lithologies and vein contacts. Sample lengths were increased up to 1.5 metres where sparse mineralization was encountered. The sample intervals are marked on the core, and recorded in the drill log. The core is split by trained technicians using a diamond saw. One half of the core is placed in a plastic sample bag and the remaining half is returned to the core box. LSG used sequentially numbered triplicate sample tags. One portion of the tag goes in the sample bag along with the split half of the sample, one portion of the tag is stapled into the core box at the end of the sample interval, and the third stays in the sample book for archiving. Protocols were updated in May 2013 for samples containing considerable visible gold to be clearly flagged with orange tape and marked "VG" in red ink on the accompanying sample tag by the geologist such that the sampler can then indicate the request for a silica wash (discussed below) on the corresponding Sample Submittal Form to the lab. Once the sampling is completed, the core boxes are either placed in racks or cross-piled for future reference within the gated area of the logging facility. Core from older drill programs is eventually transported to the mine site for long-term storage in a secure core compound for future reference.

Prior to early 2007, the samples were transferred in security-sealed bags and transported by Manitoulin Transport to the ALS Chemex Prep Lab in Mississauga (2003 to 2005), and then to Sudbury for analysis (2006 to 2007), (Darling et al., 2009).

Since 2007, the vast majority of samples from surface exploration programs have been delivered by LSG personnel directly to the ALS Chemex Prep Lab in Timmins. The pulps are created in Timmins and then shipped to the ALS Chemex Assay Laboratory in Vancouver, B.C., or Rouyn-Noranda, PQ. Beginning in 2016, a small proportion of surface drill core samples have also been sent to the SGS Canada Inc. lab in Cochrane, ON, for both preparation and analysis. Using the same chain of custody documents and methods as outlined in Item 11.1.4, these sample shipments are picked up directly from the LSG core logging facilities by SGS staff for ground transport to the Cochrane facility.

Analytical procedures for surface diamond drill hole samples have remained fairly consistent since Lake Shore first started drilling on the Timmins Mine and Thunder Creek properties in 2003. These procedures have been described thoroughly in previous reports (Darling et al., 2009; Powers 2009; Crick et al, 2011). The following descriptions outline the methods of treatment and procedures utilized by the various labs to process and analyze drill core samples.

ALS Canada Ltd.

Tahoe Canada employees are not involved in the sample preparation or analysis of samples once they have been delivered to the assay preparation laboratory in Timmins. Samples submitted to ALS Canada Ltd. (and SGS Canada Inc. for check assay programs) are assigned a separate client project number, corresponding to the Timmins Deposit, Thunder Creek or 144 Gap portions of the property. The laboratory is instructed to maintain the sample stream, the processing, and analysis by keeping the samples in sequential order as they are shipped to the lab. Samples are entirely crushed to 70% passing 2 millimetres mesh. The crushed samples are split and 250 gram sub-samples are pulverized to 85% passing less than 75 microns using a ring and puck pulverize (PREP-31). For samples containing VG with a special request for a subsequent silica wash (WSH-22), silica sand is run once through the crusher and twice through the pulverizer after the sample is processed to avoid and/or minimize cross-contamination with the following sample stream. A 50 gram aliquot is taken from the pulp and analyzed by fire assay and atomic absorption methods (Au-AA24). For samples that return an assay value greater than 10.0 g/t Au, another pulp sample is taken and analyzed using a gravimetric finish (Au-GRAV22).

If visible gold is noted in the core sample, the samples are also typically analyzed by the Pulp Metallics Method (Au-SCR21). For this process, the entire samples are crushed to 70% passing 6 millimetres mesh, and the entire sample is then pulverized to 85% passing 75 microns (PREP-32). The pulp is passed through a 100 microns stainless steel screen and the entire (+) fraction is analyzed by fire assay and gravimetric finish. The (-) fraction is homogenized and two aliquots are analyzed by fire assay and atomic absorption finish (Au-AA25 and Au-AA25D). The total gold content is then calculated by combining the weighted averages of the two fine fractions with the grade of the coarse fraction.

For surface drill core from the Timmins Deposit portion of the property, most earlier samples were analyzed for arsenic (As) by Aqua Regia digestion and atomic absorption scanning (AA-45). This had been implemented since the sediment-hosted zones of mineralization (Hanging wall Veins, Main Zone, and the Deep Zone) often displayed a spatial association with arsenopyrite. Samples from recent extensional drilling at the Timmins Deposit (see Item 10.2) were not analyzed for As. For Thunder Creek, drill core from the first 50 holes (10,713 samples) were also analyzed for As. Significant levels were not detected and the practice was abandoned in late 2007. Similarly, samples from drilling at the 144 Gap Deposit were not analyzed for As.

As part of ALS Canada Limited's internal QA/QC program, a duplicate reject sample was prepared every 50 samples. The number of internal blanks, standards and duplicate control samples inserted into the sample stream depends upon rack size. For regular AAS, ICP-AES, and ICP-MS methods, the rack holds 40 positions, in which two laboratory standards, one laboratory duplicate, and one laboratory blank are inserted. For regular fire assay methods, the rack contains 84 positions, in which two laboratory standards, three laboratory duplicates, and one laboratory blank are inserted.

The Company uses a blind quality control program in line with industry standards for all of its surface and underground drill programs. Blank samples are prepared from approximately 0.5 metre diamond drill core samples of diabase, which are known to be barren of gold mineralization. These blank samples are blindly packaged as regular core samples, affixed with sample tags sequential to the sample stream, and inserted at a random frequency of one every 1 to 40 samples. Prior to 2012, QA/QC samples were introduced at a higher frequency of one blank, one standard, and one coarse duplicate every 20 samples. Blank samples are used to check for possible contamination in the crushing circuit and are not placed after a standard sample.

Certified gold standards used by the Company are individually wrapped in 60 gram sealed envelopes prepared by Ore Research and Exploration Pty. Ltd. of 37 Hosie Street, Bayswater North, Victoria, Australia ("OREAS") and distributed by Analytical Solutions Ltd. Several standards are used in order to vary the expected value and may depend on availability of particular standards. These Certified Reference Materials are purchased from Ms. Lynda Bloom, Analytical Solutions Ltd., at 1214-3266 Yonge Street, Toronto, Ontario. Standard samples are inserted into the sample stream at a frequency of one every 1 to 40 samples and are used to check the precision of the analytical process. In late 2015, Lake Shore Gold began also using standards from a Canadian standard supplier, CDN Resource Laboratories Ltd., of #2, 20148 – 102 Avenue, Langley, B.C., Canada.

Prior to 2010, ALS had been instructed to take one reject duplicate LSG sample for every 25 samples processed. This procedure was revised to take the duplicate sample immediately preceding the 25th sample and crush it to -6 mesh, and run it through a riffle splitter to create two samples of approximately equal proportions. One of the halves was then assigned the sample number and the other duplicate sample was placed in a separate plastic bag and labeled with the same sample number and the suffix "dup". The two samples were then treated as two entirely separate samples through the rest of the sample preparation and assaying process. The method of selecting reject duplicates was subsequently modified in May 2010 to instead produce a "blind duplicate sample"; one reject duplicate is now selected every 1 to 40 samples by the geologist logging the drill core. The geologist gives the duplicate sample a numbered sample tag and places it sequentially in an empty bag behind the sample from which it will be cut. When received by the lab, the preceding sample to the duplicate is crushed to -6 mesh, then run through a riffle splitter to create two samples of approximately equal proportions. One half is returned back into the original sample bag and the other half is placed into the empty bag, now as a separate sample with its own sample number. From this point on, the sample is considered "blind" to the analytical process. Duplicate samples are inserted to monitor the integrity of the assay results.

SGS Canada Inc.

Methods of treatment and analytical procedures utilized by SGS Canada Inc. for samples sent to the Cochrane facility are highly similar to those described above for ALS, with the occasional minor difference. At SGS, samples are entirely crushed to 75% (instead of 70% at ALS) passing 2 millimetres mesh with a 250 gram split sub-sample pulverized to 85% passing up to 75 microns using a ring and puck (PRP89). Similarly, special instructions for a silica wash can be requested on submittal forms for VG-bearing samples. Fire assay with atomic absorption finish is also conducted on a 50 gram aliquot taken from the pulp (GE FAA515). For overlimit assay values (>10.0 g/t), another 50 gram aliquot is used for fire assay with gravimetric finish (GO FAG505). Samples with VG are also typically analyzed by a Screen (Pulp) Metallics Method whereby entire samples are crushed, pulverized and screened to 150 microns (instead of 100 microns at ALS) with fire assay and atomic absorption/gravimetric finish methods completed on the entire (+) fraction and three aliquots (instead of two at ALS) of the homogenized (-) fraction (GO FAS35V).

A list of the standards used by the Company is provided below in Table 11.1.

Table 11-1: OREAS STANDARDS USED BY LAKE SHORE GOLD AND TAHOE CANADA

Standard	Mean Au (g/t)	Std. Dev	1 Std. Dev.		2 Std. Dev.		3 Std. Dev.	
			Min	Max	Min	Max	Min	Max
CDN-GS-1P5P	1.590	0.075	1.515	1.665	1.440	1.740	1.365	1.815
CDN-GS-3K	3.190	0.130	3.060	3.320	2.930	3.450	2.800	3.580
CDN-GS-3L	3.180	0.110	3.070	3.290	2.960	3.400	2.850	3.510
CDN-GS-3M	3.100	0.115	2.985	3.215	2.870	3.330	2.755	3.445
CDN-GS-3P	3.060	0.090	2.970	3.150	2.880	3.240	2.790	3.330
CDN-GS-3Q	3.300	0.130	3.170	3.430	3.040	3.560	2.910	3.690
CDN-GS-P4C	0.362	0.018	0.344	0.380	0.326	0.398	0.308	0.416
CDN-GS-P4E	0.493	0.029	0.464	0.522	0.435	0.551	0.406	0.580
O-10c	6.600	0.160	6.440	6.760	6.270	6.920	6.110	7.080
O-15d	1.559	0.042	1.517	1.601	1.475	1.643	1.433	1.685
O-15h	1.019	0.025	0.994	1.044	0.970	1.068	0.945	1.093
O-15Pb	1.060	0.030	1.030	1.090	1.000	1.120	0.970	1.140
O-16a	1.810	0.060	1.750	1.870	1.680	1.930	1.620	1.990
O-18c	3.520	0.106	3.414	3.626	3.310	3.730	3.200	3.840
O-19a	5.490	0.100	5.390	5.590	5.290	5.690	5.190	5.790

Standard	Mean Au (g/t)	Std. Dev	1 Std. Dev.		2 Std. Dev.		3 Std. Dev.	
			Min	Max	Min	Max	Min	Max
O-200	0.340	0.012	0.328	0.352	0.316	0.365	0.303	0.378
O-201	0.514	0.017	0.497	0.531	0.480	0.548	0.462	0.565
O-202	0.752	0.026	0.726	0.778	0.701	0.804	0.675	0.830
O-203	0.871	0.030	0.841	0.901	0.811	0.931	0.781	0.961
O-204	1.043	0.039	1.004	1.082	0.966	1.120	0.927	1.158
O-205	1.244	0.053	1.191	1.297	1.138	1.350	1.085	1.402
O-206	2.197	0.081	2.116	2.278	2.035	2.360	1.953	2.441
O-207	3.472	0.130	3.342	3.602	3.212	3.732	3.082	3.862
O-209	1.580	0.044	1.536	1.624	1.490	1.660	1.440	1.710
O-210	5.490	0.152	5.338	5.642	5.186	5.794	5.034	5.946
O-250	0.309	0.013	0.296	0.322	0.283	0.335	0.270	0.348
O-2Pd	0.885	0.029	0.856	0.914	0.826	0.943	0.797	0.973
O-502	0.491	0.020	0.471	0.511	0.451	0.531	0.431	0.551
O-503	0.687	0.024	0.663	0.711	0.639	0.735	0.615	0.759
O-50Pb	0.841	0.031	0.810	0.872	0.778	0.904	0.746	0.936
O-54Pa	2.900	0.110	2.790	3.010	2.680	3.120	2.570	3.230
O-60b	2.570	0.106	2.464	2.676	2.350	2.780	2.250	2.890
O-61d	4.760	0.140	4.620	4.900	4.470	5.040	4.330	5.190
O-62c	8.790	0.210	8.580	9.000	8.370	9.210	8.150	9.420
O-62d	10.500	0.330	10.170	10.830	9.840	11.160	9.510	11.490
O-67a	2.238	0.096	2.142	2.334	2.046	2.430	1.950	2.526
O-68a	3.890	0.150	3.740	4.040	3.600	4.180	3.450	4.330
O-6Pc	1.520	0.067	1.453	1.587	1.390	1.660	1.320	1.720

11.2 Underground Diamond Drill Program

11.2.1 General Statement

Described herein are the protocols used for underground drill programs executed during the period from the last technical report to the current effective date.

11.2.2 Core Handling and Logging Protocols

Prior to Spring 2013, all core from the underground drill programs was being delivered to the minesite core shack. Under the direct supervision of Qualified Persons, underground drill core was being processed by geologists and geological technicians in a similar fashion as described above for the surface drill programs (Item 11.1). Similar to surface programs, samples from underground exploration holes were also split in half using either a hydraulic splitter or a core saw, with the remainder of the core cross-piled on site for future reference. For stope definition drilling, the mineralized zones were systematically whole core sampled, while the remaining ‘waste’ core was discarded.

Since May 2013, all drill core is now transported by the drill contractor (under direct supervision of Company personnel) and delivered to the Government Road central core logging facility, which has afforded closer supervision and improved standardization in all aspects of the logging and sampling process. Supervision is currently provided by Kara Byrnes, P. Geo., and Anthony Camuti, P.Geo., for underground programs and by Ryan Wilson, P. Geo., for surface programs.

11.2.3 Property Grids, Hole Collar, and Downhole Attitude Surveys

All underground holes, including those on the Thunder Creek and Highway-144 properties, are planned with respect to the Timmins Mine local coordinate system, as discussed in Item 11.1.

For underground programs prior to 2013, most drill hole collar locations and starting azimuths were established by LSG mine geologists by measuring from survey control stations. The first downhole azimuth and dip readings in each hole were initially recorded at 9 to 15 metre depths using "Reflex EZ-Shot" instruments. If the reading was more than 3 degrees from the desired azimuth, it was common practice to re-align the drill and re-collar the hole. Tests beyond the 15 metre mark were generally taken at 50 metre intervals. The magnetic susceptibility was assessed using the "total magnetic field" for each directional reading to determine if the apparent azimuth had been affected by highly magnetic materials in proximity to the data point. Some holes were re-surveyed using a downhole north-seeking gyro or using a Maxibor instrument from Reflex Instruments Ltd. in Porcupine, Ontario. Upon completion, drill holes were generally marked by inserting a wood peg in the collar, accompanied by an aluminum tag indicating the hole number. The collar locations were occasionally re-surveyed by the mine geologists or mine surveyors depending on availability.

In the spring of 2013, drilling protocols were re-evaluated and updated based on the highly magnetic nature of the host-rocks. It was determined that many of the rock formations being drilled were more strongly magnetic than previously recognized due to the presence of finely disseminated magnetite in the pyroxenite and pyrrhotite in the volcanics. More stringent protocols were therefore implemented to ensure greater accuracy and better quality of the directional data. Drill hole collar locations are now predominantly established by trained Company surveyors using survey control stations and additional survey spads. A line with a unique ID is painted on the walls in order to assist the drillers with proper drill alignment. In addition, a north-seeking gyroscope ("Azimuth Aligner"), newly developed at the time by Downhole Surveys Pty. Ltd. ("DHS"), (Australia), was acquired in September 2013 for use by the drillers to line up on most of the holes. This instrument is easy to use, is not affected by magnetic interference, and provides continual output of both azimuth and dip, allowing the drillers to precisely manoeuver the drill rig to the correct planned azimuth and dip. A similar tool ("TN14 Gyrocompass" by Reflex Instruments Ltd.) gradually replaced the Azimuth Aligner technology in late 2014 to early 2015 and remains in constant use to the present day. Once the drill is aligned and anchored, the orientation on the drill head is double checked with the TN14 Gyrocompass and the starting azimuth and dip are stored in the Juno handheld device.

Starting collar orientations are recorded on a drill hole survey record sheet to be entered into the database by the database manager. Downhole EZ-Shot tests are still taken at 9 to 15 metres from the collar, but drillers are instructed not to automatically re-collar, but to carry on taking tests at 50 metre intervals for evaluation by the responsible geologist. From June 2013 to the end of 2014, a non-magnetic survey instrument (DeviFlex by DHS) was also used to track the curvature of the holes upon completion of drilling. Downhole north-seeking gyro surveys were occasionally done on selected holes as an additional verification and for comparison purposes. The DeviFlex tool, while an improvement over the traditional EZ-Shot data, proved too unreliable and unadaptable for use by the drillers. Instead, the vast majority of drill holes at the TWM (>90%) are now surveyed by external consultant Reflex Instruments Ltd. ("Reflex") using the Reflex MEMS Gyro system to track downhole deviations, which has greatly increased confidence in the curvature and locations of recently completed drill holes (late 2014 to present).

For Thunder Creek, drill holes are generally shorter and Reflex tests taken within the porphyry are believed to be sufficiently reliable as this rock formation is non-magnetic. As a result, and depending on timing and logistics, a small number of infill holes at Thunder Creek are not always surveyed by Reflex. For future reference, the hole identification number is stamped on an aluminum tag and is attached to an orange plastic cone which is then inserted in the collar. Except for "bazooka" holes (short holes drilled by a small air-powered diamond drill), the final collar locations and starting orientations are then picked-up by the surveyors using a custom-made aluminum rod which fits precisely in the collar. A geologist then reviews all collar surveys and downhole directional data. The electronic memory of the Reflex tool is regularly downloaded, and the magnetic susceptibility readings (both "total magnetic field" and "magnetic dip") are scrutinized in order to assess the reliability of the data. The quality of the MEMS Gyro data file is also reviewed for potential reading or technical errors using various parametres as recommended by the manufacturer. Finally, a directional data file containing a combination of the best collar and downhole Reflex (MEMS Gyro +/- EZ-Shot) surveys is generated and forwarded to the Database Manager for importation. If downhole gyro data is available, it is normally considered as being the most accurate.

11.2.4 Security

The TWM secure chain of custody for diamond drill core and samples starts at the drill and is completed with the safe return of sample pulps to a locked storage facility on site. All underground core is transported from the mine site by the drill contractor (under direct supervision by Company personnel). Core reception, logging, and sample preparation procedures are followed as previously described above. The samples are enclosed within sealed shipping bags, are transferred into larger shipping bins, and are delivered directly to the selected analytical labs by Company employees. The lab employee that receives the sample shipment signs a chain of custody document that is returned to the Company's office for reference and filing. The return assay results are currently processed by database manager

Morgan Verge, GIT, and are reviewed by Ivan Langlois, P. Geo. and Kara Byrnes, P. Geo., for underground programs and by Ryan Wilson, P. Geo., for surface programs.

11.2.5 Underground Diamond Drill Core Sampling Protocols

LSG 2008 to Spring 2013:

Since underground drilling at the TWM first started in 2008, drill core was delivered directly to the core logging facility located on site, logging and sampling as discussed in Item 11.2.2.

Sample location and widths were based upon the distribution of sulphides, visible gold, lithology and alteration. Sample lengths vary from 0.3 to 1.5 metres, and generally do not cross lithological and alteration or mineralization boundaries. Samples were marked by the geologist using a marker. Three-part sample tags labeled with a unique ID number were used. One part of the tag stayed in the sample book and documents the hole number and interval being sampled. The second portion of the tag was stapled in the core box at the end of the sample, and the third portion was placed in the sample bag during sampling. Core sampling was performed by trained and supervised technicians. Core considered to be from production definition drilling was "whole core" sampled, meaning the entire core from each specific sample interval was collected and sent to the lab with no representative equivalents kept. The remaining non-sampled core was discarded. Core from underground exploration holes or from holes of particular interest were either split using a hydraulic splitter, or cut using a diamond core saw, and one half of each individual sample was sent to the lab. In this case, the remaining core was stored in core racks or was cross-piled on site, for future reference.

LSG and Tahoe Canada 2013 to Present:

In the spring of 2013, LSG started to progressively process all core from the TWM at its central office and core logging facility located at 1515 Government Road South, Timmins. This was done due to a lack of space at the mine site, and in an effort to ensure standardized core logging and sampling protocols, and to provide closer supervision by Kara Byrnes, P. Geo., and Ryan Wilson, P. Geo. All drill core is transported from the mine site by the drill contractor (under direct supervision by Company employees). Core handling, logging and sampling protocols are similar to those described above and in Item 11.1

The samples are placed in plastic bins, and are delivered directly to various locals labs by LSG employees. These labs include ALS Canada Ltd. (2090 Riverside Drive, Timmins), Actlabs Timmins (1752 Riverside Drive), and LSG's own analytical lab located at the Bell Creek Complex, in South Porcupine.

The following descriptions outline the methods of treatment and procedures utilized by the various labs to process and analyze underground drill core samples. Methodologies are highly similar across all labs, with minor differences as noted below.

ALS Canada Ltd.

The protocols and procedures for the preparation and analysis of underground drill core samples sent to ALS Canada Ltd. are the same as for surface drill core samples (Item 11.1.5), except that underground aliquot sample sizes were reduced from 50 to 30 grams for the period of August 2011 to June 2013.

Activation Laboratories ("ActLabs")

Actlabs operates a full preparation and fire assay, atomic absorption, gravimetry, and ICP-OES analysis laboratory in Timmins, Ontario. Diamond drill core samples are entirely crushed to 80% (instead of 70% at ALS) passing 2 millimetres mesh with a 250 gram split sub-sample pulverized to 95% passing up to 106 microns (instead of 85% passing 75 microns at ALS) using a ring and puck (RX1-terminator). Special instructions for a silica wash can also be requested on submittal forms for VG-bearing samples. Fire assay with atomic absorption finish is conducted on a 50 gram aliquot taken from the pulp (1A2-50 FA-AA). For overlimit assay values (>10.0 g/t), another 50 gram aliquot is used for fire assay with gravimetric finish (1A3-50 FA/GRAV). A Screen (Pulp) Metallics Method is commonly run on samples with VG (as requested by LSG) and involves crushing, pulverizing and sieving the entire sample to 149 microns (instead of 100 microns at ALS and 150 microns at SGS) with fire assay and atomic absorption/gravimetric finish methods completed on the entire (+) fraction and two splits of the homogenized (-) fraction (1A4 FA-MET).

Bell Creek Complex Laboratory

Diamond drill core samples sent to the Bell Creek Laboratory are manually sorted, dried, and then individually crushed to greater than 85% passing 10 mesh (2mm) with a 150 to 200 gram sample split pulverized to greater than 95% passing 200 mesh (75 microns) using a ring and puck. All equipment is cleaned between samples using compressed air. A silica wash can also be requested on submittal forms for VG-bearing samples. Fire assay with atomic absorption finish is carried out on a 30 gram aliquot prepared from the pulp. Overlimit assay values are also automatically re-run using another aliquot from the pulp and a gravimetric finish; however, the triggering threshold for re-analysis is 20 g/t (compared to 10 g/t at all other labs). Pulp metallics are not typically conducted as only production diamond drill core is sent to the Bell Creek Laboratory.

For the period from 2008 to March 18, 2013, the introduction of blank samples, certified gold standards, and blind coarse duplicates in the sample stream were generally done at a random frequency of one per every group of 20 samples, as previously described for surface drill core samples (Item 11.1.5) collected by LSG. As of March 18, 2013, this protocol was changed to "one blank, one coarse duplicate, and one gold standard for every group of 40 samples".

Table 11-2: SUMMARY OF SAMPLE DISTRIBUTION BY ANAYLTICAL LABORATORIES

Thunder Creek Deposit: November 24, 2015 to May 15, 2017						
Laboratory	Drill Core Samples	Standards	Blanks	Coarse Duplicates	Total QA/QC Samples	Total Samples Sent (Core + QA/QC)
ALS Canada Ltd.	149	4	4	5	13	162
Activation Laboratories	31,759	751	878	872	2,501	34,260
Bell Creek Laboratory	2,510	58	63	63	184	2,694
SGS Canada Inc.	783	20	23	24	67	850
TOTAL	35,201	833	968	964	2,765	37,966
144 Gap Deposit: January 12, 2016 to May 15, 2017						
Laboratory	Drill Core Samples	Standards	Blanks	Coarse Duplicates	Total QA/QC Samples	Total Samples Sent (Core + QA/QC)
ALS Canada Ltd.	46,268	1,209	1,262	1,268	3,739	50,007
Activation Laboratories	31,650	886	915	959	2,760	34,410
Bell Creek Laboratory	2,189	54	56	63	173	2,362
SGS Canada Inc.	1,507	39	39	38	116	1,623
TOTAL	81,614	2,188	2,272	2,328	6,788	88,402
Timmins Deposit: November 21, 2015 to May 15, 2017						
Laboratory	Drill Core Samples	Standards	Blanks	Coarse Duplicates	Total QA/QC Samples	Total Samples Sent (Core + QA/QC)
ALS Canada Ltd.	709	22	21	23	66	775
Activation Laboratories	36,357	954	1,067	1,093	3,114	39,471
Bell Creek Laboratory	1,837	48	48	50	146	1,983
SGS Canada Inc.	1,140	30	34	34	98	1,238
TOTAL	40,043	1,054	1,170	1,200	3,424	43,467

11.3 Data Management for Surface and Underground Diamond Drill Programs

Copies of assay certificates are either downloaded from each lab's external LIMS system and/or sent via mail and electronic mail to the Company's database manager, and to the project's Qualified Person. The digital assay data, in the form of "csv" files are checked manually against the final paper assay certificates for clerical errors, and the results evaluated by a Lab Logger Version 2.0 program created by Gemcom for all labs, or by an EXCEL query file if required. The use of the software program ensures that the results from the QA/QC samples fall within the approved limits of the standard before this data is imported into the database.

The procedures for handling and managing the surface and underground assay data are discussed in detail below.

11.3.1 Accuracy Analysis - Standards and Blanks

Beginning in March 2009, sample results were entered into an Excel spreadsheet to determine if the assay value for a particular standard fell outside the control limits. If this occurred, these samples would be highlighted for check analysis for Accurassay, Actlabs, ALS, Bell Creek and Cattarello Labs. Since April 2010, this process has been handled using an ACCESS application developed by Gemcom Software International Inc. called Lab Logger (v2.0) for ALS Lab. Sample assay results, internal QC information, certificate dates, standards, and duplicate samples are each stored in separate QC database tables, and data can be merged into relevant plot files as needed.

The QC samples in each group are subjected to specific pass or failure criteria, which determine whether a re-assay of the batch is required. A sample group failure is identified whenever: a) the analytical result for any certified standard in the group of 40 is greater than three standard deviations (the control limit) from the certified mean value for the standard, or; b) the assay for any blank material is greater than 0.100 ppm. All failed groups of samples are investigated to attempt to determine the cause of the erroneous result (analytical or clerical). Potential clerical errors are sometimes reconciled by checking against original drill log records, sample books or original laboratory data sheets. After the batch pass/failure criteria are applied, a geological override may be applied by the project QP on batches for which re-assay would be of no benefit (*i.e.*, completely barren of gold assay values and mineralization indicators). Sample groups given a geological override are not re-assayed.

Sample groups in which the QC samples fall outside the established control limits that did not receive a geological override are not imported into the database. Instead, these samples are requested to be re-run at the analytical lab.

In the case where a standard has failed, a re-run on the pulp is requested back to: a) the last control sample that passed (blank or standard); b) the first sample for the project in the sequence of samples being analyzed, or; c) four samples above and below the failed standard, if the assay results for those samples are deemed significant. In this case, a new standard is sent to the lab to be analyzed with the samples in question.

In the case of a blank failure, if the surrounding assay results are considered significant, all samples back to: a) the last blank or standard that passed; b) the first sample for the project in the sequence of samples being analyzed, or; c) four samples above and below the failed blank are re-analyzed on the reject material, as this indicates contamination in the sample preparation stage.

11.3.2 Precision Analysis – Duplicates

Beginning in March 2009, internal laboratory pulp duplicate data and reject duplicate data were statistically followed and analyzed using EXCEL for Accurassay, ALS, Actlabs, Bell Creek, and Cattarello Labs. In April 2010, Lab Logger software was set up and used for comparative statistical analysis for ALS Lab. Comparisons are made using descriptive statistics and scatter plots. These plots are used primarily to identify project specific problems in assay reproducibility (precision) and erratic individual results, indicating potential sampling problems or clerical errors in the sample order within the batch. When problems are identified in the data precision, the labs are notified and asked to investigate and report back their findings. Erratic sampling results are noted in monthly reports so that the responsible geologist is made aware of the uncertainty in the sample value and would then be able to check for potential clerical errors within the samples, as per standard procedures.

11.3.3 Reporting and Plotting

Brief monthly reports are completed during the year to include the number of samples sent to each lab for each project, the number of QC samples that failed, and identified reasons for said failures. In addition, graphs of each individual blind standard and blank, as well as the non-blind reject pairs and pulp duplicate pairs, are generated monthly to check for sample bias at each assay lab. All major projects are summarized individually, typically at year-end or at the end of a program, as soon as reasonably possible.

11.4 Check Assay Program

11.4.1 General Statement

For significant drilling periods, or for drill campaigns leading to resource or reserve calculations, a check assay program is implemented either during or following completion of drilling. For the purpose of this report, approximately 5% of the pulps from previously analyzed samples (excluding pulps from standards) were selected and sent for re-assay to various neutral labs. In order to make a selection, groups of samples that passed QC were picked randomly from various drill programs. The pulps were selected randomly by hole, ensuring that a wide range of original assay values from trace to high grade were represented.

The samples selected for check analysis were sent to SGS Mineral Services. The pulps were initially analyzed using the fire assay with an AA finish method, and for results greater than 10 grams per tonne, a re-assay was conducted by fire assay using a gravimetric finish.

11.4.2 Procedures

Pulps were selected by project personnel and an electronic list of selected sample numbers was prepared for the samplers. The samples were submitted to the analytical facility in groups of 40, with the blind QC consisting of one standard and one previously analyzed blank pulp. For bazooka drill core, a new blank was inserted into the batches. The old and new sample numbers and the positions of the standard and blank pulps were recorded on the check assay Excel table as the samples were being packed for shipping to the labs. Once the analyses were completed, the assay lab provided results in the standard LSG assay file format, including all of their internal QC data as part of the electronic assay file. After all assays were received and were determined to have passed quality control checks, a comparative statistical analysis of the new data versus the original assays was undertaken, including an analysis on the performance of inserted QC samples, following a format previously used by external auditors.

A master report for each lab was prepared, documenting the following statistics:

- Mean
- Maximum and minimum values
- Median
- Variance
- Standard deviation
- Coefficient of variation
- Correlation coefficient
- Percent difference between means

Each project completed check assay programs since the last 43-101 technical report.

11.5 Discussion

Table 11.3 summarizes the QA/QC statistics for the TWM, comprising surface and underground QA/QC programs for the Timmins, Thunder Creek, and 144 Gap Deposits.

