#### A TECHNICAL REVIEW AND REPORT OF THE "THUNDER CREEK PROPERTY"

BRISTOL AND CARSCALLEN TOWNSHIPS PORCUPINE MINING DIVISION ONTARIO, CANADA

NTS: 42-A-05 UTM Zone: 17, NAD: 83 ~458,050m East, ~5,357,923m North ~81.57° West, 48.37° North

Prepared For

#### THE THUNDER CREEK JOINT VENTURE

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and

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June 29, 2009 Timmins, Ontario

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#### 1.0 EXECUTIVE SUMMARY

This report is an independent, National Instrument 43-101 compliant technical review and report for Thunder Creek Property that is being explored as a joint venture between Lake Shore Gold Corp and West Timmins Mining Inc. The work programs reviewed cover the time span from 2003 to June 24, 2009. Lake Shore Gold Corp.'s field programs are current with 4 diamond drills turning on the Thunder Creek Property.

The Thunder Creek Property is situated approximately 21 kilometres west of the City of Timmins, near the junction of Highways 144, south to Sudbury, and 101 west to Chapleau and Wawa. On May 1, 2008, Lake Shore Gold Corp. notified West Timmins Mining Inc. ("WTM") that the requirements to earn a 60% ownership interest in the Thunder Creek Property have been completed. The terms for original option agreement are outlined in an agreement with Band-Ore Resources Ltd. ("Band-Ore") dated November 07, 2003 An amalgamation between Sydney Resources Corporation and Band-Ore Resources Ltd. (September 13, 2006) merged the Thunder Creek property into a new company West Timmins Mining Inc. The term of the agreement with Band-Ore Resources Ltd. continued unchanged with West Timmins Mining Inc.

The exploration programs are designed to test, and to delineate gold mineralization hosted within a tectonic zone that overprints a westward dipping contact of metamorphosed mafic volcanic rocks and sediments which have been intruded by an alkalic igneous complex. This lithology is the southern, along strike continuation of the mineralized rock units that are located at the contiguous Timmins West Gold Project property. SRK (2007) estimate a NI 43-101 compliant Probable Mineral Reserve at 3387,000 tonnes grading an average 7.59 gram per tonne gold (cut grade of 3 g/t Au) containing 826,000 ounces of gold (25.7 M g) for the Timmins West Gold Property.

Work completed to date on the Thunder Creek Property includes: geological mapping, outcrop overburden washing, channel sampling, a Mobile Metal Ion geochemical survey, line cutting, and 5 phases of diamond drilling. A fifth phase diamond drill program is currently active with 75 bore holes plus seven wedge piercings having been collared for a completion of 40,689 metres of coring and over 20,102 core samples submitted for gold analysis. An additional diamond drill has recently been commissioned to the property bringing the total number of drills to three.

The quality of the Lake Shore's reports, drill logs, and databases reviewed by the author are detailed and maintain a level of high professional standards.

The Thunder Creek Project has advanced from a grassroots, anomaly testing, exploration program to a mineralized zones detailed definition drilling program. A gold nugget effect has been recognized in the assaying process and the required steps for a more robust QA/QC vigilance is in the process of being implemented. A data base manager to handle the QA/QC has been hired and the assay protocol has been changed such that all suspected mineralized zones will be assayed by pulp and metallic method procedures.

The gold mineralization, within the Thunder Creek Property is hosted within a tectonite zone that straddles the mafic volcanic, sediment contacts and portions of the alkalic intrusive complex. There appears to be one zone with multiple higher grade shoots within. The definition drilling required to join up one shoot to another, from hole to hole

may require the drilling off at 12.5 metre centres. With target depths at - 400 to - 1000 metres below surface this type of detail drilling is not practical from surface. With continued success in intersecting significant ore grade gold tenor, an underground exploration program of drill drifting, mineralization cross cutting, mapping and sampling on more than one level, with a raise between levels to determine mineralization continuity should be considered. A two level drifting program will allow a significant bulk sample to be taken and mill tested.

An aggressive multi drill rig diamond drill program is required to test the down dip, along strike, and down plunge extensions of the mineralization. Detailed, sectional fan drilling is required for resource estimation. A preliminary resource calculation and block computer model should be targeted for completion within the next 6 to 9 months.

Bore hole TC09-69b has returned the best assay results intersected within the Thunder Creek property. The pierce point of this hole, as demonstrated on a longitudinal projection, occurs approximately 42 metres above the parent hole TC09-69 and approximately 33 metres above the first wedge splay TC09-69a. This intersection also occurs approximately 717 metres below surface and at an approximate distance of 88 metres from TC09-69 and 131 metres from TC09-70. The weighted average of returned gold analysis is 12.75 grams per tonne over 83.4 metres. Gold mineralization greater than 1 gram per tonne is reported for 101 core samples of which 7 samples exceeded values of 34.29 g/tonne (1 ounce/ton Au). Tables 11.1.3 and 11.1.4 tabulate the weighted averages of assay results for the Thunder Creek diamond drill programs.

A budget for going forward has not formalized or finalized by the joint venture. A scoping of costs, to drift from the Timmins West Gold Property, for an advanced underground drill and sampling program is under review. The following proposal is subject to senior management approval of both West Timmins Mining Inc. and Lake Shore Gold Corp. Proposed is a drilling intensive program targeting the Rusk Zone from surface (45,000 metres) with pierce points at 50 to 100 metre centres; the Rusk Zone Extension (18,000 metres) from surface at 100 to 200 metre centres; and a underground drill definition program (31,000 metres) with pierce points at 25 metre centres, fanning the drill hole pattern from approximately -400 metres below surface level.

#### 2.0 INTRODUCTION AND TERMS OF REFERENCE

#### 2.1 Introduction

Lake Shore Gold Corp. ("Lake Shore", "LSG") is a public company listed on the TSX Exchange and trading under the symbol LSG. The corporate head office is located in Toronto, Ontario at 181 University Avenue, Suite 2000, M5H 3M7. Lake Shore was founded in 2002 to explore for precious and base metals hosted within the Quebec and Ontario portions of the Canadian Shield. Information taken from Lake Shore's internet web site list their major projects and grade estimates within the Porcupine Mining Camp to include the Bell Creek mine and mill complex, West Timmins Project, and the Thunder Creek Project. SRK Consulting (Canada) Inc. ("SRK)", present a NI 43-101 compliant resource estimate for the Timmins West Gold Property that includes: 3,268,000 tonnes at 8.62 g/t Au cut (905,000 contained ounces gold) or 12.29 g/t Au uncut (1,291,000 contained ounces gold) in the Indicated Resource category; and an additional 968,000 tonnes with an average grade of 5.62 g/t Au in the Inferred Resource category. The Bell Creek Complex includes historical, non NI 43-101 compliant inferred resources for the Bell Creek Mine at 346,000 tonnes at 7.70 g/t Au for 85,880 ounces gold (uncut); the Vogel property at 642,000 tonnes at 12.2 g/t Au containing 261,200 ounces of gold in non compliant measured and indicated description plus an additional non compliant inferred resource of 933,800 tonnes at 12.2 g/t Au for 379,800 ounces of gold; and the Schumacher Property with a historical measured and indicated resource of 156,000 tonnes at 5.99 g/t Au for 30,043 ounces of gold (uncut) (LGS webpage, http://www.lsgold.com/explorationBellCreekComplex.html, 2009).

In a letter dated November 20<sup>th</sup>, 2007, Lake Shore informed West Timmins Mining Inc., that LSG have completed their 60% ownership in interest in the Thunder Creek Project (the "Project") by expending more than \$1,705,000 dollars (Canadian), issuing 100,000 shares and making cash payments of \$370,000 dollars (Canadian) within the required 5 year period. The option agreement with Band-Ore Resources Ltd. ("Band-Ore") dated November 07, 2003 is survived by an amalgamation of Sydney Resources Corp. ("Sydney") and Band-Ore to form West Timmins Mining Inc. ("WTM"). A press release announcing the fulfillment of the option agreement obligations and the 60% interest earn in was issued December 04, 2007.

West Timmins Mining Inc. maintains their 40% ownership interest in the Thunder Creek Project by actively financing their portion of the exploration expenditures. WTM's head office is located at 555 Burrard Street, Suite 328, Vancouver, British Columbia, V6C 2B5. Correspondence from WTM to LSG dated May 1, 2008 acknowledges and confirms LSG's 60% ownership of Thunder Creek Property and option.

The original Thunder Creek Project acquired from WTM consists of 54 claim units. An additional 6 claim units were acquired by staking and rolled into the option agreement. The portions of property are subjected to various underlying royalties.

#### 2.2 Terms of Reference

David Powers Geological Services ("DPGS") was retained by the Thunder Creek Joint Venture to carry out an independent technical review of the Thunder Creek property (the "Property"). The review commenced April 29, 2009 and continued to June 29, 2009.

DPGS's assignment consisted of:

- Reviewing exploration data generated from programs initiated in 2003 to the May 10, 2009;
- Undertake site field visits confirming data sampling locations;
- Review mineralized zones at the core shack with Lake Shore personnel;
- Prepare a National Instrument 43-101 compliant report for the Property; and
- Carry out a review of 2009 proposed work and budget for the Thunder Creek property.

DPGS's review has been completed, and this report is prepared in compliance with the standards of the Canadian Securities Administrators' National Instrument 43-101 ("NI 43-101").

#### 2.3 Sources of Information

During the preparation of this report, DPGS relied on reports, and data supplied by Lake Shore at their exploration office situated at 1515 Government Road South, Timmins, Ontario, and their core shack - project office, located at the Bradley Brothers Ltd, industrial sited at 3300 Riverside Drive, Timmins, Ontario.

Historical "T-File" assessment reports were reviewed at the Ministry of Northern Development and Mines' ("MNDM") office at the Ontario Government Complex, Highway 101E, Timmins (Porcupine), Ontario. Assessment reports were accessed from the web by searching the Assessment File Research Imaging ("AFRI") at: www.geologyontario.mndm.gov.on.ca/.

Claim ownership and due dates were check on line May 17, 2009 by the author. (<u>http://www.mci.mndm.gov.on.ca/Claims/Cf\_Claims/</u>)

Press release data for both Lake Shore and WTM were extracted from the company's site hosted on SEDAR: <u>http://www.sedar.com/DisplayProfile</u>.

Finalized assay certificates were viewed on line with a password entry log in to ALS Mineral Division Webtrieve database.

The most recent site visit was carried out by David Powers, P. Geo., and Qualified Person ("QP") on May 29, 2009. During this visit gps measurements of selected diamond drill casings were taken and compared with completed diamond drill logs; trench locations were observed for geology, structure and channel sampling; cut line locations location were taken and compared with what has been reported and selected MMI sample sites were observed. On May 05<sup>th</sup>, June 01<sup>st</sup>, and June 29<sup>th</sup>, 2009 selected

diamond drill hole cores were observed, reviewing geology, and mineralization location and styles. Assay protocols and sample locations, were observed and compared with selected drill logs. The core storage was reviewed for completeness and security.

Documents used for background information and project details during the preparation of this report are listed in the section "References".

#### 2.4 Units and Currency

Metric and Imperial units are used throughout this report. Canadian dollars ("C\$") is the currency used unless otherwise noted. On May 27, 2009 the exchange rate was approximately \$1 US dollar to 1.114 C\$.

Common conversions used included converting one ounce of gold to grams gold with a factor of 31.104 grams/troy ounce; and one ounce gold per ton ("oz Au/t, or opt Au") with a conversion factor of 34.29 grams gold per tonne ("g Au/t, or gpt Au").

Table 2.4.1, lists the common abbreviations are used in the report.

#### 2.5 Disclaimers

This report or portions of this report containing pertinent technical information are not to be reproduced or used for any purpose other that those noted above, without the prior written consent of the author. The author does not assume any responsibility, or liability for losses occasioned by any party as a result of the circulation, publication, or reproduction, or use of this report contrary to the provisions of this paragraph.

Abbreviation	Unit or Torm
AA	Unit or Term Atomic Absorption
	silver
Ag	
Au	gold
AZ,	azimuth
cm	centimeter
cm <sup>2</sup> <sub>3</sub>	square centimeter
cm <sup>3</sup>	cubic centimeter
Ço	cobalt
	degree (degrees)
ddh	diamond drill hole
ft	foot (feet)
g	gram
gpt	grams per tonne
Ga	gigayears, a billion years
ha	hectare
kg	kilogram
km	kilometre
km <sup>2</sup>	square kilometres
I	litre
m	metre
m <sup>2</sup>	square metres
m <sup>3</sup>	cubic metres
mm	millimeter
mm <sup>2</sup>	square millimeters
mm <sup>3</sup>	cubic millimeters
MMI	mobile metal ion
M oz	million troy ounces
Мд	million grams
Mt	million tonnes
Ма	million years
Ni	nickel
NI 43-101	Canadian National Instrument 43-101
OZ	ounce
%	percent
Pd	palladium
PGE, pge	Platinum Group Elements
PGM, pgm	Platinum Group Metals
Pt	Platinum
ppb	parts per billion
ppm	parts per million
QA/QC	Quality Assurance/Quality Control
RC	rotary circulation/reverse circulation drilling
RQD	Rock Quality Description
S	second
SG	specific gravity
St	short ton (2,000 pounds)
t	metric tonne (2,000 kg) (2,204.6 pounds)
μ	micron (microns)
T	(

Table	2.4.1:	Abbreviations

#### 3.0 RELIANCE ON OTHER EXPERTS

#### 3.1 Reliance on Other Experts

The author has prepared this report using a combination of public available and confidential information. This report is sourced from an amalgamation of several reports listed it the section labeled References. Qualified Person Mr. Jacques Samson, P.Geo., is and has been the QP responsible for overseeing and reporting the exploration programs surveyed at the Thunder Creek Project. His knowledge and documentation has been instrumental in the preparation of this report. The author has reviewed drill logs, and assay certificates issued during the exploration phases and have found them to be consistent and believe the data to be reliable within testable parameters.

Active mining claim abstracts have been reviewed on line at:

<u>http://www.mci.mndm.gov.on.ca/Claims/Cf\_Claims/</u>. The ownership on record remains in the name of West Timmins Mining Inc. (100 %.) Credits for assessment report submitted by Lake Shore and received by MNDM March 25, 2009 remains pending accreditation under number W0960.01052. No formal legal opinion has been sought on the Thunder Creek Property.

Some figures for this report have been prepared by Mr. Tom Savage, and others in the employ of Lake Shore Gold Corp. and modified by author.

#### 4.0 PROPERTY DESCRIPTION AND LOCATION

#### 4.1 Location

The Thunder Creek property is situated approximately 21 kilometres west of Timmins city centre, and approximately 552 straight line kilometres north-north-west of Ontario's provincial capital city, Toronto. The centre of the Project is located within national topography series map reference 42-A-05; at longitude 81.57° west / 48.37° north latitude. Universal Transverse Mercator ("UTM") co-ordinates for the project centre utilizing projection North American Datum ("NAD") 83, Zone 17 are approximately 458,050 metres east, 5,357,923 metres north. Easy, all weather road access to the property is provided by provincial Highways 101 and 144, with bush roads and timber cutting or diamond drill trail side roads. The junction of Highways 101 and 144 is situated 1.8 kilometres north-west of the property centre. Figure 4.1.1, Location Map, illustrates the Project area relative to the highways, City of Timmins and the City of Toronto.

#### 4.2 Past Mining Activity, Environmental Liabilities and Permitting

To the best of the author's knowledge there has been no past mining activity in the form of blasting, excavating, and processing bulk material from the Thunder Creek Property. Small, shallow, historical test pits have been dug into the overburden and are now overgrown. To the best of the author's knowledge there are no environmental issues or liabilities resulting for the exploration activities or timber harvesting within the boundaries of the Thunder Creek Project.

To date no permitting has been required to explore the Property.

From the Ministry of Natural Resources' Species at Risk in Ontario ("SARO") list, the following species could to range within the Project area. (http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/246809.html)

Tuble Hailt opened at h		
Common Name	Scientific Name	OMNR Status
Lake Sturgeon	Acipenser fluvescens	special concern
Golden Eagle	Aquila chrysaetos	endangered
Short-eared Owl	Asio flammeus	special concern
Eastern Wolf	Canis lupus lycaon	special concern
Black Tern	Chlidonias niger	special concern
Yellow Rail	Coturnicops noveboracensis	special concern
Monarch Butterfly	Danaus plexippus	special concern
Bald Eagle	Haliaeetus leucocephalus	special concern
Peregrine Falcon	Falco peregrinus	threatened
Eastern Cougar	Puma concolor	endangered

#### Table 4.2.1: Species at Risk

The author is not ware of any of these species being present within the area of the Property.

#### 4.3 Property Description

The Thunder Creek property is comprised of a contiguous block of 37 staked or unpatented mineral claims and three patented mining claims located in Bristol and Carscallen Townships, within the Porcupine Mining Division of Ontario. Covering an area of approximately 981 hectares the area equates to a total of 60 claim units. The majority (96.3%) of the property is situated within Bristol Township, and approximately 36 hectares (3.7%) is located in Carscallen Township.

Registered title on record resides with West Timmins Mining Inc. (100%) for the original 54 claim units optioned from Band-Ore Resources Ltd. The 4 claims (6 claim units) staked by Lake Shore Gold Corp remain registered 100 percent to Lake Shore.

Lake Shore has reported that the company has earned a 60% ownership interest in the project by completing an excess of 1,705,000 C\$ expenditures, 370,000 C\$ in cash payments and the issuing of 100,000 shares within the 5 year payment. Under the terms of the agreement dated November 07, 2003 properties acquired by either party within 1 kilometre of the Thunder Creek Property is subject to the terms of the agreement.

The claim ownership and statistics are summarized in Table 4.3.1. Assessment work has been submitted by Lake Shore and received by MNDM March 25, 2009 remains

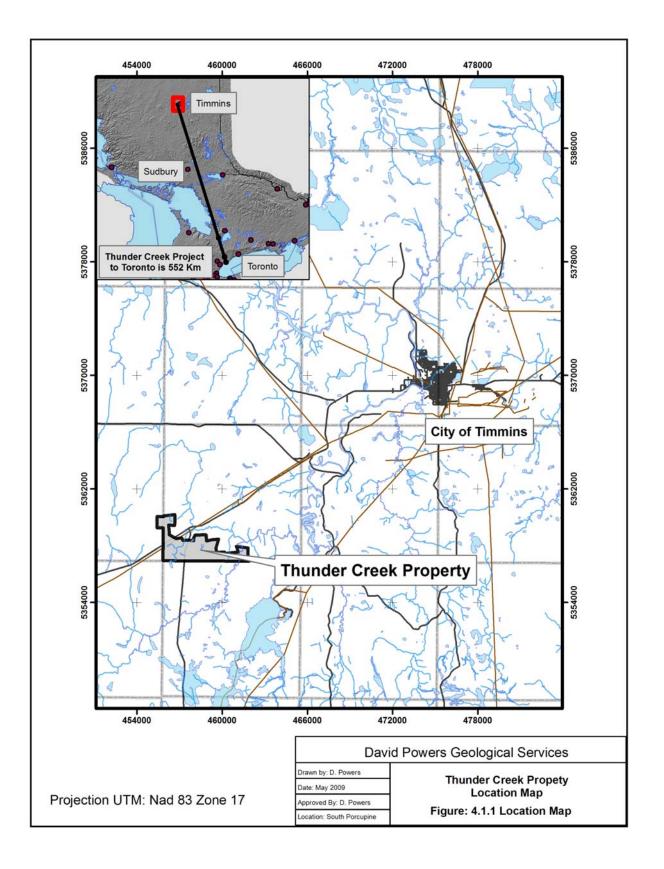
pending accreditation under work number W0960.01052. Each individual claim status was checked on line May 17, 2009 by the author. (<u>http://www.mci.mndm.gov.on.ca/Claims/Cf\_Claims/</u>)

Figure 4.3.1 is a Claim Sketch Map illustrating the claim numbers and boundaries relative to locate topographic and cultural features.

#### 4.4 Recent Ownership History and Underlying Agreements

The staked mineral claims of the Thunder Creek Property are all in good standing with applied assessment credits untill 2011. An assessment work report has been submitted March 25, 2009 and is pending review approval by the mining recorder's office

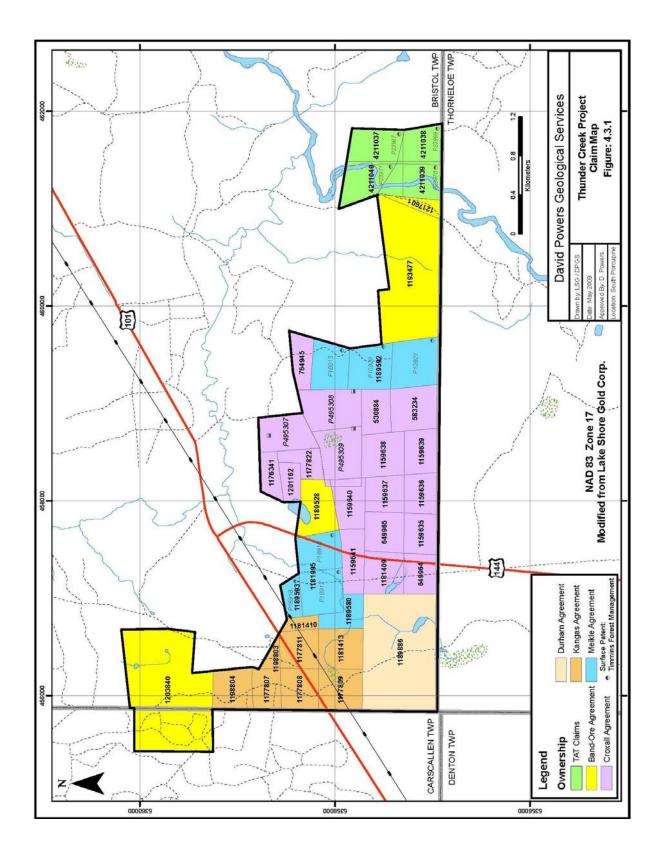
The Thunder Creek Property assembled by Band-Ore Resources Limited prior to the Lake Shore Gold Corp. option is an amalgamation of claim units acquired by staking and option agreement. Claims 1189528,1193477,1201162,1203840 and 1217601 were staked by Band-Ore Resources Ltd. and are not subject to any underling royalty agreements. Mineral claims 4211037, 4211038, 4211039, and 4211040 were acquired by Lake Shore Gold Corp. have no underlying royalties and are subject to the option agreement with West Timmins Mining Inc. (Band-Ore Resources Ltd.) dated November 07, 2003. Mineral claims optioned from Mr. Jim Croxall (Croxall) are subject to a 2% Net Smelter Return ("NSR") royalty. One percent of this royalty may be purchased for a payment of 1,000,000 \$C. These claims are subject to an advanced annual royalty payment of 5,000 \$C until commercial production begins. Claim number 1189886 optioned from Mr. Bruce Durham and partners ("Durham") has a 3.0% royalty attached, with the option to purchase 1 percent for a sum of 1,000,000 \$C. Eight claims optioned from the late Mr. Matt Kangas ("Kangas") (1177807,1177808, 1177809, 1177811, 1181410, 1181413, 1198803, and 1198804) are subject to a 2 percent NSR royalty of which 1 percent may be purchased for 1,000,000 \$C. An advanced royalty payment of 5,000 \$C is paid annually to the estate of Mr. Kangas. Four claims 1189593, 1181995, 1189580 and 1189592 were purchased by Bruce Durham, Robert Duess, Ken Krug and Henry Hutteri from Ray Meikle ("Meikle") and Steve Anderson and then optioned to Band-Ore Resources Ltd. A 3 percent NSR is attached 1.5 percent from Durham et al and 1.5 percent from Meikle and Anderson. There is not a buy down of this royalty. Table 4.4.1, outlines the status of the claims.



#### Table 4.3.1 List of Claims

Owner	Claim #	На	Units	Patent Claims & Ownership	Assessment Date
West Timmins Mining	1159635	16	1		18-Dec-11
West Timmins Mining	1159636	16	1		18-Dec-11
West Timmins Mining	1159637	16	1		18-Dec-11
West Timmins Mining	1159638	16	1		18-Dec-11
West Timmins Mining	1159639	16	1		18-Dec-11
West Timmins Mining	1159640	16	1		18-Dec-11
West Timmins Mining	1159641	16	1		18-Dec-11
West Timmins Mining	1176341	16	1		18-Feb-11
West Timmins Mining	1177807	16	1		13-May-11
West Timmins Mining	1177808	16	1		13-May-11
West Timmins Mining	1177809	16	1		13-May-11
West Timmins Mining	1177811	16	1		13-May-11
West Timmins Mining	1177822	16	1		04-Oct-11
West Timmins Mining	1181409	16	1		14-Feb-11
West Timmins Mining	1181410	16	1		14-Feb-11
West Timmins Mining	1181413	16	1		14-Feb-11
West Timmins Mining	1181995	32	2	P18916 & P18917 – Timmins Forest Management (FSR)	22-Jun-11
West Timmins Mining	1189528	16	1		18-Jun-11
West Timmins Mining	1189580	16	1		08-Jan-11
West Timmins Mining	1189592	48	3	P18913, P10920 & P10921 – Timmins Forest Management (FSR)	19-Jun-11
West Timmins Mining	1189593	16	1	P18918 – Timmins Forest Management (FSR)	22-Jun-11
West Timmins Mining	1189886	96	6		07-May-11
West Timmins Mining	1193477	96	6		04-May-11
West Timmins Mining	1198803	16	1		14-Feb-11
West Timmins Mining	1198804	16	1		14-Feb-11
West Timmins Mining	1201162	16	1		04-Jul-11
West Timmins Mining	1203840	96	6		21-Jul-11
West Timmins Mining	1217601	16	1		26-Nov-11
West Timmins Mining	530884	16	1		10-Oct-11
West Timmins Mining	583234	16	1		10-Oct-11
West Timmins Mining	649964	16	1		25-Mar-11
West Timmins Mining	649965	16	1		25-Mar-11
West Timmins Mining	764945	16	1		19-Apr-11
West Timmins Mining	P495307	19.49	1	West Timmins Mining (LMR)	01-Jun-11
West Timmins Mining	P495308	24.111	1	West Timmins Mining (LMR)	01-Jun-11
West Timmins Mining	P495309	25.297	1	West Timmins Mining (LMR)	01-Jun-11
Original Goup	36 claims	885 ha	54 units		
Lake Shore Gold	4211037	32	2	P23967 – held by City of Timmins (FSR)	02-Jun-14
Lake Shore Gold	4211038	16	1	P23969 – held by City of Timmins (FSR)	02-Jun-14
Lake Shore Gold	4211039	16	1	P23970 – privately held (FSR)	02-Jun-14
Lake Shore Gold	4211040	32	2	P23971 – privatelý held (FSR)	02-Jun-14
Tat Claim Goup	4 claims	96 ha	6 units		
Total	40 claims	981	60 units		

Note: LMR = Leasehold Patent Mining Rights; FSR = Freehold Patent Surface Rights;



				Annual		
Claim			Due	Required	Credits In	Royalty
Number	Units	Recorded	Date	Expenditure	Reserve	То
530884	1	10/10/1980	10/10/2011	\$400	\$ 2,387 *	Croxall
583234	1	10/10/1980	10/10/2011	\$400	\$ 25,004 *	Croxall
649964	1	03/25/1983	03/25/2011	\$400	\$ 229 *	Croxall
649965	1	03/25/1983	03/25/2011	\$400	\$ 29,742 *	Croxall
764945	1	04/19/1984	04/19/2011	\$400	\$ 1,092 *	Croxall
1159635	1	12/18/1990	12/18/2011	\$400	\$ 546 *	Croxall
1159636	1	12/18/1990	12/18/2011	\$400	\$ 24,582 *	Croxall
1159637	1	12/18/1990	12/18/2011	\$400	\$ 12,049 *	Croxall
1159638	1	12/18/1990	12/18/2011	\$400	\$ 1,773 *	Croxall
1159639	1	12/18/1990	12/18/2011	\$400	\$ 1,559 *	Croxall
1159640	1	12/18/1990	12/18/2011	\$400	\$ 61,764 *	Croxall
1159641	1	12/18/1990	12/18/2011	\$400	\$ 805 *	Croxall
1176341	1	02/18/1991	02/18/2011	\$400	\$1,169 *	Croxall
1177807	1	02/18/1991	05/13/2011	\$400	\$0*	Kangas
1177808	1	02/18/1991	05/13/2011	\$400	\$ 312 *	Kangas
1177809	1	02/18/1991	05/13/2011	\$400	\$ 1,637 *	Kangas
1177811	1	02/18/1991	05/13/2011	\$400	\$ 1,403 *	Kangas
1177822	1	10/04/1991	10/04/2011	\$400	\$ 4,296 *	Croxall
1181409	1	02/14/1994	02/14/2011	\$400	\$ 156 *	Croxall
1181410	1	02/14/1994	02/14/2011	\$400	\$ 17,851 *	Kangas
1181413	1	02/14/1994	02/14/2011	\$400	\$ 1,793 *	Kangas
1181995	2	06/22/1992	06/22/2011	\$800	\$ 4,054 *	Meikle
1189528	1	06/22/1992	06/22/2011	\$400	\$ 15,189 *	Band-Ore
1189580	1	01/08/1993	01/08/2011	\$400	\$ 1,013 *	Meikle
1189592	3	06/19/1992	06/19/2011	\$1,200	\$ 28,407 *	Meikle
1189593	1	06/19/1992	06/22/2011	\$400	\$ 624 *	Meikle
1189886	6	05/07/1992	05/07/2011	\$2,400	\$ 53,834 *	Durham
1193477	6	05/07/1992	05/04/2011	\$2,400	\$ 1,793 *	Band-Ore
1198803	1	02/14/1994	02/14/2011	\$400	\$0*	Kangas
1198804	1	02/14/1994	02/14/2011	\$400	\$0*	Kangas
1201162	1	07/04/1994	07/04/2011	\$400	\$ 780 *	Band-Ore
1203840	6	07/21/1995	07/21/2011	\$2,400	\$0*	Band-Ore
1217601	1	11/26/1996	11/26/2011	\$400	\$0*	Band-Ore
4211037	2	06/02/2006	06/02/2014	\$800	\$0	LSG
4211038	1	06/02/2006	06/02/2014	\$400	\$0	LSG
4211039	1	06/02/2006	06/02/2014	\$400	\$0	LSG
4211040	2	06/02/2006	06/02/2014	\$800	\$0	LSG
P495307	1	06/01/1990	06/30/2011		Lease	Croxall
P495308	1	06/01/1990	06/30/2011		Lease	Croxall
P495309	1	06/01/1990	06/20/2011		Lease	Croxall
Totals	60				\$295,843	

Table 4.4.1: Thunder Creek Property, Bristol Township, Claim List (May 17, 2009)

\*Work report approval pending at time of writing (W0960.01052)

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

#### 5.1 Access

The centre of the Property is located within national topography series map reference 42-A-05; at longitude 81.57° west, 48.37° north latitude. UTM co-ordinates for the Property centre projected in NAD 83, Zone 17 are approximately 458,050 metres east, 5,357,923 metres north. Easy, all weather road access to the property is provided by provincial Highways 101 and 144 with bush roads and timber cutting, and diamond drill trail side roads. A major power transmission line traverses portions of the property and provides additional access. The junction of Highways 101 and 144 is located 1.8 kilometres north-west of the Property centre. Figure 4.1.1, Location Sketch, illustrates the Project area relative to the highways, City of Timmins and the City of Toronto.

#### 5.2 Climate

The Thunder Creek Property and the City of Timmins experience a Continental Climate with an average mean temperature range of -17.5°C (January) to +17.4° (July) and an annual precipitation of about 831mm. The following table (Table 5.2.1) summaries the average temperatures and precipitation values for the 15 year period taken from the Timmins Airport between 1971 and 2000.

(http://www.climate.weatheroffice.ec.gc.ca/climate\_normals/index\_e.html)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Temperature													
Daily Average (°C)	-17.5	-14.4	-7.7	1.2	9.6	14.7	17.4	15.7	10.3	4.2	-4	-13.2	1.3
Daily Maximum (°C)	-11	-7.5	-0.9	7.6	16.6	21.7	24.2	22.3	16.1	8.9	0.1	-7.8	7.5
Daily Minimum (°C)	-23.9	-21.3	-14.5	-5.2	2.5	7.5	10.5	9.1	4.4	-0.6	-8.1	-18.7	-4.9
Precipiation													
Rainfall (mm)	2.9	1.6	14.7	26.6	62.7	89.1	91.5	82	86.7	64	29.5	7	558.1
Snowfall (cm)	61.7	40.6	49.9	27.5	6.7	0.4	0	0	1.6	14	45.7	65.4	313.4
Precipitation (mm)	53.9	36.6	59.4	52.8	69.2	89.4	91.5	82	88.3	76.8	69.6	61.9	831.3
Average Snow Depth													
(cm)	58	66	58	25	1	0	0	0	0	0	7	29	20

# Table 5.2.1: Average Temperatures, Precipitation and Snow Fall Depths for the Timmins Area.

Local lakes will start to freeze over approximately mid November, and 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 local economy of Timmins is dominated by the mining and logging industries. With an area of 3,210 square kilometres, Timmins boasts to be one of Canada's largest area municipalities. The 2006 Census indicates the population to be 42,455 persons. The area is serviced from Toronto via Highways 400, 69 to Sudbury; and Highway 144 to Timmins; or Hwy 11 from Barrie to Matheson and 101 westward to Timmins. The Victor M. Powers Airport has scheduled service provided by Air Canada Jazz, Bearskin Airlines and Air Creebec. The Timmins District Hospital is a major referral health care centre for northeastern Ontario.