Table 11-3: TIMMINS WEST MINE DIAMOND DRILL CORE QA/QC SAMPLE SUMMARY

Description	Timmins West Complex
Sample Type	Number
Total Blanks	2,750
Total Standards	4,328
Total Duplicates	4,761
Total QAQC	11,839

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Description	Timmins West Complex
Total Blank Overrides	6
Total Blanks Re-Assayed	4
Total Blank Failures	10
Total Standard Overrides	77
Total Standard Re-Assayed	32
Total Standard Failures	109
Total QAQC Failures	119

Note: Reasons for a geological override include:

1. *If a standard or a blank fails by less than 0.05 grams per tonne as this is very close to the cut-off for a pass.*
2. *If a standard or a blank fails by more than 0.05 grams per tonne and there are no ore grade results, and no ore grade results were anticipated within the area of the QC failure, the failure is overridden as it is assumed that no significant assays results were affected.*
3. *Occasionally a failure relates to a data entry error (wrong standard being recorded as sent), or relates to two sequential samples being switched during sampling at the coreshack, or during sample preparation at the lab. If the error can be absolutely proven but corrections cannot be made, the failure is overridden.*
4. *In the situation of a standard or blank failing but the drill hole is in an area that is actively being mined or developed before a re-assay can be returned, the failure is overridden.*
5. *Occasionally, failure of a blank or a standard can be overridden if the qualified person believes the error is forgivable. In this case a comment stating the override is added to the database. An example of this is the QP noted that one standard was consistently failing by the same extent of an error. The error was overridden and the standard replaced in future sample shipments.*

12.0 DATA VERIFICATION

12.1 Database Validation

Geological data is currently stored in a Geovia GEMS (Microsoft SQL) database which was compiled from data received from West Timmins Mining Inc., Holmer Gold Mines Ltd., and work completed by LSG and Tahoe Canada since the acquisition of the properties. A review of all historical data available was completed to ensure all assay and survey (collar and downhole) information was properly imported and presented into the database. On a regular basis the following steps are taken to ensure the integrity of the database:

A monthly validation is run on the Gemcom drill hole data which searches for overlapping geological or assay intervals, incorrect drill hole lengths, missing geological intervals, etc. Any errors encountered are corrected when discovered.

Plans and sections are plotted regularly to check for drill hole location, elevation, and downhole survey errors.

Due to the highly magnetic nature of the rocks, downhole survey data collected using a Reflex EZ-Shot instrument is checked by a geologist upon receipt and scrutinized for magnetic interference before being input into the database. The vast majority of drill holes at the TWM (>90%) are now being surveyed by external consultant Reflex Instruments Ltd. using the non-magnetic Reflex MEMS Gyro system to assist in tracking hole curvature and deviations.

Selected historical drill holes are checked underground for collar labels, drill hole location, and collar azimuth and dip. Any discrepancies are examined and modified as required.

Downhole north-seeking gyro surveys are completed on select holes as additional verification and comparison.

A review of approximately 5% of available drill logs from the end of 2015 to end of May 2017 was completed on Timmins, Thunder Creek, and 144 Gap deposit drilling. Any discrepancies were noted related to incorrect and missing entries for downhole surveys, drill dates, log dates, capping/cementing information, and townships. Where possible, these errors and omissions were corrected by the reviewer. A more stringent review of drill logs upon completion and logging geologist sign-off has minimized the presence of these types of errors in current drilling.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Historical Test Work

Extensive metallurgical test work was completed prior to processing any material from the TWM. The following companies were involved with various aspects of metallurgical evaluations.

- SGS Lakefield Research Limited, Lakefield, Ontario ("SGS")
- EHA Engineering Ltd., Richmond Hill, Ontario ("EHA")
- RPC Engineering, Fredericton, New Brunswick ("RPC")
- Pocock Industrial, Inc., Salt Lake City, Utah, USA ("Pocock")
- Golder Associates, Sudbury, Ontario ("Golder")

RPC and SGS tested samples of the ore types as composites as well as individual samples. The test programs consisted of bottle rolls to determine the metallurgical response of the ore types to cyanide recovery along with tests to determine gravity concentration, pulp agglomeration, flotation, and cyanide leaching of the flotation tailings and concentrates. RPC performed crushing, grinding and abrasion indices determinations. Pocock and Golder performed flocculent screening, gravity sedimentation, and pulp rheology on leached tailings samples. SGS also performed preliminary sag mill testing. EHA evaluated work completed by RPC.

The test work results indicated that the ore will be very amenable to the Bell Creek Mill conventional gold milling processes. Specifically, the ore was free milling and the gold responded well to cyanide leaching and CIP recovery.

In general, there was found to be good correlation between the results expected based on test work and the actual operating results. In some cases, the actual results exceeded expectations.

13.2 Recent Test Work

The Bell Creek Mill Phase 1 expansion was completed in October 2010. Planning for Phase 2 of the mill expansion (increasing throughput capacity to over 3,000 tonnes per day) was started in the first quarter of 2011. Part 1 of the expansion was completed by the end of of 2012 and increased the plant to a throughput of 2,500 tpd. The Phase 2 expansion was completed during the third quarter of 2013. Prior to launching the Phase 2 expansion project, more comprehensive test work was completed. The following companies were involved with this test work.

- G&T Metallurgical Services LTD. Kamloops, BC ("G&T")
- Starkey & Associates Inc., Oakville, Ontario ("Starkey")
- Xstrata Process Support, Falconbridge, Ontario ("XPS")

- Outotec Canada Inc. ("Outotec")
- FLSmidth Knelson, Langley, BC ("Knelson")

G&T Metallurgical completed bond work indices on four different types of mineralized material from the TWM. These samples included:

- Timmins Deposit – Shaft (material from the lower areas of the mine)
- Timmins Deposit – Ramp (material from the upper areas of the mine)
- Thunder Creek Deposit – Non-Porphyritic and Porphyritic

The bond ball mill work index for these ores ranged from 12.4 kWh/tonne for the shaft ore to 17.0 kWh/tonne for Non-Porphyritic Thunder Creek ore. Sag mill (SMC) tests were also completed on these samples with the test data indicating that the ore ranged in hardness from moderately hard to very hard. The objective of Starkey and Associates' test work was to size a sag mill that would enable the throughput to be increased to 3,000 tonnes per day using the two existing mills. Starkey also verified that a mill (which was available on the market at the time) was suitable for 3,000 tonnes per day and also had the capability (in conjuction with regrind mills) to process up to 6,000 tonnes per day. All the different material types were used for the test work. XPS used Starkey and Associates' data and ran JKSimMet simulations of the sag circuit with tonnage set at 250 tonnes per hour and using the hardest of the four materials. These results were used to establish the best operating conditions and obtain circulating load, pulp density, cyclone feed, and cyclone overflow data which were used to help suppliers in the sizing of the cyclones. Outotec tested the material types for settling characteristics to size a new high efficiency thickener rated for 6,000 tonnes per day. Knelson tested the shaft and Thunder Creek material to establish data points for gravity recoverable gold ("GRG"). Shaft ore GRG was 78.6% and the Thunder Creek GRG was 53.5 percent. This information is being used as the basis for increasing the efficiency of the gravity circuit.

Test work was undertaken in 2013 by SGS Minerals to determine the effect of grind on recovery. It showed a slightly increasing recovery with finer grinds, as well as lower than expected gravity gold recoveries. Gravity gold recoveries were 25.7% for Thunder Creek ore and 18.3% for Timmins Deposit ore.

Two samples (HWY-1 and HWY-2) from the 144 Gap deposit were tested in 2015 for metallurgical performance by SGS Lakefield. The gold head grades for the HWY-1 and HWY-2 samples were 5.65 g/t and 4.06 g/t, respectively. The ball mill work indices were 15.0 kWh/t (HWY-1) and 15.7 kWh/t (HWY-2), the results indicated that the HWY-1 sample was categorized as medium and the HWY-2 sample was categorized as moderately hard. The gravity recovery values for the samples were 74.1% (HWY-1) and 60.5% (HWY-2). Under conditions replicating the current operating Bell Creek mill the overall gold recoveries after leaching were >99% for each sample.

In 2016, five more composite samples of 144 Gap deposit ore were sent for testing at SGS Lakefield to gain further confidence in the metallurgical performance. The results indicated that Comp C hardness was categorized as medium and the remaining four samples were categorized as moderately hard in terms of their BWI values when compared to the SGS database. The work indices ranged from 15.0 kWh/t to 16.5 kWh/t. The gravity separation gold recovery values for the samples were very high ranging from 62% to 90%. Under conditions replicating the current operating Bell Creek mill the overall gold recoveries after leaching were between 96% and 99% for each sample.

In-house test work continues on a regular basis to confirm and increase the metallurgical performance of the plant, including stripping circuit and leaching circuits.

Overall, the combination of Lake Shore's operating history and the extensive amount of test work conducted provides confidence that the process design and equipment selection will result in achieving the targeted recovery and throughput levels.

14.0 MINERAL RESOURCE ESTIMATES

14.1 Summary

Tahoe Canada has prepared an updated Mineral Resource estimate for the TWM which includes mineralized zones from the Timmins Deposit, Thunder Creek Deposit, and the 144 Gap Deposit. The report updates the previous TWM Mineral Resources as publically reported by LSG on March 9, 2017. The estimate for the TWM is based on historical diamond drilling dating back to March 1984 and drilling completed by LSG and Tahoe Canada between July 2003 and May 15, 2017, the date of databases being closed for the current estimate.

The Mineral Resource described in this Report has an effective date for data input of May 15, 2017 for the Timmins Deposit, Thunder Creek Deposit and the 144 Gap Deposit. A total of 4,280 drill holes with solid intersections through resource envelopes were used for estimation of the total resource pool at the TWM, including 2,094 drill holes for the Timmins Deposit, 1,606 drill holes for the Thunder Creek Deposit, and 580 drill holes for the 144 Gap Deposit. The diamond drill hole database has been subjected to verification and is considered to be robust and of adequate quality for the estimation of resources

The estimated TWM Mineral Resource totals 0.36 million tonnes at 4.95 gpt Au, amounting to 57,500 ounces of gold in the Measured category, 7.54 million tonnes at 3.99 gpt Au, amounting to 966,500 ounces of gold in the Indicated category and 1.09 million tonnes at 3.80 gpt Au amounting to 133,400 ounces of gold in the Inferred category. The Mineral Resource for the Timmins, Thunder Creek, and 144 Gap Deposits is reported using a gold cut-off grade of 1.5 gpt. All resources have been depleted for mining up to the effective date of this report. Subdivision of the Mineral Resource between the Timmins, Thunder Creek, and 144 Gap Deposits is summarized in Table 14.1.

Table 14-1: TIMMINS WEST MINE MINERAL RESOURCES

In-Situ Resources Above 1.5 Au g/t Cut-Off Grade				
Deposit	**Classification**	**Tonnes**	**Au Grade (g/t)**	**Au Ounces**
Timmins	Indicated	1,428,000	4.66	213,800
	Inferred	358,000	4.32	49,700
Thunder Creek	Indicated	1,249,000	3.73	149,800
	Inferred	39,000	2.63	3,300
144 Gap	Measured	361,000	4.95	57,500
	Indicated	4,862,000	3.86	602,900
	Measured & Indicated	*5,223,000*	*3.93*	*660,400*
	Inferred	695,000	3.60	80,500
Total Timmins West Mine	Measured	361,000	4.95	57,500
	Indicated	7,539,000	3.99	966,500
	Measured & Indicated	*7,900,000*	*4.03*	*1,024,000*
	Inferred	1,092,000	3.80	133,400

1. The effective date of the Mineral Resource Estimate is May 15, 2017.
2. Mineral resource estimates have been classified according to CIM Definitions and Guidelines.
3. Mineral Resources are reported inclusive of Mineral Reserves.
4. Mineral resources have been estimated using Inverse Distance Squared estimation method and gold grades which have been capped between 15 and 120 grams per tonne based on statistical analysis of each zone.
5. Assumed minimum mining width is between two and ten metres depending on the zone.
6. Tonnes information is rounded to the nearest thousand and gold ounces to the nearest one hundred. As a result, totals may not add exactly due to rounding.
7. The mineral resources were prepared under the supervision of, and verified by, Kara Byrnes, P. Geo., Director of Technical Services, Tahoe Canada, who is a qualified person under NI 43-101.

The general procedure for completing the new resource estimates included the following key steps with further explanation in the various subsections below.

- Database compilation and verification.
- Interpretation and modelling of mineralized zones.
- Analysis of drill hole assay data.
- Assay composting.
- Analysis of specific gravity.
- Block modelling.
- Removal of depleted and nonrecoverable blocks.
- Resource classification.

14.2 Database Compilation and Verification

The database used for the current resource estimate is comprised of a Gemcom GEMS (Microsoft SQL) database which was compiled from data received from West Timmins Mining Inc., Holmer Gold Mines Ltd. and work completed by LSG and Tahoe Canada since acquisition of the properties. The GEMS diamond drill hole database consists of the following major tables, header, survey, lithology, and assay with pertinent fields summarized in Table 14.2. Additional tables and fields within the above structure are in use by Tahoe Canada in logging of the drill core and final resource estimation. All drill hole data used in the estimation was verified using the Gems "validate" feature which checks for duplicate and overlapping intervals, missing intervals, negative length intervals and inconsistencies between tables.

Cross-sectional data, geological interpretation strings, section and level plan definitions, 3D geological solids, point area data of assays and composites, as well as the block model, are also stored within GEMS. Details on database validation are discussed in Item 12 of this report.

Table 14-2: SUMMARY OF GEMS SQL DRILL HOLE DATABASE

Table Name	Table Description	Fields
Header	Drill hole collar location data in local grid co-ordinates	Hole-ID Location X Location Y Location Z Length Collar_Az Collar_ Dip
Survey	Down hole survey data of direction measurements at down hole distances	Hole-ID Distance Azimuth Dip
Assays	Sample interval assay data with Au units grams per tonne	Hole-ID From To Sample_NO Au_GPT_FIN Au_GPT_AA Au_GPT_GRA Au_GPT PM
Lithomaj	Major logged rock type intervals down hole	Hole-ID From To Rocktype
Lithomin	Minor logged rock type intervals down hole	Hole-ID From To Rocktype

14.3 Interpretation and Modelling of Mineralized Zones

Interpretation and modeling of mineralized zones was completed on vertical sections taking into account structure, lithology, alteration, veining and sulphide content. In addition to diamond drilling, underground development mapping and sampling were used as an aid but only diamond drill data was used for grade estimation.

Section spacing used for the interpretations for the Timmins Deposit, with the exceptions of zones D_2, D_2A/B, D_2C, D_2D and S_4, is on 6.25 metres on north-south sections east of 4300 E on the Timmins Deposit mine grid but increased to 12.5 metres east of 5012.5 E. Section spacing used for the interpretations for zones D_2, D_2A/B, D_2C, D_2D and S_4, is 10 metres on east-west sections on the Timmins Deposit mine grid. Section spacing for the Thunder Creek Deposit is 7.5 metres on rotated (33 azimuth) sections with the exception of the area east of 4575E and above the 415L as well as in zones UTC_1, UTC_4, and UTC_7 where section spacing was increased to 15 metres due to limited diamond drilling. Section spacing for the 144 Gap Deposit is 6.25 metres in the East Porphyry zones and 12.5 metres in the West Porphyry zones, on rotated (130 azimuth) sections. Both the Thunder Creek Deposit and the 144 Gap Deposit use the Thunder Creek mine grid.

Limits of the zone were focused on drill intersections exceeding 2.0 gpt although assays below this grade are included as necessary to maintain continuity. Zones were required to have a minimum of three or more intersections that form a continuous band of mineralization and have a minimum width of between 2 and 10 metres with the narrower widths being applied mainly to narrow zones in the upper part of the Timmins Deposit and the wider widths mainly to zones at Lower Timmins Mine, Thunder Creek and 144 Gap. Closed 3D rings were constructed and assigned an appropriate rock type and stored with its section definition in the GEMS polyline workspace. Closed 3D rings were projected half the distance to the next section in areas were drilling closed off mineralization, or up to a maximum of 25 metres in areas with no drilling. 3D solids were created from the closed strings and were validated using the GEMS solid validation tools.

For estimation purposes a total of 71 discreet mineralized domain solids have been created for the Timmins Deposit with 21 domain solids created for the Thunder Creek Deposit and 13 for the 144 Gap Deposit. Only samples within a mineralized zone were used for estimation of the zone. Many of these domains exhibit similar geologic setting and characteristics. A summary of these mineralized domains is presented in Table 14.3. Figure 14-1 illustrates a 3D view of the mineralization solids looking south-west.

Table 14-3: MINERALIZED DOMAINS

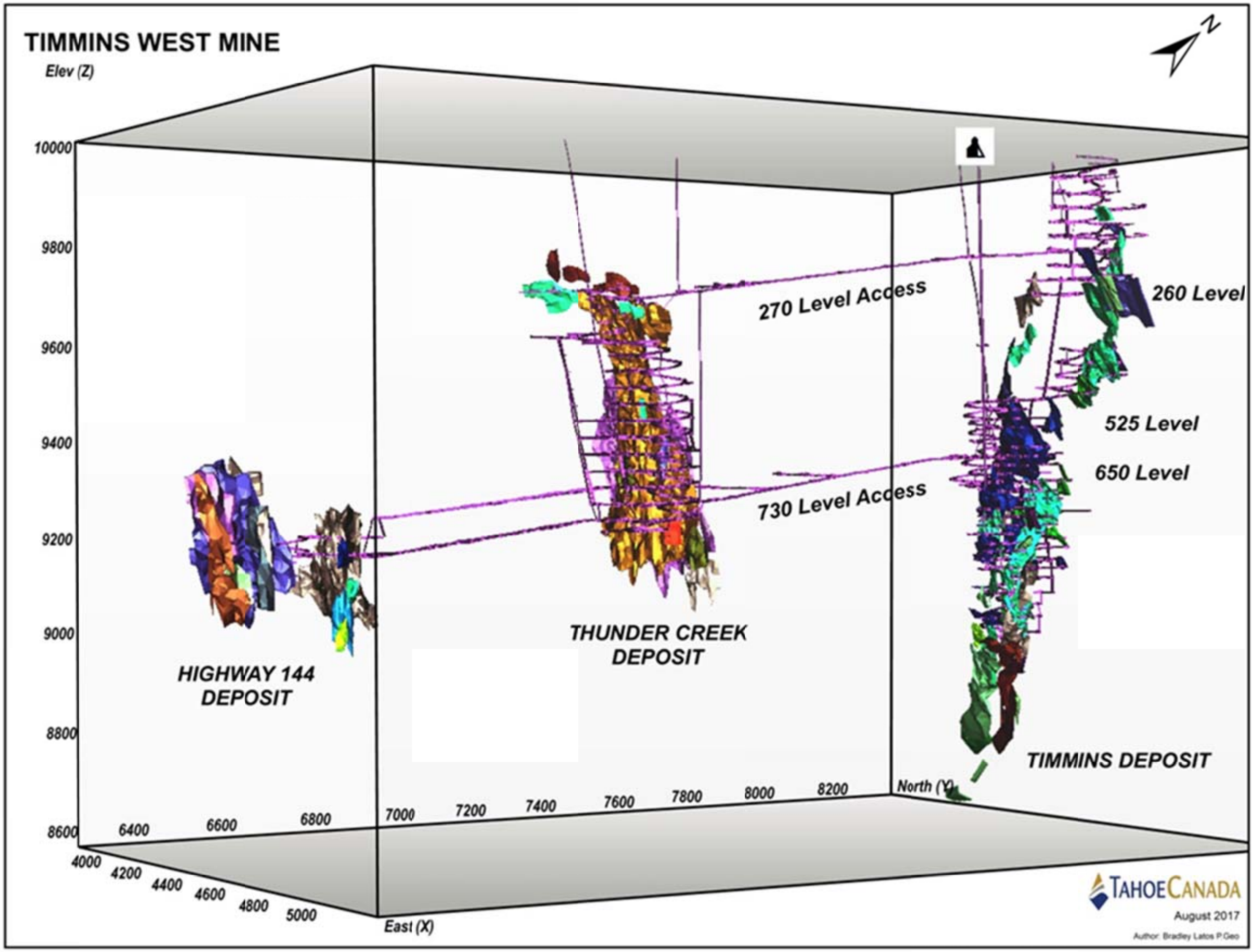
Timmins Mine		
Resource Area	**No. of Domains**	**Description**
Vein Zones	5	Qtz-tm veins and stockworks zones, 1 m to 5 m wide, associated with pyrite, arsenopyrite, and coarse visible gold. The veins are generally emplaced near the volcanic-to-sediment contact zones.
Main Zone	4	Similar to the qtz-tm veins and stockworks zones, associated with pyrite, arsenopyrite, and coarse visible gold; predominantly hosted by sediments
Footwall Zones Above 525	9	Sheared and mylonitized mafic volcanics rocks, associated with local quartz-albite veining, and pervasive silica, albite and pyrite alteration.
Footwall Zones Below 650	13	Sheared and mylonitized mafic volcanics rocks, associated with local quartz-albite veining, and pervasive silica, albite and pyrite alteration.
Ultramafic Zones	23	Quartz-tourmaline veining hosted by strongly altered (iron-carbonate, albite) pyroxenite, accompanied by up to 10-15% disseminated pyrite.

Timmins Mine		
Resource Area	**No. of Domains**	**Description**
D Zones	23	Altered pyroxenite hosted comparable to Ultramafic zone.
S Zones	3	Highly altered and deformed pyroxenite; disseminated pyrite; mineralization wraps around sediment- ultramafic contact.

Thunder Creek		
Resource Area	**No. of Domains**	**Description**
Rusk Zones	8	Comprised of areas of either higher quartz-carbonate-pyrite vein density, and/or areas of elevated medium- to coarse-grained disseminated pyrite and associated pyrite-quartz veinlets adjacent to, and in the footwall of the pyroxenite unit.
Porphyry Zones	7	Quartz monzonite intrusion; mineralization is associated with sheeted sets of quartz extension veins (+ pyrite) which occur in abundance of up to several veins per metre within the intrusion.
Upper Thunder Creek Zones	6	A mix of fractured Rusk and Porphyry zones located in the upper portion of the Thunder Creek Deposit.

144 Gap Deposit		
Resource Area	**No. of Domains**	**Description**
East Porphyry Zones	5	Syenite intrusion with quartz-pyrite extension vein sets and disseminated pyrite mineralization.
West Porphyry Zones	8	Syenite intrusion with quartz-pyrite extension vein sets and disseminated pyrite mineralization.

Figure 14-1: 3D VIEW OF RESOURCE SOLIDS, LOOKING SOUTH-WEST



14.4 Statistical Analysis

14.4.1 Grade Capping

Tahoe Canada has utilized grade capping of diamond drill hole assay values in its estimation of the Mineral Resources for the Timmins, Thunder Creek and 144 Gap Deposits. To evaluate potential cutting factors, assay values were extracted from the drill hole database and flagged by zone according to the mineralized solid enclosing the drill hole assay. Individual statistical reports based on the raw gold assays were generated for each resource solid. Zones having a limited number of samples were grouped for evaluation with those displaying similar mineralization characteristics.

To aid in determining appropriate capping limit histograms, cumulative frequency plots and log probability plots have been recently evaluated by both Company personnel and SGS Canada. All gold grades were capped prior to the creation of drill hole composites. Capped gold grades used to create composites for estimation are summarized in Table 14.4.

Table 14-4: CAPPED AND UNCAPPED GOLD GRADES

Timmins Deposit

Zone	Total # Samples	Maximum (gpt Au)	Mean (gpt Au)	Capping Value (gpt Au)	# of Samples Removed	Capped Mean (gpt Au)
Vein Zones	1,175	1096.60	6.58	50.00	21	3.50
Main Zone (MZ1 and 2)	893	879.44	8.65	50.00	25	4.10
All vein zones	2,068	1096.60	7.48	50.00	2,022	3.76
FW above 525 level	2,806	118.13	3.38	50.00	4	3.29
FW below 650 level	8,813	659.00	4.42	70.00	8,793	4.11
UM3 and 4	1,109	120.91	4.90	50.00	7	4.45
UM 1	4,430	7581.43	8.84	90.00	34	5.70
UM Hanging Wall (UM_2 zones	1,294	77.92	4.71	90.00	0	4.71
UM below 720 level	6,096	5010.00	8.13	90.00	43	6.27
Ultramafic Zones	11,820	7581.43	8.02	90.00	77	5.88
D zone (D1 to D8)	4,183	1010.00	5.97	70.00	35	4.63
S zone (S1 to S4)	1,665	724.00	5.17	70.00	14	3.76

Thunder Creek Deposit

Zone	Total # Samples	Maximum (gpt Au)	Mean (gpt Au)	Capping Value (gpt Au)	# of Samples Removed	Capped Mean (gpt Au)
UTC zone	562	273.00	4.20	50.00	5	3.03
Porphyry - Main zone	30,782	1600.00	3.64	120.00	30	3.14
Porphyry - Splay zones	1,976	105.00	3.56	90.00	2	3.22
Porphyry - Lower	196	33.70	3.00	50.00	0	3.00
RUSK	8,020	166.00	6.44	60.00	61	5.86
RUSK Upper	1,585	214.51	5.08	70.00	4	4.79
RUSK HW	62	21.30	2.49	70.00	0	2.49

144 Gap Deposit

Zone	Total # Samples	Maximum (gpt Au)	Mean (gpt Au)	Capping Value (gpt Au)	# of Samples Removed	Capped Mean (gpt Au)
E_POR	11,011	1000.00	4.29	100.00	48	3.29
E_POR1	293	196.00	5.50	35.00	9	3.63
E_POR2	117	82.10	6.61	15.00	16	2.66
E_POR4	100	36.50	2.71	15.00	5	1.56
E_POR5	55	49.80	4.46	15.00	4	2.37
W_POR	13,799	532.00	2.86	90.00	38	2.39
W_POR1	251	127.00	5.25	35.00	8	3.10
W_POR2	43	87.90	10.73	15.00	7	3.36
W_POR3	322	98.30	5.00	35.00	7	3.58
W_POR4	96	20.30	2.21	15.00	2	1.85
W_POR5	905	118.00	4.49	60.00	7	3.84
W_POR6	1,572	138.00	3.38	40.00	15	2.45
W_POR7	213	37.40	3.46	15.00	5	2.93

14.4.2 Variography

A number of varigographic studies have been completed for zones at the Timmins West Complex in the past by Company personnel and SGS Canada with some of the most recent work being has focused on the 144 Gap by SGS Canada (SGS Canada, 2016).

Results of these studies have consitenly indicated a very high nugget effect, no strongly preferred direction for grade continuity and very short ranges which are typically less than ten metres.

14.4.3 Assay Compositing

Each 3D solid was assigned a unique name and numeric rock code which was used to flag drill hole assays by solid intersections. This solid intersection table was used to generate a set of 1 metre composites based on down-the-hole averaging within the limits of the solid intersection. An option within GEMS6.4 was used that adjusts composite length to make all composite intervals in a given drill hole equal. By comparison, the traditional method of applying a constant composite length along the drill hole results in the last composite of an intersection being shorter in length. The solid intersections and 1 metre composites are stored in a GEMS table and were extracted out to a point area file for interpolation purposes for each of the Deposits. Both capped and uncapped composite grades are stored in the point area file.

A total of 3,071 solid intersections from 2,094 unique holes were used in the Timmins Deposit to produce a total of 23,923 one metre composites.

For the Thunder Creek Deposit a total of 2,699 solid intersections from 1,606 unique holes were used to generate 30,596 one metre composites.

For the 144 Gap Deposit a total of 1,012 solid intersections from 580 unique holes were used to generate 25,607 one metre composites.

14.5 Specific Gravity

Specific gravity ("SG") was determined on 1,828 samples representative of different styles of mineralization from the Timmins, Thunder Creek and 144 Gap Deposits. SG measurements were completed at the Company's exploration office or TWM core shack using the conventional approach of weighing the samples dry and immersed in water.

Mineralized zones were grouped based on the dominant mineralization style within the solid. Table 14-55 summarizes the specific gravity values that were used in the Mineral Resource estimate by deposit and zone.

Table 14-5: SPECIFIC GRAVITY BY ZONE

Deposit	Zone	Historical SG	Readings Quantity	Reading Average	Final SG
Timmins	Footwall	2.88	231	2.81	2.81
	Veins	2.81	19	2.79	2.81
	Ultramafic	2.92	223	2.90	2.92
	Sediments	------	53	2.74	2.74
Thunder Creek	Rusk	2.92	434	2.91	2.92
	Porphyry	2.66	574	2.63	2.66
144 Gap Deposit	Syenite	------	311	2.63	2.63
	Mafic Volcanics	------	177	2.85	2.85
	Mineralized Zones[1]				2.68

1. *SG selected based on proportion of Syenite and Mafic Volcanic within Zones; strong inter-fingering.*

14.6 Block Model Mineral Resource Modeling

14.6.1 General

The grade of the Mineral Resources at the Timmins, Thunder Creek and 144 Gap Deposits was estimated by using inverse distance squared (ID^2) interpolation with anisotropic weighting. This method interpolates the grade of a block from several composites within a defined distance range from the block. The estimation uses the inverse of the distance between a composite and the block as the weighting factor to determine the grade.

14.6.2 Block Model Parametres

Individual models were completed for the Timmins Deposit, the Thunder Creek Deposit, and the 144 Gap Deposit. A summary of the model grid parametres are shown in Table 14-6.

Table 14-6: BLOCK MODEL GRID PARAMETRES

Timmins Deposit			
Model Origin	**Grid**	**Model Dimension**	**Block Dimension**
X	4010 E	Columns 545	Column width 2.0m
Y	7750 N	Rows 280	Row width 2.0m
Z	10020 el	Levels 825	Level height 2.0m

Orientation: No rotation

Thunder Creek Deposit			
Model Origin	**Grid**	**Model Dimension**	**Block Dimension**
X	4400 E	Columns 200	Column width 2.0 m
Y	6725 N	Rows 220	Row width 2.0 m
Z	9880 el	Levels 450	Level height 2.0 m

Orientation: rotate 33° counter-clockwise from East

144 Gap Deposit			
Model Origin	**Grid**	**Model Dimension**	**Block Dimension**
X	3700 E	Columns 550	Column width 2.0 m
Y	5690 N	Rows 300	Row width 2.0 m
Z	9600 el	Levels 400	Level height 2.0 m

Orientation: rotate 50° counter-clockwise from East

14.6.3 Grade Interpolation

Block grades within the Timmins, Thunder Creek and 144 Gap block models were interpolated through four estimation runs using ID^2 with anisotropic weighting for grade determination. The number of composites per drill hole was set such that a minimum of three drill holes were required to estimate a block for Runs 1 through 3. For Run 4 this was reduced to a minimum of two drill holes. It should be noted that Run 4 was completed in order to ensure no un-estimated gaps were created within a particular zone. The number of blocks estimated in Run 4 is minimal and represents significantly less than 1% of blocks for the Thunder Creek and 144 Gap Deposits and approximately 2% of the blocks for the Timmins Deposit.

The general geometry of zones, alteration and mineralization observed in drill core and underground mapping was used in conjunction with variograms of each mineralized zone to establish the search ellipse parametres but given the lack of preferred orientation and short ranges observed in variograms most of the decision was guided by geology. For most cases the search axis was set to the long axis of the solid models for each zone followed by the dip direction and then cross strike.

Search ellipse parametres for the Timmins, Thunder Creek, and 144 Gap Deposits are summarized in Table 14.7, Table 14.8, and Table 14.9. For brevity, zones that were estimated using identical searches are grouped together. In all cases the grade estimation was completed only using composites from within each individual zone.

Table 14-7: TIMMINS DEPOSIT SEARCH ELLIPSE PARAMETRES

SEARCH ELLIPSE PARAMETER

Zone		Search Ellipse Orientation (ZXZ)		Search Ellipse Range Orientation (ZXZ)			Number of Samples			
(Ellipse)	Pass	z	x	z	x	y	z	min	max	Max/hole
Main Zone	1	5	-70	-65	15	15	8	6	12	2
(Pass_70)	2	5	-70	-65	30	30	15	6	12	2
	3	5	-70	-65	60	60	45	6	12	2
	4	5	-70	-65	90	90	60	4	12	2
Vein Zone	1	5	-60	-65	15	15	8	6	12	2
(Pass_60)	2	5	-60	-65	30	30	20	6	12	2
	3	5	-60	-65	60	60	45	6	12	2
	4	5	-60	-65	90	90	60	4	12	2
FW above 525	1	5	-48	-65	15	15	8	6	12	2
(Pass)	2	5	-48	-65	30	30	20	6	12	2
	3	5	-48	-65	60	60	45	6	12	2
	4	5	-48	-65	90	90	60	4	12	2
UM Zones	1	15	-75	-65	15	15	10	6	12	2
(UM)	2	15	-75	-65	30	30	20	6	12	2
	3	15	-75	-65	60	60	45	6	12	2
	4	15	-75	-65	90	90	60	4	12	2
FW Zone	1	10	-35	55	15	15	10	6	12	2
(FW)	2	10	-35	55	30	30	60	6	12	2
	3	10	-35	55	60	60	45	6	12	2
	4	10	-35	55	90	90	60	4	12	2
UM 4 Zone	1	0	0	0	12	12	12	6	12	2
and S Zones	2	0	0	0	24	24	24	6	12	2
(UM4)	3	0	0	0	48	48	48	6	12	2
	4	0	0	0	72	72	72	4	12	2
D Zone	1	-10	-65	35	15	15	10	6	12	2
(D)	2	-10	-65	55	30	30	20	6	12	2
	3	-10	-65	55	60	60	30	6	12	2
	4	-10	-65	55	90	90	60	4	12	2

Table 14-8: THUNDER CREEK DEPOSIT SEARCH ELLIPSE PARAMETRES

		Search Ellipse Orientation (ZXZ)			Search Ellipse Range Orientation (ZXZ)			Number of Samples		
Ellipse	**Pass**	**z**	**x**	**z**	**x**	**y**	**z**	**min**	**max**	**Max/hole**
UTC	1	40	-61	0	15	15	8	9	15	3
(PZB)	2	40	-61	0	30	30	20	9	15	3
	3	40	-61	0	60	60	45	9	15	3
	4	40	-61	0	90	90	70	9	15	3
Porphyry	1	0	0	0	15	15	15	9	15	3
(SPH)	2	0	0	0	30	30	30	9	15	3
	3	0	0	0	60	60	60	9	15	3
	4	0	0	0	90	90	90	9	15	3
Rusk	1	40	-61	0	15	15	8	9	15	3
(PZB)	2	40	-61	0	30	30	20	9	15	3
	3	40	-61	0	60	60	45	9	15	3
	4	40	-61	0	90	90	70	9	15	3

Table 14-9: 144 GAP DEPOSIT SEARCH ELLIPSE PARAMETRES

		Search Ellipse Orientation (ZXZ)			Search Ellipse Range Orientation (ZXZ)			Number of Samples		
Ellipse	**Pass**	**z**	**x**	**z**	**x**	**y**	**z**	**min**	**max**	**Max/hole**
Porphyry	1	-15	15	0	15	7.5	15	12	18	3
	2	-15	15	0	30	15	30	12	18	3
	3	-15	15	0	60	30	60	12	18	3
	4	-15	15	0	90	45	90	9	15	3

14.7 Block Model Validation

Several steps were taken in order to review and validate the current block model and reported results which included comparison of solid model and block model volumes, comparison of the block model against diamond drill results, checking with nearest neighbor estimates and review of recent reconciliation data.

Volumes of the individual solids were compared to volumes of from the block model for the same domain to ensure proper coding of the model. No significant variances were encountered.

Plans and sections were cut through the block model and Mineral Resource solids to view overall trends and patterns as well as compare block grades and grade distribution to the drill hole data. Results of the review indicate a complex pattern for block grades which is consistent with observations from drilling and mapping.

An example of plan views and sections showing block grade distribution and the original diamond drill data for the 144 Gap Deposit is shown in Figure 14-2 and Figure 14-3.

Figure 14-2: 144 GAP DEPOSIT PLAN VIEW AT 820L – BLOCK MODEL AND DIAMOND DRILL HOLES

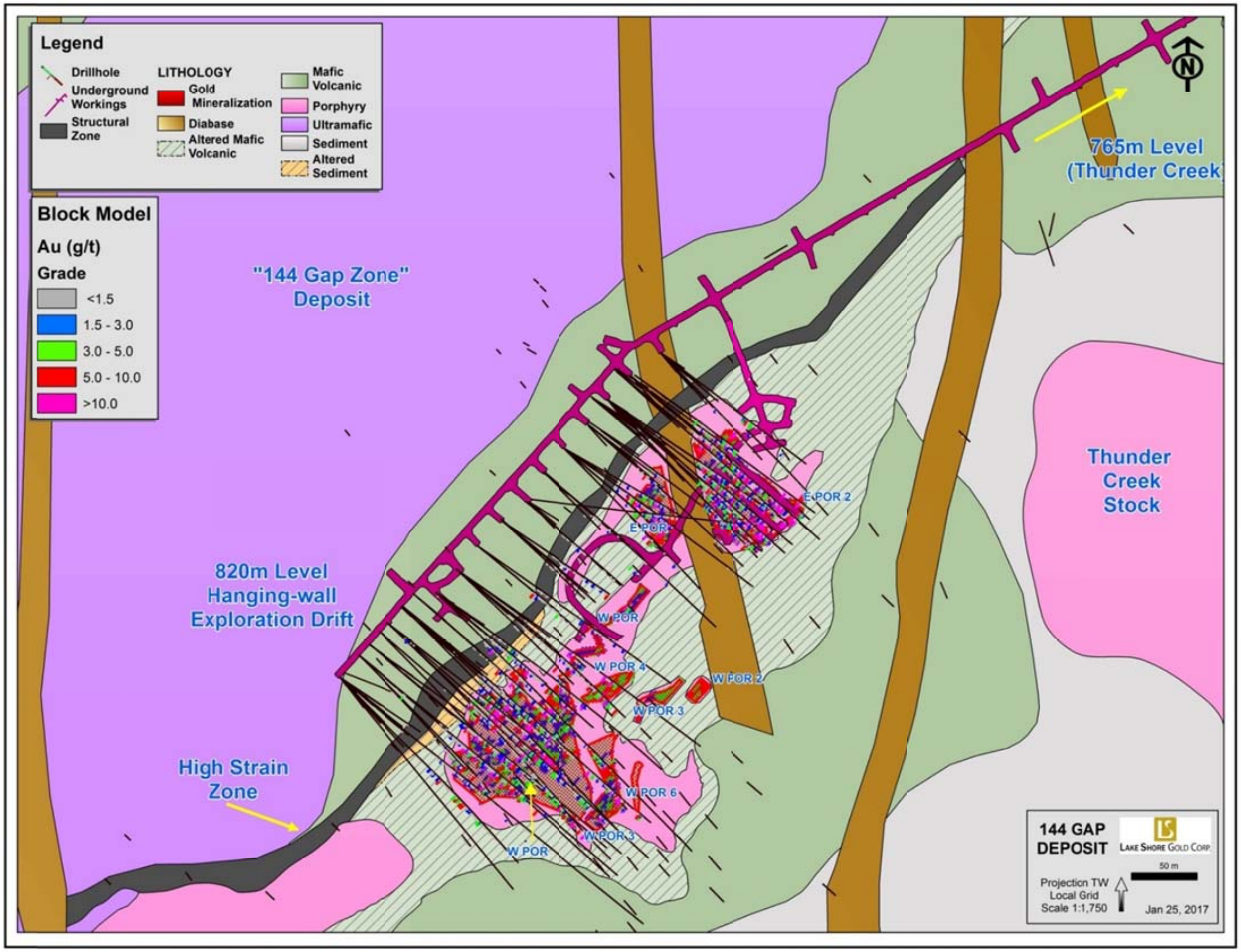
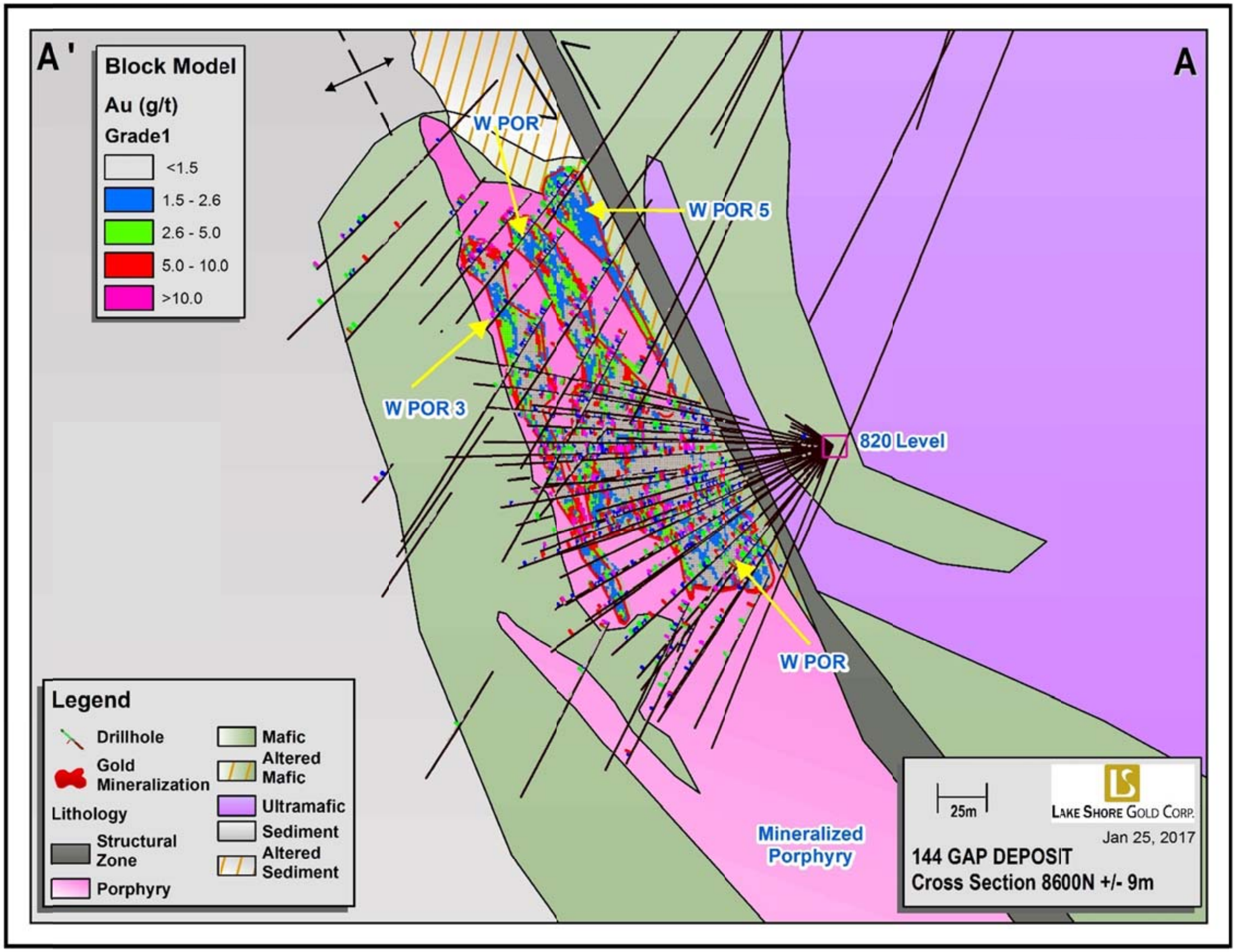


Figure 14-3: 144 GAP DEPOSIT – SECTION 8600 LOOKING SOUTH-WEST – BLOCK MODEL AND DIAMOND DRILL HOLES



A comparison between a nearest neighbour estimate and the final ID² interpolation was completed using the same search ellipse as the ID² interpolation. Results are shown in Table 14-10 and indicates a relatively close correlation between methods for all deposits.

Table 14-10: COMPARISON OF ID^2 AND NEAREST NEIGHBOUR INTERPOLATION

Timmins Deposit Resource Category	**ID^2 Au g/t**	**NN Au g/t**	**Difference Au g/t**
Indicated	4.76	4.72	0.04
Inferred	3.94	4.18	-0.25
Thunder Creek Resource Category	**ID^2 Au g/t**	**NN Au g/t**	**Difference Au g/t**
Indicated	3.86	3.96	-0.10
Inferred	2.35	2.57	-0.21
144 Gap Resource Category	**ID^2 Au g/t**	**NN Au g/t**	**Difference Au g/t**
Measured	3.77	4.00	-0.23
Indicated	2.76	2.86	-0.10
Inferred	2.83	3.08	-0.25

Further validation of the block model estimate can be drawn from comparison of the block model grade to the reconciled mill production. Comparison of the block model to the mill production is carried out for each stope upon completion. Tonnage and grade from the block model based upon a survey of the final mined out void (CMS survey) is compared to the mill production. Significant differences for individual stopes are observed with a reasonable overall comparison to mill reconciled figures. The presence of large differences on a stope scale is not unexpected and likely the result of several factors working together including: complex zone geometries, sampling difficulties due to coarse gold and high variability for gold assays, uncertainties with tracking and assigning tonnage accurately back to individual stopes due to blending and milling ore from four sources in a common mill, uncertainties regarding final stope shapes and quantities of rock extracted and uncertainties for mill grade and losses of gold to mill inventory during certain months. Efforts to address the above factors are being examined on an ongoing basis and some improvements have been noted in recent work.

14.8 Removal of Mined and Non-Recoverable Resource Blocks

Mineral Resources at the TWM are reported after the removal of all underground development and mining from the block model as well as the removal of all non-mineable material including low grade and non-recoverable pillars.

The removal of mined out blocks and development was completed by flagging blocks within mining shapes provided by the engineering department and setting the density and grade of these blocks to zero. A similar process was completed for non-mineable blocks. The removal of non-mineable blocks is affected by economic considerations as determined by the engineering and geology group and can be reviewed should economic conditions improve.

14.9 Mineral Resources Classification

Resources were classified based primarily on estimation run. Those areas deemed to form a continuous zone with blocks of largely Pass 1 and 2 (15 to 30 metre search) were clipped out of the Domain Solid to create a solid for flagging resource category. These blocks were re-classified in the block model as either Measured or Indicated, while the remaining blocks within the domain were classified as Inferred.

14.10 Mineral Resources

Mineral Resources are reported for the Timmins Deposit, the Thunder Creek Deposit, and the 144 Gap Deposit.

At the Timmins Deposit resources are located between 4075E and 5100E (TM mine grid), a horizontal distance of 975 metres. Vertically, the zones have been defined from the 9,900 metre elevation (115 metres below surface) to 8,490 metre elevation (1,525 metres below surface).

At the Thunder Creek Deposit resources are located between 9325N and 9675N (TC mine grid), a horizontal distance of 350 metres. Vertically, the zones have been defined from 9,825 metre elevation (190 metres below surface) to 9,045 metre elevation (970 metres below surface).

The 144 Gap Deposit resources are located southwest of the Timmins and Thunder Creek Deposits between 8525N and 8920N (TC mine grid), a horizontal distance of 395 metres. Vertically the zones extend from the 9,405 metre elevation to the 8,945 metre elevation (600 to 1,070 metres below surface).

The estimated TWM Mineral Resource totals 0.36 Mt at 4.95 gpt Au, amounting to 57,500 ounces of gold in the Measured category, 7.62 Mt at 3.99 gpt Au, amounting to 976,200 ounces of gold in the Indicated category and 1.09 Mt at 3.80 gpt Au amounting to 133,400 ounces of gold in the Inferred category. Subdivision of the Mineral Resource by deposit is tabulated in Table 14-11.

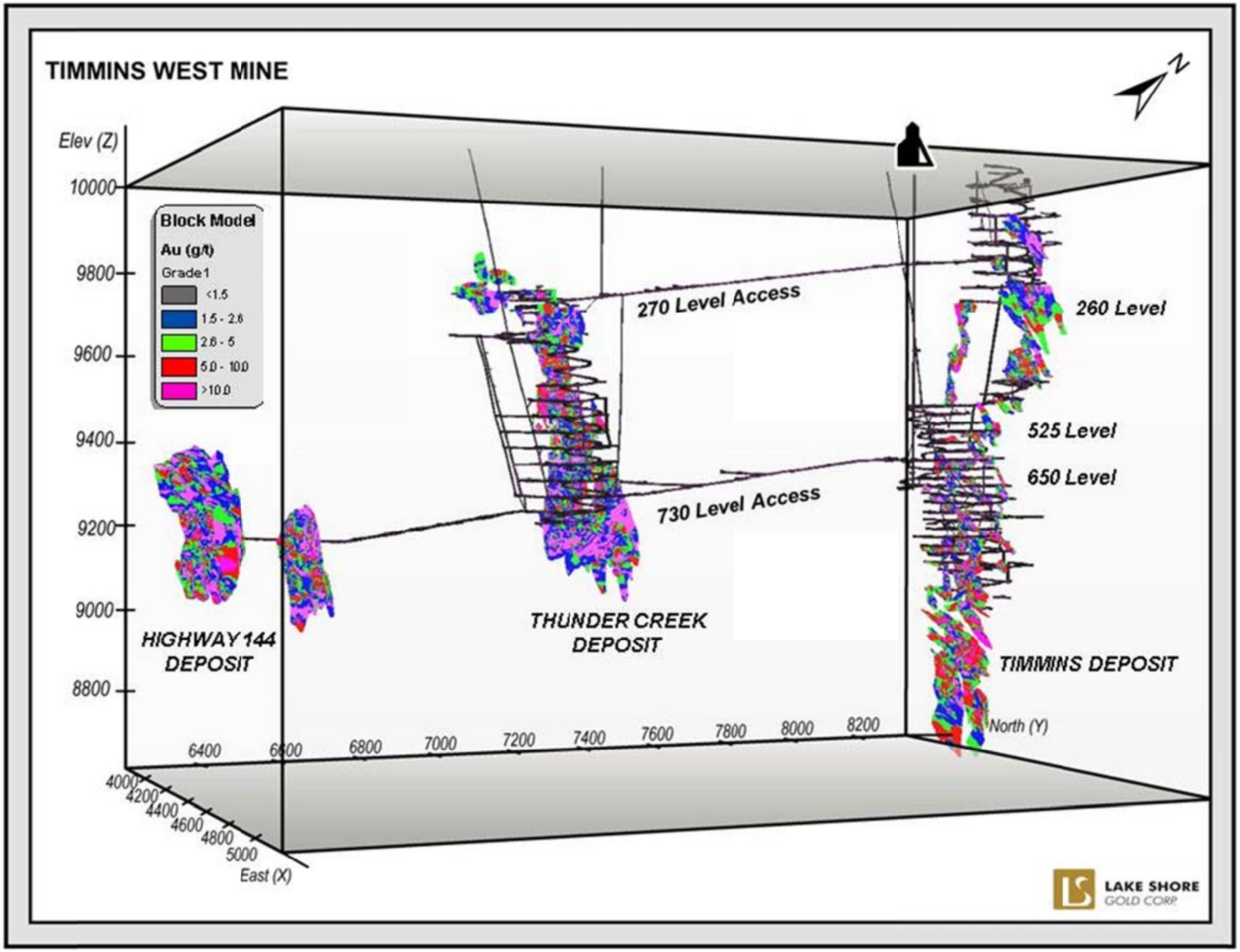
Table 14-11: TIMMINS WEST MINE MINERAL RESOURCES

In-Situ Resources Above 1.5 Au g/t Cut-Off Grade				
Deposit	**Classification**	**Tonnes**	**Au Grade (g/t)**	**Au Ounces**
Timmins	Indicated	1,428,000	4.66	213,800
	Inferred	358,000	4.32	49,700
Thunder Creek	Indicated	1,249,000	3.73	149,800
	Inferred	39,000	2.63	3,300
144 Gap	Measured	361,000	4.95	57,500
	Indicated	4,862,000	3.86	602,900
	Measured & Indicated	*5,223,000*	*3.93*	*660,400*
	Inferred	695,000	3.60	80,500
Total Timmins West Mine	Measured	361,000	4.95	57,500
	Indicated	7,539,000	3.99	966,500
	Measured & Indicated	*7,900,000*	*4.03*	*1,024,000*
	Inferred	1,092,000	3.80	133,400

1. The effective date of the Mineral Resource Estimate is May 15, 2017.
2. Mineral resource estimates have been classified according to CIM Definitions and Guidelines.
3. Mineral Resources are reported inclusive of Mineral Reserves.
4. Mineral resources have been estimated using Inverse Distance Squared estimation method and gold grades which have been capped between 15 and 120 grams per tonne based on statistical analysis of each zone.
5. Assumed minimum mining width is between two and ten metres depending on the zone.
6. Tonnes information is rounded to the nearest thousand and gold ounces to the nearest one hundred. As a result, totals may not add exactly due to rounding.
7. The mineral resources were prepared under the supervision of, and verified by, Kara Byrnes, P. Geo., Director of Technical Services, Tahoe Canada, who is a qualified person under NI 43-101.

Three dimensional views of the individual block models showing the distribution of grade relative to the underground workings is presented in Figure 14-4.

Figure 14-4: 3D VIEW OF BLOCK MODELS LOOKING SOUTH-WEST



The Mineral Resource for the Timmins, Thunder Creek, and 144 Gap Deposits are reported using a base case cut-off grade of 1.5 gpt. Table 14-12 shows the results of a sensitivity analysis at incremental cut-off grades between 1.0 and 5.0 gpt.

Table 14-12: SENSITIVITY TO CUT-OFF-GRADE

Timmins Deposit				
Indicated Mineral Resource				
	Cut-Off Au g/t	**Tonnes**	**Au Grade g/t**	**Au Ounces**
	1	1,587,000	4.32	220,200
Base Case	**1.5**	**1,428,000**	**4.66**	**213,800**
	2	1,287,000	5.03	208,300
	3	897,000	6.05	174,600
	4	629,000	7.25	146,600
	5	439,000	8.46	119,300
Inferred Mineral Resource				
	Cut-Off Au g/t	**Tonnes**	**Au Grade g/t**	**Au Ounces**
	1	382,000	4.12	50,600
Base Case	**1.5**	**358,000**	**4.32**	**49,700**
	2	323,000	4.59	47,800
	3	249,000	5.23	41,900
	4	168,000	6.03	32,600
	5	106,000	6.96	23,700

Thunder Creek Deposit				
Indicated Mineral Resource				
	Cut-Off Au g/t	**Tonnes**	**Au Grade g/t**	**Au Ounces**
	1	1,829,000	3.05	179,500
Base Case	**1.5**	**1,249,000**	**3.73**	**149,800**
	2	988,000	4.38	140,700
	3	553,000	5.68	102,000
	4	387,000	6.96	86,700
	5	258,000	8.21	68,200
Inferred Mineral Resource				
	Cut-Off Au g/t	**Tonnes**	**Au Grade g/t**	**Au Ounces**
	1	45,000	2.43	3,500
Base Case	**1.5**	**39,000**	**2.63**	**3,300**
	2	25,000	3.09	2,500
	3	15,000	3.39	1,700
	4	200	4.47	25
	5	30	5.47	5

144 Gap Deposit				
Measured Mienral Resource				
	Cut-Off Au g/t	**Tonnes**	**Au Grade g/t**	**Au Ounces**
	1	428,000	4.37	60,200
Base Case	**1.5**	**361,000**	**4.95**	**57,500**
	2	301,000	5.60	54,100
	3	210,000	6.94	47,000
	4	153,000	8.24	40,600
	5	114,000	9.55	35,000
Indicated Mineral Resource				
	Cut-Off Au g/t	**Tonnes**	**Au Grade g/t**	**Au Ounces**
	1	6,048,000	3.35	650,400
Base Case	**1.5**	**4,862,000**	**3.86**	**602,900**
	2	3,932,000	4.42	545,200
	3	2,378,000	5.63	430,300
	4	1,498,000	6.91	333,000
	5	985,000	8.18	259,000
Inferred Mineral Resource				
	Cut-Off Au g/t	**Tonnes**	**Au Grade g/t**	**Au Ounces**
	1	848,000	3.18	57,000
Base Case	**1.5**	**695,000**	**3.60**	**80,500**
	2	554,000	4.08	72,600
	3	345,000	5.05	56,000
	4	199,000	6.21	40,000
	5	112,000	7.62	27,300

14.11 Reconciliation To Previous Mineral Resource Estimate

Comparison of Mineral Resources at the TWM as reported for year end 2016 and from the new estimate is summarized in Table 14-13.

Table 14-13: COMPARISON OF 2016 YEAR END AND 2017 MIDYEAR MINERAL RESOURCE ESTIMATES

Resource Above 1.5 Au g/t Cut-Off Grade	2016 YEAR END			2017 MID YEAR			Variance in oz	Var %
	Tonnes	Au g/t	Au Ounces	Tonnes	Au g/t	Au Ounces		
Timmins Deposit								
Indicated	1,290,000	4.82	199,800	1,428,000	4.66	213,800	14,000	7%
Inferred	546,000	4.72	82,800	358,000	4.32	49,700	-33,100	-40%
Thunder Creek								
Indicated	1,344,000	3.80	162,600	1,249,000	3.73	149,800	-12,800	-8%
Inferred	129,000	4.00	16,800	39,000	2.63	3,300	-13,500	-80%
144 Gap Deposit								
Measured	-	-	-	361,000	4.95	57,500	57,500	100%
Indicated	5,287,000	3.89	660,900	4,862,000	3.86	602,900	-58,000	-9%
Inferred	665,000	3.72	79,500	695,000	3.60	80,500	1,000	1%
Total TWM								
Measured	**-**	**-**	**-**	**361,000**	**4.95**	**57,500**	**57,500**	**100%**
Indicated	**7,921,000**	**4.02**	**1,023,300**	**7,539,000**	**3.99**	**966,500**	**-56,800**	**-6%**
Inferred	**1,340,000**	**4.16**	**179,100**	**1,092,000**	**3.80**	**133,400**	**-45,700**	**-26%**

The drilling, development and mining completed since the last Mineral Resource update on January 1, 2017 shows an increase in Measured category of 57,500 ounces, and an overall decrease of 56,800 ounces in the Indicated category and a decrease of 45,700 ounces in the Inferred category.

Indicated Mineral Resources at the Timmins Deposit show an increase of 14,000 ounces due to conversion of Inferred partially offset by mining production. Inferred Mineral Resources show a corresponding decrease of 33,100 ounces mainly due to conversion of Inferred Mineral Resources to Indicated.

Indicated Mineral Resources at the Thunder Creek deposit have decreased mainly due to mining production partially offset by a conversion of inferred to Indicated. Inferred Mineral Resources show a decrease of 13,500 ounces.

Measured Mineral Resources at the 144 Gap Deposit show an increase of 57,500 ounces due to close spaced drilling and lateral development in the East Porphyry, while Indicated Mineral Resources show a corresponding drop both due to conversion and mining. The Inferred Mineral Resources show a marginal increase of 1,000 ounces.

14.12 Additional Drill Hole Information

Subsequent to the closing of the Timmins, Thunder Creek and 144 Gap Deposits databases there has been a total of 6,939 metres of operating drilling and 22,350 metres of capital drilling up to August 30, 2017.

At the Timmins Deposit 1,482 metres of operating drilling approximately half of which was close spaced bazooka holes used to help better define the stope blocks. A total of 5,400 metres of capital drilling was also competled during this period, most of which was drilled from the 1110L and the 1130L ramp cutouts. This drilling was to both upgrade inferred resources to indicated and to provide infill drilling on indicated resources to better define the zones for future mining.

At the Thunder Creek Deposit 144 metres of operational drilling was completed during the period, all of which was from a bazooka drill. A total of 5,400 metres of capital drilling was completed during this time: 4,209 metres of which were completed from the Thunder Creek 850L targeting Indicated and Inferred Mineral Resources below Thunder Creek 890L primarily for infill drilling. A total of 1,191 metres were completed from the Thunder Creek 350L and 370L for infill drilling for stope blocks planned for 2018 and onwards.

At the 144 Gap Deposit 14,427 metres have been drilled since the database closure: 5,313 operating metres and 9,114 capital metres, drilled from a number of platforms. This drilling was both to better define stope blocks for the 2017 Mine Plan as well as provide infill drilling for resources planned for future mining.

Considering that much of the new drilling consists of close spaced holes to infill resource blocks there is potential for some slight changes in size, shape and grade of these blocks, but the net effect of this on the global resource is not deemed to be significant.

15.0 MINERAL RESERVE ESTIMATES

15.1 Summary

The Mineral Reserves estimated for the TWM have been based on the updated Mineal Resources estimated for the Timmins, Thunder Creek, and 144 Gap Deposits. The Mineral Reserves for the TWM incorporate that portion of the Measured and Indicated Mineral Resources within an updated life of mine plan that are economically feasible, with dilution and mine losses applied. The Mineral Reserve estimate is based on material provided as mill feed to the Bell Creek Mineral Reserves for the TWM are summarized in Table 15-1.

Table 15-1: TIMMINS WEST MINE MINERAL RESERVES

Deposit	Classification	Tonnes	Au Grade (g/t)	Au Ounces
Timmins	Probable	1,247,000	3.62	145,100
Thunder Creek	Probable	668,000	3.13	67,200
144 Gap	Proven	407,000	3.61	47,200
	Probable	4,830,000	3.08	478,300
	Proven & Probable	*5,237,000*	*3.12*	*525,500*
Total Timmins West Mine	Proven	407,000	3.61	47,200
	Probable	6,745,000	3.18	690,600
	Proven & Probable	*7,152,000*	*3.21*	*737,800*

The effective date of the TWM Mineral Reserve estimate is May 15, 2017. Mineral Reserves are based on a long-term gold price of $1,250 per ounce at a gold cut-off grade of 2.0 g/t. Other factors used to determine the Mineral Reserves include mining recovery of 95%, external dilution of 15% for the Timmins Deposit, 13% for the Thunder Creek Deposit, and 9% for the 144 Gap Deposit, and metallurgicval recovery of 97%.

The mine design was updated to reflect the most likely LOM production scenario. The mine design includes all sustaining development and construction required to access the Measured and Indicated Mineral Resources that meet the definition of Mineral Reserves, and extracting the Mineral Reserves using the longhole mining techniques in place at the TWM.

15.2 Cut-Off Grade

To develop the LOM plan and estimate the Mineral Reserves for the TWM, a cut-off grade (COG) was estimated using actual operating costs and mill recoveries based on LSG and Tahoe Canada's operating experience. The assumptions for the COG calculation are summarized in Table 15-2.

Table 15-2: TIMMINS WEST MINE CUT-OFF GRADE ASSUMPTIONS

Item	Value
Mine Operating and Site General Costs	$US 50.38 / tonne
Ore Surface Transport to Bell Creek Mill	$US 5.97 / tonne
Mill Operating Cost	$US 16.23 / tonne
Total Operating Cost	$US 72.58 / tonne
Mill Recovery	97%
Gold Price ($US)	$1,250 / ounce
Exchange Rate ($CAD/$US)	1.3
Cut-Off Grade	**2.0 g/t**

In addition to considering the estimated COG, mine planning personnel have considered the overall economics in localized areas when evaluating sublevels and stoping blocks.

15.3 Timmins Deposit Mineral Reserve Estimate

Based on the Indicated Mineral Resource for the Timmins Deposit, the following methodology was used to estimate the Mineral Reserves.

The block model was reviewed in plan and in section to identify potential mining areas with concentrations of Indicated Mineral Resources above the COG and to determine appropriate mining methods. Sublevels were designed at 20 metre vertical intervals, and vertical sections were cut through the model at appropriate intervals along strike (depending on the complexity of the resource). Mining shapes were designed on each section and joined with shapes on adjacent sections to generate wireframes.