The Property lies in transected 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.

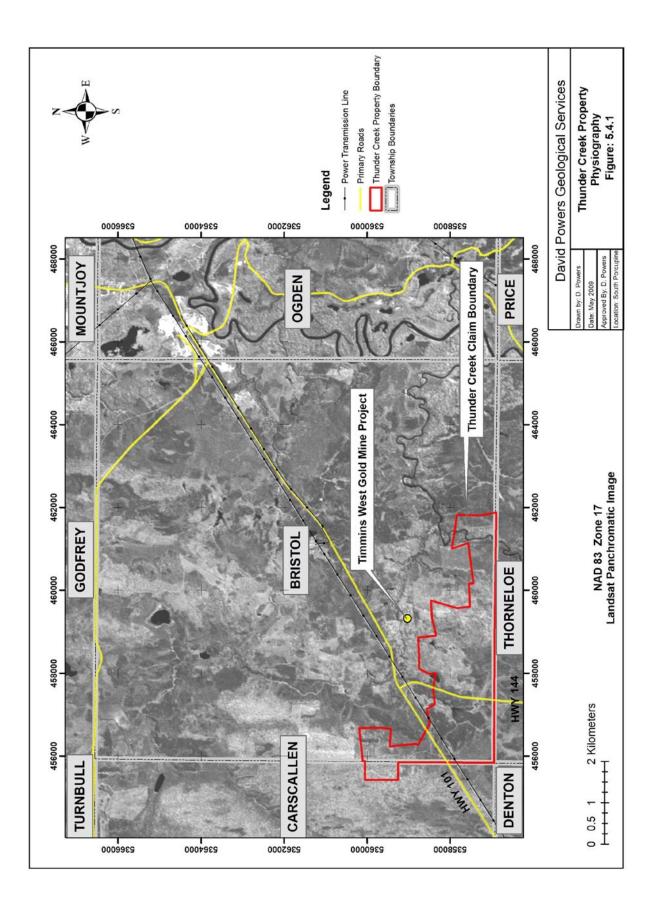
#### 5.4 Physiography

The Property generally exhibits low to moderate relief. A base elevation at the junction of Highways 144/101 is approximately 312 metres. A peak height of land near the property centre rises to an elevation of 351 metres. Thunder Creek ranges in elevation from 298 to 295m. Drainage is southeast across the Property into Thunder Creek which flows into the Tatachikapika River (also known as the Lost or Redsucker River) which flows east-north-east to the northerly flowing Mattagami River. Outcrop exposure is less than five (5) percent. Figure 5.4.1 illustrates the claim boundary of the Thunder Creek property and Bristol Township 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).

(http://www.mnr.gov.on.ca/en/Business/ClimateChange/2ColumnSubPage/268124.html)

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. Portions of the area has recently been tree harvested leaving little timber of commercial value.



#### 6.0 HISTORY

#### 6.1 General History

The north and westward extension of the Temiskaming and Northern Ontario railway, and Niven's survey lines from Cobalt allowed new access for the discoveries of gold near Porcupine Lake. In the early 1900's Mr. E.M. Burwash noted traces of gold in quartz veins along Niven's baseline while he was employed by the Ontario Bureau of Mines (1896), and was an assigned to Niven's survey crew. In 1899 Mr. W.A. Parks, also working for the Ontario Bureau of Mines and attached to Niven's survey crew noted an occurrence of gold in guartz veins along the portage route from the Mattagami River to Night Hawk Lake. He reported "I regard the region south of the trail to Porcupine Lake as giving promise to the prospector" (Burrows, A.G., 1911, 1915; Dunbar, R., 1948). While prospecting for the Algoma Central Railway (1901) Mr. Charles Camsell worked on a vein occurrence returning low grade gold. This property would become part of the Hollinger Mine. In 1907 the Temiskaming and Northern Ontario Railway reached Nellie Lake (Iroquois Falls). These gold discoveries helped create interest in the Porcupine area and began a rush that defined the Porcupine Gold Camp. Mr. A.G. Hunter in 1908 staked claims along the east shore of Porcupine Lake protecting a native gold showing associated with a shear zone occupied with guartz and schist. 1909 was a year of major discoveries of the Vipond, Dome and Hollinger mines.

Niven's 1899 baseline forms the northern boundary of Bristol Township with Godfrey Township. Access to the Thunder Creek Project area was limited in the early 1900's to: a winter road from Mattagami Heights (Timmins) north and west of the Mattagami River; river access to Bristol Landing situated on township boundary of Bristol and Ogden; and a wagon road across Bristol Township passing the Timmins West Property, Thunder Creek and the Thunder Creek Property. The Mattagami River provided access to Thorneloe Township and the Wawaitin Falls area. The river at Wawaitin Falls had a 35 metre (116 feet) descent and was dammed giving rise to Mattagami Lake and a hydro power generating facility to supply a portion of the Hollinger Mine power requirements. The transmission line and tote road would provide access to Thorneloe and the south-eastern portion of Bristol Townships.

The discovery of gold in Bristol Township on the McAuley-Brydge property (currently Lake Shore's Timmins West Gold Property) occurred in 1911. The 1912 geology map (arm21a) by A.G. Burrows and W.R. Rogers illustrated three claims (TC 612, TC613, TC614) at the McAuley-Brydge occurrence plus four claims west of the Rusk occurrence (HR 1187, HR1188, HR1189 and HR1191). 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, North Dome, were entirely destroyed. South Porcupine, parts of Pottsville and the North Part of Porcupine were also destroyed. (Burrows, A.G., 1915, Hawley, J.E., 1926).

Ontario government geological mapping and report publications for Thunder Creek – Bristol Township area include documentation by A.G. Burrows (1910, 1911, 1912, 1915) for the Ontario Bureau of Mines; J.E. Hawley (1926) for the Ontario Department of Mines; and S.A Ferguson (1957) for the Ontario Department of Mines. Recent Geological Survey of Ontario publications include: Ms. C. Vaillancourt (2000, 2001) OFR6032.004 "New Geological Mapping and Compilation in the Timmins West Area – Bristol and Ogden Townships and a Preliminary Precambrian Geology Map "Timmins West-Bristol and Ogden Townships (P3436)". In 2003, Ms. C. Vaillancourt and Ms. L.A.F. Hall completed miscellaneous release data ("MRD") 123, lithogeochemical data for the West Timmins Area. Ferguson's map, "Bristol Township – 1957-7" remains the standard base geology for the township.

Historical "T-Files" assessment reports have been reviewed at the Ministry of Northern Development and Mines' ("MNDM") office at the Ontario Government Complex, Highway 101 East, Timmins (Porcupine), Ontario; and Assessment File Research Imaging ("AFRI") at: <u>www.geologyontario.mndm.gov.on.ca/</u>. Table 6.0.1 and Table 6.0.2 list the report files with information which add to the geological interpretation of the Thunder Creek Property, plus surrounding area. It should be noted that recently submitted assessment files are not in the AFRI system as there is a lag in scanning and posting the submitted assessment reports to the AFRI pdf files to the web site.

Significant historical work has been well summarized by: Cavey, G., 2002, 2004, 2006; Darling, G., et al., 2007; Ferguson, S.A., 1957; Hocking, M., and Marsden, H., 2004; Samson, J., 2005, 2008, 2009; Sullivan J.R., et al., 2007; Wagner, D.W., 2008; and Winter, L.D.S., 2004, 2006.

A few chronological highlights of exploration activities surrounding and including the Thunder Creek Property are:

- **1941** Rusk Porcupine Mines
  - Several pits and trenches across a 150 to 200 metre area;
  - Eighteen diamond drill holes (1981m);
  - Discovery pit was 1.2m x 1.2m and returned a value of \$24.85 over 121.9cm, \$15.05 over 76.2 cm and \$8.41 over 91.4 cm (T-File 542).
- **1958** Hollinger Mines Ltd.
  - 7 diamond drill holes completed in the northern portion of the property;
  - No assays were reported.
- **1980** Falconbridge Nickel Mines Ltd.
  - Metallurgical analysis of sample provided by Jim Croxall for the Thunder Creek Property.
- **1981** Preussag Canada Limited
  - Geophysical surveys in Bristol and Thorneloe Townships include magnetometer, VLF-EM, HLEM and Induced Polarization ("IP");
  - 10 diamond drill holes (613.9m);
  - Adjacent holes 64 metres apart intersected 2.57 grams gold per tonne 2.43m, and 4.46 g/tonne gold over 4.6m in an area of the Rusk Showing.

**1984-5** Noranda Exploration Company Ltd. (NPL)

- Completed a regional airborne geophysical survey with flight lined flown in 2 directions;
- Geological mapping, humus geochemical sampling, outcrop mechanical stripping and trenching;

- Best assays returned in the trenching were 2.86 g/tonne Au and 5.54 g/tonne Au;
- 9 overburden, reverse circulation drilling and 3 diamond drill holes (332.3m) were also completed with no assay results reported.
- **1987** Highwood Resources Ltd.
  - Option property from J. Croxall;
  - 4 diamond drill holes (400m) targeting geophysical targets;
  - No assay results are reported.
- **1994** Noranda Exploration Company Ltd. (NPL)
  - Line cutting, ground geophysical surveys include magnetometer and IP;
  - A single diamond drill hole (302m) with no assay results reported.
- **1995** Hemlo Gold Mines Inc.
  - Hemlo Gold Mines fund project and work is carried out by Noranda Exploration Company Ltd. (NPL);
  - Surveys include line cutting, magnetometer and IP;
  - 7 diamond drill holes 95-2 to 95-8 (1581m) with no significant assays reported.
- **1996** Band-Ore Resources Ltd.
  - Make gold discoveries and renew gold exploration in Bristol and Thorneloe Townships.
- **1997** Battle Mountain Canada Limited
  - Line cutting and geophysical surveys include magnetometer and IP
  - 14 diamond drill holes ("ddh") (3547m) testing stratigraphy and geophysical targets;
  - In ddh MC 97-20 an assay returned the value of 5.9 g/tonne Au over 1.0m. In ddh MC 97-26 there is a 2 metre interval of 1.28 g/tonne Au along with a couple of scattered intervals on a metre and similar 1 gram values.

2003 to Present Lake Shore Gold Corp.

- Option the Thunder Creek Property from Band-Ore Resources Ltd. in 2003;
- Complete a 3 phase, 25 diamond drill holes (8,399m) targeting the Rusk Zone, the ultra mafic complex, and various structures (2004);
- complete a MMI (mobile metal ion) soil geochemical survey (2004);
- complete a reconnaissance bed rock mapping program (2004);
- initiate outcrop mechanical stripping and hydro washing and saw channel sampling program of 2 locations in the area of the Rusk occurrence (2004);
- additional outcrop stripping and power-washing and saw channel sampling at 3 locations (2006);
- Complete a phase 4 diamond drill program of 25 drill holes (13,760m) (2008-2009);

- Lake Shore fulfilled the terms of the option agreement and own 60% of the Thunder Creek Property;
- In 2009 the Thunder Creek Project develops into and advanced, systematic, mineralization, sectional diamond drill definition stage project with phase 5 drilling currently in progress.

Regional airborne geophysical surveys have been completed by Texasgulf Inc., Noranda Exploration Company Limited (NPL), Chevron Minerals Limited, Band-Ore Resources Limited, Explorers Alliance Corporation, INCO, the Porcupine Joint Venture (Placer Dome and Kinross) and Lake Shore Gold Corp for the Timmins West Gold Project area only. Not all of these surveys are in the public domain.

# Table 6:1:1: List of "T-file" Assessment Reports for the Thunder Creek Property and Surrounding Area.

"T" File Number	Period of Work	Company / Individual
12	1941	O'Shea, P.
105	1941-42	Orpit Mines
105	1957	Stanwell Oil and Gas Ltd.
105	1945	Orpit Mines
105	1938	McCauley-Brydge/Orpit Mines
105	1933-1934	McCauley-Brydge Claims
105	1938-1955	Piccadilly Porcupine
105	1939	Orpit Mines
105	1946, 1955	Piccadilly Porcupine
285	1911, 1957	Milroy-Wilson-Harris-Paul Group
542	1941, 1957	Rusk Porcpine Mines Limited
556	1958-1959	Hollinger Consolidated Gold Mines Ltd.
620	1949,1958-60.	Haywood Property
760	1938	Porcupine Pioneer Syndicate
770	1941	O'Neill Property
842	1968, 1979-83	Holmer Gold Mines Limited
842	1980	Ontario Research Foundation
842	1984	Noranda Exploration Company Limited
1532	1973	Mill Hill Mines
1647	1974-75	Thomas, H.
1654	1974	Campsall, C.R.
1941	1979-85	Texasgulf Canada Limited/Kidd Creek Mines Limited
1950	1979-88	Croxall, J., Croxall, J & Miller D.
2378	1981	Pressuag Canada Limited
2618	1987-89	Chevron Minerals Limited / Chevron Canada Resources Limited
2645	1984-88	Noranda Exploration Company Limited
2890	1987	Esso Resources Canada Ltd.
2913	1984-1992	Croxall, J.; Noranda Exploration Company Ltd.; Band-Ore Resources Ltd.
2927	1984-86	Utah Mines Limited.
3246	1994-96	Hemlo Gold Mines Inc.
3317	1987-89	Cheveron Minerals Limited
3616	1996-97	Band-Ore Resources Ltd.
3718	1995	Hemlo Gold Mines Inc.
3908	1997	Battle Mountain Canada Ltd.
3932	1997	Battle Mountain Canada Ltd.
4440	1999	Prospectors Alliance Corporation
4516	1999	Prospectors Alliance Corporation
4787	2002	Band-Ore Resources Ltd.
5249	2003-2005	Band-Ore Resources Ltd.
5371	2004	Lake Shore Gold Corp.
5515	2005	Pelangio Mines Inc.
5684	2006	Lake Shore Gold Corp.

# Table 6:1:2: List of "AFRI" Reports for the Thunder Creek Property and Surrounding Area.

AFRI No.	Year	Author	Company
42A05NE8454	1958	Jones, W.A.	Hollinger Mines Ltd.
42A05NE8477	1958	Robinson, G.D.	Hollinger Mines Ltd.
42A05NE8650	1965	Dionna, R.J.	United Buffadison
42A05NE8500	1969	Holmer Gold Mines Ltd.	Holmer Gold Mines Limited
42A05NE8475	1973	George, P.T.	Holmer Gold Mines Limited
42A05NE8495	1973	Bradshaw, R.J.	Holmer Gold Mines Limited
42A05SE0024	1973	Bradshaw, R.J.	Mill Hill Mines Limited
42A05SE0025	1973	Kilpatrick, J.M.	Mill Hill Mines Limited
42A05NE8449	1974	Allan, J.E.	Ducanex Resources
42A05NE8463	1974	Bradshaw, R.J.	Shield Group - Campsall
42A05NE8436	1975	George, P.T.	Geonex Limited (Ralph Allerston)
42A05NE8435	1977	Perry, J.	Canadian Nickel Company
42A06NW8471	1977	Webster, B.	Ralph Allerston
42A06NW8431	1977	Webster, B.	Canadian Nickel Company
42A05NE8439	1978	Bradshaw, R.J.	Holmer Gold Mines Limited
42A05NE8494	1978	Bradshaw, R.J.	Holmer Gold Mines Limited
42A05NE8447	1979	Croxall, J.E.	Croxall-Miller
42A05NE8457	1979	McLeod, C.C.	Texasgulf Inc.
42A05NE8479	1979	Mullen, D.	Texasgulf Ltd.
42A05NE8460	1980	Holmer Gold Mines Ltd.	Holmer Gold Mines Limited.
42A05NE8430	1980	Muir, J.E.	Jim Croxall
42A05NE8478	1981	Chataway, R.T.	Preussag Canada Limited
42A06NW8486	1981	Gasteiger, W.A.	Texasgulf Inc.
42A06NW0042	1981	Gasteiger, W.A.	Texasgulf Inc.
42A05NE8464	1981	McLeod, C.C.	Texasgulf Inc.
42A06SW0206	1981	Warren, T.E.	Preussag Canada Limited
42A05SE0010	1984	Lebaron, P.S.	Noranda Exploration Company Limited
42A05NE8473	1984	Benham,	Rio Algom Exploration Inc.
42A05NE8491	1984	Diorio, P.	Utah Mines Ltd.
42A05NE8489	1985	Barnett, E.S.	Kidd Creek Mines Ltd.
42A05SE0001	1985	Lebaron, P.S.	Noranda Exploration Company Limited.
42A05NE8456	1985	Diorio, P.	Utah Mines Ltd.
42A05NE8498	1985	Deevy, A.J.	Westfield Minerals Limited
42A06NW8423	1986	Klein, J.	Cominco Ltd.
42A06NW8426	1986	Newsome, J.W.	Utah Mines Ltd.
42A05NE8705	1987	Glenn, W.E.	Chevron Canada Resources Ltd.
42A05NE8428	1987	Bald, R.	Highwood Resources
42A06NW8427	1987	Hendry, K.N.	Cominco Ltd.
42A05NE8432	1987	Hiava, M.	R. Allerston
42A06NW8424	1987	Moore, D.	Cominco Ltd.
42A05NE8492	1988	Roth, J.	Chevron Canada Resources Ltd.
42A05NE8459	1988	Fumerton, S., Clark, D.	Chevron Minerals Ltd.
42A05NE8490	1988	Fumerton, S., Clark, D.	Chevron Minerals Ltd.
42A06NW0317	1988	MacPherson	Esso Minerals Canada
42A05NE8648	1989	Clark, D.	Chevron Minerals Ltd.
42A05NE8649	1989	Manchuck, B.	Chevron Minerals Ltd.
42A06NW8429	1989	Van Hees, E.H.	Cheveron Minerals Ltd.
42A05NE8488	1992	Croxall, J.E.	Croxall-Miller
42A05NE0070	1994	Meikel, R.J.	Band-Ore Resources Ltd.
	1004		Bang Oro Robourood Eta.

AFRI No.	Year	Author	Company
42A05NE2062	1994	Meikel, R.J.	Band-Ore Resources Ltd.
42A05NE8701	1994	Meikel, R.J.	Band-Ore Resources Ltd.
42A05NE0075	1994	Calhoun R.	Noranda Exploration Company Limited
42A05NE0081	1994	Daigle, R.J.	Noranda Exploration Company Limited
42A05NE0083	1994	Daigle, R.J.	Noranda Exploration Company Limited
42A05SE0011	1994	Daigle, R.J.	Noranda Exploration Company Limited
42A05NE0079	1994	Anderson, S.D.	R. Poirier
42A05NE0080	1995	Daigle, R.J.	Hemlo Gold Mines Inc.
42A05NE0084	1995	Calhoun R.	Hemlo Gold Mines Inc.
42A05NE0085	1995	McCann, S.	Hemlo Gold Mines Inc.
42A05NE0087	1995	McCann, S.	Hemlo Gold Mines Inc.
42A05NE0092	1995	Meikel, R.J.	Pelangio Larder Mines Limited
42A05NE0077	1995	Mackenzie, C.D.	R. Allerston
42A05NE0078	1995	Anderson, S.D.	R. Poirier
42A05NE0095	1996	Burns, J.	Copper Dome Mines
42A05NE0165	1996	Anderson, S.D.	Marl / Pelangio Larder J.V.
42A05NE0167	1996	Begauskas, J., Vamos, P.J.	Prospectors Alliance Corp.
42A05NE0131	1997	Daigle, R.J.	Band-Ore Resources Ltd.
42A06SW0025	1997	Daigle, R.J.	Band-Ore Resources Ltd.
42A06NW0042	1997	Duess, R.	Sedex Mining Corp. / Band-Ore Resources Ltd.
42A05NE0169	1997	Calhoun R., Edwards, J.	Battle Mountain Gold
42A05NE2007	1997	Calhoun R., Edwards, J.	Battle Mountain Gold
42A05NE0104	1997	Grant, J.C.	Copper Dome Mines
42A05NE0158	1997	Grant, J.C.	Pelangio Larder Mines Limited & Copper Dome Mines Ltd.
42A05NE0168	1997	Filo, J.K.	Pelangio Larder Mines Limited & Copper Dome Mines Ltd.
42A05NE2018	1997	Legault, J.M.	Prospectors Alliance Corp.
42A06NW8485	1997	Perry, J.	Canadian Nickel Company Limited
42A05NE2001	1997	Webster, B.	Prospectors Alliance Corp.
42A05NE2019	1998	Calhoun R.	Falconbridge Ltd./ Explorers Alliance Corp.
42A05NE2012	1998	Vamos, P.J.	Prospectors Alliance Corp.
42A05NE2034	1999	Calhoun, R.	Prospectors Alliance Corp.
42A05NE2030	2000	Calhoun, R.	Falconbridge Ltd./ Explorers Alliance Corp.
42A05NE2037	2000	Johnston, M.	Mike Caron
42A05NE2049	2003	Anderson, S.D.	R. Poirier
42A06NW2026	2001	Calhoun, R.	Explorers Alliance Corp.
42A06NW2046	2004	Grant, J.	Probe Mines Limited

# Table 6:1:2: List of "AFRI" Reports for the Thunder Creek Property andSurrounding Area. (continued)

#### 7.0 GEOLOGICAL SETTING

#### 7.1 General Geological Setting

The earliest reports of the geology for the Timmins and Thunder Creek area are from Ontario government geologist: Burrows (1910, 1911, 1912), Hawley (1926), Ferguson (1957, 1968) and Pyke (1982), supplemented by contributions by Brisbin (1997), Grey, (1994), Melnik-Proud (1992) and van Hees (2000) for their Doctor of Philosophy degrees. Described in these documents are the contributions made by government and mine geologists to detail the evolution of the stratigraphic understanding for the Porcupine Gold Camp. Highlighted herein is a chronological bullet summary of significant observations and interpretations.

- 1896, Burwash assigned Precambrian volcanic and sedimentary rocks of the Timmins area to Huronian defined by Logan in 1847.
- 1911, 1912, 1915, 1925, Burrows maps and produces the first geological map of the Porcupine Camp and made his stratigraphic nomenclature consistent with relationships observed by Lawson (1913) for Lake of the Woods, as well as Miller and Knight (1915) in the Lake Timiskaming area.
- 1925, Burrows established that younger Timiskaming Series of sedimentary rocks unconformably overly the Keewatin Series volcanic rocks. He identified porphyry dykes and stocks and the granitoid plutons in the surrounding area as being Algoman, and post Timiskaming. The observation that Keweenawan olivine diabase dykes crosscut Matachewan quartz diabase was made at this time.
- 1933, Graton et al proposed a subdivision for Keewatin volcanic rocks in Tisdale Township. The subdivision included, from oldest to youngest, the Northern, McIntyre, Central, Vipond, and Gold Centre Series. The name "99 Flow" was applied to a massive flow at the base of the Vipond Series.
- 1936, 1939, Hurst noted sedimentary rocks in the Timmins area occur both overlying and underlying an angular unconformity. He places the rocks above the unconformity into the Timiskaming Series and assigns the sediments below the unconformity to the Keewatin Series. Porphyries are interpreted to be subvolcanic stocks emplaced into volcanic vents from which the felsic volcaniclastics were erupted.
- 1944, Holmes interpreted the porphyries to post date Keewatin volcanic rocks and Timiskaming sedimentary rocks.
- 1948, Jones, while working at the Hollinger Mine, presented a more detailed classification modified after Graton (1933). Jones introduced the alphanumeric names to the lithological units (e.g. V8E); gave formation status to the Northern, Central, and Vipond Series; and renamed the "McIntyre Series" the "95", assigning the flows to the base of the Central Formation.

- 1948, Buffam adapts Jones' Hollinger Mine terminology at the Moneta Mine and adds the term Krist Fragmental and describes the unconformity at the base of the Krist that separates it form the Tisdale Group mafic volcanic flows.
- 1948, Dunbar distinguishes two groups of Keewatin volcanic rocks in the Timmins area and names them Deloro Group and Tisdale Group. He discriminates the Krist Formation from the underlying Tisdale Group and places it into the Hoyle Series.
- 1954, Moore included the Krist Formation with the Timiskaming Group and placed the unconformity between Keewatin and Timiskaming rocks at the base of the Krist. Burrows (1911) presented the same interpretation.
- 1954, Fuse applied Jones' (1948) terminology of the Tisdale Group to rocks exposed at the McIntyre Mine.
- 1960, Griffis, at the McIntyre Mine, establishes the most detailed subdivision of the Tisdale Group.
- 1968, Ferguson et al., attempt to correlate the stratigraphy of the Timmins Camp. They assign the Krist Fragmental to the uppermost formation in the Tisdale.
- 1974, Pyke subdivided the Deloro and Tisdale Groups, based upon major • oxide geochemical classification of volcanic rocks as per Jensen Cation Plot (Jensen, 1976) His nomenclature divided the two groups into six formations. Numbers I through III are within the Deloro Group and numbers IV through VI are within the Tisdale Group. The Deloro is largely a calc-alkaline sequence approximately 14760 to 16400 feet (4500 to 5000m) thick and is composed mainly of flows of andesite and basalt in the lower part, and dacitic flows and dacitic and rhyolitic pyroclastic rocks toward the top. Iron formation is common at or near the top of the group. Most of the Deloro Group is confined to a large domal structure in the east central part of the area. A major change in volcanism marks the beginning of the Tisdale Group. The base formation consists largely of ultramafic volcanic rocks and basaltic komatiites. This in turn is overlain by a thick sequence of tholeiitic basalt. The uppermost formation is largely volcaniclastic and has a calc-alkaline dacite composition. The total thickness of the Tisdale Group is about 13120 feet (4000m), (Pyke, 1974).
- 1975, Lorsong subdivided the Porcupine Group into Whitney, Beatty, Dome and Three Nations Formations.
- 1976, Pyke renamed the six formations from youngest as Donut Lake, Redstone, Boomerang, Goose Lake, Schumacher and Krist. He assigns all sedimentary rocks to Formation VII, the sole unit of the Porcupine Group, which he considers to be a time equivalent, or the upper Deloro and the entire Tisdale Groups.

- 1978, Pyke renamed the Tisdale and Deloro Groups the Upper and Lower subgroups and raised formations I through VI to group status. This terminology did not receive acceptance with subsequent workers (Brisbin, 1997)
- 1986 (Frarey and Krough), 1987 (Mortensen), 1989 (Corfu et al) post U-Pb zircon age dates for intrusives and selected volcanics in the Timmins area.
- 1988, Mason et al., suggest that the highly fractured centres which hydrothermal fluids and gold mineralization subsequently accessed were prepared at the time of porphyry emplacement. Fracturing and brittle faulting generated prior to porphyry intrusion during one or more magmatic tumescence. Eruption of Krist Formation pyroclastic rocks, and Keewatin folding and faulting, may have initiated ground preparation and localized magmatic and hydrothermal activity.
- 1991, Jackson and Fyon define a lithostratigraphic association of rock units • within the Western Abitibi Subprovince within the boundaries of 55 tectonic assemblages. An assemblage is defined as stratified volcanic and / or sedimentary rock units built during a discrete interval of time in a common depositional or volcanic setting. A four stage evolutionary model was suggested for the southern Abitibi greenstone belt. 1) Formation of submarine oceanic assemblages in a regional complex micro-plate interactions, perhaps caught between two larger converging plates located north and south of the micro-plate region. 2) Termination of submarine volcanism by collision of a large continental mass to the south at ~2700 Ma. The collision may have been oblique, involving the 2.8 to 3.0 billion year old Minnesota River Valley 3) Tectonic thickening during collision led to emergent gneiss terrane. sediment source area(s) for post ~2700 Ma turbidite deposits, including both local deposits and a massive sedimentary accretionary wedge. As collision continued, previously formed volcanic and turbidite deposits, including the Pontiac Subprovince were deformed. Terminal subduction, possibly involving complex plate interactions at 2685 to 2675 Ma, generated alkalic volcanic rocks and alluvial -fluvial sediments in proximity to crustal -scale shear zones (Jackson and Fyon, 1991)
- 1992, Melnik-Proud interprets the gold bearing quartz-carbonate-albite veins to not only be spatially, but temporally and genetically associated with albite dykes in the Hollinger –McIntyre complex
- 1997, Brisbin defines the Krist as a formation within the Hoyle Group. He proposes and assigns a new lithostratigraphic unit "the Hersey Lake Formation". This unit is composed of intercalated ultramafic and mafic flows that comprise the base of the Tisdale Group in the core of the North Tisdale Anticline. Correlative flows are exposed in the south, on the Delnite, Aunor, and Buffalo Ankerite mine properties. The upper contact of the Hersey Lake Formation is defined as the upper contact of highest ultramafic flow in the Tisdale Group (Brisbin, 1997)

- 2000, Ayer et al., with the aid of additional re-mapping and geochronological data have reinterpretation of the Tectonic Assemblages, reducing the 55 assemblages to 7 volcanic assemblages and 2 sedimentary assemblages. Presently the assemblages are interpreted as autochthonous not allochthonous. Geochemistry of the volcanic units indicates an interaction between plume and subduction zone melts. Porcupine assemblage is interpreted to be the result of submarine turbidite fans that are coeval with batholith emplacement, regional folding and collision with Opatica Subprovince. The Timiskaming assemblage is believed to be the result of subaerial alluvial fan-fluvial sedimentation associated with continental arc magmatism.
- The Discover Abitibi Initiative, Ayer et al., from 2002 to the present has brought the talents of individuals, geologists, prospectors, the mining industry, the Ontario Geological Survey, and the Geological Survey of Canada to the Timmins - Kirkland Lake Gold Camps to assess the fundamental architecture and processes which were responsible for the gold and base metal endowment. The products of this initiative have not been fully realized as the refined, higher resolution airborne geophysical electromagnetic and magnetic surveys, seismic survey, gravity survey, lithogeochemistry and additional age dating is providing tools that will modify historical interpretations.
- Lake Shore Gold's geologists recognize the significance relationship a tectonic zone intruded by an alkali intrusive complex ("AIC") and gold mineralization at the Timmins West Gold Property and then apply this knowledge beyond the Timmins West Property boundaries.

#### 7.2 Regional Geology and Structure

Supracrustal rocks in the Timmins region are assigned as members of nine (9) tectonic assemblages within the Western Abitibi Subprovince, of the Superior Province. The seven volcanic and two sedimentary assemblages are of Archean age. Intrusions are emplaced at Archean and Proterozoic times. Tectonic Assemblages of the Eastern Abitibi Subprovince, Figure 7.2.1, after Ayer J.A., Dube, B., and Trowell, N.F. (2009), illustrates the locations of these assemblages. Table 7.2.1, is modified after Ayre (1999, 2000, 2003) and summarizes the characteristics of the assemblages, from youngest to oldest.

Figure 7.2.2, The Southern Abitibi Time Line diagrams the time relationship of these assemblages. Significant ore deposits have been positioned on the time line as per Lucas and St-Onge (1998).

There is a 55 Ma year time span between the volcanic eruption of the lower Pacaud Assemblage (2735 Ma) to the sedimentation and volcanism of the upper Timiskaming Assemblage (2680 Ma). Each of the assemblages demonstrates a melt evolution from Komatiitic or Tholeiitic Basalt to Felsic or Calc-alkaline volcanics. Within the immediate Timmins area only the Deloro (2730 - 2724 Ma (6 Ma)), Kidd-Munro (2719 - 2711 Ma (8 Ma)), Tisdale (2710 - 2703 Ma (7 Ma)), Porcupine (2690 - 2680 Ma (10 Ma)), and Timiskaming Assemblages (2680 - 2670 Ma (10 Ma)) are present. Revised age dates for

the Porcupine assemblage indicate the felsic volcanism of the Krist Formation is coeval with the calc-alkalic felsic porphyries in Timmins (2692+/-3 to 2688+/-2 Ma).

Figure 7.2.3: The Regional Geology locates the property relative to the regional geology.