The Mineral Resources contained within the wireframes was retrieved from block model data and includes:

- Higher grade material grading above 2.0 g/t.
- Low grade material grading below 2.0 g/t (planned internal dilution).
- Waste rock grading 0.0 g/t (planned internal dilution).

Stope reconciliation data has been used to estimate unplanned dilution and mining recovery factors. Based on this analysis, 15% unplanned dilution (grading 0.0 g/t) and 95% mining recovery has been used to estimate the Mineral Reserves.

The in-situ tonnes and grade contained within the wireframes were extracted from the block model Mineral Resource data, and unplanned dilution and mining recovery factors have been applied to estimate the probable reserves.

Some sublevels have an overall grade that is near the COG. In general, these sublevels already have capital development and infrastructure in place, and in some cases the operating development has also been completed.

A mine design, development schedule, and production profile and has been completed to estimate the capital and operating costs required to access, develop, and extract the Timmins Deposit Mineral Reserves. A LOM cash flow analysis was completed to demonstrate that the Mineral Reserves support capital infrastructure.

15.4 Thunder Creek Deposit Mineral Reserve Estimate

Based on the Mineral Resources included in the Thunder Creek block model, the following methodology was used to estimate the Mineral Reserves.

The block model was reviewed in plan and in section to identify concentrations of Mineral Resources material above the COG and to confirm the suitability of the longhole mining method. Sublevels were established at 35 metre vertical intervals and mining shapes were designed at appropriate intervals along strike for each sublevel. The mining shapes on each section were joined with shapes on adjacent sections to generate stope wireframes.

Unplanned dilution parametres have been developed and applied to each individual stope based on geometry and size.

Stope reconciliation data at Thunder Creek was used to estimate unplanned dilution and mining recovery factors. Based on this analysis, 13% unplanned dilution (grading 0.0 g/t) and 95% mining recovery has been used to estimate the probable reserves.

The in-situ tonnes and grade contained within the stope wireframes were extracted from the block model Mineral Resource data and unplanned dilution and mining recovery factors have been applied to estimate the reserves.

A mine design, development schedule, and production profile has been completed to estimate the capital and operating costs required to access, develop, and extract the Thunder Creek Mineral Reserves. A LOM cash flow analysis has been completed to demonstrate that the Mineral Reserves support capital infrastructure.

15.5 144 Gap Deposit Mineral Reserve Estimate

Based on the in-situ Mineral Resources included in the 144 Gap block model, the following methodology was used to estimate the Mineral Reserves.

The block model was reviewed in plan and in section to confirm the suitability of the longhole mining method. Sublevels were established at 35 metre vertical intervals. To confirm the 2.0 g/t cut-off-grade will be optimal for 144 Gap, mining software Mineable Shape Optimizer ("MSO") was used to generate mining shapes at varying cut-off grades (ranging from 1.5 g/t to 4.0 g/t). For each COG scenario, dilution and recovery factors were applied to the mining shape in-situ resource to estimate the potential tonnes and ounces for each sublevel interval. In addition, the capital development and infrastructure and operating development were estimated for each sublevel. An economic evaluation was completed for each COG scenario using site experience cost data. The evaluation results confirmed a 2.0 g/t COG as the basis for estimating the Mineral Reserves.

The mining shapes were further reviewed and refined to ensure consistency with existing mine design experience gained from mining at Thunder Creek. A full 3D mine model of all stopes and development was generated for mining the 144 Gap Deposit.

Stope reconciliation data from mining experience at Thunder Creek was used to estimate the mining recovery factor for 144 Gap. Based on this experience, 95% mining recovery was used to estimate the Mineral Reserves. Unplanned dilution parametres developed from geomechanical studies and applied to each stope based on geometry and size, combined with stope reconciliation data at 144 Gap, was used to estimate unplanned dilution and mining recovery factors. Based on this analysis, 9% unplanned dilution (grading 0.0 g/t) has been applied to estimate reserves.

The in-situ tonnes and grade contained within the stope wireframes were extracted from the block model Mineral Resource data and unplanned dilution and mining recovery factors were applied to estimate the Mineral Reserves.

A mine design, development schedule, and production profile has been completed to estimate the capital and operating costs required to access, develop, and extract the 144 Gap Mineral Reserves. A LOM cash flow analysis has been completed to demonstrate that the Mineral Reserves support capital infrastructure.

15.6 Timmins West Mine Mineral Reserves

The combined TWM reserves are summarized in Table 15-3. The reference point for the Proven and Probable Mineral Reserves is delivery to the Bell Creek mill.

Table 15-3: TIMMINS WEST MINE COMBINED PROVEN AND PROBABLE MINERAL RESERVES

Deposit	Classification	Tonnes	Au Grade (g/t)	Au Ounces
Timmins	Probable	1,247,000	3.62	145,100
Thunder Creek	Probable	668,000	3.13	67,200
144 Gap	Proven	407,000	3.61	47,200
	Probable	4,830,000	3.08	478,300
	Proven & Probable	*5,237,000*	*3.12*	*525,500*
Total Timmins West Mine	Proven	407,000	3.61	47,200
	Probable	6,745,000	3.18	690,600
	Proven & Probable	*7,152,000*	*3.21*	*737,800*

1. *The effective date of this report is May 15, 2017.*
2. *The mineral reserve estimates are classified in accordance with the Canadian Institute of Mining Metallurgy and Petroleum's "CIM Standards on Mineral Resources and Reserves, Definition and Guidelines" as per Canadian Securities Administrator's National Instrument 43-101 requirements.*
3. *Mineral reserves are based on a long-term gold price of US$1,250 per ounce and an exchange rate of 1.3 $CAD/$US.*
4. *Mineral reserves are supported by a mine plan that features variable stope thicknesses, depending on zone, and expected cost levels, depending on the mining methods utilized.*
5. *Mineral reserves incorporate a minimum cut-off grade of 2.0 grams per tonne. The cut-off grade includes estimated mining and site G&A costs of $US50.38 per tonne, surface haulage costs of $US5.97 per tonne, milling costs of $US16.23 per tonne, mining recovery of 95%, external dilution of 15.0% for the Timmins Deposit, 13.0% for Thunder Creek, and 9.0% for 144 Gap and a metallurgical recovery rate of 97%.*
6. *The mineral reserves were prepared under the supervision of, and verified by, Kara Byrnes P.Geo., Director of Technical Services, Tahoe Canada, who is a qualified person under NI 43-101.*

16.0 MINING METHODS

16.1 Overview

The TWM includes three mineralized gold resource deposits; the Timmins Deposit , Thunder Creek Deposit , and 144 Gap Deposit .

The Thunder Creek mineralized resource extends from near surface (surface is at 10,015 metre elevation) to approximately 1,525 metres below surface. There are three main geological mineralized zones; Vein Zone, Footwall Zone, and Ultramafic Zone. Each zone is further comprised of smaller zones, separated by waste rock. The zones vary in transverse width from 1.5 metres to approximately 30 metres. Generally, the mineralized resource strikes east-west and dips 55 degrees to the north, although locally individual zones are shallower dipping.

The Thunder Creek mineralized resource is approximately 750 metres south of the Timmins Deposit and extends from 190 metres to 970 metres below surface. Thunder Creek consists of the Rusk Zone and the Porphyry Zone and is generally massive, striking east-west and dipping 60 degrees to the north.

The 144 Gap mineralized resource is approximately 900 metres southwest of the Timmins and Thunder Creek Deposits and extends from 600 metres to 1,070 metres below surface with a strike length of approximately 395 metres. The resource dips approximately 70 degrees northeast.

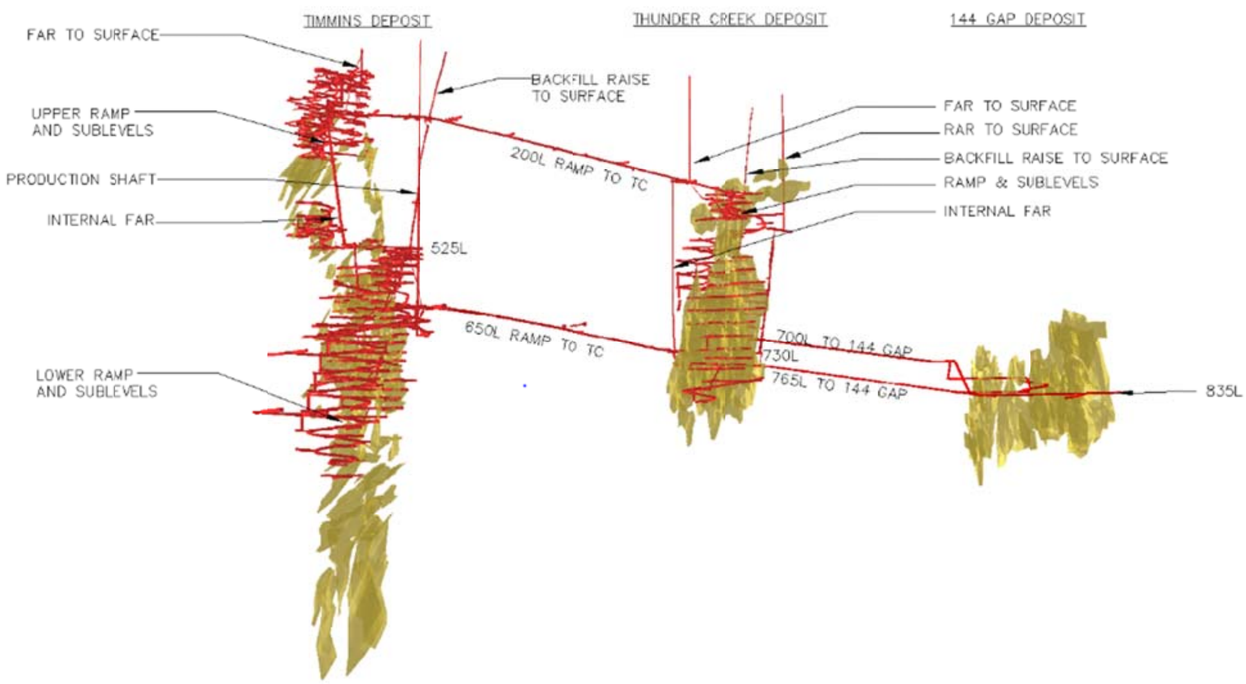
LSG completed an advanced exploration program on the Thunder Creek Deposit in 2010. The program included establishing surface facilities, sinking a 5.5 metre inside diametre, 710 metre deep shaft, completing an underground diamond drilling program, and developing/constructing the required underground infrastructure to extract a bulk sample. Following the discovery of Thunder Creek, two ramps were developed from the Timmins Deposit to access Thunder Creek at 275 level and 730 level. Advanced exploration activities were completed at Thunder Creek (including extraction of a bulk sample) throughout 2011. The naming of underground levels has been expressed as nominal metres below the shaft collar (*i.e.*, 650L is 650 metres below collar).

The existing underground infrastructure at the TWM is shown in Figure 16-1 and includes:

- The 5.5 metre diametre, 710 metre deep production shaft.
- Main shaft stations at the Timmins Deposit 200L, 400L, 525L, and 650L.
- Ore and waste rockbreakers and bins at 650L, and a loading pocket at 670L.
- Ventilation raises to surface and internal ventilation raises underground.
- The main ramp from surface to approximately 300L and from 480L to 1130L at the Timmins Deposit.
- An internal ramp system to access existing sublevels.
- Mine dewatering facilities.
- Electrical distribution and communications.

- Compressed air and service water distribution.
- Maintenance facilities.
- Access to Thunder Creek at 275L and 730L.
- Access to 144 Gap at 775L and 835L.

Figure 16-1: TIMMINS WEST MINE EXISTING UNDERGROUND INFRASTRUCTURE



The Timmins, Thunder Creek, and 144 Gap Deposit Mineral Reserves will continue to be extracted using underground mining methods and are accessed via the existing 5.5 metre diametre shaft and portal/ramp (5 metre x 5 metre) from surface.

16.2 Primary / Secondary Access

The primary access to the underground workings will continue to be via the existing TWM shaft, and ore and waste rock will be trucked to the existing 650 level grizzly/rockbreaker station for sizing and subsequent skipping to surface.

The Thunder Creek Deposit is accessed via existing ramps originating at the Timmins Deposit 200 level (accessing Thunder Creek at 275 level) and 650 level (accessing Thunder Creek at 730 level).

The 144 Gap Deposit is accessed via existing accesses originating at the Thunder Creek 705 level (accessing 144 Gap at 775 level) and 765 level (accessing 144 Gap at 835 level).

An existing portal and ramp from surface currently extends to the Timmins Deposit 300 level. The internal ramp systems within each deposit connect to each production level in the mine (*i.e.*, no captive levels) allowing all levels to be accessed via the ramp from surface.

Secondary access/egress to/from the underground are via the existing portal and ramp to surface, and internal raises equipped with escapeways.

16.3 Shaft and Hoisting Facilities

The primary access to the underground workings and transfer of ore and waste rock to surface will continue to be via the existing production shaft, located near the Timmins Deposit. The shaft collar is at 10,015 metre elevation and shaft bottom at 9,305 metre elevation (710 metres deep). Main shaft stations have been constructed at 200 level (200L), 400L, 525L, and 650L.

The shaft is concrete lined with a 5.5 metre inside diametre. The shaft includes two skip compartments (12 tonne capacity bottom dump skips), a service cage compartment (42-person capacity double deck cage), and service compartment for piping and electrical services. The shaft does not have a manway compartment.

The existing steel headframe is 47 metres tall and includes a collar house and chute to dump ore and waste to an outside pad.

16.3.1 Hoisting Plant

The hoisting plant includes a production hoist for skipping operations and a service hoist for cage operations.

Production Hoist
The existing production hoist is a Nordberg, 3.6 metre (12 foot) diametre double drum with 2 x 862 kW (2 x 1,150 hp) AC motors. Combined with the 12 tonne skips, the plant has capacity to hoist 5,378 tonnes per day. This capacity will be sufficient to meet ore production and waste rock hoisting requirements.

Service Hoist
The existing service hoist is a 2.7 metre (9 foot) diametre single drum unit with an 862 kW (1,150 hp) AC motor. Combined with the 42-person double deck cage, the capacity will be suitable to meet personnel and material transfer requirements.

16.3.2 Shaft Services

The existing pipe services in the shaft include a 100 mm diametre service water pipeline, 152 mm diametre dewatering pipeline, two 203 mm diametre slick lines, and a 254 mm diametre compressed air line. The shaft services have sufficient capacity to supply the mine.

16.3.3 Ore / Waste Handling System and Loading Pocket

Broken ore and waste rock are hauled to separate ore and waste dumps/rockbreaker arrangements near the shaft at 650L. Broken material is dumped onto grizzlies and sized with stationary hydraulic rockbreakers. The sized ore material feeds a 1,200 tonne capacity ore bin and the sized waste material feeds an 800 tonne capacity waste bin. A second truck dump point (at approximately 630L elevation) and coarse ore bin will be constructed above the existing grizzly to accommodate 144 Gap production. This new arrangement will provide a truck haul route from 144 Gap and reduce congestion at the 650L dump.

The bins below the 650L grizzly feed a conventional gravity fed loading pocket. Chains and pneumatic cylinders are used to control the flow of material. For the ore system, ore feeds from the bin to a splitter to divert the material into the two measuring flasks. The waste material feeds from one side, but a moveable (by cylinder) chute allows both flasks to be filled. The existing skip loading system has been fully automated.

16.4 Stoping Methods

Longhole with delayed backfill stoping, using both consolidated (cemented rockfill and pastefill) and unconsolidated fill, has been the primary mining method used to date at the TWM. Longhole is a widely used and proven mining method that involves common industry equipment and labour skillsets. All future mining is planned to be via longhole mining.

16.4.1 Timmins Deposit

The mineralized zones at the Timmins Deposit vary in transverse width and dip. Mining shapes (*i.e.*, stope wireframes) have been designed for all Indicated Mineral Resources that have been included in the Mineral Reserve estimate.

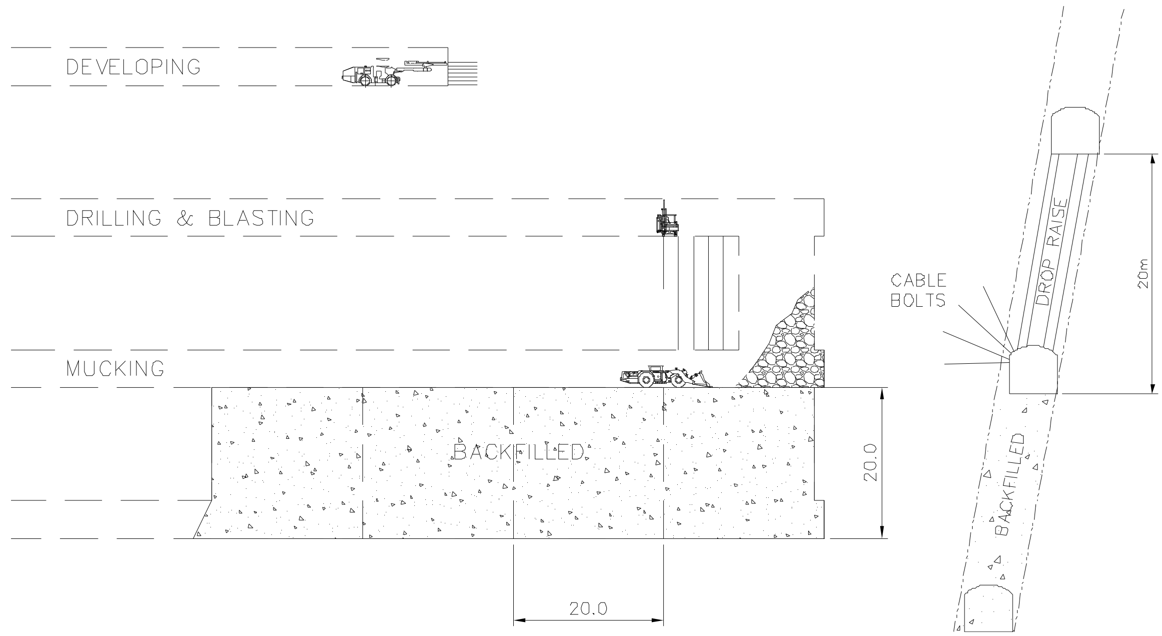
Longhole

The longhole method has been used successfully at the TWM during bulk sample extraction and commercial production. A combination of longitudinal and transverse longhole is used (the transverse longhole method is described in Section 16.3.2).

For longitudinal longhole mining, sublevels are established at 20 metre vertical intervals. The resource will generally be accessed in the centre (along strike) and stope undercut and overcut sills developed to the east and west extents. Stope lengths are 20 metres along strike and mining will retreat from the extremities toward the initial access point.

The longitudinal longhole mining method is shown in the sketches in Figure 16-2.

Figure 16-2: LONGITUDINAL LONGHOLE MINING METHOD



Ore sills are developed along the strike of the resource under geological control (*i.e.* under the direction of mine geologists). Where ore widths are less than 8 metres, the entire sill from the hangingwall to footwall contacts is developed. Where ore widths exceed 8 metres, the hangingwall contact is followed, with crosscuts developed at preset intervals to expose the footwall contact. Where ore widths allow, a sill drift is developed along each contact, with a pillar left between. Ore sills are developed at a minimum of 4 metres wide to accommodate 6 cubic yard LHDs for stope mucking.

Longholes are primarily drilled with a top hammer drill (current practice). Longholesare drilled down from the overcut sill with some holes breaking through into the undercut, and others fanned as required to contour the stope limits. A drop raise is drilled and blasted to create the initial void for production blasting. When mining a sill pillar (below a backfilled stope), uppers drilling are completed from the stope undercut sill.

Longholes are loaded with emulsion explosives. The emulsion is detonated with non-electric blasting caps and boosters.

Broken ore is extracted from stopes using 6 and 10 cubic yard LHDs. When the stope drawpoint brow is closed with muck, the LHD is operated manually (*i.e.*, with the operator in the seat). When the drawpoint brow is open, the LHD is operated via remote control with the operator located a safe distance from the stope and away from the moving LHD. The LHD trams to a remuck or loads directly into a haul truck. Any ore dumped into a remuck is subsequently be remucked and loaded into a 50 tonne class haul truck and hauled to the 650L rockbreaker.

Mined out stopes are backfilled. Where backfill will be mined against (*i.e.*, exposed as a vertical wall) the binder content is up to 2.5 percent. To maximize sill pillar recovery, backfill that is mined under (*i.e.*, exposed as a back) may include up to 5 percent binder content. Where available (and without compromising backfill quality), mined out stopes are used to dispose of waste rock from development activities (as opposed to skipping this material and stockpiling on surface).

16.4.2 Thunder Creek Deposit

The mineralized zones at the Thunder Creek Deposit average from 5 to 10 metres wide and dip approximately 70 degrees to the north in the Rusk and 20 to 40 metres wide and dipping 60 degrees to the north in the Porphyry. The geometry of the resource zones at Thunder Creek will continue to be suitable for the transverse longhole mining method with a primary/secondary stoping sequence, with some longitudinal stoping in narrower areas. The longhole method has been successfully used throughout the mining industry to mine ore bodies with similar geometry.

The sublevel interval at Thunder Creek is 35 metres (floor to floor). This interval has been successful for mining to date and will continue for ongoing mining.

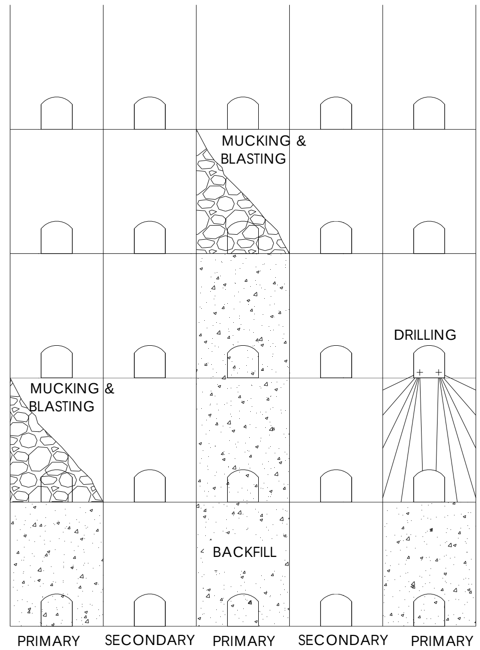
Longhole Stoping
Longholes are drilled using an ITH drill (for greater accuracy with the higher sublevel interval). Longholes are drilled down from the overcut sill with some holes breaking through into the undercut, and others fanned as required to contour the stope limits. A drop raise is drilled and blasted to create the initial void for production blasting. Longholes are loaded with emulsion explosives (current practice). The emulsion is detonated with non-electric blasting caps and boosters.

Broken ore is extracted from stopes using 6 and 10 cubic yard class LHDs. When the stope drawpoint brow is closed with muck, the LHD is operated manually (*i.e.*, with the operator in the seat). When the drawpoint brow is open, the LHD is operated via remote control with the operator located a safe distance from the stope and away from the moving LHD. The LHD trams on the level and dumps into an ore pass finger raise. The ore pass gravity feeds a truck loadout at 765L. For stopes mucked at or below 750L, ore is mucked to a remuck and/or loaded directly into a haul truck. Ore is hauled via the ramp in 50 tonne class haul trucks to the 650 level rockbreaker at the production shaft.

Mined out stopes are backfilled. Where backfill is mined against (*i.e.*, exposed as a vertical wall) the binder content is 2.5 percent. To maximize sill pillar recovery, backfill that is developed through and mined under (*i.e.*, exposed as a back) may include up to 5 percent binder content.

The transverse longhole mining method is shown in the sketch in Figure 16-3.

Figure 16-3: TRANSVERSE LONGHOLE MINING METHOD



16.4.3 144 Gap Deposit

The mineralized zones at the 144 Gap Deposit average from 5 to 70 metres wide and dip approximately 70 degrees to the northwest. The geometry of the resource at 144 Gap is suitable for the transverse longhole mining method with a primary/secondary stoping sequence.

The sublevel interval at 144 Gap Deposit is 35 metres (floor to floor). This interval is based on successful mining to date at Thunder Creek.

Longhole Stoping

Longholes are drilled using an ITH drill. Longholes are drilled down from the overcut sill with some holes breaking through into the undercut, and others fanned as required to contour the stope limits. A drop raise is drilled and blasted to create the initial void for production blasting. Longholes are loaded with emulsion explosives. The emulsion is detonated with non-electric blasting caps and boosters.

Broken ore is extracted from stopes using 10 cubic yard class LHDs. When the stope drawpoint brow is closed with muck, the LHD is operated manually (*i.e.*, with the operator in the seat). When the drawpoint brow is open, the LHD is operated via remote control with the operator located a safe distance from the stope and away from the moving LHD. The LHD trams on the level and dumps into an ore pass finger raise. The ore passes gravity feed to truck loadouts at 835L and 995L. For stopes mucked at 835L and 995L, ore is loaded directly into haul trucks. Ore is hauled via the ramp in 50 tonne class haul trucks to the 650 level rockbreaker at the production shaft.

Mined out stopes are backfilled. Where backfill is mined against (*i.e.*, exposed as a vertical wall) the binder content is 2.5 percent. To maximize sill pillar recovery, backfill that is developed through and mined under (*i.e.*, exposed as a back) may include up to 7 percent binder content.

16.5 Resource Analysis (Dilution and Recovery)

16.5.1 Mining Dilution and Recovery

Mining Dilution

Two sources of dilution have been considered in estimating the Mineral Reserves: planned dilution and umplanned dilution.

Planned dilution includes low grade material and/or waste rock that will be mined and will not be segregated from the ore. Sources of planned dilution include:

- Waste rock or low grade material that is drilled and blasted within the drift profile of ore sills and the overall grade of the “muck” justifies delivery to the mill.
- Waste rock or low grade material within the confines of the stope limits. This includes internal waste pockets and footwall and/or hangingwall rock that has been drilled and blasted to maximize ore recovery and/or maintain favourable wall geometry for stability.

Planned dilution is directly reported from block model data and waste rock within stope wireframes.

Unplanned dilution includes sub-economic mineralization, waste rock, and/or backfill from outside the planned drift profile or stope limits that overbreaks or sloughs and is mucked with the ore and delivered to the mill.

Mining Recovery

Two recovery factors have been considered in establishing the Mineral Reserve: Planned recovery and mining recovery.

Planned recovery includes the Measured and Indicated Mineral Resource that will be accessed, developed, and mined. Measured and Indicated Mineral Resources not included in the mining shapes (*i.e.*, stopes) have not been included in the Mineral Reserves. Reasons that some Measured and Indicated Mineral resources will not be recovered may include:

- The resource includes a small volume that is separate from the main mining area and does not support the cost to develop and mine.
- The resource terminates between sublevels and would require mining excess dilution to recover.

- Random blocks within the block model that cannot be mined as part of an economic stope.
- Resource left in pillars adjacent to previously mined stopes that have been backfilled with unconsolidated rockfill.

A mining recovery factor has been applied to account for material that is planned to be mined within the confines of the stope limits, but will not be recovered due to factors such as:

- Poor ground.
- Blasting difficulties (ground does not break properly and cannot be recovered).
- Resource geometry.
- Broken ore that cannot be extracted (*i.e.*, resting on the footwall or around corners).
- Unplanned resource pillars left in place.

A 95% mining recovery (based on site operating experience) has been considered in estimating the Mineral Reserves.

16.6 Haulage

All ore and waste rock skipped to surface is hauled by trucks to the existing production shaft, 650L grizzly/rockbreaker stations.

16.6.1 Timmins Deposit Underground Truck Haulage

Ore mined above 650L is loaded into 42 and 50 tonne capacity haul trucks and hauled via the ramp to either 525L and dumped into an ore pass, or to 650L and dumped onto the grizzly. Waste rock from development activities is dumped into open stopes (as backfill) or dumped into a waste pass that will gravity feed to 650L.

Below 650L, an LHD loads ore and waste rock into 50 tonne capacity haul trucks that hauls the material up the ramp and dump onto the 650L grizzly.

16.6.2 Thunder Creek Deposit Underground Truck Haulage

Ore mucked from stopes above 765L is trammed using LHDs and dumped directly into an ore pass dump on each sublevel. The ore pass gravity feeds to a truck loadout chute at 765L. At the 765L truck loadout, 50 tonne class underground haul trucks are loaded and haul up the internal ramp to 730L and across the connecting ramp to the 650L rockbreakers at the Timmins Deposit. The one-way haul distance is approximately 1,400 metres. Ore mucked from stopes at 765L and below is loaded into trucks using the LHD. The trucks also haul up to 730L and across to the Timmins Deposit 650L rockbreaker.

Waste rock from development is handled through the waste pass system and also loaded into haul trucks through a truck chute at 765L. Where possible, waste rock is dumped directly into mined out stopes (as opposed to hauling and skipping to surface).

16.6.3 144 Gap Deposit Underground Truck Haulage

Ore mucked from stopes above 835L is trammed using LHDs and dumped directly into an ore pass dump on each sublevel. The ore pass gravity feeds to a truck loadout chute at 835L. At the 835L truck loadout, 50 tonne class underground haul trucks are loaded and haul to Thunder Creek 730 level and across the connecting ramp to the 650 level rockbreakers at the Timmins Deposit. An additional haul ramp will be developed connecting Thunder Creek to a new dump point (at approximately 630L elevation) above the existing 650 level rockbreaker. The additional haul ramp and dump point will reduce truck congestion in the ramp and at the dump. The one-way haul distance will be approximately 2,200 metres. Ore mucked from stopes at 835 level will be loaded into trucks using the LHD. Ore mucked from stopes below 835 level will be dumped directly into an ore pass dump on each sublevel. The ore pass will gravity feed to a truck loadout chute at 995 level. From the 995 level truck chute, 50 tonne class haul trucks will haul up the 144 Gap main ramp to 835 level and across to the dump points at the shaft.

Waste rock from development will be handled through the waste pass system and will also be loaded into haul trucks through a truck chute. Where possible, waste rock will be dumped directly into mined out stopes (as opposed to hauling and skipping to surface).

16.7 Development

Table 16-1 summarizes the estimated LOM development quantities.