Rhys, (2003) describes the regional penetrative structures of the Timmins area as being constrained between 2700 Ma and 2670 Ma, and are characterized by pre-metamorphic folds (D1) to a sequence of syn-metamorphic folding events (D2 and D3) which overprint D1 folds. The D1 event is multiphase, recorded by truncation of folds at the unconformable base of the Krist-Porcupine sequence. The Destor Porcupine Fault Zone ("DPFZ") accounts for two stages of deformation: 1) an episode of syn-Timiskaming (2680 to 2677 Ma) brittle faulting which truncates D1 folds and created the basins for Timiskaming sedimentation, and 2) a phase of syn-metamorphic D2-D3 shear zone development, which is represented a band, generally several hundred metres wide, of highly strained rock. The syn-metamorphic D2-D3 events are often characterized by west-northwest trending foliations, steeply dipping stretching and intersection lineations, and shear zones. The displacement along the DPFZ in the Timmins area is sinistral.

A compilation of geochronology age dates for the Southern Abitibi sub province from various sources: Easton, 2000; van Hees, 2000; Anglin, 1992; Melnik-Proud, 1992 and Lucas, St-Onge, 1991 is selectively summarized in Table 7.2.2, A Simplified Sequence Of Geological Events For The Timmins Camp (after Melnik-Proud, 1992).

#### 7.3 Property Geology

All volcanic and sedimentary rocks underlying the Thunder Creek property have been metamorphosed. The degree of metamorphism varies from upper greenschist to lower amphibolite facies. Mineral alteration assemblages include: chlorite, sericite, carbonate, albite, quartz, and iron-oxides. A mafic volcanic suite belonging to the Tisdale assemblage (2710-2703 Ma) occurs in the central portion of the property and trends in a northeast-southwest direction. Stratigraphically overlying, but now overturned, the mafic volcanics are clastic, turbiditic sediments of the Porcupine Assemblage (2690 to 2680 Ma). A poly-phase alkalic intrusive complex (AIC) intrudes within the South West Shear Zone and is discordant to both the mafic volcanic and sedimentary rock lithologies. Barrie (1992) dates two garnet fractions and one titanite fraction from a garnetite dyke phase of the intrusive at 2687+/-3 Ma. The contact zone of the mafic volcanics-alkalic intrusion-sediments is central to the property and displays a S-shaped deflection and strikes northeast toward the Timmins West Gold Project (Samson, J., 2009). A quartzfeldspar porphyritic monzonite stock and numerous smaller related dykes (2687+/- 1.4 Ma; Ayer et al., 2003) have intruded the sedimentary sequence in the southeast portion of the property. Several Proterozoic diabase dykes of the Matachewan Swarm cross-cut all lithologies in a north-south direction.

Geological mapping was surveyed by Michael Mocking, and Jacques Samson, under the direction of Henry Marsden, Senior Project Manager.

Samson (2008) describes the rock types mapped on surface mapping and intersected in diamond drill core as follows:

#### Rock Type 1: Mafic Volcanic Rocks: (Tisdale Assemblage)

The mafic volcanic rocks are fine-grained, medium-green, and generally occur as pristine massive to pillowed flows and flow breccias. They are commonly epidotized and carbonatized (calcite). Fine disseminated to blebby magnetite is quite common, particularly proximal to the alkalic complex, where the rocks become fine-grained and darker, partly chloritized, locally hematized.

#### Rock Type 2: Sedimentary Rocks: (Porcupine Assemblage)

The sedimentary sequence consists mainly of massive to poorly bedded quartz and feldspar lithic greywacke units, locally interbedded with siltstone to argillaceous units. In the footwall to the AIC, along a southwest trending shear zone (SWSZ) and along the east-west structural zone (EWSZ), the sediments are sheared into a quartz-sericite-carbonate-hematite schist, which locally displays crenulation fabrics.

#### **Rock Type 3: Alkalic Intrusive Complex:**

The alkalic intrusive complex (AIC) is poorly exposed. It has a very strong magnetic signature which the geophysical interpretation indicates that it extends northeasterly for at least 2 kilometres across the central portion of the Thunder Creek Property, and onto the Timmins West Gold Property to the north. The AIC intrudes along the contact between the volcanic and the sediments. The magnetic trend becomes distorted and exhibits an offset or folded character when intersected by several interpreted structures. The AIC is a poly-phase and vari-textured intrusion, of contemporaneous age with the Timmins Porphyry suite (Pearl Lake 2689 Ma, Millerton 2691 Ma, Crown 2688 Ma, and Paymaster 2690 Ma; - Barrie 1992), and is also of similar age as the Bristol Lake Quartz-Feldspar Porphyry in the eastern portion of Bristol Township (2687 +/- 1.4 Ma; Ayer 2003). The intrusive shows at least three texturally and mineralogically distinct phases: i) a fine- to coarse-grained pyroxenite; ii) a biotite-pyroxenite; and iii) a porphyritic garnet syenite. The fine to coarse grained pyroxenite is strongly magnetic, and consists of greater than 85% pyroxene (diopside), with variable amounts of accessory biotite+magnetite+rutile+apatite, and interstitial calcite (Miller, 2004). The intrusive is partially exposed at the Rusk Showing, and displays pegmatitic primary layering as well as cumulate-like textures. The pyroxenite locally grades into a biotite-rich phase (possible lamprophyric affinity), characterized by the presence of large biotite "clots" and books (poikilitic biotite) up to several centimeters across. In places, "sweats" and dykes containing 40 to over 75% dark brown to black melanite garnets (up to 1cm across) are noted, contained fine-grained within and leucocratic matrix consisting of а plagioclase+orthoclase+biotite+carbonate +apatite+titanite (Miller 2004). The different phases sometimes exhibit clear yet irregular contacts, and sometimes appear to be transitional. Numerous "monzonitic" to "syenitic" dykes are noted throughout the main body of the pyroxenite and also within the volcanic rocks. It is not clear if these phases are genetically related to the AIC or to the monzonite stock located in the southern portion of the property.

#### Rock Type 4: Quartz Feldspar Porphyry:

The quartz-feldspar porphyritic monzonite consists of a nearly circular intrusion in excess of 500m across, expressed by a distinct topographic high in the lower-middle portion of the property. The intrusive consists of 10-40% quartz eyes and

10-20% tabular feldspars (commonly zoned and occasionally up to 3cm across), contained within fine-grained pinkish-grey groundmass. Salmon pink to brick-red (interpreted as being hematized) and generally aphyric felsic dykes are commonly observed within shear zones hosted by the sediments. These dykes possibly relate to the monzonite stock.

Figure 7.3.1, Property Geology, locates the outcrop, showings, and rock types relative to the Thunder Creek claim boundaries and local access.

Figure 7.3.2, Sample Locations, positions the 2004 rock sample locations relative to the property geology.

#### 7.4 Structural Geology

There is less than five (5) percent outcrop exposure observed within the Property. The dominant tectonic fabric strikes approximately 220° and dips 65° northwest. Two intersecting linear structures cross cut lithology and have been interpreted as shear zones. The structures have been labeled the southwest ("SWSZ") and the east-west ("EWSZ") shear zones.

The SWSZ is observed between the alkalic intrusive complex and sediment contact (footwall). Occasionally the SWSZ occurs in the hangingwall, along the contact between the AIC and the mafic volcanics. This shear zone is poorly exposed but can be observed at the Rusk Showing and at another area 300m further to the northeast. It has also been intersected by diamond drill holes. The shear or tectonic zone is characterized by being 1 to >20 m wide, generally trending southwest and dipping northwest at 220°/65-80°N and is interpreted as extending over two kilometres in length along the intrusive contact zone. Alteration within the zone is moderate to very strong iron-carbonate alteration, in association with narrow and discontinuous quartz-ankerite-albite-hematite stringers and veinlets, various syenitic to felsite dykes, disseminated pyrite, and anomalous gold values;

The EWSZ occurs in the central portion of the property and was outlined during the 2004 mapping survey. It is expressed by a distinct east-west dextral flexure in the magnetic pattern of the AIC. The zone displays a strong southwest to east-west trend, with a moderate to steep dip to the north (240-270°/60-80°N). It has similar alteration and mineralization as the SWSZ (Samson, J., 2009).

### Table 7.2.1 Tectonic Assemblages

### **Timiskaming Assemblage**

- Unconformably deposited from 2680 2670 Ma (10 Ma)
- Conglomerate, sandstone, and alkalic volcanics
- Coeval Gold mineralization occurs near regional fault zones (PDF & CLLF)
  - Two end member types
    - 1) Quartz veins (Timmins & Val d'Or)
    - 2) Sulphide rich Stockworks (Holloway Twp., Kirkland Lake, Matachewan)

### Porcupine Assemblage

- Age of 2690 2680 Ma (10 Ma)
- Turbidites with minor conglomerates & iron formation locally
- Krist Formation is coeval with calc-alkalic felsic porphyries 2691+/-3 to 2688+/-2 Ma
- Alkali Intrusive Complex (Thunder Creek) 2687+/-3 Ma (Barrie, 1992)

(4 Ma)

#### Blake River Assemblage

- Age of 2701 2697 Ma
- Tholeiitic & Calc-alkaline mafic to felsic volcanics
- VMS deposits associated with F3 felsic volcanics at Noranda
- Syngenetic gold & base metals (Horne, Thompson Bousquet)

### Kinojevis Assemblage

- Age of 2702 2701 Ma (
- Tholeiitic mafic flows
- Interflow Turbidites
- F3 Felsic Volcanics
- Tisdale Assemblage
  - Age of 2710 2703 Ma (7 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)

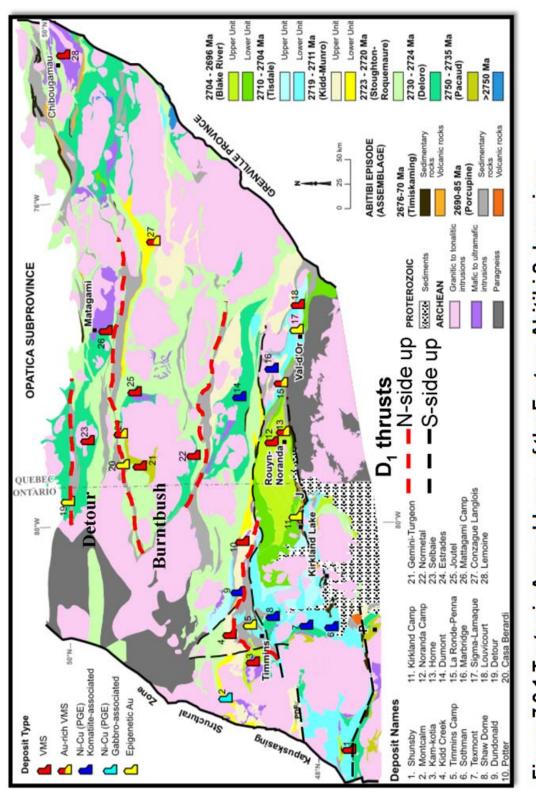
### Deloro Assemblage

- 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
  - 1) F2 felsic volcanics and synvolcanic intrusion (Normetal)
    - 2) Localized sulfide-rich facies in regional oxide facies iron formations (Shunsby)

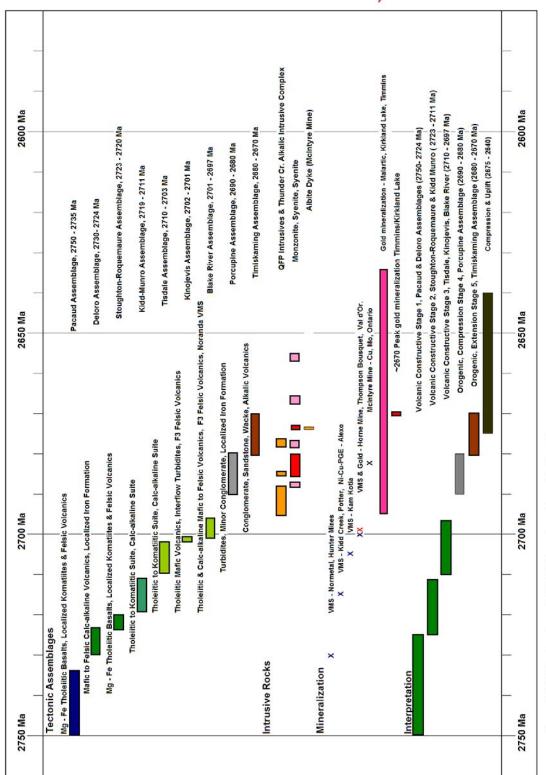
### Pacaud Assemblage

- Age of 2750 2735 Ma (15 Ma)
- Magnesium and iron rich tholeiitic basalt
- Localized komatiites and felsic volcanics

(1 Ma)









## Table 7.2.2. A Simplified Sequence of Geological Events for the Timmins Camp. (after Melnik-Proud, 1992)

### Faulting

### **Diabase (Matachewan) Dyke Intrusion**

(~2461 Ma)

(Hearst Dyke - Diabase, 2461 +/- 2 Heaman, 1988)

Penetrative Deformation/Greenschist Facies Metamorphism (~2633 Ma)

(~2633 Ma)

### Folding /Faulting?

### **Timiskaming Sedimentation**

### Unconformity / Folding

### **Copper and Gold Mineralization And Related Hydrothermal Alteration**

### Albitite Dyke Intrusion (Algoman) (And Related Hydrothermal Alteration?)

(~2673 Ma) (Albitite Dyke, 2673 +6 / -2 Ma, Corfu et al, 1989) (Watabeag Batholith, 2676 +/- 2 Ma, Frarey and Krogh, 1986) (Winnie Lake Stock, (monzonite), 2677 +/-2 Ma, Frarey and Krogh, 1986) (Garrison Stock, (monzonite), 2678 +/-2 Ma, Corfu et al, 1989) (Garrison Stock, (monzonite), 2679 +/-4 Ma, Frarey and Krogh, 1986) (Otto Stock, (syenite), 2680 +/-1 Ma, Corfu et al, 1989) (Watabeag Batholith (quartz monzonite), 2681 +/-3 Ma, Frarey and Krogh, 1986) Adams Stock (granodiorite), 2686 +/-3 Ma Frarey and Krogh, 1986) Lake Abitibi Batholith (granodiorite), 2689 +3 / -2 Ma, Mortensen, 1987)

### Porphyry Intrusion (Algoman), Emplacement Of Heterolithic Breccias, And Related Hydrothermal Alteration (~2690 Ma)

(Crown Porphyry, 2688 +/-2 Ma, Corfu et al, 1989) (Pearl Lake Porphyry, 2689, +/-1 Ma, Corfu et al, 1989) (Preston Porphyry, 2690 +/-2 Ma, Corfu et al, 1989) (Paymaster Porphyry, 2690 +/-2 Ma, Corfu et al, 1989) (Millerton Porphyry, 2691 +/-3 Ma, Corfu et al, 1989)

### **Beatty Sedimentation**

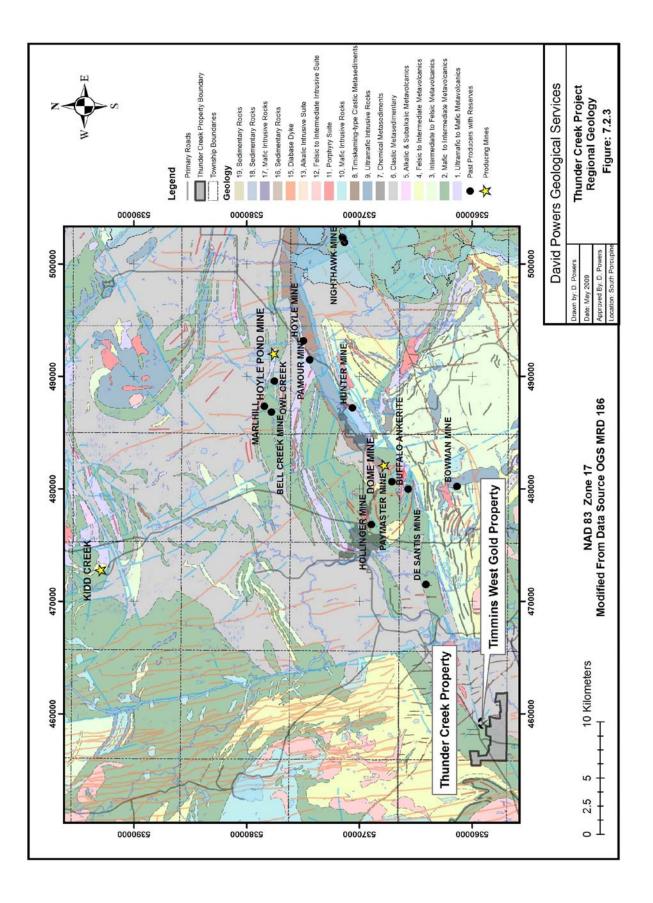
Krist (Keewatin) Calc-alkaline Volcanism and Sedimentation (~2698 Ma +/-4 Ma) (2691+/-3 to2688+/-2 Ma revised)

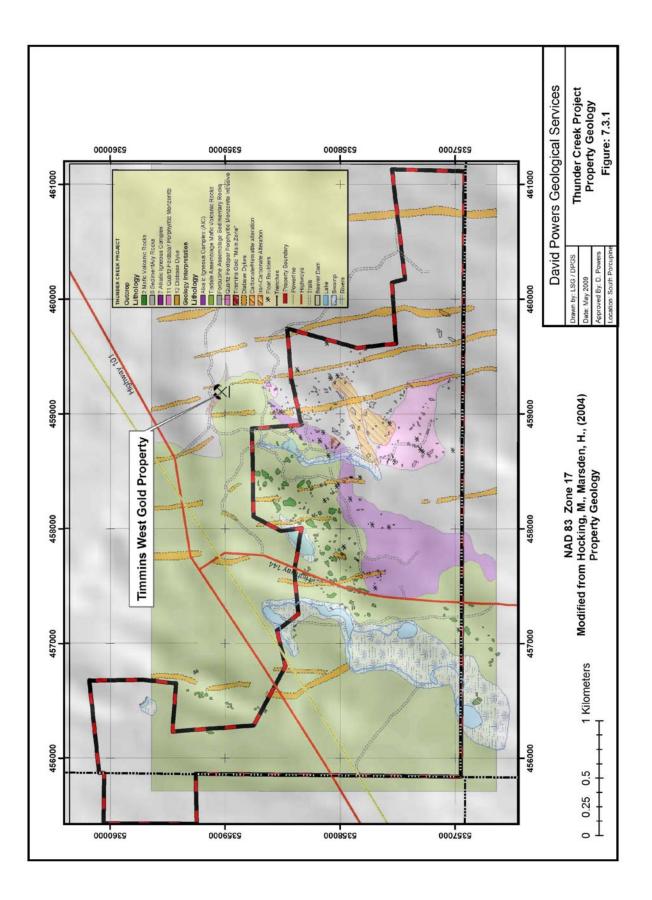
### Unconformity Tilting / Folding?

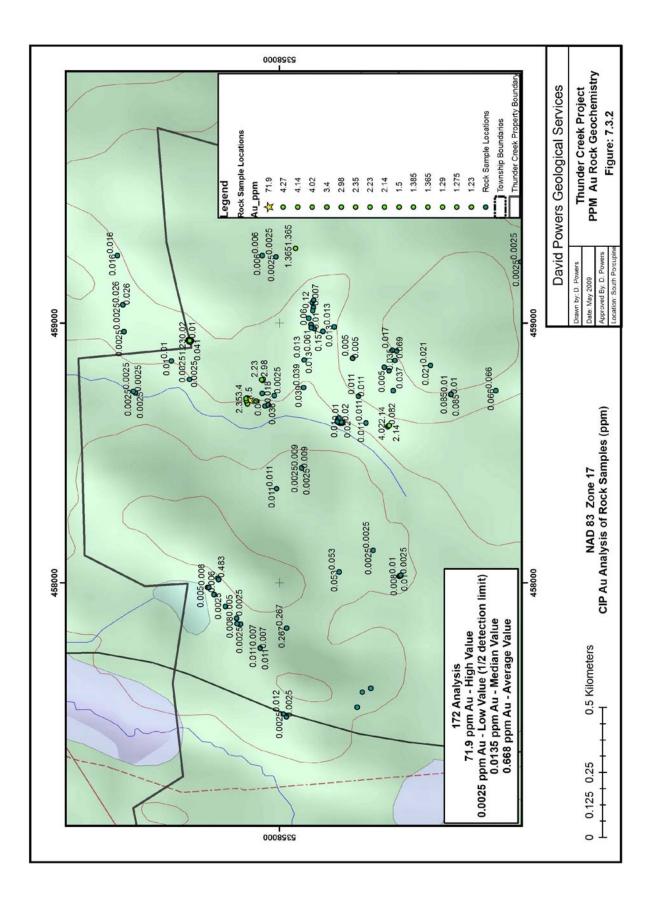
(Watabeag Batholith (diorite), 2699 +/-2 Ma, Frarey and Krogh, 1986)

Tisdale Group (Keewatin) Komatiite-Tholeiitic-Calc-alkaline Volcanism ("99" Flow, 2707 +/-3 Ma, Ayre, OGS) Flavian Stock (trondhjemite), 2701 +/-1.5 Ma, Mortensen, 1987) (Aquarius Diorite, 2705 +/- 10 Ma, Corfu et al, 1989)

Deloro Group (Keewatin) Komatiite-Tholeiitic-Calc-alkaline Volcanism (~2725 Ma) (Dunite, 2707 +/-3 Ma, Corfu et al 1989)







## 8.0 DEPOSIT TYPES

### 8.1 General Deposit Types

The Porcupine area is well known for hosting two mineral deposit types: Xstrata's Kidd Creek mine, a volcanogenic massive sulphide deposit, and several mesothermal Archean shear hosted gold deposits. Gold production to the end of 2006, from some 50 operational sites is reported to be 2,028,140 kilograms of gold (65,206,222 ounces of gold). Table 8.1.1 highlights the twenty one locations that exceeded production of 3,110 kilograms of gold (100,000 ounces of gold).

Figure 8.1.1, illustrates a stratigraphic column for the Tisdale Group and the formations which host gold significant gold mineralization. The formational calculated thicknesses have been sourced from Ferguson (1968) and Brisbin (1997). To date, no significant gold mineralization has been found within the Krist and Beatty Formations.

Mine	Kilograms Gold Produced	<b>Ounces Gold Produced</b>
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

# Table 8.1.1: Operations of Greater Than 100,000 Ounces of Gold Production the Porcupine Gold Camp.

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

Brisbin (1997) summarizes the local Timmins area gold mineralization and stratigraphic association as follows.

Approximately 4.5 million ounces of gold have been produced from veins spatially associated with small quartz feldspar porphyry stocks and dykes which intrude Hersey Lake Formation flows on the Delnite, Aunor, Buffalo Ankerite, and Paymaster properties. Veins hosted in mafic flows intercalated with ultramafic flows adjacent the Timiskaming unconformity have accounted for a significant portion of 6.1 million ounces of gold produced from Broulan - Hallnor – Pamour mines area. In Hoyle Township gold – bearing veins hosed within mafic flows of the Hersey Lake Formation were mined at Bell Creek, Marhill, and Owl Creek mines and are being mined at Hoyle Pond Mine. Massive white quartz veins are hosted in a carbonatized peridotitic komatiite unit near the Beaumont Shaft in northeastern Tisdale Township but no gold production from that property is recorded.

Central Formation flows and interflow carbonaceous argillites are very important hosts for gold mineralization. The Central Ore Zone on the Hollinger property, all major gold orebodies in the McIntyre Mine and a number of the vein systems in the Coniaurum Mine all occur within the Central Formation. A black, carbonaceous argillite is the uppermost unit in the Northern member. It is the host for 3, 5, and 25 veins in the McIntyre, 91 vein in the Hollinger Mine and the single vein mined at Moneta Mine (Mason et al 1986). The 95 Member at the McIntyre Mine forms the hangingwall to the important veins hosted by the carbonaceous argillite that caps the Northern Member. The 95C was prominent marker unit at the Moneta, Hollinger, and McIntyre Mines. It hosts 84 Vein in the Hollinger Mine and 7 Vein in the McIntyre Mine which together yielded more than 3 million ounces of gold (Jones, 1985).

The 99 flow of the Vipond Formation is the stratigraphically uppermost unit to be affected by intense alteration in the Central Ore Zone. It is intensely ankeritized, weakly to moderately sericitized and pyritized and hosts gold bearing veins along its strike length on the south limb of the Central Tisdale anticline. Mineralized exposures of the 99 flow occur in open pits of the Hollinger property, on the McIntyre property where it crops out immediately adjacent to Pear Lake porphyry south of Pearl lake and on the Coniaurum property where it hosts number 2, 5, and 10 veins. South Shaft was sunk on subhorizontal white quartz on the Davidson Tisdale property in northeast Tisdale Township but there is no alteration present in this area, nor did any significant production take place from this shaft.

The V8 unit of the Vipond Formation is a complex and variable entity which as a whole forms a consistent stratigraphic unit, but within which there is less consistency due to facies variations. Its economic importance is underscored by the fact that 14 of the 20 quartz ankerite veins which up to 1979 accounted for 20% of gold produced at the Dome Mine (Fryer et al, 1979) were hosted by the Vipond Formation, and that the most important hosts were the Key and Spherulitic subunits of the V8 (Crick, 1991). Very little gold production has been derived from veins hosted with the V8 in the Hollinger-McIntyre- Coniaurum area. A portion of 92 Vein and 20 Vein were hosted in the V8 on the south side of the Hollinger property.

The V9 unit is a black carbonaceous argillite which overlies the V8 unit in the McIntyre (Griffis, 1960), Hollinger (Hall, 1985) Vipond (Dougherty, 1934) and Dome (Holmes, 1968) Mines. Despite its presence over a wide area there are sections where it s absent (Hall, 1985). On the McIntyre property it is up to 6 metres thick but averages 1.5 metres this. The V9 is an important ore host at the Vipond Mine (Dougherty, 1934). It hosts 20/24 Vein at the McIntyre and Coniaurum Mines, much of the 92 Vein and 44 Vein at the Hollinger Mine, and quartz ankerite veins at the Dome Mine.

The most important orebodies at the Vipond mine occur in the V10A, known there as the 10 Flow (Dougherty, 1934). On the Coniaurum property, 40 vein occurs in the V10A and adjacent V10B subunits. The V10A hosts portions of the 92, 93, and 44 veins on the Hollinger property. Some of he "Dacite Ore" at the Dome occurs in a V10A. The carbonaceous argillite interval that overlies the V10A is a locus of quartz veining where it is present at the Vipond Mine (Dougherty, 1934) and hosts much of 93 Vein at the Hollinger Mine. The V10B hosts part of 93 and 44 veins at the Hollinger Mine, a portion of 40 Vein on the Coniaurum property and "Dacite Ore" in the Dome Mine. The V10C hosts "Dacite Ore" at the Dome Mine.

The only orebodies hosted by Gold Centre Formation flows are veins systems in the "Northern " Flows at the Dome Mine similar to those in "Dacite Ore" in the underlying Vipond Formation The only significant gold mineralization known to be hosted in the Whitney Group occurs in the east end of the Owl Creek Pit in Hoyle Township. Gold bearing veins hosted within Whitney Group have been intersected in diamond drill holes north of Pamour 1 Mine (Duff, per. Com, 1992) and south of Owl Creek pit. Veins in Tisdale Group mafic flows occur immediately south of the contact of these flow with Whitney Formation sedimentary rocks at the Hoyle Pond Mine in Hoyle Township.

No gold mineralization is known to occur within the Krist Formation.

No significant gold mineralization is known to occur within the Beatty Formation. Some of the auriferous veins hosted within the basal conglomerate of the Timiskaming Group at the North Dome Shaft do transgress the contact with the Beatty Formation, but they pinch out within a few metre to two of the contact (Brisbin, 1997). If Holmes (1944,1964) and Gray (1994) are correct in their observations within the Sedimentary Trough the Beatty Formation is host to significant gold mineralization.

Approximately 15 % of gold mined to date in the Porcupine Camp has come from bulk tonnage sheeted vein and stockwork orebodies, and to a lesser extent from narrow veins in Timiskaming sedimentary rocks. These orebodies have been mined at the Dome Mine in Tisdale Township, and at the Pamour, Falconbridge Hoyle, Broulan, Hallnor, and Bonetal Mines in Whitney Township. The gold deposits of Whitney Township were not examined during this study and are described by Aitken (1990) (Brisbin, 1997).

Gold mineralization at the Thunder Creek Property occurs along the same volcanicsedimentary rock contact and similar alkalic mafic complex as the Timmins West Gold Property. The mafic volcanic rocks are of the Tisdale assemblage, but a flow unit correlation with the detailed volcanic stratigraphy of the Timmins' deposits has not been determined. SRK (2007) estimate a Probable Mineral Reserve at 3387,000 tonnes grading an average 7.59 gram per tonne gold (cut grade) containing 826,000 ounces of gold (25.7 M g) for the West Timmins Gold Property.

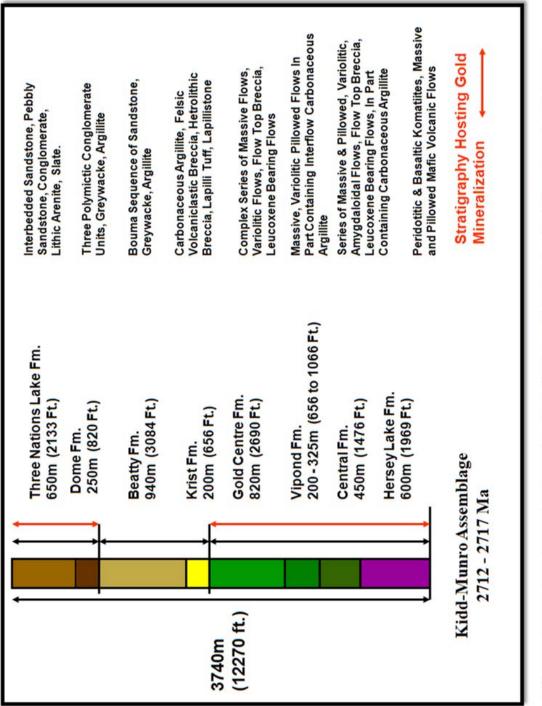


Figure 8.1.1: Stratigraphy Hosting Gold Mineralization in the Timmins Gold Camp

## 9.0 MINERALIZATION

## 9.1 General Description of the Mineralization

The most significant surface showing on the Thunder Creek Property is mineral deposits inventory ("MDI") number MDI42A05NE00003, the "Rusk Showing" and the zone's down dip and down plunge extensions. Over the years the property name has changed from 1941-the ONeill Property, 1942-Rusk Porcupine Claim P8396, 1979-Croxall-Miller Property, 1994-Thunder Creek Property. The MDI file indicates that trenching and pitting took place on the property as early as 1916. During the early 1940's Rusk Porcupine Mines completed trenching and the diamond drilling of 18 drill holes (1981m). The mineralization discovery pit was 1.2 metres by 1.2 metres and returned a value of \$24.85 over 121.9cm, \$15.05 over 76.2 cm and \$8.41 over 91.4 cm (T-File 542). The showing is situated within present claim P495309 and is hosted within the Southwest Shear Zone.

One of the exposed zones of mineralization and alteration consists of weak shearing accompanied by numerous "syenitic" sweats and dykes swarming along the contact between the mafic volcanic rocks and the AIC. Samples with 2 to 3% pyrite and traces of chalcopyrite from the area commonly assay around 1 to 3 gpt Au, and a one sample collected by Lake Shore from a syenitic piece of rubble returned and assay of 71.9 grams per tonne gold. Another shear zone is exposed in the footwall of the AIC, at the contact with the sediments, roughly 125 metres to the southeast. This second zone displays very strong iron-carbonate staining, hematization, and is accompanied by tectonic brecciation, quartz-ankerite veining, and over 10% fine disseminated pyrite in places. Trenching by Lake Shore 2004 extended the surface expression of anomalous gold zone another 300 metres further to the northeast (Hocking and Marsden, 2004.).

Mapping along the EWSZ has indicated many similarities with the characteristics of the SWSZ, but the rock samples so far collected are only weakly anomalous in gold (Hocking and Marsden, 2004).

The monzonite intrusion that occurs in the south central portion of the property contains very narrow flat lying quartz veins, 1-10cm wide, that host small amounts of galena and sphalerite. Historical pits have been placed on these veins. Grab samples from the pit area, collected by Lake Shore are reported to have returned assay results up to 4.02 grams per tonne gold.

Unlike the Timmins West Gold Property no significant amount of gold mineralization is found to be associated with tourmaline-quartz veining within the Thunder Creek property. Diamond drilling is testing gold mineralization targets in the hanging wall mafic volcanics, alkali intrusive complex contact, the alkali intrusive complex and the footwall of the complex with the sediments, galena quartz stockwork veins associated with porphyry intrusions. These host rocks are spatially bound by the South West Shear Zone and the East West Shear Zone.

Ongoing diamond drilling is targeted to define the along strike, down dip and down plunge dimensions to the multiple mineralized zones leading to a resource calculation.

## **10.0 EXPLORATION**

### 10.1 A General Description of Exploration Programs 2003 to May 10, 2009

Lake Shore Gold Corp. has been actively exploring the Thunder Creek Property since 2003. Table 10.1.1, Thunder Creek Property, Work Completed summarizes the chronology, surveys and survey unit details.

Activity	Year	Units No. DDH	Units metres	Units samples
Diamond Drilling	2003	7	1,945	876
g	2004	12	4,092	1,429
	2005	6	2,359	767
	2007	20	10,840	5,884
	2008	21	10,954	8,083
	2009	16*	10,499	3,063
	Totals	82	40,689	20,102
	* wedges	considered a	s separate	
	new holes	S		
Geology Surface Mapping Surface Samples Lithogeochemistry Outcrop Stripping Washing Saw Channel Sampling Trench Mapping	2004 2004 2004 2004 2004 2004	3 areas	780m²	102 3
MMI Geochemical Survey	2004			830
Outcrop Stripping Washing	2006	3 areas	675m²	135

## Table 10.1.1 Thunder Creek Property, Work Completed

### 10.2 Bedrock Mapping and Lithogeochemical Sampling

Surface geological mapping was carried out during the summer field season of 2004 by Lake Shore personnel. Emphasis was place on the area between Highway 144 and the eastern property boundary. The area was mapped at a scale of 1:2,500. The remainder of the property was surveyed at 1:5,000 scale. During this program 102 surface samples were taken. Three samples alkali intrusive complex were collected for whole rock analysis to test for economic concentrations of rare-earth elements. These samples were submitted to ALS Chemex Laboratories in Toronto for gold assay and ICP-MS multi-element analysis.

Figures 7.3.1, and 7.3.2, illustrate the property geology and sample locations. The Rusk Showing and associated blast rubble returned the most significant reported assay value was 2.98 grams per tonne gold. A single float sample from an existing pit in the Rusk Showing area returned an assay value of 71.9 g/t Au. Base metal bearing, undeformed, quartz veins in the quartz-feldspar porphyritic monzonite intrusion returned assay values of up to 4.02 g/t Au. Table 10.4.2, located in Appendix 1. lists the locations, sample numbers and returned gold analysis for the lithogeochemistry sampling and channel sampling that took place in 2004 and 2006.

## 10.3 Trenching, Outcrop Stripping, and Lithogeochemical Sampling

Two phases of outcrop overburden excavation, power washing and channel saw sampling have taken place within the Thunder Creek Property. Three areas were completed in 2004 and 2 new areas plus an extension of area 1 was completed in 2006. Approximately 780 m<sup>2</sup> was exposed in 2004 and an additional 675 m<sup>2</sup> uncovered in 2006. The trench areas are shown in Figure 10.3.1, Overburden Stripping Location Map. Detailed overburden stripping maps are illustrated in Figures 10.3.2 to 10.3.6.

Total Exploration of Timmins, completed the 2004 trenching, mapping and program utilizing a backhoe attachment mounted on a muskeg-tracked vehicle and Wajax water pumps. The 2006 mechanical stripping and trenching was completed using a 215B CAT excavator operated by Kapel's Backhoe Services of Timmins. Washing, channel sampling and mapping was carried-out intermittently by various contractors and Lake Shore personnel.

Samples from the 2004 sampling program were sent to Swastika Laboratories, to be analyzed for gold using FA/AA methods

## 10.3.1 Outcrop Stripped Area 1 and Expanded Area 1

The 2004 overburden stripped Area One (1) covers approximately 400m<sup>2</sup>. In 2006, the exposure area was expanded by approximately 100 m<sup>2</sup>. The expansion provided a better expose of the quartz veining and iron-staining in the southwest portion of the trench. The stripped area consists of a sheared contact zone between the pyroxenite and sediments, as well as the "SWSZ". This shear strikes approximately 220° and dips 80° to the northwest. It is characterized by a two (2) to six (6) metre wide zone of weak to moderate calcite and iron-carbonate alteration, accompanied by weak hematization, and discontinuous quartz-calcite to quartz-ankerite veining. Strong patchy iron-staining is noted, accompanied by up to 2% pyrite. Strongly deformed intermediate to felsic dykes and calcareous syenitic dykelets are noted, mostly subparallel to the contact zone. The best assay obtained from this location in 2004 was 1.23 gpt Au over 0.40m. The expansion of this trench to the southwest in 2006 indicated that bedrock quickly plunges down and most of the trench became submerged under water. Similar alteration and veining was exposed, with the best assay being 861 ppb Au over 0.57cm (Samson, 2008)

## 10.3.2 Outcrop Stripped Area 2

Stripped Area Two (2) has an approximate area of 180m<sup>2</sup>. The exposed rock units are fine to medium grained, dark green to black in colour mafic volcanic rocks near the

hanging wall contact of the AIC. Chlorite-magnetite alteration is present. The interpreted SWSZ appears to be represented by a one (1) to four (4) metre wide chlorite-calcite altered shear zone trending 230° and dipping 65°. Numerous fine-grained, pink, feldspar  $\pm$  biotite  $\pm$  magnetite "syenitic" dykes cut the outcrop. The dykes occasionally contain dark brown to black garnets on their margins and have an overall southwest trending orientation. Samples of the dykes containing up to 2-3% pyrite and 0.5% chalcopyrite returned assays of up to 2.35 g/t gold. A single float sample of pyritic syenite dyke taken near Stripped Area 2 returned an assay value of 71.9 g/t gold. A sample of altered mafic volcanics and syenite dyke, with minor pyrite and chalcopyrite, from the shear zone returned an assay value of 2.95 g/t gold (Hocking, and Marsden, 2004).

## 10.3.3 Outcrop Stripped Area 3

Stripped Area Three (3) exposes an area of about 200m<sup>2</sup> of quartz-sericite-hematite schist within the EWSZ. The zone appears to be strongly sheared sediments that have been intruded by salmon pink, aphanitic felsic dykes, possibly related to the nearby monzonite intrusion. The schist displays a strong 240° to 270° trend, with a northward dip of 60° to 80°. Stretching lineations on the dominant foliation plane exhibit a moderate plunge to the northwest at 60°-284°. Narrow quartz veins and quartz-calcite veinlets are located within the shear planes, contain up to 1% disseminated pyrite and display strong hematite alterations on the vein margins. Two samples of schist wall rock with minor pyrite yielded anomalous values gold values of 139 and 169 ppb (Hocking, and Marsden, 2004).

## 10.3.4 Stripped Area 4

Stripped Area Four (4) is located about 170m south-southwest of Area 1 and covers roughly 275m<sup>2</sup>. A historical trench is in filled with rubble and overgrown with vegetation. The exposed rock units are relatively unaltered, non-mineralized, biotite-rich pyroxenite or lamprophyric. The footwall contact zone with the sediments and ultramafic complex lies beneath 1.5 metres of sand and clay. The zone was strongly deformed and displayed irregular quartz-carbonate stringers and veinlets which have been altered by iron-carbonate, and accompanied by minor disseminations of pyrite. The best gold assay returned was 408 ppb over 0.64m (Samson, 2008).

## 10.3.5 Outcrop Stripped Area 5 (the Rusk Showing)

The "Rusk Showing" represents a general area, and not one location, where several pits, trenches and drill holes were completed by Rusk Porcupine Mines in 1942. The area is approximately 150m across. In 2006, an approximate are of 300m<sup>2</sup> was exposed centered on UTM coordinates 458,780m east and 5,358,050m north. Two old pits in filled by vegetation were noted at this location. All rocks were extremely weathered, stained by iron-oxide. Stripping and washing revealed the sheared contact zone between the ultramafic to the northwest, and the sediments in the footwall.

The ultramafic consists of a massive and relatively unaltered pyroxenite, fine to mediumgrained, black, and strongly magnetic. Subtle "pinkish sweats" or calcareous syenitic dykes and garnetiferous pegmatitic bands are also noted, injected along joints and fractures, locally defining "pseudo-layering". No significant sulphide mineralization or veining was noted within the ultramafic. The rocks in the footwall to the intrusive are dark rusty brown, extremely oxidized, revealing very strong and pervasive ironcarbonate alteration. They are flooded by several generations of quartz-ankerite-albite stringers and veins, and are extremely deformed, displaying numerous episodes of folding. The dominant "fabric" trends 240° and dips 55-65° northwest. Shearing and brecciation are extreme, and the identification of the protolith is very difficult. Fine magnetite is disseminated throughout. Approximately twenty-five metres away from the contact zone, the rocks are becoming less altered, less deformed, weakly magnetic, and can be clearly identified as sediments.

Mineralization in the footwall rocks is quite variable, with trace to 10% fine dusty pyrite and 1-2mm cubes. Trace amounts of chalcopyrite are noted mostly in the veins, and "clots" of galena up to 1cm across can be observed on fracture planes. A total of 106 channel samples were collected from the Rusk Showing. Most are geochemically anomalous in gold (>100 ppb), with many assaying in the 1 to 2 gram per tonne range in association with the strongest zones of alteration and veining. One sample (2513), taken from a zone of veining with less than 0.5% pyrite and trace chalcopyrite initially assayed 15.017 gpt Au over 0.41 metres, and returned up to 22.354 gpt Au on a check analysis. Another sample taken at the same location also assayed 10.423 gpt Au over 1.15m. Upon re-examination of these samples, fine pinheads and "flakes" of visible gold were also noted in the veins (Samson, 2008). Sample numbers, widths, and returned gold assay results from the saw channel samples are listed in Table 10.4.2. (Appendix 1).

## 10.4 Mobile Metal Ion (MMI) Soil Sampling Survey

During 2004, a combined field crew consisting of Lake Shore Gold employees, and contract personal from Vision Explorations completed a Mobile Metal Ion ("MMI") soil geochemical sampling program over the Thunder Creek Property. A total of 830 samples, including 5 duplicates samples were collected from soil material situated 10 cm below the base of the organic "humus" layer. Approximately 250-400 grams of soil are collected and placed in a labeled plastic bags sealed with plastic ties. The samples were shipped to SGS Analytical labs in Toronto for analysis using MMI-B analytical package which includes elements Au, Ag, Pt, Co and Ni.

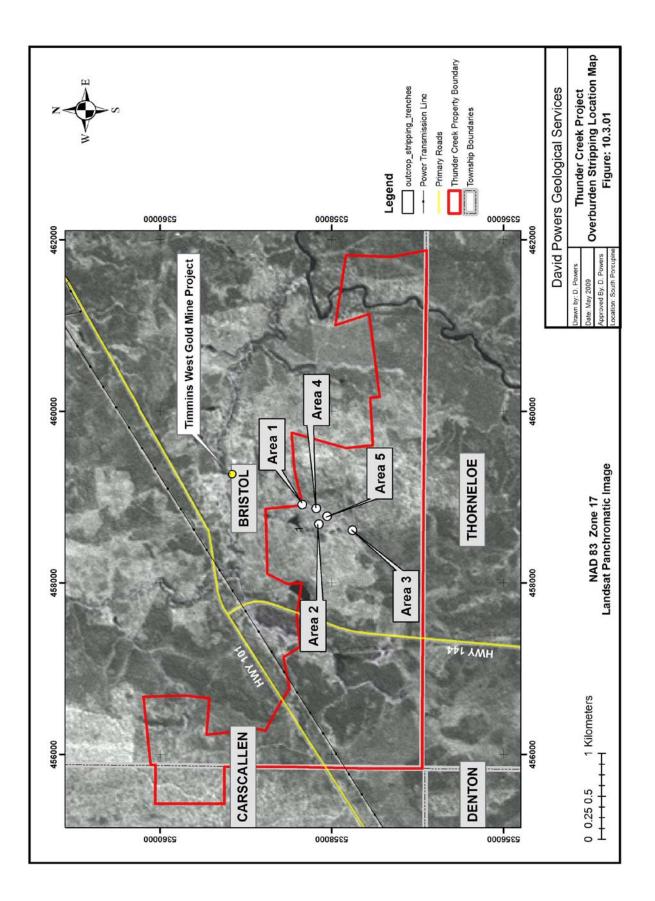
Field survey control utilized an existing historical Battle Mountain Canada Ltd. grid. Grid lines are spaced 125 metres apart. Samples were taken on 27 survey lines at 50 metre intervals along the line. Where the grid was overgrown, lines were pushed through the impasse with hip chain and compass. Each sample site was flagged, the sample number inscribed on an aluminum tag and placed at the site. A hand held GPS was used to record the position of each sample for plotting reference.

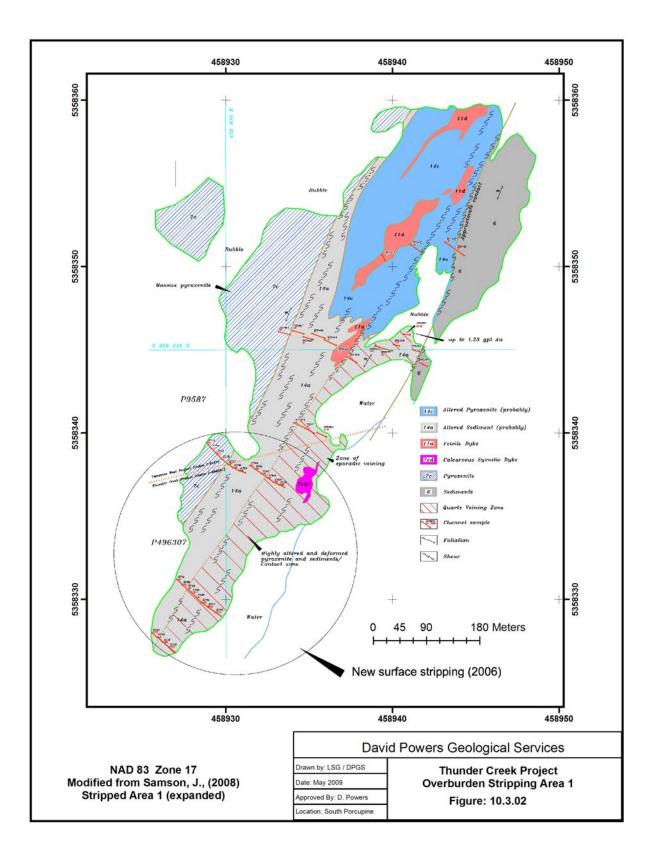
Analytical results are summarized in Table 10.4.1., and plots of both ppb and response ration are illustrated in Figures 10.4.1 to 10.4.10. Sample results for 29 of the 830 samples reported to be taken were not found.

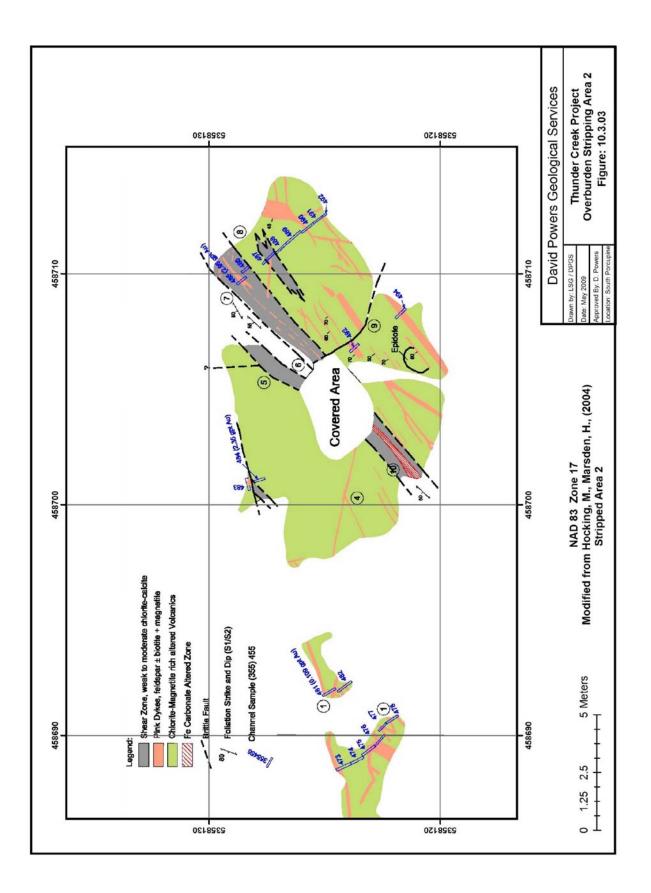
Table 10.4.1 Summary of	Soil Sample Statistics
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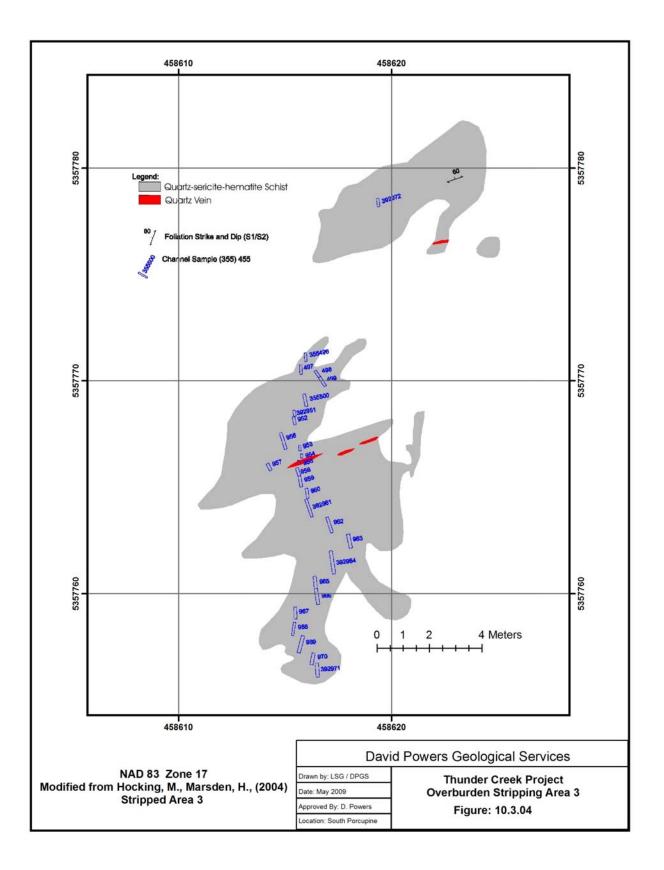
Sample	Au	Co	Ni	Pd	Ag	Au	Co	Ni	Pd	Ag
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(response ratio)	(response ratio)	(response ratio)	(response ratio)	(response ratio)
sample count maximum value	796 3.06	796 154.00	796 570.00	796 0.66	796 165.00	796 61.20	796 57.04	796 43.85	796 13.20	796 330.00
minimum value average first quartile	0.05 0.08 0.05	0.50 14.58 4.00	1.50 49.15 19.00	0.05 0.07 0.05	0.05 3.71 0.90	1.00 1.58 1.00	0.19 5.40 1.48	0.12 3.78 1.46	1.00 1.31 1.00	0.10 7.42 1.80
Average of First Quartile	0.05	2.70	13.00	0.05	0.50					

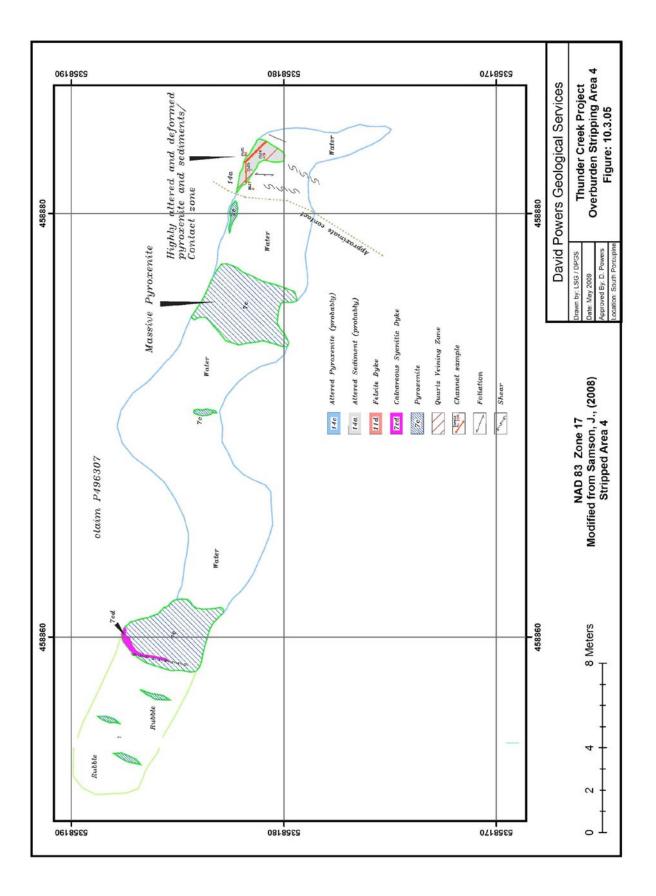
The colour intensity plots generated by ArcMap and Geosoft Target for ArcGIS show that the trend of the elemental anomalies coincides with the mapped geology Figures 10.4.1 to 10.4.10. Early phase drilling in 2003 to 2006 targeted some of the MMI anomalies.