Table 16-1: TIMMINS WEST MINE ESTIMATED LIFE OF MINE DEVELOPMENT QUANTITIES

Item	Timmins (m)	Thunder Creek (m)	144 Gap (m)	TWM (m)
Capital				
Ramp	3,385	933	2,880	7,198
Lateral Waste	3,212	193	5,976	9,381
Subtotal Capital	**6,597**	**1,126**	**8,856**	**16,579**
Operating				
Lateral Waste	5,856	1,602	7,358	14,816
Lateral Ore	1,900	480	4,489	6,869
Subtotal Operating	**7,756**	**2,082**	**11,847**	**21,685**
Total Development	**14,353**	**3,208**	**20,703**	**38,264**
Raises	**1,279**	**32**	**1,107**	**2,418**

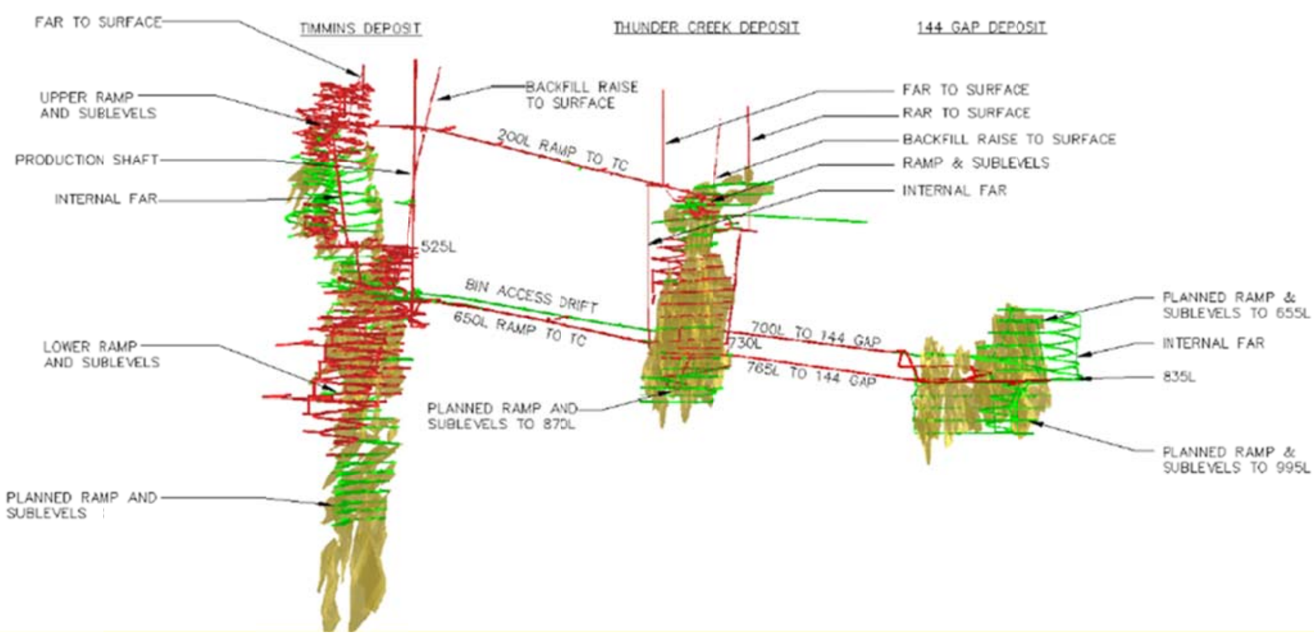
An estimated 2.5 million tonnes of waste rock will be generated from development activities. Where possible, waste rock will be dumped into mined out stopes as backfill, otherwise waste rock will be hauled to the 650L rockbreaker and subsequently skipped to surface (and possibly later returned underground for backfilling). The waste rock generated from development activities is summarized in Table 16-2.

Table 16-2: WASTE ROCK GENERATED FROM DEVELOPMENT

Deposit	Waste Rock (tonnes)
Timmins Deposit	1.2 million
Thunder Creek Deposit	0.1 million
144 Gap Deposit	1.2 million
Total TWM	**2.5 million**

The planned LOM development and infrastructure is shown in Figure 16-4.

Figure 16-4: PLANNED MINE INFRASTRUCTURE



16.7.1 Timmins Deposit

Ramp

The existing ramp extends from surface to 300L and from 415L to 1090L. The ramp connection between 300L and 480L will be completed and the ramp will extend to 1290L as mining progresses downward. The ramp profile is 5 metres wide by 5 metres high (arched back) at a maximum gradient of 15 percent. The ramp floor includes a layer of ballast material and the roadway is maintained using a grader to help reduce equipment maintenance requirements.

Sublevel Infrastructure Development

The main access to sublevels are developed 5 metres wide by 5 metres high to accommodate haul trucks. Ancillary development such as electrical substations are developed off the level access and have dimensions to suit the purpose and/or to accommodate the size of the development gear. The infrastructure on sublevels generally includes:

- Sublevel access drift.
- Sump.
- Electrical cut-out (load centres, starters, communications, etc.).
- Haulage drift.
- Stope drawpoints and crosscuts.
- Material storage bays (on some levels).
- Fresh air raise access drives.
- Return air raise access drives.
- Ore and waste pass accesses and finger raise dumps.
- Refuge stations (on some levels).

16.7.2 Thunder Creek Deposit

Ramp

The main access to Thunder Creek is via the two existing connecting ramps from the Timmins Deposit at 275L and 730L. The Thunder Creek internal ramp currently extends from 300L to 850L. A short jump ramp will extend to 870L as mining progresses downward one additional mining level.

The ramp will continue to be developed 5 metres wide by 5 metres high (arched back) at a maximum gradient of 15 percent. The ramp floor will include a layer of ballast material and the roadway will be maintained using a grader to help reduce equipment maintenance requirements.

Sublevel Ifrastructure Development

The main access to sublevels is developed 5 metres wide by 5 metres high. Ancillary development, such as electrical substations are developed off the level access and have dimensions to suit the purpose and/or to accommodate the size of the development gear. The infrastructure on sublevels generally includes:

- Sublevel access drift.
- Sump.
- Electrical cut-out (load centres, starters, communications, etc.).
- Footwall haulage drift.
- Stope drawpoints and crosscuts.
- Material storage bays (on some levels).

- Fresh air raise access drives.
- Return air raise access drives.
- Ore and waste pass accesses and finger raise dumps.
- Refuge stations (on some levels).

16.7.3 144 Gap Deposit

Ramp

The main access to 144 Gap will be via the two existing connecting ramps from the Thunder Creek at 775L and 835L. The 144 Gap internal ramp will connect all subelevels up to 655L and down to 995L.

The ramp will continue to be developed 5 metres wide by 5 metres high (arched back) at a maximum gradient of 15 percent. The ramp floor will include a layer of ballast material and the roadway will be maintained using a grader to help reduce equipment maintenance requirements.

Sublevel Infrastructure Development

The main access to sublevels are developed 5 metres wide by 5 metres high. Ancillary development, such as electrical substations are developed off the level access and have dimensions to suit the purpose and/or to accommodate the size of the development gear. The infrastructure on sublevels generally includes:

- Sublevel access drift.
- Sump.
- Electrical cut-out (load centres, starters, communications, etc.).
- Haulage drift.
- Stope drawpoints and crosscuts.
- Material storage bays (on some levels).
- Fresh air raise access drives.
- Return air raise access drives.
- Ore and waste pass accesses and finger raise dumps.
- Refuge stations (on some levels).

16.7.4 Ground Support

Primary Ground Support

Ground support is installed in all underground excavations, consistent with current practices. Additional ground support details are included in Item 16.17.

Secondary Ground Support

Geotechnical study work has concluded that under certain conditions secondary ground support (generally referred to as cable bolting) may be required. An allowance has been included for installing cable bolts in the hangingwall of stopes.

16.8 Development Schedules

Development schedules have been completed for the Timmins, Thunder Creek, and 144 Gap deposits using Enhanced Production Scheduler ("EPS"). Mining activities are resourced in the schedule and exported into spreadsheets for reporting.

16.9 Backfill

Construction of a paste backfill plant on surface was completed in Q3 2013. The pastefill plant capacity is 3,000 tonnes per day of a paste mixture consisting of:

- Classified tailings,
- Sand, and
- Binder.

The pastefill distribution system consists of two pairs of 150 millimetre (6 inch) diametre boreholes located within or adjacent to the paste plant. Only one of the boreholes can be used to distribute paste during a pour (*i.e.*, paste cannot be poured at two locations simultaneously). The boreholes break through into receiving station excavations near the Timmins Deposit and Thunder Creek Deposit. Pastefill is delivered to stopes via a network of boreholes and piping in the ramp and on sublevels. An underground pastefill crew installs and removes pipes and builds fill barricades as required to suit production requirements. Pastefill delivery to 144 Gap will be via a pipeline installed in the connecting ramp from the Thunder Creek 750L to 144 Gap 775L. At 775L a booster pump will be installed to deliver pastefill to stopes above 775L.

In instances where cemented rockfill ("CRF") is deemed appropriate, slurry is delivered from surface via a pipeline in the shaft (Timmins Deposit) or borehole (Thunder Creek) to a transmixer. The transmixer delivers the slurry to a mixing station where slurry is mixed with waste rock and subsequently placed in the stope.

16.10 Production

The mine will continue to operate two shifts per day, seven days per week. Underground crews and maintenance workers will work 10 hour shifts. Annual production has been based on 365 days per year.

16.10.1 Timmins Deposit Production

Production from the Timmins Deposit includes a combination of ore development and transverse and longitudinal longhole stoping. Production averages approximately 920 tonnes per day for the remainder of 2017 through 2020 before ramping down and ending in 2022.

Approximately 75% of the Timmins Deposit Mineral Reserves will be mined from below 650L. Mining below 650L will progress in blocks as ramp development and sublevel infrastructure advances and the ventilation system expands. Mining blocks will generally be 80 vertical metres (*i.e.*, four sublevels) high. Mining will commence at the bottom sublevel within a block and progress upwards within the block. Stopes at the top sublevel in a block will be mined up to the backfilled stopes of the previously mined block above.

16.10.2 Thunder Creek Deposit Production

Production at Thunder Creek is from a combination of ore development and longhole stoping (transverse and longitudinal). Production averages approximately 740 tonnes per day in the remainder of 2017 and 2018 before ramping down and ending in 2019.

16.10.3 144 Gap Deposit Production

Production at 144 Gap is from a combination of ore development and longhole stoping (transverse and longitudinal). Production averages approximately 1,600 tonnes per day through 2019 before ramping up to 2,900 tonnes per day by the end of 2020. The mining rate will be sustained through 2022 before ramping down and ending at the end of 2023.

16.10.4 Timmins West Mine Production

Combined production from the three TWM deposits will average approximately 3,075 tpd from 2017 to 2022 and reduce to approximately 2,550 tpd during 2023.

The combined LOM production profile for TWM is summarized in Table 16-3.

Table 16-3: TWM ANNUAL PRODUCTION

Item	2017*	2018	2019	2020	2021	2022	2023	Total
Tonnes	736,000	1,115,000	1,110,000	1,114,000	1,109,000	1,113,000	855,000	7,152,000
Grade (g/t)	3.75	3.42	3.10	3.20	3.23	3.14	2.68	3.21
Ounces	88,700	122,500	110,800	114,700	115,200	112,500	73,600	737,800
Average TPD	3,215	3,055	3,040	3,050	3,040	3,050	2,550	

*2017 includes only production from May 16th to Dec 31st

16.11 Production Equipment

The existing surface equipment and underground development, production, and auxiliary equipment fleet will continue to be used, with equipment purchased and rebuilt as required to meet production demands. The mobile equipment fleet (including spares) is summarized in Table 16.4.

Table 16-4: SURFACE AND UNDERGROUND MOBILE EQUIPMENT FLEET

Equipment Type	Fleet
2-Boom Jumbo	6
1-Boom Jumbo	1
LHD – 10 yd	4
LHD – 9 yd	1
LHD – 6 yd	8
LHD – 3.5 yd	1
LHD – 2 yd	1
30 Tonne UG Haul Truck	1
50 Tonne UG Haul Truck	6
Scissor Lift	7
Mechanical Bolter	2
Flat Deck Boom Truck	2
Grader	1
Tractor/Forklift/Minecat	17
Toyota UG Pick-Up	15
Blockholer	1
Transmixer	1
Fuel Truck	1
Concrete Truck	2
Excavator	1
Surface Truck	2
Emulsion Loader	3
Electric Hydraulic Drill	2
Simba Drill	2
Cubex Drill	1
980 Loader	2
IT38	1
Total	**93**

16.12 Ventilation

The main core of the Timmins Deposit and the Thunder Creek Deposit ventilation system has been installed and will service the remainder of the mine life.

The ventilation is provided by two down cast push systems (one at the Timmins Deposit and the other at Thunder Creek) each powered by horizontal, parallel twin 84”- 600 horsepower fans mounted on a 4.1m diametre raise bored fresh air raise ("FAR"). Each fan is equipped with a variable frequency drive to control motor speed which allows the operation to reduce ventilation flow during periods when underground activities are reduced. The reduced flows conserve power and propane as the air is heated during the winter months. The return air raise ("RAR") system consists of ramps and raises that return the air to surface.

16.12.1 Timmins Deposit Ventilation

The Timmins Deposit FAR system consists of a series of bored and offset drop raises from surface down to the 1000L. This network provides 244 cubic metres per second (cms) of fresh air at 9.6" water gauge ("wg") to the Lower Timmins Deposit. At 1000 level an 84"- 450 hp booster fan delivers 160 cms to the ramp development face. Fresh air is pulled from the ramp by auxiliary fans to the active mining levels.

Return air exhausts from active levels via the ramp up to 650L. Exhaust air splits between the production shaft, the 525 RAR, and the 730L Thunder Creek RAR to ventilate the Thunder Creek haulage ramp.

Gradual expansion of the ventilation system will occur as mining progresses to 1170L. As ramp development advances, a FAR will facilitate ventilating ramp development and subsequent production and will be equipped with an escape way to provide a second egress to 650L.

The upper section of the Timmins Deposit currently does not have active mining fronts and is ventilated and used as an exhaust path to the portal.

16.12.2 Thunder Creek Ventilation

The Thunder Creek FAR moves 252 cms at 7.4" wg pressure with 210 cms down to 765L. Fresh air is drawn off as needed by control regulators on each active mining level. Exhaust air is regulator controlled on each level and returns to surface via the Thunder Creek RAR and the upper mine ramp system. At 765L a booster fan draws 90 cms to the Lower Thunder Creek ramp face and 91 cms is separated to serve the 144 Gap.

Gradual expansion of the ventilation system will occur as mining progresses below 850L. As ramp development advances a FAR will facilitate ventilating ramp development and subsequent production and will be equipped with an escape way to provide a secondary egress to 730L.

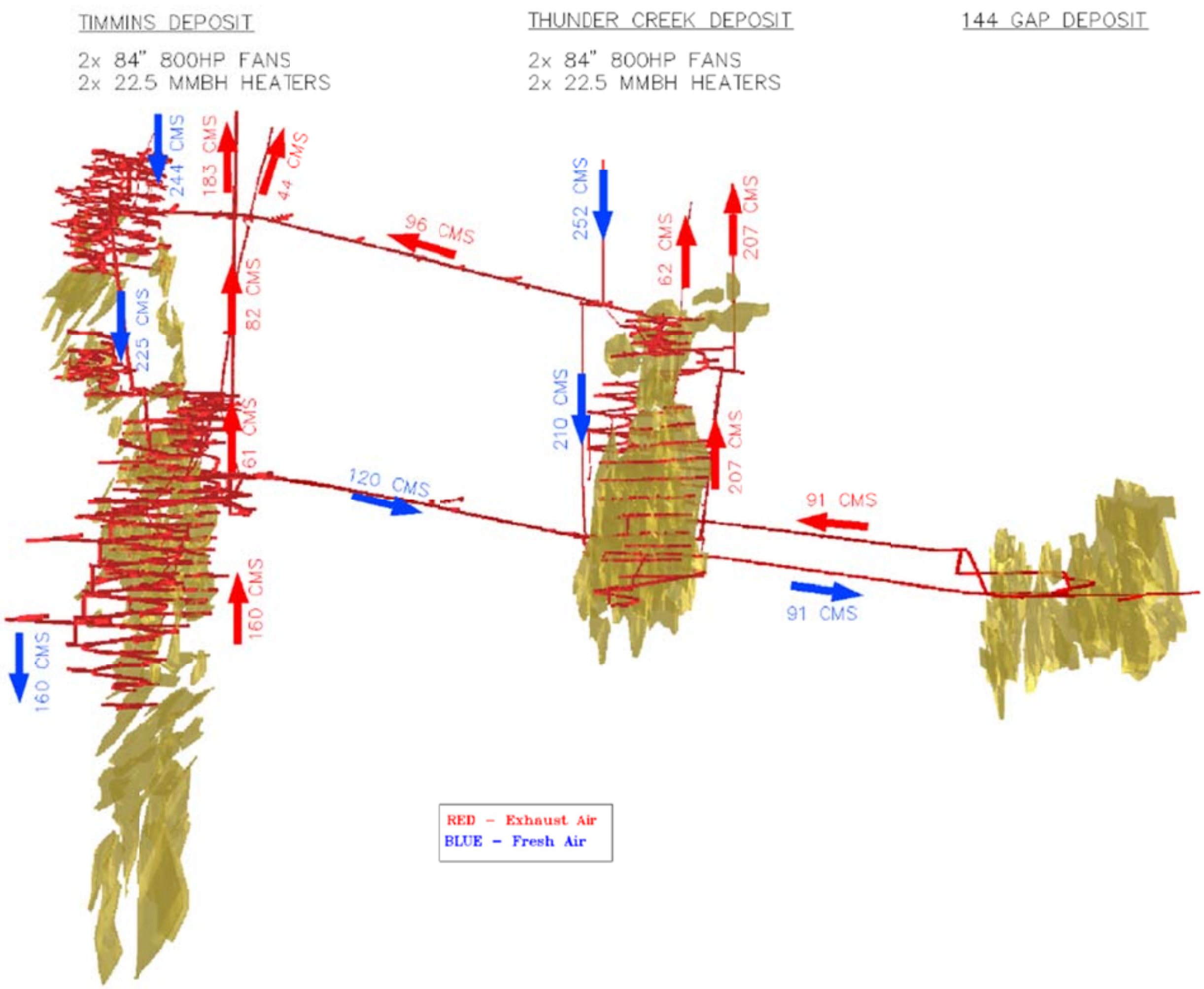
16.12.3 144 Gap Ventilation

The 144 Gap RAR system is connected through a series of development accesses, drop raises and escapeways from Thunder Creek 695L to the Thunder Creek 765L. An 84"-250 hp exhaust fan located at the 695 RAR will pull 91 cms from the Thunder Creek 695L FAR to the 144 Gap stoping and development headings. As production activites at 144 Gap increase (and activities at Timmins Deposit and Thunder

Creek decrease) additional exhaust fans will be installed on 695 Thunder Creek level to pull more fresh air to 144 Gap. All exhaust air will travel to surface through the Thunder Creek RAR system.

The TWM ventilation system is shown in Figure 16-5.

Figure 16-5: TIMMINS WEST MINE VENTILATION SYSTEM



16.12.4 Mine Air Heating and Cooling

The existing surface fresh air ventilation plants at the Timmins Deposit and Thunder Creek each include two ACI-Canefco mine air heaters. Each heating unit has 22.5 MMBH of heating capacity.

The mine design extends to 1290 metres below surface. Mine air cooling will not be required.

16.13 Personnel

An existing core group of management, environmental, technical services (engineering/geology), administration, maintenance, supervisory, and production personnel will continue to operate the site.

The personnel required to sustain the operation will reduce as activities reduce toward the end of the mine life.

The personnel required on payroll are summarized in Table 16-5.

Table 16-5: PERSONNEL ON PAYROLL

Classification	No. Persons
Site Management	
Mine General Manager	1
Electrical Superintendent	1
Maintenance Superintendent	1
Mine Superintendent	1
Mine General Foreman	2
Administration Staff	
HR Administrator	2
Reception	1
Purchaser	1
Warehouse Coordinator	1
Warehouse Clerk	1
Engineering Staff	
Chief Mine Engineer	1
Senior Mine Engineer	1
Production Engineer	1
Engineer in Training (“EIT”)	4
Mine Long Range Planner	1
Longhole Planner/Coordinator	1
Surveyors	2
Ventilation Planner and Technician	2
Geology Staff	
Chief Geologist	1
Senior Mine Geologist	1
Mine Geologist/Geotechnician	4
Resource Geologist	1
Database Coordinator	1
Drill Geologist/Geotechnician	5
Core Technicians	3
Health and Safety	
Safety Coordinator	1
Trainer	2
Environmental	
Environmental Coordinator	1
Environmental Technician	1
Mine Operations Staff	
UG Shift Supervisor	9

Classification	No. Persons
Surface Supervisors	1
Construction/Drill/Blast Supervisor	3
Maintenance Staff	
Maintenance Supervisor	2
Hoist Mechanical General Foreman	1
Maintenance Planner	1
Maintenance Clerk	1
Mine Construction/Services	
Construction Miner	12
Pastefill System Construction Miner	4
Underground Labourer	4
Rockbreaker Operator	4
Surface Yard Mtce Loader/Truck Operator	16
Shaft	
Hoistperson	4
Shaftperson	2
Cage/Skip Tender/Deckperson	4
Maintenance	
Lead Mechanic	4
Mechanic	24
Welder	2
Drill / Pump Mechanic	1
Mill Wright	8
Lead Electrician	6
Electrician	8
Instrumentation	2
Cap Lamp Maintenance	1
Mine Development / MCAF Stoping	
Lead Development Miner	9
Development Miner 1	55
Raise Miner	2
Mine Production	
Blaster	8
Driller	16
LHD Operator	22
Haul Truck Operator	32
Total Personnel	**314**

16.14 Underground Mine Services

The underground mine services will include electrical power distribution and communications, compressed air, service water, and dewatering.

16.14.1 Electrical Distribution and Communications

Power is delivered underground at 4,160 kV via two new 13.8 kV feeders and 500 MCM size electrical cables installed in the shaft. The power supply will be sufficient for the expansion of the mine into new productions areas. Electrical substations (mine load centres) have been located at shaft stations and as required in electrical cut-outs on sublevels.

Communication has been established throughout the mine via an underground radio network (leaky feeder). In addition, a fiber optic network provides communications for control of pumps, monitoring cameras, refuge station dial phones, fan automation and gas monitoring. Underground shaft stations, electrical substations, some remote workplaces, and refuge stations will have direct communications to surface via pager phone.

The core of the electrical and communications systems have already been put in place and will expand accordingly as the mine develops into new production areas.

16.14.2 Compressed Air

The existing surface compressed air plant includes four Sullair 225 kW, 698 litre/second (1,480 cfm) compressors, and one Sullair 150 kW, 472 litre/second (1,000 cfm) compressor. The overall plant capacity is 3,264 litres/second (6,920 cfm). An additional compressor will be installed underground at 144 Gap to ensure sufficient capacity during peak use periods.

Compressed air will be delivered underground via the existing 254 mm diametre pipe in the shaft. The underground compressed air distribution system will consist of steel piping installed in the ramps and sublevels. Compressed air will be required to power pneumatic equipment and/or activities including:

- Jackleg and stoper use.
- Pneumatic Anfo loaders.
- Pneumatic longhole drills.
- Longhole cleaning.
- Refuge station ventilation (pressurizing).
- Pneumatic cylinders for door controls.
- Pneumatic pumps for local dewatering.
- Main shop (pneumatic tools).

16.14.3 Service Water

Currently, all service water required for underground drilling operations, dust suppression, and washing work places is supplied from recycled water inflow from the surrounding rock mass. Additional service water will be available (if needed) from surface sources. Service water is supplied to the main levels via the existing 100 mm diametre pipe in the shaft and in the ramp. Service water will be distributed underground via steel pipe in the ramp and on sublevels. Service water will not be potable (*i.e.*, not for drinking).

16.14.4 Mine Dewatering

Water inflow from the surrounding rockmass and water used for drilling activities and dust suppression is currently collected in local sumps and directed to main sumps/pump stations at the Timmins Deposit (200L and 650L) through a network of drain holes and small pumps/dewatering lines (including a shaft bottom pump). The inflow water is recycled and used for service water in the mine.

The 650L pump station includes two 225 kW (300 hp) pumps (one duty and one spare). From the 650L pump station, clean (settled) water is pumped up the existing 152 mm diametre pipe in the shaft to the 200L pump station. The 200L pump station includes two 150 kW (200 hp) pumps (one duty and one spare). From the 200L pump station, all water is pumped to surface via piping in the shaft. The current dewatering system capacity is approximately 102 cubic metres per hour (450 usgpm).

A full water balance study has been completed. The current estimated mine dewatering rate ranges from 500 cubic metres per day to 1,000 cubic metres per day depending on the season (*i.e.*, heavier water inflow during spring months).

As the mine expands into new production areas (including deeper), additional pump stations will be constructed and will feed into the existing dewatering system.

16.14.5 Roadbed Material

The maintenance of roadways will be essential in reducing the mobile equipment operating and maintenance costs and achieving high haulage truck availability.

Crushed/screened rock will be sourced from local contractors for use underground and will be delivered underground and distributed via production equipment and spread using the existing grader.

16.15 Materials Supply

The TWM is well positioned in the established Timmins mining district. Consumable materials and external services required to support the mining operation will continue to be sourced from local businesses or from other nearby mining centres (such as Sudbury, Kirkland Lake, North Bay, and Rouyn-Noranda). Contracts have been established to support current site activities and these will continue to be amended as required.

16.16 Maintenance

There are existing maintenance facilities on surface to support maintenance of surface equipment and smaller fixed plant equipment brought to surface from underground.

An underground maintenance shop has been constructed and equipped at the Timmins Deposit 650L. Mobile equipment will be brought to the shop for servicing, preventive maintenance, and repairs. A mechanic will be available (each shift) to service certain mobile equipment (such as longhole drills and jumbos) and tend to minor breakdowns in the field. Fueling and lubricant facilities will be available at 650L, 525L, and 200L.

16.17 Safety

The site has existing health and safety programs in place as required by the Ontario Occupational Health and Safety Act and Regulations for Mines and Mining Plants. There is an existing Joint Health and Safety Committee, Mine Rescue Team, and training facilities.

There is currently a full time Safety Coordinator on site and this position will remain filled for LOM operations. The Safety Coordinator will maintain site safety programs and initiatives. There are two trainers on staff.

16.18 Geomechanical

A geomechanical engineering consultant; Mine Design Engineering ("MDEng") has been providing geomechanical support for the TWM since the start of development. MDEng has completed underground field work to assess rock mass properties and conditions and visits the mine annually to observe ground and support conditions and update the data collection database as new mining areas are developed. Geomechanical data collection has been used for classifying the rockmass, the evaluation of stope stability, and ground support designs.

MDEng visited TWM on July 20 - 22, 2016 to complete underground inspections of rockmass and support conditions for existing excavations and to review stoping plans. The observations and recommendations from the site visit have been summarized in a report to Tahoe Canada.

16.18.1 144 Gap Geotechnical Study Work

MDEng completed geotechnical study work in 2016 to review and update the geotechnical considerations for the 144 Gap.

Geotechnical characterization of the 144 Gap Deposit has been based on geological and geotechnical core logging, localized spot mapping, intact strength testing, and comparision to experience at Thunder

Creek. Rock mass quality is considered ‘Good’ in the porphyry rock unit, ‘Fair’ in the mafic unit, and ‘Poor to Fair’ in the diabase unit.

Lithological Unit	Q’
Porphyry	11 to 38
Mafic	5.6 to 8.3
Diabase	2.9 to 4.4

Mining Method and Stope Sizing

Mining Method and Stope Sizing for the 144 Gap Deposit has been based on anticipated stress conditions, identified joint sets, and characterization and rock mass quality. From these data sources the following generalized conclusions have been made:

- The 144 Gap Deposit is amiable to long-hole open stoping with primary-secondary sequencing. To minimize identified stress-related risks, strategic sequencing may be implemented, which includes bottom-up, center-out sequence to optimize confinement and minimized lag of secondary stopes to reduce instability from hangingwall stress relaxation.
- Stope sizing has been assessed using the Matthews/Potvin Stability Graph Analysis method (Potvin 1988). Recommended hydraulic radii for the purposes of stope sizing have been developed by MDEng and considered in the mine design.
- An estimate of external dilution from the hangingwall and footwall has been made by determining the equivalent linear overbreak/slough (ELOS) empirically using the method by Clark and Pakalnis (1997) for varying surface dip angles.
- Sill pillars may be implemented if multiple mining blocks are required to meet production targets. If sill pillars are incorporated in the mine plan, more detailed assessment of stress loading in sills will be required, as well as detailed engineering of paste in stopes immediately above the sill.
    - Cross structures at angles as near perpendicular as reasonably possible.
    - Avoid “stacking” intersections from level to level.
    - Minimize spans by avoiding four-way intersections.
    - To maintain flexibility in transverse stope strike widths, do not pre-develop transverse cross-cuts.
    - Delay developing secondary cross-cuts until they are needed to minimize rehabilitation.
- Optimized stope design can be acheived by back analysis of observed stope performance. This will aid in identifying opportunity for:
    - Increasing stope size (where stopes have historically performed well); or
    - Reducing unplanned dilution by adjusting stope dimensions (where stopes have historically suffered from some degree of overbreak).

Ground Support

Using empirical and analytical design methods preliminary support standards have been prescribed. Support standards must be reviewed on an ongoing basis over the life of mine as additional geotechnical data becomes available.

- Primary support for 5m spans in the porphyry and mafic units: resin-anchored rebar 2.1 m in length spaced in 1.1 m x 1.1 m pattern with 6-gauge weld-wire mesh screen (3 square overlaps at edges).
- For drifts in the mafic unit, it may be assumed that 7% of permanent drifts, and 3% of temporary drifts will require shotcrete.
- Primary support for 5m spans in the diabase: resin-anchored rebar 2.4 m in length spaced in 1.1 m x 1.1 m pattern with 6-gauge weld-wire mesh screen (3 square overlaps at edges).
- Intersections: Primary support and secondary support.
- Secondary support elements are double-strand bulbed-cablebolts, and are only implemented in intersection backs. Recommended pattern is 4 m cable bolts spaced in 2.0 x 2.0 m pattern. Shotcrete over the screen is required in the mafic unit for both temporary (5 to 9 cm thickness) and permanent intersections (9 to 12 cm thickness).
- A preliminary design for drawpoint support includes a standard primary support pattern with the addition of 2 rows of 4 m cable bolts (double strand, 2.0 x 2.0 m pattern) or 3 rows of 4 m super swellex (1.5 x 1.5 m pattern).
- Recommendations for ground support for raises have also been developed.

Infrastructure Siting

Large excavations and critical infrastructure should avoid lithological contacts and large-scale structural features (faults and dykes).

Crossing the strain zone with the ramp is not likely to result in adverse instability.

Suggestions for modifications to planned infrastructure have been provided based on the results of the numerical stress analysis and have been considered in the mine design.

Backfill

Fill strengths for Cemented Rock Fill and Cemented Paste Fill are provided below assuming 40 m stope heights:

- 15 m panel length: UCSCRF = 380 kPa and UCSCPB = 300 kPa
- 20 m panel length: UCSCRF = 470 kPa and UCSCPB = 350 kPa
- 30 m panel length: UCSCRF = 600 kPa and UCSCPB = 450 kPa
- 45 m panel length: UCSCRF = 750 kPa and UCSCPB = 560 kPa

Fill performance should be evaluated on a routine basis over the project life (by lab testing of paste samples, and observation of fill in mined stopes).

Future sill pillar extraction will require mining below pastefilled stopes. Further geotechnical study work will be required to determine the fill strengths and pastefill recipe. A standard operating procedure will be required for developing through or below pastefill (*i.e.*, pastefill in the back and rock in the walls). MDEng provided general guidelines to be considered when developing the procedure.

Future Geotechnical Work

As mine design and development continue at 144 Gap ongoing data collection will be required.

Routine geotechnical scanline mapping should be implemented by site technical services personnel (or a third party if necessary). This will provide valuable information to refine the site geotechnical model and to reduce uncertainty in ground conditions, and spatial variance in ground conditions.

In addition to collecting conventional geotechnical parametres, data regarding ground reactions can be collected during operation as a check on the geomechanical assumptions made as part of mine planning and geotechnical domaining. Behaviour mapping that can be incorporated into such a model includes:

- Damage mapping.
- Pull test data.
- Overbreak/underbreak during development.
- Falls of ground.
- Instrumentation.

Optimization of stope design can be achieved by back analysis of observed stope performance. This will aid in identifying opportunity for:

- Increasing stope size (where stopes have historically performed well); or
- Reducing unplanned dilution by adjusting stope dimensions (where stopes have historically suffered from some degree of overbreak).

The back analysis of stope performance must take in to consideration:

- The magnitude of far field and mine induced in situ stresses.
- Intact rock strength.
- Rock mass characteristics (joint density, orientation and condition from geotechnical mapping or logging of oriented diamond drill core).
- Historical stope performance evaluated from cavity monitoring survey ("CMS") and by conventional instrumentation.