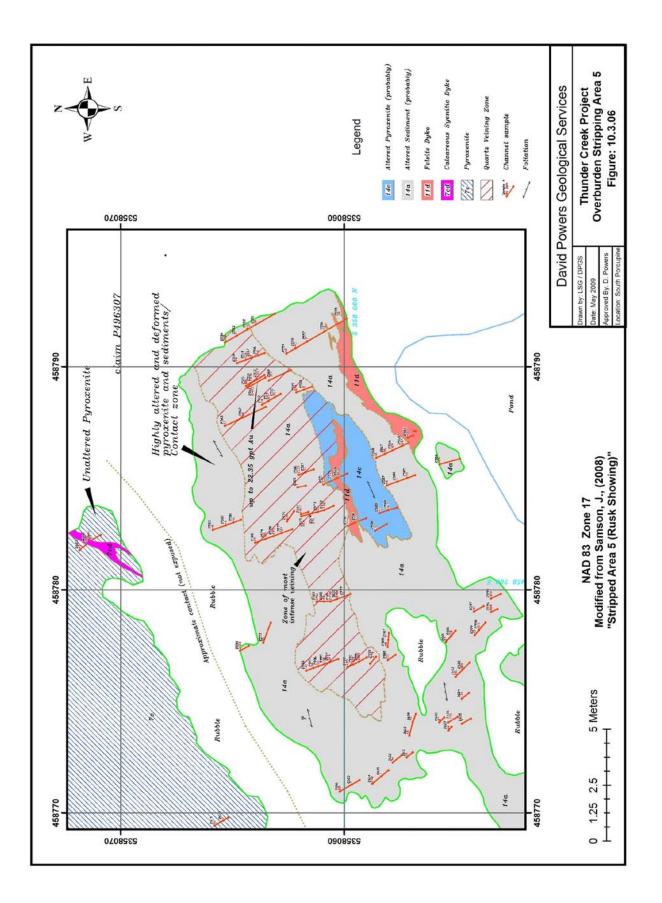


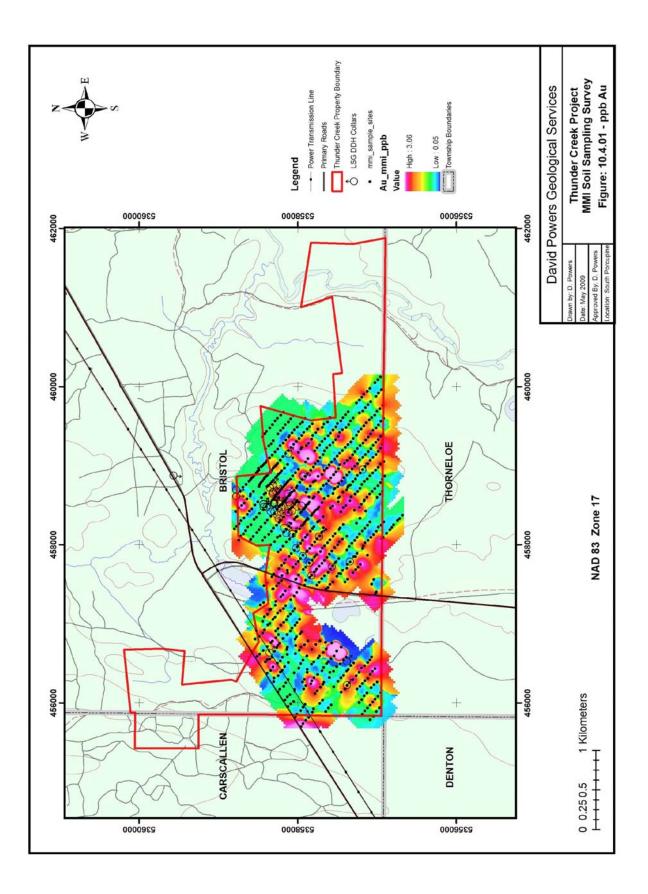


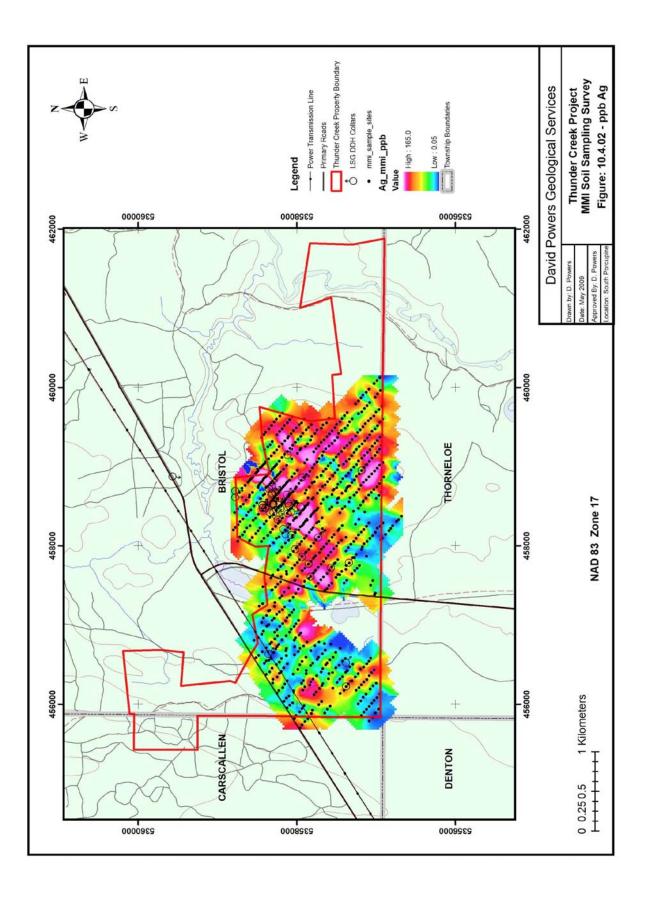


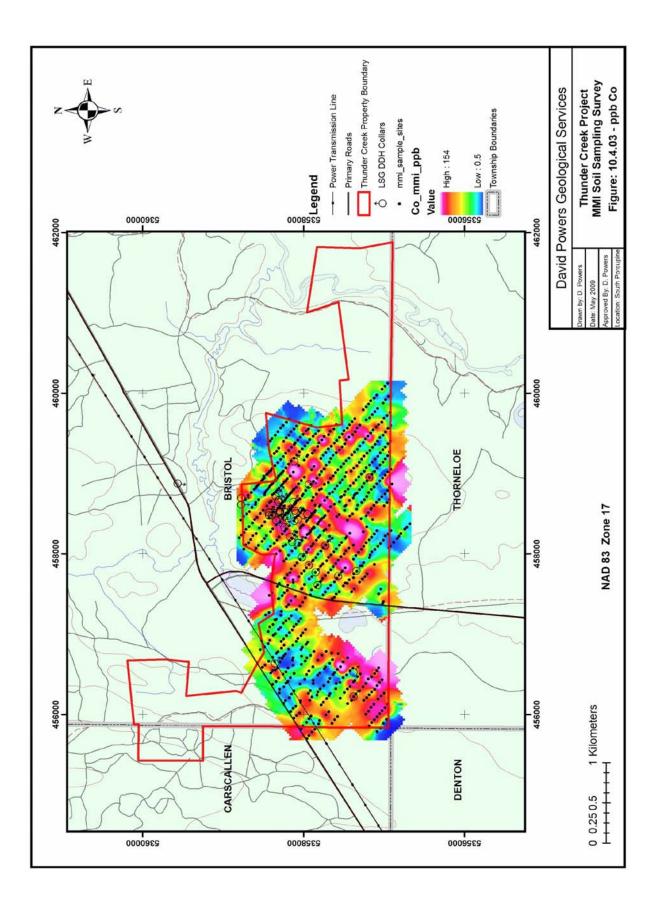


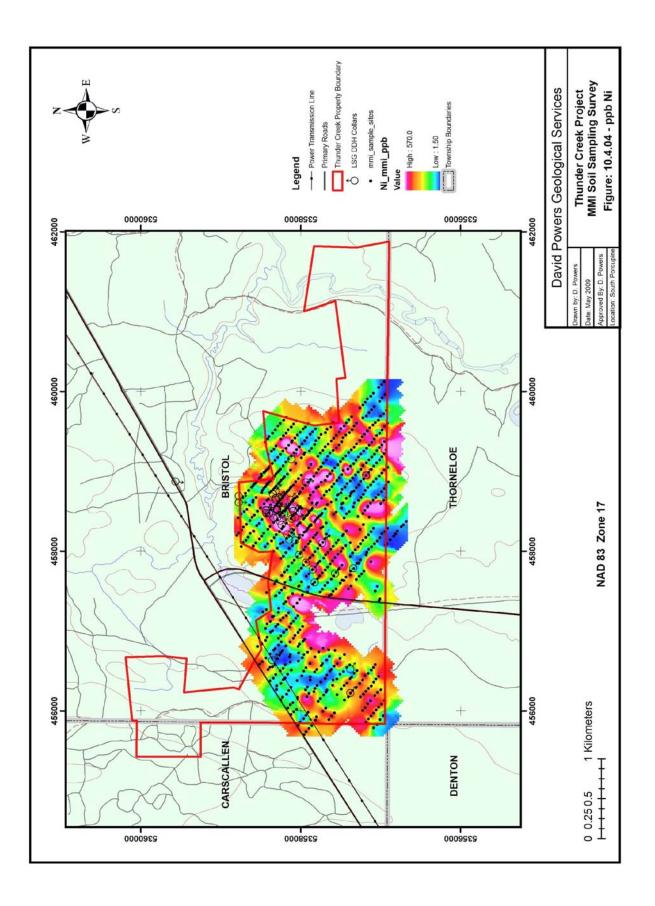


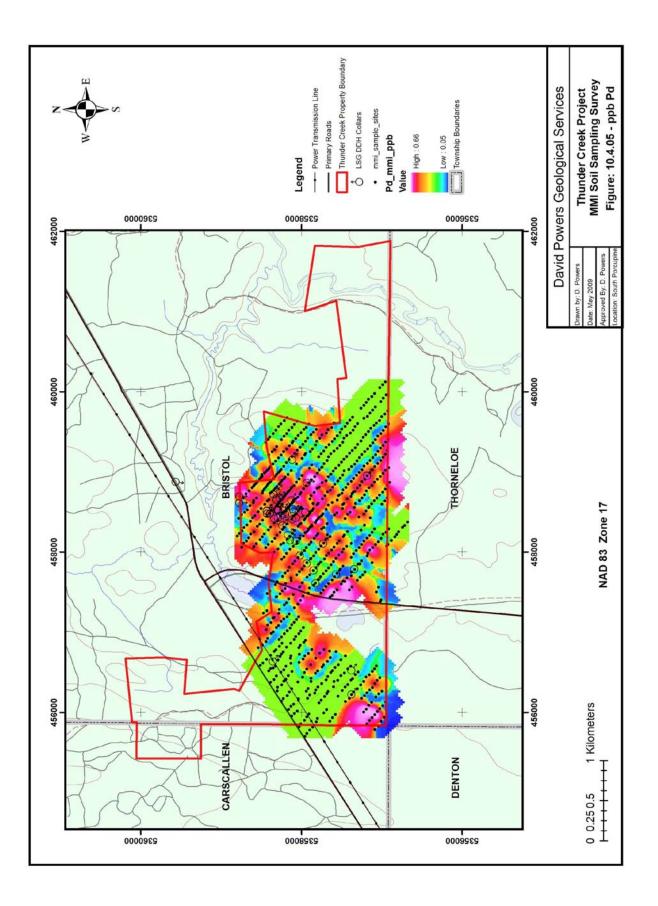


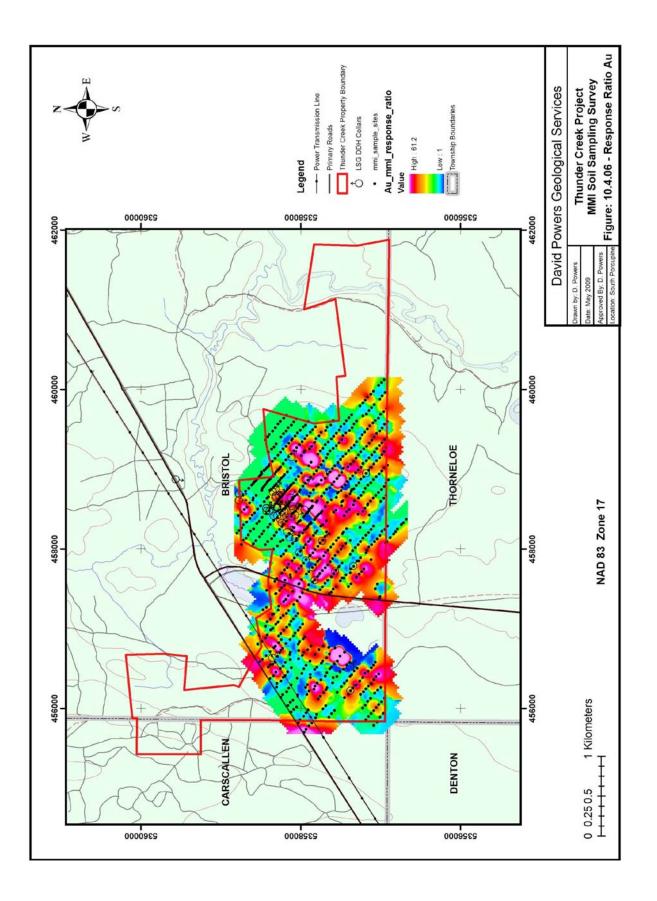


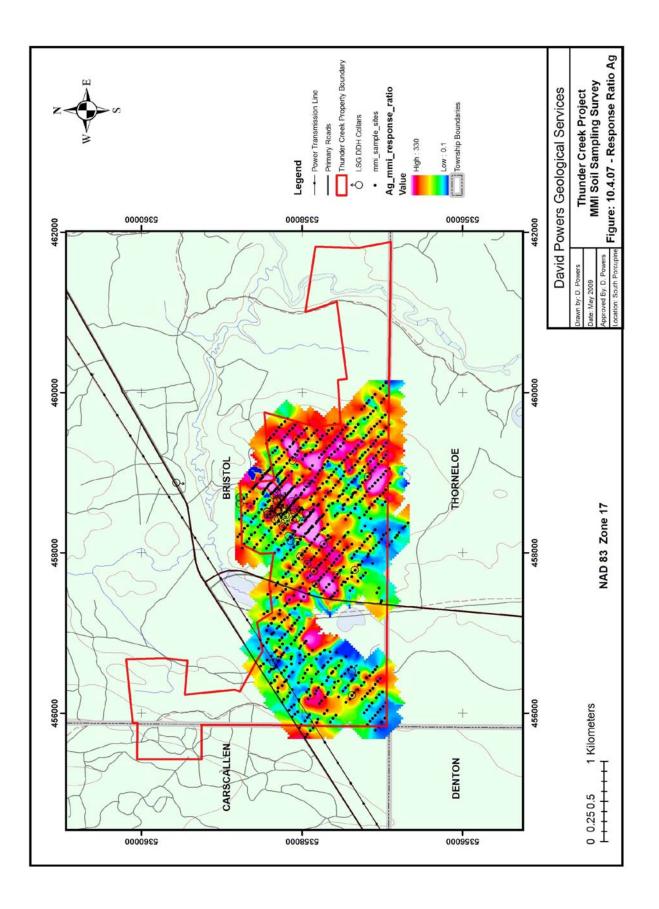


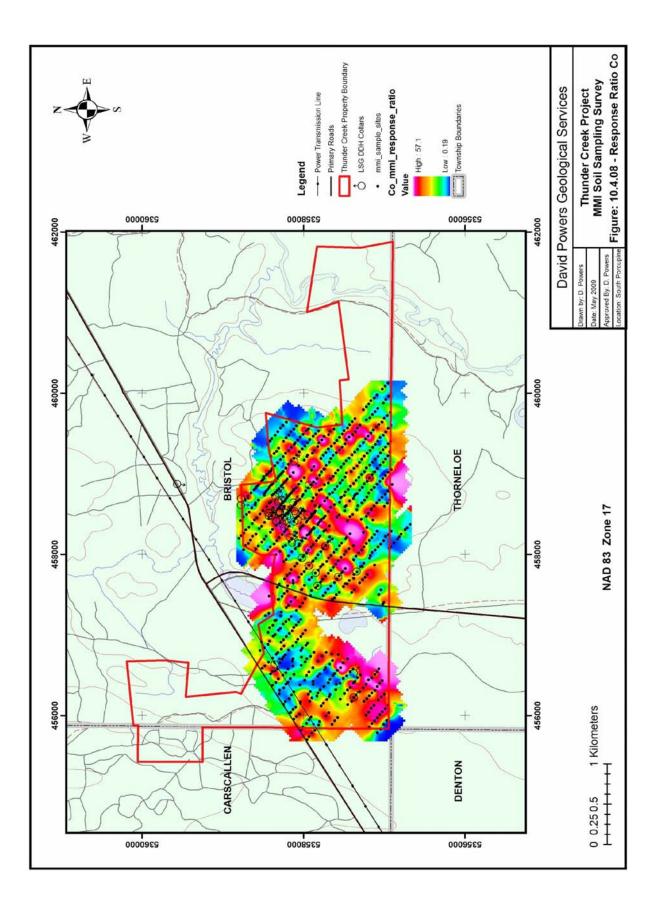


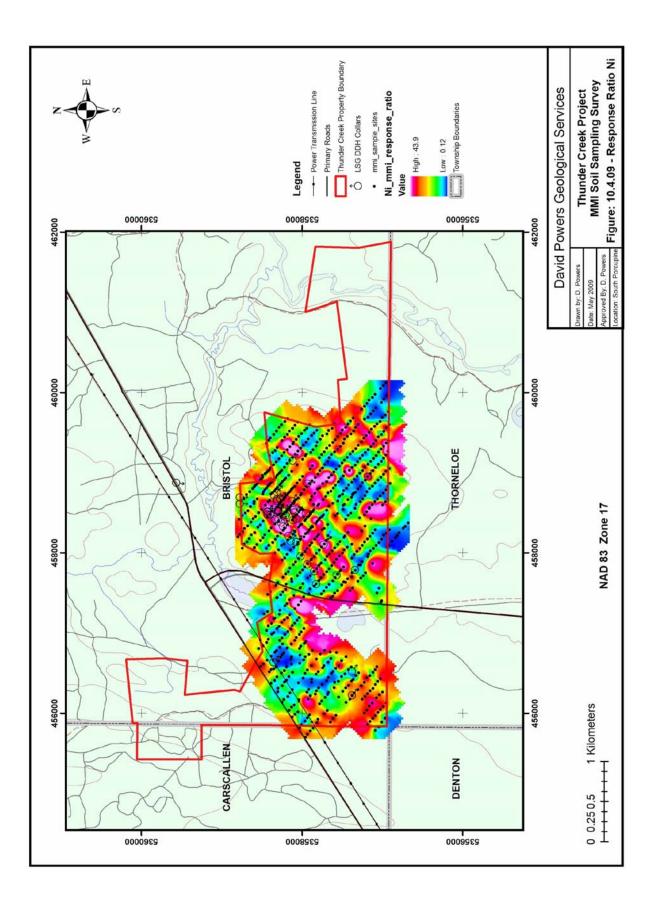


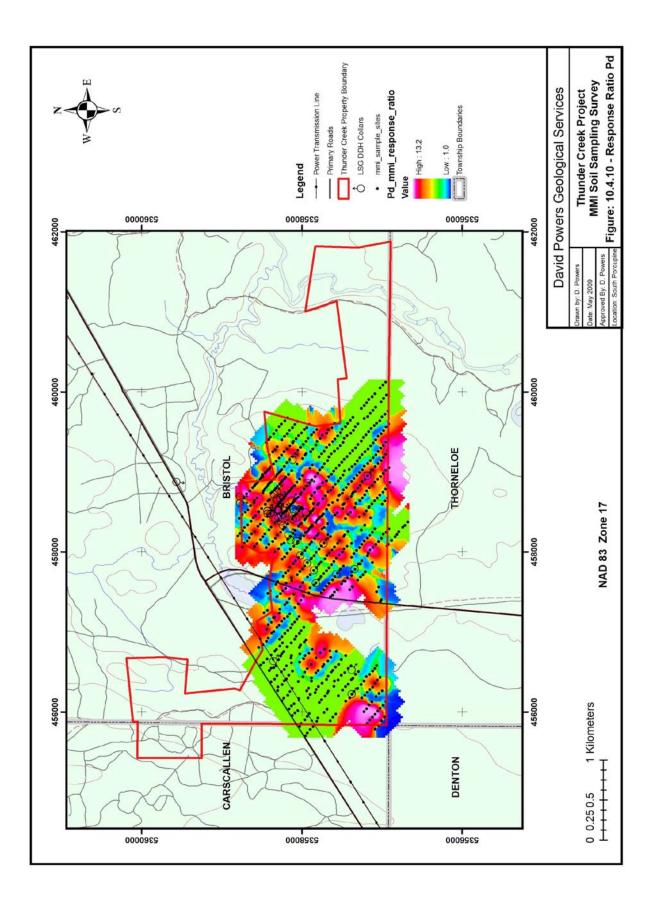












## 11.0 DIAMOND DRILLING

## 11.1 General Description of the Diamond Drill Programs

Bradley Bros. Ltd., (Timmins, Ontario), is the contractor assigned to carry out the diamond drilling on the Thunder Creek Property. Holes are bored to retrieve NQ size rock cores with a diameter of 47.6mm. As a practice, diamond drill hole casings are left in the ground and labeled for future surveys and access. At the present time there are four diamond drill rigs boring holes into the Thunder Creek project. The project data cut off for this report is June 24<sup>th</sup>, 2009. Seventy five (75) diamond drill hole collar locations are indicated in Table 11.1.1, Diamond Drill Hole Collar Details. Of the seventy five drill holes and seven wedged hole extensions, information from bore holes TC09-68c, TC09-68d, TC09-71a, TC09-73, TC09-73a, TC09-74 and TC09-75 is pending completion of the logging and verification process. Thus information from these bore holes will not be a subject of the technical report. To date 40,689 metres have been cored on the Thunder Creek Project by Lake Shore Gold Corp. Figure 11.1.1a, and Figure 11.1.1b, are diamond drill collar location plans, illustrating the location of the holes relative to the property geology and claim boundary. The location of Lake Shore's first forty-nine drill holes are plotted in Figure 11.1.1a, and drill holes fifty to seventy-one are positioned on Figure 11.1.1b. Figure 11.1.2, is a generalized cross section, looking south-southwest illustrating the geology and intercept points of the labeled diamond drill holes. An idealized composite section of present interpretation of the Thunder Creek diamond drilling in relation to the Timmins West Gold Mine's infrastructure and mineralized zones is illustrated in Figure 11.1.3. A vertical longitudinal projection of core length intersections piercing the Rusk Zone is diagramed in Figure 11.1.4. The intersection pierce point for drill hole TC09-68b is illustrated on Figures 11.1.2, 11.1.3, and 11.1.4.

The objectives of the previous diamond drill campaigns was to test, a) the historical showings by twinning the Preussag 1981 hole, b) test MMI soil geochemistry anomalies, c) test geophysical interpreted structure; d) test lithologies and stratigraphy; and definition drilling of mineralization intersected. The emphasis and targeting of the diamond drill programs has evolved to the definition drilling of gold mineralization associated with gold zones hosted in the AIC, Hangingwall AIC, Footwall AIC, porphyry zone, EWSZ and SWSZ or Rusk. Table 11.1.2, summarizes the exploration target expected to be intersected for each drill hole. Compiled assay results from Lake Shore's press releases are presented in Table 11.1.3. Located in Appendix 2, Table 11.1.4, prepared by the author, tabulates the returned assay results, and weighted average combinations of results greater than or equal to 1 gram per tonne gold. Within this table an assay result, or an average of assay results must average 1 gram or greater before bring combined into the composite assay. To date no upper limit cutting factor as been applied to gold assay averaging, or results presentations.

## 11.2 Lake Shore Core Handling and Logging Protocols

The diamond drillers secure the drill core boxes, at the drill site, for shipment from the field to the core logging facility located in the Bradley Bros. Ltd. ("Bradley") compound at 3300 Riverside Drive, Timmins, Ontario. The drill core is delivered to the core shack by the Bradley drill foreman. Under the direct supervision of Mr. Jacques Samson, P.Geo., Lake Shore personnel open the boxes; check the metre markers for accuracy; label the boxes for hole number, box number and footage; prepare a quick log; take rock quality

designation ("RQD") measurements; photograph and log the core. Geological logging is done directly into a computer using GEMCOM GEMS Custom Drill Logger software. The logging software was recently changed from DHLogger. Diamond drill logs are then printed, reviewed and edited where required. The logs are detailed, and are of very good quality, describing geology, structure, alteration, mineralization and do address transition problem areas where naming nomenclature presents difficulties.

## 11.3 Hole Collar and Down-Hole Attitude Surveys

The proposed drill hole locations are pegged on the ground referenced to a 63 kilometre control grid established by Vision Exploration in 2008. Chainsaw cut lines are on 50 to 100 metre spacing with labeled pickets every 25 metres provide adequate field control for exploration anomaly drill testing. The "false origin" of the grid is coincident with the number three (3) post of patented claim P4040 (458,854.168m East, 5,358,786.3m North, Nad 83, Zone 17). The surveyed post is the departure point for the baseline coordinate 65+00E / 100+25N. The azimuth of the base line is 40 degrees from true north. Grid line designation decreases southward. All drill holes are spotted on the field grid coordinate system, initially using a hand held GPS. On a regular basis or as required the collars are surveyed L. Labelle Surveys of Timmins for a final collar location. Table 11.1.1, lists the collar location, drill azimuth, hole inclination (drill dip) end of hole and the number of samples per hole. Note that for diamond drill holes TC08-51 to TC09-73 collar locations remain in field grid co-ordinates. The final collar survey is scheduled, but has not taken place at the time of writing this report.

As the holes are drilling changes in azimuth and inclination are monitored at 30 to 50 metre intervals using an EZ-shot Reflex instrument. Upon completion of a hole it is normal practice to have the holes resurveyed using a north-seeking gyro by Halliburton/Sperry Drilling Services of North Bay, Ontario. If the north-seeking gyro is not available for surveying, a Maxibor instrument from Reflex Instruments of Timmins is used for the final direction and dip orientation survey.

Hole Number	Easting Nad 83	Northing Zone 17	Elevation	Azimuth	Dip	Casing Depth	End of Hole	Final Depth
	(m)	(m)	(m)	(°)	(°)	(m)	(m)	(m)
TC03-01	458659	5358115	10017	125	-45	3	232	232
TC03-02	458667	5358292	10016	175	-45	13	290	290
TC03-03	458967	5357169	10043	125	-45	4	332	332
TC03-04	458696	5358751	10009	180	-45	16	191	191
TC03-05	458427	5358048	10018	170	-45	5	284	284
TC03-06	458541	5358279	10015	125	-48	22	338	338
TC03-07	458613	5358752	10014	180	-45	4	278	278
TC04-08	457806	5357328	10019	130	-45	28	425	425
TC04-09	457740	5357554	10019	130	-45	15	296	296
TC04-10	457628	5357812	10022	130	-45	2	329	329
TC04-11	457791	5357834	10021	130	-45	3	269	269
TC04-12	458537	5358088	10017	180	-45	14	350	350
TC04-13	458500	5357932	10019	165	-45	2	296	296
TC04-14	458665	5358302	10017	130	-55	13	422	422
TC04-15	458525	5358082	10017	130	-50	12	250	250
TC04-16	456243	5357364	10000	130	-45	10	297	297
TC04-17	456654	5358340	10000	130	-45	13	305	305
TC04-18	458540	5358280	10015	125	-67	16	452	452
TC04-19	458485	5358189	10017	125	-67	11	401	401
TC05-20	456543	5357364	10000	130	-45	25	389	389
TC05-21	458863	5357912	10019	170	-45	4	374	374
TC05-22	459170	5358100	10000	130	-45	3	314	314
TC05-23	457973	5358006	10039	130	-45	4	476	476
TC05-24	458529	5358216	10015	125	-61	13	405	405
TC05-25	458421	5358101	10019	125	-64	7	401	401
TC07-26	458735	5358331	10022	130	-50	4	348	348
TC07-27	458734	5358333	10021	130	-65	3	381	381
TC07-28	458693	5358255	10018	130	-45	16	344	344
TC07-29	458778	5358296	10010	130	-45	4	236	236
TC07-30	458494	5358379	10023	130	-50	22	560	560
TC07-31	458493	5358379	10017	130	-54	22	612	612
TC07-32	458532	5358416	10017	130	-50	7	588	588
TC07-33	458494	5358379	10015	130	-45	22	482	482
TC07-34	458533	5358416	10017	130	-45 -50	7	402 561	402 561
TG07-34 TG04-50(ext)	458867	53595476	10018	188	-50 -60	50	1451	191
TC07-35	458533	5359547	10010	130	-60 -59	7	693	693
TC07-35	458533 458533	5358285	10018	130	-59 -60	7 16	429	429
	458533 458541	5358285 5358279	10015	130	-60 -48	22	429 480	429 142
TC03-06(ext)	458541	5358279 5358278						
TC07-37			10016	130	-58	7	624 526	624 526
TC07-38	458399	5358247	10018	130	-66	7	536	536
TC07-39	458349	5358224	10020	130	-50	7	531	531
TC07-40	458230	5358154	10023	130	-50	7	539	539
TC07-41	458498	5358414	10019	130	-65	13	711	711
TC07-42	458156	5358055	10028	130	-50	3	566	566
TC07-43	458498 458156	5358414 5358055	10019 10028	130 130	-60 -61	13 3	708 449	708 449
TC07-44								

## Table 11.1.1: Diamond Drill Hole Collar and Sampling Information

Hole	Easting Northing		Elevation	Azimuth	Dip	Casing	End	Final
Number		Zone 17				Depth	of Hole	Depth
	(m)	(m)	(m)	(°)	(°)	(m)	(m)	(m)
TC07-45	458498	5358414	10019	130	-52	13	510	510
TC04-18(ext)	458540	5358280	10015	130	-67	16	551	99
TC08-46	458439	5358324	10018	130	-62	4	552	552
TC08-47	458530	5358216	10015	125	-56	16	438	438
TC08-48	458164	5358127	10029	130	-50	7	637	637
TC08-49	458122	5357717	10019	130	-50	4	591	591
TC08-50	457877	5357919	10025	130	-45	13	702	702
TC08-51	6610	9800	no reading	130	-50	16	544	544
TC08-52	6760	9450	no reading	130	-57	7	305	305
TC08-53	6775	9700	no reading	130	-45	4	260	260
TC08-54	6385	9550	no reading	130	-65	2	882	882
TC08-55	6685	9500	no reading	130	-60	10	368	368
TC08-56	6700	9450	no reading	130	-60	4	419	419
TC08-57	6385	9550	no reading	130	-61	4	750	750
TC08-58	6810	9450	no reading	130	-57	4	254	254
TC08-59	6835	9450	no reading	130	-45	4	218	218
TC08-60	6385	9550	no reading	130	-54	4	687	687
TC08-61	6750	9400	no reading	130	-55	4	314	314
TC08-62	6850	9350	no reading	130	-45	4	272	272
TC08-63*	6975	8900	no reading	130	-45	7	563	563
TC08-64	6400	9500	no reading	130	-65	16	792	792
TG08-65*	7305	8900	no reading	130	-45	4	473	473
TC08-66*	6255	9850	10010	130	-66	7	933	933
TC09-67*	6255	9750	10010	130	-66	4	933	933
TC09-68	6130	9650	10010	130	-64	4	1172	1,172
TC09-68a	6130	9650	10010	130	-64	4	941	77
TC09-68b*	6130	9650	10010	130	-64	4	1072	676
TC09-68C*	6130	9655	10010	130	-64	4	1045	613
TC09-68d*	6130	9655	10010	130	-64	4	545	89
TC09-69	6225	9500	10010	130	-66	4	856	856
TC09-69a	6225	9500	10010	130	-66	4	1023	320
TC09-70	6241	9700	10010	129	-66	4	1043	1,043
TC09-71*	6225	9400	10010	129	-65	4	1068	1,221
TC09-71a*	6225	9400	10010	129	-65	4	1105	809
TC09-72*	6450	9600	10017	130	-58	3	605	605
TC09-73*	6075	9550	10017	128	-69	7	1262	1,262
TC09-73a*	6075	9550	10017	128	-69	7	in progress	13
TC09-74*	6300	9200	10033	165	-60	4	in progress	393
TC09-75*	6061	9700	10015	126	-68	4	in progress	417
						Totals		40,689

# Table 11.1.1: Diamond Drill Hole Collar and Sampling Information (continued)

\* Note: Cells highlighted irepresent drilling, core logging, or assaying in progress.

Hole Number	Rusk U.M		AIC Pyroxenite		Pyroxenite Stratigraphy		"Yit"	Structure EWSZ	MMI	Geophysic Mag	s IP	Mag
umber	Rusk	U M	AIC	Sediment	Volcanic	straugraphy	Pit	EVVOL	MINU	Felsic Int.	Mag	Structur
TC03-01		1										
TC03-02	i ä									2	1	2
TC03-03 TC03-04		-	-				2			-		_
TC03-04							, v			-	<u>.</u>	-
TC03-06			·		· · · · · · · · · · · · · · · · · · ·					2	<i>4</i>	С.
TC03-07	1	2							2	2		i.
TC04-08										2	8	<u>.</u>
TC04-09 TC04-10				<u> </u>				-				<u> </u>
TC04-10	- 7	8							1			
TC04-12												ų.
TC04-13											2	2
TC04-14							-					<u> </u>
TC04-15 TC04-16		0								8	8	
TC04-17								-		1	i.	5
TC04-18	, j	() (										
TC04-19				L								<u> </u>
TC05-20 TC05-21												<u> </u>
TC05-21 TC05-22												
TC05-23		(j)										
TC05-24									1			
TC05-25						-			1			
TC07-26 TC07-27	1 1											
TC07-28												
TC07-29												
TC07-30												
TC07-31												-
TC07-32 TC07-33					8						3.	
TC07-34						-				-	-	
TG04-50(ext)												
TC07-35					2	-			-	S		2
TC07-36					-						1	-
TC03-06(ext) TC07-37		<i>1</i>				-		-		-	0	
TC07-38					-				8	2	6	1
TC07-39									1 8			
TC07-40												
TC07-41		U										<u> </u>
TC07-42 TC07-43		6.	-		2		-					6
TC07-43		3									1	
TC07-45		l.									2	
TC04-18(ext)												
TC08-46				<u> </u>								-
TC08-47 TC08-48		-		<u> </u>								-
TC08-49												
TC08-50										Ĭ		
TC08-51												
TC08-62		-			-							-
TC08-53 TC08-54								i i	ji ji	1		
TC08-55									j j			
TC08-56												
TC08-57		-	-				-					<u> </u>
TC08-58 TC08-59												<u> </u>
TC08-60												
TC08-61												
TC08-62	1						1					
TC08-63	<u></u> (;		-		-			-		ak -		-
TC08-64 TG08-65		-			-	-				-		
TC08-66					-							-
TC09-67										8		
TC09-68										1	1	
TC09-68a		-			-		-	-		-		
TC09-68b TC09-68c	-	-	-		-				2			<u> </u>
TC09-68c		-				3	1		1			
TC09-69												
TC09-69a									í l	1		
TC09-70												
TC09-71		3				-			1	-	2	
TC09-71a TC09-72		2	-		-			-			10.	-
TC09-72 TC09-73		-			-	-	-				0	<u> </u>
TC09-73a									5	2	6	1
TC09-74					<u> </u>	1			1	<u> </u>		
TC09-75												

# Table 11.1.2: Diamond Drill Targets

Date	DDH	FROM (m)	TO (m)	LENGTH (m)	G/T Au	ZONE
24-Mar-04	TC03-01	34.20	35.00	0.80	1.20	Rusk
		39.85	40.75	0.90	1.20	in vicinity of 2 historic Preussag DDF
	TC03-05	181.20	184.00	2.80	1.40	Rusk
		182.15	183.00	0.85	2.60	in vicinity of 2 historic Preussag DDH
	TC03-06	313.40	317.30	3.90	3.70	Rusk
		313.40	314.20	0.80	9.00	in vicinity of 2 historic Preussag DDI
01-Aug-07	TC07-30	384.80	388.45	3.65	10.91	UM ZONE 1
	including	385.80	388.45	2.65	14.68	
		397.20	398.40	1.20	5.43	UM ZONE 2
		408.50	409.00	0.50	27.60	Rusk
05-Sep-07	TC07-30	412.55	416.50	3.95	9.77	New Lower
	including	413.40	416.50	3.10	12.01	Rusk
04-Dec-07	TC07-31	209.20	209.80	0.60	1.18	Volcanics
		424.70	425.20	0.50	13.40	UM/S*
		427.40	427.90	0.50	1.05	UM/S
		429.50	430.00	0.50	3.76	UM/S
		434.00	437.10	3.10	5.03	UM/S
	including	434.00	435.60	1.60	7.93	UM/S
	_	439.10	444.10	5.00	1.08	UM/S
04-Dec-07	TC0732	434.60	435.00	0.40	1.91	UM/S
		439.40	440.00	0.60	3.57	UM/S
		444.70	445.10	0.40	1.93	UM/S
	TC07-33	412.35	413.70	1.35	3.43	UM/S
		417.40	418.15	0.75	2.05	UM/S
		425.00	429.40	4.40	2.12	UM/S
	including	428.50	429.40	0.90	4.47	UM/S
	, i i i i i i i i i i i i i i i i i i i	442.55	443.35	0.80	1.01	UM/S
	TC07-34	in progress				
	TC07-35	in progress				
	TC07-36	344.00	351.00	7.00	24.61	UM/S
		344.00	350.05	6.05	28.05	UM/S
31-Mar-08	TC07-34	424.80	431.40	6.60	1.62	Rusk
	including	431.00	431.40	0.40	14.10	
	TC07-35	461.40	468.70	7.30	3.79	Rusk
		466.10	468.70	2.60	6.33	. tuon
	TC07-37	314.15	314.45	0.30	1.37	Rusk
	TC07-37	319.75	321.90	2.15	2.16	HW volcanics*
	1007-30	321.45	321.90	0.45	5.48	
	TC07-39	271.40	271.70	0.45	4.75	HW volcanics
	1007-38	302.25	302.65	0.30	4.75 1.36	
	TC07-40			0.40	1.30	evolution
		no significan		1.05	2.26	exploration
	TC07-41	508.75	509.80	1.05	3.36	Rusk
	in a lualis -	514.90	518.75	3.85	4.72	Rusk
	including	514.90	516.95	2.05	8.52	0
		601.00	602.00	1.00	1.06	Syenite
		609.20	609.70	0.50	1.28	Syenite
		615.25	615.70	0.45	2.51	Syenite
	TC07-42	206.65	207.05	0.40	1.14	exploration

 Table 11.1.3: Assay Results As Released by Lake Shore Gold Corp.

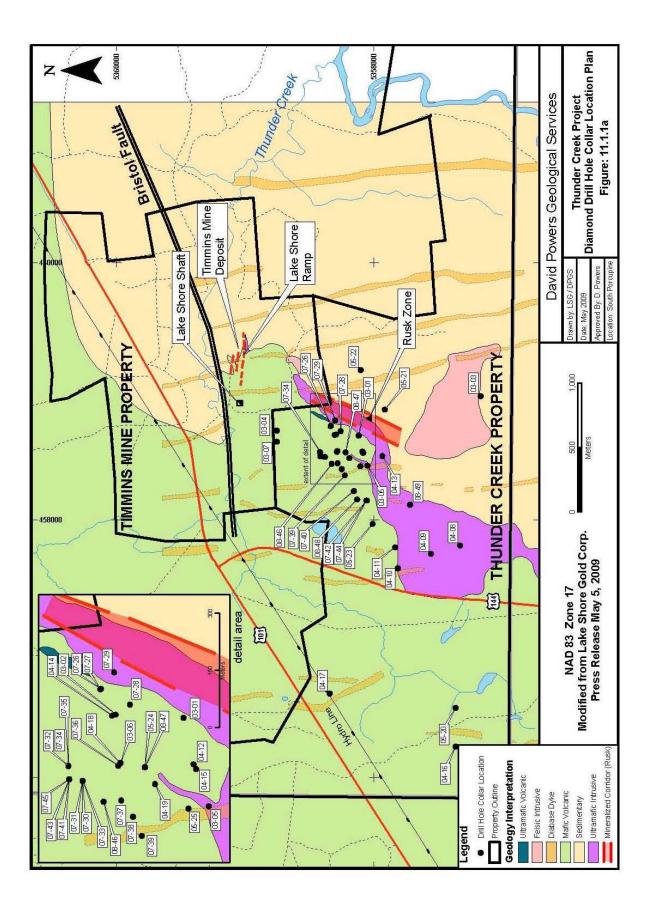
Date	DDH	FROM (m)	TO (m)	LENGTH (m)	G/T Au	ZONE
31-Mar-08	TC07-43	463.30	492.65	29.35	4.08	Rusk
	including	483.65	492.65	9.00	8.57	
	TC07-44	in progress				
	TC07-45	436.70	448.90	12.20	1.24	Rusk
	including	443.90	444.30	0.40	9.65	
	TC07-46	in progress				
	TC08-47	284.50	285.40	0.90	27.51	Rusk
	TC03-06ext	no significan		0.00	21.01	exploration
	TC04-18ext	no significan				exploration
	TG04-50ext	no significan				exploration
	TC08-48	in progress	it results			exploration
	TC08-50					
40		in progress	4			
16-Dec-08	TC08-51	no significan		0.05	4.00	
	TC08-52	179.10	179.95	0.85	4.68	Rusk shallow
		185.95	187.40	1.45	3.02	Rusk shallow
		200.00	200.45	0.45	3.46	Rusk shallow
	TC08-53	no significan				
	TC08-54	608.50	609.50	1.00	1.57	Rusk
		621.75	625.45	3.70	1.92	Rusk
		644.10	645.65	1.55	4.03	Rusk
		657.65	684.00	26.35	5.90	Porphyry/Rusk
	including	666.40	676.80	10.40	11.20	
	including	666.40	669.40	3.00	25.99	
	including	672.25	676.80	4.55	7.79	
	TC08-55	266.30	266.60	0.30	5.06	Rusk shallow
	TC08-56	231.35	235.10	3.75	2.37	Rusk shallow
	including	231.35	231.65	0.30	18.20	
		251.65	259.00	7.35	1.34	Rusk shallow
	including	258.50	259.00	0.50	8.60	
	TC08-57	576.90	577.20	0.30	5.67	Rusk
		601.30	602.20	0.90	12.54	Rusk
		607.15	607.65	0.50	5.74	
	TC08-58	110.55	113.40	2.85	3.01	Rusk shallow
		117.60	117.90	0.30	3.15	
	TC08-59	no significan	t results			
31-Mar-09	TC08-60	546.80	567.95	21.15	3.48	Rusk
	including	548.05	548.70	0.65	13.33	
	and including	552.45	553.05	0.60	15.00	
	and including	567.60	567.95	0.35	25.50	
	TC08-61	48.90	49.40	0.50	6.03	HW Volcanics
	TC08-62	no significan				
	TC08-64	587.85	598.90	11.05	3.02	Rusk
	including	595.55	598.90	3.35	6.81	
	and including	596.50	597.00	0.50	12.80	
	and including	598.50	598.90	0.40	12.10	
	TC09-68	894.00	897.00	3.00	7.41	Rusk
	1003-08	897.00	899.00	2.00	LC	lost core
		899.00	900.50	1.50	3.87	Rusk
	and					Rusk
	and	906.40	1028.55	122.15	1.81	
	including	915.45	929.10	13.65	5.80	
	and including	952.90	965.75	12.85	5.29	

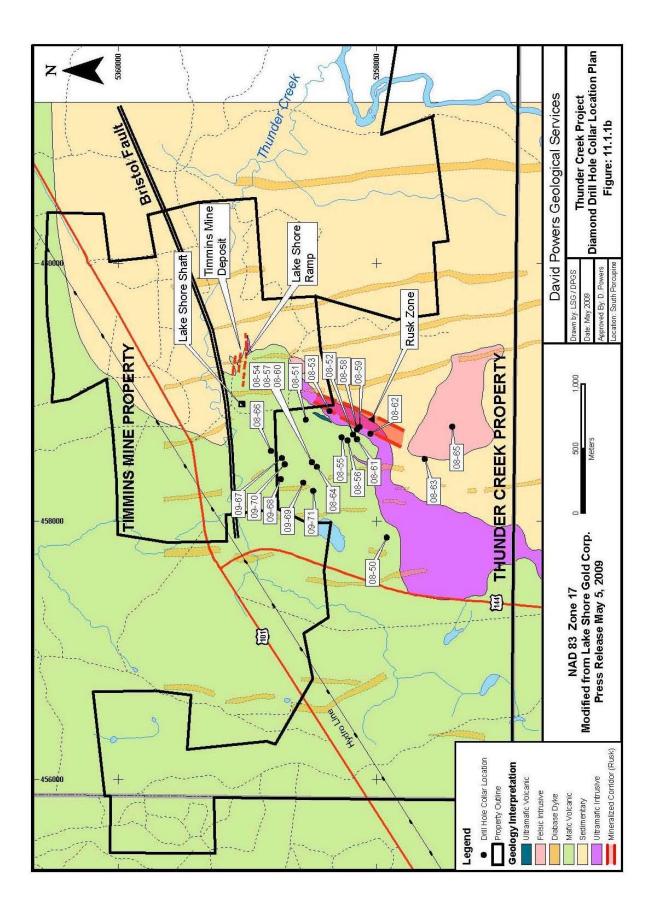
# Table 11.1.3 : Assay Results As Released by Lake Shore Gold Corp. (continued)

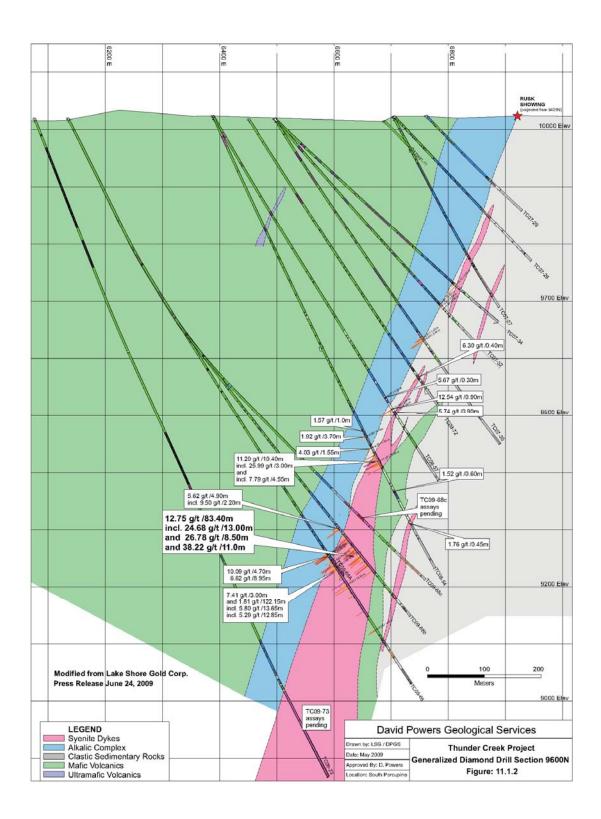
Date	DDH	FROM (m)	TO (m)	LENGTH (m)	G/T Au	ZONE
31-Mar-09	TC09-69	781.40	806.25	24.85	8.86	Rusk
continued	including	783.20	787.25	4.05	10.88	
	and including	789.20	795.20	6.00	19.55	
	and including	801.00	806.25	5.25	7.95	
	and	810.45	855.00	44.55	1.00	Porphyry
	including	810.45	810.90	0.45	17.45	Zone
	and including	853.70	854.10	0.40	11.25	
05-May-09	TC09-68	894.00	897.00	3.00	7.41	Rusk
-	including	895.45	897.00	1.55	11.41	
	-	897.00	899.00	2.00	LC	lost core redrilled in TC09-68a
		899.00	900.50	1.50	3.87	Rusk
	and	906.40	1028.55	122.15	1.81	Porphyry Zone
	including	906.40	931.10	24.70	3.76	r orphyry zone
	including	915.45	929.10	13.65	5.80	
	including	915.45	918.60	3.15	7.76	
	including	920.90	925.60	4.70	3.15	
	including	927.60	929.10	1.50	25.49	
	including	952.90	965.75	12.85	5.29	
		1055.30	1056.80	1.50	5.04	Other
	TC09-68a	895.30	900.00	4.70	10.09	Rusk
	including	896.30	898.55	2.25	17.16	
		907.20	941.00	33.80	2.17	Porphyry Zone
	including	908.30	917.25	8.95	6.62	
	TC09-69	781.40	806.25	24.85	8.86	Rusk
	including	783.20	787.25	4.05	10.88	
	and including	789.28	795.20	5.92	19.55	
	and including	801.00	806.25	5.25	7.95	
	and	810.45	855.00	44.55	1.00	Porphyry
	including	810.45	810.90	0.45	17.45	Zone
	and including	853.70	854.10	0.40	11.25	
	TC09-69a	776.85	777.40	0.55	5.73	Rusk
	1003-034	784.10	803.55	19.45	7.97	Rusk
	including	784.60	791.50	6.90	9.88	Rusk
		784.60	787.05	2.45	9.00 19.95	
	or includint				19.95	
	including	797.15	803.15	6.00		Damitana Zana
		805.70	873.20	67.50	1.70	Porphyry Zone
	including	815.20	817.70	2.50	4.76	
	and including	823.20	825.70	2.50	7.76	
	and including	846.20	848.20	2.00	11.33	
	and including	856.20	857.70	1.50	7.83	
		906.60	907.60	1.00	4.65	Other
	TC09-70	898.80	911.80	13.00	2.25	Porphyry Zone
		899.30	900.65	1.35	11.26	
		904.20	905.40	1.20	7.32	
24-Jun-09	TC08-63	558.80	559.80	1.00	2.82	Syenite
	TC08-65	24.00	25.00	1.00	1.23	Syenite
	TC08-66	no significan				
	TC08-67	no significan				
	TC09-68b	866.30	871.20	4.90	5.62	Rusk
	includes	869.00	871.20	2.20	9.50	. tuon
	moluues		011.20	2.20	3.50	
		889.40	972.80	83.40	12.75	Entire Porphyry
	or	888.00	965.50	77.50	13.73	
	includes	888.00	901.00	13.00	24.68	Sub Zone 1
		909.65	911.00	1.35	16.18	Sub Zone 2
		914.50	923.00	8.50	26.78	Sub Zone 3
		928.00	939.00	11.00	38.22	Sub Zone 4
		949.00	956.50	7.50	5.06	Sub Zone 5
		964.00	965.50	1.50	5.74	Sub Zone 6
		1025.50	1031.50	6.00	1.01	New Porphyry
	TC09-71	no significan	t results			

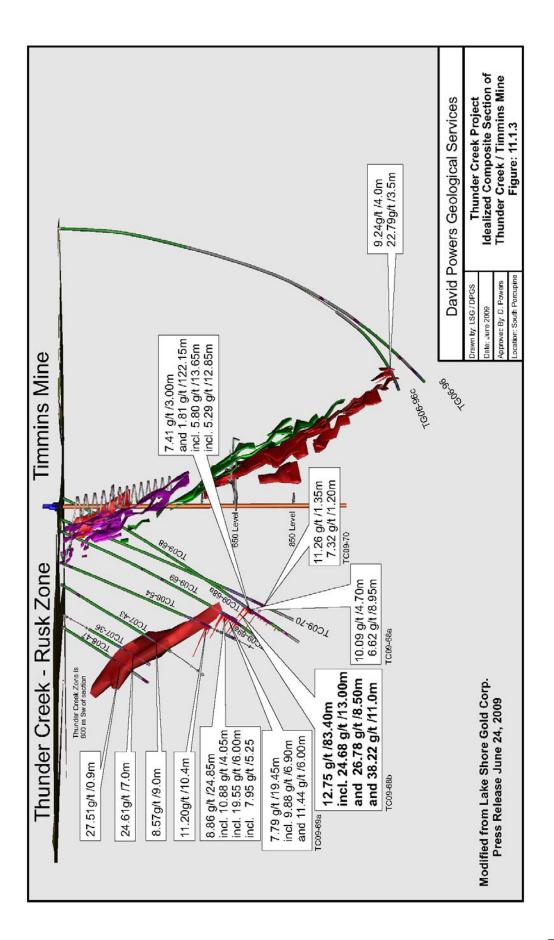
Table 11.1.3 : Assay Results As Released by Lake Shore Gold Corp. (continued)

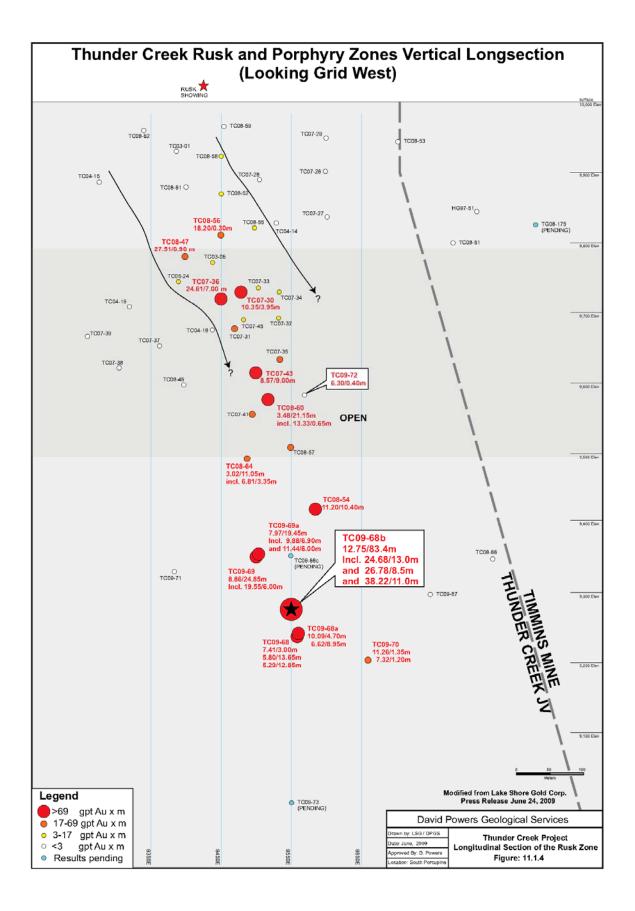
UM/S\* Ultramafic / Sediment Contact Area HW Volcanics\* - Hanging Wall Volcanics











# 12.0 SAMPLING METHOD AND APPROACH

# 12.1 General

Historical assay data from assessment T-Files or AFRI files has been accepted at face value. In some cases, but not all copies of assay certificates have been submitted with the historical reports. Lake Shore has twinned historical holes and re-sampled showings for qualitative controlled assay results. All diamond drill core is archived in core racks or cross piled in a secure systematic indexed core farm. The sawn core half not sent for assay is available for check assay results. Drill core from the Thunder Creek project is easily accessible for inspection, or re-logging. Table 12.1.1 summarizes the diamond drill holes sample statistics, illustrating the number of samples, the number of returned assay results per drill hole equal or greater than 1 gram per tonne gold, the number of sample analysis equal to or greater than 34.29 grams per tonne gold (one ounce per ton gold) plus the number of assay samples taken and the method of analysis.

Hole Number	Number of Number Assays Samples		of which Number of Assays	Analysis FA aa	Analysis FA g	Analysis metalics	Analysis aa
		>= 1 g/tonne Au (>=0.029 ounces/ton Au)	>= 34.29 g/tonne Au (>=1 ounce /ton Au)	Au	Au	Au	As
TC03-01	168	3	0	168	0	0	168
TC03-02	170	1	0	170	0	0	170
TC03-03	105	0	0	105	0	0	105
TC03-04	74	0	0	74	0	0	74
TC03-05	138	2	0	138	0	0	138
TC03-06 + ext	312	5	0	312	0	0	312
TC03-07	83	0	0	83	0	0	83
TC04-08	99	0	0	99	0	0	99
TC04-09	11	0	0	11	0	0	11
TC04-10	91	1	0	91	0	0	91
TC04-11	78	0	0	78	0	0	78
TC04-12	142	1	0	142	1	0	142
TC04-13	133	0	0	133	0	0	133
TC04-14	145	0	0	145	0	0	145
TC04-15	139	0	0	139	0	0	139
TC04-16	13	0	0	13	0	0	13
TC04-17	11	0	0	11	0	0	11
TC04-18 + ext	337	2	0	337	0	0	337
TC04-19	267	6	0	267	1	0	267
TC05-20	81	0	0	81	0	0	81
TC05-21	210	0	0	210	0	0	210
TC05-22	29	0	0	29	0	0	29
TC05-23	51	0	0	51	0	0	51
TC05-24	173	9	0	173	3	0	173
TC05-25	180	0	0	180	0	0	180
TC04-50ext	53	0	0	53	0	0	53
TC07-26	298	0	0	298	0	0	298
TC07-27	217	0	0	217	0	0	217
TC07-28	249	2	0	249	0	0	249
TC07-29	72	0	0	72	0	0	72
TC07-30	285	19	1	275	14	36	285
TC07-31	362	14	0	362	6	0	362
TC07-32	288	3	0	288	1	0	288
TC07-33	183	9	0	183	2	0	183
TC07-34	266	5	0	266	2	0	266
TC07-35	212	9	0	212	8	0	212
TC07-36	217	15	3	217	14	17	217
TC07-37	359	1	0	359	0	0	359
TC07-38	306	3	0	306	2	0	306
TC07-39	227	2	0	227	1	0	227
TC07-40	252	0	0	252	0	0	252
TC07-41	306	12	0	306	7	0	306
TC07-42	163	1	0	163	0	42	163
TC07-43	247	14	3	247	10	0	247
TC07-44	160	0	0	160	0	Õ	47
TC07-45	238	6	0	238	3	Õ	238
TC08-46	393	3	0	393	1	0 0	157
TC08-47	309	6	1	309	3	0 0	309
TC08-48	475	0 0	0	475	0	Ő	0
TC08-49	369	1	0	369	0	0	0
1000 40	000	1	<b>U</b>	000	0	0	~

# Table 12.1.1 Diamond Drill Core Sampling Summary

TC08-51         246         0         0         246         0         0           TC08-52         325         6         0         325         4         0           TC08-53         96         0         0         96         0         0           TC08-53         96         0         0         96         0         0           TC08-55         264         6         0         264         2         0           TC08-55         264         6         0         264         2         0           TC08-57         418         6         0         418         4         0           TC08-59         180         0         0         180         0         0           TC08-61         354         4         0         355         4         44           TC08-61         354         4         0         354         1         0           TC08-62         356         0         0         356         0         0         27           TC08-63         467         1         0         467         0         0         27           TC08-64         603	Hole Number	Number of Samples	Number Assays >= 1 g/tonne Au (>=0.029 ounces/ton Au)	of which Number of Assays >= 34.29 g/tonne Au (>=1 ounce /ton Au)	Analysis FA aa Au	Analysis FA g Au	Analysis metalics Au	Analysis aa As
TC08-53       96       0       0       96       0       0         TC08-54       584       52       2       532       4       61         TC08-55       264       6       0       264       2       0         TC08-56       356       11       0       356       2       0         TC08-57       418       6       0       418       4       0         TC08-58       426       7       0       426       5       0         TC08-59       180       0       0       180       0       0         TC08-61       354       4       0       355       4       44         TC08-62       356       0       0       356       0       0         TC08-63       467       1       0       467       0       0         TC08-64       603       18       0       576       0       27         TC08-65       492       1       0       492       0       0         TC08-66       329       0       0       329       0       0         TC08-66       329       0       0       282	TC08-51	246	0	0	246	0	0	0
TC08-54       584       52       2       532       4       61         TC08-55       264       6       0       264       2       0         TC08-56       356       11       0       356       2       0         TC08-57       418       6       0       418       4       0         TC08-57       418       6       0       418       4       0         TC08-58       426       7       0       426       5       0         TC08-59       180       0       0       180       0       0         TC08-60       386       28       0       355       4       44         TC08-61       354       4       0       355       4       44         TC08-62       356       0       0       355       4       44         TC08-63       467       1       0       467       0       0         TC08-63       467       1       0       467       0       0         TC08-64       603       18       0       576       0       27         TC08-65       492       1       0       422 <td>TC08-52</td> <td>325</td> <td>6</td> <td>0</td> <td>325</td> <td>4</td> <td>0</td> <td>0</td>	TC08-52	325	6	0	325	4	0	0
TC08-55       264       6       0       264       2       0         TC08-56       356       11       0       356       2       0         TC08-57       418       6       0       418       4       0         TC08-58       426       7       0       426       5       0         TC08-59       180       0       0       180       0       0         TC08-60       386       28       0       355       4       44         TC08-61       354       4       0       356       0       0         TC08-62       356       0       0       356       0       0         TC08-63       467       1       0       467       0       0         TC08-64       603       18       0       576       0       27         TC08-65       492       1       0       492       0       0         TC08-66       329       0       0       329       0       0         TC08-66       329       0       0       22       0       0         TC09-68       670       78       2       596	TC08-53	96	0	0	96	0	0	0
TC08-56       356       11       0       356       2       0         TC08-57       418       6       0       418       4       0         TC08-58       426       7       0       426       5       0         TC08-59       180       0       0       180       0       0         TC08-60       386       28       0       355       4       44         TC08-61       354       4       0       354       1       0         TC08-62       356       0       0       354       1       0         TC08-62       356       0       0       354       1       0         TC08-62       356       0       0       356       0       0         TC08-62       356       0       0       27       0       0         TC08-63       467       1       0       492       0       0         TC08-65       492       1       0       492       0       0         TC08-66       329       0       0       282       0       0         TC09-68       670       78       2       596	TC08-54	584	52	2	532	4	61	56
TC08-57       418       6       0       418       4       0         TC08-58       426       7       0       426       5       0         TC08-59       180       0       0       180       0       0         TC08-60       386       28       0       355       4       44         TC08-61       354       4       0       354       1       0         TC08-62       356       0       0       356       0       0         TC08-63       467       1       0       467       0       0         TC08-63       467       1       0       492       0       0         TC08-65       492       1       0       492       0       0         TC08-65       492       1       0       492       0       0         TC08-66       329       0       0       329       0       0         TC08-67       282       0       0       282       0       0         TC09-68       670       78       2       596       16       74         TC09-684       130       26       2       62	TC08-55	264	6	0	264	2	0	0
TC08-58       426       7       0       426       5       0         TC08-59       180       0       0       180       0       0         TC08-60       386       28       0       355       4       44         TC08-61       354       4       0       354       1       0         TC08-62       356       0       0       356       0       0         TC08-63       467       1       0       467       0       0         TC08-63       467       1       0       467       0       0         TC08-63       467       1       0       467       0       0         TC08-64       603       18       0       576       0       27         TC08-65       492       1       0       492       0       0         TC08-66       329       0       0       329       0       0         TC08-67       282       0       0       282       0       0         TC09-68       670       78       2       596       16       74         TC09-68a       130       26       2       62 <td>TC08-56</td> <td>356</td> <td>11</td> <td>0</td> <td>356</td> <td>2</td> <td>0</td> <td>0</td>	TC08-56	356	11	0	356	2	0	0
TC08-59       180       0       0       180       0       0         TC08-60       386       28       0       355       4       44         TC08-61       354       4       0       354       1       0         TC08-62       356       0       0       356       0       0         TC08-63       467       1       0       467       0       0         TC08-63       467       1       0       467       0       0         TC08-64       603       18       0       576       0       27         TC08-65       492       1       0       492       0       0         TC08-66       329       0       0       329       0       0         TC08-67       282       0       0       282       0       0         TC09-68       670       78       2       596       16       74         TC09-68a       130       26       2       62       0       68         TC09-68b       582       101       7       403       3       179         TC09-68d       work in progress, drill information and assays have n	TC08-57	418	6	0	418	4	0	0
TC08-60       386       28       0       355       4       44         TC08-61       354       4       0       354       1       0         TC08-62       356       0       0       356       0       0         TC08-63       467       1       0       467       0       0         TC08-63       467       1       0       467       0       0         TC08-63       467       1       0       467       0       0         TC08-64       603       18       0       576       0       27         TC08-65       492       1       0       492       0       0         TC08-66       329       0       0       329       0       0         TC08-67       282       0       0       282       0       0         TC09-68       670       78       2       596       16       74         TC09-68a       130       26       2       62       0       68         TC09-68b       582       101       7       403       3       179         TC09-68d       work in progress, drill information and assays have n	TC08-58	426	7	0	426	5	0	0
TC08-61       354       4       0       354       1       0         TC08-62       356       0       0       356       0       0         TC08-63       467       1       0       467       0       0         TC08-63       467       1       0       467       0       0         TC08-64       603       18       0       576       0       27         TC08-65       492       1       0       492       0       0         TC08-66       329       0       0       329       0       0         TC08-67       282       0       0       282       0       0         TC09-68       670       78       2       596       16       74         TC09-68a       130       26       2       62       0       68         TC09-68b       582       101       7       403       3       179         TC09-68c       work in progress, drill information and assays have not been finalized       work in progress, drill information and assays have not been finalized       TC09-69       497       60       4       395       8       48	TC08-59	180	0	0	180	0	0	0
TC08-62       356       0       0       356       0       0         TC08-63       467       1       0       467       0       0         TC08-63       467       1       0       467       0       0         TC08-64       603       18       0       576       0       27         TC08-65       492       1       0       492       0       0         TC08-66       329       0       0       329       0       0         TC08-67       282       0       0       282       0       0         TC09-68       670       78       2       596       16       74         TC09-68a       130       26       2       62       0       68         TC09-68b       582       101       7       403       3       179         TC09-68b       582       101       7       403       3       179         TC09-68d       work in progress, drill information and assays have not been finalized       work in progress, drill unformation and assays have not been finalized       TC09-69       497       60       4       395       8       48	TC08-60	386	28	0	355	4	44	0
TC08-63       467       1       0       467       0       0         TC08-64       603       18       0       576       0       27         TC08-65       492       1       0       492       0       0         TC08-66       329       0       0       329       0       0         TC08-66       329       0       0       329       0       0         TC08-67       282       0       0       282       0       0         TC09-68       670       78       2       596       16       74         TC09-68a       130       26       2       62       0       68         TC09-68b       582       101       7       403       3       179         TC09-68b       582       101       7       403       3       179         TC09-68b       582       101       7       403       3       179         TC09-68d       work in progress, drill information and assays have not been finalized       UNICON-600       WOR in progress, drill information and assays have not been finalized       UNICON-600       4       395       8       48	TC08-61	354	4	0	354	1	0	0
TC08-64       603       18       0       576       0       27         TC08-65       492       1       0       492       0       0         TC08-66       329       0       0       329       0       0         TC08-67       282       0       0       282       0       0         TC09-68       670       78       2       596       16       74         TC09-68a       130       26       2       62       0       68         TC09-68b       582       101       7       403       3       179         TC09-68c       work in progress, drill information and assays have not been finalized       UNING       UNING       UNING         TC09-69       497       60       4       395       8       48	TC08-62	356	0	0	356	0	0	0
TC08-65       492       1       0       492       0       0         TC08-66       329       0       0       329       0       0         TC08-67       282       0       0       282       0       0         TC09-68       670       78       2       596       16       74         TC09-68a       130       26       2       62       0       68         TC09-68b       582       101       7       403       3       179         TC09-68b       work in progress, drill information and assays have not been finalized       uverk in progress, drill information and assays have not been finalized       Uvert in progress, drill information and assays have not been finalized         TC09-69       497       60       4       395       8       48	TC08-63	467	1	0	467	0	0	0
TC08-66       329       0       0       329       0       0         TC08-67       282       0       0       282       0       0         TC09-68       670       78       2       596       16       74         TC09-68a       130       26       2       62       0       68         TC09-68b       582       101       7       403       3       179         TC09-68c       work in progress, drill information and assays have not been finalized             TC09-68d       497       60       4       395       8       48	TC08-64	603	18	0	576	0	27	0
TC08-67       282       0       0       282       0       0         TC09-68       670       78       2       596       16       74         TC09-68a       130       26       2       62       0       68         TC09-68b       582       101       7       403       3       179         TC09-68c       work in progress, drill information and assays have not been finalized	TC08-65	492	1	0	492	0	0	0
TC09-68         670         78         2         596         16         74           TC09-68a         130         26         2         62         0         68           TC09-68b         582         101         7         403         3         179           TC09-68c         work in progress, drill information and assays have not been finalized	TC08-66	329	0	0	329	0	0	0
TC09-68a         130         26         2         62         0         68           TC09-68b         582         101         7         403         3         179           TC09-68c         work in progress, drill information and assays have not been finalized	TC08-67	282	0	0	282	0	0	0
TC09-68b58210174033179TC09-68cwork in progress, drill information and assays have not been finalizedwork in progress, drill information and assays have not been finalizedthe second	TC09-68	670	78	2	596	16	74	0
TC09-68cwork in progress, drill information and assays have not been finalizedTC09-68dwork in progress, drill information and assays have not been finalizedTC09-69497604395848	TC09-68a	130	26	2	62	0	68	0
TC09-68dwork in progress, drill information and assays have not been finalizedTC09-69497604395848	TC09-68b	582	101	7	403	3	179	0
TC09-69 497 60 4 395 8 48	TC09-68c	work in progress	s, drill information and assays	s have not been finalized				
	TC09-68d	work in progress	s, drill information and assays	s have not been finalized				
TC09-69a 437 71 4 254 9 127	TC09-69	497	60	4	395	8	48	0
	TC09-69a	437	71	4	254	9	127	0
TC09-70 576 9 0 491 0 29	TC09-70	576	9	0	491	0	29	0
TC09-71 768 0 0 768 0 0	TC09-71	768	0	0	768	0	0	0
TC09-71a work in progress, drill information and assays have not been finalized	TC09-71a	work in progress	s, drill information and assays	s have not been finalized				
TC09-72 288 1 0	TC09-72	288	1	0	288	1	0	0
TC09-73 work in progress, drill information and assays have not been finalized	TC09-73	work in progress	s, drill information and assays	s have not been finalized				
TC09-73a work in progress, drill information and assays have not been finalized								
TC09-74 work in progress, drill information and assays have not been finalized	TC09-74	work in progress	, drill information and assays	s have not been finalized				

# Table 12.1.1 Diamond Drill Core Sampling Summary (continued)

TC09-75 work in progress, drill information and assays have not been finalized

# 13.0 SAMPLE PREPARATION, ANALYSIS, SECURITY

# 13.1 Sample Preparation and Assay Procedures

The drill core is prepared, and logged by Lake Shore personnel or contract geologists and geo-technicians under the direction of Mr. Jacques Samson, P.Geo and project QP. After geological logging and photography is complete the core is given to a trained and supervised core sawing technician. The technician saws the core along the designated lines and sample intervals prescribed by the Lake Shore geologist. Sample intervals ranging from 0.20 to 3.4 metres in length with the average sample length 0.79 metres. The core sample length is determined by the geologist based upon lithology, alteration, percent sulphides, the presence of visible gold, and geological contacts. Core to be sent for analysis is cut in half using a diamond blade core saw. The core half not bagged and tagged for assay is returned to the core box with a sample tag number stapled into the core box. All drill core is stored in a secure compound at the core logging facility in the Bradley industrial compound.

Bagged core samples to be sent for analysis are placed in shipping bags sealed with a numbered security seal by Lake Shore personnel. These bags are shipped to a ALS Chemex prep lab facility. During 2004 the samples were shipped via Manitoulin Transport directly to the ALS Chemex prep-lab in Mississauga. In 2005 the samples were forward to the prep-lab in Sudbury, Ontario. During the 2007-2009 drilling program, all samples were delivered by Lake Shore personnel directly to the ALS Chemex prep-lab in Timmins. All samples are analyzed for gold using regular Fire Assay Technique. In reporting assay results the protocol utilized by Lake Shore is Metallic assay results over ride Fire Assay with gravimetric finish with over rides Fire Assay with atomic absorption finish.

Lake Shore Gold Corp. and West Timmins Mining Inc. personnel are not involved in the sample preparation once the sample leaves the core shack.

The treatment of Lake Shore's drill core samples by ALS Chemex is outlined in the following descriptions, with references to the ALS Chemex procedure codes. Samples are entirely crushed to 70 % passing 2 mm mesh. The crushed samples were split and a 250 g sub-sample was pulverized to 85% passing <75 micron using a ring & puck pulverize (PREP-31). During the period of 2004 to 2007, a 50 g aliquot was taken from the pulp and analyzed by fire assay and atomic absorption methods (Au-AA24). For samples that returned a value greater then 3 gpt Au, another pulp was taken and analyzed using a gravimetric finish (Au-GRAV22). In October of 2007, the fusion weights were reduced from 50g to 30g (Au-AA23 and Au-GRAV21), in order to avoid delays with occasional "incomplete fusions" reported by the lab.

Routinely, if visible gold was noted in the sample, samples are analyzed by the Pulp and Metallic method (Au-SCR24). In the phase 5 drill program all samples suspected of being from a mineralized zone location are analyzed using the pulp and metallic method. The entire samples were crushed to 70 % passing 6 mm mesh, and the entire sample was then pulverized to 85 % passing 75 micron (PREP-22). The pulp is passed through a 100 micron stainless steel screen and the entire (+) fraction is analyzed by fire assay

and gravimetric finish. The (-) fraction is homogenized and two 50 g aliquots are analyzed by fire assay and atomic absorption finish (Au-AA26 and Au-AA26D). The total gold content is then calculated by combining the weighted averages of the two fine fractions with the grade of the coarse fraction.

Drill core from the first 50 holes (10,713 samples) were analyzed for arsenic (As) by aqua regia digestion and atomic absorption scanning (AA-45). In late 2007, No significant levels were reported and there does not seem to be a correlation with returned value and gold mineralization for the Thunder Creek Property

A check-assay analysis was also done by the ALS Chemex for their internal quality control by analyzing a second pulp from the coarse reject on every twenty fifth sample received.

# 13.2 Quality Assurance/Quality Control

The QA/QC procedures implemented for the Thunder Creek Project follow the 2003 recommended procedures by consultant, Mr. John Reddick, for Lake Shore Gold Corp.'s Timmins West Gold Project.

Between November 2003 and June 24<sup>th</sup>, 2009 over 20,102 core samples have been taken and sent for analysis. Additional certified standards and blanks were inserted to the sample stream of one each every twenty samples submitted for analysis.

Drill core from a local, gold barren diabase dyke is used as a blank sample medium. Cut diabase core is inserted at random approximately every 20.

# 13.2.1 Standards and Blanks

Certified gold standards individually wrapped in 60g sealed envelopes were prepared by Ore Research and Exploration Pty. Ltd. of 6-8 Gatwick Road, Bayswater North, Victoria, Australia ("OREA") and provided by Analytical Solutions Ltd. Several standards are used in order to vary the expected value and depending on availability. These Certified Standards are purchased from Ms. Lynda Bloom, Analytical Solutions Ltd., at 1214-3266 Yonge Street, Toronto, Ontario.

# 13.2.2 Check Analyses

The QA/QC procedures have been monitored by Mr. Jacques Samson, P.Geo in a vigilant, however informal manor following the protocols established at the Timmins West project. Check assays were requested on a non routine individual basis. Lake Shore Gold have recently hired a database administrator to review all assay data, and rejecting analysis that does not meet a newly formulated QA/QC format standard. An embedded routine is being established within the new logging GEMCOM logging system software to automatically flag samples that do not meet the protocol standards.

# 13.3 Security

The Thunder Creek Project secure chain of custody for diamond drill core and samples starts at the drill and is completed with the safe return and storage of sample pulp and sample rejects locked garage storage facility. Frequent, and unscheduled visits to the diamond drill sites are made to insure safety, good working practices and drill core security. The core is transported from the field to the core logging facility by the drill foreman. Lake Shore Gold Corp.'s personnel receive the core and carry out the logging and sample preparation procedures as previously described. The samples are sent to an ALS Chemex pre-lab facility in secure, sealed shipping bags. The return assay results are reviewed by Jacques Samson, the data base manager and selected members of the Lake Shore management group, on a need to know basis.

# 14.0 DATA VERIFICATION AND SITE VISIT

Lake Shore Gold Corp. have provided detailed information of the exploration programs in the form of: GIS data base, diamond drill logs, assay results spreadsheets, assay certificates, MMI sample sites and lab analysis results, and maps. From the public domain, SEDAR filings of press releases, and technical reports for Band-Ore Resources, West Timmins Mining Inc and Lake Shore. Historical assessment report files have been reviewed by the author both at the MNDM office in Porcupine and the AFRI files on line.

The author has personally checked the MNDM claim registry for the Thunder Creek Claim ownership and found it to be as described by Lake Shore and West Timmins Mining.