Back analysis can be achieved using the empirical Matthews/Potvin Stability Graph Method. Where actual stope performance varies from design performance steps can be taken to evaluate the cause (ground conditions vs. blasting practices). Further, by back analysing actual stope performance it is possible to provide a site specific calibration of the stability graph, allowing for the site specific optimization of stope design.

Numerical modelling efforts should be maintained over the life of mine to verify model predictions, and further optimize mine plans.

17.0 RECOVERY METHODS

Ore from the TWM is hauled via surface highway trucks to the Bell Creek Mill facility for processing. The Bell Creek Mill is located approximately 6.7 kilometres north of Highway 101 in South Porcupine, Ontario. The designed 3,300 tonne per day processing plant consists of a one stage crushing circuit, ore storage dome, one-stage grinding circuit with gravity recovery, followed by pre-oxidation and cyanidation of the slurry with CIL and CIP recovery. Ore from the Company's Bell Creek Mine is also processed through the Bell Creek Mill.

17.1 History

The Bell Creek Mill was established as a conventional gold processing plant utilizing cyanidation with gravity and CIP recovery. Between 1987 and 1994 the mill processed 576,017 short tonnes of Bell Creek ore grading 0.196 ounce per short tonne Au (112,739 recovered ounces). The historical gold recovery was approximately 93 percent. Additional tonnage from the Marlhill Mine, Owl Creek open pit, and Hoyle Pond Mine was processed prior to the mill being placed on care and maintenance in 2002. During this period several improvements and additions were implemented to increase tonnage throughput from the original 350 tonnes per day to 1,500 tonnes per day. LSG purchased the mill in 2008 and re-commissioned the mill for operation in 2009 at 1,000 tonnes per day. The mill was expanded to 2,000 tonnes per day in the fourth quarter of 2010 and was further expanded to 2,500 tonnes per day in 2011. Phase 2 of the mill expansion (to a design capacity of 3,300 tonnes per day) was completed in the third quarter of 2013. Since then, the plant has demonstrated that it can achieve a higher throughput than the design capacity.

17.2 Bell Creek Mill Process Description

Ore feed is dumped directly onto a 16" by 16" grizzly at the truck dump and a remote controlled rockbreaker is used to break up the oversized material. The ore is fed with an apron feeder to a series of conveyors reporting to a scalping grizley feeder in the crushing building. The openings between the fingers on the grizley feeder are 3.5", with the oversize reporting to a 44" x 34" C110HD Metso jaw crusher. The jaw crusher is set to a closed side setting of 4". The discharge from the crusher is combined with the -3.5" material from the grizley feeder and conveyed to the ore storage dome. The dome has a 20,000MT storage capacity, 6,000MT of which is live. Three apron feeders pull ore from the dome and convey it to the SAG mill building.

The grinding circuit consists of one 22' diametre by 36.5' length low aspect ratio Metso SAG mill and is powered by twin 6,250 hp (4,600 kW) motors. The SAG mill is a repurposed ball mill converted to a SAG by installing ½" grates and a trommel with ½" openings. Oversize from the trommel reports to a collection bin which is fed back into the SAG mill feed chute. Undersize from the trommel reports to a pumpbox which feeds a cyclopac equipped with 6 outlets. Four of the outlets are fitted with 20" Krebs gMAX cyclones, and the other two outlets are capped and available for possible future expansion. The SAG cyclone overflow reports to the thickener feed box and the underflow reports back to the SAG mill. A portion of the cyclone underflow is fed to a 30” Knelson. Knelson concentrate is collected in a hopper and is pumped daily to the refinery for further treatment, while the Knelson tails flow by gravity back to the SAG mill. Target grind is 80% passing 200 mesh.

Flocculent is added to the cyclone overflow and is pumped to a 20 metre diametre thickener. The slurry from the cyclones is 25-35% solids by weight with the thickener underflow at 55-60% solids by weight. The thickener overflow water is pumped to the process water tank and reused in the grinding process. The thickener underflow slurry is pumped to the leach circuit. The leach circuit consists of five agitated tanks in series with a total volume of 1,940 cubic metres. Pure oxygen is sparged into the first three leach tanks to passivate the contained pyrrhotite in the ore, as well to maintain a target dissolved oxygen level, which is required for efficient gold dissolution in cyanide. Cyanide is then added to leach tank #4, or #5.

There are three carbon-in-leach (“CIL”) tanks equipped with Kemix screens having a total volume of 7,500 cubic metres. The first tank (CIL #5) operates without carbon, so it is essentially a leach tank. The second (CIL #2) and third (CIL #1) tanks contain roughly 8 grams of carbon per liter of slurry. The circuit will reach equilibrium for loading of the carbon with the grade of the loaded carbon in the range of 2,500 to 5,500 grams per tonne. Loaded carbon is pumped from CIL #2, screened, washed, and then transferred to the loaded carbon tank. Carbon in the CIP and CIL tanks is advanced counter-current to the flow of slurry in the circuits.

The slurry from CIL #1 tank reports to the carbon-in-pulp (“CIP”) circuit, and is split into two trains of three CIP tanks in parallel with approximately 45 grams of carbon per liter of slurry. Recovery of the gold from the carbon is a batch process with carbon being stripped at a rate of 3.5 tonnes per batch. The turnaround time between batches is 24 hours. Carbon can be cleaned with acid, reactivated with the kiln and reused in the circuit.

The loaded solution from the strip circuit is passed through two electro-winning cells in the refinery. The gold collects on the cathodes in a sludge form. The cells are washed weekly and the sludge is collected in filter bags and dried. The dried sludge is then mixed with reagents and melted in the induction furnace. Gold bullion bars are poured when the melt is completed.

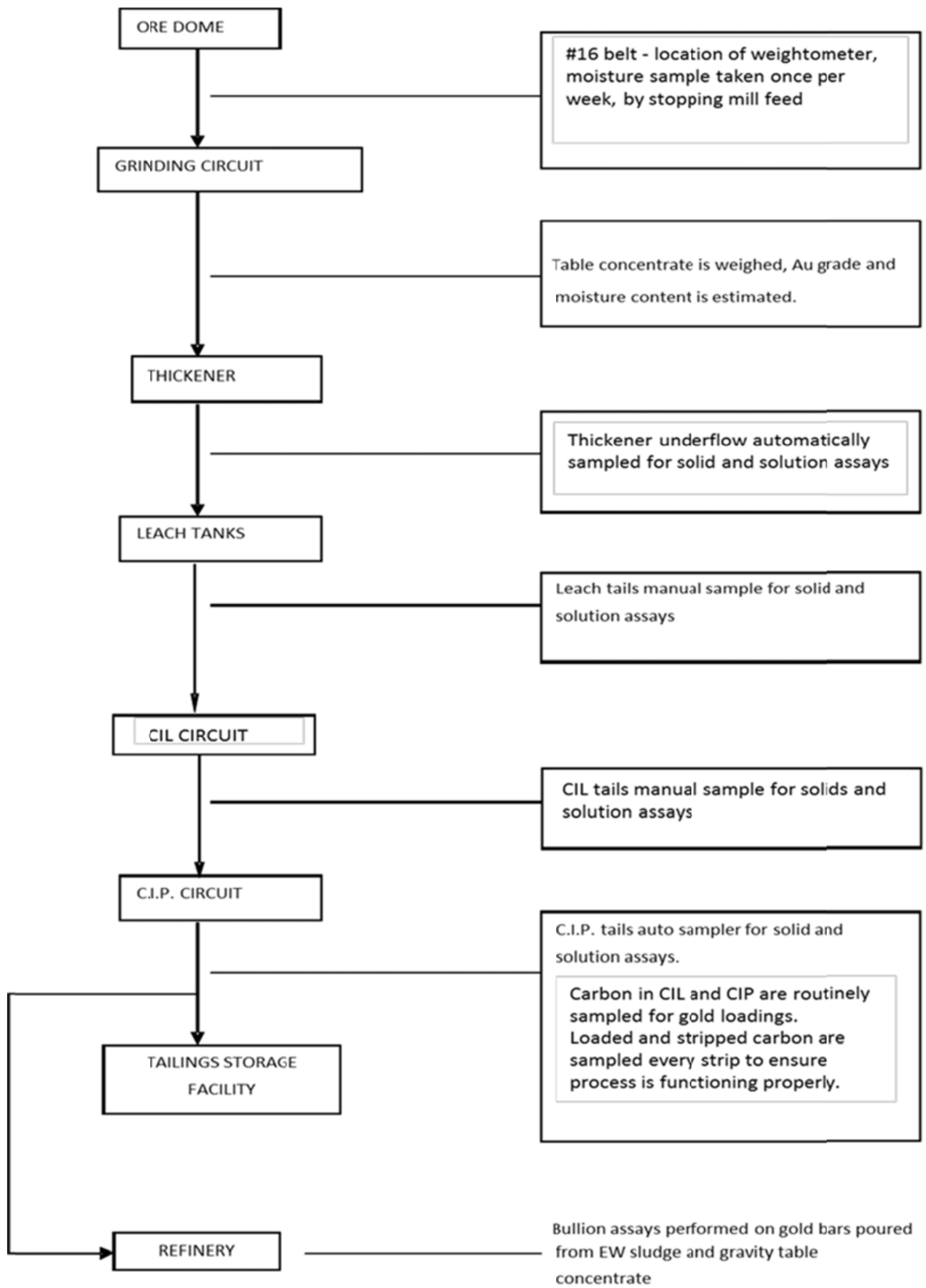
The gravity gold material collected from the Knelson concentrator is transferred to the refinery and a gravity table is used to increase the gold content. The concentrate is then dried, reagents are added and the material is melted in the induction furnace. The gravity concentrate and the CIP gold sludge are melted separately due to the differing amounts of reagents used in each, and to more accurately determine recoveries in each circuit.

17.3 Metallurgical Balance

A metallurgical balance is conducted daily based on the tonnage from the 4 roller belt weightometre located on the feed conveyor to the SAG mill. The total tonnage, corrected for moisture, and assays from the daily sample campaign are used to produce the balance. All samples are assayed in accordance with typical assay standards and a QA/QC program is in place to ensure the integrity of the assay lab processes. The main components used to calculate the daily balance are the thickener underflow solids and solution, the weight of gravity gold collected, the estimated grade and moisture content of the gravity gold collected, and the tailings sample solids and solution. The daily metallurgical balance is a best estimate of daily production which must then be reconciled with the circuit inventory and bullion poured (this reconciliation is performed on a monthly basis). All areas of the circuit are sampled for tank level, percent solids, solids grade, solutions grade, carbon concentrations and grade (where applicable). As the carbon contains the majority of the gold in inventory, strict care is taken to ensure sampling is performed correctly.

The final clean out of the electro-winning cell is completed by the refiner or his designate, under security control. All sludge is collected and dried. The washed cathodes from the cells are weighed and the weights are recorded to determine whether any plating buildup is occurring. The dried cell sludge and the gravity concentrate collected over the same period are smelted and bullion bars are poured. The bars are stamped and their weights are recorded and verified. Bullion samples are taken and are assayed at the Bell Creek Lab. These sample results are used in the metallurgical balance. See Figure 17-1 for the process and sampling points.

Figure 17-1: SIMPLIFIED MILLING PROCESS AND SAMPLING POINTS



17.4 2016 Mineral Processing Results Of Timmins West Mine Ore

The actual processing results of TWM material during 2016 are shown in Table 17-1.

Table 17-1: TIMMINS WEST MINE MATERIAL PROCESSED IN 2016

Ore Type	Tonnes Processed	Au Feed Grade (g/t)	Au Recovery
Timmins West Mine	924,509	4.1	96.8%

Gold recovery from all TWM material has met expectations established by test work completed prior to plant start-up. All material yields a consistent high recovery and consistent grade. The average grind size to achieve these recoveries is a P80 of 75 micron. All reagent consumptions remained at expected levels for the different materials processed. Gravity recovery averaged 26% through this operational period.

18.0 PROJECT INFRASTRUCTURE

18.1 Timmins West Mine Site

The TWM is a mature mine and the development and construction of the underground mine infrastructure and surface facilities to support mining the Timmins and Thunder Creek deposits has been completed. The Timmins Deposit has been in commercial production since 2011 and Thunder Creek since 2012. The 144 Gap is a new mining area accessed from the existing Thunder Creek underground workings at 775L and 835L. From the 835L an underground diamond drilling program was completed.

The existing surface infrastructure at the TWM is shown in Figure 18-1 and includes:

- Access roads, site grading and security gate house.
- Shaft headframe, collar house, and hoisting plant.
- Compressed air plant.
- Process water supply.
- A paste backfill plant and distribution boreholes to underground.
- Portal and main ramp to underground.
- Electrical services infrastructure and distribution.
- Timmins Deposit main fresh air ventilation fans and mine air heaters.
- Thunder Creek main fresh air ventilation fans and mine air heaters.
- Administration, mine dry and training facilities.
- Warehouse and maintenance facilities.
- Water treatment facilities and discharge water settling ponds.

Figure 18-1: TIMMINS WEST MINE SURFACE INFRASTRUCTURE

18.2 Bell Creek Mill Site

All ore to date from TWM has been milled at LSG's existing Bell Creek Mill. All future production from the TWM will also be processed at the Bell Creek Mill.

The Bell Creek tailings facility ("BCTF") is part of the Bell Creek Complex. The facility first received ore from the Bell Creek Mine in 1986 at an initial rate of 300 tonnes per day (tpd) and later increased to 1,500 tpd by 2002. Production from the Bell Creek Mine ceased in 2002 and the tailings facility was placed in a state of inactivity (care and maintenance) from 2002 to 2008. The Bell Creek Mill resumed operation in the last quarter of 2008 and the tailings facility was reactivated. In 2016 the Bell Creek Mill processed ore from both the Bell Creek Mine and TWM at a nominal rate of 3,398 tpd.

The BCTF is located west of the Bell Creek Mill, covers an area of approximately 150 ha, and includes the following:

- Four tailings cells (Phase 1/2 cell, Phase 3 cell, Phase 4 Mini cell, and Phase 4 North);
- Two clear water ponds (Clear Water Pond and Clear Water Pond 2);
- Effluent treatment plant and sludge settling pond
- North and south diversion ditches.

Tailings are pumped in a conventional slurry stream (40% to 45% solids) from the mill to the tailings facility for deposition.

The Bell Creek Mill is permitted to 5,500 tpd. The Phase 4 Mini cell was constructed in 2014 and subsequently raised in 2015. Phase 4 North cell was constructed and commissioned in 2016 and Phase 5 contruction started in 2017 and is expected to be completed in 2018. In 2015 excavation of Phase 3 commenced to provide approximately 130,000 tonnes of tailings to Timmins West Mine as paste backfill in the underground workings.

Also in 2015 the "Bell Creek Tailings Facility – Operations, Maintenance and Surveillance Manual" was completed in November to include all aspects of managing the tailings facility. The document was created with assistance from the Canadian Dam Association and Mining Association of Canada guidelines. The Bell Creek Mill facility is shown in Figure 18-2.

Figure 18-2: BELL CREEK MILL FACILITY

19.0 MARKET STUDIES AND CONTRACTS

Gold Sales

The TWM produces gold in the form of doré bars. The bars are a blend from the TWM and Bell Creek Mine. The doré bar's historical weighted average gold grade has been 84.9% and has ranged between 61.6% and 91.7%. The historical weighted average silver grade has been 9%.

The weight of the doré bar combined with the assay values (site assay and as well as from an independent laboratory for the purpose of comparing them to the refiner assays) allows the calculation of gold and silver contents and thus the overall value of each shipment.

Tahoe Canada refines its doré bars at Asahi refinery in Brampton, Ontario, Canada. Asahi credits the Company with 99.9% of the estimated gold content shortly after doré bars are delivered to Ashahi's vault in Brampton, Ontario.

Once final doré bar assays have been exchanged and agreed upon between Tahoe Canada and Asahi, the remaining gold and silver contents are credited to the Company's account.

Fine troy ounces refined from at Asahi from Tahoe Canada's doré production are sold to various customers based on the London Bullion Market Association daily settlement prices for gold and silver. Transportation costs, insurance, refining, processing, and other charges are paid to the refinery. The terms contained within the sales contracts are typical and consistent with standard industry practices and are similar to contracts for the supply of doré elsewhere in the world.

Currently, there are no forward sales or hedging for gold.

Gold Market

Markets for the gold refined from the doré, produced by the Company are readily accessible. These are mature, global markets comprised mainly of large bullion banks and merchants located throughout the world.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 Regulatory and Framework

This section provides an overview of the environment related authorizations that are required for the operation of TWM. Legislation related to routine operational monitoring, reporting, and notifications is not discussed herein.

20.1.1 Provincial Environmental Assessments

Mining projects, normally being private projects, are generally not subject to the Environmental Assessment Act unless designated. If a project becomes designated, then the project must complete an Individual Environmental Assessment (“EA”) prior to any permits being issued.

The provincial environmental assessment process is often triggered by specific components of a project rather than the entire project itself.

A Class EA process may apply to the project as a result of approvals under the Ministry of Natural Resources (“MNR”). Typically, Class EAs are required for work on roads and dikes, roads and water crossings, stream bank rehabilitation work, and related construction including dredging and filling activities. The Class EA must be completed prior to the issuance of the Land Use Permit or Work Permit under the Public Lands Act and the Lakes and Rivers Improvement Act, respectively.

Class EAs may also be triggered for approvals issued by the Ministry of Transportation (“MTO”) as a result of construction or re-alignment of a provincial highway during the development of a mining project. Some transmission lines and transformer station projects are also subject to review under the Class EA for minor transmission facilities.

20.1.2 Federal Environmental Assessments

The Canadian Environmental Assessment Act (“CEAA”) applies to mining projects for which the federal government exercises authority on some aspect of the project. These regulations are currently not applicable for the TWM because the project is not a new mine, and is currently in operation. Should the project request an expansion that would increase an area of mine operations by 50% or more, an environmental assessment could be triggered.

20.1.3 Provincial Permits

Ministry of Northern Development and Mines

Provincially, the Ministry of Northern Development and Mines ("MNDM") is the lead agency for mining projects in Ontario. Mine production triggers requirements under Part VII of the Mining Act. These requirements include notifications, public and First Nations consultation, closure plans and financial assurance. Approval of a closure plan provides rights for the company to proceed under the Mining Act. Mine production is not allowed on unpatented mining claims and public notice is mandatory for mine production.

In October of 2010 the TWM filed an approved production closure plan and has since conducted amendments as required to ensure site compliance with Ontario Regulation 240/00. In November of 2016, the TWM submitted the most recent Consolidated Closure Plan Amendment and is awaiting final comments.

Ministry of the Environment and Climate Change

The Ministry of the Environment and Climate Change ("MOECC") issues permits to take, treat and discharge water (both surface and groundwater), and for emissions of noise, dust, and discharge into the atmosphere. The MOECC will administer the following permits for the TWM Project:

- Wastewater treatment and effluent discharge from the mine process water, including construct and operate tailings impoundment – Ontario Water Resources Act ("OWRA").
- Water taking permits – OWRA.
- Industrial Sewage Works Permit – OWRA.
- Solid waste management (waste generator registration) – Ontario Environmental Protection Act ("EPA").
- Noise/air emissions – EPA.

Currently, the TWM is operating under the following permits issued by the Ontario Ministry of the Environment:

- Permit to Take Water 6841-82UQ75 issued February 22, 2010.
- Environmental Compliance Approval for Sewage Works # 6086-992J6B issued January 16, 2015.
- Environmental Compliance Approval for Air and Noise # 7723-A8ZP76 issued April 19, 2016.
- Waste Generator # ON6594555.

Ministry of Natural Resources and Forestry

The Ministry of Natural Resources and Forestry ("MNRF") issues land use permits and work permits under the Public Lands Act and the Lakes and Rivers Improvement Act, respectively. The MNRF will administer the following permits for the TWM Project:

- Forest Resource License for the cutting of crown owned timber – Crown Forest Sustainability Act ("CFSA").
- Land use permits for such things as effluent ditches/pipelines, access roads, camps, etc., where the acquisition of crown lands is required – Public Lands Act ("PLA").
- Work permits for such things as creek crossings or impoundment structures (dams) Lakes and Rivers Improvement Act ("LRIA").

Ministry of Transportation

A private entrance permit was required from the Ministry of Transportation ("MTO") for the entrance to the site which connects onto provincial Highway 101 West. This permit was approved in July 2008 and is currently active.

20.1.4 Federal Permits

Environment Canada

Environment Canada ("EC") involvement in the permitting process begins with the submission of a production closure plan. At that time, they receive a copy of the plan for information purposes. EC does not usually comment on the production closure plan. When the mine began commercial production the Metal Mining Effluent Regulations ("MMER") and Environmental Effects Monitoring came into force. This requires the operation to conduct additional monitoring of the discharge effluent as well as detailed aquatic, benthic, and sediment investigation on the receiver, in this case the Tatachikapika River. The Timmins West Complex has completed two monitoring Cycles to date, recently submitting the Cycle 2 Interpretative Report in May 2016.

20.2 Environmental Impacts

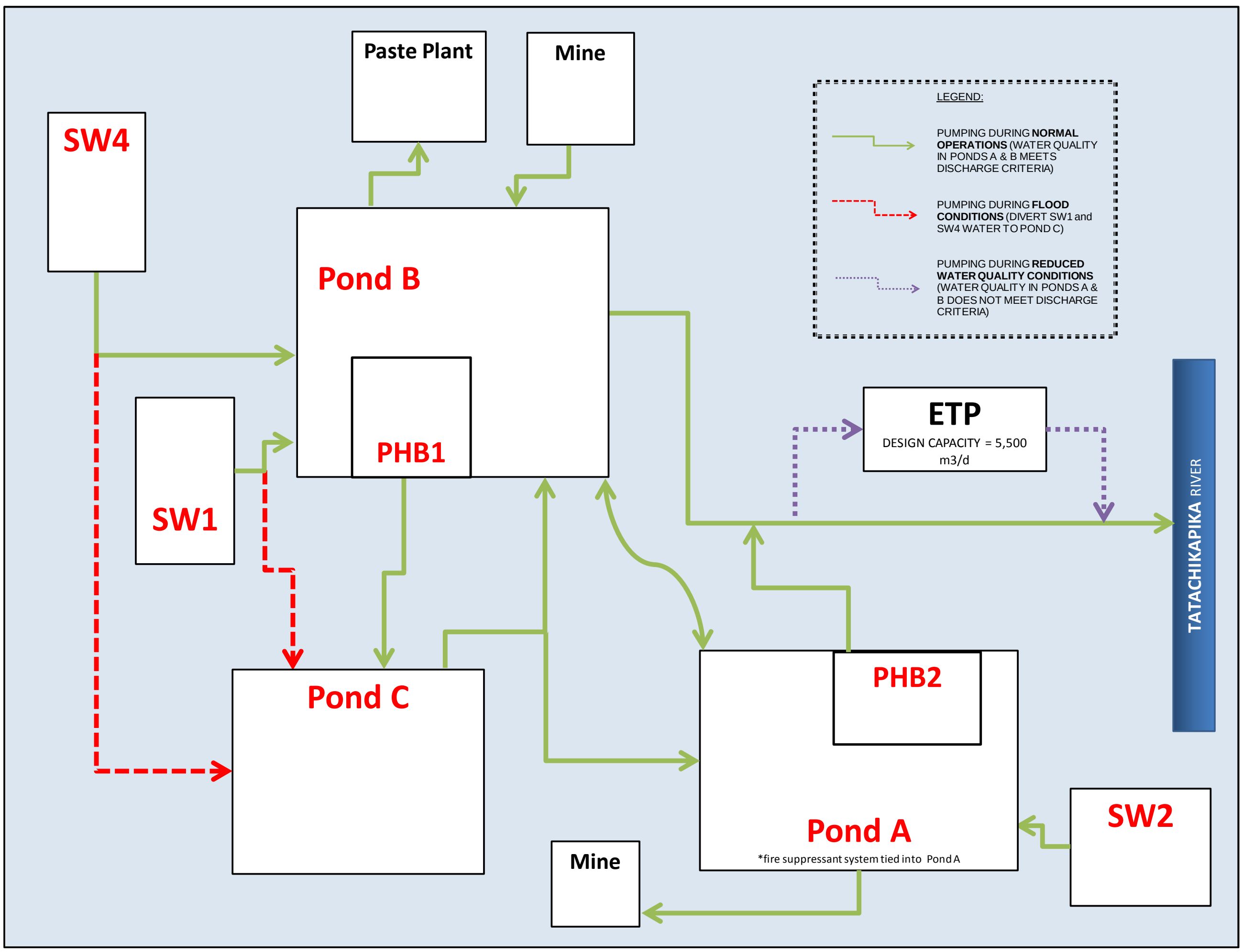
Water management and protection of the cold water systems on and adjacent to the TWM site were recognized from the onset of the project as primary environmental concerns. Preliminary design for TWM includes the concept of managing rock that can be an acid generating risk within a containment facility and treating runoff in accordance with regulatory requirements before release to the environment. TWM is regulated under both provincial and federal legislation.

The waste rock containment pad is designed to receive and contain rock from the underground workings that are identified as potentially acid generating. All runoff from the site waste rock piles is contained within the footprint of the operation and treated through the treatment process prior to discharge to the natural environment. Mine water from the underground workings is also directed to ponds and treated through the effluent treatment plant ("ETP") prior to discharge. The treatment process ensures that all Environmental Compliance Approval ("ECA") criteria are met prior to discharging into the natural environment.

To protect Thunder Creek, and maintain flows within the system, un-impacted storm water is diverted towards Thunder Creek with a Freshwater Diversion Ditch on the eastern extent of the site. Site impacted storm water is captured and treated prior to discharge to the natural environment.

The development of the mine will create a disturbance footprint on the terrestrial environment. Baseline work did not identify the possibility of provincially or federally listed fauna species on the site that will trigger concern. The Closure Plan will reduce this disturbance area at closure and disturbed areas will be rehabilitated with the intent of returning the site to a productive use (*i.e.*, forestry) resulting in limited long-term impact to the area. The TWM water management plan has been summarized in Figure 20-1, and the site plan is shown in Figure 18-1.

Figure 20-1: TIMMINS WEST MINE WATER MANAGEMENT PLAN



Note: SW refers to surface water, PHB to a pump, and ETP refers to Effluent Treatment Plant.

20.3 Environmental Monitoring Program

Environmental monitoring is conducted in accordance with regulatory and due diligence requirements. Results of the monitoring program are compiled in a Management System. General components of the environmental monitoring program are described in the bullets below.

- Thrice weekly effluent samples as required by the Municipal Industrial Strategy for Abatement ("MISA") and Environmental Compliance Approval ("ECA") # 6086-992J6B.
- Weekly effluent samples as required by the Metal Mining Effluent Regulations ("MMER").
- Monthly water samples at reference and exposure areas on the Tatachikapika River as well as Thunder Creek as required by ECA # 6086-992J6B, MISA and MMER.
- Quarterly, semi-annual and annual effluent and receiver sampling as required by ECA # 6086-992J6B, MISA and MMER.
- Thrice weekly sampling and analysis of water collected from the mine water ponds.
- Semi-annual sampling of groundwater at the monitoring wells that have been installed at the site.
- Annual updates to air dispersion model as changes are made to infrastructure at the site that discharges to air as required by ECA # 7723-A8ZP76.
- Annual calibrations of flow monitoring devices for effluent discharge.
- Assessment of sediment quality, benthic, and fish communities as required through the Metal Mining Effluent Regulation and Environmental Effects Monitoring.
- Recording and reporting of daily flows associated to Permits to Take Water for the underground workings.
- Regular sampling and analyzing of storm water.

20.4 Hazardous Materials Handling

Currently the Effluent Treatment Plant ("ETP") houses only Potassium Sulphate required to make a brine solution for the regeneration of zeolite media in the gravity treatment tanks.

Bulk containers of petroleum products are stored in designated areas adjacent to the Maintenance Garage and hoist room. Spill trays are utilized for containment.

Fuel is stored and handled in accordance with the Liquid Fuels Handling Code. Gasoline and diesel fuel is stored in the tank farm and in portable, double-hulled tanks that are in accordance with TSSA. Propane is stored in above ground tanks.

There are no PCBs on any Tahoe Canada properties.

With the exception of silica dust from development rock, there are no designated substances at TWM, as defined in the Occupational Health and Safety Act.

Explosives are brought to TWM on an as-needed basis. If it is necessary to store explosives at TWM on surface, storage magazines will be contractor-owned and these will be accessed using existing secondary roads in the vicinity of the site. The storage location will be in accordance with requirements from Natural Resources Canada (*i.e.*, minimum permissible distances, Explosives Act requirements) and the Ministry of Labour (*i.e.*, Occupational Health and Safety Act requirements).

20.5 Spill and Emergency Response Plan

As part of the Safety and Environment Program, the Company has prepared a Consolidated Spill Prevention, Contingency and Response Plan ("SPCR") for the TWM operations. This document provides a practical guide for preventing, controlling, and responding to spills. It has been prepared using guidelines provided by the Liquid Fuels Handling Code, the Canadian Environmental Protection Act, the Ontario Environmental Protection Act, the North American Emergency Response Guidebook, as well as standardized response procedures from petroleum product suppliers. The SPCR is reviewed annually and updated as required.

Under the authority of the Canadian Environmental Protection Act ("CEPA"), the Environmental Emergencies Regulations ("E2") requires an Environmental Emergency Plan ("E2 Plan") for any substance which is listed in Schedule 1 of the Act that is used or stored on site in quantities over a certain threshold. The TWM operates 4 (four) propane tanks over the threshold and has developed a plan for propane to address the prevention of, preparedness for, response to, and recovery from environmental emergencies caused by uncontrolled, unplanned, or accidental releases. The E2 Plan is communicated in training annually, and is also reviewed annually and updated as required.

20.6 Closure Plan

Mine closure is the orderly safe and environmental conversion of an operating mine to a "closed-out" state.

The development of a walk-away, no active management scenario is a primary environmental management goal for this project. The long-term environmental management issues associated with the project have been identified in the Mining Act and relate to ore hoisted to surface, waste rock dumps, open holes to surface and overall construction of permanent structures. Other secondary issues, such as returning the site to a productive use (*i.e.*, forestry) will be accommodated within the context of the Closure Plan.

Should the Company identify and require an area to store rock which poses a metal leaching risk, this will be conducted on the waste-rock containment pad during the life of the mine. Runoff from this low permeability pad will be directed to the containment pond, preventing a release of water with potentially high concentrations of metals. Water from the containment pond will be recycled for use as process water with the excess being treated and released to the environment in accordance with regulatory requirements. However, with the extensive sampling program initiated by the TWM facility, the analytical data collected does not identify any potential acid generating or metal leaching issues.

At the conclusion of the mine life, the closeout rehabilitation measures summarized below will be implemented.

- Removal of surface buildings and associated infrastructure.
- Dewatering the ponds by pumping treated effluent through the approved discharge location.
- Breaching of existing ponds to all natural flows and remediated site drainage to their background watersheds.
- Allowing the underground workings to naturally submerge with local groundwater.
- Securing of mine openings in accordance with regulatory requirements.
- Contouring of waste rock.
- Contouring, covering, and re-vegetating disturbed areas using available overburden.

Infrastructure will be removed from the site and any other disturbed areas associated with the project will be re-vegetated, mainly through natural regeneration using seed banks in the overburden stored on site.

20.7 Consultation

Consultation is being undertaken with regulatory agencies, the general public, the Métis Nation of Ontario, Wabun Tribal Council and the First Nation communities of Flying Post First Nation and Mattagami First Nation, who are represented by Wabun Tribal Council. Consultation provides an opportunity to identify and address the impacts of the Company's activities on external stakeholders, and to expedite the authorization process.

The consultations have been held in order to comply with Tahoe's corporate policy and the provincial requirements of Ontario Regulation 240/00 and the Environmental Bill of Rights.