The author has reviewed, and compared, finalized ALS Chemex Webtrieve analysis worksheets with Lake Shore's drill database for the mineralized zones. This comparison totaled 979 samples from 43 drill holes. The database is true to the assay certificates reviewed.

A site visit confirming field work discussed in this report took place May 29, 2009. A review of the core shack, drill core geology, core logging and assay sampling procedures, core, pulp and reject storage facilities took place on May 5<sup>th</sup>, June 1<sup>st</sup>, and June 29<sup>th</sup>, 2009. Located in Appendix 3 is a traverse plot map (Figure, Appendix 3.1) of locations on the property visited as well as a collection of plates of photos taken.

# **15.0 ADJACENT PROPERTIES**

Within a 3 kilometre buffer of the Thunder Creek Property there is no open ground available for staking. Contiguous to the northern claim boundary is Lake Shore's Timmins West Gold Property. West of the Thunder Creek project mineral rights are registered to Mr. L Gervais/1571925 Ontario Ltd., and West Timmins Mining Inc. (WTM). South and south west of the Property claims area owned by Richmond Mines Inc., and WTM. East of the project claims are titled to Red Pine Exploration, Probe Mines Limited and WTM. North of Lake Shore's Thunder Creek and the Timmins West Gold properties

the claims are registered to International Explorers and Prospectors Inc., Xstrata Copper Corporation, and Probe Mines Limited.

There is no significant historical or present gold production within the immediate area of the Property. Two properties adjacent to the Thunder Creek Property have NI 43-101 compliant resource estimates.

On August 28, 2007 Lake Shore Gold Corp. issued a press release announcing the results of the SRK mineral reserve estimates and results from the pre-feasibility study for the Timmins West Property. The reserve estimate is based on a cut gold grade totaling 3,386,000 tonnes at 7.59 grams per tonne gold for 826,000 (cut) ounces in the "Probable" category. The mineral resource estimates include an "Indicated" resource of 3,268,000 tonnes at a cut grade of 8.62 g/tonne Au for a contained 905,000 ounces of gold. Uncut the indicated resource has 1,287,000 ounces of contained gold at a grade of 12.29 g/tonne gold. In addition an "Inferred" cut resource includes 968,000 tonnes at 5.54 g/tonne Au for 174,700 contained ounces gold. The inferred uncut resource estimates 205,000 contained ounces of gold at a grade of 6.62 g/tonne.

To the south of the Thunder Creek Property situated in Thorneloe Township is WTM's Thorne Property. In 1997-98 Mr. J. Spiteri and Spiteri Geological and Mining Consultants Inc. were commissioned by Band-Ore Resources Ltd. to review all diamond drilling and generate a mineral resource for the Thorne Property's "Golden River Zones". Hosted within a 750 metre wide deformation zone the mineralization discovered is collectively made up of 13 zones. Cavey (2002) in a Summary Report on the Thorne Property quotes Mr. Spiteri as stating, "the inferred resource estimate in 1997-98 on the Thorne Property totaling approximately 4 million tonnes of 3 g/t for about 400,000 contained gold ounces qualifies as an "Inferred Resource" under the Guidelines of NI 43-101".

The "Mahoney Creek" (MDI number mdi42A05SE00005) gold occurrence is situated a 3.5 kilometres southwest of the Thunder Creek project claim boundary in Denton Township. This property is registered to Richmond Mines Inc. The occurrence has been drill tested by Hollinger with the best assay being 13.37 g/tonne Au over 1.5m; and 8.9 g/tonne over 2.75m (hole 8). The mineral inventory data base indicates that Gowest established a zone averaging 4.46 g/tonne Au over 4.4m width for a length of 24.4m. During diamond drilling of the mineralized zone Gowest intersected in drill hole 87-12, 6.6 g/tonne Au over 4.6m.

# 16.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

No mineral resource or reserve estimate has been made for the Thunder Creek Property.

# 17.0 MINERAL PROCESSING AND METALLUGICAL TESTING

Lake Shore Gold Corp has not submitted samples from the Thunder Creek Property for metallurgical testing. One historical sample of the alkalic intrusive complex was

submitted to Texasgulf Inc by Mr. Jim Croxall (AFRI No. 42A05NE8430). At this time the sample results are not considered to be relevant to Lake Shore's exploration programs.

Petrology, ore microcopy and scanning electron microscope investigations have been carried out on selected diamond drill core samples from drill holes TC04-13, TC07-27, TC07-30 and TC07-37 (2008) and TC08-51, TC08-52, TC08-54(663), TC08-54(668) and sample TC1891 (2009) by Miller and Associates of Ottawa.

# 18.0 OTHER RELEVANT DATA AND INFORMATION

To the best of the author's knowledge all relevant data has been presented with in this report. The diamond drilling continues on the project, and there are eight (8) drill holes in various stages of completion that information was not finalized at the time of writing this report. Data and information cut off for this report is May 10<sup>th</sup>, 2009

# **19.0 INTERPRETATION AND CONCLUSIONS**

The work programs and data reviewed by the author are of high professional quality. The Lake Shore Gold Corp.'s interpretation of the data is up to date and within the parameters of current geological understanding.

Gold mineralization at Thunder Creek is hosted within a wide southwest trending tectonic zone. Within the tectonic zone there is an anastomosing highly strained southwest trending fabric that is named the South West Shear Zone ("SWSZ"). Cross cutting the SWSZ and parallel to the Bristol fault is an East West strain fabric named the East-West Shear Zone ("EWSZ"). From airborne magnetic geophysical data and interpretation there appears to be a significant flexure, and with possible a right lateral displacement associated with the East- West shear. An alternative interpretation of the apparent displacement is the surface trace of a fold flexure changing dip that occurs along the contact of the mafic volcanic and sedimentary rocks. The Tisdale mafic volcanics are overturned and dipping steeply to the west and north-west. The volcanics exhibit a hanging wall relationship to the unconformable Porcupine sediments. An ancestral south-west trending structure provided a discordant, pathway for the alkalic intrusive complex to invade the mafic volcanics and sediments. Re-activation of the structure imprinted a high strain tectonic fabric within a narrower zone hosting mafic volcanics, the portions of the alkalic intrusive complex ("AIC") and the sediments. This zone appears to be spatially associated with the volcanic-sedimentary rock contact and prepared the ground for fluid pathways to alter the host rock and transport the sulphides, and gold. The number of gold mineralizing events at Thunder Creek has not been determined. Gold occurs as native gold, electrum, tellurides and in association with pyrite, galena, sphalerite, guartz, and guartz-ankerite. Significant gold mineralization intersected at -500m from surface, demonstrate a presently interpreted strike length of 250 metres and is hosted within a tectonite zone. The tectonite includes host rocks of mafic volcanics, sediments, AIC, felsic intrusions of porphyry and syenite with lithons of less altered and less foliated wall rock surrounded by a very high strain mylonitic folded foliation fabric. Within the high strain zone boudinage, pinch and swell and ptygmatic folding textures are witnessed.

Bore hole TC09-69b has returned the best assay results intersected within the Thunder Creek property. The pierce point of this hole, as demonstrated on a longitudinal projection, occurs approximately 42 metres above the parent hole TC09-69 and approximately 33 metres above the first wedge splay TC09-69a. This intersection also occurs approximately 717 metres below surface and at an approximate distance of 88 metres from TC09-69 and 131 metres from TC09-70. The weighted average of returned gold analysis is 12.75 grams per tonne over 83.4 metres. Gold mineralization greater than 1 gram per tonne is reported for 101 core samples of which 7 samples exceeded values of 34.29 g/tonne (1 ounce/ton Au).

Given the successful results targeting the Rusk targets at depth, and along strike an aggressive drill campaign of systematic grid drilling down dip, down plunge and along strike is warranted.

# 20.0 RECOMMENDATIONS

# 20.1 General

Diamond drilling on the Thunder Creek Project has advanced from grassroots anomaly testing to mineralized zones definition drilling phase. With the evolution to an advanced mineralization definition program, changes in some of the current procedures with allow better efficiency in processing larger amounts of drill core, and returned and distribution of assay data. The work observed to date is of good quality and is of very high, professional standards.

It is the opinion of the author that all drill holes targeting the definition of ore grade mineralization have collars and front sites surveyed to an ideal "engineering grid." This will enable more control of the hole location for resource calculation. This will also help to elevate any errors that may occur with the use of a hand held GPS and the field grid.

The present core storage and logging location is choked with drill core from the Thunder Creek property and the Timmins West Gold Property. The Timmins West Project core should be moved out to a prepared core farm on the Timmins West Gold Mine site. With the initiation of an accelerated drilling program at the Thunder Creek Property, archiving and relocating of early Thunder Creek exploration core that would not be used in a future resource calculation, to one of Lake Shore's mine sites, should be considered.

RQD measurements are being taken in the core logging procedure. It is recommended that measurements of additional physical rock properties also be taken. For example, specific gravity of the various mineralized zones and lithological units; rock hardness; and perhaps a testing for carbonate. These measurements assist in planning and resource calculations for an advanced underground exploration-development program.

With an increase of exploration activities the office, day to day management, and administrative functions currently residing at the core shack should be relocated to the more central location. Along with the move it would be practical to have all project files consolidated, organized, and complete at one central location. This will help prepare the setting for the next phase of ore resource calculation by in house or outside consultants.

The time line from the collaring of a drill hole to finalization and validation of the assays should be reviewed, and steps taken to speed up the process without sacrificing the high quality standard of data gathering.

Changes to the present sampling assay preparation stream should be considered with the change to an advanced exploration program. The contracting of a certified sample preparation laboratory to prepare multiple aliquots of each sample, and insert standards, blanks and duplicate samples for analysis by a separate second and at times a third laboratory would add greater quality control and increase the confidence levels of the returned assay results. This would provide a more uniform in sample size, and increase the contact between the sample prep lab, and the quality control-data base manager so they could supervise and inspect the preparation process. The "blank" sample should contain gold values lower than the detection limit (<5 ppb Au) and will check the sample order and possible contamination during the pulverizing process. "Standard" samples are used to check the accuracy of the assay procedure. The "duplicate" sample will check precision of the assay and potential nugget variance. Having multiple sample aliquots from the original reject and pulp roll will provide a more uniform sample to send to an umpire lab or perform a metallic analysis. It is recommended that one individual be dedicated to tracking the results of the check procedures and take immediate corrective measures to resolve the cause of any discrepancy in returned assay results.

It is recommended that a calculated horizontal width or true width of the assay intervals provided beside the core lengths on longitudinal sections and press releases.

Computer logging and plotting of drill sections does not readily allow the plotting of structure along the side of the hole. As the mineralized zone is situated in a tectonite the it is recommended that the foliations, and other structures be plotted along the drill hole traces to allow a visual perspective of the kinematic indicators approaching or within the tectonite. This may enhance the understanding for interpretive purpose.

Gold mineralization is hosted within a structural setting. In order to maximize the understanding of the structural history and overprinting and effect on mineralization a geological structural consultant be contracted to map the property and review the drill core.

Given the successful results targeting the Rusk targets at depth, and along strike an aggressive drill campaign of systematic grid drilling down dip, down plunge and along strike is warranted.

A preliminary resource calculation and block modeling should be targeted to be completed within the next 6 to 9 months. The block modeling of the mineralized zones will help guide the drill hole definition, and step out targeting.

At Thunder Creek the gold mineralization is hosted within a tectonite zone that straddles the volcanic, sediment contact and portions of the alkalic intrusive complex. It appears to be one zone with multiple higher grade shoots within. The definition drilling required to join up one shoot to another from hole to hole may require the drilling off at 12.5 metre centres. With target depths at -400 to -1000 metres below surface this type of detail drilling is not practical from surface. With continued success in intersecting significant ore grade gold tenor, an underground exploration program of drill drifting, mineralization

cross cutting, mapping and sampling on more than one level, with a raise between levels to determine mineralization continuity should be considered. A two level drifting program will allow a significant bulk sample to be taken and mill tested.

# 20.2 Lake Shore Proposed Work Plan and Budget

The Thunder Creek project budget, as presented and discussed with the author is a multi stage, drill intensive expenditure, testing exploration targets and detailed sectional drilling of the Rusk zone down dip and along strike. As a result of receiving encouraging ore grade drill intercepts an underground program of driving a drill drift platform on two levels and bulk sampling is in the cost review and planning stage.

A budget for going forward has not formalized or finalized by the joint venture. A scoping of costs, to drift from the Timmins West Gold Property, for an advanced underground drill and sampling program is under review. The following proposal is subject to senior management approval of both West Timmins Mining Inc. and Lake Shore Gold Corp. Proposed is a drilling intensive program targeting the Rusk Zone from surface (45,000 metres) with pierce points at 50 to 100 metre centres; the Rusk Zone Extension (18,000 metres) from surface at 100 to 200 metre centres; and a underground drill definition program (31,000 metres) with pierce points at 25 metre centres, fanning the drill hole pattern from approximately -400 metres below surface level.

The purpose of new diamond drill program is to accelerate the evaluation of the mineralization at depth and work toward a resource estimate that could be developed into a mineral reserve. These expenditures are reasonable and necessary to evaluate the full exploration potential of the zones thus far intersected.

# CERTIFICATE

To Accompany the Report titled "A Technical Review of the Thunder Creek Property, Bristol and Carscallen Townships, Porcupine Mining Division, Ontario, Canada, for Lake Shore Gold Corp.", Dated June 29<sup>th</sup>, 2009.

I, David H. R. Powers, do here by certify that:

- 1. I reside at 385 Sony Street, South Porcupine, Ontario, Canada, P0N 1H0.
- 2. I am a graduate from Lakehead University, Thunder Bay, Ontario with an Honours B.Sc. Geology degree (1974), and I have practiced my profession continuously since that time.
- 3. I am a member of the Association of Professional Geoscientists of Ontario (Membership Number 0114).
- 4. I have practiced my profession as a geologist for 34 years being employed by Noranda Exploration Company Limited (N.P.L.), Noranda Mines Limited, Placer Dome C.L.A. Limited, Placer Dome North America Limited, Dome Mine, Placer Dome (C.L.A.) Limited – Porcupine Joint Venture, and Placer Dome Canada. As an independent geological consultant my services have provided to Central Crude Limited, Dome Mine, CanAlaska Uranium Limited and Pacific North West Capital Corp. I have actively explored for Archean hosted gold deposits since 1985.
- 5. I have experience with various mineral deposit types, Mineral Resource estimation techniques, and the preparation of technical reports.
- 6. 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 (as defined in NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purpose of NI 43-101.
- 7 I have visited the Thunder Creek Property on May 29<sup>th</sup>, 2009, and examined core from the property as well as the core logging and core storage areas on May 5<sup>th</sup>, June 1<sup>st</sup>, and June 29<sup>th</sup>, 2009.
- I am responsible for the preparation of all sections of the Technical Report titled: "A Technical Review and Report of the Thunder Creek Property", dated June 29<sup>th</sup>, 2009.
- 9. 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.
- I am independent of the issuer (Lake Shore Gold Corp.) applying tests in section
   1.4 of National Instrument 43-101, and there were no circumstances that were or could be seen to interfere with my judgment in preparing the Technical Report.
- 11. I have read National Instrument 43-101 and form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and that form.

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 South Porcupine, Ontario, this the 29<sup>th</sup> day of June, 2009

David H. R. Lowles

David H. R. Powers, P.Geo. (APGO No. 0114)



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## 2003-11-12;

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## 2003-12-03;

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## 2004-03-24;

Innes, D.G., Lake Shore Confirms Gold Mineralization on Thunder Creek Property Timmins, Ontario.

O'Connor, W.J., Gold Mineralization Confirmed on Thunder Creek Property. Band-Ore Resources Ltd.

## 2004-08-25;

Innes, D.G., Lake Shore Gold Corp. Initiates Second Phase 3.000 Metre drilling Program Thunder Creek Property, Timmins, Ontario.

O'Connor, W.J., Lake Shore Gold Corp., Initiates Second Phase 3,000 Metre Drill Program Thunder Creek Gold Property, Band-Ore Resources Ltd., Timmins, Ontario.

## 2005-02-14;

Innes, D.G., Thunder Creek Project Update, Timmins, Ontario.

O'Connor, W.J., Thunder Creek Project Update, Band-Ore Resources Ltd., Timmins, Ontario.

## 2006-06-21;

O'Connor, W.J., Exploration Update, Thunder Creek Property, Band-Ore Resources Ltd., Timmins, Ontario.

## 2006\_08-11;

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## 2006-09-26;

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## 2006-09-18;

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## 2007-04-11;

Wagner, D.W., West Timmins Mining Exploration Update: 5 Drills Turning on WTM Gold Projects; 8,000 metres, 10-12 holes, Thunder Creek Property, Timmins, funded by Lake Shore Gold.

#### 2007-05-10;

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Booth, B.R., Lake Shore Intersects New High-Grade Gold Mineralization at Thunder Creek, Ontario.

Wagner, D.W., High Grade Gold Intersected on West Timmins' Thunder Creek Property, Ontario.

#### 2007-08-15;

Booth, B.R., Lake Shore Second Quarter Project Update.

## 2007-09-05;

Booth, B.R., Lake Shore Reports Additional High-Grade Gold Intersection at Thunder Creek.

#### 2007-09-06;

Wagner, D.W., West Timmins Reports New High Grade Gold Discovery at Thunder Creek Property, Timmins, Ontario.

#### 2007-11-13;

Booth, B.R., Lake Shore Reports Third Quarter Results.

#### 2007-12-04;

Booth, B.R., Lake Shore Intersects 24.61 Grams Gold Per Tonne over 7.0 Metres at Thunder Creek Property in Ontario.

## 2008-03-31;

Makuch, T., Lake Shore Intersects 8.57 g/t Gold over 9.0 Metres at Thunder Creek Property in Ontario.

Wagner, D.W., WTM Reports 8.57 g/t Gold over 9.0 Metres for Follow-Up Drilling at Thunder Creek.

### 2008-04-21;

Wagner, D.W., WTM To Test Northern Extension of Thunder Creek – Timmins West Trend.

#### 2008-05-15;

Makuch, T., Lake Shore Gold Announces First Quarter 2008 Results.

#### 2008-08-05;

Makuch, T., Lake Shore Gold Provides Update on Thunder Creek Exploration.

Wagner, D.W., 22,000 Metre Diamond Drill Program Commences on WTM's Thunder Creek Property In Timmins, Ontario.

## 2008-08-12;

Makuch, T., Lake Shore Gold on Track to Achieve 2008 Targets.

#### 2008-08-13;

Wagner, D.W., WTM Completes \$1,950,000 Non Brokered, Flow Through Private Placement, - proceeds to fund the announced 22,000 metre diamond drill program on the Thunder Creek Property.

## 2008-11-10;

Makuch, T., Lake Shore Gold Reports Timmins West on Schedule for Production in First Quarter 2009.

### 2008-12-16;

Makuch, T., Lake Shore Gold Significantly Extends Rusk Zone and Announces New High-Grade Gold Intercepts at Thunder Creek.

Wagner, D.W., WTM Reports 11.20 g/t Gold over 10.4 metres at Thunder Creek, Timmins, Ontario.

#### 2009-01-21;

Wagner, D.W., Drilling Program Accelerated on WTM's Thunder Creek Gold Property, Timmins, Ontario.

#### 2009-02-23;

Makuch, T., Lake Shore Gold Provides Corporate Update.

#### 2009-03-31;

Makuch, T., Lake Shore Gold Announces 19.55 g/t over 6.0 Metres And Discovery of Second Mineralized Horizon in Porphyry at Thunder Creek.

Wagner, D.W., WTM Reports 8.86 g/t (0.26 oz/t) Gold over 24.85 Metres (81.58 feet) from Rusk Zone – Is History Being Repeated in Timmins, Ontario?

## 2009-05-05;

Makuch, T., Lake Shore Gold Continues To Advance Projects on Schedule and Budget and To Achieve Exploration Success In First Quarter of 2009.

## 2009-05-05;

Makuch, T., Lake Shore Gold Reports Additional High-Grade Intercepts at Thunder Creek, Confirms 175 Metre minimum Strike Length for Rusk and Porphyry Zones and Identifies New Sub-Zone at Depth.

Wagner, D.W., WTM Reports 7.95 g/t (0.23 oz/t) Gold over 19.45 Metres (63.80 feet) As Thunder Greek Gold System Continues to Expand.

## 2009-06-24

Makuch, T., Lake Shore Gold Reports 12.75 Grams Per Tonne Over 83.40 Metres at Thunder Creek.

Wagner, D.W., WTM Intersects 83.40 Metres (273.55 feet) Grading 12.75 g/t (0.37 oz/ton) Gold on Thunder Creek Property, Timmins, Ontario.

# Appendix 1.

Table 10.4.2:2004 and 2006 Saw Channel Sample,<br/>and Rock Sample Gold Assay Results

Results	5.						
Sample	East_83_17	North_83_17	Туре	Width	Comments	Au_ppm	Au_grav
168101	458779.0	5358066.0	chip	2m	Patchy zone of pyrite upto 5%	0.88	
168102	458779.0	5358066.0	chip	2m	Patchy zone of pyrite upto 5%	0.15	
168103	458779.0	5358066.0	chip	2m	Patchy zone of pyrite upto 5%	0.89	
168104	458782.0	5358068.0	select	0.2m	Patchy zone of pyrite upto 5%	0.02	
168105	458784.0	5358062.0	select		Patchy zone of pyrite upto 5%	2.98	
168106	458932.0	5358348.0	grab		0.5% py	0.02	
168107	458979.0	5357866.0	grab			0.06	
168108	458720.0	5358020.0	grab		tr py	0.00	
168109	458856.0	5357557.0	grab			0.07	
168110	458363.0	5358011.0	grab			0.01	
168111	458731.0	5358555.0	float	0.1 x 0.06m	5% po	0.00	
168112	458737.0	5358562.0	grab		tr py	0.00	
168113	458783.0	5358347.0	grab			0.00	
168114	458018.0	5358237.0	grab		3% py	0.01	
168115	457748.0	5358074.5	float		1% py	0.01	
168116	457748.0	5358074.5	chip	1.5m x 0.025m	1% py	0.01	
168117	457825.8	5357973.2	grab		3% py	0.27	
168118	458125.5	5357639.9	grab		1% py	0.00	
168119	458041.3	5357771.4	Chip	1m	1% py + cp, +/- Bornite	0.05	
168120	458995.0	5357880.0	grab		tr py + cpy	0.06	
168121	458985.0	5357790.0	grab		1 % py	0.00	
168122	458025.5	5357539.9	-		1% po + py	0.00	
			grab				
168123	458026.1	5357538.8	grab	0.1 × 0.15m	1% po + py	0.01	
168124	458028.6	5357533.8	float	0.1 x 0.15m	tr py	0.01	
168125	458739.2	5357563.6	grab			0.02	
168126	458739.2	5357563.6	grab		00/	0.04	
168127	459235.8	5357072.8	grab		2% py	0.00	
168128	458837.0	5357420.0	grab		tr py + galena	0.02	
168129	458854.0	5358416.0	float		1%py	0.01	
168130	458704.0	5358122.0	grab		0.5% py	0.01	
168131	458442.0	5357915.0	grab		1% py	0.01	
168132	458442.0	5357915.0	grab		2-3% py	0.00	
168133	458630.1	5357776.4	chip	1.25m	0.5 % py	0.01	
168134	458634.1	5357772.2	chip	0.5m	0.5 % py	0.01	
168135	458717.9	5357696.8	float		Tr. Py, galena, cpy	0.01	
168136	458829.3	5357597.7	grab		Minor Py and Galena	0.01	
168137	458817.0	5357580.0	grab		Tr Py	0.01	
168138	458724.9	5357341.4	grab	7cm wide	0.5% py + Ga	0.09	
168139	458726.8	5357339.9	grab		0.5 % Py	0.01	
168140	458614.9	5357667.5	float		0.5% py	0.01	
168141	458600.6	5357585.1	grab	40 x 30cm	0.5% Ga + Py	0.08	
168142	458605.5	5357580.5	grab	11cmwide	5% Ga, 0.5% py	4.02	3.36
168143	458605.4	5357578.9	float	11cm wide	5% Ga, 0.5% py	2.14	
168144	458739.6	5357168.8	grab		1% py	0.07	
168145	457593.2	5357649.1	grab			Whole Rock	
168146	457579.4	5357681.9	grab			Whole Rock	
168147	457519.9	5357701.8	grab			Whole Rock	
168148	457093.0	5356919.8	grab		1% py	0.01	
168149	457101.4	5356953.5	float		1% py	0.01	
168150	457331.6	5356886.0	chip	1m	minor sulfide	0.01	
255401	458932.0					0.00	
255401		5358338.0	Grab				
	458932.0	5358338.0	Grab			0.00	
255403	458929.0	5358345.0	Grab			0.00	
255404	458935.0	5358345.0	Grab			0.04	
255405	458932.0	5358348.0	Grab			0.01	
255406	458782.0	5358068.0	Grab			0.47	
255407	458782.0	5358069.0	Grab			2.23	
255408	458729.0	5358067.0	Grab			0.02	
255409	458752.0	5357908.0	Grab			0.04	
255410	458700.0	5358090.0	Grab			1.50	
255411	458701.0	5358117.0	Grab			0.01	
255412	458701.0	5358117.0	Grab			71.90	71.90
255413	458701.0	5358117.0	Grab			0.17	
255414	458012.0	5358234.0	Grab			0.48	
355451	458935.6	5358350.7	Channel	0.65		0.05	
355452	458935.0	5358351.3	Channel	0.75		0.07	
355453	458933.0	5358351.1	Channel	0.8		0.00	
355454	458931.7	5358351.1	Channel	0.4		0.00	

Table 10.4.2:2004 and 2006 Saw Channel Sample, and Rock Sample Gold AssayResults.

	East 82 17	•	Type	Width	Commonts	Au nom	Au grav
Sample 355455	East_83_17 458932.5	North_83_17 5358344.4	Type Channel	0.3	Comments	Au_ppm 0.03	Au_grav
355455	458932.5	5358345.0	Channel	0.3		0.03	
355450	458932.4						
		5358345.3	Channel	0.4		1.23	
355458	458931.9	5358345.4	Channel	0.35		0.17	
355459	458931.5	5358345.8	Channel	0.75		0.02	
355460	standard	5050040.0	Channel	N/A		1.28	
355461	458931.0	5358346.0	Channel	0.3		0.10	
355462	458930.0	5358345.7	Channel	0.7		0.02	
355463	458929.4	5358346.0	Channel	0.8		0.03	
355464	458928.9	5358346.5	Channel	0.75		0.00	
355465	458928.2	5358346.9	Channel	0.8		0.01	
355466	458927.7	5358347.3	Channel	0.6		0.01	
355467	458927.2	5358347.5	Channel	0.7		0.00	
355468	458926.8	5358347.7	Channel	0.7		0.00	
355469	458927.6	5358342.1	Channel	0.6		0.64	_
355470	NO	Analysis	Channel				
355471	458927.1	5358342.5	Channel	0.6		0.03	
355472	458926.6	5358343.0	Channel	0.75		0.04	
355473	458688.6	5358124.2	Channel	0.75		0.02	
355474	458688.8	5358123.7	Channel	0.75		0.02	
355475	458689.2	5358123.2	Channel	0.7		4.14	3.77
355476	458689.7	5358122.7	Channel	0.85		0.74	
355477	458690.7	5358122.0	Channel	0.6		0.16	
355478	458690.7	5358122.0	Channel	0.7		0.11	
355479	458691.7	5358125.0	Channel	0.5		0.02	
355480	Standard		Channel	N/A		1.29	
355481	458691.8	5358124.8	Channel	0.6		0.11	
355482	458692.0	5358124.1	Channel	0.7		0.20	
355483	458700.8	5358128.4	Channel	0.6		0.00	
355484	458701.0	5358127.9	Channel	0.45		2.35	
355485	458709.6	5358128.7	Channel	0.6		3.40	2.95
355486	458710.1	5358128.6	Channel	0.5		0.10	
355487	458710.5	5358127.6	Channel	0.65		0.05	
355488	458711.0	5358127.0	Channel	0.7		0.01	
355489	458711.5	5358126.5	Channel	0.65		0.01	
355490	458711.9	5358125.9	Channel	0.5		0.00	
355491	458712.2	5358125.4	Channel	0.55		0.00	
355492	458712.5	5358125.2	Channel	0.65		0.01	
355493	458706.7	5358123.9	Channel	0.4		0.00	
355494	458708.2	5358121.8	Channel	0.35		0.00	
355495	Standard	000012110	Channel	N/A		4.27	4.17
355496	458616.0	5357771.1	Channel	0.75		0.01	
355497	458615.7	5357770.6	Channel	0.75		0.08	
355498	458616.5	5357770.4	Channel	0.6		0.01	
355499	458616.7	5357769.9	Channel	0.5		0.01	
355500	458615.9	5357769.1	Channel	0.9		0.01	
392951	458615.4	5357768.5	Channel	0.7		0.01	
392952	458615.4	5357768.1	Channel	0.7		0.01	
392953	458615.7	5357766.8	Channel	0.7		0.02	
392954			Channel	0.9			
	458615.8	5357766.5 5357766.2	Channel			0.01	
392955 392956	458615.6	5357767.2	Channel	0.8 0.9		0.01	
	458614.9					0.02	
392957	458614.2	5357766.0	Channel	0.65		0.01	
392958	458615.6	5357765.7	Channel	0.8		0.02	
392959	458615.7	5357765.3	Channel	0.8		0.00	
392960	458616.0	5357764.7	Channel	0.75		0.03	
392961	458616.1	5357764.1	Channel	0.8		0.00	
392962	458617.1	5357763.3	Channel	0.6		0.05	
392963	458618.0	5357762.5	Channel	0.35		0.01	
392964	458617.2	5357761.5	Channel	0.3		0.02	
392965	458616.4	5357760.5	Channel	0.25		0.02	
392966	458616.5	5357759.9	Channel	0.4		0.04	
392967	458615.5	5357759.1	Channel	0.8		0.01	
392968	458615.4	5357758.4	Channel	0.95		0.01	
392969	458615.7	5357757.6	Channel	0.6		0.01	
392970	458616.3	5357757.0	Channel	0.7		0.17	
392971	458616.5	5357756.4	Channel	0.45		0.14	
392972	458619.4	5357778.4	Channel	0.9		0.01	
040751R	457333.7	5356880.4	grab		0.5-1% py	0.02	
			3.20			0.02	

Table 10.4.2:2004 and 2006 Saw Channel Sample, and Rock Sample Gold AssayResults (continued)

			Turne	Width	Commonto	Au nnm	Au grov
Sample	East_83_17	North_83_17	Туре	Width	Comments	Au_ppm	Au_grav
040752R	457329.7	5356873.4	chip	1m	0.5-1% py	0.01	
040753R	456836.6	5356676.0	grab		1% py	0.00	
040754R	456506.0	5356788.0	grab	Ann. Computida	0.5-1% Py	0.00	
040755R	457484.2	5357973.6	chip	1m, 6cm wide	1% py	0.00	
040756R	457495.1	5357985.5	grab		10% pyrite	0.01	
040757R	standard					1.39	
040758R	blank	5050000 4		0	4.00/	0.00	
040759R	459069.9	5358602.1	chip	2m	1-2% py	0.03	
040760R	459259.2	5358624.0	grab		0.5% py	0.02	
040761R	458967.0	5358598.5	grab		minor sulfide	0.00	
040762R	459259.5	5358066.9	float		0.5% py	0.01	
040763R	459255.6	5358013.1	grab		0.5% py	0.00	
040764R	459079.1	5357874.3	chip	2m	1% py	0.15	
040765R	459087.5	5357868.5	chip	0.6 m	minor py	0.01	
040766R	459059.9	5357869.5	grab	0.5	minor py	0.01	
040767R	459047.4	5357872.1	float		1-2% Ga + Py	0.12	
040768R	459018.0	5357888.0	float		1% Ga + Py	0.02	
040769R	458981.5	5357878.1	grab		minor sulfide	0.16	
040770R	458967.7	5357833.7	grab		1% py	0.01	
040771R	458857.8	5357905.7	grab		0.5% py disseminated	0.01	
040772R	458864.0	5357719.6	chip		trace py	0.01	
040773R	458892.9	5357549.2	grab		minor py + sulfasalts	0.04	
040774R	458894.6	5357566.2	grab		trace py	0.02	
040775R	457840.3	5358156.1	grab		2% py	0.00	
040776R	457840.1	5358149.5	chip	1.5m	2% py	0.00	
040777R	457842.5	5358163.8	float		1-2% py, Sphalerite	0.01	
040778R	457863.1	5358165.5	float		minor sulfide	0.01	
040779R	457863.4	5358165.0	float		minor sulfide	0.00	
040780R	457908.7	5358208.4	chip	1m	minor sulfide	0.00	
040781R	457954.0	5358251.8	grab		1% py	0.01	
040782R	457982.2	5358276.6	chip	1m	1% py	0.01	
040783R	457981.0	5358272.0	grab		2% py	0.01	
040784R	458680.8	5358054.1	Float		1% py	0.19	
040785R	458680.9	5358055.7	. locat		3-4% py	0.04	
040785R R	458680.9	5358055.7			0 1/0 p}	0.04	
040786R	458685.2	5358043.6	float		2-3% py	0.04	
040787R	459288.2	5357938.8	float	50 x 50 x20cm	2-3% py 2-3% py, 2-3% arsenopyrite	1.37	
355476 R	458690.3	5358122.5	Channel	50 X 50 X20011	2-370 py, 2-370 arsenopyme	0.80	
392963R	458618.0	5357762.5	Channel	0.5		0.00	
		5557702.5				Nil	-
	Stripped Area 1		Channel	0.44			-
2742	Extended		Channel	0.36		Nil	2.00
2743	2006		Channel	0.36		Nil	-
2744			Channel	0.43		367.00	-
2745			Channel	0.40		21.00	-
2746			Channel	0.44		281.00	-
2747			Channel	0.57		861.00	631.00
2748			Channel	0.41		216.00	-
2749			Channel	0.43		473.00	-
2750			Channel	0.46		Nil	-
2751			Channel	0.45		401.00	-
2752			Channel	0.47		233.00	-
2753			Channel	0.42		Nil	-
2754			Channel	0.46		Nil	-
2755			Channel	0.47		Nil	-
2756			Channel	0.46		7.00	7.00
2757			Channel	0.38		24.00	-
2758			Channel	0.41		Nil	-
2759			Channel	0.39		Nil	-
2760			Channel	0.34		10.00	-
2761			Channel	0.49		Nil	-
2762			Channel	0.45		Nil	-
2763			Channel	0.43		14.00	-
2764			Channel	0.36		96.00	-
2765			Channel	0.34		110.00	171.00
			0.101110	0.01			

 Table 10.4.2:
 2004 and 2006 Saw Channel Sample, and Rock Sample Gold Assay

 Results (continued)

	S (CONTINUED) Overburden Stripped Area	Туре	Width	Comments	Au_ppm	Au_grav
355451	2004 Samples	Channel	0.65		52.00	3
355452	Area 1	Channel	0.75		68.00	
355453		Channel	0.80		Nil	
355454		Channel	0.40		Nil	
355455		Channel	0.30		29.00	
355456		Channel	0.40		31.00	
355457		Channel	0.40		1230.00	
355458		Channel	0.35		172.00	
355459		Channel	0.75		20.00	
355461		Channel	0.30		102.00	
355462		Channel	0.70		17.00	
355463		Channel	0.80		31.00	
355464		Channel	0.75		Nil	
355465		Channel	0.80		5.00	
355466		Channel	0.60		8.00	
355467		Channel	0.70		Nil	
355468		Channel	0.70		Nil	
355469		Channel	0.60		638.00	
355471		Channel	0.60		32.00	
355472	Area 4	Channel	0.75		41.00	
2624	Area 4	Channel	0.64		<b>408.00</b>	-
2625 2626	2006	Channel Channel	0.66 0.41		82.00 3.00	-
2626 2627		Channel	0.41		2.00	-
2501	Area 5	Channel	0.40		2798.00	
2502	2006	Channel	0.32		48.00	-
2502	2000	Channel	0.34		1461.00	-
2504		Channel	0.39	Same location as 2575	1807.00	1817.00
2505		Channel	0.39		7.00	-
2506		Channel	0.35		1539.00	-
2507		Channel	0.41		41.00	-
2508		Channel	0.42		2.00	-
2509		Channel	0.39		874.00	-
2510		Channel	0.33		357.00	-
2511		Channel	0.34		1217.00	-
2512		Channel	0.34		24.00	-
2513		Channel	0.41	Same location as 2561	15017.00	22354.00
2514		Channel	0.35		1920.00	-
2515		Channel	0.27		106.00	-
2516		Channel	0.34		Nil	-
2517		Channel	0.34		2.00	-
2518		Channel	0.28		2187.00	-
2519		Channel	0.44		99.00	-
2551		Channel	1.06		10.00	-
2552		Channel	0.44		Nil	3.00
2553		Channel	0.58		7.00	-
2554		Channel	0.64		765.00	-
2555		Channel	0.60		38.00	-
2556		Channel	0.60		48.00	-
2557		Channel	0.95		7.00	-
2558		Channel	0.64		45.00	-
2559		Channel	0.50		Nil	-
2560		Channel	1.15	Orma la satisma de OS10 de D	322.00	-
2561		Channel	1.15	Same location as 2513; see Rep	10423.00	14126.00
2562		Channel	1.19		Nil	-
2563		Channel	0.94		17.00	-
2564		Channel	0.47		41.00	-
2565		Channel	0.33		147.00	-
2566 2567		Channel Channel	0.51 0.40		<b>189.00</b> 86.00	-
						-
2568 2569		Channel Channel	0.45 0.43		Nil 353.00	-
						-
2570 2571		Channel	0.30		1128.00	- 525.00
2571 2572		Channel Channel	0.51 0.49		555.00 432.00	525.00
2572 2573		Channel			<b>432.00</b> 51.00	-
2573 2574		Channel	0.31 0.43		291.00	-
2014		Charmer	0.40		201.00	-

# Table 10.4.2:2004 and 2006 Saw Channel Sample, and Rock Sample Gold AssayResults (continued)

	Overburden Stripped Area	Туре	Width	Comments	Au_ppm	Au_grav
575	Area 5	Channel	0.38	Same location as 2504	2211.00	-
576	2006	Channel	0.58		696.00	-
577		Channel	0.41		110.00	-
578		Channel	0.41		295.00	-
579		Channel	0.41		106.00	-
580		Channel	0.50		55.00	48.00
581		Channel	0.37		Nil	-
582		Channel	0.40		Nil	-
583		Channel	0.64		Nil	-
584		Channel	1.00		185.00	-
585		Channel	0.39		99.00	110.00
586		Channel	0.51	see Rep	7.00	-
588		Channel	0.45		Nil	-
589		Channel	0.44		Nil	-
590		Channel	0.62		10.00	-
591		Channel	0.48		41.00	-
592		Channel	0.45		744.00	-
593		Channel	1.02		55.00	-
594		Channel	0.48		1423.00	1275.00
595		Channel	0.52		309.00	-
596		Channel	0.34		288.00	-
597		Channel	0.52		Nil	-
598		Channel	0.48		315.00	
599		Channel	0.40		45.00	
600		Channel	0.32		72.00	-
601 602		Channel Channel	0.37		27.00	-
602 602			0.50		103.00	-
603		Channel	0.44		881.00	878.00
604		Channel	0.44		134.00	-
605		Channel	0.48		7.00	-
606		Channel	0.51		130.00	-
607		Channel	0.23		Nil	-
608		Channel	0.33		27.00	-
609		Channel	0.41		Nil	-
610		Channel	0.66		Nil	-
611		Channel	0.38		10.00	-
612		Channel	0.55		34.00	-
613		Channel	0.44		7.00	-
614		Channel	0.55	see Rep	240.00	195.00
615		Channel	0.44	see Rep	7.00	-
616		Channel	0.64		65.00	-
617		Channel	0.42		2.00	-
618		Channel	0.29		7.00	-
619		Channel	0.47		10.00	-
620		Channel	0.74		14.00	-
620 621		Channel	0.74		27.00	-
						-
622		Channel	0.27		21.00	-
623		Channel	0.44		45.00	-
987		Channel	0.32		7.00	-
988		Channel	0.34		Nil	-
989		Channel	0.44		110.00	-
990		Channel	0.42		579.00	-
991		Channel	0.42		1550.00	-
992		Channel	0.30		929.00	-
993		Channel	0.30		425.00	-
994		Channel	0.43		374.00	501.00
995		Channel	0.27		130.00	-
996		Channel	0.30		55.00	-
997		Channel	0.24		86.00	-
998		Channel	0.36		141.00	-
999		Channel	0.33		51.00	-

 Table 10.4.2:
 2004 and 2006 Saw Channel Sample, and Rock Sample Gold Assay

 Results (continued)
 Image: Sample S

# Appendix 2.

Significant Assay Results, and Composite Assays Greater Than or Equal to 1 Gram Gold per Tonne

Hole No.		From	То	Width core length	Weighted Average Grade
		(m)	(m)	(m)	g/tonne Au
TC03-01		29.40	29.80	0.40	1.27
		34.20	35.00	0.80	1.20
		39.85	40.30	0.45	1.93
TC03-02		282.50	283.50	1.00	1.30
TC03-03		no significant assay	ys greater than or e	equal to 1 g/tonne Au	
TC03-04		no significant assay	s greater than or e	equal to 1 g/tonne Au	
TC03-05		181.20	184.00	2.80	1.42
	includes	181.20	183.00	1.80	1.93
TC03-06 + ext	includes	313.40 313.40	317.30	3.90 2.90	5.20 6.80
	includes	324.30	316.30 325.30	1.00	1.96
		329.50	330.50	1.00	1.38
TC03-07		no significant assay	/s greater than or e	equal to 1 g/tonne Au	
TC04-08		no significant assay	ys greater than or e	equal to 1 g/tonne Au	
TC04-09		no significant assay	ys greater than or e	equal to 1 g/tonne Au	
TC04-10		110.50	111.00	0.50	1.05
TC04-11		no significant assay	ys greater than or e	equal to 1 g/tonne Au	
TC04-12		236.00	237.00	1.00	5.25
TC04-13		no significant assay	ys greater than or e	equal to 1 g/tonne Au	
TC04-14		no significant assa	ys greater than or e	equal to 1 g/tonne Au	
TC04-15		no significant assay	s greater than or e	equal to 1 g/tonne Au	
TC04-16		no significant assay	ys greater than or e	equal to 1 g/tonne Au	
TC04-17		no significant assay	ys greater than or e	equal to 1 g/tonne Au	
TC04-18 + ext		298.30	299.30	1.00	1.79
		357.20	358.70	1.50	1.88
TC04-19		234.60	235.25	0.65	2.47
		256.90	259.00	2.10	1.99
		322.60	323.60	1.00	2.38
		338.60	340.60	2.00	1.21
TC05-20		-	-	equal to 1 g/tonne Au	
TC05-21				equal to 1 g/tonne Au	
TC05-22				equal to 1 g/tonne Au	
TC05-23				equal to 1 g/tonne Au	
TC05-24	includes	304.00	327.00	23.00	1.11
	includes	305.50	306.70	1.20	8.35
	and and	308.00 310.00	309.00 311.00	1.00 1.00	1.98 2.55
	and	313.00	314.00	1.00	2.55 4.81
	and	321.90	322.90	1.00	1.16
	and	325.00	327.00	2.00	1.57
	and	325.00	325.50	0.50	2.26

# TABLE 11.1.4: Assay Results Equal To Or Greater Than 1 Gram Gold per Tonne

Hole No.		From	То	Width core length	Weighted Average Grade
		(m)	(m)	(m)	g <i>i</i> tonne Au
TC05-25		no significant assay	rs greater than or e	qual to 1 g/tonne Au	
TC04-50ext		no significant assay	rs greater than or e	qual to 1 g/tonne Au	
TC07-26		no significant assay	rs greater than or e	qual to 1 g/tonne Au	
TC07-27		no significant assay	rs greater than or e	qual to 1 g/tonne Au	
TC07-28		197.90	198.55	0.65	1.69
		298.00	299.00	1.00	1.42
TC07-29		no significant assay	rs greater than or e	qual to 1 g/tonne Au	
TC07-30		385.80	416.50	30.70	3.14
	includes	385.80	388.45	2.65	13.29
	and	386.20	386.60	0.40	38.50
	and	397.20	398.40	1.20	3.76
	and	408.50	409.00	0.50	27.60
	and	413.40	416.50	3.10	12.81
		489.40	490.35	0.95	1.70
TC07-31		209.20	209.80	0.60	1.18
		424.70	425.20	0.50	13.40
		427.40	427.90	0.50	1.05
		429.50	430.00	0.50	3.76
		434.00	444.10	10.10	2.21
	includes	434.00	437.10	3.10	5.03
	and	439.10	444.10	5.00	1.08
TC07-32		434.60	435.00	0.40	1.91
		439.40	440.00	0.60	3.57
		444.70	445.10	0.40	1.93
TC07-33		412.35	413.70	1.35	3.43
		417.40	418.15	0.75	2.05
		425.00	429.40	4.40	2.12
		442.55	443.35	0.80	1.01
TC07-34		423.85	431.40	7.55	1.49
	includes	424.80	427.50	2.70	1.68
	and	431.00	431.40	0.40	14.10
TC07-35		461.40	468.70	7.30	3.78
	includes	461.40	463.30	1.90	4.91
	and	461.40	462.20	0.80	6.93
	and	466.10	468.70	2.60	6.33
	and	466.10	466.60	0.50	14.85
TC07-36		344.00	351.00	7.00	24.78
	includes	344.00	350.05	6.05	28.20
	and	345.35	345.95	0.60	68.00
	and	347.10	347.55	0.45	48.80
	and	349.00	349.50	0.50	35.90
		354.00	355.00	1.00	2.09

Hole No.		From	То	Width core length	Weighted Average Grade
		(m)	(m)	(m) _	g/tonne Au
TC07-37		314.15	314.45	0.30	1.37
TC07-38		319.75	321.90	2.15	2.16
	includes	319.75	320.60	0.85	2.54
	and	321.45	321.90	0.45	5.48
TC07-39		271.40	271.70	0.30	4.75
		302.25	302.65	0.40	1.36
TC07-40		no significant assay	/s greater than or e	equal to 1 g/tonne Au	ı
TC07-41		508.75	510.30	1.55	2.58
	includes	508.75	509.80	1.05	3.36
		514.90	516.95	2.05	8.52
		518.25	518.75	0.50	1.15
		530.75	533.50	2.75	1.64
	includes	530.75	531.75	1.00	3.58
		601.00	602.00	1.00	1.06
		609.20	609.70	0.50	1.28
		615.25	615.70	0.45	2.51
TC07-42		206.65	207.05	0.40	1.19
TC07-43		463.30	464.10	0.80	2.97
	includes	466.00	467.15	1.15	5.19
	and	474.00	492.65	18.65	5.93
	includes	474.00	475.50	1.50	21.02
	and	475.00	475.50	0.50	50.90
		483.65	492.65	9.00	8.57
	includes	483.65	484.15	0.50	61.10
	and	489.75	490.30	0.55	47.90
	and	492.30	492.65	0.35	21.00
TC07-44		no significant assay	/s greater than or e	equal to 1 g/tonne Au	l
TC07-45		437.10	448.90	11.80	1.28
		437.10	437.70	0.60	2.71
		439.70	440.20	0.50	2.39
	includes	443.90	448.90	5.00	2.08
		443.90	444.30	0.40	9.65
		447.30	448.90	1.60	3.64
TC08-46		382.30	383.70	1.40	1.88
TC08-47		280.00	280.50	0.50	3.95
		284.50	285.40	0.90	27.51
	includes	284.50	284.90	0.40	38.90
		307.70	310.70	3.00	1.06
		313.70	314.20	0.50	1.58
TC08-48		no significant assay	/s greater than or e	equal to 1 g/tonne Au	ı
TC08-49		105.50	106.00	0.50	2.21
TC08-50		400.55	400.90	0.35	1.44
				2	

Hole No.		From	То	Width core length	Weighted Average Grade
		(m)	(m)	(m)	g/tonne Au
TC08-51	1	no significant assay	rs greater than or e	qual to 1 g/tonne Au	
TC08-52		177.45	177.80	0.35	1.30
		179.10	179.95	0.85	4.68
		185.95	187.40	1.45	1.45
		200.00	200.45	0.45	3.46
TC08-53	ı	no significant assay	rs greater than or e	qual to 1 g/tonne Au	
TC08-54		621.75	623.90	2.15	2.98
	includes	621.75	622.95	1.20	3.00
	and	623.40	623.90	0.50	5.14
		624.90	625.45	0.55	1.05
		638.90	639.40	0.50	1.79
		644.10	645.65	1.55	4.03
		651.90	652.30	0.40	1.99
		653.25	653.65	0.40	1.07
		657.65	684.00	26.35	5.90
	includes	658.10	658.60	0.50	10.45
	and	663.50	663.90	0.40	7.81
	and	665.00	670.00	5.00	16.35
	and	665.55	669.40	3.85	20.78
	and	667.40	667.90	0.50	51.90
	and	668.90	669.40	0.50	88.80
		672.25		4.55	7.79
	and		676.80	0.50	3.09
	and	678.90	679.40		
	and	679.90	680.40	0.50	4.10
	and	683.40	684.00	0.60	19.15
		729.40	730.00	0.60	1.52
		792.25	792.70	0.45	1.76
TC08-55		260.30	260.60	0.30	2.84
		263.75	266.60	2.85	1.10
	includes	266.30	266.60	0.30	5.06
		268.75	269.15	0.40	1.35
		282.35	282.80	0.45	1.48
		284.30	284.80	0.50	1.15
TC08-56		231.35	235.10	3.75	2.37
	includes	231.35	231.65	0.30	18.20
	and	234.00	235.10	1.10	2.63
		239.30	239.85	0.55	1.37
		251.65	253.00	1.35	1.42
		256.00	259.00	3.00	2.43
	includes	258.50	259.00	0.50	8.60
		263.30	263.80	0.50	2.58

Hole No.		From	То	Width core length	Weighted Average Grade
		(m)	(m)	(m)	g/tonne Au
TC08-57		576.90	577.20	0.30	5.67
		601.30	602.20	0.90	12.54
	includes	601.75	602.20	0.45	18.70
		607.15	607.65	0.50	5.74
		608.10	608.65	0.55	1.25
		616.50	617.00	0.50	1.19
TC08-58		110.55	113.40	2.85	3.01
		117.10	117.90	0.80	2.12
TC08-59		no significant assay	rs greater than or e	equal to 1 g/tonne Au	L
TC08-60		424.55	425.40	0.85	1.95
		546.80	547.30	0.50	1.11
		547.70	567.95	20.25	3.60
	includes	552.45	558.25	5.80	5.50
	of which	552.45	553.05	0.60	15.00
	and	554.60	555.00	0.40	14.35
	and	557.80	558.25	0.45	10.30
	and	560.90	561.40	0.50	5.07
	and	563.40	563.90	0.50	12.10
	and	567.60	567.95	0.35	25.50
TC08-61		27.60	28.10	0.50	1.86
		48.90	49.40	0.50	6.03
		64.95	65.30	0.35	1.44
		190.35	190.80	0.45	1.35
TC08-62		no significant assay	vs greater than or e	equal to 1 g/tonne Au	l
TC08-63		558.80	559.80	1.00	2.82
TC08-64		581.45	582.00	0.55	2.76
		583.60	584.10	0.50	4.46
		587.85	598.90	11.05	3.02
	includes	587.85	593.20	5.35	1.91
	and	587.85	589.60	1.75	4.15
	and	595.55	598.90	3.35	6.81
		602.60	603.10	0.50	1.27
		604.60	605.00	0.40	1.09
		610.50	611.00	0.50	1.16
		659.50	660.20	0.70	1.74
TC08-65		24.00	25.00	1.00	1.23
TC08-66		no significant assay	rs greater than or e	qual to 1 g/tonne Au	J
TC08-67		no significant assay	vs greater than or e	equal to 1 g/tonne Au	l

Hole No.		From	То	Width core length	Weighted Average Grade
110.		(m)	(m)	(m)	g/tonne Au
TC09-68		894.00	983.20	87.20	2.59
	includes	894.00	900.50	4.50	6.23
	and	908.80	909.30	0.50	6.85
		915.45	918.60	3.15	7.76
	of which	915.45	915.80	0.35	26.80
	and	916.80	917.30	0.50	6.36
	and	918.20	918.60	0.40	26.80
		920.90	929.10	8.20	6.61
	of which	920.90	925.60	4.70	3.15
	and	928.10	928.60	0.50	67.00
		952.90	953.40	0.50	58.60
		957.40	983.20	25.80	2.18
	of which	957.40	967.70	10.30	3.79
	includes	960.40	960.90	0.50	27.40
	and	964.90	965.30	0.40	21.90
		970.20	970.65	0.45	5.13
		981.70	982.20	0.50	6.92
		997.70	998.20	0.50	3.46
		1003.00	1005.20	2.20	1.12
		1016.00	1018.50	2.50	2.53
	includes	1016.00	1016.50	0.50	8.62
		1026.70	1027.20	0.50	1.34
		1041.60	1043.50	1.90	1.47
		1055.30	1056.80	1.50	5.04
		1070.30	1070.70	0.40	2.67
		1080.10	1081.00	0.90	1.13
		1108.00	1109.00	1.00	1.07
		1111.00	1112.00	1.00	1.11
		1113.00	1114.00	1.00	1.66
TC09-68a					
		895.30	900.00	4.70	10.09
	includes	896.30	898.55	2.25	17.16
	of which	896.30	896.80	0.50	27.20
	and	898.00	898.55	0.55	36.10
		905.20	905.70	0.50	1.38
		908.30	917.25	8.95	6.62
	includes	916.10	916.60	0.50	86.20
		923.10	924.40	1.30	2.13
		926.80	927.30	0.50	1.69
		929.60	930.10	0.50	3.89
		936.90	937.40	0.50	2.06

Hole No.		From	То	Width core length	Weighted Average Grade
		(m)	(m)	(m)	g/tonne Au
TC09-68b		844.50	845.00	0.50	1.35
		857.70	858.20	0.50	1.89
		866.30	874.00	7.70	3.94
	includes	866.30	871.20	4.90	5.62
	and	869.00	871.20	2.20	9.50
		888.00	972.80	84.80	12.60
	includes	888.00	901.00	13.00	24.68
	and	889.40	972.80	83.40	12.75
		(entire prophyry)	000.00	0.50	07.40
	and	893.40	893.90	0.50	97.40
	and	898.50	899.60	1.10	194.00
		902.50	903.00	0.50	1.43
	in al unda a	909.15	923.00	13.85	18.27
	includes	909.65	911.00	1.35	16.18
	and and	914.50	923.00	8.50 0.40	26.78 36.70
	anu	917.50 925.70	917.90 926.00	0.30	1.00
		927.00	939.50	12.50	33.85
	includes	928.00	939.00	11.00	38.22
	and	931.50	939.00	0.50	725.00
	anu	941.00	932.00 941.50	0.50	1.21
		942.50	943.00	0.50	6.40
		946.00	946.50	0.50	1.62
		948.00	948.50	0.50	1.38
		949.00	957.00	8.00	4.82
	includes	949.00	956.50	7.50	5.06
	and	953.00	953.50	0.50	31.60
		957.50	958.00	0.50	1.19
		961.00	961.50	0.50	1.28
		963.00	965.50	2.50	4.14
	includes	964.00	965.50	1.50	5.74
		967.50	968.00	0.50	1.46
		1025.50	1031.50	6.00	1.01
TC09-69		776.85	777.40	0.55	5.73
		784.10	803.55	19.45	7.97
	includes	784.60	791.50	6.90	9.88
	of which	784.60	785.90	1.30	25.32
	and	784.60	785.05	0.45	48.40
	and	792.80	798.60	5.80	4.18
	and	799.10	803.15	4.05	14.52
	of which	800.10	801.30	1.20	30.72
	and	800.90	801.30 806.20	0.40	45.40
		805.70 809.20	809.70	0.50 0.50	2.46 2.80
		811.20 814.20	811.70 814.70	0.50 0.50	1.53 1.60
		814.20 815.20	814.70 829.70	0.50 14.50	2.95
	includes	815.20	816.20	14.50	9.20
	and	815.20 819.70	816.20	0.50	9.20 5.11
	and	824.20	824.70	0.50	34.70
	anu	824.20 837.10	824.70 841.70	4.60	34.70 1.78
	ofwhich				
	of which	837.10 846.20	837.60 848.20	0.50 2.00	9.43 11.3

Hole No.		From		Width core length (m)	Weighted Average Grade g/tonne Au
		(m)			
TC09-69	includes	847.20	847.70	0.50	39.10
		853.70	854.20	0.50	1.13
		856.20	858.70	2.50	5.19
	includes	856.20	856.70	0.50	11.35
		861.60	862.60	1.00	2.15
		864.00	865.50	1.50	1.44
		872.00	872.50	0.50	6.11
		874.80	875.30	0.50	1.06
		878.40	879.00	0.60	1.14
		906.60	907.60	1.00	4.65
TC09-69a		776.85	777.40	0.55	5.73
		784.10	803.55	19.45	7.97
	includes	784.60	791.50	6.90	9.88
	and	784.60	785.90	1.30	25.32
	includes	784.60	785.05	0.45	48.40
	and	786.70	787.05	0.35	28.40
	and	791.00	791.50	0.50	16.35
	and	792.80	798.60	5.80	4.18
	and	797.15	797.60	0.45	12.45
	and	799.10	803.15	4.05	14.52
	of which	800.10	801.30	1.20	30.72
	and	800.90	801.30	0.40	45.40
	and	802.70	803.15	0.45	26.40
		805.70	806.20	0.50	2.46
		809.20	809.70	0.50	2.80
		811.20	811.70	0.50	1.53
		814.20	814.70	0.50	1.60
		815.20	829.70	14.50	2.95
	includes	815.20	816.20	1.00	9.20
	and	819.70	820.20	0.50	5.11
	and	824.20	824.70	0.50	34.70
	and	837.10	837.60	0.50	9.43
		839.60	841.70	2.10	1.40
		846.20	848.20	2.00	11.33
	includes	840.20	847.70	0.50	39.10
	Includes		854.20	0.50	1.13
		853.70 856.20	858.70	2.50	5.19
		861.60	862.60	1.00	2.15
		864.00	865.50	1.50	2.15 1.44
		872.00	872.50	0.50	6.11
		872.00 874.80		0.50	1.06
			875.30		
		878.40	879.00	0.60	1.14
TC09-70		906.60	907.60	1.00	4.65
	of which	898.80	905.40	6.60	3.91
	of which	898.80	900.65	1.85	8.66
	and	899.75	900.65	0.90	14.97
		900.65	905.40	4.75	2.06
	with includes	905.00 910.60	905.40 911.20	0.40 0.60	16.90 2.47
TC09-71					
		no significant assays greater than or equal to 1 g/tonne Au			
TC09-71a		work in progress, drill information and assays have not been finalized			
TC09-72		542.20	542.60	0.40	6.30
1003-72					

Appendix 3.

Photographic Plates

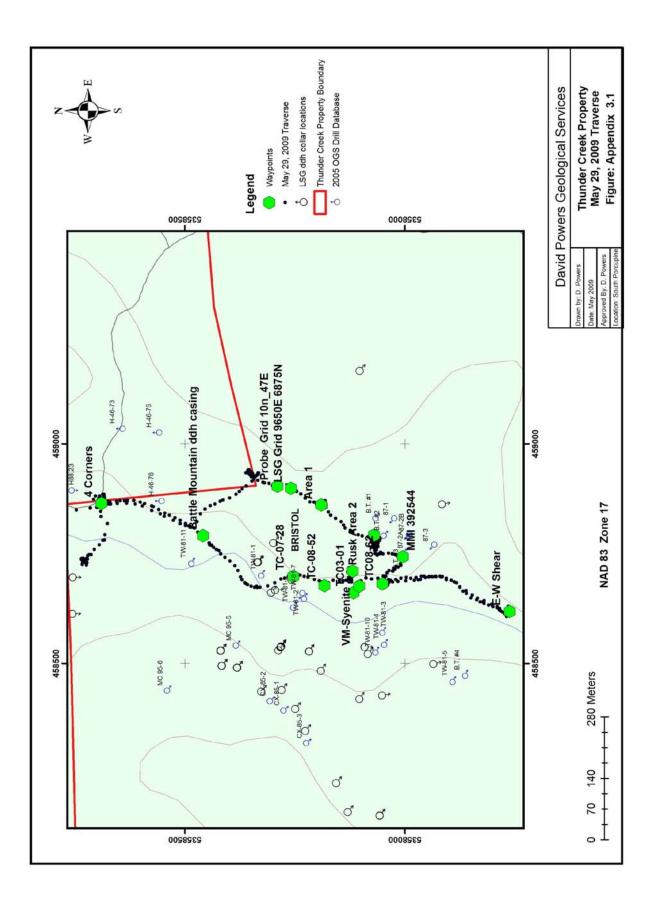




Plate 1., Diamond Drill Hole TC09-68, (TC09-68a, b, c) May 29, 2009

Plate 2., Lake Shore's field grid looking 130° (9650E / 6875 N).



Plate 3., MMI sample station 392544.



# Plate 4., Overburden stripping Area Five (Rusk Showing)

Several historical pits are within this general area by Rusk Porcupine Mines.



# Plate 5., Saw channel sampling Area Five

From foreground to background return assay results from saw channels are 0.106 g/t over 0.27 metres, 1.92 g/tonne over 0.35 metres and 15.017 g/tonne over 0.41 metres (a check sample of the latter returned 22.35 g/tonne gold. A parallel channel returned 10.42 g/tonne gold over 1.15 metres.



Plate 6., Area Five, Altered Alkali Intrusive Complex, hematite, iron carbonate, quartz +/- carbonate injections, sulphide (pyrite, chalcopyrite).



Plate 7., Area Five, Alkali Intrusive Complex (Pyroxenite), exhibiting epidote alteration.



Plate 8., Garnetiferous pegmatitic injections into the Pyroxenite, Area Five.

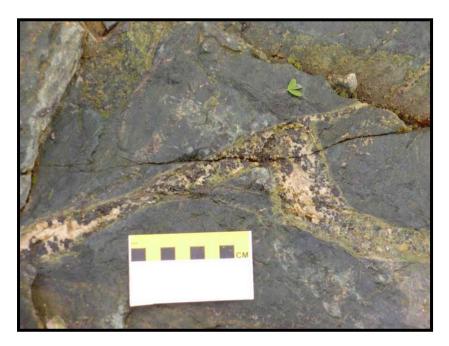


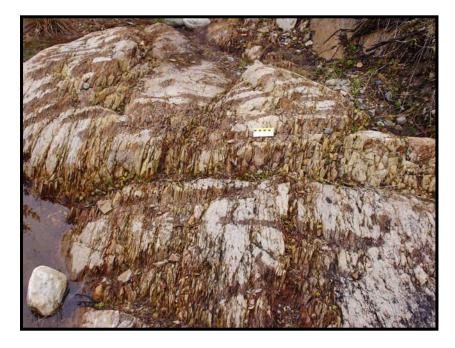
Plate 9., Area One, Looking southward along the South West Shear Zone, and the contact between the Alkali Intrusive Complex (right) and the Metasediments (left where Jacques Samson is standing).



Plate 10., Overburden Stripping Area One, looking northward along a strongly foliated unit representing the South West Shear Zone, and mapped as altered Metasediments (?). In the foreground to the left, is the Alkalic Intrusive Complex (Pyroxenite). A light leucocratic boudinage of Felsite dyke within altered Pyroxenite is located off the photo centre to the right. Metasediments are located to the upper left over the knoll.



Plate 11., Overburden stripped Area Three, the East-West Shear Zone.



South of Area Five evidence of historical work.

Plate 12., Old Trench trending East-West



Plate 13., Old cut timber with greater than 1 cm moss growth approximately 12.5 metres south of trench in the above photo.



Completed Diamond drill holes that drilling are well marked, if the casing is not pulled and the hole cemented, the casing is capped

Plate 14., Collar TC03-01



Plate 15., Collar TC07-28



Plate 16., Collar TC08-52



Plate 17., The north boundary, east-west line between the Thunder Creek Property and the Timmins West Gold Property in the area of drill hole TC09-68



Plate 18., Racked saw split core from drill hole TC08-63.



Plate 19., Cross piled hanging wall core from TC07–43 and TC07-41.



Plate 20., Racked saw spilt core from drill hole TC09-71



Plate 21., Racked core from drill holes TC09-70 and TC09-71.



Plate 22., Cratons of coarse sample reject stored in Lake Shore Gold Corp.'s Field office compound, Timmins. Note that mineralized sections of core are subjected to a pulp and metallic analysis there all the reject is used. The other half of the drill core is available for check analysis.



Plate 23., Locked storage lockers for storage of returned assay pulps.



Plate 24., Assay pulps are stored in a secure, systematic, orderly fashion.



Plate 25.., Assay pulp storage boxes are clearly labeled with assay preparation laboratory location, analysis worksheet number, the date, and assign internal laboratory number.



Plate 26., The core logging facility for Laura Krupka-Crites and Jacques Samson reviewing intersections in TC08-34, TC08-36 with author.



Plate 27., Laura Krupka-Crites, core logging directly to computer.



Plate 28., Looking northward, from the projected surface expression of the Rusk Zone Extension toward the Timmins West Gold headframe.