An Impact and Benefits Agreement ("IBA") has been negotiated and signed (February 17, 2011). The IBA outlines how LSG/Tahoe Canada and the First Nations communities will work together in the following areas: education and training of First Nation community members, employment, business and contracting opportunities, financial considerations and environmental provisions.

21.0 CAPITAL AND OPERATING COSTS

21.1 Capital Costs

21.1.1 Project Capital

LOM project capital costs total $21.7 million for operational expansion of the TWM and Bell Creek mill.

Project capital for the TWM includes $5.8 million for an additional ore bin and associated infrastructure, including a second haulage drift connecting the 144 Gap Deposit to the Timmins and Thunder Creek infrastructure to provide for one-way haulage to/from the 144 Gap Deposit. An additional $2.2 million is planned for the installation of surface return air raise fans to increase the air flow through the 144 Gap Deposit and to provide ventilation for potential growth to the west along the 144 Trend. Project capital also includes $0.3 million for the purchase and installation of a surface transformer required for the 144 Gap Deposit.

Project capital of $13.4 million is forecasted for the Bell Creek Mill and Tailings Management facilities to accommodate processing of the TWM ore, including construction costs for increased polishing pond capacity and engineering and construction costs related to increased tailings pond capacity.

21.1.2 Sustaining Capital

LOM sustaining capital costs total $109.5 million and include costs for development, infrastructure, construction, and equipment purchases/rebuilds, and an allocation of indirect costs required to support ongoing mining into new production areas including the 144 Gap. Sustaining capital costs also include costs related to processing of the TWM ore at the Bell Creek Mill and Tailings Management facilities. The estimated sustaining capital costs are summarized in Table 21.1.

Table 21-1: TIMMINS WEST MINE ESTIMATED SUSTAINING CAPITAL COSTS

Item	Total $US ('000s)
TWM Capital	
Capital Development Direct Costs	$30,056
Capital Development Indirect Costs	$16,492
Underground Infrastructure and Construction	$11,488
Raise Development	$3,640
Electrical Projects	$4,088
Geology and Diamond Drilling	$13,073
Capital Equipment and Critical Spares	$28,280
Subtotal TWM Capital	**$105,117**
Subtotal Bell Creek Mill Capital	**$4,432**
Total Estimated Capital Costs	**$109,549**

Capital Development Direct Costs

Ramp and lateral waste development quantities have been based on 3D mine design drawings prepared for the TWM. Each production level in the mine will be accessed by the ramp system. Lateral development will include the initial sublevel access and ancillary development (sumps, electrical substations, ventilation raise access, etc.), haulage drifts and the waste portion of access to the stopes (*i.e.*, drawpoints).

The estimated unit cost for ramp and lateral development has been developed from TWM operating experience using current labour rates (including wages and overhead), mobile equipment operating costs from site data, consumable materials quantities and costs, services materials, and anticipated productivities based on site performance history. The costs also include haulage of the waste rock.

Capital Development Indirect Costs

Indirect costs include supervision labour, maintenance labour, mine services/construction labour, auxiliary mobile equipment operation/maintenance, power, propane, diesel fuel, surface facilities operation/ maintenance, and hoisting plant operation/maintenance. A portion of indirect costs has been allocated to capital based on the percentage of tonnage resulting from capital development activities (including ramp, lateral, and raising), versus overall tonnes mined.

Underground Infrastructure and Construction

The costs associated with underground infrastructure installation and construction projects. The costs include expansion of the main trunk of the pastefill system (boreholes and piping and booster pump at 144 Gap), ventilation system expansion, dewatering system expansion, refuge stations, and ore/waste handling infrastructure as the mine expands into new production areas. The estimated costs were developed based on operating experience and/or interaction with vendors/contractors.

Raise Development

Raise development includes all vertical development to support the mine design (conventional raises, and drop raises developed for ventilation, egress, and material handling purposes). Larger raises will be completed by mining contractors using either Alimak or Raise Boring methods.

The estimated unit cost for raise development has been based on recent raise development experience at the TWM.

Electrical Projects

Capital costs related to electrical infrastructure include additional underground substations in expanded areas of the mine.

Geology and Diamond Drilling

Diamond drilling and related labour and consumables for drilling Inferred Resources (for potential conversion to Measured or Indicated Resources) has been included in the capital costs.

Capital Equipment and Critical Spares

The capital costs related to mobile equipment includes purchase of equipment to replace current fleet and rebuilds to the current fleet.

Bell Creek Mill Related

The estimated costs associated with mill site related initiatives at the Bell Creek Mill and tailings facilities. The estimated costs were developed by Tahoe Canada operations and projects personnel with experience in the area, and have been based on operating experience and/or interaction with vendors/contractors.

21.2 Operating Costs

The LOM operating costs include both direct and indirect costs. The costs are based on the Company's operating experience at the TWM from 2011 through 2016 and/or developed from engineering first principles. The LOM average operating cost is forecasted to be $72.58 per tonne as summarized in Table 21.2.

Table 21-2: OPERATING COSTS SUMMARY

Item	$US per Tonne
Mining	$48.88
Processing	$16.23
Ore Surface Haulage to Mill	$5.97
General and Administrative	$1.50
Total Operating Costs	**$72.58**

21.2.1 Mining Costs

Mining costs include the direct and indirect operating costs related to the TWM site and are summarized in Table 21.3.

Table 21-3: MINING COSTS SUMMARY

Item	$US per Tonne
Surface General	$6.43
Power, Propane, Diesel	$6.07
Hoist Plant and Millwrights	$1.12
Operating Development	$5.63
Stoping	$7.54
Backfill	$7.83

Item	$US per Tonne
Underground Supervision	$1.14
Electrical Labour	$1.15
Indirect Labour (Shaft, Services, etc.)	$1.85
Underground Ore and Waste Rock Haulage	$2.86
Equipment Operation	$5.80
Mine Geology	$1.47
Total Mining Operating Costs	**$48.88**

Surface General

Surface General Costs include:

- Site management (managers, superintendents, and admin support staff).
- Health and safety, mine rescue, engineering and environment, warehousing, and surface support labour. The costs also include consumable materials for daily operations and training.
- Security personnel, insurance, rentals, laundry services, freight, etc.
- First Nations related.
- Site building and yard maintenance.

Power, Propane, and Diesel Fuel

Costs related to all site power consumption, propane for heating, and diesel fuel for mobile equipment.

Hoist Plant and Millwrights

Wages and overhead costs related to hoist maintenance personnel.

Operating Development

The direct costs related to waste and ore sill development including:

- Direct labour.
- Drilling consumables (drill steel, bits, hammers, etc.).
- Explosives.
- Ground support supplies.
- Direct equipment operating costs (lubricants, tires, and spare parts) for the jumbo, scissor lift, mechanical bolter, and LHD.
- Services material and installation including pipe and ventilation duct.
- Miscellaneous materials required to support development activities.

Stoping

The direct costs related to longhole stoping including labour and consumable materials for:

- Longhole drilling and blasting.
- Mucking with an LHD.
- Cable bolting.

Backfill
The operating costs related to the pastefill plant and underground distribution system as well as use of rockfill.

Underground Supervision
Labour costs for underground shift supervisors.

Electrical Labour
Labour costs for electricians.

Indirect Labour
Labour costs for hoistpersons, cagetenders, rockbreaker operators, construction miners, general labourers, etc.

Underground Haulage
Labour and equipment operating costs related to hauling ore and waste rock from truck chutes to the ore/waste handling facilities at the production shaft.

Equipment Operation
Costs related to operation and maintenance of mobile and fixed plant equipment. The costs include mobile equipment parts, lubricants, and maintenance labour.

Geology and Diamond Drilling
All labour, equipment operating/maintenance, consumables, and assaying/sampling related to mine geology.

21.2.2 Processing

Processing costs include the direct and indirect operating costs related to processing ore at the Bell Creek Mill and are estimated based on actual milling costs experienced as summarized in Table 21.4.

Table 21-4: PROCESSING COSTS SUMMARY

Item	$US per Tonne
Crushing and Conveying	$0.83
Grinding	$3.23
Leaching	$2.26
CIP/CIL	$0.41
Refining	$0.06
Water Treatment Plant & Tailings	$0.46
Electrical and Instrumentation	$0.61
Lab	$0.13
Mill Site General	$8.24
Total Processing Costs	**$16.23**

21.2.3 Ore Surface Haulage to Mill

Surface ore haulage costs from TWM to the Bell Creek Mill are estimated at an average of $5.97 per tonne based on actual experience at the mine. A hauling contract is currently in place with a local contractor.

21.2.4 General and Administration

General and administration costs (Table 21.5) include off-site personnel providing purchasing, contracts, human resources, and accounting support to the operation.

Table 21-5: GENERAL AND ADMINISTRATION COSTS SUMMARY

Item	$US per Tonne
General Administration	$0.82
Human Resources (HR)	$0.20
Information Technology (IT)	$0.48
Total G&A	**$1.50**

22.0 ECONOMIC ANALYSIS

An economic analysis was completed for the overall reserves to estimate the Net Present Value ("NPV") for the TWM. Each sublevel and production area was evaluated to confirm that the gross revenue generated from the estimated proven and probable reserves will support the operating and direct capital costs required for infrastructure specific to the area. Annual cash flow projections were estimated over the life of mine based on the estimated capital expenditures, production costs and gold sales revenue.

22.1 Mine Production Statistics

Annual production figures were determined from the mine plan described in Section 16 and are summarized in Table 21-1. Silver content in the ore is not material and has been excluded from this study.

Table 22-1: ANNUAL PRODUCTION

Item	2017*	2018	2019	2020	2021	2022	2023	Total
Tonnes	736,000	1,115,000	1,110,000	1,114,000	1,109,000	1,113,000	855,000	7,152,000
Grade (g/t Au)	3.75	3.42	3.10	3.20	3.23	3.14	2.68	3.21
Au Ounces Mined	88,700	122,500	110,800	114,700	115,200	112,500	73,600	737,800

*2017 includes only production from May 16th to Dec 31st

22.2 Milling Recovery and Treatment Charges

Milling recovery of 97% is based on operating experience with TWM ores processed at the Bell Creek Mill.

Treatment charges for doré (transportation, insurance, refining) of $1.23 per ounce Au have been considered in the economic analysis based on current agreements.

22.3 Royalties

There is a 2.25% royalty payment on ounces produced from the Timmins Deposit and a 3.25% royalty payment for ounces produced from the Thunder Creek and 144 Gap Deposits.

22.4 Taxes

No cash taxes are calculated in the financial model as the result of using current and historic tax pools to offset taxable income. The Company's statutory tax rate is 26%.

22.5 Capital Expenditure

LOM capital expenditures included in the financial model are summarized in Table 22-2.

Table 22-2: ANNUAL CAPITAL EXPENDITURES
($US 000s)

	2017	2018	2019	2020	2021	2022	2023	Total
Project Capital	$7,075	$10,969	$3,631	-	-	-	-	$21,674
Sustaining Capital	$19,150	$32,397	$30,881	$18,425	$7,192	$1,271	$235	$109,548
Total Capital	**$26,224**	**$43,366**	**$34,511**	**$18,424**	**$7,192**	**$1,271**	**$235**	**$131,223**

Totals may not add due to rounding

22.6 Operating Costs

The LOM operating costs include both direct and indirect costs. The costs have been based on the Company's operating experience at the TWM from 2011 through 2016 and/or developed from engineering first principles. The LOM average operating cost is forecasted to be $72.58 per tonne as summarized in Table 22-3.

Table 22-3: OPERATING COSTS SUMMARY

Item	$US per Tonne
Mining	$48.88
Processing	$16.23
Ore Surface Haulage to Mill	$5.97
General and Administrative	$1.50
Total Operating Costs	**$72.58**

22.7 Revenue

Annual revenue is determined by applying the estimated gold price of $1,250 per troy ounce to the estimated annual payable gold. There will be minor amounts of silver produced that have a negligible impact to the operation and are not considered in the economic analysis.

22.8 Net Present Value

The economic analysis indicates the TWM has an NPV at a 5% discount rate of $174.4 million. The financial model is presented in Table 22-4. A sensitivity analysis is presented in Table 22.5.

Table 22-4: TIMMINS WEST MINE FINANCIAL MODEL

	Total	2017	2018	2019	2020	2021	2022	2023
Mining Operations								
Ore								
Beginning Inventory (kt)	**7,152**	7,152	6,416	5,301	4,191	3,077	1,969	855
Mined (kt)	**7,152**	736	1,115	1,110	1,114	1,109	1,113	855
Ending Inventory (kt)	-	6,416	5,301	4,191	3,077	1,969	855	-
Gold Grade (g/t)	**3.21**	3.75	3.42	3.10	3.20	3.23	3.14	2.68
Contained Gold (kozs)	**737.8**	88.7	122.5	110.8	114.7	115.2	112.5	73.6
Waste								
Beginning Inventory(kt)	**2,360**	2,360	2,092	1,254	691	200	44	22
Mined (kt)	**2,360**	268	837	563	491	156	22	22
Ending Inventory (kt)	-	2,092	1,254	691	200	44	22	-
Total Material Mined (kt)	**9,512**	1,004	1,952	1,673	1,605	1,265	1,135	877
Waste to Ore Ratio	**0.3**	0.4	0.8	0.5	0.4	0.1	0.0	0.0
Milling Operations								
Mined Ore - Processed (kt)	**7,152**	736	1,115	1,110	1,114	1,109	1,113	855
Ending Ore Inventory								
Gold Grade (g/t)	**3.21**	3.75	3.42	3.10	3.20	3.23	3.14	2.68
Contained Gold (kozs)	**737.8**	88.7	122.5	110.8	114.7	115.2	112.5	73.6
Dore								
Recovery Gold (%)	**97%**	97%	97%	97%	97%	97%	97%	97%
Recovered Gold (kozs)	**715.7**	86.0	118.8	107.4	111.2	111.7	109.1	71.4
Payable Metals								
Dore								
Payable Gold (kozs)	**715.7**	86.0	118.8	107.4	111.2	111.7	109.1	71.4
Income Statement ($000s)								
Gold (US$/oz)	**$ 1,250.00**	$ 1,250.00	$ 1,250.00	$ 1,250.00	$ 1,250.00	$ 1,250.00	$ 1,250.00	$ 1,250.00
Revenue ($000s)								
Dore - Au	**$ 894,619**	$ 107,525	$ 148,503	$ 134,286	$ 139,019	$ 139,631	$ 136,389	$ 89,265
Total Revenue	**$ 894,619**	$ 107,525	$ 148,503	$ 134,286	$ 139,019	$ 139,631	$ 136,389	$ 89,265

Table 22.4: TIMMINS WEST MINE FINANCIAL MODEL (continued)

	Total	2017	2018	2019	2020	2021	2022	2023
Operating Cost ($000s)								
Mining	**$ 349,586**	$ 34,034	$ 54,817	$ 58,314	$ 61,282	$ 52,977	$ 50,212	$ 37,951
Process Plant	**$ 116,066**	$ 12,419	$ 18,008	$ 17,934	$ 17,992	$ 17,914	$ 17,984	$ 13,816
Ore Surface Haulage to Mill	**$ 42,676**	$ 4,189	$ 6,560	$ 6,533	$ 6,685	$ 6,656	$ 6,816	$ 5,236
General Administration	**$ 10,764**	$ 1,158	$ 2,278	$ 1,925	$ 1,863	$ 1,453	$ 1,268	$ 818
Treatment & Refining Charges	**$ 881**	$ 106	$ 146	$ 132	$ 137	$ 137	$ 134	$ 88
Royalties	**$ 27,289**	$ 3,105	$ 4,290	$ 4,021	$ 4,136	$ 4,418	$ 4,421	$ 2,898
Total Operating Cost	**$ 547,261**	55,011	86,100	88,859	92,095	83,556	80,834	60,806
Operating Income Before Taxes & Depreciation	**$ 347,358**	$ 52,514	$ 62,403	$ 45,426	$ 46,925	$ 56,076	$ 55,555	$ 28,459
CCA/CCEE/CDEE	**$ 347,358**	$ 52,514	$ 62,403	$ 45,426	$ 46,925	$ 56,076	$ 55,555	$ 28,459
Taxable Income	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Cash Flow ($000s)								
Operating Income Before Tax Depreciation	**$ 347,358**	$ 52,514	$ 62,403	$ 45,426	$ 46,925	$ 56,076	$ 55,555	$ 28,459
Working Capital Adjustment (Leases)	**$ (7,560)**	$ (2,934)	$ (3,722)	$ (904)	$ -	$ -	$ -	$ -
Closure Costs (Cash)	**$ (1,415)**	$ -	$ -	$ -	$ -	$ -	$ -	$ (1,415)
Total Adjustments	**$ (8,975)**	(2,934)	(3,722)	(904)	-	-	-	(1,415)
Capital Expenditures								
Project Capital								
Mine	**$ 8,294**	$ 2,337	$ 5,957	$ -	$ -	$ -	$ -	$ -
Process Plant	**$ 13,380**	$ 4,738	$ 5,012	$ 3,631	$ -	$ -	$ -	$ -
Other	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sustaining Capital								
Mining	**$ 105,117**	$ 18,850	$ 30,956	$ 29,984	$ 17,525	$ 6,296	$ 1,271	$ 235
Process Plant & Other	**$ 4,432**	$ 300	$ 1,441	$ 897	$ 900	$ 896	$ -	$ -
Total Capital Expenditures	**$ 131,223**	$ 26,224	$ 43,366	$ 34,511	$ 18,424	$ 7,192	$ 1,271	$ 235
Cash Flow before Taxes	**$ 207,161**	$ 23,356	$ 15,316	$ 10,011	$ 28,501	$ 48,884	$ 54,284	$ 26,809
Taxes								
Current Income Taxes	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Cash Flow after Taxes	**$ 207,161**	$ 23,356	$ 15,316	$ 10,011	$ 28,501	$ 48,884	$ 54,284	$ 26,809
Cummulative Cash Flow after Taxes		$ 23,356	$ 38,672	$ 48,683	$ 77,184	$ 126,067	$ 180,351	$ 207,161

Table 22.4: TIMMINS WEST MINE FINANCIAL MODEL (continued)

		Total	2017	2018	2019	2020	2021	2022	2023
Total Cash Cost per Ounce		**$764.66**	$639.51	$724.73	$827.15	$828.07	$748.00	$740.84	$851.48
Operating Cost per Tonne Ore									
Tonnes (kt)		**7,152**	736	1,115	1,110	1,114	1,109	1,113	855
Mining		**$48.88**	$46.25	$49.17	$52.53	$55.02	$47.77	$45.10	$44.37
Process Plant		**$16.23**	$16.88	$16.15	$16.15	$16.15	$16.15	$16.15	$16.15
Ore Surface Haulage to Mill		**$5.97**	$5.69	$5.88	$5.88	$6.00	$6.00	$6.12	$6.12
General Administration		**$1.50**	$1.57	$2.04	$1.73	$1.67	$1.31	$1.14	$0.96
Total		**$72.58**	**$70.39**	**$73.26**	**$76.30**	**$78.85**	**$71.24**	**$68.52**	**$67.60**
Treatment and Refining		**$0.12**	$0.14	$0.13	$0.12	$0.12	$0.12	$0.12	$0.10
Royalties		**$3.82**	$4.22	$3.85	$3.62	$3.71	$3.98	$3.97	$3.39
Economic Indicators before Taxes									
NPV @ 0%	**$**	**207,161**							
NPV @ 5%	**$**	**174,398**							
NPV @ 10%	**$**	**149,194**							
Economic Indicators after Taxes									
NPV @ 0%	**$**	**207,161**							
NPV @ 5%	**$**	**174,398**							
NPV @ 10%	**$**	**149,194**							

Table 22-5: SENSITIVITY ANALYSIS
(NPV after taxes)

Sensitivity	NPV @ 0% ('000s)	NPV @ 5% ('000s)	NPV @ 10% ('000s)
Change in Gold Price			
+20%	$386,085	$330,238	$286,874
+10%	$296,623	$252,318	$218,034
Base Case	$207,161	$174,398	$149,194
-10%	$117,699	$96,478	$80,354
-20%	$28,237	$18,558	$11,514
Change in Operating Cost			
+20%	$97,708	$79,475	$65,694
+10%	$152,435	$126,937	$107,444
Base Case	$207,161	$174,398	$149,194
-10%	$261,887	$221,860	$190,943
-20%	$316,613	$269,321	$232,693
Change in Capital Expenditures			
+20%	$180,916	$150,032	$126,425
+10%	$194,038	$162,215	$137,809
Base Case	$207,161	$174,398	$149,194
-10%	$220,283	$186,581	$160,578
-20%	$233,405	$198,764	$171,963
Change in Recovery			
+2%	$225,053	$189,982	$162,962
+1%	$216,107	$182,190	$156,078
Base Case	$207,161	$174,398	$149,194
-1%	$198,215	$166,606	$142,310
-2%	$189,268	$158,814	$135,426

22.9 IRR

The financial analysis does not present an internal rate of return ("IRR") as it is not a meaningful metric for the TWM. The calculated return on investment is magnified by the significant mine cash flows offset by the exclusion of the initial capital investment in the calculation and would exaggerate any IRR calculated. Net Present Value provides a more accurate and meaningful economic assessment of the mine.

23.0 ADJACENT PROPERTIES

Adjacent properties to the Timmins West Property include those controlled by Pelangio Exploration Inc., Timmins Forest Products Limited, Richmonth Mines Inc., and Explor Resources Inc.

23.1 Pelangio Exploration Inc. – Poirier Option – Bristol Township

Two staked mineral claims with an area of 64 hectares are situated between the Meunier-144 and Timmins Mine properties and to the north of the Thunder Creek portion of the TWM property. Identified collectively as the 'Poirier Gold Property', Pelangio Exploration Inc. ("Pelangio") reports it is currently in the process of converting these claims to leases. The claims are underlain by mafic metavolcanic rocks belonging to the Tisdale Assemblage. The MDI does not describe or locate a mineral occurrence on this property. On the company website, Pelangio reports having completed prospecting and an MMI soil geochemical survey. The website states quartz veining and sulphides were noted on the property during this exploration work but locations and sample results are not available.

23.2 Timmins Forest Products Limited – Former West Timmins Gold Project – Carscallen Township

The property consists of nine freehold patent claims covering an area of approximately 118 hectares in Carscallen Township, located approximately 4 kilometres west of the Timmins Mine headframe. Timmins Forest Products Limited currently holds both mining and surface rights to the property with no known exploration activities being carried out.

The western portion of the claim group is underlain by mafic to intermediate metavolcanics belonging to the Deloro Assemblage rocks. The central portion of the claims are underlain by felsic to intermediate metavolcanic rocks belonging to the Kidd-Munro Upper Assemblage, and the southeastern portion of the claim group contains Tisdale Assemblage mafic metavolcanic rocks.

A brief history of recent exploration activities on the property is summarized as follows:

- Newcastle Minerals Ltd. ("Newcastle") optioned the patents from Timmins Forest Products Limited in 2009.
- In May 2010, SGX Resources Inc. ("SGX") entered into an agreement with Newcastle to acquire an option to earn 75% interest in the property.
- In December 2010, SGX declared that they would not exercise their option.
- In September 2011, Newcastle released a NI 43-101 report ("Technical Report on the West Timmins Gold Project, Carscallen Township, Porcupine Mining District, Ontario", authored by D.C. Leroux (P. Geo.) of A.C.A. Howe International Ltd., September 26, 2011).

- In December 2011, NY85 Capital Inc. ("NY85") entered into an agreement with Newcastle to acquire an option to earn 60% interest in the property.
- In July 2012, Newcastle announced that a drill program, operated by NY85, was initiated on the property. No results or follow-up work were reported.
- In January 2013, GoldON Resources Ltd. ("GoldON", formerly Newcastle) terminated its option to purchase the patent claims.

23.3 Richmont Mines Inc. – Cripple Creek Property – Denton Township

The northeast corner of the Cripple Creek property, which consists of 26 staked claims (43 claim units) covering an approximate area of 688 hectares, is approximately 5 kilometres southwest of the TWM headframe. Richmont Mines Inc. ("Richmont") acquired the project in 2002 and explored the property until 2005. Exploration activities resumed in 2010, with Richmont reporting they completed a two phase diamond drill program totaling 7,523 metres in 17 holes. Plans were announced for a third phase of drilling (3,500 metres) in 2011 but no results were ever reported. No resource estimate has been released for this property.

The Ontario Mineral Deposits Inventory indicates four occurrences are located within the property. Gold was first discovered in the 1950s by R.E. Halpenny, with that showing bearing his name (also known as Mahoney Creek-1984, MDI42A05SE00005). The local stratigraphy, as it is currently understood, is composed of a series of intercalated mafic and ultramafic metavolcanic flow units belonging to the Tisdale Assemblage. Gold-bearing quartz-carbonate veins occur within alteration zones at the mafic-ultramafic metavolcanic contact as well as in strained sections of the mafic metavolcanics.

Since the discovery of gold on the property, the following companies have tested the property by means of diamond drilling, stripping, trenching overburden sampling, geophysical and geochemical surveys: Hollinger Consolidated Gold Mines Limited, Gambit Exploration, Gowest Amalgamated Resources Limited, Noranda Exploration Company Limited, Hemlo Gold Mines Inc., and Battle Mountain Gold. Three gold-bearing areas have been identified: MDI42A05SE00056, the Cripple Creek Zone 16 referenced to Battle Mountain's drill collar cc96-16; MDI42A05SE00057, the Cripple Creek Zone 17 also referenced to as Battle Mountain drill collar cc96-17; MDI42A05SE00058, the Mahoney Creek Zone reference with Hemlo Gold drill collar cc93-1.

23.4 Explor Resources Inc. – Timmins Porcupine West (Ontario) Property – Bristol and Ogden Townships

Explor Resources Inc. ("Explor") has 120 claims (204 claim units) totaling 3,264 hectares registered to their name in the area of the Timmins Porcupine West Project located in Bristol and Ogden Townships.

The southwest corner of the claim group is situated approximately 4 kilometres from the TWM headframe.

Cameco Gold Inc. geologists Babin, Samson, and Koziol (2002) describe the property geology as follows: “The property geology is marked by a southwest striking package of sediments which are bounded to the north by mafic volcanics and intruded in the central part of the property by a variably altered quartz-feldspar-porphyritic intrusion. The margins of the main porphyry body consist of porphyry dyke swarms of similar composition intruding the sediments. The sediments consist of moderately chloritic interbedded sandstones and ±argillaceous mudstones, exhibiting well defined Bouma sequences away from the porphyry. The sandstone beds are more massive, crudely bedded and contain an appreciable percentage of quartz grains and granule size siliceous clasts. Some sediment horizons close or in contact with the porphyry contain up to 70% variably altered and deformed, granule to cobble size porphyry clasts similar to the main porphyry intrusion, surrounded by a sandstone matrix.

Langton et al. (2012) describe the property as marked by a southwest striking series of steeply north-dipping faults and zones of high-strain (shear zones) that parallel a moderate to strong foliation present in all the rocks except the diabase dykes. Quartz-feldspar porphyry intrudes the central part of the property and is itself intruded by a smaller, linear syenite body. The quartz-feldspar porphyry (“QFP”) is locally strongly altered by sericitic, chloritic, and carbonaceous alteration, and local silicification, where it is transected by high-strain zones.

The area south and southwest of the QFP hosts several gold-anomalous zones associated with pyrite-pyrrhotite-red sphalerite stringers. This gold and zinc anomalous mineralization is distinct from the main pyrite-chalcopyrite mineralization seen in the central part of the main porphyry.

Explor filed an updated NI 43-101 Technical Report in September 2013. The report has an effective date of July 1, 2013 and states an open pit resource of 4,283,000 tonnes grading at 1.6 g/t Au (213,000 oz Au) of Indicated and 1,140,000 tonnes grading at 2.1 g/t Au (77,000 oz Au) of Inferred Resource. The deposit also contains an underground component containing 4,420,000 tonnes grading at 2.8 g/t Au (396,000 oz Au) of Indicated and 5,185,000 tonnes grading at 2.4 g/t Au (393,000 oz Au) of Inferred Resource.

In December 2014, Teck Resources Ltd. (“Teck”) entered into a joint venture with Explor, with the option to earn up to a 55% interest in the Timmins Porcupine West property.

24.0 OTHER RELEVANT DATA AND INFORMATION

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

25.0 INTERPRETATION AND CONCLUSIONS

An updated Mineral Resource estimate has been completed for the TWM. The TWM Mineral Resource estimate totals 0.36 Mt at 4.95 gpt Au, amounting to 57,500 ounces of gold in the Measured category, 7.54 Mt at 3.99 gpt Au, amounting to 966,500 ounces of gold in the Indicated category and 1.09 Mt at 3.80 gpt Au amounting to 133,400 ounces of gold in the Inferred category. The Mineral Resource for the Timmins, Thunder Creek, and 144 Gap deposits is reported using a base case cut-off grade of 1.5 gpt.

The drilling, development and mining completed since the last Mineral Resource and Mineral Reserve update reported in January, 2017 shows an increase in Measured Resources of 57,500 gold ounces, an overall decrease of 56,800 gold ounces in Indicated Mineral Resources, and a decrease of 45,700 gold ounces in Inferred Mineral Resources.

Relative to the 2016 year-end Mineral Resource estimate:

Indicated Mineral Resources at the Timmins Deposit show an increase of 14,000 ounces due to conversion of Inferred Mineral Resources partially offset by mining production. Inferred Mineral Resources show a corresponding decrease of 33,100 ounces mainly due to conversion to Indicated Mineral Resources.

Indicated Mineral Resources at the Thunder Creek Deposit have decreased mainly due to mining production partially offset by a conversion of Inferred to Indicated Mineral Resources. Inferred Mineral Resources have decreased by 13,500 ounces.

Measured Mineral Resources at the 144 Gap Deposit show an increase of 57,500 ounces, Indicated Mineral Resources a decrease of 58,000 ounces and Inferred Mineral Resources an increase of 1,000 ounces.

The mine design used for the updated Mineral Reserve estimate is based on existing surface and underground infrastructure, and operating experience gained since commercial production commenced. The majority of the main mine infrastructure (surface and underground) is in place, most equipment has been purchased, and the Bell Creek Mill expansion has been completed to meet current production requirements. TWM successfully uses the longhole mining method which is commonly used worldwide for deposits with similar geometry and conditions. The operation also uses common, proven mining equipment and has experienced management and mine operations personnel. The Timmins area has a significant, well-established mining service/supply industry to support the operation.

Through years of operating experience, TWM has implemented the systems and programs (*i.e.,* health and safety, environment, training, maintenance, operating procedures, etc.) necessary to sustain production. This experience has also provided a solid basis for estimating the capital and operating costs used in preparation of the LOM plan.

To estimate the Mineral Reserves, the following steps (summarized at a high-level) were used by mine planning personnel. The Measured and Indicated Mineral Resources were isolated from Inferred Mineral Resources from the resource models and assessments were made of the geometry and continuity of each of the mineralized zones. Ongoing geotechnical evaluations were taken into account in the assessment and assignment of appropriate mining methods and stope sizes. Individual stope designs (wireframes) were then created in three dimensions. These stope wireframes were queried against the block models to determine the in-situ resource. This allowed for fair inclusion of internal dilution from both low grade and barren material. Additional factors were assigned for external dilution (with or without grade) dependent on the specific mining method and geometry of each stoping unit being evaluated. Finally, a recovery factor was assigned to the overall reserves to allow for in-stope and mining process losses. Stope cut-off grades were estimated to determine which stopes to include in the reserves. Detailed mine development layouts and construction activities were assigned to provide access to each of the stoping units. A detailed LOM development and production schedule was prepared to estimate the annual tonnes, average grade, and ounces mined to surface. Development, construction, and production costs were estimated to allow an economic assessment to be made comparing the capital and operating expenses required for each area to the expected revenue stream to ensure economic viability.

All capital costs required for all surface and underground facilities at TWM and relevant portions of the Bell Creek Mill facility have been included in the LOM plan. No contributions from the Bell Creek mining operations (positive or negative) have been considered.

Key outcomes of the LOM plan include an updated Mineral Reserve estimate of approximately 7.2 million tonnes grading 3.21 g/t with 738 thousand ounces of gold delivered to the mill. The Mineral Reserves support a mining plan at a production rate of approximately 3,075 tonnes per day from 2017 through 2022 before ramping down and ending in 2023. The Mineral Reserves can be extracted at an estimated average operating cost of $72.58 per tonne with estimated total capital expenditures of $131.2 million. An economic analysis indicates the TWM has an NPV at a 5% discount rate of $174.4 million.

Risks

The Mineral Resources used to estimate the Mineral Reserves and develop the LOM plan are heavily weighted to Indicated Resources, with only minor contributions from Measured Resources. The realized grade in any mining plan has the greatest impact on financial returns. Infill and definition drilling is needed to add confidence to the LOM plan. Ongoing diamond drilling programs are planned and will need to be funded to reduce this risk going forward.

Gold prices are subject to significant fluctuation and are affected by a number of factors which are beyond the control of the Company. Lower than predicted gold prices could increase the stope cut-off grade and reduce the Mineral Reserves.

Currency fluctuations are also affected by factors which are beyond the control of the Company. Stronger than predicted Canadian dollar (versus the US dollar) could increase the stope cut-off grade and reduce the Mineral Reserves.

Operating and capital costs determined as the basis for estimating the Mineral Reserves are based on actual performance metrics of the operation from 2011 through 2017. These factors are considered low risk elements and have intrinsically less impact on financial returns.

Social, political, and environmental factors are all considered to be low risk factors for the TWM.

26.0 RECOMMENDATIONS

Based on recent work to complete the resource update, the following recommendations are made for resource estimation and resource development:

2. Implement definition and exploration drilling to refine shapes and grades for existing Mineral Resources and to expand the overall resource base for the future. Review this program on an annual basis.
3. Complete exploration drilling in the TWM area in attempt to further increase the resource base.

Suggested programs are outlined as follows:

Underground drilling at the TWM for the remainder for 2017 is proposed to be approximately 69,200 metres of combined operating, capital and exploration drilling for a total cost of $3.89M.

Of this total, approximately 62,200 metres (for $3.35M) are for operations and capital drilling to support the 2017 Mine Plan as well as infill drill for future mining. The remaining 7,000 metres (for $0.54M) are planned for near mine exploration, primarily testing the down plunge extents of the Thunder Creek and Timmins Deposits. Future underground exploration should be focused on testing the down strike extents of the 144 Gap Deposit targeting the South-West Zone.

Deep surface exploration totals $0.520M in 3,150 metres that involves the completion of a new master hole and one wedge cut from the existing master hole that will target the down-plunge extension of the Timmins Deposit fold nose mineralized structure between 250-500m vertically below the bottom of the previous resource (~1,315m level). The option of expanding the program with multiple wedge (daughter) cuts will be considered if initial results are favourable.

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28.0 DATE AND SIGNATURE PAGE

This report titled ”43-101 Technical Report, Timmins West Mine, Timmins, Ontario, Canada”, dated September 20, 2017 and having an effective date of May 15, 2017, was prepared under the supervision of the following Qualified Persons:

(Signed & Sealed) “Kara Byrnes”

Dated at Timmins, Ontario
September 20, 2017

Kara Byrnes, P. Geo.
Director of Technical Services
Tahoe Canada

(Signed & Sealed) “Natasha Vaz”

Dated at Toronto, Ontario
September 20, 2017

Natasha Vaz, P. Eng., MBA
Vice President Technical Services
Tahoe Canada

(Signed & Sealed) “Eric Kallio”

Dated at Toronto, Ontario
September 20, 2017

Eric Kallio, P. Geo.
Vice President Exploration
Tahoe Canada

29.0 CERTIFICATES OF QUALIFIED PERSONS

CERTIFICATE

To accompany the Report titled "National Instrument 43-101 Technical Report, Timmins West Mine, Timmins, Ontario, Canada", dated September 20, 2017 and having an effective date of May 15, 2017.

I, Kara Byrnes, do hereby certify that:

1. I am employed at Tahoe Canada's Timmins West Mine, located at 8215 Hwy 101 West, Timmins, ON, Canada, P4N 7W7.
2. I am a graduate of the University of Ottawa, Ottawa, Ontario with a B.Sc. (Hons) in Earth Sciences.
3. I have practiced my profession continuously since 2007.
4. I am a member of the Association of Professional Geoscientists of Ontario (Membership No. 2021).
5. I have read the definition of "qualified person" set out in NI 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a qualified person for the purpose of NI 43-101. I am not independent of Tahoe Canada or Tahoe Resources Inc.
6. I am currently employed by Lake Shore Gold Corp. *dba* Tahoe Canada (since 2010) in the role of Director of Technical Services. I am directly accountable for the Mineral Resource estimate for the Timmins West Mine. I have provided constant feedback and oversight throughout the development of the Mineral Resource estimate and have reviewed all supporting documentation.
7. I take personal accountability for the content of Items, 12, 14, 15, 16, 18, 19, 20, 21, 22, and 24 and portions of Items 1, 2, 3, 10, 11, 25, 27, 28, and 29, which I have reviewed and found to be fair and reasonable assessments suitable for inclusion in the aforementioned Technical Report for the Timmins West Mine, having an effective date of May 15, 2017.
8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report.
9. I have read NI 43-101 Standards of Disclosure for Mineral Projects, Form 43-101F1 Technical Reports, and Companion Policy 43-101CP and this Technical Report has been prepared in compliance with these instruments and forms.
10. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated in Timmins, Ontario, this 20th day of September 2017.

"Kara Byrnes"
(Signed and Sealed)
Kara Byrnes, P. Geo.

CERTIFICATE

To accompany the Report titled "National Instrument 43-101 Technical Report, Timmins West Mine, Timmins, Ontario, Canada", dated September 20, 2017 and having an effective date of May 15, 2017.

I, Natasha Vaz, do hereby certify that:

1. I am employed with Tahoe Canada, whose office is located at 121 King Street West, Suite 2140, Toronto, ON, Canada, M5H 3T9.
2. I am a graduate of the University of Toronto, Toronto, Ontario with a B.Sc. in Mineral Engineering.
3. I have practiced my profession continuously since 2002.
4. I am a member of the Professional Engineers of Ontario (Membership No. 100122657).
5. I have been continuously employed during this period by Goldcorp Inc., Red Lake Gold Mines, FNX Mining, and Lake Shore Gold Corp. *dba* Tahoe Canada.
6. I have experience in operations, engineering, and project management in underground mining environments. My accountabilities in this role included all phases of project development from project evaluation (study) through to project development (execution).
7. I have read the definition of "qualified person" set out in NI 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a qualified person for the purpose of NI 43-101. I am not independent of Tahoe Canada or Tahoe Resources Inc.
8. I am currently employed by Lake Shore Gold Corp. *dba* Tahoe Canada (since May 2008) and now hold the position of Vice-President Technical Services. I am directly accountable for the Mineral Reserve estimate for the Timmins West Mine. I have provided constant feedback and oversight throughout the development of the Mineral Reserve Estimate and have reviewed all supporting documentation. I have made numerous visits to the Timmins West Mine throughout my employment with Lake Shore Gold Corp. and Tahoe Canada.
9. I take personal accountability for the content of Items 13 and 17 and portions of Item 1, which I have reviewed and found to be fair and reasonable assessments suitable for inclusion in the aforementioned Technical Report for the Timmins West Mine, having an effective date of May 15, 2017.
10. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report.
11. I have read NI 43-101 Standards of Disclosure for Mineral Projects, Form 43-101F1 Technical Reports, and Companion Policy 43-101CP and this Technical Report has been prepared in compliance with these instruments and forms.
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated in Toronto, Ontario, this 20th day of September 2017.

"Natasha Vaz"
(Signed and Sealed)
Natasha Vaz, P. Eng., MBA

CERTIFICATE

To accompany the Report titled "National Instrument 43-101 Technical Report, Timmins West Mine, Timmins, Ontario, Canada", dated September 20, 2017 and having an effective date of May 15, 2017.

I, Eric Kallio, do hereby certify that:

1. I am employed with Tahoe Canada, whose office is located at 121 King Street West, Suite 2140, Toronto, ON, Canada, M5H 3T9.
2. I am a graduate of University of Waterloo with a B.Sc. (Hons) in Earth Sciences.
3. I have practiced my profession continuously since 1980.
4. I am a member of the Association of Professional Geoscientists of Ontario (Membership No. 0174).
5. I have practiced my profession as a geologist for 37 years being employed by Placer Dome Canada as Chief Geologist at the Dome Mine, Centerra Gold as Senior Resource Geologist, Kinross Gold as Exploration Manager for Canada, Patricia Mining as Vice President Exploration and as an Independent Geological Consultant for a wide variety of companies in both Canada and abroad including Detour Gold Corp, Pelangio Mines Inc., Ursa Major Minerals, Golden Goose Resources, Verena Minerals, Baffinland Iron Mining, Goldeye Exploration and others.
6. I have exploration and operational experience with various mineral deposit types, Mineral Resource estimation techniques, and the preparation of technical reports.
7. I have read the definition of "qualified person" set out in NI 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a qualified person for the purpose of NI 43-101. I am not independent of Tahoe Canada or Tahoe Resources Inc.
8. I am currently employed by Lake Shore Gold Corp. *dba* Tahe Canada (since 2008), and hold the position of Vice President Exploration. I have been directly involved in design and management of both surface and underground and surface exploration, evaluation of new exploration and mining opportunities and management of the underground geology departments at the Timmins West Mine. I have made numerous visits to the Timmins West Mine throughout my employment with Lake Shore Gold Corp. and Tahoe Canada.
9. I take personal accountability for the content of Items 4, 5, 6, 7, 8, 9, 23, and 26 and portions of Items 1, 2, 3, 10, 11, 24, 25, 27, 28, and 29 of the report which I have reviewed and found to be fair and reasonable assessments suitable for inclusion in the aforementioned Technical Report for the Timmins West Mine, having an effective date of May 15, 2017.
10. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report.
11. I have read NI 43-101 Standards of Disclosure for Mineral Projects, Form 43-101F1 Technical Reports, and Companion Policy 43-101CP and this Technical Report has been prepared in compliance with these instruments and that forms.
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated in Toronto, Ontario, this 20th day of September 2017.

"Eric Kallio"
(Signed and Sealed)
Eric Kallio, P. Geo.

APPENDIX

UNDERGROUND PHOTOS OF THE TIMMINS WEST MINE, MINERALIZATION AT THE TIMMINS, THUNDER CREEK, AND 144 GAP DEPOSITS

The following photos and commentary have been provided courtesy of consultant Mr. David Rhys from internal reports, including: 1) "Lake Shore Gold Thunder Creek Zones: Mineralization, Setting and Style in the Rusk and Porphyry Zones" (Rhys, 2011), and; 2) Structural Setting and Style of the 144 Gap Zone and Other Areas: Observations from Drill Core, and Underground Exposure with Exploration Recommendations" (Rhys, 2015). The various styles of mineralization are represented in this suite of underground and drill core pictures from the Vein and Ultramafic hosted extensional vein arrays of the Timmins Deposit (Plates 1-5), the Rusk and Porphyry styles of the Thunder Creek deposit (Plates 6-11), and the Syenite-hosted extensional vein sets and disseminated Rusk Shear Zone and footwall mafic volcanic styles of mineralization in the 144 Gap Zone (Plates 12-15).

Plate 1:

UM 1E, face 32: Main stage mineralized extension vein array in ultramafic, view east. Veins dip SE, array shallowly north with north side up shear sense

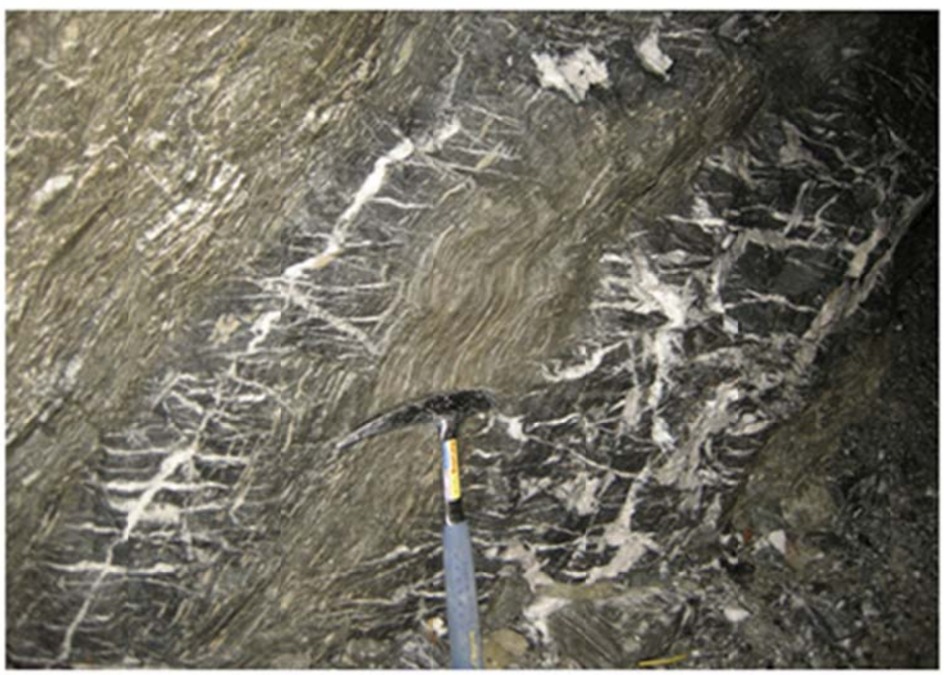
Plate 2:

UM 2 west, face 13: well developed shallow north dipping, reverse vein array with southeast dipping internal veins

Plate 3:

650 L, UM1E area: bleached (?albitic) pyritiferous envelopes to tourmaline-quartz extension veins, veins cut across and alteration overprints dominant foliation

Plate 4:

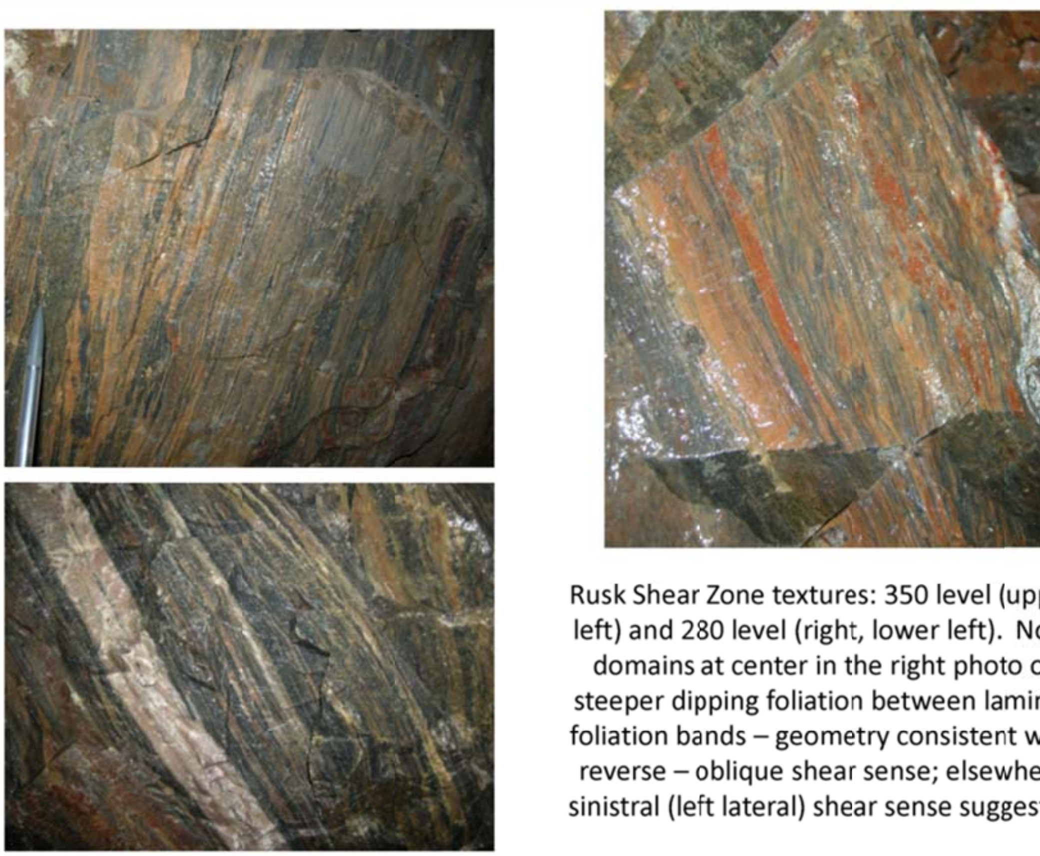


140 level, Main Zone: tourmaline replacement veins in high strain zone cut by shallow dipping extension veins: the latter probably are coeval with the Porphyry Zone and Ultramafic extension vein arrays

Plate 5:

30 level, Main Zone: veining sequence: 1) tourmaline, 2) quartz>tourmaline veins that are parallel to early tourmaline, 3) generation 1 extension veins (probably same as those in ultramafic zone, 650 level), 4) generation 2 late thin extension veinlets. Late shallow dipping extensional veinlets contain visible Au.

Plate 6:



Rusk Shear Zone textures: 350 level (upper left) and 280 level (right, lower left). Note domains at center in the right photo of steeper dipping foliation between laminar foliation bands – geometry consistent with reverse – oblique shear sense; elsewhere sinistral (left lateral) shear sense suggested

Plate 7:

300 and 315 levels ore: massive pyrite-rich ?sericite-carbonate-?feldspar alteration, with reddish hematized wispy feldspathic domains and irregular quartz - ?albite-carbonate veinlets. Note lack of foliation in mineralization

Plate 8:

300 and 315 levels: Mineralization at upper right in both images is massive and unfoliated, overprinting foliated Rusk Shear Zone at lower left in both images: suggests a structurally late timing of mineralization

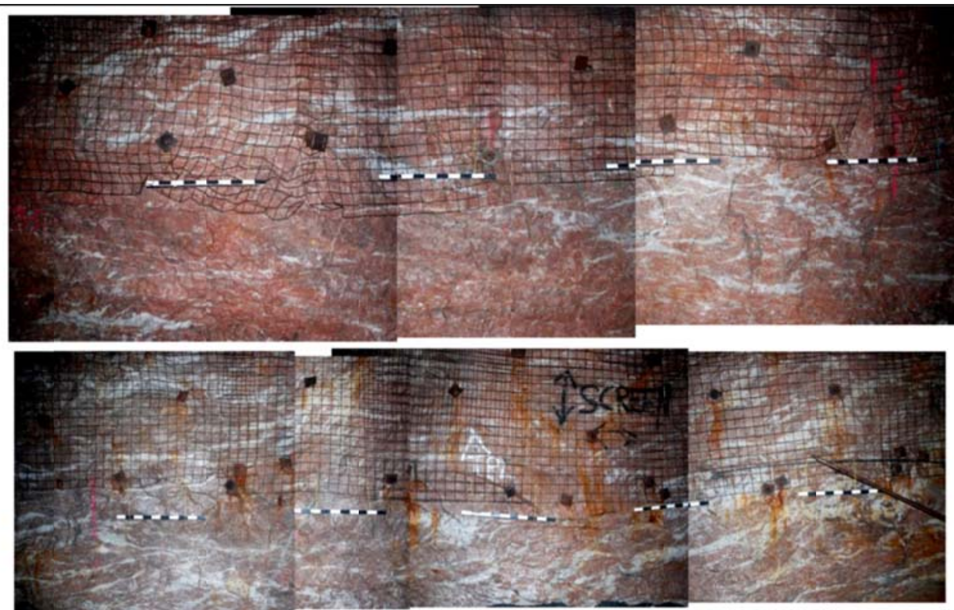
Plate 9:

Late shallow dipping quartz veins occur preferentially in narrow syenite sills, cutting the shear zone fabric (left), but are also affected by the later set of folds with shallow dipping axial planes (D5) that overprint the shear zone (right), indicating that the folding is entirely post-mineral. 350 level crosscut (left, looking west)) and 280 level west crosscut (right photo, looking west)

Plate 10:

North wall, 730 level in Porphyry Zone within monzonite. Shallow easterly dipping sheeted quartz extension veins in central part of zone.

Plate 11:



Composite photo sets of north wall of crosscut in Porphyry Zone between 4430and 4475 E, from mine photos. Lower photo is of north wall of approximately faces 18 to 20 which, returned high grades along this wall (4 to 30 g/t Au). Exposures contain multiple shallow N to NE dipping extension vein arrays which contain highest vein densities. Sigmoidal shapes record reverse, N side up shear sense.

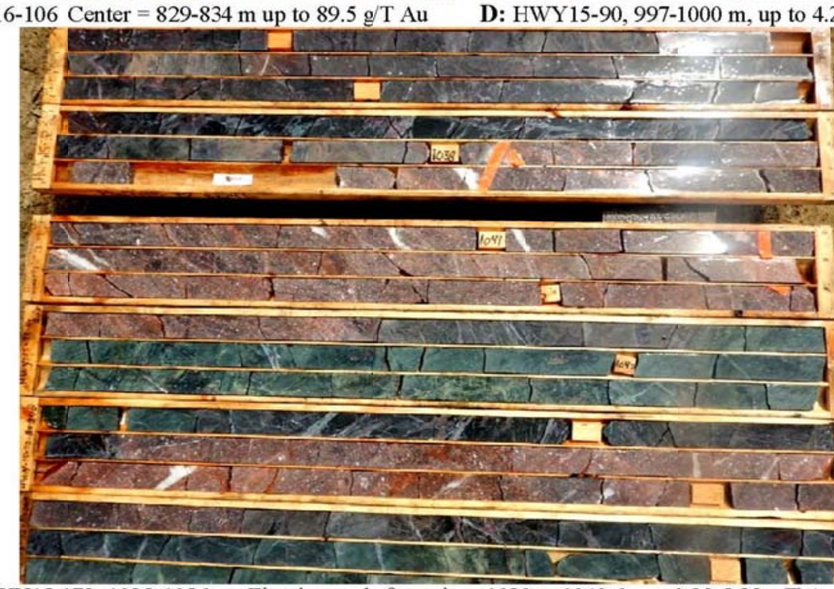
Plate 12:

A: HWY15-72, 984-997 m, up to 50.6 g/T Au at center

B: HWY14-48, 872-890 m

C: HWY16-106 Center = 829-834 m up to 89.5 g/T Au

D: HWY15-90, 997-1000 m, up to 4.26 g/T at center

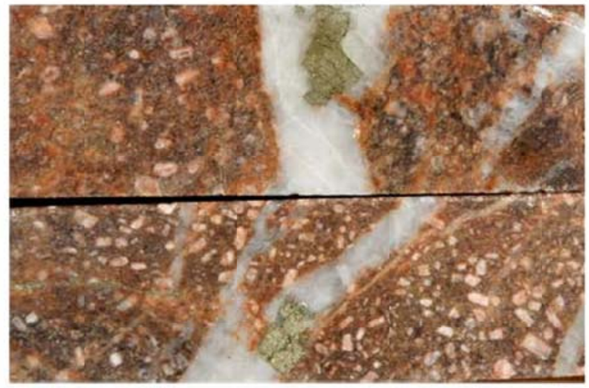


E: HWY15-072, 1035-1056 m. First interval of syenite - 1038 to 1040.6 m = 2.99-5.33 g/T Au, second syenite interval up to 6.38 g/T Au

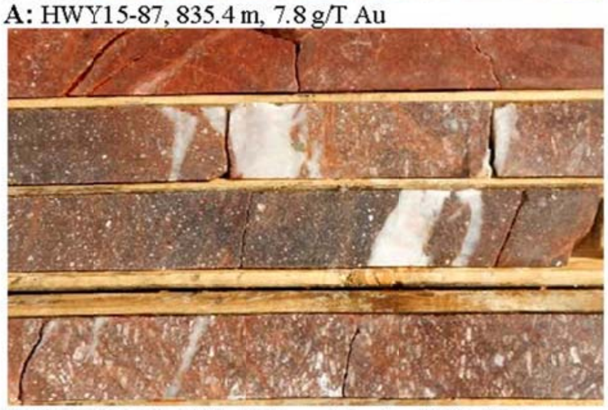
Plate 12: Quartz vein mineralization in syenite in the Gap Zone. A and B: Preferential development of quartz extension veins in syenite verses mafic volcanics; mafic units occur in the uppermost row in A and the three top rows in B. Core axis angles of veins in the syenite are variable, in A showing core axis parallel and high core axis veins suggesting two vein generations, in B typically at 35 to 45 degrees. Au grades are concentrated in syenite. **C to E:** Intervals of syenite (reddish orange/pinkish) surrounded by green-grey mafic volcanics. Note the localization of white quartz extension veinlets in the syenite, and lack of quartz veins in the surrounding mafic units. Patchy, although locally high Au grades occur in the syenite, and are absent from the surrounding mafic units here. The patterns are consistent with a rheological control to the position of the quartz veins and mineralization development. Note the consistent core axis angles of the veins in these examples.

Plate 13:

A: HWY15-87, 835.4 m, 7.8 g/T Au



B: HWY15-87, 868-868.3 m, 11.05 g/T Au



C: HWY14-62, 1041-1046 m, inlcudes 26.7 g/T Au

D: HWY15-116, 985.9 m, 4.24 g/T Au

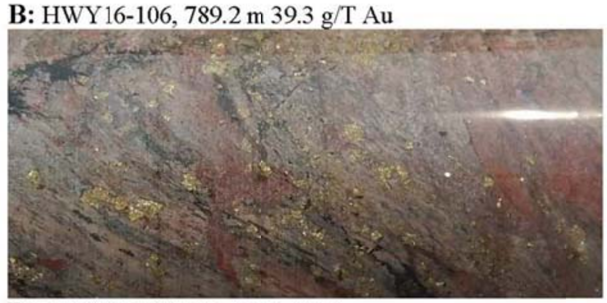
Plate 13: Examples of mineralized intervals in syenite in the Gap Zone area. A and B: Quartz extension veins in massive syenite containing widely spaced clots-aggregates of coarse cubic pyrite. Where visible gold is present it generally occurs in association with pyrite of this style. Note the massive, unfoliated nature and orange-brown to reddish brown colour of the syenite matrix which is K-feldspar bearing but may contain also secondary albite-quartz and tinting by fine-grained hematite. **C:** Typical density and style of veining in different syenite and alteration types. Quartz extension veining is present in all syenite styles, from later finer grained syenite phases in the center rows, to reddish-orange K-feldspar-albite-quartz-hematite altered syenite at top, and coarse trachytic textured syenite in the bottom row. **D:** Quartz veinlets and disseminated pyrite grains occur in fine-grained syenite with variable orange-pink K-feldspar-albite-quartz alteration. While pyrite grains at center look superficially to be disseminated, most are associated with, and wider than quartz stringers that they occur along. A series of sheeted narrow hairline quartz stringers cross the matrix here in association with the pyrite.

Plate 14:

A: HWY16-106, 758.5, 762; 1.09-1.65 g /T Au

B: HWY16-106, 789.2 m 39.3 g/T Au

C: HWY15-117, 492m, 4.24 g/T Au



D: HWY15-117, 492, 4.24 g/T Au

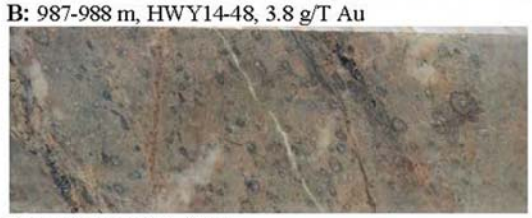
Plate 14: Mineralization in the Rusk Shear Zone in the Gap Zone area. **A:** Orangey weathering ferroandolomite carbonate-sericite rich laminated shear zone has trails of disseminated pyrite parallel to foliation, and foliation is cut by late quartz extension veinlets. **B:** Carbonate-pyrite-hematite-K-feldspar altered portion of the shear zone, probably overprinting mafic volcanics, cataclastic textures, and disseminated grains of undeformed pyrite occur both independently and associated with quartz stringers. **C and D:** Carbonate (dolomite-ferroandolomite)-chlorite-pyrite altered foliated mafic volcanic rocks in footwall portions of the shear zone have hematite-K-feldspar bands. Pyrite occurs as disseminations and trails in carbonate altered domains.

Plate 15:

A: 963-956 m, HWY15-90, grades to 9.92 g/T Au

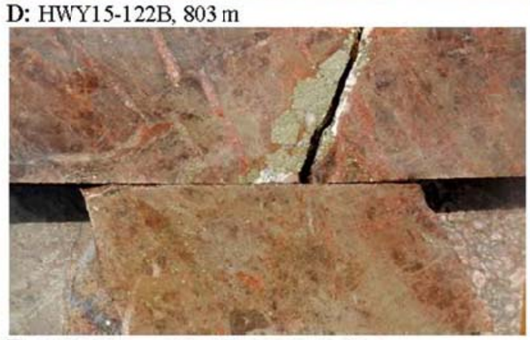
B: 987-988 m, HWY14-48, 3.8 g/T Au

C: 804.2 m, HWY15-87, 10.01 g/T Au

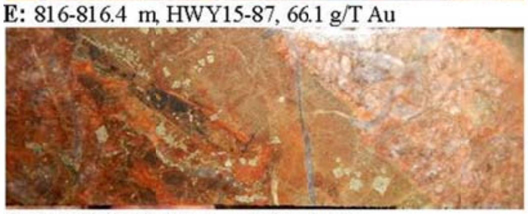


D: HWY15-122B, 803 m

E: 816-816.4 m, HWY15-87, 66.1 g/T Au



F: 828-828.3 m, HWY15-87, 86.6 g/T Au



G: HWY16-106, 861.1 m, 53.3 g/T Au

H: 777.5 m, HWY15-87, 3.1 g/T Au

Plate 15: Alteration and mineralization on margins of syenite sills-dykes in and adjacent to altered mafic volcanic rocks: Alteration of mafic units generally lacks sericite and is carbonate (dolomite-ankerite series) dominant, with some secondary pyrite, albite, K-feldspar and pyrite. **A to D:** Grey-brown carbonate (dolomite-ferroandolomite) +/- pyrite alteration of originally chlorite-albite-biotite-calcite altered mafic volcanic rocks between or marginal to syenite units. In A, at far right shows biotite-rich mafics more distal to the syenite contact which preserve an early alteration; samples at left are affected by the younger, auriferous carbonate-pyrite alteration. Similar patterns occur in B and C, where earlier biotite alteration is preserved as patchy brown-pink areas in B and as darker areas in C. Pale areas in C are carbonate-pyrite altered and Au-bearing. In D, spotted texture is relict amygdaloidal texture in mafic volcanics, here completely dolomitic carbonate altered. **E:** Tan carbonate alteration containing pyrite veinlets (lower core) overprints dark brown earlier biotite alteration in mafic volcanics (upper core) beside syenite dyke. **F to H:** Mineralization on contact areas of syenite. Disseminated bands (H) and veinlet pyrite-quartz with disseminated pyrite grains (F and H) cut across earlier brecciated and K-feldspar-quartz-albite altered syenite and mafics; units are difficult to distinguish due to the degree of alteration and brecciation. Pyrite-quartz is late and is both undeformed and unbrecciated.

(Photos and descriptions courtesy of Mr. David Rhys, LSG Internal Reports, 2011 and 2015)